Draft Initial Planning Concepts, Fall 2015 for the UC Davis 2017-27 LRDP
The 21st Century University

The 21st Century University is a global and statewide UC Davis Initiative.

Over 170 institutional partnerships in more than 45 countries around the world.

The UC Davis 2017-27 LRDP is focused on the growth and development of the main campus in Davis.
Introduction

The Draft Initial Planning Concepts for the UC Davis 2017-27 LRDP represent the first step in a campus-wide engagement process. The concepts are thematically organized by neighborhood and three core planning principles:

- Support the Academic Enterprise
- Enrich Community Life
- Create a more Sustainable Future
Population

The 2020 Initiative established an ambitious plan to admit another 5,000 undergraduate students, hire another 300 faculty, broaden our international reach, boost regional economic development, and provide a stable financial foundation for UC Davis. The population figures within the LRDP reflect average annual campus population and do not reflect total enrollment at or employment by UC Davis.

The 2017-2027 LRDP builds upon the 2020 Initiative and updates the current 2003-2015 LRDP, extending the horizon year to 2027. The planned capacity for UC Davis affiliates on campus, in terms of students and employees, is 39,000 and 14,500 respectively. The LRDP update will be analyzed through an environmental review process that begins in spring 2016.
Civic Core

The heart of UC Davis is home to a vibrant, engaged campus community.
Public Space and the Heart of Campus

The public space in the heart of campus is a socially vibrant space where people come together and mingle. While buildings graciously frame these spaces and provide programs to enliven the public realm, it is people who make these spaces special.

RECENTLY COMPLETED
1. Memorial Union Bus Terminal
   Every day thousands of people riding Untrans and Yolo Bus pass under the heritage oaks on Howard Way and through the recently renovated Memorial Union Bus Terminal as they enter campus.

UNDER CONSTRUCTION
2. Memorial Union North Court
   The Memorial Union North Court, once renovated, will serve as a pedestrian entrance into the heart of campus, with a plaza framed by the Memorial Union, the UC Davis Bookstore and Freeborn Hall.

IN DESIGN
3. Walker Hall Promenade
   The renovation of Walker Hall will include a pedestrian promenade that extends westward from Shields Library to the Student Community Center, the Hutchison bus terminal and the Silo.

FUTURE PUBLIC SPACE
4. Pedestrian Bridge over the Arboretum Waterway
   With an eye towards the future, a new pedestrian bridge connecting the heart of campus with the lands south of the Arboretum would emphasize the north-south axis of the Quad and provide a unique viewing experience of the Arboretum Waterway.

UNDER CONSTRUCTION
5. Jan Shrem and Maria Manetti Shrem Art Museum
   The Jan Shrem and Maria Manetti Shrem Art Museum will provide a gracious and contemporary pedestrian plaza, frame the Vanderhoef Quad and further enrich the programs in the Arts district.
Classrooms and Public Space

Each hour on campus, students and faculty pulse through public space as they move from class to class. Most classrooms are located within the campus core to minimize the travel time and distance between classes. There are three new buildings, either under construction or in design, that add significant classroom space. In addition to these projects, several existing buildings, such as Haring Hall and Cruess Hall, are under study as additional classroom space to be renovated.

1. Large Lecture Hall
   The large lecture hall on California Avenue will provide a large collaborative and dynamic classroom space with at least 500 seats. The project will also create a landscaped entry plaza along the Storer Mall.

2. Walker Hall
   The renovation of Walker Hall will create several lecture rooms with 400 seats in total. Campus leaders expect the new space will help reduce course waitlists and the time it takes for students to get the classes they need to earn degrees.

3. Ann E. Pitzer Center
   The new Ann E. Pitzer Center will host hundreds of musical recitals during the year while providing an additional classroom space with almost 400 seats during the day.
Programs and Public Space

In the heart of campus there are many programs that support our community in daily life. Some programs are oriented towards academic success and opportunity, others are aimed at identity and community, and still others are oriented towards health and sustenance. Together these programs drive the social vibrancy of public space. These programs will continue to play an important role as campus enrollment grows. Freeborn Hall and Haring Hall are two potential projects that may provide additional space for these and other programs.

UNDER CONSTRUCTION
1. Memorial Union Renewal
The Memorial Union renovation will provide additional spaces for social gatherings and group study. The project also includes the UC Davis Bookstore.

UNDER CONSTRUCTION
2. International Center
The International Center will host a variety of programs for international students studying at UC Davis, as well as students studying at UC Davis who wish to study abroad.

RECENTLY COMPLETED
3. Student Community Center
The Student Community Center hosts a variety of programs for student life and academic excellence. The Student Community Center also creates a supportive and welcoming space that brings people and community together.

IN DESIGN
4. Graduate & Professional School Student Center
The renovation of Walker Hall includes a new Graduate and Professional Student Center that will unify several current disparate programs and further activate the public space.
The Academic Enterprise

As a land grant university UC Davis aims to enhance our academic excellence, create a thoughtful community of engaged learners, and foster key research initiatives for the betterment of society.
Academic Space: Reinvesting in Core Infrastructure

One strategy for a more sustainable future emphasizes investment in existing infrastructure. Academic space as a key infrastructural component of the University requires additional investment, especially in the core of campus. The buildings being studied for renovation are shown in gold. Several development initiatives further contribute towards the revitalization of the academic core. Several major research initiatives further contribute towards the revitalization of the academic core. These include:

- Chemistry Discovery Complex
- Veterinary Medicine Hospitals

- [Image of academic buildings and initiatives]
Agricultural and Environmental Lands

The west and south portions of campus are primarily designated as agricultural lands for teaching and research. The Putah Creek Riparian Reserve represents another major teaching and research feature of campus with more than 600 acres of riparian habitat. The Reserve and the designated trails that run through it and other campus lands also provide informal open space recreation for the greater community. Other large features include the UC Davis Airport, the Primate Center, and a new solar array.
La Rue Corridor

The major facilities for Campus Recreation, Athletics and First-Year Student Housing are located along the La Rue Corridor. These three campus programs create a neighborhood that is spatially and programmatically cohesive.
Currently more than 9,185 members of our UC Davis community live on campus; about 5,500 first-year students live in residence halls while another 3,685 upper-division undergraduates, graduates and students with families live in apartments. Altogether, about 28% of students live on campus. As we build a more sustainable future, we are exploring a range of housing options on campus for our community. In no planning scenario are we able to house 100% of our projected growth.

Currently West Village houses about 2,000 people, a satellite campus for Sacramento City Community College and a collection of UC Davis Energy Efficiency and Transportation Innovation Hub. The 2003-2015 LRDP, as amended by the Regents, includes housing for another 1,000 students and 475 faculty and staff. Based on our negotiations with the developer, we are hopeful about the future and confident that we’ll realize the community open space as planned and accommodate the housing on a smaller footprint than originally planned.

UC Davis is currently exploring campus housing options for the LRDP. The initial planning concepts for the LRDP identify additional land use areas for campus housing in three key neighborhoods.

- Orchard Park and the Greenhouses
- Russell Field
- Solano Gateway
Orchard Park and the Greenhouses

The Orchard Neighborhood currently houses five distinct areas with student apartments; Orchard Park, Russell Park, La Rue Park, the Domes, and the Colleges at La Rue. Russell Park provides student family apartments. Orchard Park is currently unoccupied and is planned to be redeveloped as student family and graduate student apartments.

The new planning concept for this neighborhood explores additional student family apartments on the greenhouse site, west of the Wellness Center. The current 2003–2015 LRDP, as amended by the Regents, designates this area as residential.

EXISTING CONDITIONS

WALKABILITY

What are the challenges when providing additional student family apartments on the greenhouse site and what strategies may address these issues?
Russell Field

Russell, Howard and Toomey Fields are currently used as informal playfields, active recreational fields and practice fields or competitive venues for Athletics and Campus Recreation. These fields also serve as large gathering spaces for other student, staff and community programs and events.

The new planning concept for this neighborhood proposes an informal open space along Russell Boulevard and explores the possibility of additional student apartments along the southern portion of the site, nearest the heart of campus. While student living in this area would primarily walk, bike and bus, they would also have access to a dedicated car share program. The planning concept for this neighborhood also explores the redevelopment of Toomey Field as faculty and staff housing. Additionally, adequate space for Campus Recreation and Athletics programs is important—see the La Rue Corridor neighborhood plan.
Solano Gateway

Currently Solano Park provides graduate student apartments and student family housing with easy access to the Arboretum, campus and downtown. In the next ten years these buildings will require significant reinvestment or replacement. In anticipation of that important decision, we will work collaboratively with our community to build a more sustainable future.

The new planning concept for this neighborhood explores additional student apartments on Solano Field, west of Old Davis Road. The concept for this area would reconfigure Solano Field in relation to new buildings and a new pedestrian bridge across the Arboretum Waterway. Buildings in this area could contain academic programs on the ground floor and student housing above.

EXAMINING CONDITIONS

What are the challenges when housing more students west of Old Davis Road, in apartments with academic programs on the ground floor and what strategies may address these issues?

Six to eight story apartment buildings?

Four to five story apartment buildings?

Two to three story apartment buildings?

CAMPUS TOMORROW
Sustainability

GUIDING PRINCIPLES
At UC Davis, sustainability encompasses four “E’s” — environment, economics, social equity, and education. We work to create a more sustainable campus through operations, education, research and public service. Our operations practices are responsive to UC system policies and campus guidelines that set ambitious environmental sustainability goals.

PERFORMANCE TARGETS
The University of California Sustainable Practices Policy guides UC campuses in their efforts to become more sustainable through performance goals for green building, clean energy, climate protection, transportation, water systems, recycling and waste management, foodservice, building operations, and purchasing.

SUSTAINABILITY & THE LRDP
How will UC Davis continue to mature and meet our sustainability goals? UC Davis Environmental Stewardship and Sustainability (ESS) is working closely with Campus Planning and Community Resources on the Long Range Development Plan. We will focus on energy and greenhouse gas emissions, transportation, water, and waste in our exhibit section.
Carbon Neutrality

GOAL
Reach carbon neutrality by 2025.

In November 2013, UC President Napolitano announced the UC Carbon Neutrality Initiative to achieve net-zero greenhouse gas (GHG) emissions from all campus activities, buildings and vehicles by 2025. UC Davis is also working to achieve net-zero GHG emissions from our commuting and business air travel activities by 2050. To reach this ambitious goal, UC Davis will need to continue:

- improving our building energy use intensities through energy efficiency and conservation projects, green building construction and operations,
- reducing emissions from our campus vehicle fleet and other GHG sources like research gases and refrigerants, and
- investing in renewable energy.

PROGRESS
Since 2007, UC Davis has been decreasing GHG emissions through a combination of different efforts. How have we been able to reduce emissions? UC Davis has:

- invested in energy efficiency, saving more than $15.5 million in operating expenses since 2009 – on average, Davis campus buildings use 28 percent less energy today than eight years ago
- started a Smart Lighting Initiative that partners our California Lighting Technology Center with campus operations to use academic research and market technologies to reduce lighting energy consumption by 60 percent
- installed the largest solar photovoltaic array of any university in North America – this on-site 16.3 MWdc single-track system is helping produce 15.4 percent of the campus electricity needs
- participated with other UC campuses in an 80 MWac off-site solar project under construction in California; the campus share of that green power will offset another 23.5 percent of annual campus electricity use

And how do we make our growth have less impact? We build green – the campus has nearly 919,000 square feet of LEED® certified™ built space, about 7 percent of total square footage. Our Graduate School of Management and Conference Center, first-of-its-kind in the world winery, brewery and food processing building, and Tercero residence halls are examples of our 7 LEED Platinum® buildings.
Water Systems

GOAL
Reduce per capita potable water consumption by 20% by 2020.

In April 2015, Governor Jerry Brown declared mandatory conservation for California due to a severe drought. UC Davis was already working on water conservation measures before that announcement.

PROGRESS
Since June 2015, the Davis campus reduced water use 30 percent, over 36,000,000 gallons/month.

Together with Woodland and Davis cities, the campus secured water from the Sacramento River, diversifying water supplies which will reduce draw from our regional aquifers.

The Davis campus has nearly trebled population over the past 40 years and yet has reduced per capita potable water use through a wide variety of water efficiency projects and water conservation education.

Key actions to reduce water use include: preparing a campus water action plan; converting landscape turf and aggressively reducing irrigation; revising building design standards; installing low-flow fixtures; running public education campaigns; and using clean recycled water for cooling.
Zero Waste

GOAL
Reach zero solid waste to landfills by 2020 through active reduction, reuse and recycling programs.

Zero waste targets typical solid waste sent to landfills and seeks to reduce waste generated, create reuse opportunities, and increase recycling.

PROGRESS
Recycling and reducing waste has a long tradition on the Davis campus, and the Davis campus diverted 79 percent of its landfill-able waste this past year.

Students have spearheaded a number of waste reduction initiatives, including Project Compost, the Aggie Reuse Store, and the campus Waste Reduction and Recycling group.

Waste reduction is a key goal for academic and research projects, such as the campus renewable energy anaerobic digester which takes campus organic waste and makes biogas from it, and the gravel washing operation, which cleans gravel from animal cages and reduces total waste sent to the landfill by one third.
Transportation

GOAL
Reduce greenhouse gas emissions from campus vehicles and daily commutes.

PROGRESS
Every day more than 25,000 members of our campus community walk, bike or bus to campus, which is 70% of our campus population. Another 5% participate in carpools. The remaining 25% of our community, almost 9,000 people, drive alone. Our campus goClub program has more than 4,000 members on average and supports a full range of sustainable transportation options such as train, vanpool, bus/transit, bike, walking, ridesharing, and carsharing. We have 17 Zipcars on campus, and offer UC Drive, an hourly fleet rental program, for campus business travel, and we have 53 electric vehicle charging stations. UC Davis currently houses over 10,000 people: 8,500 people on campus, and another 1,500 in housing apartments adjacent to campus. We are exploring additional housing on campus as part of our initial planning effort.

NEXT STEPS
Historically, a great majority of students, more than 90%, have lived on campus or in town. The low vacancy rate and high cost of housing in Davis will likely amplify regional commute patterns for our projected population growth. If more of our community lives outside of Davis, we may have to build anywhere from 2,500 to 5,000 more parking spaces for our projected population growth. To put that in perspective, we have about 7,500 spaces on the central campus, where most people work and study.
Regional Transportation

**CHALLENGE: REDUCE THE NUMBER OF DRIVE-ALONE COMMUTE TRIPS IN THE REGION.**

For our campus community living in the region but not in Davis, almost 15% bike, bus or train. An additional 10% carpool and 75% drive alone. On an average weekday commute, about 6,000 people, most living within 25 miles, drive to campus. With an incredible road network and a regional commute train, how can we reduce these regional trips?

We have a number of existing transportation programs to help reduce the regional, drive-alone commute trips. We are also considering several new sustainable transportation programs to meet regional travel demand, improve quality of life and further reduce regional commute trips.
Local Transportation

**CHALLENGE: REDUCE THE NUMBER OF DRIVE-ALONE COMMUTE TRIPS IN DAVIS.**

For our campus community living in Davis but not on campus, almost 85% walk, bike or bus. An additional 4% carpool and 12% drive alone. On an average weekday commute, about 2,500 people living in Davis drive to campus. With an incredible bicycle network and a bus system that covers 95% of Davis, how can we reduce these local trips?

We have a number of existing transportation programs to help reduce local, drive-alone commute trips. We are also considering several new sustainable transportation programs to meet local travel demand, improve quality of life and further reduce local commute trips.