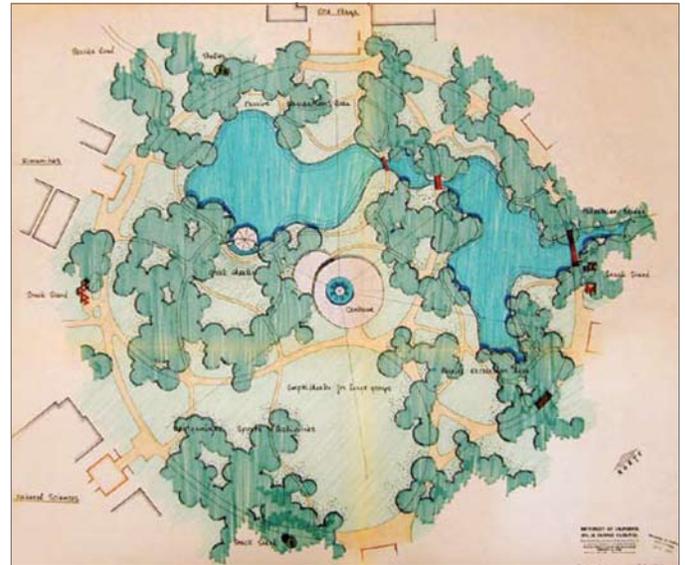


Like all general development plans, the UCI LRDP addresses a broad range of issues that are relevant to its planning jurisdiction. This chapter describes five components of the 2007 LRDP: land use, circulation, housing, open space, and infrastructure. Planning objectives for each element and approaches for meeting them are presented below.

LAND USE ELEMENT

The Land Use element of the 2007 LRDP provides an approach to meet campus land use objectives through 2025-26, including balancing program needs and environmental conditions, allocating sufficient land to meet academic objectives, promoting land use compatibility, and providing planning flexibility to respond to changing requirements. This element designates the proposed general distribution and general location and extent of the uses of the land for the following eleven categories: academic and support; campus support services; student housing; faculty and staff housing; housing reserve; mixed use–commercial; mixed use–neighborhood; income-producing Inclusion Area; transportation; open space–athletics and recreation; and open space–general. Brief descriptions of these categories and the uses permitted within them are presented below. In addition, acreage allocations and average development intensities for each land use category are summarized in *Table 5-1*.

- *Academic and Support* use areas primarily include classrooms; instructional and research laboratories; undergraduate, graduate, and professional schools and programs; and ancillary support facilities such as administrative facilities, libraries, performance and cultural facilities, clinical facilities, research institutes, conference facilities, and services supporting academic operations. Other permitted uses in this category include food service, recreation, parking, utility infrastructure, and other support uses.
- *Campus Support Services* primarily include general services related to the operations, maintenance, and security and safety of the campus. Land uses may include administrative and institutional support functions, service yards, maintenance facilities, shops, materials handling and storage, warehousing, shipping and receiving, utility plants and systems, police and other emergency services, and other support functions. This land use designation also includes facilities that provide social and child care services to the campus and the community-at-large (e.g., University Club, University Montessori School).
- *Student Housing* land uses primarily denote residential facilities intended to accommodate single undergraduate and graduate students, student groups (including fraternities, sororities, and academically-themed collectives), students with families, and other University affiliates. Other permitted uses include residential parking, child care and pre-school facilities, recreation facilities, meeting and classroom space, food service and retail, and other residential support uses.
- *Faculty and Staff Housing* land use areas include residential facilities for University faculty and staff. Other permitted uses include residential parking; child care, pre-school, and elementary school facilities; recreation facilities; community meeting space; and other residential support uses.
- *Housing Reserve* denotes areas intended to accommodate future University housing needs. This land use category gives UCI the flexibility to assign future residential facilities in designated areas to any University affiliate—including students, faculty,



Rendering of UCI's Central Park, 1963 (later renamed Aldrich Park).

Table 5-1. 2007 LRDP Land Use Matrix

Land Use Category	Permitted Uses		Land Allocation (Acres)	Average Development Intensity ¹
	Primary Uses	Associated or Compatible Uses		
Academic and Support	Classrooms; instructional and research laboratories; undergraduate, graduate, and professional schools and programs; ancillary support facilities such as administrative facilities, libraries, performance and cultural facilities, clinical facilities, research institutes, conference facilities, and services supporting academic operations	Food service, recreation, parking, utility infrastructure, and other support uses	205	1.11 FAR on average; the majority of new buildings to be between 4 and 6 stories in height
Campus Support Services	Administrative and institutional support functions, service yards, maintenance facilities, shops, materials handling and storage, warehousing, shipping and receiving, utility plants and systems, police, and other support functions; social and child care services	Parking, open space	21	0.35 FAR on average
Student Housing	Residential facilities for single undergraduate and graduate students, student groups, students with families, and other university affiliates	Residential parking, child care and pre-school facilities, recreation facilities, meeting and classroom space, food service and retail, and other residential support uses	261	Average density of 90 to 125 beds/ac or higher for new student housing construction
Faculty and Staff Housing	Residential facilities for University faculty and staff	Residential parking; child care, pre-school, and elementary school facilities; recreation facilities; community meeting space; and other residential support uses	214	Average density of 12.5 DU/ac or higher for new faculty and staff housing construction
Housing Reserve	Residential facilities for students, faculty, staff, medical residents and interns, post-doctoral researchers, and other University affiliates	Residential parking; child care, pre-school, and elementary school facilities; recreation facilities; community meeting space; classrooms; and other residential support uses	54	Average density of 12.5 DU/ac or higher (employee housing) or 90 beds/ac or higher (student housing)
Mixed Use–Commercial	Facilities for office, research and development, and academic activities; commercial and retail space; conference facilities; residential facilities (uses may be non-University oriented if located in the Inclusion Areas)	Child care and recreation facilities, parking, and other related uses	46	0.50 FAR average for nonresidential; approx. 10 DU/ac for residential
Mixed Use–Neighborhood	Residential facilities for students, faculty, and staff; commercial and retail space; conference facilities; office facilities; academic facilities	Child care, pre-school, food service, and recreation facilities; parking; and other related uses	31	Approx. 0.15 FAR for nonresidential; new housing at approx. 10 DU/ac (employee housing) or 35 beds/ac (student housing)

Table 1. 2007 LRDP Land Use Matrix (continued)

Land Use Category	Permitted Uses		Land Allocation (Acres)	Average Development Intensity ¹
	Primary Uses	Associated or Compatible Uses		
Income-Producing Inclusion Area	Office space, research and development uses, commercial and retail space, conference facilities, research facilities, clinical uses, multi-purpose facilities (e.g., auditoriums, arenas), and other commercial or non-profit facilities	Parking, support uses	103	0.35 FAR or greater
Transportation	Surface parking lots, multi-level parking structures, transit and transportation related facilities, parking support facilities, and streets and associated rights-of-way	Administrative, instructional, research, or support space attached or adjacent to parking structures	125	
Open Space–Athletics and Recreation	Facilities to accommodate intercollegiate athletics and campus recreation, such as indoor and outdoor athletic and recreation facilities, playfields, courts, and jogging trails	Food service, child care, office and meeting space, parking, and other support uses	104	
Open Space–General	Landscaping, pedestrian and bike trails, water quality and drainage structures, habitat restoration and management activities, renewable energy demonstration projects or other "green" initiatives, and small facilities such as food service, interpretive centers, seating and viewing areas, and other amenities compatible with open space	Facilities that support campus open space resources such as maintenance roads, support structures, and field research facilities	311	
Total Campus Acreage			1,475	

¹ "FAR" refers to floor area ratio, or the ratio of total floor area of building to land area. "DU" refers to dwelling unit.



Architectural rendering of Biological Sciences III, currently under construction.

staff, medical residents and interns, post-doctoral researchers—according to campus priorities. Other permitted uses include residential parking; child care, pre-school, and elementary school facilities; recreation facilities; community meeting space; classrooms; and other residential support uses.

- *Mixed Use* land areas involve a combination of residential, commercial, office, institutional, or other uses. Local municipalities and agencies historically have encouraged mixed use to fulfill development objectives such as increasing density, reducing the number of vehicles, creating localized employment, and providing dynamic living environments. In the 2007 LRDP, this land use designation may denote one of two general types. *Commercial Mixed Use* areas contain a combination of uses to fashion a vibrant live-work environment supportive of UCI goals. Permitted uses include facilities for office, research and development, and academic activities; commercial and retail space; conference facilities; University and non-University related residential facilities; support uses such as child care and recreation facilities; parking; and other related uses. *Neighborhood Mixed Use* areas, usually smaller in scale, accommodate a combination of uses to support the local campus community. Permitted uses include residential facilities for students, faculty, and staff; commercial and retail space; conference facilities; office facilities; academic facilities; support uses such as child care, pre-school, food service, and recreation facilities; parking; and other related uses.
- *Income-Producing Inclusion Area* land use zones are intended to accommodate third-party real estate

transactions involving the Inclusion Areas in order to generate revenue and/or other consideration to support UCI’s mission. Uses are compatible with University-based programs and may entail collaboration with UCI faculty and students. Permitted uses include office space, research and development uses, commercial and retail space, conference facilities, research facilities, clinical uses, multi-purpose facilities such as arenas, and other commercial or non-profit facilities.

- The *Transportation* land use category denotes areas intended to accommodate parking, transportation, and transit facilities. Primary uses include surface parking lots, multi-level parking structures, transit and transportation related facilities, parking support facilities, and streets and associated rights-of-way (consisting of pavement, curbs and gutters, median and parkway landscaping, street lighting, and traffic control devices). Other permitted uses include administrative, instructional, research, or support space attached or adjacent to parking structures in fulfillment of campus goals to utilize land efficiently, enhance the visual appearance of parking structures, and provide a pedestrian-friendly environment.
- *Open Space–Athletics and Recreation* land uses primarily include facilities to accommodate intercollegiate athletics and campus recreation, such as indoor and outdoor athletic and recreation facilities, playfields, courts, and jogging trails. Other permitted uses include food service, child care,

Key Planning Objectives for the Land Use Element

1. Establish a land use configuration that balances program needs and environmental and site conditions to create a cohesive campus environment.
2. Allocate sufficient land area to campus land use categories to enable UCI’s academic strategic planning objectives.
3. Provide compatibility between campus land use zones and off-campus land uses, and establish land use buffers where appropriate.
4. Provide planning flexibility to enable UCI to respond to changing academic needs and off-campus circumstances through the planning horizon year.

office and meeting space, parking, and other support uses. Recreation facilities are also permitted within other campus land use categories, particularly the academic and support, mixed use, and housing classifications.

- Open Space-General* land use areas primarily include the campus’s network of parks, greenbelts, riparian corridors, habitat areas, landscape buffers, trail systems, and other open space amenities. Permitted uses include landscaping, pedestrian and bike trails, water quality and drainage structures, habitat restoration and management activities, resource sustainability initiatives, and small facilities such as food service, interpretive centers, seating and viewing areas, and other amenities compatible with open space. Additional uses associated with this category include facilities that support campus open space resources such as maintenance roads, support structures, and field research facilities.

The general distribution and location of land uses prescribed by the 1989 LRDP, as amended, is shown in *Figure 5-1*. While generally consistent with the



The California Institute for Telecommunications and Information Technology, completed in 2004.

earlier plan, the 2007 LRDP proposes several land use modifications, as depicted in *Figure 5-2*. *Table 5-2* summarizes the differences in the size of each land use category between the two LRDPs.

Table 5-2. Comparison of Land Use Acreage by Category, 1989 LRDP and 2007 LRDP

Land Use Category	1989 LRDP ¹	2007 LRDP	Change
Academic and Support	196	205	9
Campus Support Services	34	21	(13)
Student Housing	312	261	(51) ²
Faculty and Staff Housing	212	214	2
Housing Reserve	–	54	54
Mixed Use–Commercial	37	46	9
Mixed Use–Neighborhood	10	31	21
Income-Producing Inclusion Area	116	103	(13)
Transportation	141	125	(16)
Open Space–Athletics and Recreation	122	104	(18)
Open Space–General	309	311	2
Totals	1,489	1,475	(14)³

¹ Some of the land use categories used in the 2007 LRDP do not correspond exactly with the categories used in the 1989 LRDP (e.g., the 1989 LRDP did not distinguish between “Mixed Use–Commercial” and “Mixed Use–Neighborhood”), and so a “best fit” approach was employed for this comparison.

² Approximately 25 acres in the Mixed Use–Neighborhood category would accommodate housing for students.

³ The change in total UCI acreage reflects the sale of campus land in 1996 for a U.S. Food and Drug Administration laboratory and the acquisition of right-of-way for Culver Drive by the City of Irvine in 2004.

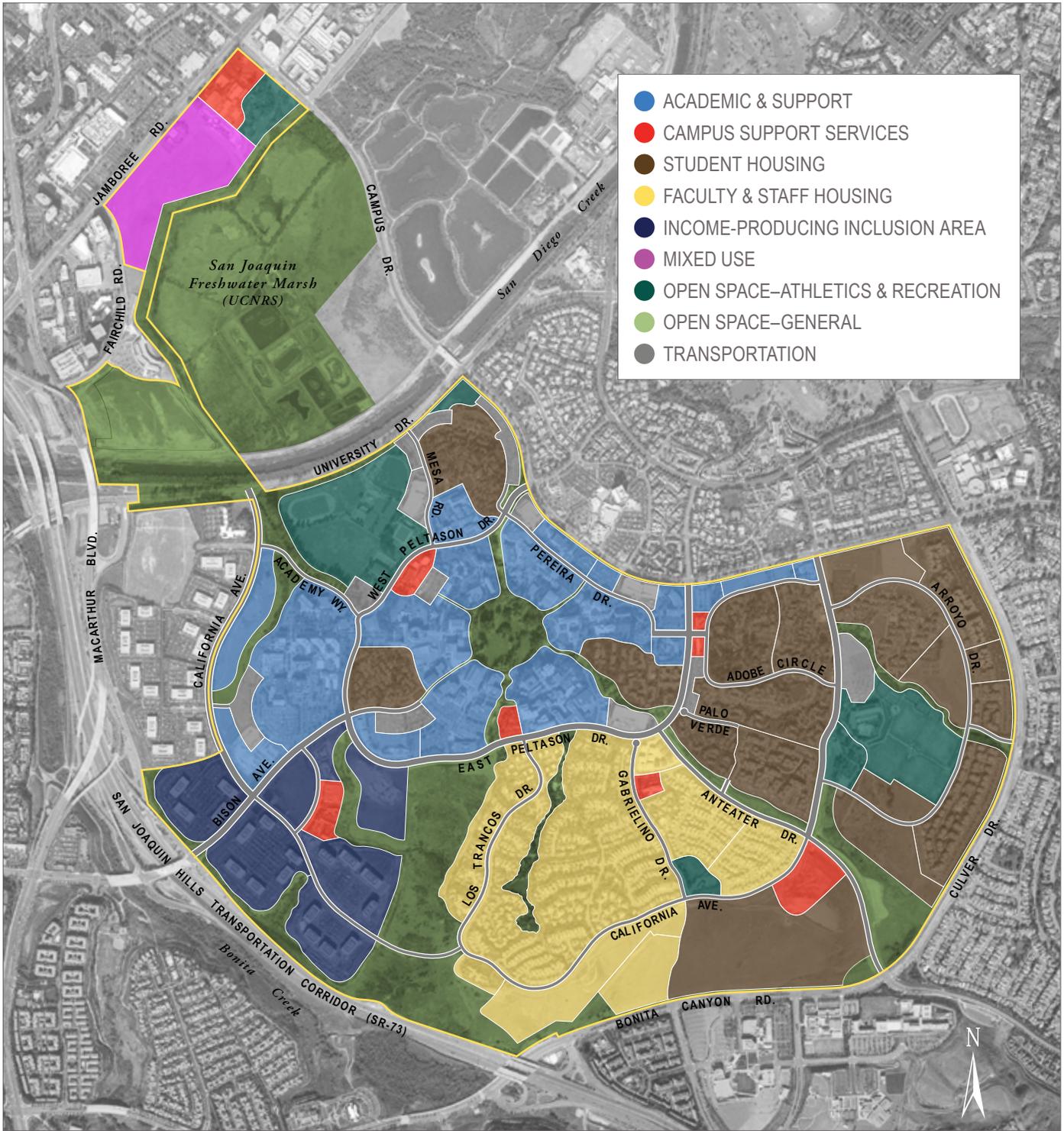


Figure 5-1. Land use plan from 1989 LRDP, as amended.

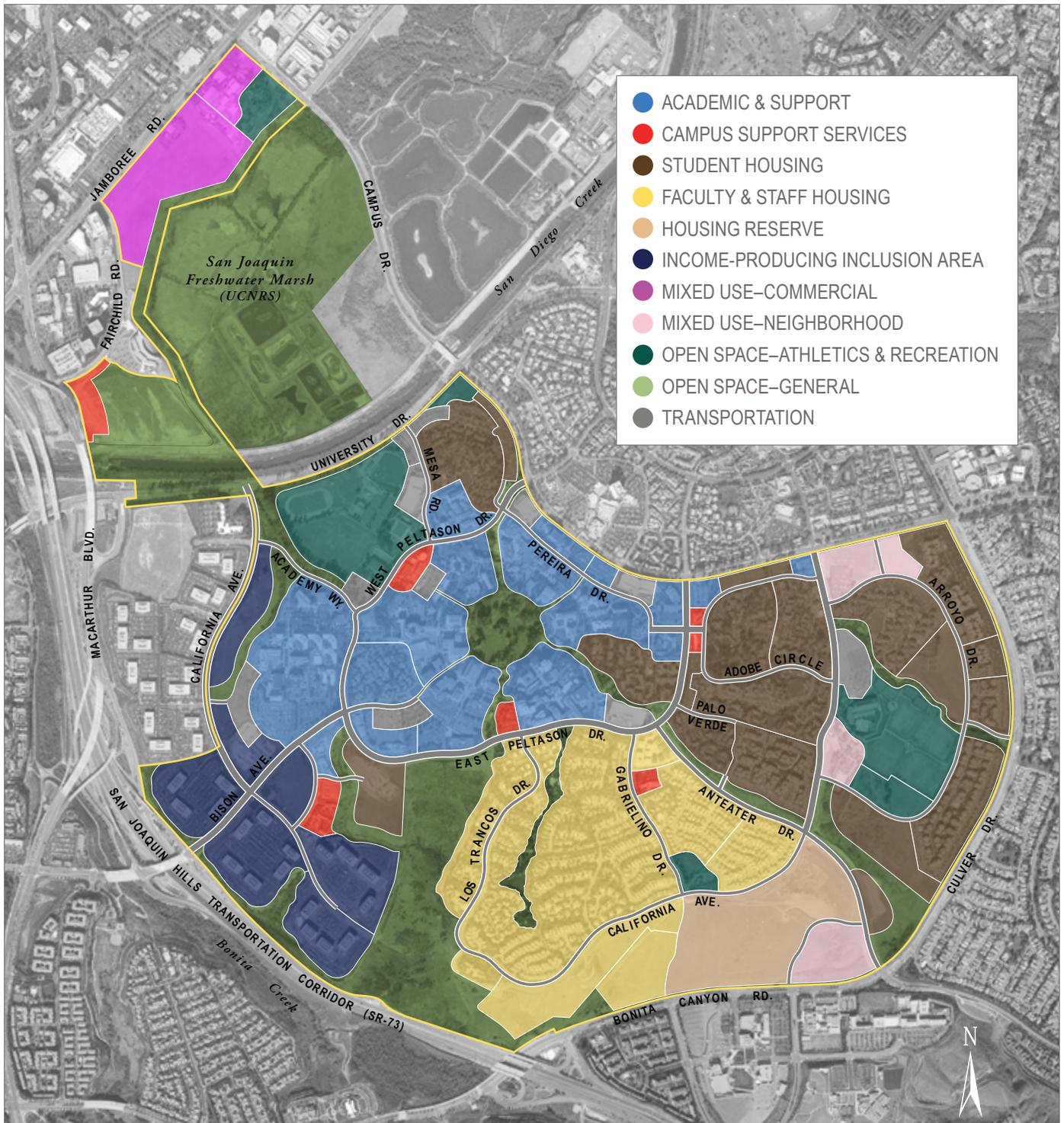


Figure 5-2. Land use plan for 2007 LRDP.

CIRCULATION ELEMENT

The Circulation element of the 2007 LRDP designates the general location and extent of existing and proposed transportation routes, and correlates with the Land Use element of the plan. It includes vehicular, bicycle, and pedestrian circulation systems serving the campus, plus connections to the local and regional circulation network. This element provides an approach to meet campus transportation objectives through 2025-26, including managing systems proactively to improve mobility, efficiency, and environmental quality; providing convenient access for vehicles while limiting impacts to pedestrians; implementing measures to support transit and alternative transportation; and enhancing the pedestrian and bicycling experience on campus. Following are descriptions of the vehicular, bicycle, and pedestrian components of the Circulation element.

Vehicular Network

The LRDP vehicular network consists of campus roadways, intersections, and entry points to collect and distribute vehicular traffic at UCI. The existing network reflects planning objectives adopted in the 1996 LRDP Circulation and Open Space Amendment which focused on enhancing the efficiency of the circulation network, limiting pass-through traffic impacts, and deferring or eliminating certain roadway extensions and improvements identified in the 1989 LRDP (such as the extension of California Avenue through the Ecological Reserve). The 1996 LRDP amendment identified various measures to meet these objectives, including reducing the number of intersections and access points, implementing grade-separations at bicycle and pedestrian crossings with roadways, and adopting other improvements and policy measures to improve the efficiency of existing campus roadways.

The 2007 LRDP retains and strengthens the concepts contained in the 1996 LRDP Amendment, including enhancing the efficiency of key roadway links and restricting pass-through traffic on the campus. Key elements of the plan include:

- Retaining the primary configuration of the original campus roadway network—consisting of a loop road serving the academic core with radial roads connecting to the community circulation system,



The Social Sciences parking structure is located on the perimeter of the campus in order to reduce congestion in the academic core.

and a second system of roadways to serve the outer campus areas—in order to balance the collection and distribution of traffic on the campus;

- Minimizing the width of street paving in order to retain UCI’s “campus-like” character, while maintaining adequate levels of vehicular access and mobility;
- Capturing traffic destined for the academic core by channeling vehicles from the community roadway network directly into parking facilities located at the perimeter of the core, thereby maintaining the pedestrian experience within the center of the campus;
- Limiting cross-traffic and pass-through traffic by adopting physical planning and other policy measures; and
- Augmenting intersections and synchronizing traffic control devices to optimize the efficiency of existing roadways.

The 2007 LRDP identifies new roadway links, widening of existing roadways, and various intersection improvements to provide an adequate level of traffic service on the campus (see *Figure 5-3*). Proposed improvements include: (1) augmenting (i.e., constructing additional turn lanes) and signaling certain existing campus intersections; (2) widening Peltason Drive to four travel lanes where required to achieve an acceptable level of service; (3) widening California Avenue between Academy Way and Bison Avenue to four travel lanes,

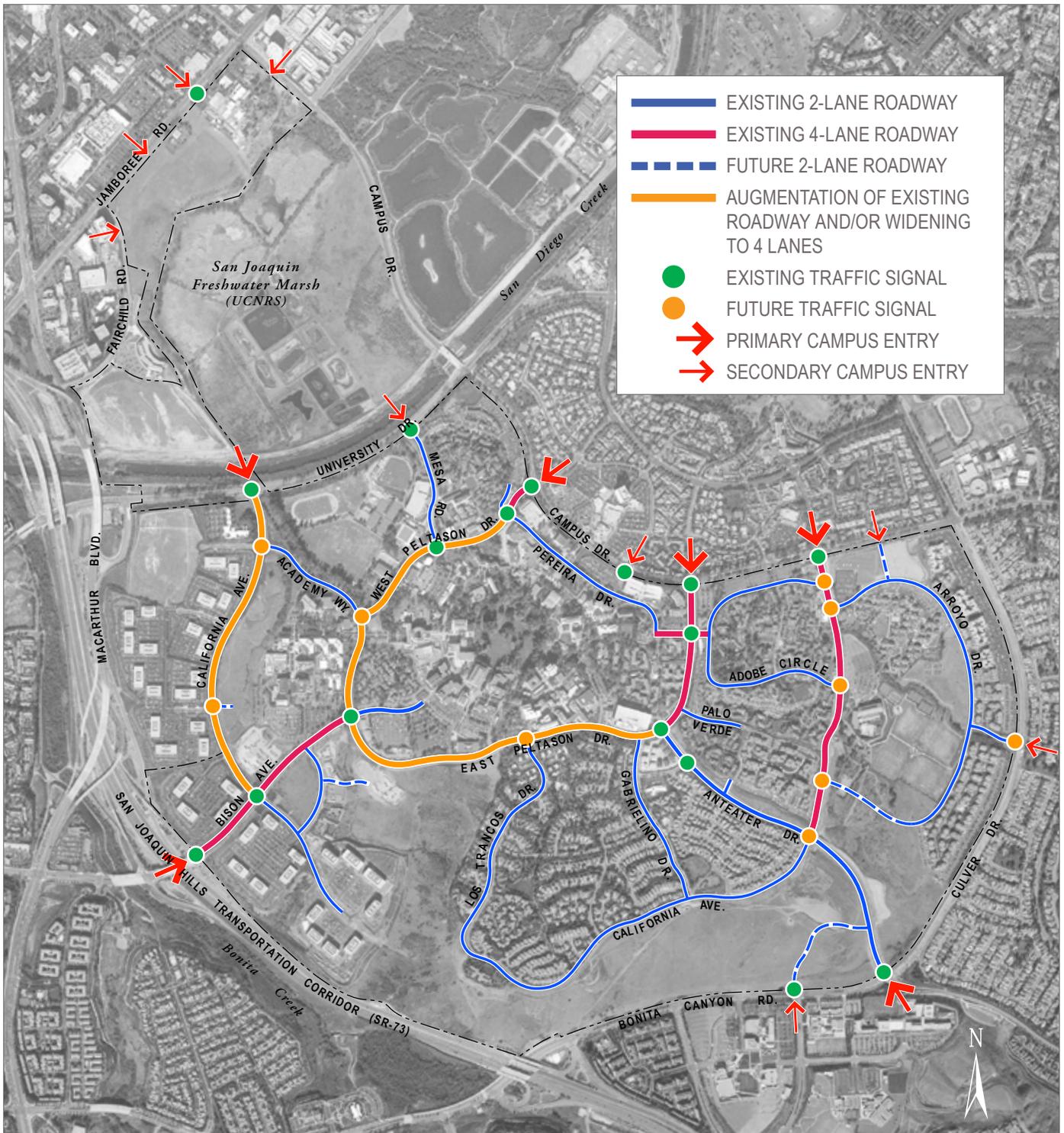


Figure 5-3. Existing and proposed vehicular circulation.

Table 5-3. Transportation Demand Management Measures Employed at UCI, 2006-07

Travel Mode/Policy	Measures Taken
<p>Campus Shuttles Service provided to UCI East Campus—including Arroyo Vista, Verano, and Vista del Campo student residences—and the Anteater Recreation Center. Service also provided to UCI Medical Center in Orange.</p>	<p>Ride for free. With over one million riders in 2005-06, UCI operates one of the largest private shuttle systems in the region. To further promote environmental sustainability, UCI's shuttle fleet operates on 100 percent biodiesel fuel.</p>
<p>Parkwest Shuttle Service provided to approximately 725 student residents in the privately-owned Parkwest apartments on Michelson Drive.</p>	<p>\$1.00 per ride, or an unlimited use quarterly pass for \$50. In 2005-06, nearly 116,000 riders used this service.</p>
<p>Public Transit Seven Orange County Transportation Authority (OCTA) bus routes serve the UCI campus with destinations including John Wayne Airport, Tustin Metrolink Station, Santa Ana Transit Depot, Irvine Transportation Center, and Newport Center/Fashion Island.</p>	<p>Students, faculty, and staff ride free with U-Pass, a program implemented in collaboration with OCTA. Employees also receive an ATA permit or Commuter Dollars.¹</p>
<p>Carpool For two or more employees traveling together (including graduate students with employment appointments).</p>	<p>Incentives include a rideshare matching program, discounted parking permits, preferred parking locations, and free parking days. Employees also receive an ATA permit or Commuter Dollars.¹</p>
<p>Vanpool For eight or more persons traveling together (including employee and student commuters). UCI currently operates 21 vanpools.</p>	<p>Single fare regardless of distance traveled. Incentives to vanpool participants include four days of free parking per month for employees who do not purchase a long-term parking permit. Employees also receive an ATA permit or Commuter Dollars.¹</p>
<p>Trains Metrolink and Amtrak provide service to stations in Tustin and Irvine.</p>	<p>Students and employees can receive a monthly subsidy for train fare. Employees also receive an ATA permit or Commuter Dollars.¹ OCTA or vanpool connections from stations to UCI. In addition, UCI participates in the Zero Emission Vehicle–Network Enabled Transportation (ZEV-NET) program. Two ZEV-NET vehicles allow rail commuters to travel between UCI and the Irvine Transportation Center on a shared-used basis.</p>
<p>Bicycles and Scooters</p>	<p>Employees receive an ATA permit or Commuter Dollars.¹ Incentives provided for bicycle and scooter purchases.</p>
<p>Walking</p>	<p>Employees receive an ATA permit or Commuter Dollars.¹</p>
<p>Parking Policy Measures implemented to influence commuting and parking behavior.</p>	<p>Prohibit on-campus and University Center undergraduate residents from purchasing daytime commuter parking permits. Use parking fees as incentive to promote alternative commute modes. Discount parking permit rates for carpools and vanpools.</p>
<p>Land Use Planning Policies that can be adopted by UCI administration to influence commuting and parking behavior.</p>	<p>Adopt strategic goal of housing 50 percent of student enrollment on campus. Support on-campus faculty and staff housing program. Expand bikeways, pedestrian ways, and grade-separated crossings to promote alternative travel modes.</p>

¹ ATA permits are daily parking permits that are valid in general, unmarked, or reserved stalls. Commute Dollars may be used to purchase one-day parking permits or food from participating on-campus vendors.

Key Planning Objectives for the Circulation Element

1. Manage campus transportation systems proactively to improve mobility, efficiency, and environmental quality.
2. Provide convenient access for campus commuters and visitors while limiting vehicle impacts on the pedestrian quality of the campus.
3. Implement Transportation Demand Management measures to support transit and alternative transportation.
4. Enhance the campus pedestrian and bicycle network, including grade-separated crossings at key points to limit conflicts with vehicular roadways.
5. Promote non-automobile transportation modes, including pedestrian, bicycle, electric scooter, and other modes of travel to enhance the pedestrian and bicycle experience, improve safety, and increase the efficiency of vehicular roadways.
6. Provide off-street facilities, such as turnouts and bus shelters, where feasible at campus bus and shuttle stops.

as planned in the 1989 LRDP; (4) completing the Arroyo Drive loop road to California Avenue; and (5) creating two new vehicular entry points, one each along Campus Drive and Bonita Canyon Drive, to facilitate the movement of residential and other traffic in these areas. The roadway network will be sufficient to serve the campus without requiring the extension of California Avenue through the Ecological Reserve, which was proposed in the 1989 LRDP; as a result, this link will not be implemented as part of the 2007 LRDP.

UCI implements a comprehensive series of Transportation Demand Management (TDM) measures aimed at reducing peak hour commuter trips and discouraging the use of single-occupancy vehicles on the regional and campus roadway systems. Consequently, these measures also improve air quality, reduce noise impacts resulting from vehicular traffic volumes, and

lessen demand for campus parking facilities. Current TDM measures undertaken by the campus (see *Table 5-3*) have successfully increased UCI’s “Average Vehicle Ridership,” as determined by South Coast Air Quality Management District Regulation XV trip reduction guidelines, to 1.9 employees per vehicle, one of the highest rates of any large employer in the region.¹

The effectiveness of these TDM measures has permitted the campus to defer expansion of its transportation system, including the construction of additional parking facilities. As it grows, UCI will continue to monitor campus traffic patterns and implement TDM measures to limit traffic volume on campus and local community roadways. The widening of existing campus roadways identified in the 2007 LRDP would only occur following a determination of necessity based on level of service standards, and only after the implementation of TDM measures and LRDP intersection improvements as well as an evaluation of alternatives.

Roadway entrances to UCI will include entry monumentation and signage consistent with the scale and hierarchy of the campus entrance in order to convey campus identity and provide direction to students, employees, and visitors.

Vehicle Parking

In 2005-06, UCI supplied approximately 12,600 parking spaces for commuters and visitors in parking structures and surface lots distributed across the Academic Core and Health Sciences complex. The existing ratio of spaces per commuter is approximately 0.68.²

The 2007 LRDP will accommodate approximately 16,500 parking spaces for commuters and visitors by 2025-26, or about 3,900 (31 percent) more spaces than existing (additional success in implementing UCI’s Transportation Demand Management program could reduce the number of parking spaces provided). By this time, the vast majority of existing surface parking

1. “Average Vehicle Ridership” (AVR) is the number of employees commuting to a work site during the morning commute period, totaled over five consecutive weekdays, divided by the number of vehicles those employees drive, totaled over the same five consecutive weekdays. An AVR of 1.0, therefore, equates to an average of one employee per vehicle. Part of the Air Quality Management District’s clean air plan counts on work sites with 100 or more employees increasing their AVR each year toward a goal of 1.5.

2. Based on current commuter behavior and parking space utilization, UCI sets a target ratio of 0.48 spaces per student, faculty, and staff commuter. This target ratio maintains a 90 percent peak parking occupancy, which is equivalent to industry standards for parking utilization.



The Multipurpose Academic and Administration Building and the 1,800-space Social Sciences parking structure are integrated.

will be displaced to accommodate new construction in the Academic Core and the Health Sciences complex; lost parking spaces will be replaced in new structures developed in strategic locations along the perimeter of these two areas. Small, dispersed parking areas will continue to serve special permit, service, and disabled parkers.

The 2007 LRDP identifies existing and proposed parking structures and primary vehicular access routes to these locations (see *Figure 5-4*). Key concepts of the parking program include:

- Implementing a coordinated system of parking policies and administrative measures to manage parking demand and limit related environmental impacts;
- Distributing parking at the perimeter of the academic core near primary campus entrances to intercept vehicles entering the campus, limit cross-campus traffic, and preserve the pedestrian character of the core;
- Providing on-site parking for outer campus land uses such as housing, income-producing Inclusion Area, and other development to accommodate site-specific parking demand;
- Phasing construction of multi-level parking structures as surface parking lots are displaced by academic buildings in order to most efficiently utilize premium land resources; and

- Integrating building space with parking structures to promote land use efficiency, encourage human scale, and diminish the visual impacts of parking structures.

The effectiveness of UCI's Transportation Demand Management program and parking policies will be monitored through environmental assessments conducted to evaluate 2007 LRDP parking demand and available supply.

Bikeway Network

UCI promotes the use of bicycles to and from and on the campus as an alternative to the automobile. The 2007 LRDP bikeway network consists of a system of on-street bike lanes and off-road trails. With the objective of promoting bicycle commuting and safe and convenient intra-campus bicycle travel, this network includes connections to local and regional bikeways and outer campus neighborhoods; shower and locker facilities; and strategically placed bicycle parking areas in the Academic Core, Health Sciences complex, and other destinations on campus.

The 2007 LRDP provides a framework that is designed to accommodate growing demand on UCI's bicycle transportation network (see *Figure 5-5*). Key elements of the plan include:

- Strengthening the bicycle network through the use of dedicated bikepaths, joint use trails, and on-street bike lanes that serve to connect campus destinations;
- Providing secure and convenient bicycle parking areas (possibly included within parking structures);
- Constructing bicycle and pedestrian crossings over roadways to reduce conflicts with vehicles and to improve the efficiency and safety of bicycle circulation;
- Improving linkages to local and regional bicycle trails and prominent off-campus destinations, such as local schools, commercial and retail districts, and open space resources; and
- Coordinating campus bicycle circulation plans with City of Irvine and County of Orange bikeway planning efforts.



- EXISTING PARKING STRUCTURE
- FUTURE PARKING STRUCTURE
- PRIMARY VEHICULAR ACCESS

Figure 5-4. Existing and proposed parking structures in the Academic Core and Health Sciences complex.

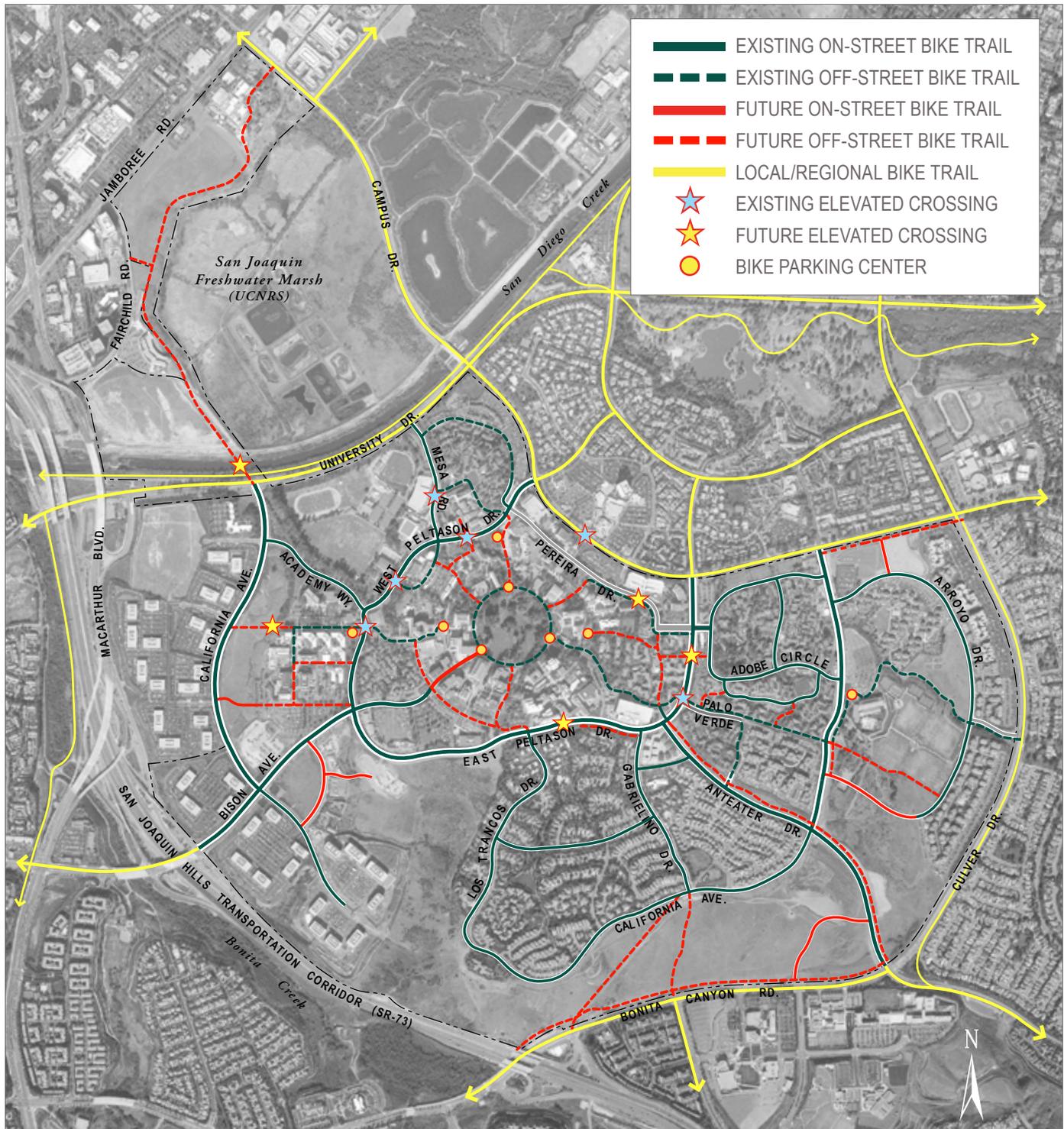


Figure 5-5. Existing and proposed bicycle circulation network.



This bicycle/pedestrian over-crossing connects East Campus residential areas to the academic core.

Pedestrian Network

Walking is the primary mode of travel on the UCI campus. The 2007 LRDP pedestrian network consists of pedestrian malls, formal walkways, pathways, trails, and connections to pedestrian facilities in the local community, all of which are intended to create a desirable physical environment, support healthy lifestyles, and reduce automobile usage (see *Figure 5-6*).

The 2007 LRDP identifies pedestrian routes that create safe, convenient, and efficient access to campus facilities, and that place an emphasis on sensitive environmental design. The Ring Mall, Radial Malls, and sidewalks along major roadways all are primary components of the pedestrian network serving the Academic Core and outer campus areas (see *Figure 5-7*). Secondary pedestrian paths, particularly those in Aldrich Park and campus greenbelts, provide alternative routes for traversing the campus. With all future improvements, special attention will be given to serving the needs of the disabled. Key elements of the pedestrian network include:

- Strengthening the campus pedestrian circulation system to link outer campus sectors with the Academic Core;
- Developing grade-separated pedestrian crossings at strategic locations;

- Providing pedestrian trails to promote recreation within outer campus areas, including hiking and jogging;
- Expanding the pedestrian trail system in the outer campus to include connections to UCI and regional open space resources; and
- Providing a campuswide circumferential trail system with connections to off-campus trails.

HOUSING ELEMENT

As described in Chapter 3, the availability of housing on or near the campus is a significant factor in UCI remaining a great university and its importance to the mission of the University cannot be overstated. A community-in-residence offers opportunities for a complete university experience. Access to affordable housing proximate to the Academic Core supports the recruitment and retention of faculty, staff, and students. On-campus housing also provides benefits to the community, such as reducing peak-hour commuting traffic and associated environmental impacts, limiting UCI demand on the local housing market, and supporting regional goals for jobs-housing balance. Given the known benefits of on-campus housing to the academic enterprise, since its founding UCI has designated significant land area for residential uses.

Throughout its history, UCI has aggressively pursued the ideal of “the University as a town” by adopting plans to house a considerable number of students and faculty on the campus. This model also relies on the availability of moderately priced housing in the City of Irvine and other surrounding communities. The escalation of community housing prices, however, has negatively affected the ability of many University affiliates to obtain local housing. The affordability gap has played a significant role in whether UCI is able to recruit and retain high-caliber faculty, staff, and graduate students and, consequently, the provision of adequate housing is identified as a strategic priority for the campus in order to advance its academic goals. UCI will continue to work collaboratively with the City of Irvine and others in the local community to identify on- and off-campus solutions to address the campus population’s housing needs.

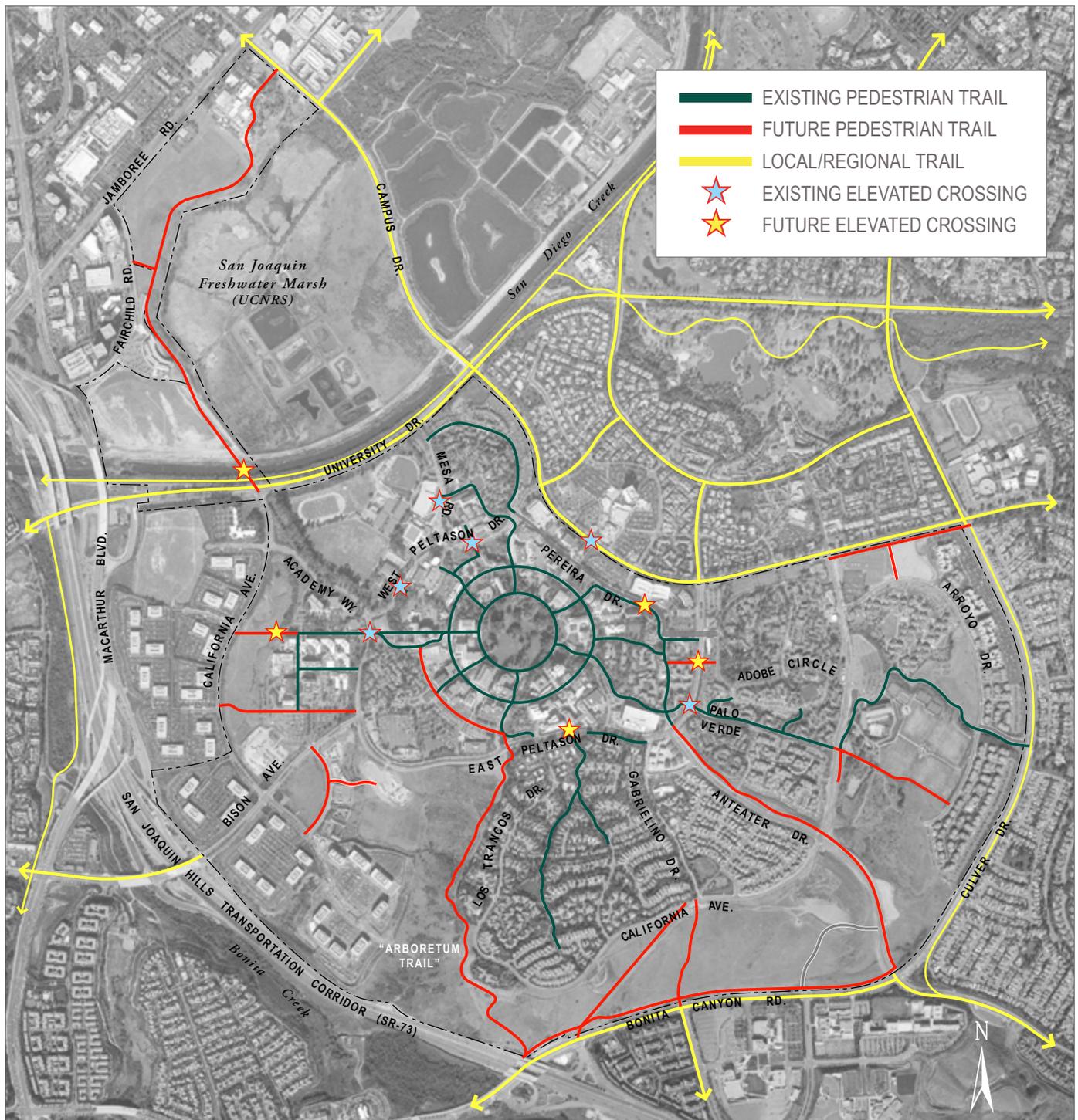
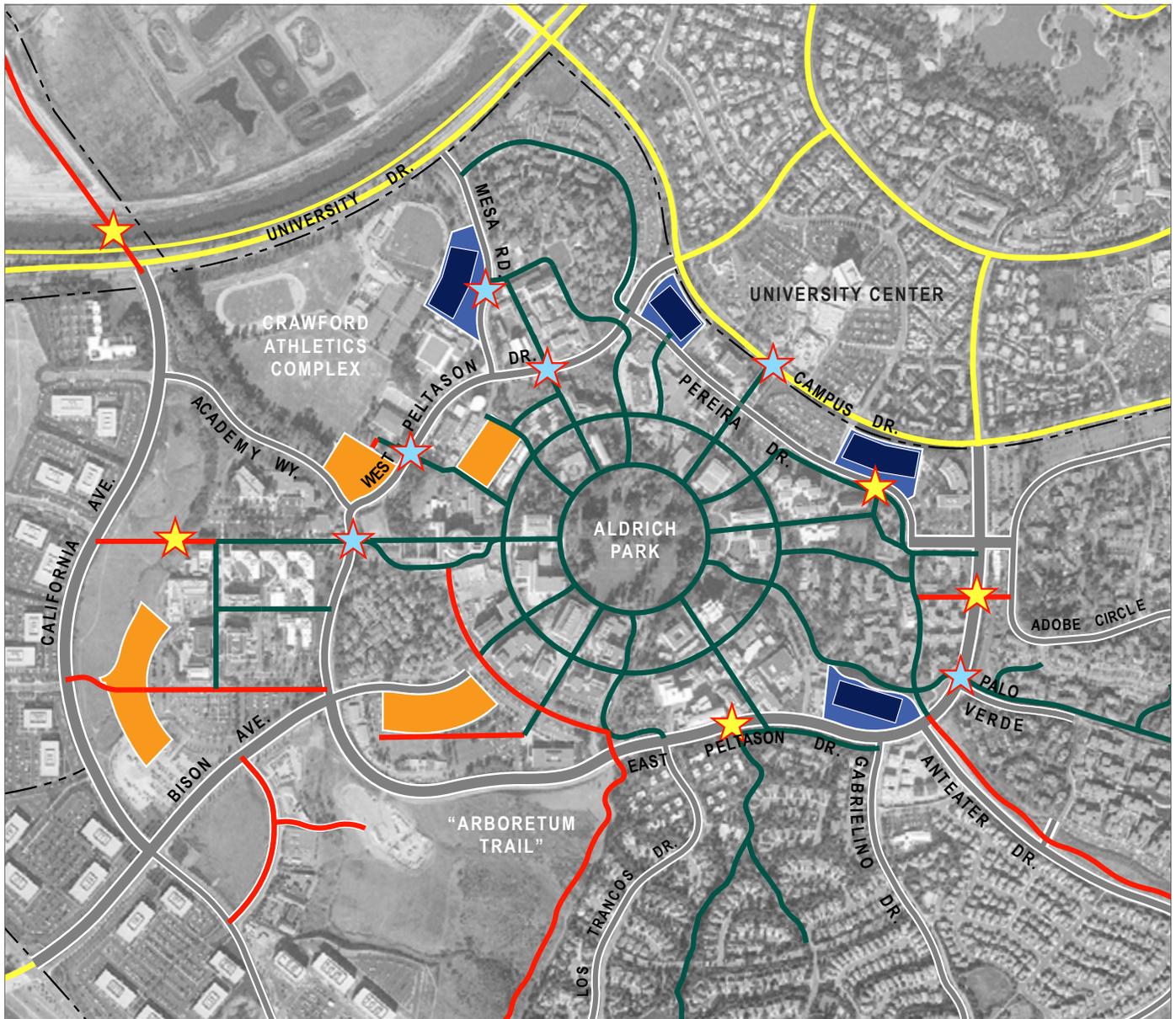


Figure 5-6. Existing and proposed pedestrian circulation network.



- EXISTING PEDESTRIAN TRAIL
- FUTURE PEDESTRIAN TRAIL
- LOCAL/REGIONAL TRAIL
- EXISTING ELEVATED CROSSING
- FUTURE ELEVATED CROSSING
- EXISTING PARKING STRUCTURE
- FUTURE PARKING STRUCTURE

Figure 5-7. Existing and proposed pedestrian circulation network in academic core.

Key Planning Objectives for the Housing Element

1. Develop high-quality residential neighborhoods to advance a strong community-in-residence at UCI.
2. Provide accessible and affordable housing opportunities to support the recruitment and retention of faculty, staff, and students.
3. Provide sufficient student housing on the campus to accommodate 50 percent of UCI's on-campus enrollment.
4. Address the demand for University housing in order to limit UCI's impact on the local housing market and traffic circulation system.
5. Expand neighborhood support uses to enhance residential life.

Many scholars predict that the advancement of on-line learning and other technology will continue to reshape higher education during the LRDP planning horizon. While these changes will affect campus life in many ways by making the delivery of instruction more efficient, they will not replace the need for on-campus instruction and housing nor diminish the benefits of an academic residential experience for students. Learning occurs both inside and outside of the classroom, in formal and informal settings, and therefore on-campus student housing will continue to contribute to the educational and social character of the academic community.

In light of the above considerations, the 2007 LRDP identifies an on-campus housing program to support UCI's academic goals. As described below, the plan accommodates increases in student, faculty, and staff housing, and also designates additional land area for future residential use in order to provide the campus with the flexibility to respond to future housing needs.

Student Housing

Including projects under construction, during the 2005-06 academic year UCI accommodated approximately 10,822 student residents, or about 47 percent of its

on-campus enrollment.³ This compares favorably with the goals outlined in the 1989 LRDP which proposed to provide on-campus housing for 43 percent of enrollment by the horizon year 2005-06. In addition, over 2,750 UCI students currently live in privately-owned housing within the University Center neighborhood adjacent to the campus.

As described in Chapter 3, UCI's current academic plan identifies a goal of housing up to 50 percent of undergraduate and graduate students on the campus. The 2007 LRDP helps to realize this goal by designating sufficient land area to provide housing for 17,637 students, representing approximately 50 percent of the on-campus enrollment accommodated in the LRDP (see *Figure 5-8*). Within this overall goal, UCI will manage the housing supply to respond to demand from specific market sectors (e.g., undergraduates, graduate students, or students with families). Thus, for any given student market sector, the percentage housed on campus may be higher or lower than 50 percent.

In order to achieve the 50 percent housing goal, the 2007 LRDP identifies that new student housing will have to be planned and built at higher densities than existing student complexes in the Academic Core and East Campus (see *Table 5-4*). Student housing at UCI will continue to be constructed through University financed and operated programs as well as third-party, privately financed and operated programs. Housing constructed through either implementation mechanism will be incrementally developed based on current demand and financial feasibility.

Freshmen will continue to be housed in residence halls within the Academic Core, making it more convenient for them to participate in programs that provide incoming students with the transition skills needed to ensure success at UCI. The 2007 LRDP identifies approximately 290 new beds within the Academic Core to accommodate incoming freshmen who choose to live on campus. Based on current participation rates, the 3,837 beds of Core housing identified in the 2007 LRDP could accommodate an incoming class of approximately 5,000 students. Construction of new freshman housing in the Academic Core would likely involve infill

3. As described in Chapter 2, students who are enrolled in programs that generally do not require a daytime presence on campus are not included in the on-campus population. This includes self-funded graduate students, medical residents and interns, and students enrolled in University Extension. These students generally are ineligible for on-campus housing and are seldom on campus.

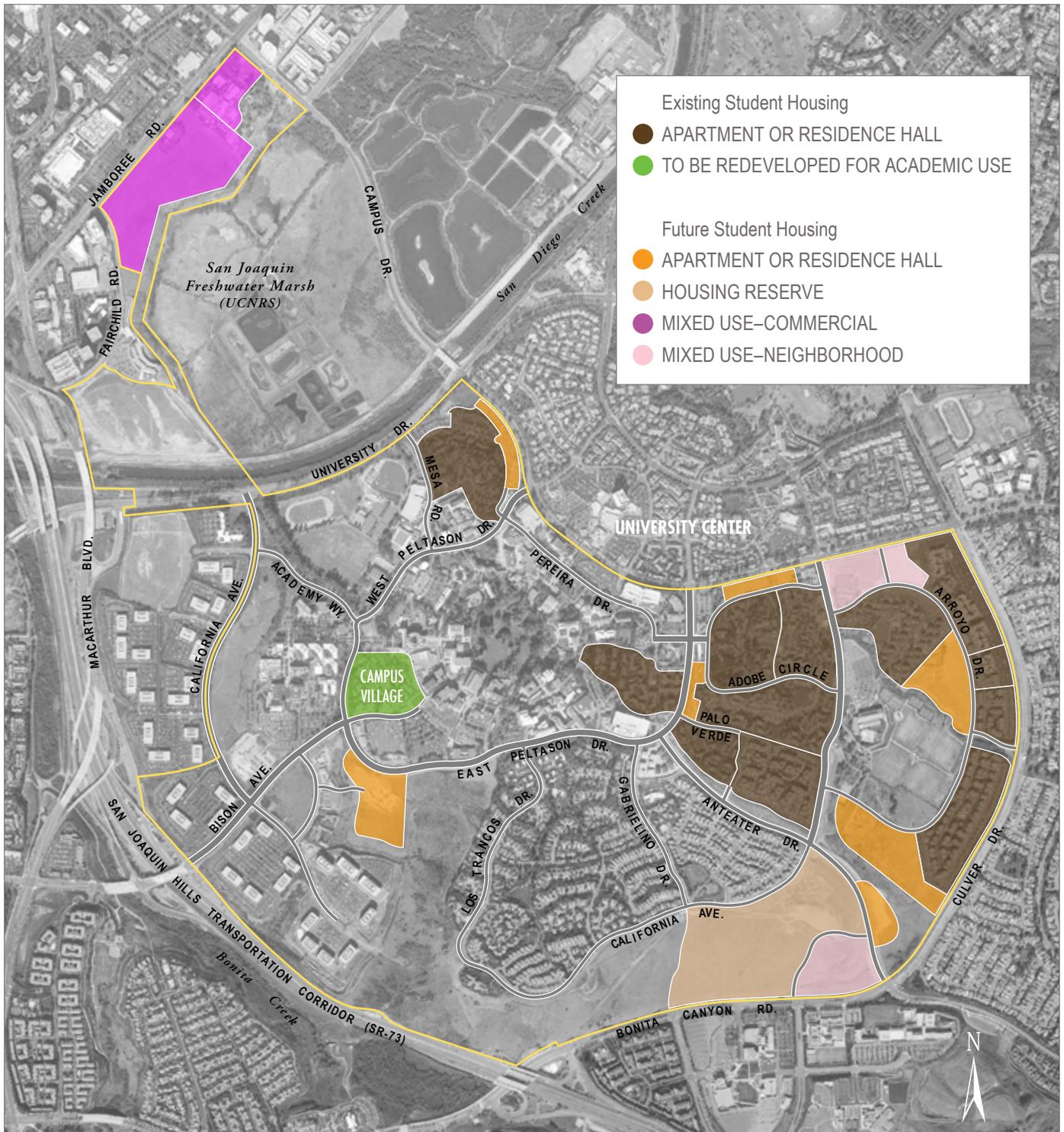


Figure 5-8. Existing and proposed student housing areas.

Table 5-4. Existing and Proposed Student Housing¹

Planning Sector	Acres			No. of Beds			Average Density (Beds/Ac)	
	Actual 2005-06	2007 LRDP 2025-26	Change	Actual 2005-06	2007 LRDP 2025-26	Change	Actual 2005-06	2007 LRDP 2025-26 ²
Academic Core	55	43	(12)	4,331	3,837	(494)	79	100 to 125+
West Campus	–	12	12	–	1,190	1,190	–	100 to 125+
East Campus	167	231	64	6,491	12,610	6,119	39	90 to 120+
Totals	222	286	64	10,822	17,637	6,815	49	90 to 125+

¹ Figures include existing and proposed housing in the following land use categories: Student Housing and Mixed Use–Neighborhood. Totals for 2005-06 include projects under construction.

² Figures represent targeted densities for new student housing construction.

development or expansion of existing student housing neighborhoods.

The 2007 LRDP identifies the redevelopment of the Campus Village apartments site located in the Academic Core to an academic land use. This complex, which was built in 1979 and currently houses about 780 upper and lower division undergraduate students, would make way to accommodate future facilities needed for instruction and research. New student housing planned in the East Campus and West Campus would replace the dwellings lost at the Campus Village site.



Arroyo Vista is a unique community housing students on the basis of campus involvement, academic interests, or Greek membership.

Consistent with current practice, housing for upper division undergraduate and graduate students will be provided in the East Campus sector. Based on program needs and preferences, upper division undergraduate and graduate students will be housed in apartments, rather than in residence halls or other suite configurations. A portion of future housing in the East Campus may be assigned to affiliated groups, including fraternities, sororities, language houses, cooperatives, and other organizations.

Currently, nearly 6,500 students reside on the East Campus in housing built at an average density of 39 beds per acre. The 2007 LRDP identifies this sector as accommodating approximately 12,610 student residents. To achieve this, the density of future individual housing projects on the East Campus will need to exceed this average (at a minimum of 90 beds per acre) and may take the form of buildings between four and six stories (or higher) served by structured parking. In addition, some existing housing areas will need to be redeveloped at higher densities.

The 2007 LRDP identifies two mixed-use areas that will combine housing for upper division undergraduate and graduate students with support facilities such as food service, commercial or campus retail, meeting space, cultural facilities, and other related venues. These mixed-use districts provide opportunities to develop centers of activity to promote campus life consistent with UCI planning principles.

Faculty and Staff Housing

To advance the ideal of “the University as a town,” the 1970 LRDP proposed that 20 percent of UCI’s faculty and five percent of its staff be housed on the campus. The plan called for 1,187 housing units of various types to be built on 135 acres at an average density of 8.8 dwelling units per acre. The 1989 LRDP later amended this plan by identifying the construction of 1,100 faculty and staff housing units by 2005-06 on approximately 212 acres, and built at an average density of 5.5 units per acre.

As described in Chapter 4, The Regents in 1983 approved the establishment of the Irvine Campus Housing Authority (ICHA), a nonprofit corporation created to administer the housing program. As part of its duties, ICHA assesses faculty and staff housing needs, makes policy recommendations regarding future phases of housing, and oversees the implementation and management of affordable employee housing on the UCI campus. Over the past two decades, ICHA has assisted in the development of nine phases of faculty and staff housing in University Hills, the on-campus community-in-residence established under a ground lease from The Regents.

Including projects under construction, University Hills currently consists of 1,108 dwelling units (240 apartment units and 868 for-sale housing units) on approximately 202 acres in the southern sector of the campus, at an average density of 5.5 dwelling units per acre (see *Table 5-5*). The 2007 LRDP accommodates an additional 142 dwelling units within the same general land areas identified in the 1989 LRDP by increasing the density of new housing built to approximately 12 units per acre.

UCI’s strategic plan for academic development concluded that faculty housing is crucial for recruitment and hence should be the highest priority of housing types, followed by graduate and then undergraduate housing. As a result, the 2007 LRDP also permits the development of faculty and staff housing at additional sites on the East Campus and the North Campus (see *Figure 5-9*).

The 2007 LRDP identifies a Housing Reserve on the East Campus to accommodate future University housing needs, and it is reasonably foreseeable that it will be developed for additional faculty housing (see below). As shown in *Table 5-5*, approximately 450 dwelling units could be constructed in the Housing Reserve, resulting

Table 5-5. Existing and Proposed Faculty and Staff Housing¹

University Hills	Acres			No. of Dwelling Units (DUs)			Average Density (DUs/Ac)	
	Actual 2005-06	2007 LRDP 2025-26	Change	Actual 2005-06	2007 LRDP 2025-26	Change	Actual 2005-06	2007 LRDP 2025-26 ²
Phases 1-7	139	139	0	700	700	0	5.0	–
Phase 8	33	33	0	218	218	0	6.6	–
Phase 9	25	25	0	90	90	0	3.6	–
Santiago Apartments	5	5	0	100	100	0	20.0	–
Phase 9+	–	12	12	–	142	142	–	≥ 12.5
Subtotals	202	214	12	1,108	1,250	142	5.5	≥ 12.5
Housing Reserve ³	–	54	54	–	450	450	–	≥ 12.5
Totals	202	268	66	1,108	1,700	592	5.5	≥ 12.5

¹ Totals for 2005-06 include projects under construction.

² Figures represent targeted densities for new faculty and staff housing construction.

³ UCI’s strategic plan for academic development concluded that faculty housing is crucial for recruitment and hence should be the highest priority of housing types, followed by graduate and then undergraduate housing. Accordingly, it is reasonably foreseeable that the Housing Reserve site will be developed for faculty housing, resulting in a range of 1,250 to 1,700 faculty and staff dwelling units accommodated in the 2007 LRDP.

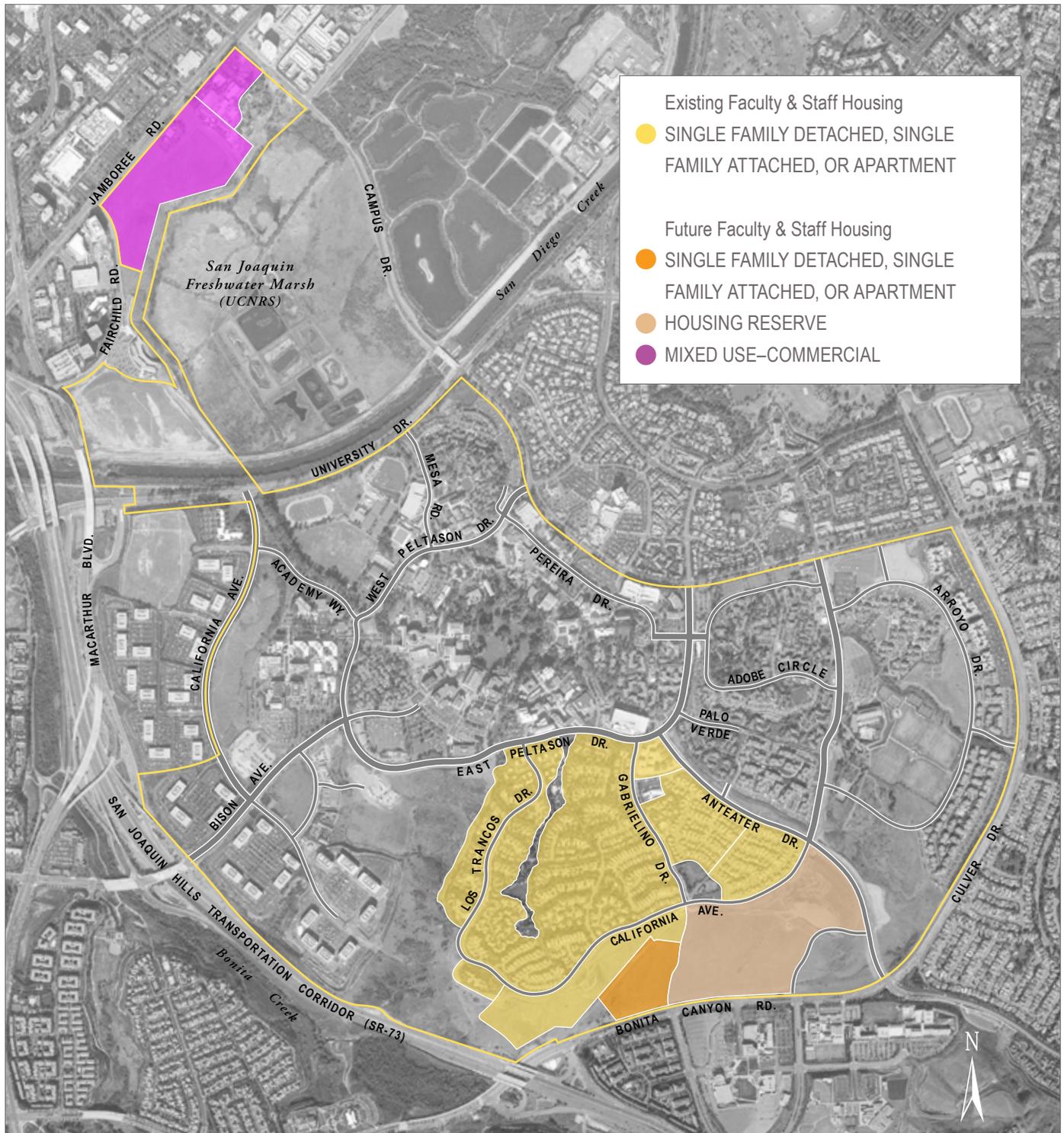


Figure 5-9. Existing and proposed faculty and staff housing areas.



University Hills residential community.

in a range of 1,250 to 1,700 faculty and staff dwelling units accommodated in the 2007 LRDP.

Consistent with goals outlined in the academic strategic plan, UCI also continues to pursue the expansion of faculty and staff housing opportunities at off-campus locations in collaboration with the local community.

East Campus Housing Reserve

The 2007 LRDP designates as Housing Reserve approximately 54 acres within the East Campus sector. (This area was previously identified in the 1989 LRDP for student housing.) This land use category allows the campus flexibility to accommodate additional housing needs through the planning horizon year—whether for students, faculty, staff, medical residents and interns, post-doctoral scholars, or other University affiliates. It also enables the campus to more effectively respond to market factors that govern the availability of local off-campus housing.

North Campus Housing

The 2007 LRDP identifies a program of 435 multi-family dwelling units within areas designated as Mixed Use–Commercial on the North Campus. As an Inclusion Area use, this housing may be either sold or rented to the private market in order to generate revenue to support UCI academic programs. North Campus residents may also include University faculty, staff, and students.

Off-Campus Housing Opportunities

While the 2007 LRDP will enable a substantial expansion of on-campus housing, more demand will exist for moderately priced housing to support the recruitment and retention of faculty, students, and staff. In this regard, UCI will continue to pursue off-campus housing opportunities with the local community. Such opportunities may include cooperative rental agreements; the acquisition of existing rental or for-sale properties; ground lease arrangements; mortgage support; partnerships with local homebuilders; participation in City of Irvine or other local housing programs; or residential development by the University at off-campus locations. No specific off-campus housing projects are identified at this time.

OPEN SPACE ELEMENT

Open space plays a vital role in university life and in the educational experience at UCI. Due to Southern California’s Mediterranean climate, outdoor activity occurs virtually year-round on the campus, and the availability of open space is essential. In addition, open space is a major determinant of UCI’s visual structure and image. The spatial distribution and interconnection of open spaces work together to form a system that has a powerful effect on the visual cohesion of the campus, whether developed through landscaping or left in a natural state.

The 2007 LRDP identifies an open space network consisting of interconnected parks, athletic fields, recreational facilities, trail systems, open space corridors, and habitat areas (see *Figure 5-10*). Under the plan, approximately 415 acres, or 28 percent, of the UCI campus, will remain as open space.

Aldrich Park forms the central open space feature of the campus. This 16-acre park contrasts with the densely built Academic Core and provides a venue for passive recreation. As shown in *Table 5-1*, permitted uses within Aldrich Park are limited to open space; pedestrian and bike trails; water features, public art, and other landscape elements; and small dining and seating amenities. At the perimeter, academic facilities will be designed in a manner that engages the park and encourages visual and social interaction consistent with campus goals.



Figure 5-10. Campus open space network.

The open space network within the Academic Core radiates from Aldrich Park and consists of an interlinked system of tree-lined pedestrian malls and public spaces, small gardens and parks within the academic quads, and greenbelts (see *Figure 5-11*). The system is intended to provide areas for sitting and social gathering; accommodations for walking, jogging, and passive recreation; and visual relief from the urban core. In addition, open space helps to restore a sense of human scale.

In the outer campus neighborhoods, the open space network includes both formal and informal open space such as pedestrian malls, greenbelts and pedestrian paseos, neighborhood and community-level parks, habitat corridors, and informal open space corridors linking campus land use areas.

The 2007 LRDP accommodates a linear arboretum linking the Academic Core and the South Campus. The arboretum would include native and non-native botanical collections along a linear trail system connecting Aldrich Park, the Ecological Reserve, and other campus trails (see *Figure 5-6*).

As depicted in *Figure 5-10*, 135 acres of open space within the outer campus are enlisted in a 37,000-acre reserve established by Natural Community Conservation Planning (NCCP) program for the central/coastal Orange County subregion. This land is



Pedestrian pathway approaching the School of Social Ecology.

Key Planning Objectives for the Open Space Element

1. Dedicate and manage open space to provide visual relief, buffer development, and promote active and passive recreation.
2. Preserve and enhance significant habitat resources.
3. Encourage environmental enhancement, including promotion of water resource and water quality systems.
4. Provide a network of open space corridors to link the campus community with connections to the regional open space network.
5. Develop a linear arboretum and trail systems to link the Academic Core and the South Campus.
6. Develop a network of pedestrian trails in campus open space areas to encourage passive recreation.

committed to habitat conservation and management and is administered in cooperation with other regional landowners as part of the non-profit Nature Reserve of Orange County.

In addition to the approximately 415 acres of open space on the main campus, the UC Natural Reserve System manages the adjacent 202-acre San Joaquin Freshwater Marsh, bringing the total amount of open space administered by UCI to about 617 acres. Because the San Joaquin Freshwater Marsh operates to support biological research and teaching, access to trails within the marsh is limited to authorized scientific personnel and guided tours.

INFRASTRUCTURE ELEMENT

The 2007 LRDP will build on UCI's existing utility systems described in Chapter 2. Expansion of utility infrastructure will be required to meet the program needs identified in the LRDP. UCI will continue to work in collaboration with public utility providers to plan and monitor campus utility demand and to implement expansion of distribution systems as needed to serve LRDP growth.

UCI currently implements a comprehensive system of utility and energy management programs. These include water conservation measures and waste reduction and recycling programs. Pursuant to the planning

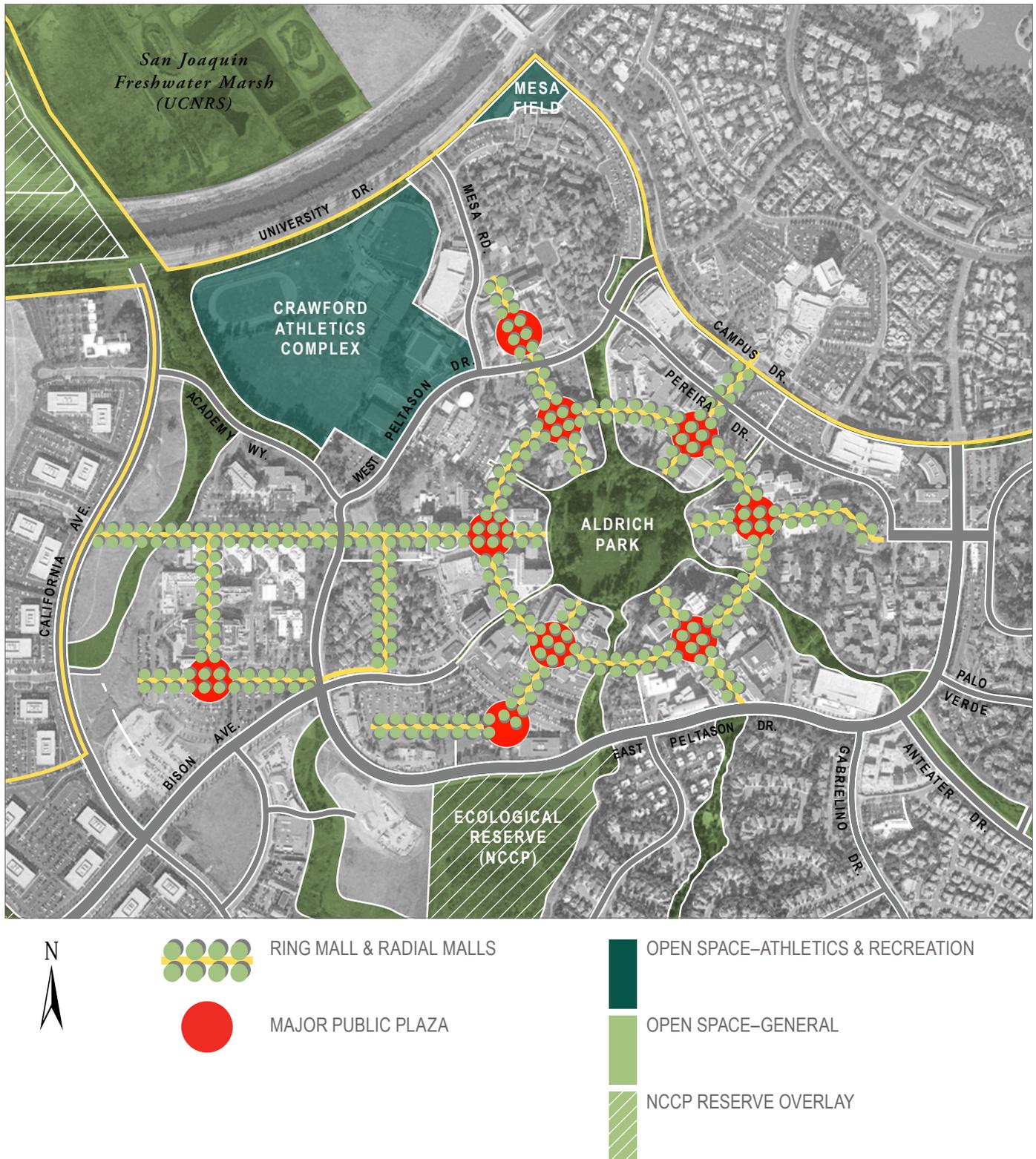


Figure 5-11. Open space network in academic core.

principles outlined in the 2007 LRDP, UCI is committed to stewardship of the environment and reducing its dependence on non-renewable energy sources. Examples of current UCI sustainability efforts include:

- Construction of a cogeneration (combined heat and power) facility capable of generating up to 13 megawatts of power for campus operations;
- Purchasing green power from the electrical grid;
- Investigating energy projects—such as solar power—that will reduce campus fossil fuel consumption;
- Incorporating energy retrofit projects into major UCI building renovations;
- Working in collaboration with the U.S. Green Building Council to establish the first campus-wide Leadership in Energy and Environmental Design (LEED™) green building design and certification program in the U.S.;
- Advancing fuel cell technology through research at UCI’s National Fuel Cell Research Center; and
- Powering campus shuttles with 100 percent biodiesel fuel.

UCI will continue to encourage environmentally appropriate practices in its long-range planning and design of the campus, consistent with UC policies on sustainable practices and energy conservation.

Wet Utility Systems

Wet utility systems serving UCI include domestic water, reclaimed water, sanitary sewer, and storm drainage infrastructure. Water and sewer service to the main campus is provided by the Irvine Ranch Water District (IRWD), and the Municipal Water District of Orange County (MWDOC) provides similar service to the North Campus. Campus storm drain facilities are coordinated with the Orange County Flood Control District and local implementation of the Federal and State Clean Water Acts is through the Santa Ana Regional Water Quality Control Board.

Program development identified in the 2007 LRDP will require the expansion of existing distribution facilities for domestic water and reclaimed water used for irrigation and other non-potable water needs. The IRWD Michelson Avenue Treatment Plant provides reclaimed water to serve the campus.

Key Planning Objectives for the Infrastructure Element

1. Provide utility infrastructure in cooperation with public utility providers to enable the physical growth of the campus consistent with UCI’s strategic academic objectives.
2. Adopt efficient, “green” energy systems to conserve resources, manage energy costs, and promote environmentally beneficial practices.
3. Pursue energy self-sufficiency through cogeneration and other means in order to acquire a reliable supply of energy and to reduce impacts on local utility systems.

Existing sanitary sewer distribution systems will need to be upgraded to accommodate growth identified in the 2007 LRDP. Main campus systems located north of California Avenue feed into IRWD facilities in Campus Drive, Culver Drive, and University Drive for transmission to the IRWD Michelson Avenue Treatment Plant. Main campus areas south of California Avenue feed into IRWD facilities in Bonita Canyon Drive for transmission to the Michelson Treatment Plant. North Campus systems feed into MWDOC distribution facilities in Jamboree Road for transmission to the MWDOC Fountain Valley Treatment Plant.

The 2007 LRDP provides for the expansion of existing storm drain facilities. This includes modifications to the current system of overland drainage channels, storm drain culverts and pipes, check dams, detention basins, and water quality features such as bio-swales and interceptor ditches. Main campus land areas north of California Avenue are conveyed to the San Diego Creek Channel. Areas south of California Avenue are conveyed to the Bonita Creek Channel. North Campus land areas are conveyed to the San Diego Creek Channel via facilities in Jamboree and Fairchild Road.

Dry Utility Systems

Dry utilities serving the campus include electrical power generation and distribution systems, Central Plant utility systems, natural gas, and data communications (telephone, data, cable TV, cellular, fire signal, and wireless).

The electrical generation system includes the 13-megawatt cogeneration facility located at the Central Plant. Gas-fired turbine generators serving steam-driven chillers produce electrical power and chilled water. Two electrical substations receive and distribute high-voltage power from Southern California Edison for any power needs not met by the cogeneration facility.

Central Plant utility systems consist of chilled water, high temperature hot water, and other centrally distributed utilities serving the Academic Core and Health Sciences complex. A future satellite utility plant will be located in the Health Sciences complex to provide additional chilled water capacity and other central plant needs. At 4.5 million gallons and 53,000 ton-hours of storage capacity, UCI has the largest thermal energy storage tank in the western U.S., allowing the campus to produce and store chilled water during off-peak hours which aids in the offset of up to five megawatts of expensive on-peak electricity.

The Southern California Gas Company distributes natural gas on campus, including high-pressure gas service to the Central Plant and low-pressure service to all sectors of the campus. The future satellite plant in the Health Sciences complex will likely require high-pressure gas service. In addition, all existing data and communications systems will require expansions to serve LRDP growth.