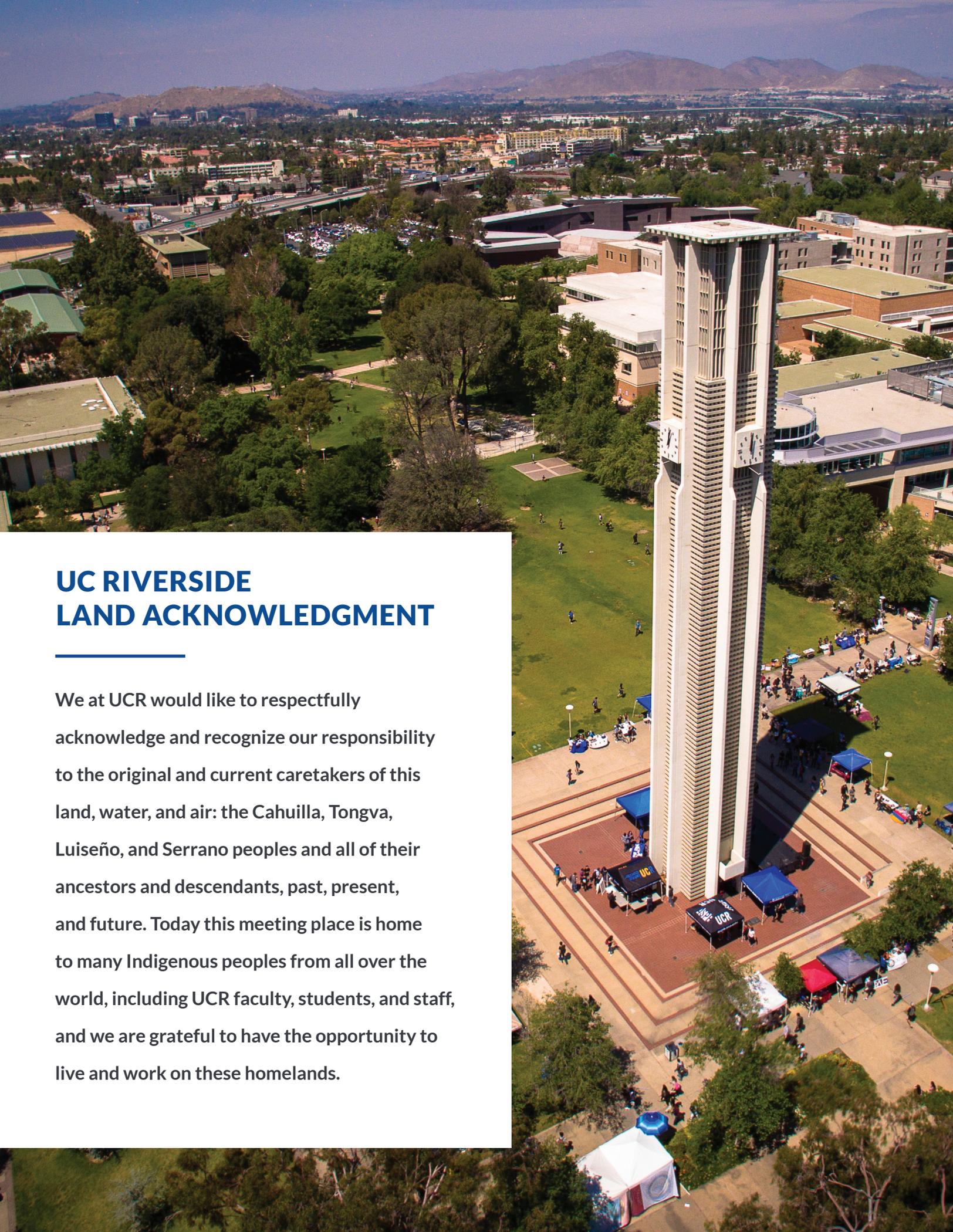




2021 LONG RANGE DEVELOPMENT PLAN





UC RIVERSIDE LAND ACKNOWLEDGMENT

We at UCR would like to respectfully acknowledge and recognize our responsibility to the original and current caretakers of this land, water, and air: the Cahuilla, Tongva, Luiseño, and Serrano peoples and all of their ancestors and descendants, past, present, and future. Today this meeting place is home to many Indigenous peoples from all over the world, including UCR faculty, students, and staff, and we are grateful to have the opportunity to live and work on these homelands.



A MESSAGE FROM THE CHANCELLOR

UC Riverside has grown to become a truly diverse, inclusive, and globally-focused community that is creating a new model for a great public research university. In 2021, as we recover from COVID-19, we remain committed to grow even more vibrant. Sustaining this growth requires thoughtful alignment of our ambitious academic and research goals, creative deployment of our fiscal resources, and sustainable stewardship of our available land.

The 2021 Long Range Development Plan (2021 LRDP) provides a framework for the future development of our physical campus. The LRDP is not a mandate to build or to expand enrollment; rather, it is a framework to help guide development of the university. Any new growth will require additional resources.

The vision represented in this plan emerged from extensive consultation with students, faculty, staff, community members, and civic leaders. In contrast to its predecessors, the 2021 LRDP underscores the value of conserving land dedicated to agricultural and land-based research on West Campus, which is not only part of our legacy, but also critical to the future of the state, nation, and world.

The 2021 LRDP is a living document. As UC Riverside continues to evolve and new opportunities present themselves, this plan will no doubt evolve as well, informed by continuing dialogue among all stakeholders.

I believe this plan is an expression of what makes UC Riverside such a unique place, where every member of our campus community has a part in making the future happen. I look forward to working with all of you toward its implementation.

Kim A. Wilcox

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LIST OF COMMONLY USED ABBREVIATIONS

ACUPCC	American College & University Presidents' Climate Commitment	MWh	Megawatt-hours
AB 32	Assembly Bill 32	RCTC	Riverside County Transportation Commission
ASF	Assignable Square Feet	Regents	Regents of the University of California
AVR	Average Vehicle Ridership	RPU	Riverside Public Utilities
AY	Academic Year	RTA	Riverside Transit Agency
CARB	California Air Resources Board	SCAG	Southern California Association of Governments
CEQA	California Environmental Quality Act	SR-60	State Route 60
City	City of Riverside	SRC	Student Recreation Center
County	County of Riverside	State	State of California
EIR	Environmental Impact Report	TDM	Transportation Demand Management
EUI	Energy Use Intensity	TES	Thermal energy storage
GHG	Greenhouse Gas	UC	University of California
GSF	Gross Square Feet	UCOP	University of California Office of the President
HUB	Highlander Union Building	UCR	University of California, Riverside
I-215	Interstate 215	UC Riverside	University of California, Riverside
lbs/hr	Pounds per hour	VMT	Vehicle Miles Traveled
kV	Kilovolt	WCH	Weekly Contact Hours
LRDP	Long Range Development Plan		
MEP	Maximum Extent Practicable		
MS4	Municipal Separate Storm Sewer System		



View of Carillon Mall, looking west

The Regents of the University of California requires that each University of California campus maintain a current Long Range Development Plan (LRDP) to indicate how the campus will accommodate enrollment growth and the associated support systems needed to address increases in the campus population. An LRDP is a comprehensive report that guides physical development such as the general location of new facilities, the general distribution of open space, broad circulation strategies and land use. An LRDP identifies the physical development needed to achieve academic goals and is a valuable reference document for the campus and community.

Specific to UC Riverside, two preceding documents inform UC Riverside's 2021 LRDP through their groundwork in identifying strategic goals and physical planning principles for the campus.

STRATEGIC GOALS

UC Riverside's 2021 Strategic Plan Future Fluent (penultimate draft)¹ contains four institutional goals that have guided the development of this plan.

DISTINCTIVE, TRANSFORMATIVE RESEARCH AND SCHOLARSHIP

- Aspire to be among the world's leaders in research.

A RIGOROUS, ENGAGING, AND EMPOWERING LEARNING ENVIRONMENT

- Provide a high-quality student-centered learning environment.

A WELCOMING, INCLUSIVE, AND COLLABORATIVE COMMUNITY

- Make campus-community boundaries more permeable.

ADVANCING THE PUBLIC GOOD

- Embed environmental sustainability into policies.

¹ <https://strategicplan.ucr.edu/>

PHYSICAL PLANNING PRINCIPLES

The 2021 LRDP builds on the *2016 UC Riverside Physical Master Plan Study* (Master Plan Study)² which defines the following four broad physical planning principles that serve as guiding principles for 2021 LRDP.

IDENTITY: ENHANCE SENSE OF PLACE

- Strengthen a sense of connection to the campus' natural surroundings.
- Create better-defined and more welcoming open spaces.
- Integrate existing buildings and open spaces with future development.

COMMUNITY: FACILITATE ENGAGEMENT

- Strengthen an environment for living and learning.
- Create vibrant spaces that can be used for more of the day and evening.
- Leverage campus open spaces to accommodate varied programs.

STEWARDSHIP: EXERCISE ENVIRONMENTAL STEWARDSHIP

- Recognize that stewardship is both an environmental and fiscal imperative.
- Create value by leveraging existing campus buildings and infrastructure.
- Reduce demand for energy and pursue carbon-neutral energy sources.

DENSITY: DEMONSTRATE LEADERSHIP AND INNOVATION

- Embrace compact development to achieve new capacity for growth.
- Increase connectivity and ease of movement throughout the campus.
- Promote synergies among communities, departments, buildings, and open spaces.



2021 LRDP GOALS

The 2021 LRDP is broad in its scope and intended to achieve the following overarching goals of the state, the University of California system, and UC Riverside:

SUPPORT INCREASED ENROLLMENT CAPACITY

- Expand capacity to meet enrollment projections up to approximately 35,000 students.
- Increase proportional graduate enrollment from 14% to approximately 20% of students.
- Align student/staff and student/faculty ratios with UC system-wide averages.³

EXPAND STUDENT HOUSING AND FACILITIES TO SUPPORT STUDENT SUCCESS

- Expand on-campus residential facilities to house up to 40% of the student population.
- Provide student support facilities that enhance recruitment and retention.
- Provide facilities that support commuting students.

ENHANCE ACADEMIC EXCELLENCE

- Expand and modernize instructional facilities to meet the needs of evolving technologies and pedagogies, and support expanding programs.
- Expand and modernize research facilities to meet evolving program needs for interdisciplinary programs and external research partnerships.
- Ensure that academic facilities incorporate adequate space for collaboration and engagement among students, faculty, and staff.

³ Current UCR ratios (Student/faculty): 28.4 student/faculty Headcount (or 29.3 FTE). UC Average ratio: 27.2 student/faculty Headcount (or 28.0 FTE). Current UCR ratios: (Student/staff): 7.9 Student/staff Headcount). UCR adjusted average ratio: 7.0 student/staff. Note that UC averages include health sciences and other non-core funded activities. The UC Riverside specific staff/student ratio is adjusted to include both core and some non-core activities like housing.

CONSERVE LAND RESOURCES

- Focus new development on the East Campus, through higher densities flanking the campus loop road, and development of the University Avenue Gateway and Canyon Crest Gateway areas.
- Create a dynamic and engaging mixed-use environment for students through higher densities and synergistic land uses that engage the street.
- Maintain West Campus land predominantly for land-based research.

DEVELOP DYNAMIC PARTNERSHIPS

- Engage with the City of Riverside on off-campus City-led planning for the University Avenue Corridor and Innovation District.
- Build upon the momentum of the California Air Resources Board project to develop collaborative intergovernmental and industrial partnerships that complement the University's academic programs.

ENHANCE ENVIRONMENTAL SUSTAINABILITY AND RESILIENCE

- Consider adaptive reuse of the campus' mid-century modern buildings to meet present-day needs, improve environmental performance, and strengthen campus identity.
- Develop an integrated, multi-modal approach to access and mobility, thereby also reducing greenhouse gas (GHG) emissions from transportation sources.
- Upgrade campus infrastructure to meet the needs of new and renovated campus facilities in a resource-efficient, resilient, and sustainable manner.
- Implement the UC Policy on Sustainable Practices⁴ in all campus projects.

⁴ UC Policy on Sustainable Practices
<https://policy.ucop.edu/doc/3100155/SustainablePractices>

A photograph of an orange orchard with many ripe, yellow-orange fruits hanging from the branches. The background is a blurred landscape with hills and a yellow logo watermark. The text 'EXECUTIVE SUMMARY' is overlaid in white, bold, uppercase letters, with a thin white horizontal line underneath it.

EXECUTIVE SUMMARY

INTRODUCTION

The State of California’s (State) Master Plan for Higher Education (originally adopted by the Legislature in 1960) directs the University of California (UC) to draw its entering freshmen from the top 12.5 percent of public high school graduates and to accept all qualified community college students. In response to this directive, the number of in-state students applying to the University of California, Riverside (UC Riverside/University) has generally increased over the last 10 years.⁵

The 2021 Long Range Development Plan (2021 LRDP) for UC Riverside provides a comprehensive plan and associated planning objectives and policies to guide the future physical development of the campus. It replaces the previous LRDP, approved by the Regents of the University of California (Regents) in March 2005 and subsequently amended in 2006, 2011, 2013, and 2019. Similar to the 2005 LRDP, this plan encompasses the approximately 1,108 acres of the main campus, which is bisected by the Interstate 215 (I-215)/State Route 60 (SR-60) freeway into two distinct areas commonly referred to as East and West Campus.⁶

The 2021 LRDP establishes a land use framework and identifies physical development necessary to meet enrollment projections of up to approximately 35,000 students by 2035, based on current student enrollment, regional growth trends, and agreements between the UC

and the State regarding resident student and transfer student enrollment objectives. The 2021 LRDP will help UC Riverside plan for this projected enrollment growth if resources become available to support that growth.

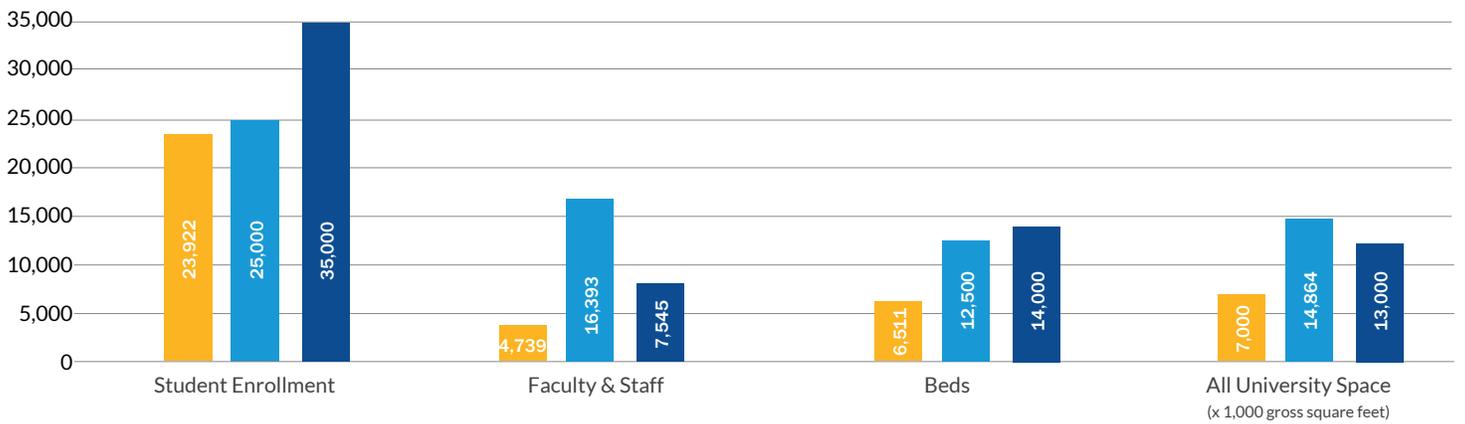
The 2021 LRDP focuses nearly all planned academic, research, and student life development on the East Campus, thus reserving the majority of West Campus for land-based research⁷. As such, the majority of West Campus’ prime agricultural lands and its trees on it remain intact, furthering the University’s commitment to the sustainable and efficient development of its land resources, and reducing its overall carbon footprint. This is accomplished by increasing the density and intensity of future development on East Campus, while conserving the character and density of the campus’ original Mid-Century Modern Core fronting the Carillon Mall. The 2021 LRDP continues to maintain and strengthen the strong open space framework of pedestrian malls, natural arroyos, and the open range character of the hill areas south and east of the Academic Center.

The 2021 LRDP preserves and respects those elements of campus which contribute to UC Riverside’s unique qualities and identity, and enhances key campus gateways through the development of vibrant mixed-use districts.

5 Freshman applications increasing by approximately 54 percent (from 31,884 students to 49,079 students) and transfer applications increasing by 103 percent (from 6,060 students to 12,309 students) between 2009 and 2018. Source: UC Undergraduate Admissions Summary for UC Riverside, 2019 <https://www.universityofcalifornia.edu/infocenter/admissions-residency-and-ethnicity>

6 The 2021 LRDP addresses only the 1,108 acres of campus land on either side of the I-215/SR-60 freeway in the City of Riverside. The UC Riverside Palm Desert Center, UCR Natural Reserves, all other Regents-owned properties, and all off-campus leased spaces are excluded.

7 Land-based research refers to agricultural field research; instructional and research laboratories; greenhouses; and services supporting agricultural research located on West Campus.



F0.1 COMPARISON OF 2005 LRDP AND 2021 LRDP

■ 2018 Existing
 ■ 2005 LRDP Amendment 2
 ■ 2021 LRDP

PURPOSE

This approach achieves the strategic goals of the University to accommodate increased enrollment, advance knowledge through teaching and research, and serve society, while managing its land resources in an efficient and sustainable manner. Through increased on-campus housing, improved multi-modal access, and a greater focus on energy and water efficiency in the campus' infrastructure systems, the 2021 LRDP supports both improved student success and University-wide sustainability goals.

The 2021 LRDP will foster a more dynamic and resilient future for UC Riverside—a 21st-century campus environment that engages its students, faculty, and staff and synergistically connects to the surrounding community.

The 2021 LRDP is a comprehensive land use plan that establishes a framework for future campus growth to accommodate changes in enrollment, employment, physical infrastructure and campus facilities. The physical and environmental impacts associated with the implementation of the 2021 LRDP were analyzed in accordance with the California Environmental Quality Act (CEQA). The University prepared a programmatic Environmental Impact Report (2021 LRDP EIR) that serves as the comprehensive environmental analysis with the intent that future campus projects would be able to tier from⁸. While the 2021 LRDP EIR serves as the overarching environmental analysis for the LRDP, the environmental impacts associated with future individual projects will be assessed on a project-by-project basis.

The vision of the 2021 LRDP will serve as a guide for campus planners, faculty, and administrators. Future projects will be evaluated for consistency with the 2021 LRDP, the campus' Physical Design Framework, and Capital Financial Plan. Approval of future projects would also be subject to project-specific CEQA review.

8 For the purposes of the LRDP, tiering may include but may not be limited to finding of exemption from further environmental review, an addendum, a supplemental EIR, or a subsequent EIR. In rare instances, a standalone CEQA document may be appropriate for future projects.

PROCESS

PARTICIPATION AND OUTREACH

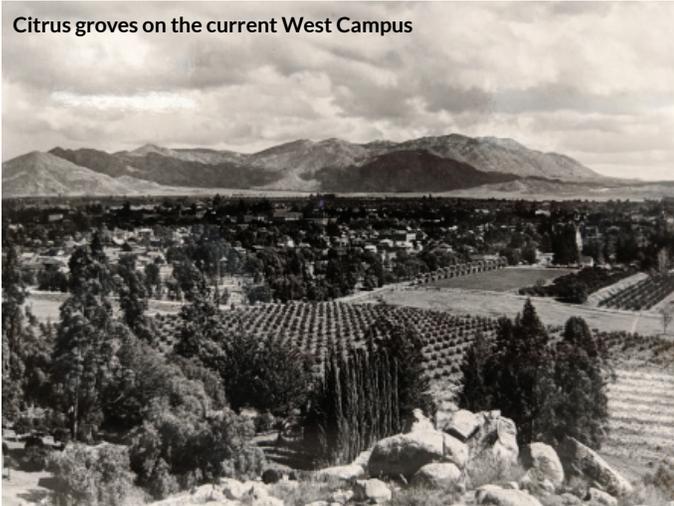
The 2021 LRDP reflects extensive input from a broad cross-section of the campus population and the Riverside community. The planning for the 2021 LRDP started in the summer/fall of 2018, with the formal kick-off in 2019. In January 2019, the campus initiated an open process to help assure broad involvement in the LRDP update across campus and the surrounding community. Seven topic-specific working groups were formed with participants that included students, faculty, staff, city officials, elected representatives, and community members. These groups met regularly for approximately six months to discuss the future of the campus and provide input on key LRDP planning issues. A steering committee, which included the Provost, Vice Chancellor for Planning, Budget & Administration, Deans of all Schools and Colleges, and representatives from the Academic Senate student government representatives, and Staff Assembly also met regularly during this time to provide guidance and input.

More broadly, several campus-wide open forums were organized between May 2019 and October 2019 to allow a wider campus audience to hear updates concerning the LRDP progress and share their thoughts. Additionally, an online survey was made available through several campus media outlets, which generated approximately 500 responses.



PLANNING CONTEXT

Citrus groves on the current West Campus



Greenhouse structure

The City of Riverside (City), located within the County of Riverside (County) and approximately 55 miles east of Los Angeles, provides the setting for UC Riverside. With a population of more than 330,000 inhabitants in 2018⁹, it is the most populous city within the Inland Southern California region, also referred to as the Western Riverside County. The City was founded in the 1870s in response to the growing interest in citrus as an industry. It has continued to grow and evolve over the decades into a vibrant urban hub of activity. UC Riverside is located in the northeastern portion of the City, three miles east of Downtown Riverside. The City and UC Riverside maintain a strong partnership to support each other's shared goals.

UC Riverside is a critical economic asset to the region and the State. The region is one of the fastest-growing in both the State and nation. As the premier research institution, UC Riverside plays a rapidly expanding role in educating the region's workforce and contributing to the City and region's economic and cultural vitality.

UC Riverside seeks to sustain and expand its world-class academics and global research impacts, and continue to provide a robust set of undergraduate, graduate, and professional degree programs. The University's previously approved LRDP was prepared in 2005, and followed by five subsequent amendments. That LRDP (as amended) projected enrollment growth out to 25,000 students (three quarter average) by the 2020/2021 Academic Year (AY), UC Riverside is now approaching that level of enrollment, and continued student enrollment growth is projected, especially for California residents, presently at 96% of the campus' undergraduate student population¹⁰.

UC Riverside is currently approaching the maximum capacity of its facilities and operating resources and requires additional investments to serve a larger student population. As context, the UC Multi-year Framework projects that the campuses will produce 200,000 more degrees by 2030, and UC Riverside will be instrumental in achieving this goal. UC Riverside also seeks to significantly

⁹ Source: United States Census Bureau, 2020. <https://www.census.gov/quickfacts/riversidecitycalifornia>

¹⁰ Source: UC Riverside, Institutional Research, Enrollments, 2019 <https://ir.ucr.edu/stats/enroll/overall>

UC RIVERSIDE SEEKS TO SUSTAIN AND EXPAND ITS WORLD-CLASS ACADEMICS



View of Anderson Hall, looking east



Batchelor Hall



Citrus Experiment Station, Mt. Rubidoux

increase its funded research, and therefore requires additional specialized facilities¹¹.

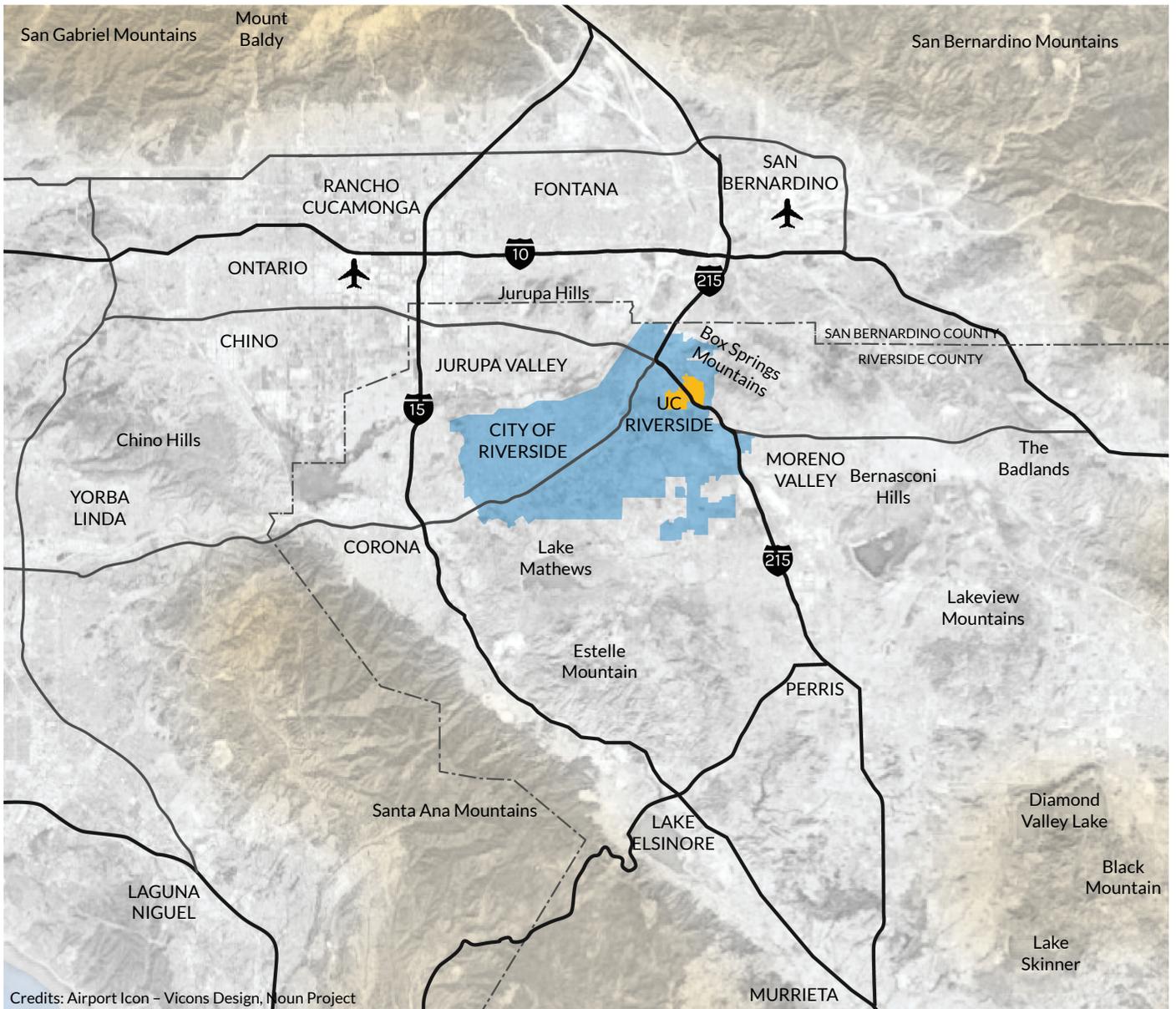
UC Riverside's current classroom and class laboratory/studio spaces are inadequate to accommodate existing student populations, and the age and condition of many facilities leave them sub-optimal for modern research and instruction. Other space shortages include a lack of quality research space and office space, making research faculty recruitment challenging. There are shortages in the number of faculty and more severe shortages in the number of staff. Given this context, it is critical to prepare a new LRDP to provide UC Riverside with a framework to guide future growth.

UC Riverside's campus in the City consists of approximately 1,108 acres of land, of which approximately 604 acres are east of, and approximately 504 acres are west of the I-215/SR-60 freeway. As of 2018 AY, the campus includes approximately 7.2 million gross square feet (GSF) of facilities, 95% of which is on the East Campus. The 2021 LRDP plans for up to 12.7 million GSF of total space (approximately 5.5 million GSF net new) to accommodate projected growth, of which 3.2 million GSF would be expanded student housing.

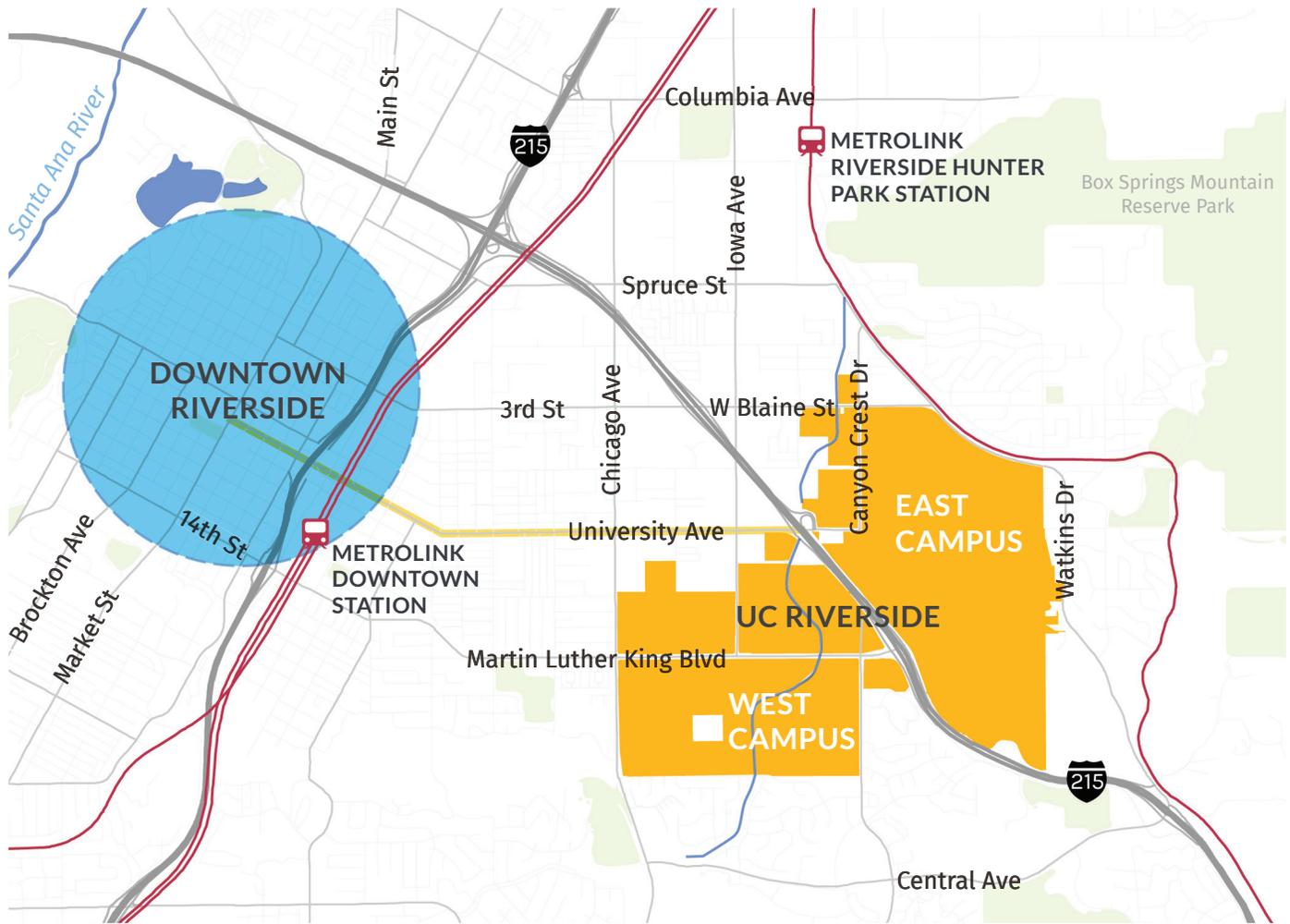
¹¹ Source: UC Multi-year Framework, UC Office of President, 2018.



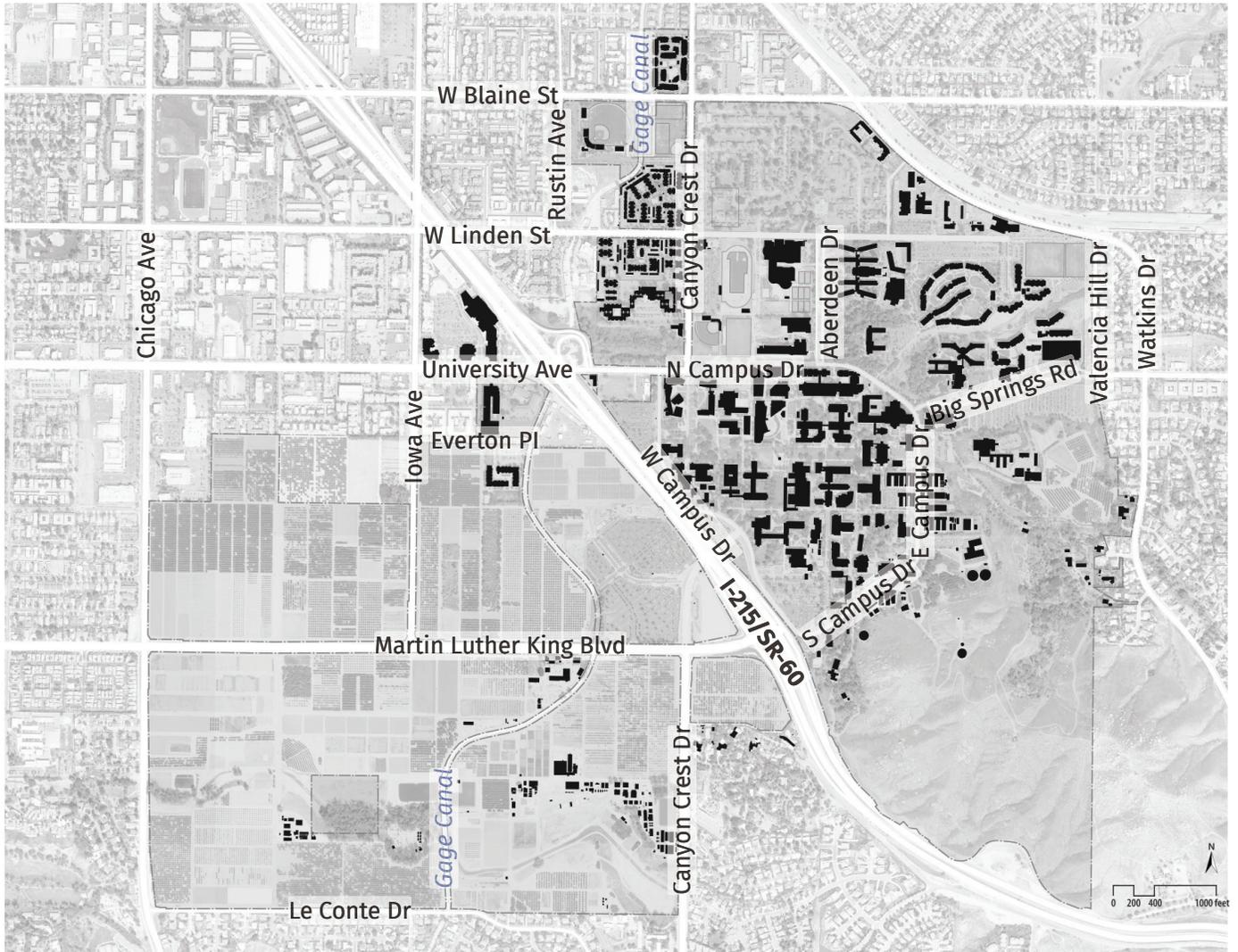
F0.2 UNIVERSITY OF CALIFORNIA SYSTEM CAMPUSES



F0.3 REGIONAL CONTEXT



F0.4 CONNECTIONS BETWEEN UC RIVERSIDE AND DOWNTOWN RIVERSIDE



F0.5 EXISTING CONDITIONS

SPACE PLANNING PROJECTIONS FOR LRDP

GROWTH PROJECTIONS

UC Riverside's student enrollment growth is driven by student demand, including an increasing institutional profile and reputation. The UC system as a whole is mandated by the State of California under the Master Plan for Higher Education to enroll qualified California resident students, and UC Riverside's growth has greatly contributed to meeting that requirement.

UC Riverside's growth is important to support the overall University mission while sustaining the core strengths of the campus. The 2021 LRDP plans for a projected student population of approximately 35,000 through 2035.

The LRDP's growth projection is based on the current student population, historic student growth trends for UC Riverside, delivery time required to build new facilities, infrastructure needs, and limited financial resources.

PROJECTED ENROLLMENT AND EMPLOYMENT FOR 2035

Table F0.1 presents the LRDP projected increase in enrollment and employment at the campus through 2035. It should be noted that the actual enrollment levels through 2035 that are achieved could differ from these LRDP projections. However, these are reasonable estimates and show the manner in which the campus population would grow as resources become available to support that growth.

PROJECTED BUILDING SPACE

To accommodate the projected enrollment increase and research goals, UC Riverside will need to add academic, housing, athletic, and support space. In 2018, UC Riverside housed approximately 28% (approximately 6,500) of its enrolled students in campus housing, and the 2021 LRDP establishes a goal of increasing that percentage to 40% (14,000 beds) to live in University-managed or controlled housing within proximity to the Academic Center.

2021 LRDP SEEKS TO
HOUSE **40%** OF
STUDENTS CLOSE TO
THE ACADEMIC CENTER

PHYSICAL PLANNING FRAMEWORK

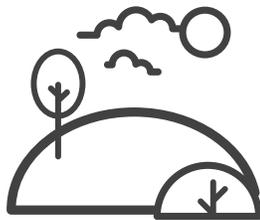


View of campus looking east towards Box Spring Mountains

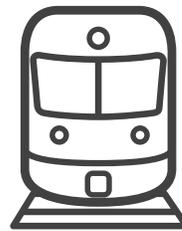
The 2021 LRDP is implemented through four primary elements that include objectives and policies to guide the physical planning and development of the campus, as well as establish a framework for the University's future physical and environmental character. The UC Office of the President (UCOP) Facilities Manual recommends all LRDPs address the following four primary elements:



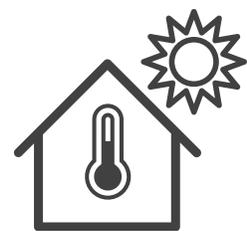
Land Use: The general location of the proposed land uses to provide guidance on locating future structures while maintaining adequate flexibility for future decision making.



Open Space: The role of open space and general location of plazas, malls, parks and natural undeveloped areas.



Mobility: How students, staff, faculty, visitors and others access and move throughout campus. All forms of travel are considered.



Infrastructure and Sustainability: Campus infrastructure expansion strategies to support campus growth sustainably and resiliently.

The 2021 LRDP attempts to balance a range of competing interests. It follows that it is nearly, if not absolutely, impossible for a specific project to be in perfect conformity with each and every policy or guidance set forth in this plan and its elements. UC Riverside, therefore, has the discretion to approve a project even if it is not consistent with all of the LRDP's policies and guidance to the extent legally permitted.

LAND USE

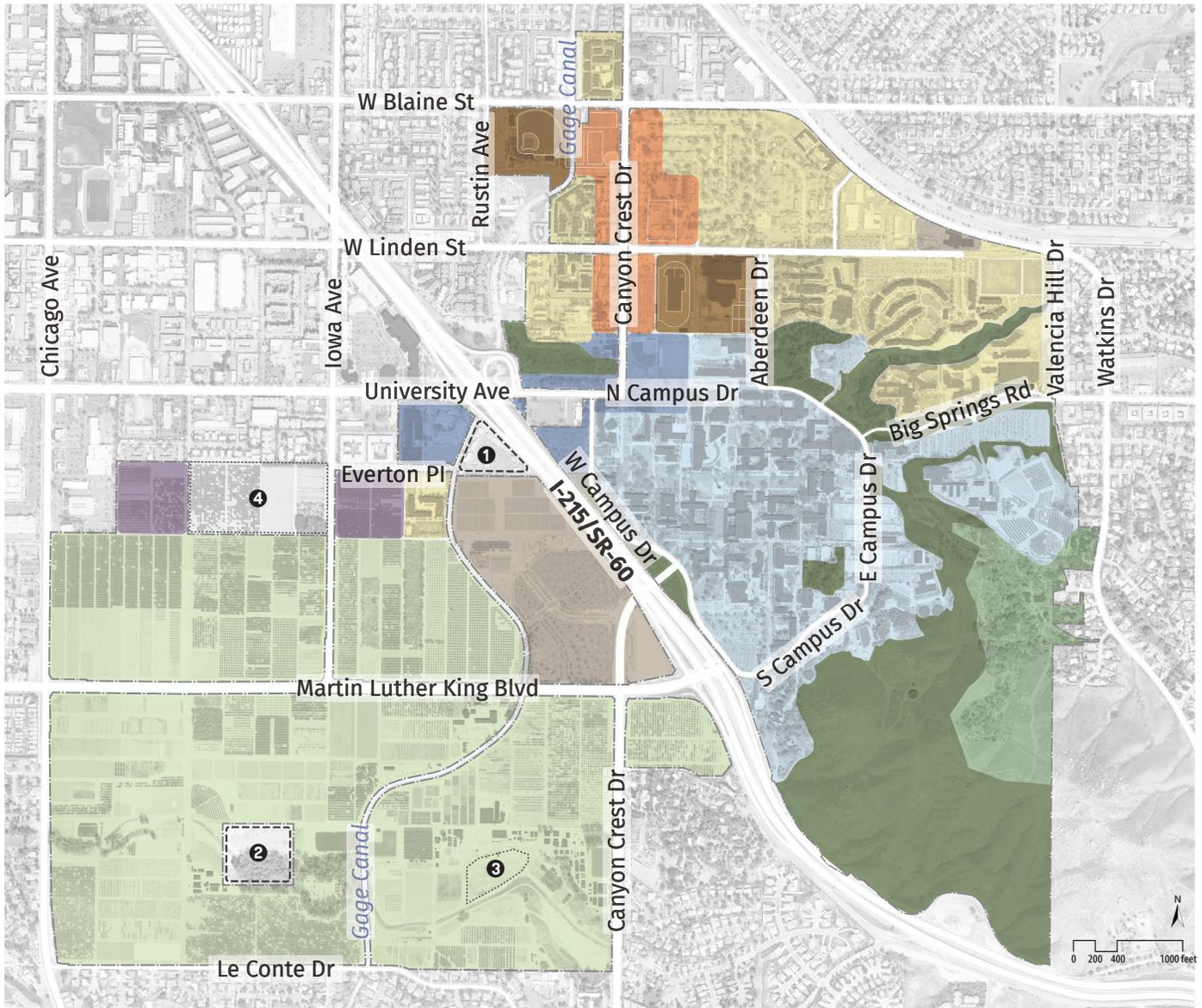
This 2021 LRDP Land Use element identifies ten land use designations and depicts their location on a land use diagram. The land use plan guides the general location and siting of new campus facilities, as well as renovation and reuse of existing buildings, by defining what types of activities will be predominant in any given geographic area. Additionally, this element also identifies other associated or compatible uses that are allowable within any given area defined by a predominant use.

The 2021 LRDP land use designations are:

1. Academics & Research
2. Agricultural/Campus Research
3. Land-based Research
4. Campus Support
5. Open Space Reserve
6. UCR Botanic Gardens
7. Recreation & Athletics
8. Student Neighborhood
9. Canyon Crest Gateway
10. University Avenue Gateway

To further strengthen UC Riverside's existing campus fabric, the overall organization of land uses remains largely the same as it is today, with the plan focusing on infill development strategies on East Campus in the future. This approach enables the continued operation and preservation of most land-based research on West Campus. It also supports the possibility of complementary and innovative research and development partnerships that build upon recent projects, such as the new California Air Resource Board's Southern California Headquarters on Iowa Avenue.

The continued operation and preservation of most land-based research on West Campus represents the most significant change in the 2021 LRDP compared to the previous LRDPs in 1990 and 2005. Furthermore, through the planning process, three new land use designations also emerged with the intent of strengthening UC Riverside's internal and external connections and extend campus identity to its edges. These are the Canyon Crest Gateway, the University Avenue Gateway, and the Agricultural/Campus Research land use designations. Each of these land uses is instrumental in creating a larger vision of a dynamic 21st-century university campus.



F0.6 LAND USE PLAN

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> 1 Caltrans Yard, not in LRDP planning scope 2 City of Riverside property, not in LRDP planning scope 3 Development of this approximately 3.25-acre site shall be prohibited from developing uses per a Covenant to Restrict Use of Property entered into between the Department of Toxic Substances Control and The Regents of the University of California, in which a deed restriction was filed on July 26, 2006. 4 California Air Resources Board Southern California headquarters | <ul style="list-style-type: none"> ACADEMICS & RESEARCH AGRICULTURAL/CAMPUS RESEARCH LAND-BASED RESEARCH CAMPUS SUPPORT OPEN SPACE RESERVE UCR BOTANIC GARDENS | <ul style="list-style-type: none"> RECREATION & ATHLETICS STUDENT NEIGHBORHOOD CANYON CREST GATEWAY UNIVERSITY AVENUE GATEWAY NON-UCR LAND OF INTEREST |
|---|--|--|

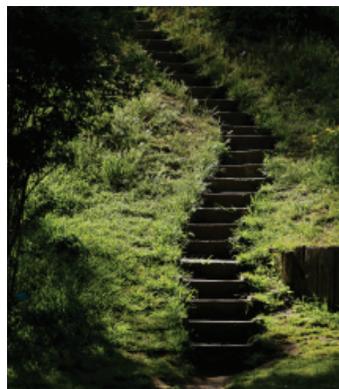
OPEN SPACE

The campus open space framework represents the network of green spaces that together contribute to its unique character. This network includes the land use designations of Open Space Reserve and the UCR Botanic Gardens, and the interconnected framework of Primary and Secondary Open Spaces within all of the 2021 LRDP land use categories. Each of these open space designations represent a distinct typology of open space, with each playing a critical role in defining the overall campus organization.

Listed below is a description of the four key types of open space:

1. Open Space Reserve is a specific land use designation representing relatively intact natural habitat that contributes to the ecological health of the campus and, in some cases, provides much-needed pathways for stormwater.
2. The UCR Botanic Gardens is another land use designation specifically located on the sloping easternmost portions of East Campus which serves important teaching, research and public service roles, and provides for the enjoyment and appreciation of nature by both campus and community.
3. Primary Open Spaces include significant campus malls, major pedestrian corridors, streetscapes, quads, and plazas. They are not defined together as a designated land use but rather exist as a secondary overlay to land use organization.
4. Secondary Open Spaces are equally important but have a different function, primarily focused on minor pedestrian linkages that foster greater movement throughout campus, as well as smaller, more intimate, courtyard spaces or plazas.

The 2021 LRDP proposes the preservation and enhancement of these open space typologies. Campus growth and redevelopment should strive to respect and integrate the natural beauty and agricultural legacy of the region in development efforts. The 2021 LRDP supports strengthening and protecting the character of the campus by enhancing connections to its environmental context while also improving formal open spaces across campus.



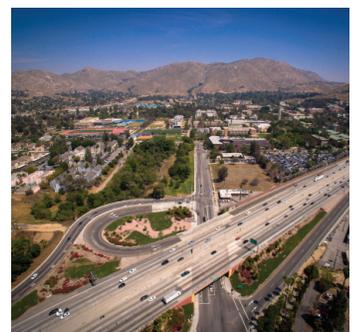
MOBILITY

The Mobility element describes the circulation system for the movement of pedestrians, bicyclists, transit, vehicles, service, emergency vehicles, and other modes of travel on campus. The intent is to provide a comprehensive circulation system that will support the future growth of the campus. The University's projected growth underscores the need for an integrated transportation and parking system that promotes the use of transit, walking, and biking.

This effort extends long-standing UC Riverside policies and programs that have reduced dependence on personal automobiles since the early 1990s. Such integrated transportation strategies will reduce GHG emissions, air pollutant emissions, and vehicle miles traveled (VMT), and further UC Riverside's goals related to environmental stewardship. Mobility strategies will also improve safety by reducing conflicts between vehicles, bicycle riders, and pedestrians.

As the University population increases and its physical footprint increases in density to the north with the development of the North District for student housing, mixed-use development along Canyon Crest Drive, and densification of the Academic Center itself, access to campus may shift somewhat northward.

Concurrently, should the projected focus of the City's Innovation District north and west of campus garner greater support and investment, it could bring higher densities, and a mix of different land uses that could serve as a more prominent gateway to the campus. The 2021 LRDP plans for the intersection of Blaine Street and Canyon Crest Drive to become the north gateway to campus.



INFRASTRUCTURE AND SUSTAINABILITY

The Infrastructure and Sustainability element describes the existing campus infrastructure system, and, where applicable, expansion is needed to support and accommodate projected growth on campus. The University maintains and operates a complex network of infrastructure in support of its academic and research mission and the campus' built environment and operations. The two key elements of the infrastructure system are energy and water. Together these two elements offer the most important opportunities for resource stewardship and reduced consumption. The 2021 LRDP assumes UC Riverside will continue to meet all UC sustainability policies.

As the campus population grows and the physical footprint increases, there would be a greater intensity of use of the campus' infrastructure and potentially increased demand for more electricity, water, and sewer capacity. However, the University is also committed to conservation measures

and the long-term reduction in the use of resources.

Therefore, even as the campus grows, implementation of a multitude of resource use reduction measures will help manage the increased need.

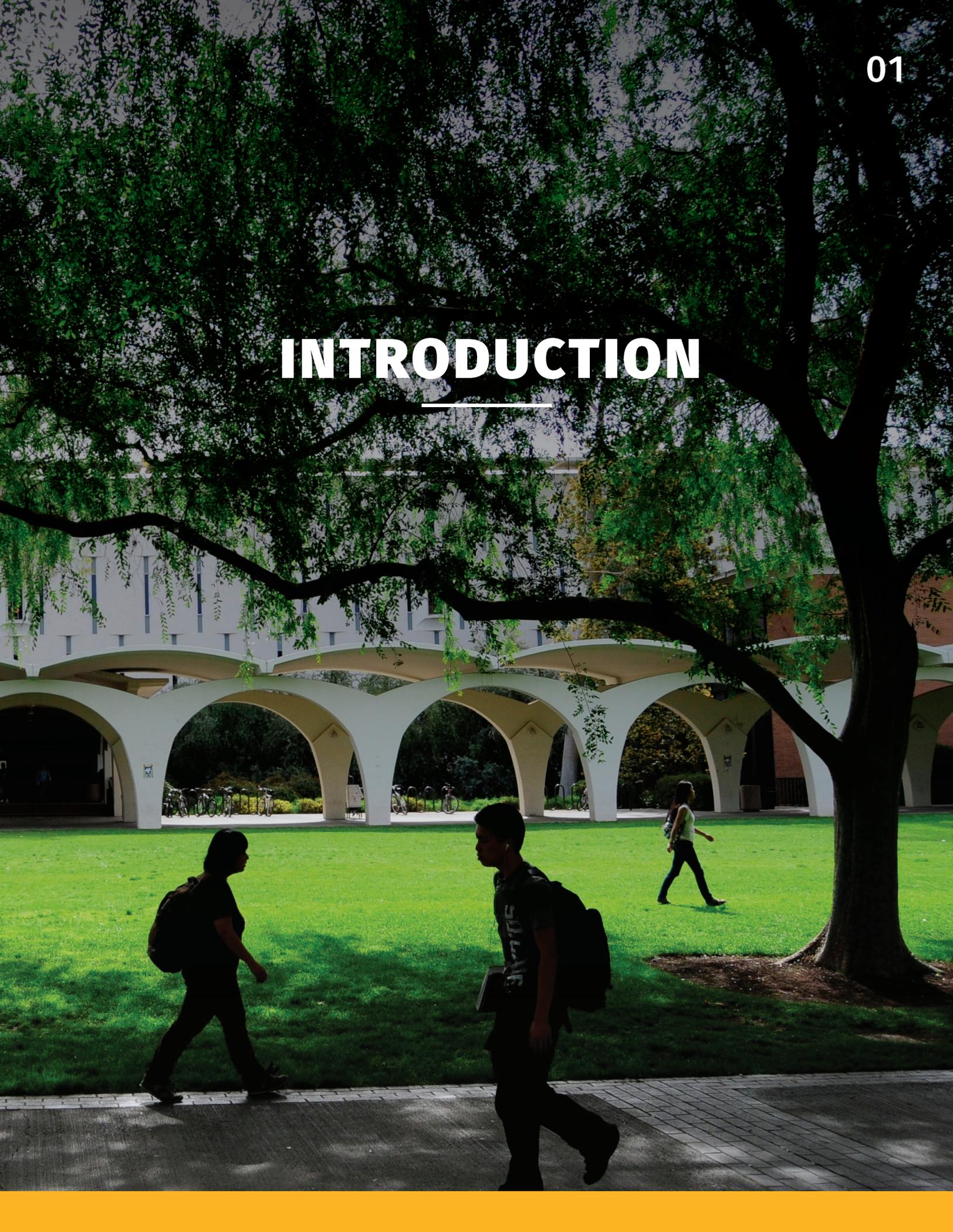
Stewardship of the natural environment is a core value of UC Riverside that shapes policy decisions, inspires daily action, and presents pertinent learning opportunities.

The 2021 LRDP balances opportunities to protect, enhance, or restore natural systems; promote alternative transportation options; introduce greater efficiencies in campus infrastructure and resource use; and, most importantly, provides a roadmap to carbon neutrality, as outlined in the UC Policy on Sustainable Practices.

Future growth of the campus will continue to build on this commitment to environmental stewardship to account for the impacts of development and expansion of campus infrastructure.



INTRODUCTION



PURPOSE OF THIS DOCUMENT

This document is a Long Range Development Plan or “LRDP.” An LRDP is a comprehensive land use plan that UC campuses prepare to guide their physical development. UC Riverside’s 2021 LRDP is a comprehensive land use plan that establishes a framework for future campus growth to accommodate changes in enrollment, employment, physical infrastructure and campus facilities.

An LRDP identifies the policies and physical development needed to achieve the University’s academic goals for an established time horizon and a projected enrollment level. The Regents adopted the most recent LRDP for UC Riverside in 2005. It has been amended five times, most recently in 2019 to incorporate the North District living-learning mixed-use community. UC Riverside’s 2021 LRDP is a new LRDP and will replace the previous LRDP. This 2021 LRDP will adjust the location and intensity of future campus development to best meet the goals and objectives of the University to accommodate increased enrollment, advance knowledge through teaching and research, and serve society.

The physical environmental impacts associated with the implementation of the 2021 LRDP were analyzed in accordance with the California Environmental Quality Act (CEQA). The University prepared a programmatic Environmental Impact Report (2021 LRDP EIR) that serves as the comprehensive environmental analysis with the intent that future campus projects would be able to tier¹ from. While the 2021 LRDP EIR serves as the overarching environmental analysis for the LRDP, the environmental impacts associated with future individual projects will be assessed on a project-by-project basis.

The 2021 LRDP is not intended to function as a detailed implementation plan, nor does it constitute a commitment to enrollment targets, specific development projects, construction schedules, or capital funding requests. However, the principles and vision of the LRDP will serve as a guide for campus planners, faculty, and administrators. Future projects will be evaluated for consistency with the 2021 LRDP, UC Riverside’s Physical Design Framework, and the Capital Financial Plan. These projects will be individually approved after appropriate review by the Regents, the UC President, or the Chancellor as delegated by the Regents.

The 2021 LRDP attempts to balance a range of competing interests. It follows that it is nearly, if not absolutely, impossible for a specific project to be in perfect conformity with each and every policy or guidance set forth in this plan and its elements. UC Riverside, therefore, has the discretion to approve a project even if it is not consistent with all of an LRDP’s policies and guidance.

1 For the purposes of the LRDP, tiering may include but may not be limited to finding of exemption from further environmental review, an addendum, a supplemental EIR, or a subsequent EIR. In rare instances, a standalone CEQA document may be appropriate for future projects.



View of Carillon Mall looking east towards Box Springs Mountains

PRESENT CHALLENGES

UC Riverside opened its doors in 1954 with 131 students and 55 faculty. From this humble beginning, the University has grown to become home to a vibrant community of over 23,000 students, 840 ladder-rank faculty, and 3,000 staff personnel in 2018. The racial, ethnic, and socioeconomic diversity of UC Riverside's student body is among the highest of top-tier research universities in the United States. Through a robust portfolio of undergraduate, master's and doctoral programs, the University is proud to offer both economic opportunity and upward mobility to all its students.

From 2015 to 2019, the campus' enrollment (fall headcount) increased by 4,000 students, or nearly 19%, without a corresponding expansion of existing facilities. Additionally, many of the campus' existing facilities are aged and are in need of significant investments to meet the pedagogical and technological demands of a 21st-century learning and research environment.

Furthermore, UC Riverside itself is a critical economic asset in the Inland Southern California region, and the State of California. The region is one of the fastest-growing in California and the United States. Per the Southern California Association of Governments (SCAG), the population of the Inland Southern California region is projected to reach over 3 million by 2050, a 30% increase from 2015, with a corresponding increase in local jobs by about 500,000².

As a premier research institution, UC Riverside plays a rapidly expanding role in educating the region's workforce and contributing to the City's and region's economic and cultural vitality. During the fiscal year 2015-2016, UC Riverside had a \$2.7 billion economic impact on the United States economy as spending by the University, its employees, retirees, students, and visitors. The University is responsible for \$1.9 billion in state-wide annual economic activity, \$1.4 billion of which occurs within the Inland Southern California region³.

To continue accommodating the State of California and UC system goals, the 2021 LRDP plans for an enrollment projection of approximately 35,000, representing an approximately 46% increase over 2018 enrollment levels. Supporting such growth will require expansion of campus teaching, research and academic support facilities, along with corresponding increases in student housing, student life facilities, infrastructure, and appropriate increases in operating resources. Additionally, robust investment in renovations to existing older facilities will also be needed.

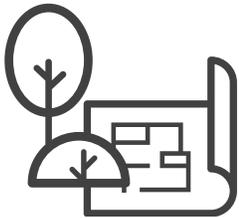
The University is also tasked with addressing new state legislation and regulatory actions, and UC policies, enacted since the last LRDP was formally adopted in 2005, regarding climate change and related efforts, to reduce energy consumption and carbon footprint, as the University continues to grow.

2 Southern California Association of Governments.
<https://scag.ca.gov/>

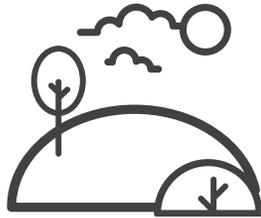
3 Source: UC Riverside, 2020. <https://www.ucr.edu/about/impact>

SCOPE OF THIS PLAN

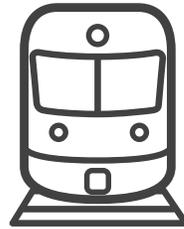
The scope of the 2021 LRDP is specific to UC Riverside's campus, which is subdivided into East and West Campus by the I-215/SR-60 freeway. The Palm Desert Center, off-campus properties including the original Citrus Experiment Station at Mt. Rubidoux, UCR Natural Reserves land, and leased space are excluded from the 2021 LRDP. The UCOP Facilities Manual recommends all LRDPs address the following four elements:



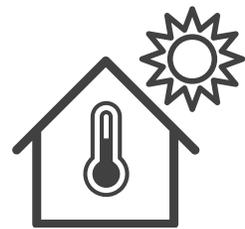
Land Use: The general location of proposed land uses to provide guidance on locating future structures while maintaining adequate flexibility for future decision making.



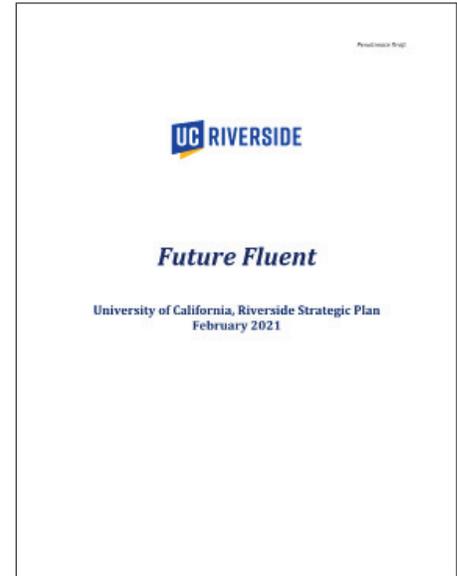
Open Space: The role of open space and general location of plazas, malls, parks and natural undeveloped areas.



Mobility: How students, staff, faculty, visitors and others access and move throughout campus. All modes of travel are considered.



Infrastructure and Sustainability: Campus infrastructure expansion strategies to support campus growth sustainably and resiliently.



RELATED PLANS

The objectives in the 2021 LRDP supports the long-term vision and goals presented in two advisory UC Riverside documents: 1) the UCR Strategic Plan 2021: Future Fluent (Penultimate Draft, published in February 2021) and 2) the 2016 Physical Master Plan Study (Master Plan Study) that explored UC Riverside's capacity for growth. These documents encompass the current vision for the campus across different dimensions. In 2021, UC Riverside plans to update its strategic action plan as necessary to respond to new challenges and goals, but the overall academic direction and physical development patterns of the campus will remain consistent.

In the UC System, a Physical Design Framework is an advisory document that provides architects and planners with design guidance to assure that projects are informed by the fundamental characteristics of the University's mission, setting, history, climate, landscape and architectural form that must inform any physical changes to the campus. This 2021 LRDP will inform the update of the 2009 Campus Physical Design Framework to reflect the increasing densities planned in peripheral areas, current thinking regarding the value and aesthetic contributions of the campus' Mid-Century Modern Core fronting the Carillon Mall, and the continuation of land-based research on West Campus. The University does not incorporate by reference these documents, consequently, a revision to these documents would not constitute an amendment to the 2021 LRDP.

PLANNING AND INSTITUTIONAL OBJECTIVES

The 2021 LRDP is intended to be supportive of the following planning and institutional objectives:

1. Meet projected increases in enrollment demand for the UC campuses.
2. Provide a high-quality campus setting through respect for the character and quality of UC Riverside's Mid-Century Modern Core and the abundant natural features that shape the campus.
3. Accommodate student housing needs and enhance the student life experience by providing student support facilities and athletic and recreational opportunities.
4. Create an efficient and vital teaching and learning environment.
5. Serve historically underrepresented populations and regions.
6. Advance UC Riverside's academic research capacities in service to society, including the vitality of campus land-based research programs.
7. Model environmental stewardship through resource-efficient planning and design, responsiveness to climate challenges, and integration of natural systems.
8. Ensure integration and consultative engagement with local and regional initiatives to advance economic vitality and sustainable development within the region.



AUDIENCE FOR THIS PLAN

Once adopted by the Regents, an LRDP serves as an important policy document shaping campus development, growth, and priorities. Campus administration and UCOP will use the 2021 LRDP to guide future decisions regarding future physical and environmental development decisions. The audience for this LRDP also includes present and future students, faculty and staff, as well as regulatory agencies, political leaders and the people of California.

PROCESS

The update to this 2021 LRDP started in the fall of 2018. Between the winter and spring quarters of 2019, representatives from across the campus and local community provided critical input on the LRDP through seven working groups. Members met regularly to discuss the campus' current and future needs, ways to accommodate enrollment growth, and preferred development styles. These working groups were: Student Experience; Infrastructure and Technology; Agricultural Operations; Housing, Transportation, and Safety; Academics and Research; City and Community; and Sustainability. Each group produced a brief report addressing key land use issues and summarizing their vision for UC Riverside.

A Project Management Team consisting of the chairs of each of the working groups and staff from within Planning, Design & Construction was formed to provide coordination and direction, and to communicate feedback to a larger Steering Committee. This Steering Committee, whose membership included all deans, all vice chancellors, representatives from the Academic Senate and Staff Assembly, and elected graduate and undergraduate student leaders, was tasked with reviewing input from the working groups and making recommendations to the leadership body – the Executive Committee.

Executive Committee membership consisted of the Executive Vice Chancellor and Provost, the Vice Chancellor for Planning, Budget & Administration, the Dean of the College of Humanities, Arts and Social Sciences and the Dean of the College of Natural and Agricultural Sciences.

Considerable effort was taken to promote participation in the planning process and engage the campus community in a discussion concerning the vision for the campus. In addition to the working groups, input was received through a series of formal open forums held in spring, summer, and fall 2019. A campus-wide survey was also made available online and promoted through multiple print and digital outlets. In total, approximately 500 responses from students, staff, faculty, and Riverside

residents were received. Lastly, the Project Management Team encouraged interested groups on campus to request that a member of the Project Management Team give an LRDP overview presentation at any standing meeting, an option which several campus groups availed of.

Environmental Impact Report and Review of Future Projects: The physical environmental effects associated with the implementation of the 2021 LRDP were analyzed as required by CEQA. The University prepared a programmatic Environmental Impact Report (2021 LRDP EIR) that serves as the comprehensive environmental analysis with the intent that future campus projects would be able to tier⁴ from. While the 2021 LRDP EIR serves as the overarching environmental analysis for the LRDP, the environmental impacts associated with future individual projects will be assessed on a project-by-project basis.

The design and construction of future projects at UC Riverside would be subject to the campus development review process. In addition to project-specific compliance with CEQA, the development review process requires review by campus committees and administrative staff, evaluation of the proposed design and construction documents, and construction inspection and site monitoring during construction. Committees and administrative offices involved in project implementation can include but are not limited to project sponsors, Office of the Vice Chancellor Planning, Budget & Administration, and campus stakeholders, among others.

CONSIDERABLE EFFORT
WAS TAKEN TO **PROMOTE
PARTICIPATION IN THE
PLANNING PROCESS AND
ENGAGE THE CAMPUS
COMMUNITY IN A
DISCUSSION CONCERNING
THE VISION FOR THE
CAMPUS.**

Although the LRDP is the primary governing planning document for the campus, several other supplemental guidance documents inform development at UC Riverside (e.g., Physical Design Framework, Campus Construction and Design Standards). In general, facilities on the UC Riverside campus comply with the design guidelines set forth in these documents.

4 For the purposes of the LRDP, tiering may include but may not be limited to finding of exemption from further environmental review, an addendum, a supplemental EIR, or a subsequent EIR. In rare instances, a standalone CEQA document may be appropriate for future projects.

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PROGRAM MODEL





This LRDP accommodates enrollment growth and change on the UC Riverside campus. Through the incremental changes brought by new construction, renovations, and limited site redevelopment, the University can accommodate enrollment growth, grow its research expenditures, and expand its residential community.

Source: Clark Schaefer

	2018 ACTUAL ENROLLMENT	2021 LRDP PROJECTION	% CHANGE
University – All Colleges and Schools	23,960	35,210	47%
College of Humanities, Arts, and Social Sciences	11,000	16,400	49%
College of Natural and Agricultural Sciences	7,100	9,400	32%
Bourns College of Engineering	3,400	5,200	53%
School of Business	1,500	2,110	41%
Graduate School of Education	460	1,180	157%
School of Medicine	270	500	85%
School of Public Policy	230	420	83%

F2.1 COLLEGES AND SCHOOLS ENROLLMENT PROJECTIONS: 2018 – 2035

Fall Headcount enrollment. Students enrolled in two colleges are counted twice. Rounded to the hundreds for Colleges, to the tens for Schools.¹

¹ Source: UC Riverside Institutional Research, March 3, 2019

GROWTH OF EXISTING COLLEGES AND SCHOOLS

UC Riverside seeks to sustain and advance its world-class academics and global research impacts, and continue to provide a robust set of undergraduate, graduate, and professional degree programs.

Academic leadership expects that UC Riverside's balance and offerings of undergraduate and graduate programs are not expected to shift. New directions in research or instruction requiring different facility types are not forecasted within the planning horizon of this LRDP. Furthermore, no additions to the existing seven colleges and schools are anticipated either.

Nearly half of students are enrolled in the College of Humanities, Arts, and Social Sciences (CHASS), a ratio that is expected to remain similar. The Graduate School of Education (GSOE), School of Medicine (SOM), and School of Public Policy (SPP) are expected to remain with relatively small enrollments.

While the College of Natural and Agricultural Sciences (CNAS) is the second-largest academic unit according to student enrollment, it utilizes both the largest land-based and facility-based footprint among the colleges. Agricultural sciences require significant land for outdoor laboratory space. Like other research, some require proximity to faculty offices and indoor laboratory facilities, while other agricultural research activities can be conducted remotely. The 2021 LRDP reserves the majority of campus lands on West Campus for agricultural sciences land-based research, while reinforcing the need for a resource-efficient approach to land use planning on the East Campus to accommodate other growth pressures.

RESEARCH EXPANSION

UC Riverside seeks to increase its funded research, which is reflected in the projected space needs of the 2021 LRDP. The research expansion goal has implications that are both programmatic and facilities driven. Expansion in the number of research laboratories and renovations of existing poor-quality research laboratories will be necessary to meet future research demands.

GRADUATE STUDENT GROWTH

UC Riverside's current share of graduate students (14% of the student enrollment) is lower than the UC average. To support the growth in research expenditures, academic leadership has expressed the priority to increase the number of graduate masters students at a higher rate than the undergraduate enrollment. As such, graduate students, including both master's and doctoral students, are projected to represent approximately 18% of the student enrollment by 2030 per the 2021 Strategic Plan. The 2021 LRDP assumes a continued increase in the proportion of graduate students in subsequent years.

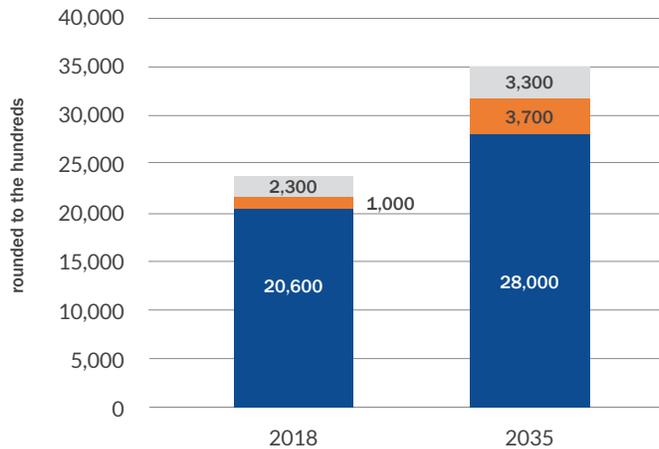
ENROLLMENT AND SPACE PROJECTIONS

At the time of preparation of the 2021 LRDP in 2018, the University's enrollment was 23,922 students (Fall-Quarter average headcount). The 2021 LRDP projects enrollment growth of approximately 35,000 students (Fall-Quarter average headcount) by 2035.

SPACE PROGRAM – ROOM TO GROW TO 35,000 STUDENTS

In order to accommodate enrollment growth, renovation and expansion of existing academic, research, academic support, student life, and other support functions will be necessary that must also be complemented with appropriate growth in operational funding. As detailed in Chapter 3, the 2021 LRDP assumes that renovations, redevelopment, and expansions will generally occur within the existing campus footprint, on acquisitions of interest, and through University partnerships in City-owned districts by means of increased development density.

THE 2021 LRDP PLANS FOR A STUDENT POPULATION OF UP TO **35,000**



F2.2 STUDENT ENROLLMENT FALL-QUARTER AVERAGE HEADCOUNT

■ UNDERGRADUATE ■ MASTERS ■ PhD

ACADEMICS & RESEARCH

CLASSROOMS

Utilization: Classrooms are currently being scheduled very efficiently with utilization rates exceeding UC target of 35 Weekly Contact Hours (WCH). A lack of enough classrooms in the Academic Center, however, has necessitated the need to lease the off-campus University Village movie theaters, adding almost 1,000 additional seats. However, it is important to note that these “classrooms” are not optimally sized, located or configured to meet current pedagogical requirements, and are thus not utilized optimally. The Student Success Center Building adds 1,000 seats, reducing this concern to an extent. However, further improvements in response to pedagogical changes and future growth will be needed. Increasing flexibility of its classrooms to enable instructional best practices is a priority for the campus.

Online Instruction: While UC Riverside intends to increase its offerings of online and other alternative delivery methods, the students in those courses will still require on-campus services. Online courses offer students greater scheduling flexibility and less commuting. The University projects increasing online course options so that students could potentially earn more credit hours online. The University values the effectiveness of “face-to-face” classes, and therefore, future online instruction will likely be hybrid or blended courses and limited to large lower-division breadth courses. Since most students will receive most instruction on-campus every term, nearly all students will still create a demand for other types of campus space (e.g. parking, dining, study space, recreation, etc.).

While this LRDP was mostly developed prior to the COVID-19 pandemic, the University has gained valuable new experiences in transitioning to remote instruction in response to the pandemic for over five academic

quarters, beginning Spring 2019. Moving forward, while the predominant mode of instruction will remain face-to-face, UC Riverside predicts an acceleration in the increase in remote instruction delivery. Furthermore, post-pandemic, the University projects that staff who do not need to be constantly present on campus would work remote to an extent, reducing the need to increase office space, and parking supply. Possible outcomes of such shifts could include greater flexibility in building design and the repurposing of existing facilities that could achieve greater efficiencies of space utilization over time.

In 2021, as it recovers from COVID-19, UC Riverside remains committed to growing even more vibrant. Sustaining this growth requires thoughtful alignment of ambitious academic and research goals, creative deployment of fiscal resources, and sustainable stewardship of available land. An October 2018 UCOP analysis indicated a significant short-term need for more than 4,000 new classroom seats by 2021². To accommodate a 35,000-student enrollment, it may be necessary to double the number of classroom seats, and expand the diversity of classroom types, with newer spaces ranging from lecture halls to active learning classrooms. Thus, the total new space dedicated to classrooms could more than double. Incrementally renovating existing classrooms to improve presentation technology and environmental quality will also remain a priority.

The core teaching function of the University occurs in classrooms, and to this end, the 2021 LRDP seeks to locate the majority of future classroom space within the Academic Center.

² UC Office of President, *Analysis of Classroom Space Needs*, October 2018.



TEACHING LABORATORIES

Teaching laboratories are rooms used for regularly or formally scheduled classes which require special equipment or configuration (e.g., art studios, chemistry laboratories, engineering computer laboratories). Currently, scheduling of teaching laboratories closely meets UCOP utilization guidelines.

To meet the 35,000-student enrollment and maintain the variety of academic programs, the University will need to expand the space dedicated to teaching laboratories. The design and size of the new teaching laboratories will vary by discipline, but the University plans to schedule these new and modern teaching laboratories optimally to include some weekend scheduling. Existing teaching laboratories will also need to be incrementally renovated to improve functionality.

OPEN LABORATORIES

Like teaching labs, open laboratories are furnished with equipment that serves the needs of a particular discipline but are not regularly scheduled. A modest amount of additional dedicated open labs would be necessary to support 35,000-student enrollment at a level that is typical of the UC system. However, more important than the quantity of open labs is the quality of UC Riverside's open labs. The University plans to continue to invest in and improve its existing open labs such as the music practice rooms, language laboratories, studios, and learning laboratories such as those for speech, hearing, psychology, and health-related professions.

Given that the core teaching function of the University occurs in teaching and open laboratories, the 2021 LRDP seeks to locate nearly all teaching and open laboratories in the Academic Center.



RESEARCH LABORATORIES

The 2021 LRDP also projects increasing federally funded research in the future. Meeting the needs of increased research activity will take substantial investments, in both research laboratories and researchers.

Presently, growth in research is limited by the quality of existing research laboratory space, impacting in part researcher productivity (defined as the average expenditure per principal investigator) when compared to institutional peers, and UC system institutions.

To meet its research growth goal, the University will need to enable greater researcher productivity, both by improving the quality of existing research laboratories and building state-of-the-art new research laboratories. Assuming greater per researcher activity and expenditures, a further expansion of research space by approximately 20% will be necessary. The design and size of research laboratories will vary by discipline. Based on current trends, the University anticipates that research in engineering, agricultural sciences and the medical fields

will lead to research growth, requiring large laboratories with modern equipment.

While critical to the University's institutional goals, research is not a daily component of the undergraduate student population. Therefore, new research laboratories are planned to be constructed within the Academic Center, outside of, but adjacent to the Mid-Century Modern Core fronting the Carillon Mall.

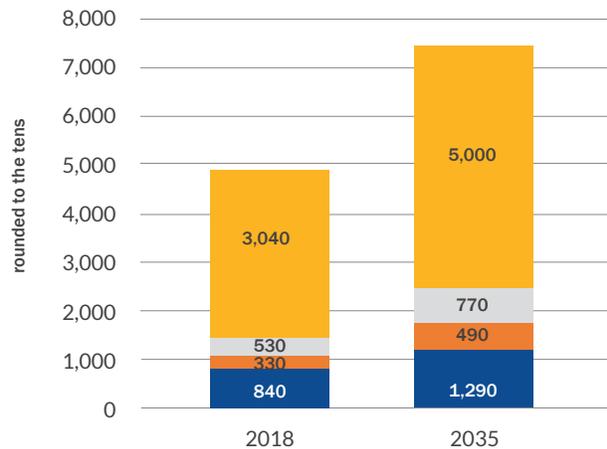
A distinguishing factor of UC Riverside's research activity is the agricultural research on West Campus. Nearly one-fifth of the University's research expenditures occurs in agricultural fields and in the indoor labs which support them. As the overall research portfolio grows, so will land-based research, in support of which the University will need to acquire additional agricultural fields to support this growth.

ACADEMICS & RESEARCH SUPPORT



OFFICES

As and when additional faculty, staff, and student workers are hired in support of increasing student enrollment, the need for office space will continue to grow. Office space currently represents one-fifth of the campus’ indoor assignable space. As the number of faculty, staff, and students grow by over half, the office spaces for them to do their work will need to grow correspondingly, with a modest level of discounting for space reduction strategies, such as open offices, hoteling, and telecommuting.

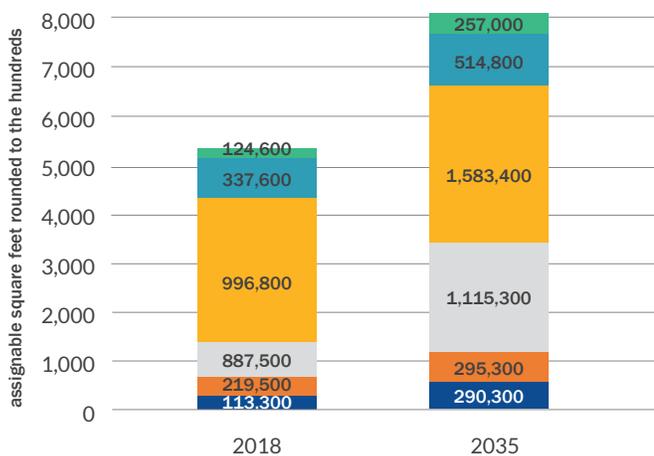


F2.3 FACULTY AND STAFF HEADCOUNT

- LADDER RANK FACULTY
- OTHER INSTRUCTIONAL FACULTY
- NON-TEACHING ACADEMIC APPTS.
- NON-ACADEMIC STAFF

LIBRARY AND STUDY SPACE

UC Riverside’s library and study space have evolved beyond book storage and retrieval to include group study and maker space. The role of the library will continue to evolve, requiring renovation and expansion. Yet group study and collaboration will continue to occur outside the formal library and will include hallways and collaboration spaces within classroom and research buildings. Combining the library’s projected expansion, and national guidelines for collaborative space outside of the library, the space for library and study would need to grow by 50% to support an enrollment of 35,000 students. Opportunities for collaborative learning and peer-to-peer instruction would also occur throughout campus, and within the on-campus residential communities as living-learning environments.



F2.4 ACADEMIC, RESEARCH AND SUPPORT SPACE NEEDS

- CLASSROOMS
- TEACHING AND OPEN LABS
- RESEARCH LABS
- OFFICES
- LIBRARY AND COLLAB. LEARNING
- OTHER



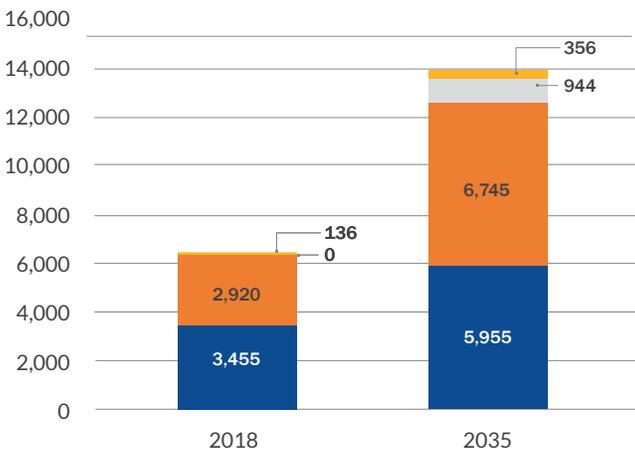
Study area in Orbach Library

STUDENT LIFE

HOUSING

Currently, UCR’s housing portfolio contains 6,511 beds, or approximately 27% of the current enrollment, and accommodates undergraduate students, graduate students, and students with families. The 2021 LRDP establishes a goal of housing approximately 40% of enrolled students (14,000 beds) to live in University-managed or controlled housing within proximity to the Academic Center. The 40% benchmark is based on a rational reconciliation of numerous factors including:

1. University’s previously observed absorption rates for student beds.
2. Local students’ preference to live with family to save on housing costs.
3. Available land area.
4. The University’s financial capacity and ability to build new housing supply.



F2.5 RESIDENTIAL AND APARTMENT BEDS

- RESIDENCE HALLS
- UNDERGRAD APARTMENTS
- GRAD APARTMENTS
- FAMILY HOUSING UNITS

5. Privately-owned housing options in the neighboring community.
6. Projected new supply created by private developers.
7. Future expansion of transit options will expand the campus’ physical reach farther into the community.

The majority of the campus’ current student housing is located north of the Academic Center. The 2021 LRDP seeks to strengthen and densify the student housing within the current student housing footprint.

The North District Plan represents a dramatic redevelopment of the campus and a transformation of on-campus student life. Here, the University is building modern, higher density residence halls and apartments in a phased manner. As analyzed in the North District Development Plan Final Environmental Impact Report dated May 2019 (SCH # 2018061044), the North District will include 1,200 residence hall beds, over 4,000 apartment beds, dining facilities, and recreation/athletic fields. North District redevelopment is currently underway with the construction of its first phase of 1,500 apartment-style beds. Once the North District is fully built out as planned, the University will have over 5,500 freshmen beds and over 8,000 upperclassmen, family, and graduate beds.

Additional student housing capacity will occur through strategic infill and selective replacement of existing housing facilities in the northern half of the East Campus. Over 1,100 existing beds are located within three apartment complexes—Bannockburn, Falkirk, and Oban. These structures are in relatively poor condition. The planned transformation of Canyon Crest Drive into a



higher density, mixed-use student neighborhood assumes that some of the buildings within these complexes will be redeveloped at a greater density. The extent of redevelopment will vary depending on how the North District is developed and overall demand.

DINING

Dining on the campus is concentrated at a few key venues—the Glen Mor Market, Aberdeen and Inverness Dining Hall (to be replaced by the recently completed Glasgow dining facility), Lothian Hall, food venues in and around the Highlander Union Building (HUB), The Barn and other small retail operations across campus. Together, these venues provide a significant variety of dining experience between meal plan, retail, and fast-casual service. These dining venues are in high demand today. Outdoor seating adjacent to the Glen Mor Market and the HUB help with this high demand.



In response to the plan to increase on-campus housing, the North District program includes a new dining commons. Reconciling national standards, current dining demand, and the specific needs of a larger student enrollment on-campus population, two more dining venues with the capacity of up to 700 total seats will be needed in addition to the Glasgow and North District facilities.

ATHLETICS

UC Riverside is home to 17 men's and women's NCAA Division I teams. As of 2018, approximately 300 student athletes participated in a range of competitive sports. The UC Riverside Baseball Complex is located on Blaine Street, and soccer and softball fields are directly north of the Academic Center. Athletic program growth is planned to occur in existing athletic facilities; however, there is an existing need for facility renovations. The 2021 LRDP designates the soccer and softball fields for future academic expansion, so these facilities would require relocation before redevelopment.

RECREATION

The Student Recreation Center (SRC) Building is the recreational hub of campus and includes the pool facility and tennis courts, and multi-activity gymnasium. This major hub of indoor and outdoor recreation activities is adjacent to nearly all student residential facilities. The planned increase in on-campus residents will create increased recreational demand, which can be accommodated in an addition to the SRC on the site of the outdoor ropes course.

Providing adequate outdoor recreational facilities for the students is an important determinant of student retention and graduation rates. Presently, students have access to seven outdoor recreation fields. The use of the fields located north of the Glen Mor Apartments are limited from late-evening use to conform with a settlement agreement with the neighbors. The University also has a shared-use agreement with the City through 2027 on the recreational fields located at the intersection of Canyon Crest Drive and Blaine Street.

Reconciling national standards, current demand for outdoor recreation, and the specific needs of intramural sports, the campus proposes up to 11 outdoor recreation fields. Because outdoor recreation fields have a large physical footprint and are limited in the time in which they are intensely used, the 2021 LRDP underscores the need to be strategic and flexible in providing adequate access to recreation amenities for a larger student population.

To this end, the 2021 LRDP does not delineate outdoor recreation fields as a separate land use. Future campus development, including the development of the North District, and the redevelopment and densification of existing student housing complexes will incorporate outdoor recreation amenities in their planning in close coordination with Student Recreation. Additionally, to the extent feasible, the University will explore the continued possibility of sharing outdoor fields with Athletics.



Sand volleyball game in progress,
Student Recreation Center in background



Highlander Union Building outdoor plaza

STUDENT CENTER

The Highlander Union Building (HUB) is a campus landmark that represents the heartbeat of student life on campus. Today, the HUB is incredibly active and oftentimes overcrowded.

Student centers are a necessary program in attracting and supporting an expanded student body, in particular new on-campus residents. Merging national standards, current demand for the HUB, and the specific needs of student services to accommodate the planned growth of student enrollment and on-campus residents, the space dedicated to student center facilities would need to double to support an enrollment level of 35,000. The University projects needing to change its current model of a single student center, to a distributed model of a core facility and satellite student centers within residential neighborhoods. Additional student center facilities are planned in the Academic Center and near new residential facilities. Expansion in the Academic Center is possible with the redevelopment of facilities adjacent to the HUB. New student center facilities may also be located within the North District area and/or integrated into the development of the Canyon Crest Gateway.

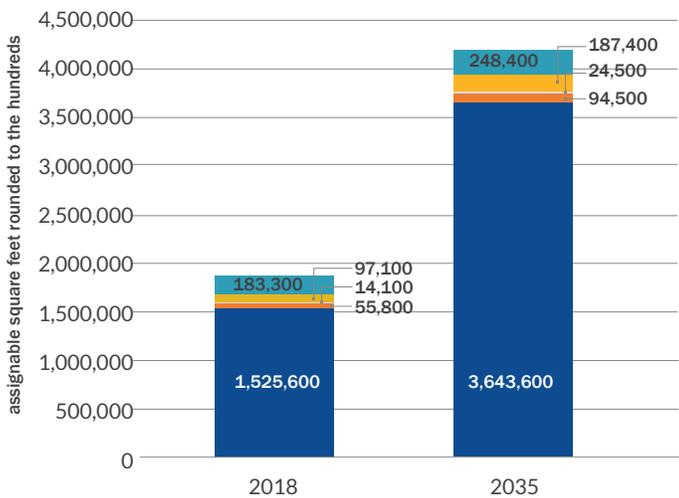
HEALTH & WELLNESS

Student Health Services serves the healthcare needs of UC Riverside students. Like other universities, UC Riverside is experiencing an increase in demand for psychological and health counseling, along with regular medical visits and treatments. Thus, the need for health and wellness will grow beyond the rate of student enrollment and on-campus resident growth. The University is planning a new health and wellness facility on West Linden Street that can better serve student needs and the developing North District. Should on-campus population growth require additional health and wellness facilities, satellite facilities could be incorporated into planned residential halls or within the Canyon Crest Gateway.

CAMPUS SUPPORT

Primarily located on the south side of Watkins Drive, this is inclusive of the Corporation Yard which houses Facilities Services (administration, shipping and receiving, trade shops, infrastructure and energy management); Environmental Health & Safety (EH&S); and Transportation and Parking Services. The Corporation Yard is located within East Campus, directly adjacent to existing and planned student residential neighborhoods. The location allows for direct receiving of materials from the City public streets (via Watkins Drive) and for vehicles and specialized equipment that are not street-compliant to access campus locations on internal campus streets.

However, the 2021 LRDP also acknowledges that existing available land for campus development is limited and therefore plans for support functions such as Facilities Services and Transportation and Parking Services relocate to West Campus to allow the student neighborhoods to expand. Access from West Campus to East Campus under the freeway will need to be maintained for Facilities Services staff, vehicles, and other equipment.



F2.6 STUDENT LIFE SPACE NEEDS

- RESIDENCE HALLS & APARTMENTS
- INDOOR ATHLETICS & RECREATION
- DINING
- STUDENT UNION
- STUDENT HEALTH

SPACE PROJECTION SUMMARY



The 2021 LRDP proposes the development of approximately 5.5 million Gross Square Feet (GSF) of net new building space on the UC Riverside campus to accommodate a future projected enrollment of 35,000 students (Fall-Quarter average headcount). The housing goal under the proposed 2021 LRDP would be to provide on-campus or campus-controlled student housing for 40% of the student population.

As of the 2018/2019 AY, the Campus currently has approximately 4.8 million Assignable Square Feet (ASF) equivalent to approximately 7.2 million GSF of academic buildings and support facilities. Thus, the 2021 LRDP proposes a maximum of approximately 8.5 million ASF

(approximately 12.7 million GSF³) of total academic and support space development to accommodate the 2021 LRDP's projected enrollment growth and meet program needs. It is anticipated that approximately 7,600 total faculty and staff would be needed to support the projected student enrollment.

2021 LRDP PLANS FOR UP
5.5 MILLION GSF OF
 ADDITIONAL SPACE

3 ASF to GSF when conversion based on a 1.5x multiplier

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THE DEVELOPMENT PLAN



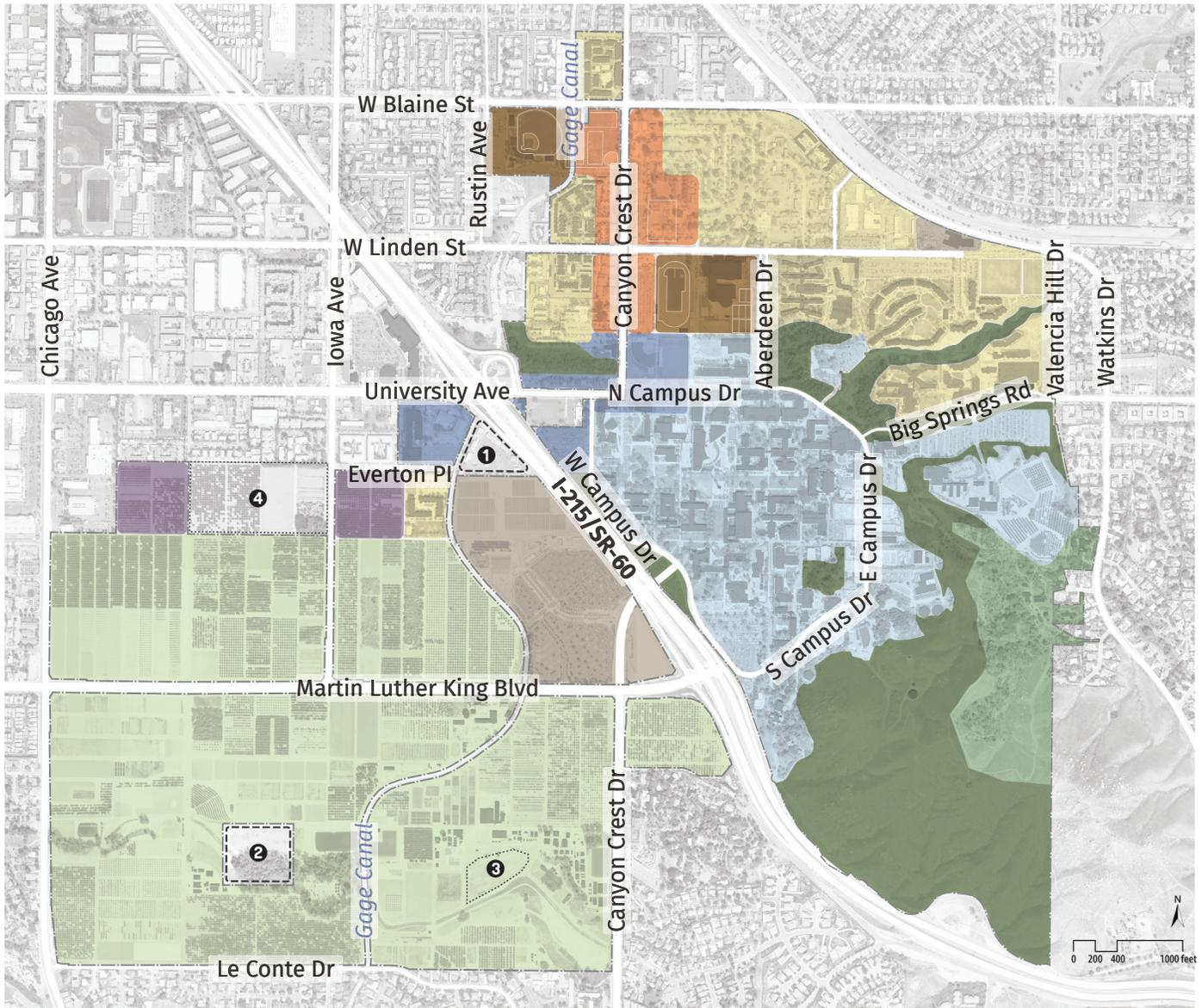
The 2021 LRDP serves as a guide for future growth and physical changes on campus as it relates to its four key organizing elements. While there are no requirements for the content, organization, or longevity of an LRDP. The UC Facilities Manual recommends that LRDPs address four primary elements. These elements, amongst other topics, are described in more detail below and addressed throughout the proposed 2021 LRDP.

1. **Land Use:** Identifies the location of proposed functional land use categories and provides general guidance for locating future structures and uses while maintaining adequate flexibility for future decision making.
2. **Open Space:** Identifies the type and character of campus open spaces, including plazas, quads and courtyards, less formal landscaped areas, and undeveloped natural areas and restoration lands.
3. **Mobility:** Shows how people move to and through the campus in the future. All modes of travel are considered.
4. **Infrastructure and Sustainability:** Focuses on the campus systems for water, wastewater treatment, storm drainage, sewers, chilled water and steam, electrical distribution, and communications. The capacity of each utility system to accommodate the growing campus population and development needs are broadly identified.

The narrative which follows is organized by these same four elements, with corresponding descriptions, outlined objectives, and associated policies, which together comprise the physical planning framework for the campus.

The fundamental challenge of the planning process is to identify the optimal location for a balanced expansion of uses, all within existing campus boundaries that builds on the existing campus framework and strengthens the campus' unique character.

The 2021 LRDP reflects extensive input from a broad cross-section of the campus population and the Riverside community. It preserves and respects those elements of campus which contribute to UC Riverside's unique qualities and identity. It supports both improved student success and environmental stewardship through key physical planning objectives that underscore the importance of density, increased on-campus housing, and the integration of multi-modal transportation alternatives. Together, they define a more dynamic future, reflective of a 21st-century campus environment that is engaged and connected with its students, faculty and staff, as well as the surrounding community.



F3.1 LAND USE PLAN

- | | |
|---|---|
| <ul style="list-style-type: none"> 1 Caltrans Yard, not in LRDP planning scope 2 City of Riverside property, not in LRDP planning scope 3 Development of this approximately 3.25-acre site shall be prohibited from developing uses per a Covenant to Restrict Use of Property entered into between the Department of Toxic Substances Control and The Regents of the University of California, in which a deed restriction was filed on July 26, 2006. 4 California Air Resources Board Southern California headquarters | <ul style="list-style-type: none"> ACADEMICS & RESEARCH AGRICULTURAL/CAMPUS RESEARCH LAND-BASED RESEARCH CAMPUS SUPPORT OPEN SPACE RESERVE UCR BOTANIC GARDENS RECREATION & ATHLETICS STUDENT NEIGHBORHOOD CANYON CREST GATEWAY UNIVERSITY AVENUE GATEWAY NON-UCR LAND OF INTEREST |
|---|---|

LAND PLANNING VISION FOR THE LRDP

As UC Riverside positions itself for continued growth to a projected 35,000 students, the campus will need to meet future facility needs for academic instruction and research, student life, and campus administration and support. The land planning vision for the LRDP, generated through more than 50 cumulative LRDP committee meetings and town hall sessions held in 2019, supports the creation of a more dynamic, interactive, and engaged campus environment.

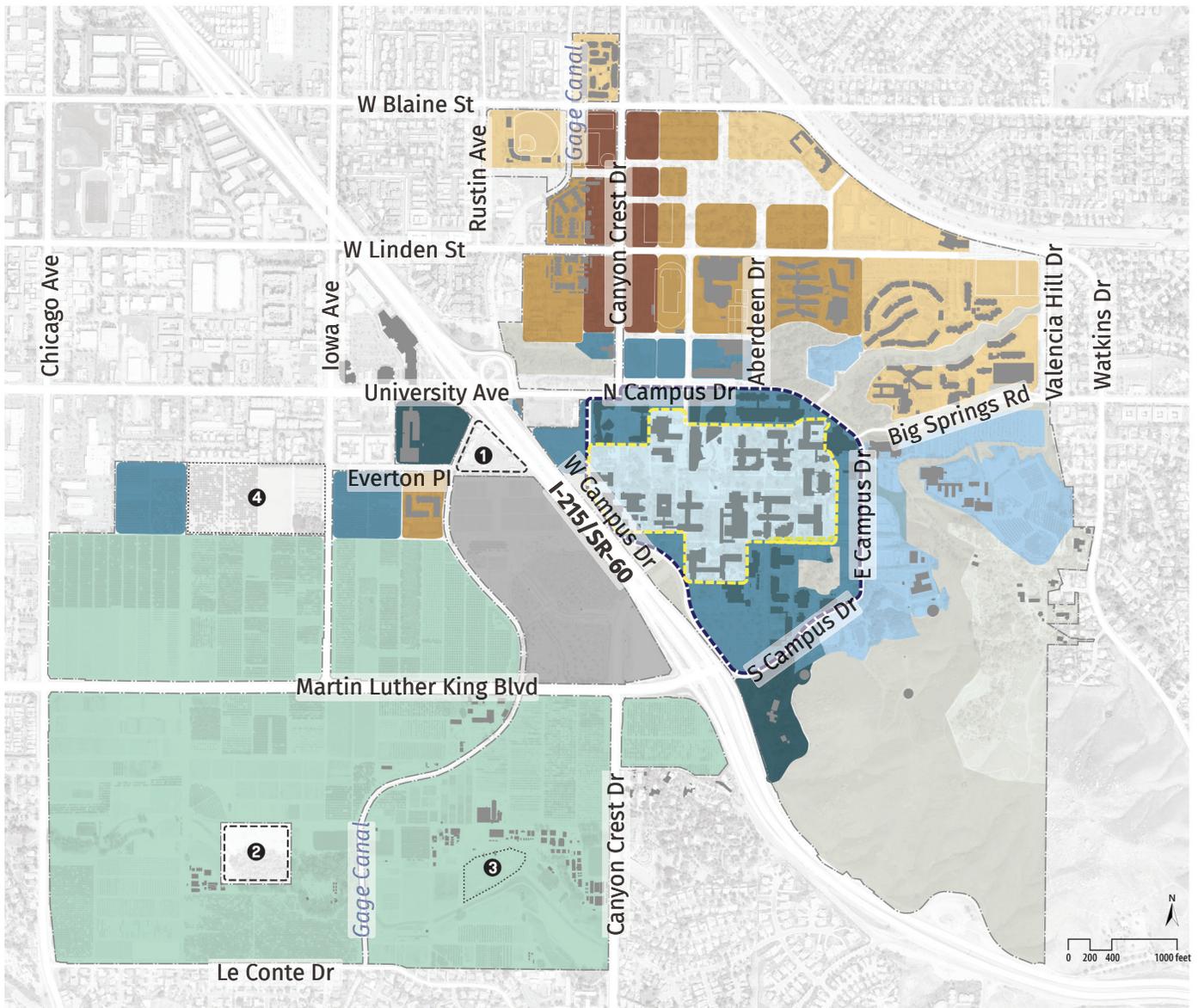
The plan concentrates nearly all future growth and development on East Campus, outside of the Mid-Century Modern Core, which can be defined as the first ring of buildings and open spaces immediately surrounding Carillon Mall. Its character is preserved through the renovation and adaptive reuse of mid-century modern buildings and sensitive infill, as well as through the integration and extension of the campus open space network. The iconic identity of the mid-century centers is strengthened by its edges, where higher density, complementary uses are to be positioned to accommodate continued campus development in the future.

In order to further strengthen the existing campus fabric, the overall organization of land uses remains largely the same as it is, with the plan focusing on infill development strategies in the future. Academics & Research land uses continue to increase in density within the central and southern portions of the East Campus. Student neighborhoods are predominantly located north of North Campus Drive, with supporting amenities

integrated within. Densifying East Campus limits impacts to existing land-based research on West Campus. As a complementary land use on West Campus, the 2021 LRDP also supports the possibility of complementary and innovative research and development partnerships that build upon recent projects, such as CARB.

The 2021 LRDP allows for the careful and deliberate integration of a multitude of program functions across all primary land use designations to enable vibrant student-focused environments. Student neighborhoods will become even more dynamic mixed-use environments that serve both on-campus student residents, and those that live nearby in off-campus housing, student commuters, faculty, staff, and visitors. Increasing access to campus life activities and services proximate to the campus, such as along Canyon Crest Drive, will enhance the sense of community, and support campus mobility and environmental stewardship priorities.

Through the planning process, three new land use designations emerged with the intent of strengthening UC Riverside's internal and external connections and extending the campus identity to its edges. These are the Canyon Crest Gateway, the University Avenue Gateway, and the Agricultural/Campus Research land use designations. Each of these land uses is instrumental in creating this larger vision of a dynamic 21st-century university campus.



F3.2 DENSITY FRAMEWORK

*See Figure 3.1 Land Use Plan for footnotes

	MID-CENTURY MODERN CORE		80' OR 7-8 STORIES (MIXED-USE HOUSING)	Height limits do not include non-habitable components of the structure including but not limited to mechanical equipment, elevator shafts, stairwell for access, parapets, PV, etc. Story limits do not apply to parking structures.
	ACADEMIC CENTER		65' OR 5-6 STORIES (HOUSING)	
	85' OR 5-6 STORIES (ACADEMICS/RESEARCH/ MIXED USE)		55' OR 3-5 STORIES (HOUSING)	
	65' OR 4-5 STORIES (ACADEMICS/RESEARCH)		45' OR 2-3 STORIES (LAND-BASED RESEARCH)	
	55' OR 3-4 STORIES (ACADEMICS/RESEARCH)		55' OR 4-5 STORIES (CAMPUS SUPPORT)	
	IN CHARACTER WITH SURROUNDING BLDGS (ACADEMIC)			



Mixed-use Student Neighborhood
at University of Wisconsin-Madison



Active Street Life
at Arizona State University

CANYON CREST GATEWAY

The section of Canyon Crest Drive between Blaine Street and University Avenue serves as one of the key entry points into campus from the north and the west, and is a primary corridor that bisects the existing student neighborhoods. It is presently flanked by a multitude of land uses, including athletic and recreational fields, parking lots, and low-rise student housing that do not relate to the adjoining street itself. This section of Canyon Crest Drive is wide, busy, and pedestrian-unfriendly, and lacking in shade.

The 2021 LRDP proposes transforming this corridor into a vibrant and welcoming, campus “Main Street,” a common feature on many campuses across the country, with University-oriented high-density, horizontal and vertical mixed-use gateway environments that brings year-round vitality to the area. In addition to student housing, dining,

recreation, and other services, it will also support an array of much needed commercial amenities and services presently unavailable on or in the immediate vicinity of campus.

This section of Canyon Crest Drive is also proposed to be supportive of potential partnerships with the City, agency, and private developers to ensure uses serve the entire community of students, faculty, and staff, as well as nearby residents and campus visitors. It will bring added life to the student neighborhoods and provide a dynamic gateway to the East Campus, even as the roadway continues to serve as an important connector for the neighborhoods north of campus.



Mixed-use Buildings with
First-floor Cafes
at University of Michigan



Transit Hub
at Michigan State University

UNIVERSITY AVENUE GATEWAY

University Avenue serves as the primary gateway into campus from both Downtown Riverside and the I-215/SR-60 freeway. For many visitors and students, this corridor represents their first impression of UC Riverside. This portion of University Avenue is presently lined by low-density non-campus uses to the south, and an attractive, yet underutilized park-like setting on the north along the arroyo from the Box Springs Mountains that extends through campus. As one approaches the campus, the University Avenue corridor terminates unceremoniously into campus at a parking lot, fenced athletic and recreation fields, and the backs of campus buildings that are oftentimes dark and inactive at night.

The 2021 LRDP envisions a dynamic gateway welcoming visitors and daily commuters to a 21st-century campus, flanked by land uses that engage the public and showcase university priorities.

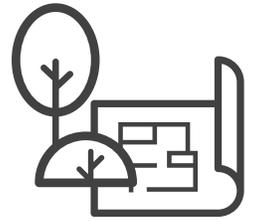
Improvements to the approaching streetscape would extend to the west, embracing campus properties west of the freeway and the City. As one enters campus, University Avenue would be lined by taller buildings and activated into the evenings and on weekends by cafes, restaurants, and multi-purpose venues, such that this area becomes the active point of connection between the Canyon Crest Drive “Main Street” and the University Avenue corridor. UC Riverside will continue to consult with the City to support appropriate redevelopment, both University-related and private, along University Avenue. Taken together, these areas will be instrumental in connecting the campus to the City and the region beyond.



AGRICULTURAL/CAMPUS RESEARCH

The Agricultural/Campus Research land use specifically includes the two land areas that flank the CARB Headquarters to its east and west. These land areas are proposed to be developed in a manner that facilitates interdisciplinary research endeavors, to include land-based research. General academic buildings would generally not be appropriate in these locations.

LAND USE



The 2021 LRDP provides a framework of the land uses, activities, and facilities on campus. The following land use descriptions outline the general allowable uses within each land use category. Predominant land uses are the primary facilities, programs, and/or activities within a given land use category to achieve specific planning objectives. This is not intended to be an exclusive list of uses, and in many instances, additional associated or compatible uses are also allowed within the land use categories.



View of Citrus Drive looking south

LAND USE DESCRIPTIONS

ACADEMICS & RESEARCH

The Academics & Research land use areas are in or adjacent to the core of East Campus, primarily bounded by the campus loop road. This land use designation consists of facilities dedicated to undergraduate and graduate learning and research environments, and daytime student life activities such as the student union or food services.

The predominant Academics & Research uses may include: classrooms; instructional and research laboratories and greenhouses; undergraduate, graduate, and professional schools and associated programs; libraries; advanced scientific research facilities; federal research partnerships; performance and cultural facilities; clinical facilities; and ancillary support facilities, such as general administrative offices, conference rooms, and meeting spaces. Additional uses support core campus student life activities and food services, such as the HUB and The Barn. Secondary permissible uses include parking, utility infrastructure, and other campus support services.



Research citrus trees on West Campus

AGRICULTURAL/CAMPUS RESEARCH

The Agricultural/Campus Research land use is established to enhance and expand external engagement of UC Riverside's research, education, and public service mission by providing a principal place for facilities and activities that support the University and City aspirations to make and showcase UC Riverside as a recognized center for innovation in agricultural sciences, and technology.

Agricultural/Campus Research predominant land uses may include facilities for interdisciplinary research and education; support of land-based research activities; external research partnerships; and public-private innovation partnerships. Secondary permissible uses include parking, open space, utility infrastructure, and other support uses.

LAND-BASED RESEARCH

The Land-based Research land use areas are located on West Campus and retain the existing agricultural land-based teaching and research fields. The predominant Land-based Research uses may include agricultural field research, instructional and research laboratories, greenhouses, and uses supporting agricultural research. Secondary permissible uses may include parking, storage, utility infrastructure, and related support services/facilities.



STUDENT NEIGHBORHOOD

The Student Neighborhood land use areas are generally located within the northern portions of East Campus and encompass primarily non-academic uses that facilitate vibrant undergraduate and graduate student learning experiences outside of the classroom environment.

Student Neighborhood land uses are meant to accommodate a diverse array of uses to ensure that student needs are met in an interactive, mixed-use environment. Predominant uses may include student residences for undergraduate and graduate students, and students with families; student services, meeting and instructional space; food service and retail; appropriately scaled recreation and athletic facilities. Secondary permissible uses may include childcare and pre-schools proximate to family housing; parking primarily for students; and other residential support services, such as facilities services and public safety.



RECREATION & ATHLETICS

The Recreation & Athletics land uses are concentrated in two areas in the northern portion of East Campus and include the SRC, the track facility, tennis courts, and the UCR Baseball Complex (Riverside Sports Complex) on Blaine Street. Additional neighborhood-scale facilities would be interspersed within student neighborhoods, as indicated in the Student Neighborhood land use, to improve student access, and create a more dynamic student experience into the evenings and on weekends.

The predominant Recreation & Athletics uses may include facilities to accommodate intercollegiate athletics and campus recreation, such as large-scale indoor and outdoor athletic and recreation facilities, playfields, and courts. Secondary permissible uses may include parking, food service, administrative areas, office and meeting space, and other supporting uses.

CAMPUS SUPPORT

The Campus Support land areas would be primarily located on the eastern portion of West Campus with a small land use area located in the northeast portion of East Campus. Predominant uses may include general campus support services, such as administrative and institutional support functions, including facilities services, public safety, parking and transportation, service yards, maintenance facilities, trade shops, materials handling and storage inclusive of hazardous materials, shipping and receiving, utility plants and systems, fleet storage, parking, and other support functions.

OPEN SPACE RESERVE

The Open Space Reserve land use designation would recognize, protect, and enhance areas that have ecological or aesthetic value to campus, including those subject to special development constraints due to native or endangered species habitats, steep or unique terrain such as arroyos and riparian corridors, or other natural features.

The predominant Open Space Reserve uses may include designated hillsides, stormwater management infrastructure, habitat restoration and management activities, trails, and minor amenities such as seating and viewing areas, and other features compatible with natural open spaces. Secondary permissible uses may include facilities that support campus open space resources such as maintenance roads, storage structures, and incidental field research facilities.



UCR BOTANIC GARDENS

The UCR Botanic Gardens is in the easternmost portion of East Campus, at the foothills of the Box Springs Mountains, and serves a unique role as a venue for a wide array of teaching, research, and demonstration activities. Approximately one-third of the UCR Botanic Gardens land remains natural, featuring the native habitat of the region.

The predominant UCR Botanic Gardens uses may include demonstration gardens, habitat restoration and management areas, and incidental facilities such as interpretive centers, seating and viewing areas, and other amenities typically compatible with a botanic garden program. Secondary permissible uses may include support facilities for the UCR Botanic Gardens and parking.

CANYON CREST GATEWAY

The Canyon Crest Gateway land use designation is in the northern portion of East Campus, generally bordering Canyon Crest Drive, between Blaine Street to the north and half a block south of West Linden Street. The Canyon Crest Gateway is envisioned as a high-density, horizontal and vertical mixed-use gateway environment that will serve as a campus “Main Street” for the campus population to experience on a regular basis. It would accommodate a variety of student housing needs above an array of student and commercial services that would meet the needs of the campus and the local community. This corridor will continue to serve as a multi-modal arterial, but with an increased focus on pedestrian-oriented uses at the lower levels of mid-rise structures. Parking would be carefully integrated into this area to allow for safe and convenient access from adjacent side streets that supports the desired pedestrian experience along the main street.

The predominant Canyon Crest Gateway uses may include student housing, recreation and athletics facilities, university-oriented services, administrative and support service offices, neighborhood-serving commercial and retail space such as banks, pharmacies, grocery outlets, etc., and restaurants; it would also feature professional services space inclusive of outpatient medical facilities; hotel/conference center(s); alumni center; public safety; and other complementary uses, including affiliated and non-affiliated educational facilities. Such land uses could include a STEM Education Center; however, specific decisions regarding such a development would be made separate from the 2021 LRDP and would undergo their own subsequent entitlement and approval process. Secondary permissible uses may include parking, academic uses, open space, and other support uses, as well as multi-modal transportation support facilities.

PERMITTED USES			LAND ALLOCATIONS (ACRES)		
LAND USE CATEGORY	PREDOMINANT USES MAY INCLUDE	SECONDARY PERMISSIBLE USES MAY INCLUDE	WEST CAMPUS	EAST CAMPUS	TOTAL AREA
Academics & Research	Classrooms; instructional and research laboratories and greenhouses; undergraduate, graduate, and professional schools and associated programs; libraries; advanced scientific research facilities; federal research partnerships; performance and cultural facilities; clinical facilities; and ancillary support facilities, such as general administrative offices, conference rooms, and meeting spaces.	Parking, utility infrastructure, and other campus support services.	0.0	184.4	184.4
Land-Based Research	Agricultural field research, instructional and research laboratories, greenhouses, and uses supporting agricultural research.	Parking, storage, utility infrastructure, and related support services/facilities.	419.3	0.0	419.3
Student Neighborhood	Student residences for undergraduate and graduate students, and students with families; student services, meeting and instructional space; food service and retail; appropriately scaled recreation and athletic facilities.	Childcare and pre-schools proximate to family housing; parking primarily for students; and other residential support services, such as facilities services and public safety.	5.4	136.4	141.8
Recreation & Athletics	Facilities to accommodate intercollegiate athletics and campus recreation, such as large-scale indoor and outdoor athletic and recreation facilities, playfields, and courts.	Parking, food service, administrative areas, office and meeting space, and other supporting uses.	0.0	28.7	28.7
Campus Support	General campus support services, such as administrative and institutional support functions, including facilities services, public safety, parking and transportation, service yards, maintenance facilities, trade shops, materials handling and storage inclusive of hazardous materials, shipping and receiving, utility plants and systems, fleet storage, parking, and other support functions.	N/A	51.0	3.0	54.0

PERMITTED USES			LAND ALLOCATIONS (ACRES)		
LAND USE CATEGORY	PREDOMINANT USES MAY INCLUDE	SECONDARY PERMISSIBLE USES MAY INCLUDE	WEST CAMPUS	EAST CAMPUS	TOTAL AREA
Open Space Reserve	Designated hillsides, stormwater management infrastructure, habitat restoration and management activities, trails, and minor amenities such as seating and viewing areas, and other features compatible with natural open spaces.	Facilities that support campus open space resources such as maintenance roads, storage structures, and incidental field research facilities.	0.0	154.7	154.7
UCR Botanic Gardens	Demonstration gardens, habitat restoration and management, and incidental facilities, such as interpretive centers, seating and viewing areas, and other amenities typically compatible with a botanic garden program.	Support facilities for the UCR Botanic Gardens and parking.	0.0	43.7	43.7
Canyon Crest Gateway	Student housing, recreation and athletics facilities, university-oriented services, administrative and support service offices, neighborhood-serving commercial and retail space such as banks, pharmacies, grocery outlets, etc., and restaurants; also feature professional services space inclusive of outpatient medical facilities; hotel/conference center(s); alumni center; public safety; and other complementary uses, including affiliated and non-affiliated educational facilities.	Parking, academic uses, open space, and other support uses, as well as multi-modal transportation support facilities.	0.0	31.9	31.9
University Avenue Gateway	Academic instruction and research facilities, outpatient medical facilities; hotel/conference center(s), large lecture halls or assembly and exhibition spaces, a visitor's center, food services and cafes, student services, multi-modal transportation support facilities, and other compatible non-UCR uses.	Parking, open space, and other support uses.	8.3	21.3	29.6
Agricultural/Campus Research	Facilities for interdisciplinary research and education; support of land-based research activities; external research partnerships; and public-private innovation partnerships.	Parking, open space, utility infrastructure, and other support uses.	19.4	0.0	19.4
Non-UCR Land of Interest	N/A	N/A	12.8	0.0	12.8
TOTAL ACREAGE			504	604	1108



View above University Avenue looking east towards Box Springs Mountains

UNIVERSITY AVENUE GATEWAY

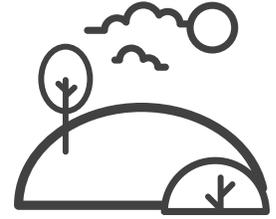
The University Avenue Gateway land use designation begins on the northern portion of West Campus and continues east under the I-215/SR-60 freeway along University Avenue into the core of East Campus. The University Avenue Gateway is envisioned as the campus' primary entryway, connecting the campus to Downtown Riverside and the broader Riverside community. The area is intended to encourage activities that express a welcoming and identifiable approach to campus, create identity, and are active during the day, evening and weekends, with an emphasis on street-oriented interaction and engagement. The University Avenue Gateway is envisioned to include a dense and diverse mix of uses that provide opportunities for greater campus-community interaction, and that collectively reinforce the importance of the area as the terminus of the University Avenue corridor, which connects campus with Downtown Riverside. The predominant University Avenue Gateway uses may include academic instruction and research facilities, outpatient medical facilities; hotel/conference center(s), large lecture halls or assembly and exhibition spaces, a visitor's center, food services and cafes, student services, multi-modal transportation support facilities, and other compatible non-UCR uses. Secondary permissible uses also include parking, open space, and other support uses.

NON-UC RIVERSIDE LAND OF INTEREST

The 2021 LRDP identifies two properties as potential opportunity areas for University-related uses that are not currently owned by UCR but may become available for University use in the future. These are the existing Caltrans Yard at the east end of Everton Place and the City-owned land that is landlocked within West Campus. However, there are currently no specific proposals for these properties.

LAND USE PLANNING OBJECTIVES AND POLICIES:

OBJECTIVE	POLICY
1. Serve as good stewards of limited campus lands and natural resources as UC Riverside continues to grow and develop toward its enrollment goals.	Policy: Promote increased densities on East Campus through increased site coverage and heights of future projects flanking northern and western gateways and campus loop road.
2. Retain existing land-based research operations on West Campus, while balancing the need for innovative partnerships and initiatives.	Policy: Require increased development density on East Campus.
3. Maintain the general height and character of the Mid-Century Modern Core to preserve its unique design legacy in the Mid-Century Modern Core.	<p>Policy: Plan and design future buildings consistent with the existing established heights, building setbacks, and character of the Academic Center.</p> <p>Policy: Retain the Carillon Mall as a major campus mall, respecting its dominant width of approximately 200 feet throughout its length.</p>
4. Generally locate higher density future growth adjacent to and outside of the campus loop road.	Policy: Allow increased heights and increased density on underutilized lands such as surface parking lots and infill areas to meet future needs.
5. Continue to grow on-campus student housing to 40% and increase student life facilities.	Policy: Provide increased housing capacity and student life facilities in existing student neighborhoods in the northern portions of East Campus.
6. Enhance Canyon Crest Drive as a new campus “Main Street” and northern gateway.	Policy: Ensure that all proposed buildings include a mix of active uses that have a street interface.
7. Celebrate the University Avenue corridor as the primary gateway into campus.	Policy: Promote new facilities in this area that serve a broad swath of the campus population, engage the community, and support multi-modal access.
8. Enhance campus edges to promote a welcoming impression to visitors and visually communicate the transition to campus-owned land areas.	Policy: Locate key campus community-related facilities to engage campus edges and enhanced landscape strategies.
9. Develop and maintain current principles and standards on the design of campus buildings and landscapes.	Policy: Provide project designers with a current version of the UCR Physical Design Framework and Campus Construction and Design Standards.



OPEN SPACE

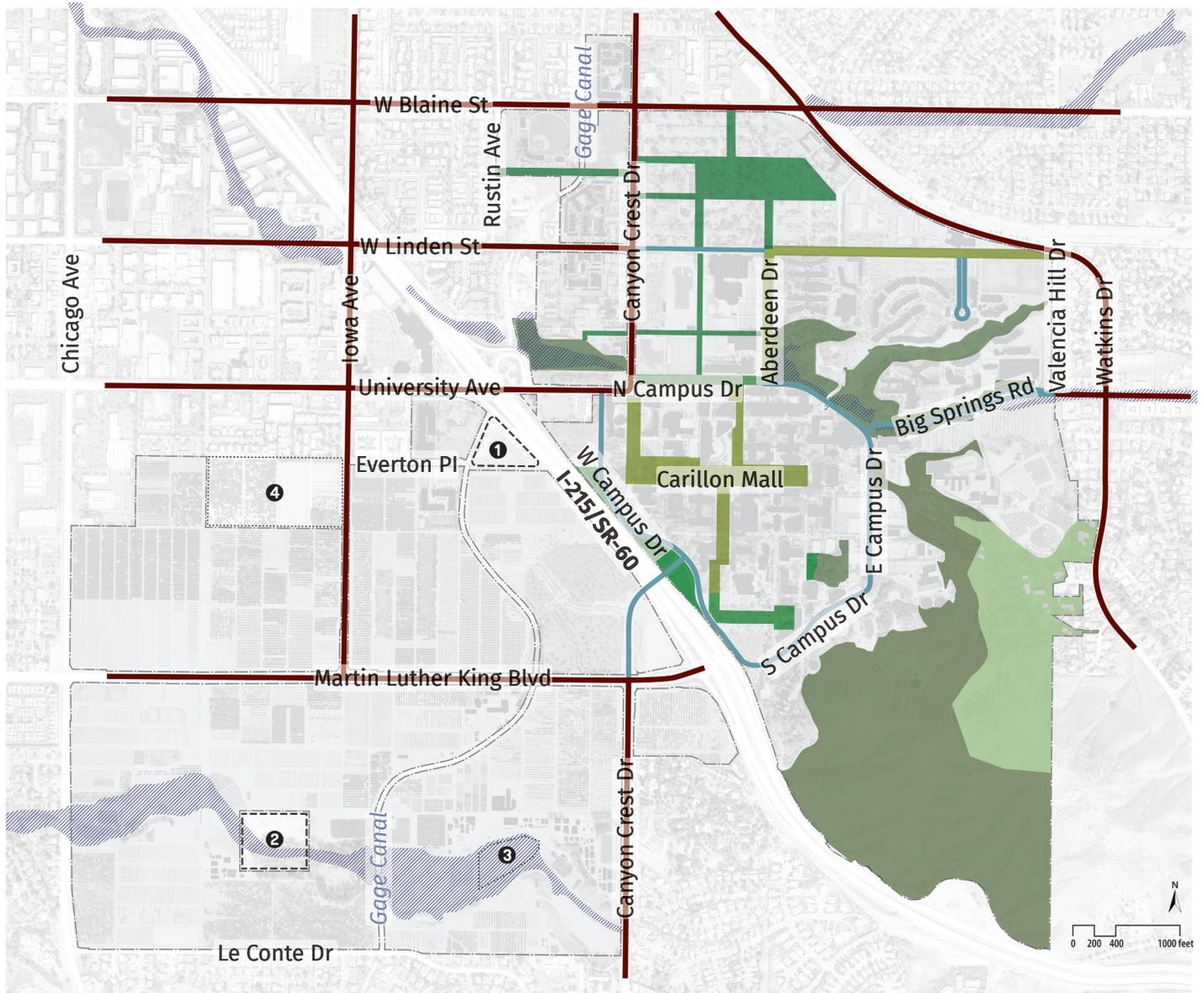
The UC Riverside campus identity is strongly linked to its natural setting, including arroyos descending from the steep hillsides of the Box Spring Mountains above campus, and on-campus hillsides to the southeast. The campus was developed as a green oasis in a semi-arid setting. The University is also proud of its legacy of citrus research and cultivation. Campus growth and redevelopment should strive to respect and integrate the natural beauty and agricultural legacy of the region in an enduring way. The 2021 LRDP supports strengthening and protecting the character of the campus by enhancing connections to its environmental context while improving formal open spaces across campus.

OPEN SPACE FRAMEWORK

The campus open space framework represents the network of green spaces that together contribute to its unique character. This network includes the land use designations of Open Space Reserve and the UCR Botanic Gardens, and the interconnected framework of Primary and Secondary Open Spaces within all of the 2021 LRDP land use categories. Each of these open space designations represents a distinct typology of open space, with each playing a critical role in defining the overall campus organization.

Listed below is a description of the four key typologies of open space:

1. Open Space Reserve is a specific land use designation representing relatively intact natural habitat that contributes to the ecological health of the campus and, in some cases, provides much-needed pathways for stormwater.
2. The UCR Botanic Gardens is another land use designation specifically located on the sloping easternmost portions of East Campus which serves important teaching, research and public service roles, and provides for the enjoyment and appreciation of nature by both the campus and the community.
3. Primary Open Spaces include significant campus malls, major pedestrian corridors, streetscapes, quads, and plazas. They are not defined together as a designated land use but rather exist as a secondary overlay to land use organization.
4. Secondary Open Spaces are equally important but have a different function, primarily focused on minor pedestrian linkages that foster greater movement throughout campus, as well as smaller, more intimate, courtyard spaces or plazas.



F3.3 OPEN SPACE FRAMEWORK

*See Figure 3.1 Land Use Plan for footnotes

- OPEN SPACE RESERVE
 - UCR BOTANIC GARDENS
 - PRIMARY OPEN SPACES
 - PLANNED OPEN SPACE
- PUBLIC ROAD STREETSCAPES
 - CAMPUS ROAD STREETSCAPES
 - 100-YEAR FLOOD PLAIN

FEMA Flood Insurance Rate Map Numbers, all with effective date August 28, 2008:
 06065C0727G (revised August 27, 2010;
 revised February 6, 2019)
 06065C0728G
 06065C0729G

PRIMARY OPEN SPACES

MALLS

Carillon Mall is the primary east-west open space on East Campus. It is defined by the presence of the UCR Bell Tower, and the Rivera Library arcade, two of the most iconic architectural elements on the campus. At its cross axis, Library Mall runs south, and Commons Mall runs north to North Campus Drive. Together, these three malls form the crosshairs of the Mid-Century Modern Core. The Arts Mall further defines East Campus, with a prominent open space positioned north-south at the western terminus of Carillon Mall.

The 2021 LRDP proposes preserving and enhancing these iconic form-giving open spaces and the architecturally significant mid-century modern buildings that frame them. This plan also presents a future vision that these place-making elements be extended outward towards the perimeter of the campus to connect the Academic Center to the edges of East Campus.

This plan also proposes the creation of Citrus Mall extending west from Anderson Hall to a future extension of the Library Mall through the University Theater Plaza and the Olmsted arches. It also proposes continued development and extension of Recreation Mall as the new North District neighborhood is built out. Together, these open space additions would increase landscape and pedestrian connectivity as future growth increases across East Campus.

Extending the existing malls outside of the Academic Center across Campus Drive to accommodate both northern and southern development, presents a host of opportunities for improved wayfinding, enhanced safety, and promoting multi-modal mobility.

CAMPUS STREETS

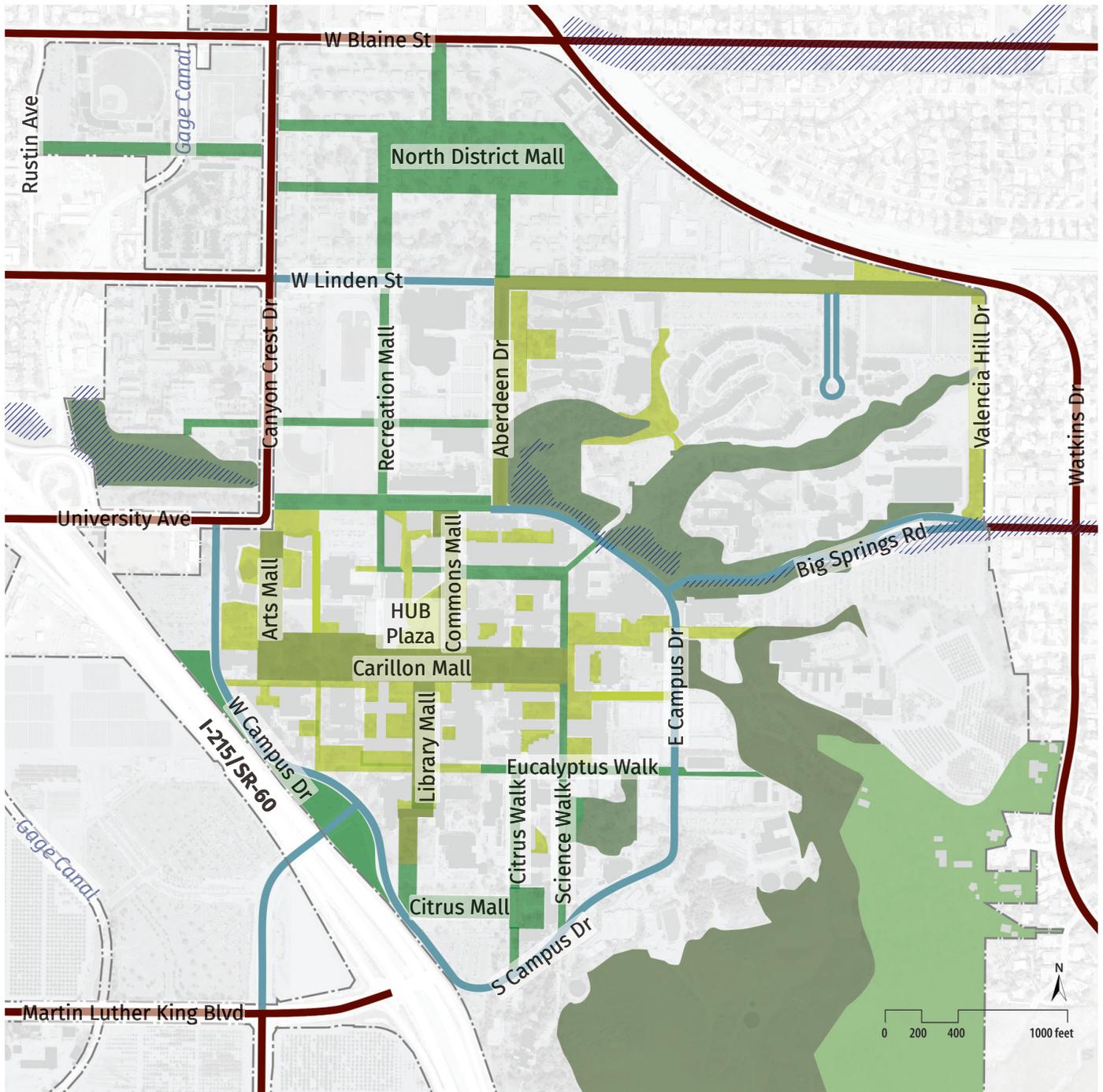
The character, quality, and functionality of campus streetscapes become increasingly important as campuses grow denser in their development patterns, and the volumes of the different modes of conveyance both to and within campus correspondingly increase. Well-planned streets are also critical to wayfinding as the campus planning framework becomes more complex as it grows.

The 2021 LRDP proposes the following campus streets be part of the primary open space framework, even as the campus expands.

Aberdeen Drive and West Linden Street, which serve as primary pathways for vehicular and pedestrian movement through East Campus, are important streetscapes that presently define the character of the campus. The character of these open spaces should be contextually extended into newer development whenever possible to enable continuity of both visual and pedestrian connectivity.

Canyon Crest Drive and University Avenue are new campus districts intended to become vibrant pedestrian environments and vehicular gateways. These corridors have the potential to provide a mix of public spaces in juxtaposition to denser buildings, with ground-level programs that engage the street and infuse activity through the week and into the weekends. Planned and implemented thoughtfully, these environments can improve safety, convenience, human comfort, character, and connection to the community.

Additionally, North, East, South, and West Campus Drive, which collectively form the campus loop road will gradually transform from defining the edge of the campus to becoming the seam that ties together the Academic Center with the expanding perimeter of instructional and research facilities, serving as a front door for new projects along its flanks. Taken together with necessary safety and circulation improvements, the campus loop road will significantly transform, with sections potentially limited to service and emergency vehicle access.



F3.4 OPEN SPACE FRAMEWORK - EAST CAMPUS DETAIL

*See Figure 3.1 Land Use Plan for footnotes

- | | | | |
|---|-----------------------|---|--------------------------|
|  | OPEN SPACE RESERVE |  | PUBLIC ROAD STREETSCAPES |
|  | UCR BOTANIC GARDENS |  | CAMPUS ROAD STREETSCAPES |
|  | PRIMARY OPEN SPACES |  | 100-YEAR FLOOD PLAIN |
|  | SECONDARY OPEN SPACES | | |
|  | PLANNED OPEN SPACE | | |

FEMA Flood Insurance Rate Map Numbers, all with effective date August 28, 2008:
 06065C0727G (revised August 27, 2010;
 revised February 6, 2019)
 06065C0728G
 06065C0729G

SECONDARY OPEN SPACES

MINOR MALLS AND CORRIDORS

Several campus corridors serve as secondary, yet increasingly important places of identity and points of entry for campus buildings. These serve as the connective tissue that links primary open spaces (such as major malls) to smaller courtyards and plazas. In some instances, these secondary corridors support campus service and emergency circulation systems, while also holding the potential to accommodate pedestrian and bicycle routes as the campus increases its population and mobility needs and modality options diversify.

When effectively integrated, this secondary open space network provides pedestrian connectivity and interesting gathering spaces throughout campus. The existing campus open space framework benefits from both prominent, primary open spaces, as well as these more discreet secondary open spaces to create a rich tapestry of outdoor experiences for the campus population, and efficient access for service and emergency vehicles.

Eucalyptus Mall, connecting The Barn to the UCR Botanic Gardens, and the North Campus Drive extension of the University Avenue corridor are important examples of the careful framing of views to the Box Springs Mountains. Opportunities for extensions of key corridors should be pursued when notable gaps exist. These include the development of the future Science Walk corridor which will create a pedestrian-focused connection between multiple research buildings in the southeast quadrant of the campus and connect between South Campus Drive and Eucalyptus Drive. New corridors should continue in a similar style to existing ones and be positioned to

maximize use. As East Campus continues to develop, these connections will be critical to provide appropriate connectivity back to the Academic Center and help to break up larger land areas into smaller, legible units.

The North District is conceptually organized around a strong, east-west open space that extends the axis, south of the existing athletic and recreational fields, east from Canyon Crest Drive, and also capturing views of the Box Springs Mountains. Activating this key pathway with entries, plazas and recreation spaces would connect the Canyon Crest Gateway through the North District to a potential new train platform on Watkins Drive, also serving as a pedestrian alternative to West Linden Street or Blaine Street, which will see increased traffic as the campus grows.

The North District includes opportunities to extend connections and capture additional views. These include the extension of Recreation Mall and Aberdeen Drive, as well as new pathways, north-south through the development, aligning building entries and active ground-level programming in the development along these paths. Organizing active ground-level uses to engage the street along Canyon Crest Drive will energize the northern gateway and frame northwest views toward Mount Baldy. Together, these planning proposals enhance the character of this district and connect it to the campus and its larger context.



Highlander Union Building outdoor plaza

PLAZAS-COURTYARDS-ARCADES

These gathering places provide a more intimate level of community-scale, providing small gathering places to lunch or study, teach or simply relax. Outdoor student gathering spaces throughout campus such as the Physics Courtyard, HUB Plaza, the courtyards in front of Orbach Library (Science Library), and in the Humanities & Social Sciences Building serve as some of the prominent examples of these useful open space typologies that offer a range of both passive and active places and support different scales of activities.

Shaded, planted courtyards, and arcades can also be found within many buildings and building complexes across campus, providing welcome relief from the summer heat. As development continues, emphasis on preserving and activating existing spaces, integrating new outdoor spaces, and providing shaded connections in the form of tree-lined pathways or arcades integrated into buildings is proposed and will be critical to creating positive indoor-outdoor relationships. This is especially important given future buildings on campus will be larger in both footprint and height, and the need for informal outdoor gathering and event spaces will continue to grow, as the campus population increases.

OPEN SPACE RESERVE

The Box Springs Mountains with their natural, steep hillsides embrace and define the southern portion of East Campus. The 2021 LRDP proposes that this area be preserved in its natural state, protected from future development, and possibly used for non-intrusive ecological research, with exceptions only for required access to maintain existing facilities and infrastructure.

Arroyos are natural landscapes that lie within the interior portions of the campus and are important for providing natural landscape and stormwater conveyance. They also enhance campus character in areas such as Glen

Mor Residence Hall and south of Aberdeen-Inverness Residence Hall where they have been integrated into the fabric of the campus. These spaces can be improved to advance sustainability initiatives.

The 2021 LRDP also proposes buffer landscape areas on the west edge of East Campus along the freeway. These areas are intended to provide an appropriate setback from the I-215/SR-60 freeway to the campus, as well as to provide important stormwater and ecological functions.



UCR BOTANIC GARDENS

The UCR Botanic Gardens, located on the east edge of East Campus, is an approximately 40-acre living plant museum with more than 3,500 plant species and thousands of specimens from around the world. Approximately one-third of its 40 acres remain in a naturalistic state of native plant communities. The 2021 LRDP assumes that the UCR Botanic Gardens will continue to operate in its current capacity in the future, with potential enhancements. An opportunity exists to broaden its presence through the addition of an interpretive center to serve students, faculty, staff, and the larger Riverside community.



LANDSCAPES OF SIGNIFICANCE

The 2021 LRDP identifies preservation of the university-owned land areas of the hills to the east as both a visual backdrop, research resource, and passive recreation amenity. Other landscapes of significance on campus include West Linden Street, east of Canyon Crest Drive, that is lined with tall Mexican fan palms (believed to be associated with an early ranch) that provide continued connectivity to the region's agrarian roots.

More closely related to the development of the campus are the corridors of Aberdeen Drive and West Campus Drive, by the noted mid-century modern landscape architect, Ruth Shellhorn, who helped define a modernist "Southern California Look" for outdoor environments. Working in concert with George Russell Vernon, the physical planning framework they together established for the campus center organized around the Carillon Mall continues to define the UC Riverside campus and is an important point of reference for future development.





VIEWSHEDS OF SIGNIFICANCE

The character of the UC Riverside campus is defined not only by its elegant facilities and open space framework, but also by its spectacular views unique to this portion of Inland Southern California. The changing topography both directly adjacent to campus and in the distance affords a beautiful natural setting for the campus. As the campus grows in density, these visual connections should continue to shape the campus' physical planning framework.

The Box Springs Mountains form the eastern backdrop to the UC Riverside campus. Views of this mountain range are easily seen from many locations within the Academic Center on clear days. Key corridors in portions of the East Campus also provide dramatic views of the Mount Baldy, the San Gabriel and the San Bernardino Mountains. These areas should be considered in the physical planning of new developments through the framing of views, where appropriate, as they connect the campus to the larger context of the region.

OPEN SPACE PLANNING OBJECTIVES AND POLICIES:

OBJECTIVE

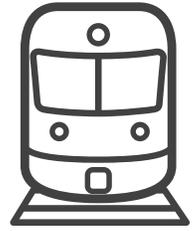
POLICY

- | | |
|--|--|
| 1. Preserve and enhance major open spaces (malls, courtyards, streetscapes, quads, and pedestrian corridors) which contribute to the unique character and beauty of UC Riverside. | Policy: Limit future campus development from intruding into major open spaces as defined by the Open Space Framework Diagram, while allowing for supporting elements like individual project site design, landscaping, signage, etc., but ensuring those are sensitively integrated. |
| 2. Balance open spaces with the built environment throughout all areas of campus and provide opportunities for indoor-outdoor relationships between campus facilities and the landscape. | Policy: Encourage new facility construction and renovations to activate first floors to allow for increased access and integration with the natural campus environment. |
| 3. Provide opportunities to engage with informal, naturalized landscapes with a special focus on internal campus Open Space Reserve areas and the UCR Botanic Gardens. | Policy: Ensure safe, accessible entry points to informal landscape areas for passive recreational opportunities to benefit the entire campus population. |
| 4. Consider views to Box Springs Mountains and the San Gabriel Mountains at the terminus of view corridors and from primary campus open spaces to the extent feasible. | Policy: Consider the preservation of terminal views from locations accessible to the general public along public corridors and panoramic views from primary open spaces in the location and configuration of new facilities or the introduction of new landscape features. |
| 5. Demonstrate an increased commitment to preservation and enhancement of the natural environment through the design and placement of future campus landscapes. | <p>Policy: Consider the ecological and potential stormwater management functions of proposed landscapes. Utilize climate-appropriate, native/ drought-tolerant, and/or low maintenance landscape materials outside of signature campus open spaces.</p> <p>Policy: Protect the steep and natural hillsides on the southeast campus designated as an Open Space Reserve, to protect cultural resources, wildlife habitat, and provide a visual backdrop to the campus, and protect against erosion.</p> <p>Policy: In Open Space Reserve areas where arroyos and other natural features exist, preserve wherever feasible existing landforms, native plant materials, and trees. Where appropriate, restore habitat values.</p> |

MOBILITY

The 2021 LRDP envisions a 21st-century multi-modal strategy for campus mobility. Rather than focusing only on vehicular commuter traffic, the plan integrates emerging forms of access and movement to and through the campus, including ride-sharing, new urban bikeways, the potential for dedicated bus lanes along primary routes to campus, and the possible addition of a Metrolink station on Watkins Drive.

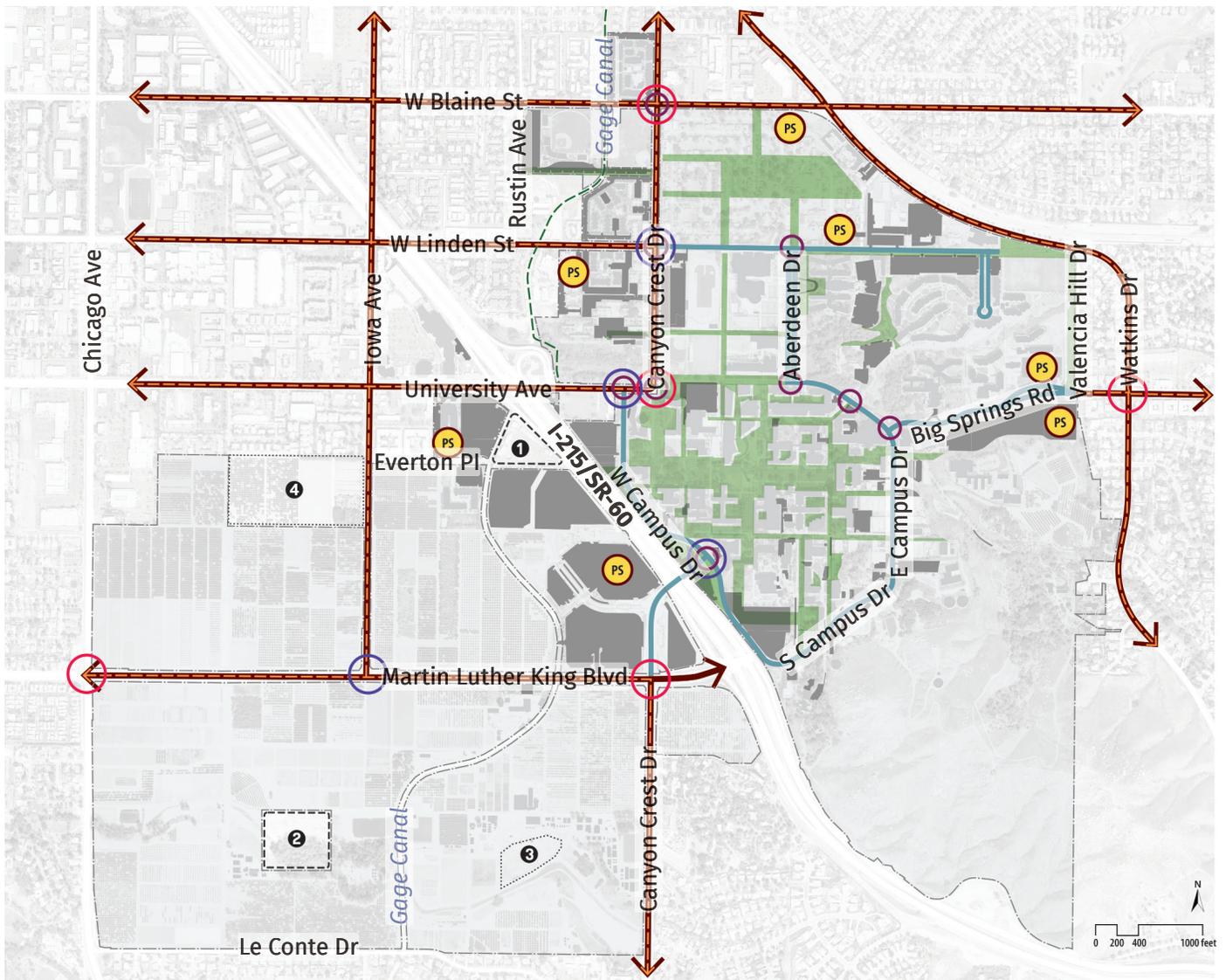
Based on the 2021 LRDP housing objectives, UCR plans for 40% of its projected 35,000 students to live on campus. By increasing the number of students in the campus



residence program, the 2021 LRDP will significantly reduce the percentage of student commuters and the associated parking demand.

The University’s projected growth underscores the need for an integrated transportation strategy that promotes the use of public transportation, ride-sharing supported by safe and convenient access points, autonomous vehicle integration, walking, and biking, thus reducing the proportional demand for parking development as the campus population increases.





F3.5 CIRCULATION FRAMEWORK

*See Figure 3.1 Land Use Plan for footnotes

- PUBLIC ROAD
- CAMPUS ROAD
- POTENTIAL PARKING STRUCTURE LOCATIONS
- SURFACE PARKING LOT
- OPEN SPACE FRAMEWORK
- OFF-CAMPUS BIKE LANE
- OFF-CAMPUS MULTI-MODAL TRAIL
- PEDESTRIAN NODE
- GATEWAYS
- ENTRANCES

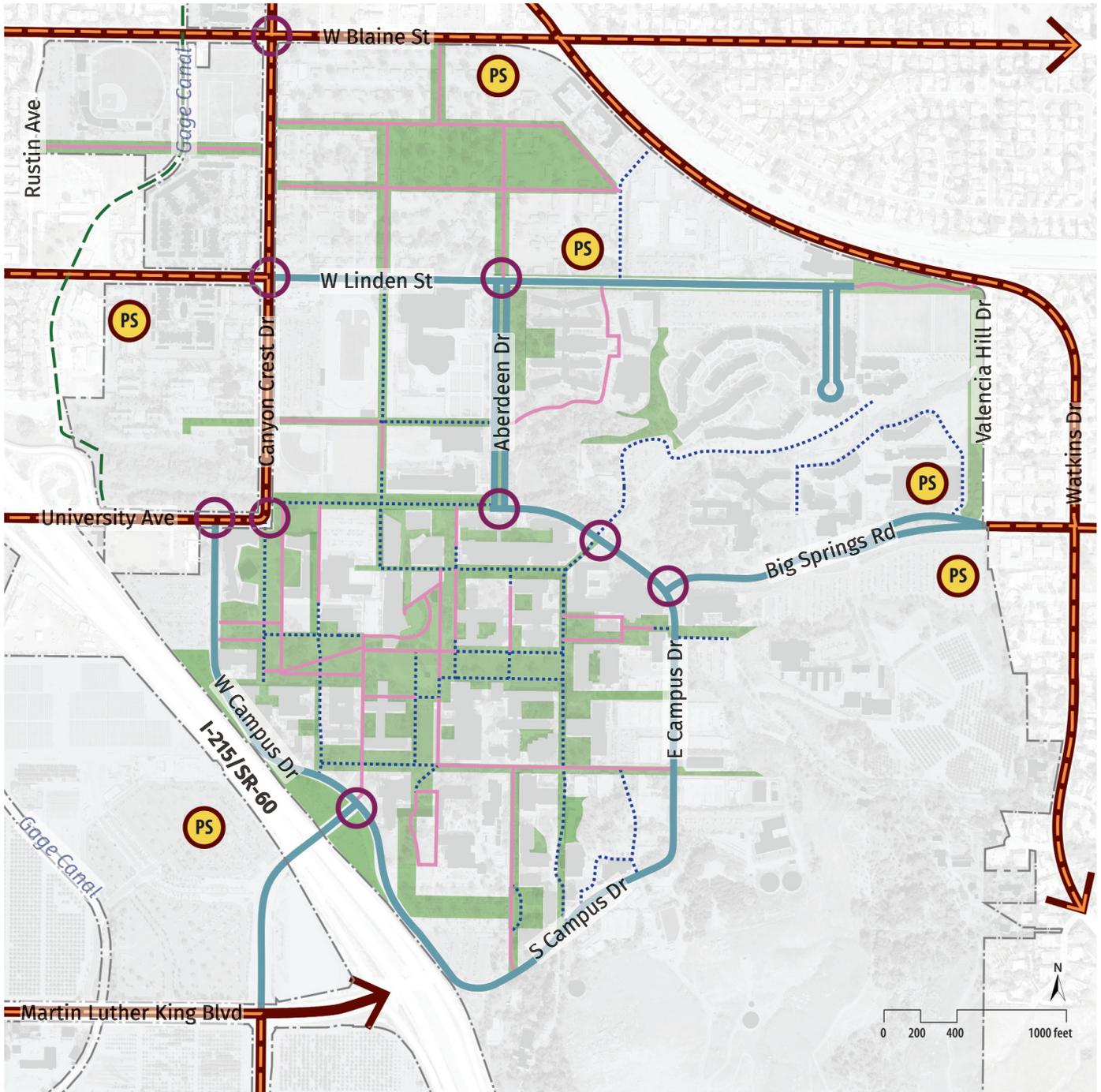
ACCESS

Local and regional commuters approach the campus from north and south via three interchanges along the I-215/SR-60 freeway, with major east-west arterials that also connect the campus to Downtown Riverside and regional transit options. Additional access is provided from the east via Watkins Drive and Big Springs Road. The campus road network integrates well with the City's street network.

As the University population increases and its physical footprint increases in density to the north with the development of the North District for student housing, mixed-use development along Canyon Crest Drive, and densification of the Academic Center itself, access to campus may shift somewhat northward making the Blaine Street/3rd Street interchange more critical to campus. Concurrently, the projected focus of the City's Innovation District north and west of campus will bring higher densities and a mix of different land uses, further increasing the importance of this interchange's functional utility and character as a civic and campus gateway. In this context, the 2021 LRDP plans for the intersection of Blaine Street and Canyon Crest Drive to become the north gateway to campus.

Riverside Transit Agency (RTA) serves the campus well with six bus routes, including rapid-transit service to Corona and Perris. The University has partnered with RTA to subsidize bus use for faculty, staff, and students through the UPASS program. Students, staff, and faculty can ride any RTA fixed route for free. Transit ridership has increased five-fold since the UPASS program began in 2007, from 100,000 rides in the first year to approximately 600,000 rides between fall 2018 to fall 2019. In acknowledgment of current successes, and as part of a comprehensive strategy to reduce the number of single-occupant vehicles coming to campus, the University will continue to partner with the City and RTA to address constraints and expand transit access for its students, faculty, and staff.

Regional mass transit exists in the form of rail connectivity at Downtown Riverside and Hunter Park stations, 2.8 miles and 1.8 miles away from campus, respectively. RTA buses provide connectivity between campus and these train stations at this time. As the opportunities present themselves, the University will also advocate for access to regional mass transit closer to campus, such as the train platform along Watkins Drive previously proposed by the Riverside County Transportation Commission (RCTC). Such efforts will enhance the campus' accessibility from the larger Southern California region and also connect it to other institutions of research and learning.



F3.6 CIRCULATION FRAMEWORK - EAST CAMPUS DETAIL

*See Figure 3.1 Land Use Plan for footnotes

-  PUBLIC ROAD
-  CAMPUS ROAD
-  POTENTIAL PARKING STRUCTURE LOCATIONS
-  MANAGED ACCESS ROUTE (PEDESTRIANS, BICYCLES, SERVICE, EMERGENCY)
-  PRIMARY PEDESTRIAN ROUTE
-  OFF-CAMPUS BIKE LANE
-  OFF-CAMPUS MULTI-MODAL TRAIL
-  CAMPUS OPEN SPACE
-  PEDESTRIAN NODE

GATEWAYS AND ENTRANCES

The four principal gateways to the UC Riverside campus are all in need of aesthetic, functional, and safety improvements. Investment in these gateways should enhance campus identity, as well as support multi-modal access in line with the campus' balanced approach to mobility.

The University Avenue interchange to the I-215/SR-60 freeway provides the most prominent identity and direct entry point to the campus. University Avenue itself is the principal civic connector between Downtown Riverside and the Academic Center, which lies at its eastern terminus. This point of connection requires a more robust and University-driven character and identity and needs significant improvement in both its function, legibility, and potential as the symbolic gateway to UC Riverside.

Secondary gateways also occur at the Canyon Crest Drive (north of University Avenue). Canyon Crest Drive is a busy campus edge street. RTA buses presently stage along its west curb, immediately north of the Alumni & Visitors Center. Low-rise apartment complexes along its west edge (privately developed) are now University-owned and provide housing to UC Riverside students, and students with families. A large number of the University's students also live in privately-owned apartment complexes, and in the neighborhoods to the north and west of campus. Together, this population comprises several thousand

students who come to campus by foot, bicycle, transit, or other micro-mobility modes, enlivening the section of the street between Blaine Street and University Avenue. Furthermore, the Blaine Street affords the campus community freeway access at the I-215/SR-60 ramps.

The Martin Luther King Boulevard intersection, as well as the Canyon Crest Drive (south of University Avenue section), connects the campus to neighborhoods to the freeway at the Martin Luther King Boulevard interchange to the I-215/SR-60 freeway and provides a direct connection into the campus for students, faculty, and staff who live in the apartment complexes and neighborhoods south of campus.

Additionally, the Big Springs Road/Watkins Drive intersection affords the campus an east entrance that is primarily used by UCR students, faculty, staff and Riverside residents to access the campus. In recognition of this traffic, the University is planning for an approximately 1,000-car parking structure to capture the increasing number of vehicles that comes to campus even when parking demand is offset by the significant increase in on-campus housing.

CAMPUS CIRCULATION

Loop Road: The campus loop road distributes vehicles to the perimeter of the Academic Center from the various gateways and provides service and emergency vehicle access to a variety of mixed-mode secondary pathways within and adjacent to the Academic Center. As the campus consolidates surface parking into structures, new academic development along this perimeter will transform both the character and function of the campus loop road. The 2021 LRDP proposes that sections of the loop road will be improved incrementally as new buildings are built alongside the road; existing bicycle lanes will be widened, while auto travel lanes will be narrowed to slow traffic; and space for shade trees will be added to shade the sidewalk and roadway and buffer pedestrians from faster traffic.

Secondary Streets: Under the 2021 LRDP, the campus network of secondary streets and access pathways will also extend as the campus develops. As the opportunities present themselves, traffic within sections of the campus loop road and internal campus streets including Eucalyptus Drive, Citrus Drive, and North Campus Drive will be transformed to pedestrian-priority routes and limited to service and emergency access only. Furthermore, the 2021 LRDP plans for the establishment of University policies to improve pedestrian safety in highly congested areas of the campus pedestrian circulation network.

Emergency and Service pathways within the campus will need to accommodate the use of these pathways by pedestrians and cyclists, as these will be their primary daily use, which will increase as the campus population grows. As such, the location and screening of service docks and trash collection areas will need to be carefully considered.

Bicycles will continue to become a more frequently used form of mobility as student housing on campus increases. To this end, the University will continue to work with the City and University advocates to improve the quality and functionality of an integrated bicycle path network that connects within the campus and to the wider community beyond.

Pedestrians will continue to be the primary users of the internal campus circulation network. The 2021 LRDP promotes continued investment in improving the quality, safety, and character of the pedestrian experience and ensuring it is developed with the principle of universal access in mind. Improving pedestrian comfort in Riverside's sunny and hot climate should be achieved through arcades and shading systems associated with building projects, and through careful attention to shade tree planting along major routes.

CAMPUS PARKING

As of Fall 2018, UC Riverside had approximately 9,600 parking spaces serving its faculty, staff, graduate students, undergraduate commuter students, on-campus residents, as well as for service and delivery vehicles, and campus visitors. Most of the campus parking facilities are in surface parking lots equating to approximately 85 acres, the majority of which are also considered future development sites.

The University actively manages parking demand through a tiered parking permit system in which users purchase permits to access various parking facilities based on their affiliation with the campus. As a result, the increase in the number of parking spaces on campus has been minimal, even as UC Riverside has seen significant growth in faculty, staff, and students.

The University typically experiences peak parking demand in the first few weeks of the fall quarter. Based on past observations, historical parking data suggests that the campus' parking inventory has been able to accommodate 86% of this peak demand. The shortfall has typically been addressed through interim strategies including utilizing available capacity at the Hunter Park Metrolink Station and temporary leases of parking capacity in private ownership within reasonable proximity of the campus, and coordination with RTA to improve transit access and increase ridership.

As the campus population grows, and approximately 40% of the student population live on-campus, the 2021 LRDP will continue with past practices to relocate parking from central locations to more peripheral sites to make way for the highest and best use of land—campus buildings and support facilities. The relocation of parking to campus edges prioritizes active transportation modes in the Academic Center by creating better access and

pedestrian-oriented circulation. The changes in parking distribution will aim to reduce vehicular traffic to create a safer and more enjoyable environment for cyclists and pedestrians in the Academic Center.

While the campus is prioritizing and promoting non-vehicular access, the need to add parking capacity to meet the needs of a growing faculty, staff, and especially commuting student population will remain. Furthermore, projected campus growth will result in the elimination of several surface parking lots in the Academic Center. To replace the eliminated parking spaces and meet projected demand, new parking structures will be needed. The parking structure on Big Springs Road is the first of up to three parking structures the University projects in response to continued growth in campus population. The 2021 LRDP projects that campus growth would create a net new demand of approximately 3,100 parking spaces on campus for a total projected capacity of approximately 12,700 spaces which results in a per capita reduction of parking spaces for both students and staff when compared to existing conditions.



Lot 13 Parking Structure Site

INTEGRATED TRANSPORTATION STRATEGIES

The University's projected growth also underscores the need for an integrated transportation and parking system that promotes the use of transit, walking, and biking. This effort extends long-standing UC Riverside policies and programs that have reduced dependence on personal automobiles since the early 1990s. Such integrated transportation strategies will reduce GHG emissions, air pollutant emissions, and vehicle miles traveled (VMT), and further UC Riverside's goals related to environmental stewardship. Mobility strategies will also improve safety by reducing conflicts between vehicles, bicycle riders, and pedestrians.

Housing Strategy: A third of UC Riverside students are estimated to reside in the areas surrounding the campus; it is estimated that on average 40% of the campus population travels to campus by modes other than single-occupant vehicles or tele-commutes. As the campus expands student housing on campus over the time frame of this plan, this percentage would likely increase at least by 10% to 13%. This group is an important component and beneficiary of UC Riverside's efforts to promote alternative transportation. Trips that originate close to the campus are much more likely to be made by alternative modes of transportation than trips originating further away. Proximity to campus makes alternative transportation much more attractive and helps to achieve the University's overall goal to reduce single-occupant vehicle trips. In addition, students residing in on-campus housing or close by can travel exclusively by walking, biking, or using other non-motorized modes of travel whether going to class, or social and recreational activities on campus.



Alternative Transportation: UC Riverside will also continue to provide alternative transportation incentives to employees to use shared-ride strategies such as carpooling and vanpooling. Given these investments by UC Riverside to encourage transit and ride-sharing services, average vehicle ridership (AVR) has increased from approximately 1.36 to 1.57 occupants per vehicle over the last 15 years, even as its population has grown¹.

Transportation Demand Management (TDM) Programs at UC Riverside, such as the highly successful UPASS program, will continue to further encourage the use of public transit, ride-sharing, vanpooling, cycling, and walking to campus. These programs reduce the demand for parking and vehicle trips to campus. TDM programs include multi-pronged efforts such as marketing, incentives, expanded vanpool offerings, on- and near-campus housing amenities, parking pricing, and more.

¹ UCR Transportation and Parking Services internal analysis, October 2019.

MOBILITY PLANNING OBJECTIVES AND POLICIES

OBJECTIVE

POLICY

1. Reduce future vehicular traffic, parking demand, and GHG emissions, by increasing student housing on campus up to 40% of the projected enrollment in 2035.

Policy: Continue to grow and support on-campus residency by focusing on more affordable student housing options, as well as the capacity for returning students (upperclassmen) and graduate students.

Policy: Promote public transit as a convenient and preferred mode of commuting to campus and connecting campus residents to the community and regional destinations.

Policy: Develop the University Avenue and Canyon Crest Drive Gateway streetscapes to support increased use and functional efficiency of the RTA system, improved clarity of drop-off and pick-up locations for ride-sharing services, reduced conflict, and improved safety for cyclists, pedestrians, and emerging micro-mobility² solutions in these increasingly busy mixed-mode circulation areas.

Policy: Improve access to public transit on campus by providing connectivity to access points via pathways or shuttles, as well as comfortable waiting facilities, proximate to commuter related services, where appropriate.

Policy: Advocate and support the development of a Metrolink train platform along Watkins Drive adjacent to campus to provide direct access and significantly reduce commute times. Consider dedicated vanpools or shuttles to nearby stations in the interim.

2 Micro-mobility is a category of modes of transport that are provided by very light vehicles such as electric scooters, electric skateboards, shared bicycles and electric pedal assisted bicycles. The primary condition for inclusion in the category is a gross vehicle weight of less than 500 kg.

OBJECTIVE**POLICY**

2. Invest in infrastructure to increase bicycle use and support other active transportation modes to integrate desired routes with the campus' and City's circulation framework.

Policy: Support and facilitate City-led initiatives to extend bikeways to campus from every direction, including routes proposed along Canyon Crest Drive, Martin Luther King Boulevard, and the Gage Canal.

Policy: Develop wayfinding systems to interconnect preferred bicycle routes and invest in safe and secure pathways along all bicycle routes.

Policy: Provide adequate support amenities to facilitate and encourage the use of bicycles and other alternative transportation modes.

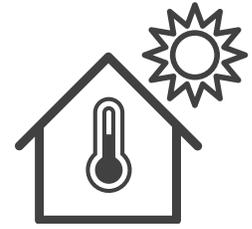
Policy: Develop a comprehensive improvement plan for Campus Drive to improve function, safety and utility for each mode of travel, as incremental growth occurs.

-
3. Emphasize safe and pleasing passage for pedestrians and bicycle riders through the careful, continued development and integration of the campus' multi-modal circulation framework and its extensions into the immediate community.

Policy: Identify and address gaps within the existing non-motorized circulation network, both on-campus and within the adjacent community.

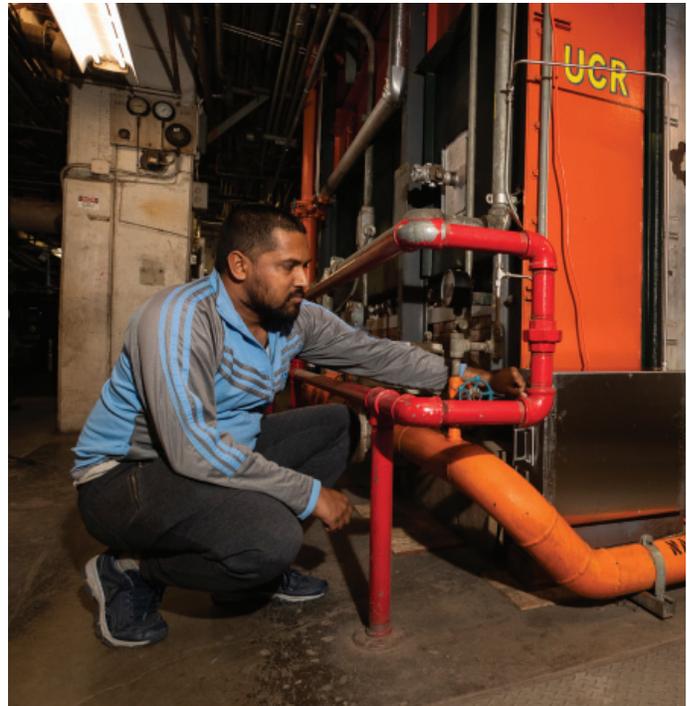
Policy: Implement University policies to improve pedestrian safety and encourage social interaction in zones of high pedestrian activity.

INFRASTRUCTURE AND SUSTAINABILITY



The infrastructure and Sustainability section describes the existing campus infrastructure system, the improvements, efficiencies and expansion needed to accommodate projected growth on campus. It also articulates certain strategies to be employed to improve the sustainability and resilience of this infrastructure network, including the sustainable practices policies that will guide renovations, future development, infrastructure modernizations, and ongoing operations related to waste management, procurement, utility purchase contracts, on-site energy generation, and water sourcing.

The University maintains and operates a complex network of infrastructure in support of its academic and research mission and the campus’ built environment and operations. The two key elements of the infrastructure system are energy and water. Together, these two elements offer the most important opportunities for resource stewardship. To this end, the University will continue to build on its commitments to conservation as it maintains, operates, and expands its infrastructure in support of its education, research, and public service objectives. As expansion and renewal occur to support the development, energy and water systems present significant opportunities for resource conservation, reduced consumption and GHG emissions, and restoration of the natural campus hydrology where possible.



CAMPUS UTILITY INFRASTRUCTURE

The 2021 LRDP proposes a land use plan that leverages existing infrastructure in the Academic Center to support greater density of campus development. To this end, the University strives to ensure infrastructure services and demands are regularly monitored and expanded as needed to meet applicable planned campus development. A high-level understanding of the following key infrastructure systems, and associated objectives and policies are included in the 2021 LRDP.



ELECTRICITY

The University purchases electricity for campus operations from Riverside Public Utilities (RPU)³ and through a power purchase agreement for on-site generation from the campus' solar infrastructure which on average produce approximately 11.6 megawatt-hours (MWh) of electricity. Approximately 34% of RPU's power was produced from renewable energy sources in 2018.

This purchased electricity is used to provide power for space cooling, heating and ventilation, lighting, research activities, office equipment, refrigeration, etc. by means of an extensive distribution network. The campus is mostly served by a 12.47 kilovolt (kV) network, following the conversion of many sections of a legacy 4.16kV network. As the campus has continued to grow, the power distribution infrastructure has been the main focus point for future resiliency, reliability and redundancy. System capacity has reduced over time due to the continual growth which represents an operational bottleneck requiring infrastructure improvements to support future campus expansion.

Eight chillers provide 12,250 tons of chilled water capacity and utilize an innovative system of three thermal energy storage (TES) tanks that hold 7 million gallons of chilled water. The TES tanks allow the University to implement demand management strategies to purchase electricity during off-peak hours thereby utilizing electricity that might otherwise have gone to waste, to produce and store chilled water for use during daytime on-peak hours.

3 Most of the energy serving UC Riverside buildings comes from RPU. In response to State mandates, RPU's portfolio is shifting from fossil fuels to renewable sources, with a significant reduction projected in 2027. UC Riverside stands to benefit by this reduction; however, its carbon footprint remains given that its Steam Plant will continue to use natural gas, primarily a fossil fuel, for the foreseeable future. Energy efficiency upgrades and building controls optimization will help with further carbon reductions.

ELECTRICITY OBJECTIVES AND POLICIES

OBJECTIVE	POLICY
<p>1. Prioritize redundancy and overall reliability in the campus' power distribution network.</p>	<p>Policy: Ensure infrastructure services and demands are regularly monitored and expanded as needed to meet applicable planned campus development.</p>
<p>2. Emphasize high-performance new construction and building retrofits in support of the UC Sustainable Practices Policy and minimize the need to purchase carbon offsets.</p>	<p>Policy: For mechanical systems in existing facilities, a 30% reduction in electrical energy use is projected, inclusive of a 30% reduction in electrical energy usage in existing facilities' mechanical systems.</p> <p>Policy: Take the fullest possible advantage of RPU's clean energy plans and the City's "greening of the grid" initiatives.</p> <p>Policy: Achieve a 5% improvement in energy performance for new building mechanical systems through retro-commissioning.</p>
<p>3. Support alternative measures (e.g. alternative fuels, energy sources, practices, carbon offsets, etc.) and mixed energy source portfolios in support of green sustainability practices.</p>	<p>Policy: Continuously explore the potential to use alternative fuels over time as they become feasibly available.</p> <p>Policy: Evaluate procurement options for alternative energy while considering long-term financial viability for the University.</p> <p>Policy: Incorporate solar panels on the roofs of new construction to the maximum feasible extent.</p> <p>Policy: Incorporate solar panels as integral elements of new construction design and applicable green building certifications to the maximum feasible extent.</p>

NATURAL GAS

The University purchases natural gas, 95% of which is combusted in four steam boilers at the Central Plant to generate steam for distribution, and therefore a significant contributor to the campus' GHG emissions. The Central Plant can produce up to 150,000 pounds per hour (lbs/hr) of steam that is distributed to the majority of the Academic Center buildings, primarily for heating. Some natural gas is also used in the residential dining hall kitchens, on-campus restaurant kitchens, and science research and teaching laboratories.

The Central Plant is an essential component to utilities and various building operations for the campus. A large-scale effort to remove this component by 2025 would not be financially or practically feasible for the University. However, the University is committed to not expanding natural gas use in support of the UCOP Carbon Neutrality Initiative and to continue to work on energy efficiency measures to reduce GHG emissions. Alternative measures for carbon reduction will be used as a supplementary mechanism to achieve carbon neutrality goals, as well as retrofits of the Central Plant over time to move towards UC sustainability goals and objectives, such as the purchase of biogas.

NATURAL GAS OBJECTIVES AND POLICIES

OBJECTIVE

POLICY

1. Reduce reliance on natural gas in conformance with UC policies

Policy: Future projects shall not employ or expand demand for natural gas as an energy source.

Policy: Continue to work with RPU and UCOP to reduce current natural gas demand through efficiency improvements to the existing system, conversion of steam boilers to electricity as they are replaced over time, and, rigorous pursuit of obtaining sources for biogas, or renewable energy credit purchases to fully offset GHG emissions in conformance with UC policies.

Policy: Take the fullest possible advantage of RPU's clean energy plans, and the City's "greening of the grid" initiatives.

POTABLE WATER, WASTE WATER AND IRRIGATION

RPU also provides potable water to the campus. Potable water is used both in buildings and for landscape irrigation. At the time of preparation of this LRDP, there was nominal reclaimed water use for landscape irrigation. All of the agricultural fields, both on East and West Campuses are irrigated with water from the Gage Canal.

Wastewater from the campus is conveyed into the City’s sanitary sewer city system for treatment. At the time of preparation of this LRDP, there are known capacity constraints in the City’s sanitary sewer system that will need to be addressed as future building projects are added to the campus.

The University is committed to conservation measures and the long-term reduction in the per capita use of resources. Therefore, even as the campus grows, the implementation of a multitude of resource use reduction measures will help manage the increased need. Supportive of, and in addition to UC mandated policies, the projected measures assumed over the life of the 2021 LRDP, specific to potable water, include the following:

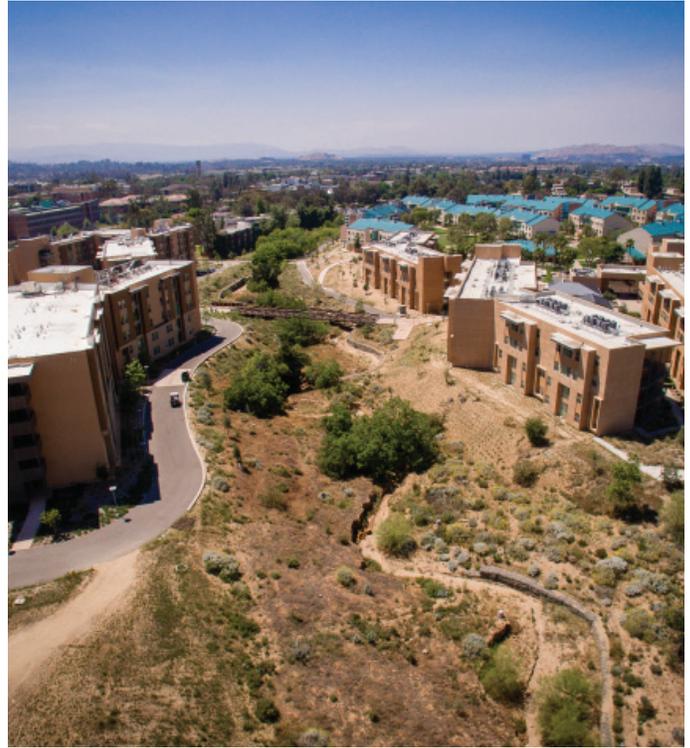
POTABLE WATER, WASTE WATER AND IRRIGATION OBJECTIVES AND POLICIES

OBJECTIVE	POLICY
1. Commit to a multi-prong approach to conserving potable water use.	<p>Policy: Reduce potable water use in an existing building in the Academic Center by 20%.</p> <p>Policy: Reduce potable water use in student residential buildings by 30%.</p> <p>Policy: Reduce potable water use in new facilities by exceeding applicable codes by a minimum of 20%</p> <p>Policy: Retrofit existing urinals, toilets, showerheads, and faucets for existing buildings with higher water efficiency rated equipment.</p>
2. Explore options to shift away from potable water use where feasible.	<p>Policy: Design new building irrigation and efficient toilet flushing systems for use with future non-potable water sources.</p> <p>Policy: Achieve a further 20% reduction of potable water use for irrigation by extending Gage Canal water to also irrigate the UCR Botanic Gardens and reducing turf on campus and replacing with lower water use landscaping.</p>

STORMWATER

The general flow of runoff on campus is in a northwesterly direction. Historically, few low-impact stormwater treatment and control features have been built on campus. However, new state regulations require and encourage on-site absorption and treatment of campus stormwater drainage. As the campus grows and new impermeable surfaces are added, the additional runoff that is generated will need to be managed and treated to conform to these new state requirements.

These new regulations provide an opportunity to develop sustainable campus open spaces that outwardly and visibly express stormwater treatment functions in an integrated way. Such low-impact stormwater facilities are also cost-effective and inherently sustainable.



STORMWATER OBJECTIVES AND POLICIES

OBJECTIVE

1. Transition the campus lands to manage stormwater in a manner that replicates natural drainage patterns and allow plants to filter pollutants out of runoff and promote infiltration over flowing into waterways, thus meeting regulatory requirements through innovative, attractive, and cost-efficient solutions.

POLICY

Policy: Prepare and maintain a Storm Water Management Plan to account for the additional runoff from the projected new development to meet the requirements of the State of California's mandated Phase II Small Municipal Separate Storm Sewer System (MS4) Section F.5.g. (Post-Construction Storm Water Management Plan), including Section F.5.g.3. (Alternative Post-Construction Storm Water Management Plan) consistent with the Maximum Extent Practicable (MEP) standard.

Policy: To the extent feasible, integrate stormwater infrastructure within the open space framework of campus such that developable campus lands are minimally lost. The Storm Water Management Plan will include planning and design strategies to restore, enhance, and maintain hydrological function on campus and within the regional hydrological system in response to the projected development.

CAMPUS SUSTAINABILITY

UC system institutions, including UC Riverside, boast a robust sustainability program driven by a nationally recognized comprehensive sustainability policy and leading-edge initiatives. Furthermore, all UC campuses are signatory to the American College & University Presidents' Climate Commitment (ACUPCC).

Stewardship of the natural environment is a core value of UC Riverside that shapes policy decisions, inspires daily action and presents pertinent learning opportunities. In planning for campus growth to accommodate increases in enrollment, the LRDP balances opportunities to protect, enhance, or restore natural systems; promote alternative transportation options; introduce greater efficiencies in campus infrastructure and resource use; and, most importantly, provide a roadmap to carbon neutrality, as outlined in the UC Policy on Sustainable Practices.



Student volunteers planting trees

OBJECTIVES AND POLICIES

OBJECTIVE	POLICY
<p>1. Continue to build on this commitment to environmental stewardship to account for the impacts of development and expansion of campus infrastructure. Major planning and policy issues of the University will be subject to include the following.</p>	<p>In support of Climate Protection:</p> <p>Policy: Carbon Neutrality Initiative: Carbon Neutral by 2025 – Climate neutrality from Scope 1 & Scope 2 sources by 2025.</p> <p>Policy: Climate neutrality from specific Scope 3 sources by 2050 or sooner – At a minimum, meet the UC intermediate goal in pursuit of climate neutrality (See Assembly Bill [AB 32], and California Global Warming Solutions Act of 2006: emission limit [SB 32].</p> <p>In support of Sustainable Practices:</p> <p>Policy: Energy Efficiency: UC Annual 2% Energy Use Intensity (EUI) Reduction Policy (Energy Efficiency) – Each location will implement energy efficiency actions in buildings and infrastructure systems to reduce the location’s energy use intensity by an average of at least 2% annually.</p> <p>Policy: On-Campus Renewable Electricity – Campuses and health locations will install additional on-site renewable electricity supplies and energy storage systems whenever cost-effective and/or supportive of the location’s Climate Action Plan or other goals.</p> <p>Policy: Off-Campus Clean Electricity: 100% Renewable Electricity by 2025 – By 2025, each campus and health location will obtain 100% clean electricity.</p> <p>Policy: On-Campus Combustion – By 2025, at least 40% of the natural gas combusted on-site at each campus and health location will be biogas.</p>

ACKNOWLEDGMENTS

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