UC San Diego
Physical Design Framework






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I. Overview

From its inception in 1960, the University of California, San Diego has engaged in integrated campus planning. Its earliest formal plans, the 1963 Academic Plan and the 1963 Long Range Development Plan (LRDP), defined key academic and auxiliary program goals, and described physical design concepts which guided the transformation of the main campus site, a former military training base, into a world class research university (Figure 1).



Figure 1. 1963 Long Range Development Plan

UC San Diego's 2009 Physical Design Framework:

- is integrated with the Capital Financial Plan which delineates UC San Diego's key academic, strategic, and specific building goals,
- summarizes the planning and design criteria that guide the siting and development of capital projects,
- describes the consultative processes that enable sustainable growth and preservation of the campus' extraordinary physical environment, and
- provides a synopsis of the portfolio and hierarchy of land use plans and design. Documents that guide physical improvements include a) the LRDP, b) urban design philosophy for the entire campus known as the Master Plan Study, and c) a series of analyses that provide guidance for the development of specific regions of the campus known as neighborhood planning studies.

The Physical Development Framework is a synthesis of this compendium of plans which enable effective stewardship of UC San Diego's physical environs and implementation of individual capital projects. Appendices 1-4 provide the complete set of campus planning documents which this Framework incorporates by reference.

- The LRDP (Appendix 1) is the official, general land use plan adopted by the Regents in 2004, and evaluated in a program level Environmental Impact Report, that guides the physical development of the campus. The LRDP identifies key academic and student life goals, development objectives, campus land uses, and amounts of new building space needed to support program expansion through the planning horizon year of 2020-21. Further, the LRDP includes key planning parameters: e.g.,

enrollment targets, faculty and staff population statistics, square footage objectives, housing and parking data, etc.[1]

- **The 1989 Master Plan Study** (Appendix 2) is an advisory document which provides an urban design philosophy and concepts that have been incorporated into the LRDP in the form of five guiding planning principles:

    - The Park: preserve and enhance the natural setting, including the Eucalyptus groves, canyons, and chaparral covered areas, which provides the context for the built environment, by designating these areas as a campus Park;

    - Neighborhoods: develop compact, clearly demarcated neighborhoods to ensure the efficient use of land and provide an opportunity to imbue each neighborhood with a distinctive character;

    - University Center: because UC San Diego is not located in a traditional "college town," achieve the services and atmosphere of a college town by developing one of the neighborhoods as a "town center" within the geographic heart of the campus;

    - Academic Corridors: to make certain that faculty and students in related academic departments have easy access to one another, guide the process of selecting sites for new buildings by establishing conceptual Academic Corridors to cluster facilities for kindred academic departments; and

    - Circulation: meet the need for vehicular access, while preserving and reinforcing an appropriate pedestrian environment, by providing an integrated system of internal roads, paths, and public entries.

- A series of 10 neighborhood planning studies (Appendix 3) analyze discrete development areas of the campus and extend the Master Plan Study by providing more detailed program, site and design information (Table 1). These urban design studies provide updated program objectives and location specific design guidelines that are used to advance the development of individual capital improvement projects.

- As detailed in the Capital Financial Plan, UC San Diego comprises three major Academic Areas: Academic Affairs, Marine Sciences (the Scripps Institution of Oceanography), and Health Sciences (including the schools of Medicine and Pharmacy, and the Medical Center System). Three Vice Chancellors oversee these units and each conducts its own academic and space planning, subject to review by the Academic Senate and by campus-wide committees that report to the Chancellor. Undergraduate and graduate education is embedded primarily within the General Campus departments and programs administered by Academic Affairs. The General Campus also encompasses undergraduate colleges, professional schools, organized research units, and Extended Studies and Public Programs (formerly University Extension).

1 A Long Range Development Plan for the UC San Diego Medical Center – Hillcrest was completed in 1995, and a set of macro and neighborhood level planning studies guide the development of Hillcrest projects (see Appendix 4).

Table 1
UC San Diego Neighborhood Planning Studies

Neighborhood
2006 Revelle and Muir Colleges Neighborhoods Planning Study
2004 University Center/Sixth College Neighborhood Planning Study
2002 Science Research Park Neighborhood Planning Study
2000 School of Medicine Neighborhood Planning Study
2000 East Campus Health Sciences Neighborhood Planning Study
2000 Warren College Neighborhood Planning Study Update
2000 South Scripps Neighborhood Planning Study Update
1998 SIO Upper Mesa Neighborhood Planning Study
1994 SIO Hillside Neighborhood Planning Study
1994 North Campus Neighborhood Planning Study
1990 Warren College Neighborhood Planning Study

II. Context

A. Setting

The UC San Diego main campus is located within the boundaries of both the La Jolla and University City communities of the City of San Diego (Figure 2). The campus comprises 1,150 acres in a spectacular environmental setting that is close to the Pacific Ocean, and includes a variety of landscape features: i.e., canyons, coastal bluffs and Eucalyptus groves. The extraordinary Southern California climate enables the campus community to experience open space areas year-round; accordingly, campus land use plans define opportunities to create memorable spaces that enliven and enrich the experiences of students, faculty, staff, and visitors.

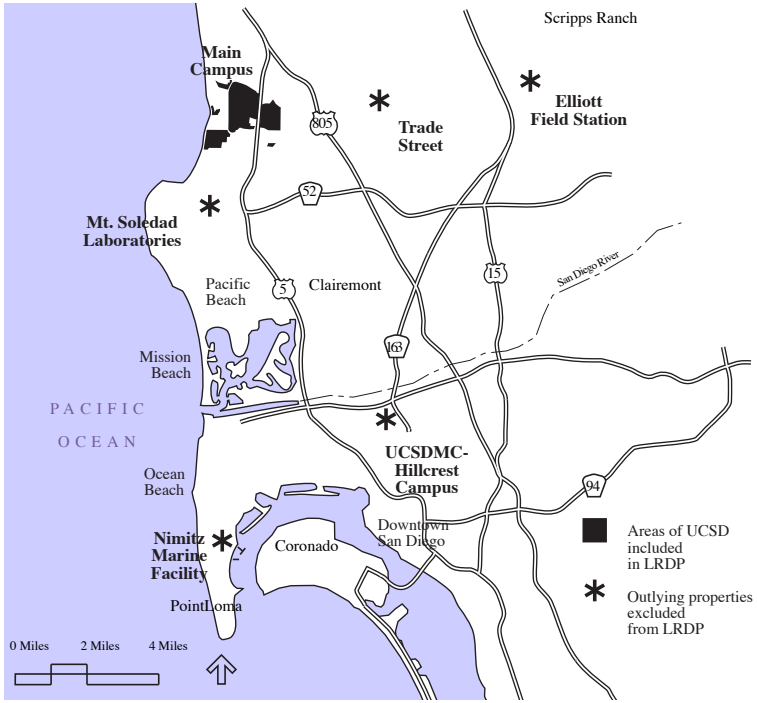


Figure 2. Regional Location Map

B. Growth

As a "growth" campus, UC San Diego experienced an enrollment surge from 1998 to 2008 to accommodate the demand generated from the "Tidal Wave II" cohorts of California high school graduates. Over this period of time, the numbers of graduate and professional students, faculty, staff, increased dramatically while the amount of built space, increased at a remarkable but somewhat slower rate. Tables 2 and 3 provide key planning parameters, including population and space data for 2002 (the LRDP baseline year), 2009 (the current year), and 2020 (the LRDP horizon year). Clearly, although UC San Diego is approaching its undergraduate enrollment target Table 3), substantial growth in graduate and professional students, faculty, staff, and space resources remains to be achieved, including the development of an additional 6.6 million gross square feet of space[1].

1. The LRDP and neighborhood planning studies are physical plans which analyze capital projects and land use capacity in terms of gross square feet (GSF). Note that the Capital Financial Plan uses assignable square feet (ASF) which gives a more specific measure of a building's interior program. Typically, ASF ranges from approximately 55 to 70 percent of GSF.

Table 2
UC San Diego Headcount Population
2002-03, Estimated 2008-09, and Projected 2020-21

Category	2002-03 Actual	2008-09 Estimated	2020-21 Projected
Students			
Undergraduate	18,675	22,525	23,175
Graduate	2,950	4,250	6,000
Health Sciences	1,375	1,425	2,000
Sub-Total Students	23,000	28,200	31,175
Faculty/Researchers	2,600	3,900	4,600
Staff	7,500	8,500	13,925
Total	**33,100**	**40,600**	**49,700**

Notes:

1. Enrollment data are rounded to the nearest 25 and reflect regular year headcount.

2. Student headcount enrollment data are reported above. Note that the Capital Financial Plan provides student FTE enrollment data (including summer enrollments), because FTE data are used in State standards that define new building space allowances.

Table 3
UC San Diego Gross Square Feet (GSF) by Function and Location
2002-03, 2008-09, with Projected 2020-21

	2002-03 Actual	2008-09 Actual	2020-21 Projected
By Function			
Academic	5,156,000	6,212,200	9,437,000
Administration / General Services	718,000	916,300	891,000
Public Venue and Sports	823,000	991,000	1,401,000
Housing and Dining	3,059,000	3,806,900	5,594,000
Hospital and Clinics	326,000	468,300	1,186,000
Science Research Park	-	150,000	650,000
TOTAL	**10,082,000**	**12,544,700**	**19,159,000**
By Location			
SIO	851,000	799,300	1,440,000
West Campus	7,405,000	9,039,900	13,450,000
East Campus	1,151,000	2,395,500	3,737,000
Nearby	675,000	310,000	532,000
TOTAL	**10,082,000**	**12,544,700**	**19,159,000**

Notes:

1. GSF data are rounded to the nearest 1,000.

2. Nearby includes University House, La Jolla del Sol, and various leased properties.

C. Community and Governmental Relations

UC San Diego is widely perceived by the local community as a unique asset that enhances the region's quality of life through numerous programs, activities, and services. Further, the public knows that the campus stimulates the local economy through its expenditures and the synergistic ways it drives the research and development sector in San Diego. UC San Diego generally enjoys excellent community relations with private citizens in the adjacent communities (Figure 3) and the local governmental agencies with which it works to address issues of common concern; e.g., traffic, infrastructure development, water quality and availability, etc.

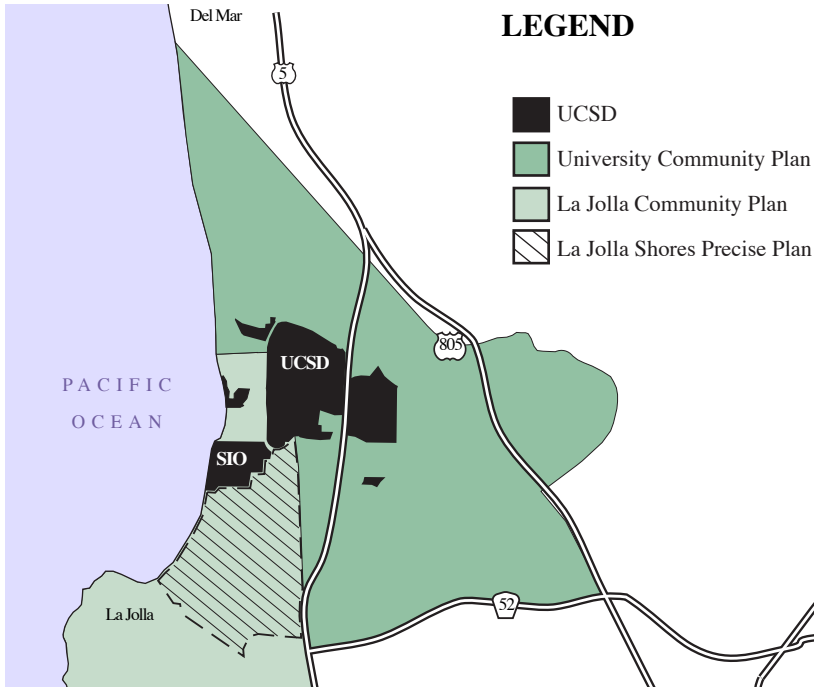


Figure 3. City of San Diego Community Plan Areas

One area of unique interaction pertains to the actions that UC San Diego takes in coordination with the Regional Water Quality Control Board to make certain that seawater used in oceanographic research, and returned to the ocean, meets the standards established by the California Ocean Plan and the federal Clean Water Act. Given both the academic primacy of these programs and the University's commitment to fulfill its public trust obligations, UC San Diego continuously endeavors to complete infrastructure improvements needed to maintain the quality of the local coastal environment. UC San Diego strives to sustain a positive, productive, and responsive relationship with area residents, officials, and agencies by actively interacting with the community and taking public needs and concerns into account when developing campus plans.

D. Physical Relationship to the Community

Given the extraordinary coastal, suburban location of UC San Diego, the campus is committed to developing in a manner that is consistent with the planning objectives that have been established for the adjacent communities. In particular, preserving the natural amenities of this site, including topography, canyons, and bluffs that afford ocean views and include coastal habitats that have unique ecological value, are shared goals with the community. Further, given the beachfront location of facilities which house UC San Diego's marine sciences programs at the Scripps Institution of Oceanography, aesthetic considerations are heightened given the prominence of this locale that is enjoyed by millions of visitors.



Coastal Bluffs



Scripps Institution of Oceanography

E. Environmental Context

There are several environmental issues which UC San Diego carefully considers as it develops plans and projects.

1. Traffic: Located in the heart of the region's rapidly expanding research and development node, UC San Diego is committed to containing the impacts of its growth on community traffic through extensive alternative transportation programs, which include, campus operated shuttles that transport thousands of commuting students to campus on a daily basis from nearby, private off-campus housing facilities.



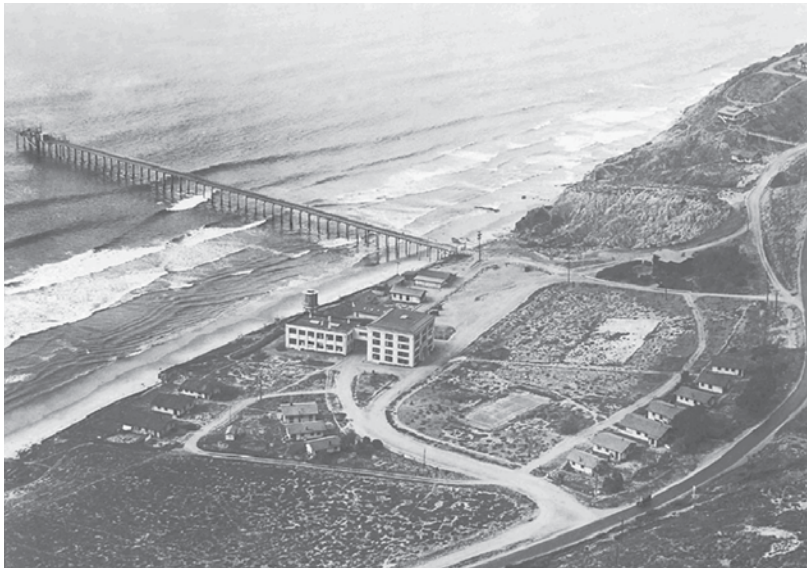
Campus Shuttle

2. Archaeological Resources: Several significant archaeological resources have been identified in campus baseline studies, including sites in which Native American burials have been found. Accordingly, any time a project is proposed for a location that may have potential impacts on human burials, UC San Diego endeavors to employ

qualified Native American monitors to participate in site survey and excavation activities as warranted. Further, one site, the location of the Chancellor's residence (University House), has been designated by the California Native American Heritage Commission as a sacred cemetery and special restrictions apply to avoid or minimize ground disturbance.

3. Historical Resources : The campus contains several sites that have been listed on the National Register of Historic Places, including University House, two architecturally significant facilities at the Scripps Institution of Oceanography (the Original Director's Residence and the Old Scripps Building), and the Gliderport area on the northwest edge of the campus that was listed given historic fixed wing glider activities that occurred at this location between 1928 and 1942. It should be noted that the latter property has continued to be used by recreational fixed wing gliders on a limited basis, conditional on the issuance of a permit provided by Caltrans Division of Aeronautics and a license from the campus. Although the 2004 LRDP identifies the goal of continuing this activity, it also calls for the development of academic facilities on a portion of this site. Consequently, any project proposed for development at this location undergoes environmental analysis to determine the significance of its potential impact on this historical resource.

Established as a General Campus in 1960, increasing numbers of UC San Diego buildings are reaching their 50-year anniversaries, and consideration of historic value will be analyzed on a case by case basis.



Old Scripps Building

4. Ecologically Sensitive Areas: UC San Diego recognizes its stewardship responsibilities to conserve vital ecosystems that contain communities of rare and endangered species, and native flora and fauna, which serve important functions as resources for teaching and research. The preservation of sensitive species coupled with appropriate academic use of these areas as a living outdoor laboratory is an important precept of the campus plan.



California Gnatcatcher



Transfer of Camp Matthews

F. Development Opportunities, Challenges, and Constraints

1. Former Military Uses: During the first half of the 20th century, the United States Army and Marine Corps operated training bases on most of the area that now constitutes the campus. Evidence of some of these activities still exists. A few former Camp Matthews World War II era structures that are still in use by the University will be redeveloped to enable the construction of new facilities. Although military training activities greatly disturbed the terrain east of Interstate 5, the University works closely with the Army Corps of Engineers to make certain that any proposed project site has been cleared of discarded and potentially dangerous materials at or near the surface. As construction occurs, the University studies soil conditions and, if needed, remediates contamination that may have resulted from former military uses.

2. Increasing Density: Built areas that will be redeveloped include many existing surface parking lots, temporary trailer locations, low density development, and undeveloped areas that have not been designated as open spaces to be maintained for ecological, aesthetic, recreational, or social gathering functions. Consequently, the density of the built environment will increase over time, but campus plans are in place to ensure that this densification carefully balances aesthetic and functional considerations.



Density at Matthews Quad Before Construction

3. Aging Infrastructure: Established at its current location in 1905, the Scripps Institution of Oceanography portion of the UC San Diego campus is one of the world's oldest, largest, and most important centers for interdisciplinary oceanographic, atmospheric, and climate research, graduate training, and public service. Consequently several of its buildings and infrastructure pre-date World War II. Accordingly, renovation or redevelopment of these facilities, and others on the land developed in the 1960's when UC San Diego was established, will occur within the context of this Physical Design Framework.



Density at Matthews Quad After Construction (Same View)



First Buildings at Scripps Institution of Oceanography

G. Key Attributes of the Campus Environment

Situated adjacent to the Pacific Ocean within a set of canyons and groves that dominate the landscape and provide a backdrop for development, UC San Diego enjoys extraordinary attributes of climate and site. This powerful physical background provides context that serves as the connecting fabric for the entire campus. Clearly, the identity of UC San Diego is tied to its spaces and setting. In particular, major Eucalyptus stands, stretching over 118 acres from the northern campus boundary to the southern end of the Scripps Institution of Oceanography campus, provide a valuable aesthetic resource on campus. However, these trees, which form the landscape fabric of the campus, and were planted at the beginning of the 20th century by the Santa Fe Railroad as an agricultural crop for use as railroad ties, have a finite life span that will result in degradation over the coming years. Consequently, securing funding for grove maintenance and restoration activities will be essential to ensure the quality and safety of this resource.

The campus building architecture is varied, and there is purposely no campuswide thematic vernacular expression. Rather, buildings are considered to be inhabitants of the landscape. However, the neighborhood planning studies provide specific design guidelines that prescribe architectural elements, such as arcades, colonnades and balconies. In addition to the architectural qualities of campus buildings, many provide extraordinary coastal and horizon vistas that will be maintained in conformance with campus plans.

Another feature of the environment that adds immeasurably to the experience of the campus is the unique collection of site-specific, outdoor art that has been developed by the not-for-profit Stuart Collection of Sculpture at UC San Diego. This collection enriches the cultural, intellectual, and scholarly life of the campus and the Greater San Diego community. Under the agreement with this group, the entire campus may be considered as a site for commissioned sculpture by leading contemporary artists.

Finally, implementation of campus plans has resulted in the development of several open space areas (including Library Walk, the Academic Court at Warren College, and the Pawka Green at the Scripps Institution of Oceanography) that provide opportunities for memorable experiences entailing both informal social interactions and planned programs. However, funding the development of other planned open space areas is an ongoing challenge.



Stuart Collection: Two Running Violet V Forms



Stuart Collection: Sun God



Stuart Collection: Bear

III. Long Range Development Plan

As noted in the Overview section above, the Physical Design Framework reflects a portfolio of plans that include the LRDP (Appendices 1 and 4), the Master Plan Study (Appendix 2), and a set of neighborhood planning studies (Appendix 3). The LRDP incorporates five guiding planning principles from the Master Plan Study (discussed in the Planning Principles section below) that provide the basis for the neighborhood planning studies, which supply more focused program information, refined land use plans, and design guidelines, which guide the development of capital improvement projects in specific areas of campus.

The LRDP and its Environmental Impact Report were certified by the Regents in September 2004. The LRDP identifies development objectives, delineates land uses, projects population changes, and estimates the new building space needed to achieve defined academic and strategic program expansion through the planning horizon year of 2020-21. The LRDP concentrates on four key elements: land uses, landscape and open spaces, circulation and transportation, and utilities.

A. Land Use

The LRDP focuses on UC San Diego's three main geographic areas (Scripps Institution of Oceanography, and the properties west and east of Interstate 5). The LRDP describes land use categories that reflect those activities that will be predominant in any given area (Figure 4). Predominant uses are the primary programs, facilities, and activities in a general geographic area. In addition, other associated or compatible uses are allowable within any given area - each land use category defines its predominant use. For example, parking and student housing may be included in academic use areas.

- **Academic** use areas primarily include classrooms, class and research laboratories, and ancillary support facilities (such as administrative facilities, housing and dining facilities, open space, parking, recreation, and shops supporting academic operations), undergraduate colleges, graduate programs, and professional schools.

- **Academic/Community Oriented** use areas primarily contain facilities that are associated with academic programs that are regularly used by the general public community, e.g., the Birch Aquarium at Scripps and the Theatre District south of Revelle College.

- **Academic/Science Research Park** signifies a land use primarily intended to accommodate private research entities whose activities are compatible with University-based research programs and entail collaboration with UC San Diego faculty and students. This land use designation also allows UC San Diego use of these facilities, and UC San Diego facilities in the Science Research Park.

- **Administrative** land uses primarily involve general administrative and institutional support functions that typically occur in office facilities.

- **General Services** land uses primarily include facilities for personnel and equipment related to the operations, security and safety, and maintenance of University facilities, e.g., central garage, shops supporting general maintenance activities, materials handling, Police, utility plants, service yards, recycling areas, storage, etc.

- **Housing** land uses primarily denote residential facilities intended to accommodate unmarried students, students with families, faculty, and staff.

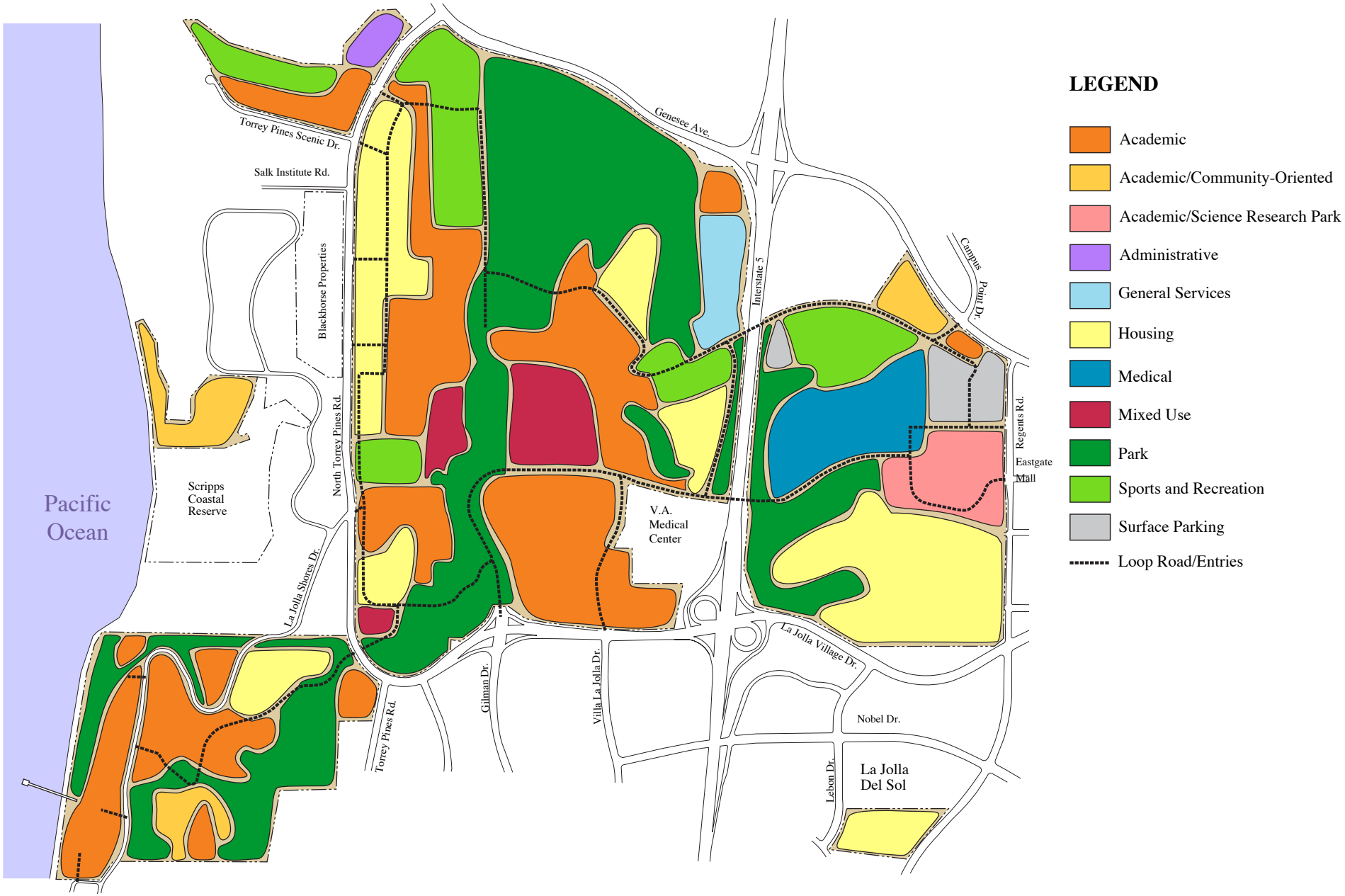


Figure 4. 2004 Long Range Development Plan

- **Medical** land uses primarily include clinical and medical research, and teaching facilities associated with the UC San Diego Medical Center.

- **Mixed Use** land areas primarily include facilities for academic and administrative activities that generally serve the campus as a whole, rather than a single college or professional school, e.g., campuswide classrooms, admissions, registration, the chancellor's office, etc.

- **The Park** denotes open spaces areas that have ecological or aesthetic value and are subject to special constraints on development, e.g., canyons determined to have biological or habitat value, the Eucalyptus grove that winds throughout campus, and restoration lands that consist of slopes, canyons, and bluffs.

- **Sports and Recreation** denotes major playing fields and other athletic facilities.

- **Surface Parking** includes two areas designated for surface parking but which may be reassigned to higher and better uses. Note that parking structures and surface lots are located throughout the campus. These parking areas are included in the land use areas characterized by the predominant use, e.g., Academic, Housing, Medical, etc.

B. Landscape and Open Space

The campus offers unique and extremely diversified grounds, including eucalyptus groves, canyons and coastal bluffs. Major playing fields, lawns, quadrangles, intimate courtyards and the outdoor Stuart Collection make up the open space that allows for a variety of uses. The Master Plan Study organizes the diverse landscape and defines a hierarchy of open space that is grouped into three categories: rustic, discrete, and transitional.



Intimate Courtyard at Center Hall

C. Circulation and Transportation

To accomplish its long-standing goals of easing access to the campus and minimizing the impacts of growth on the surrounding community, UC San Diego emphasizes the importance of using alternative transportation, including campus-operated shuttles, public mass transit, carpools, and vanpools to minimize demand for parking. Improving public mass transit service to campus entails ongoing advocacy and coordination with external agencies, including the planning of trolley (light rail transit) service to the campus, and the deployment of campus shuttles to complement public mass transit operations.

Key goals of the vehicular circulation system defined in the 2004 LRDP are to improve service and emergency vehicular access, and strengthen public entries with landscaping and information kiosks that provide attractive, visible gateways, and make it easier for visitors to access information. Further, UC San Diego aggressively encourages the use of bicycles for commuting and on-campus transportation. With the growth in the number of students living on campus, use of the campus bicycle transportation network is intensifying. Consequently, UCSD will continue to add designated bike lanes throughout the campus on major roads and provide other appropriate bicycle routes and bicycle parking facilities. The use of bicycles will however be precluded in select areas to avoid conflicts with pedestrians using major walkways, e.g., Library Walk.



Library Walk

The framework for pedestrian circulation (Figure 5) provided in the 2004 LRDP has been designed to create a desirable physical environment, support healthy lifestyles, reduce automobile usage, and link with mass transit stations. There are two primary north-south corridors, Library Walk and Ridge Walk (the former Highway 101), which provide clear access to all major destination points on campus. In addition, there are a number of west-east paths that greatly enhance the collegiate experience by following the steep topography of the campus, and wending through the Eucalyptus groves. The following elements guide the planning of improvements to UC San Diego's pedestrian circulation system.



Ridge Walk

- New buildings are designed and located to accommodate existing and planned pedestrian circulation.

- Paths are designed to encourage users (pedestrians, bicyclists, and skateboarders) to remain on paved routes through landscaped areas.

- Paths in canyon areas are restricted to canyon rims or bridges over canyons. Fencing and other barriers may be considered to limit access into natural areas.

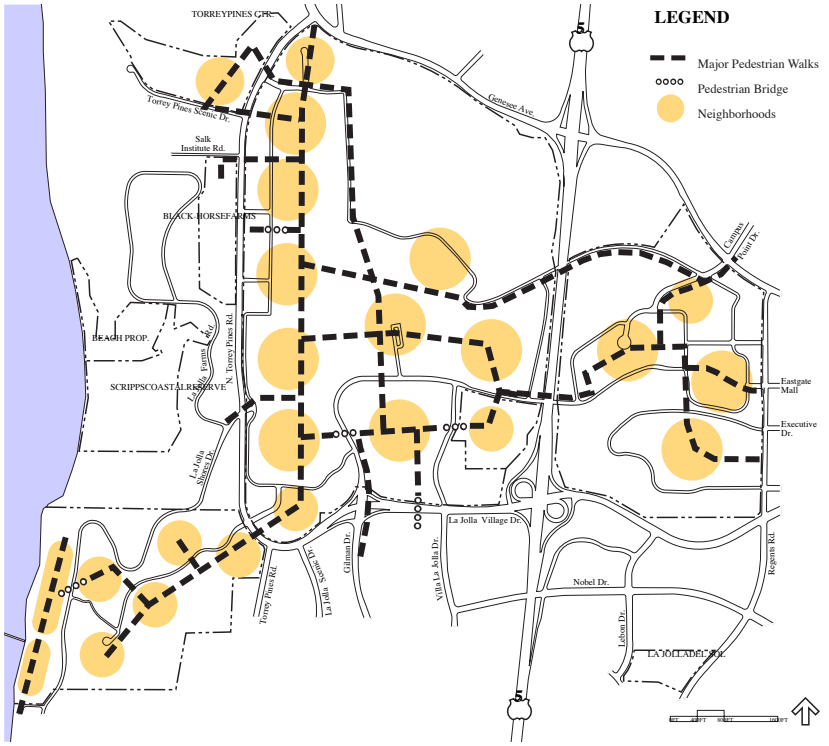


Figure 5. Pedestrian Circulation

D. Utilities

UC San Diego regularly evaluates and upgrades utility infrastructure and distribution systems (i.e., electricity, gas, heating and cooling, water, sanitary sewer, storm drain, telephone and telecommunications, and waste disposal) to ensure adequate facilities and services. Ongoing resource conservation programs are continuously reducing campus water consumption, electricity and gas demand, and solid waste generation over the past decade. Planning for utilities improvements is guided by the objective of solidifying UC San Diego's position as a recognized world leader in advancing solutions to climate change challenges, both through research programs and operations.

IV. Planning Principles

The Master Plan Study (Figure 6 and Appendix 2) established five planning principles that provide effective, macro-level concepts to guide the physical development of UC San Diego: The Park, Neighborhoods, University Center, Academic Corridors, and Connections. A general description of each principle follows, along with a discussion of specific planning and design considerations that guide the implementation of each concept.



Figure 6. Master Plan Study: Illustrative Plan

A. The Park

The campus' natural resources (the Eucalyptus groves, canyons, hillsides, and bluff areas) have been conceptualized collectively as The Park (Figure 7). This integrated system of open spaces contributes significantly to the campus' identity and character, and permanent preservation of these natural resources is planned. The Park is separate and distinct from land areas within the University of California Natural Reserve System.

Designation of the Park as a planning principle is intended to ensure management of these natural resources as a cohesive and integral open space system. Thus, limitations on development activities are associated with this land use. The construction of buildings, facilities, roads, driveways, utility infrastructure, and other improvements that would disturb the natural setting are restricted and, in some cases, prohibited within Park areas. The UC San Diego Open Space Management Program is intended to maintain or enhance the existing biological values within the Park Ecological Reserve. The Program focuses on this area of the Park due to the higher level of sensitivity of those habitats. Key components of the Program include management, maintenance, and monitoring activities. The Park consists of three types of open spaces with distinct qualities of vegetation, topography, and geography. These areas are the Ecological Reserve, the Grove Reserve, and the Restoration Lands.

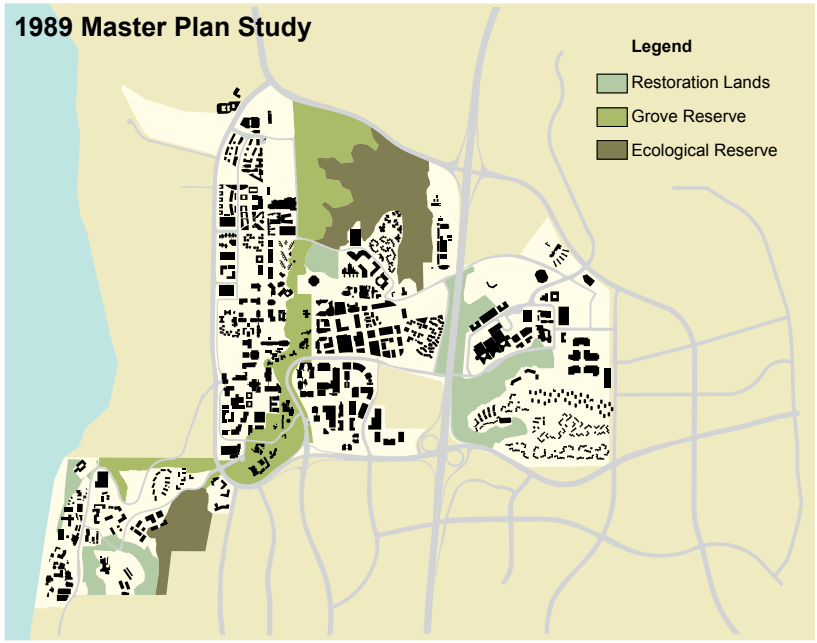


Figure 7. Park Areas

1. Ecological Reserve: The ecological reserve areas of the Park contribute to UC San Diego's unique setting and include the canyons north of Voigt Drive on the West Campus, and Skeleton Canyon and the sloped area adjacent to La Jolla Shores Drive at the Scripps Institution of Oceanography. The ecological reserve resources within the Park land use category are biologically sensitive and, therefore, boundary adjustments may only be considered on a case-by-case basis if compelling circumstances warrant such consideration. No buildings, roads or driveways are permitted in this area of the park. Essential utility infrastructure improvements may be considered, but may be implemented only with appropriate mitigation of potential biological impacts. Implementation of a pedestrian trail (or campus meander) along perimeters of the Ecological Reserve is allowed. Further, because the Ecological Reserve lands include most of UC San Diego's stands of native vegetation, this area serves as an important resource for teaching and research.



Ecological Reserve

2. Grove Reserve: The Grove Reserve areas of the Park include the major Eucalyptus stands, stretching south from Genesee Avenue to the northern end of the Scripps Institution of Oceanography campus. The mature Eucalyptus groves are a valuable aesthetic resource on campus. However, the Grove Reserve has been affected by prior development, including several buildings within its boundaries. Future expansion of existing facilities is restricted and, wherever possible, efforts are made to eliminate buildings and restore the Eucalyptus groves to enhance the integrity of this open space. Development of suitable bicycle and pedestrian paths in the Grove Reserve is allowed.



Grove Reserve

3. Restoration Lands: The Restoration Lands include slopes on both the east and west frontages of Interstate 5, Pepper Canyon on the main campus, the canyon north of Geisel Library, the canyons and slopes east of Interstate 5, the ocean bluffs at the Scripps Institution of Oceanography campus, and the slopes adjacent to the Birch Aquarium and Museum. These areas have been disturbed by erosion, invasive vegetation, and past military use. Development proposed in this Park category may be implemented provided the improvements have acceptable impacts on the park. In particular, a potential Light Rail Transit alignment and development expansion in one of the Restoration Land areas, Pepper Canyon, is anticipated to provide a future public transit station and appropriate land uses.



Restoration Lands

B. Neighborhoods

The term "neighborhood" describes UC San Diego's distinct geographical districts. The development of compact, clearly demarcated neighborhoods ensures the efficient use of land and provides an opportunity to imbue each neighborhood with a distinctive character (Figure 8). In general, academic and ancillary program objectives provide the basis for shaping the character of the various neighborhoods. The following considerations guide neighborhood development.

- Neighborhoods comprise compact clusters of buildings, courts, plazas, quadrangles, and open spaces, and have distinct boundaries and entries;

- Each neighborhood follows specific architectural and landscape design guidelines; and

- Landscaping and the siting and massing of buildings within a neighborhood preserves view corridors for the campus and community whenever possible.

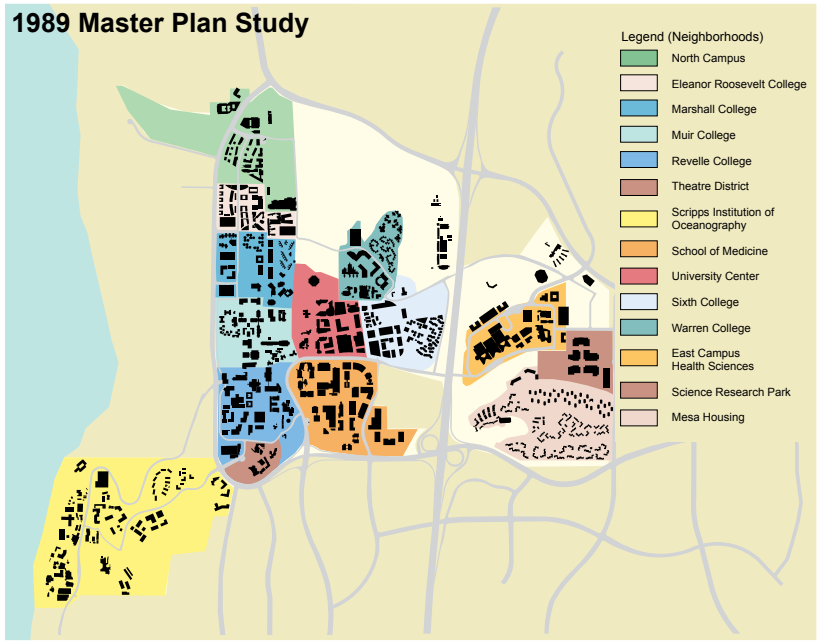


Figure 8. Neighborhoods

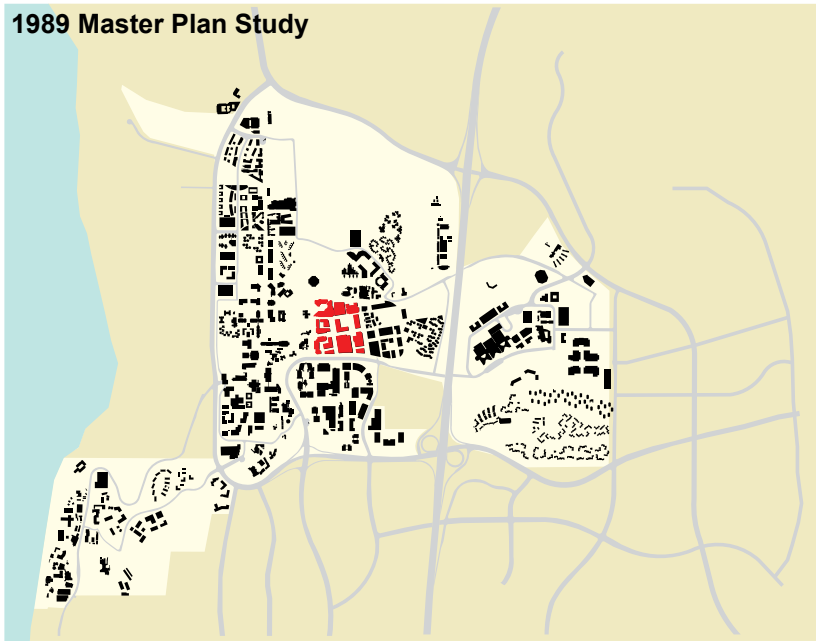


Figure 9. University Center

C. University Center

UC San Diego is not located in or adjacent to a traditional "college town." Thus, to achieve the services and atmosphere of a college town, the campus is developing one of its neighborhoods as a "town center." This area, designated as the University Center, comprises 28 acres within the geographic center of the campus (Figure 9). University Center affords a location within easy walking distance of many neighborhoods in the western area of campus. The following planning considerations will guide development of UC San Diego's University Center.

- In contrast to the more park-like areas of the campus, the University Center has an urban character;
- As UC San Diego's "downtown," the University Center includes campus-oriented stores, eating establishments, performance venues, galleries, museums, gathering areas, and housing, as well as academic facilities, classrooms, and administrative and student services space.
- In general, buildings are oriented to pedestrians, with open, inviting ground level facades, and arcades where appropriate.

D. Academic Corridors

To make certain that faculty and students in related academic departments have easy access to one another, and to provide a corresponding basis for locating academic facilities, the campus has settled upon the concept of "academic corridors." The academic corridors concept guides the process of selecting sites for new buildings (but note that the corridors do not manifest physical cues). Each of the corridors clusters related academic departments, and each includes adequate land to accommodate projected space needs for those disciplines. Five corridors, cutting across neighborhood boundaries, have been identified (Figure 10).

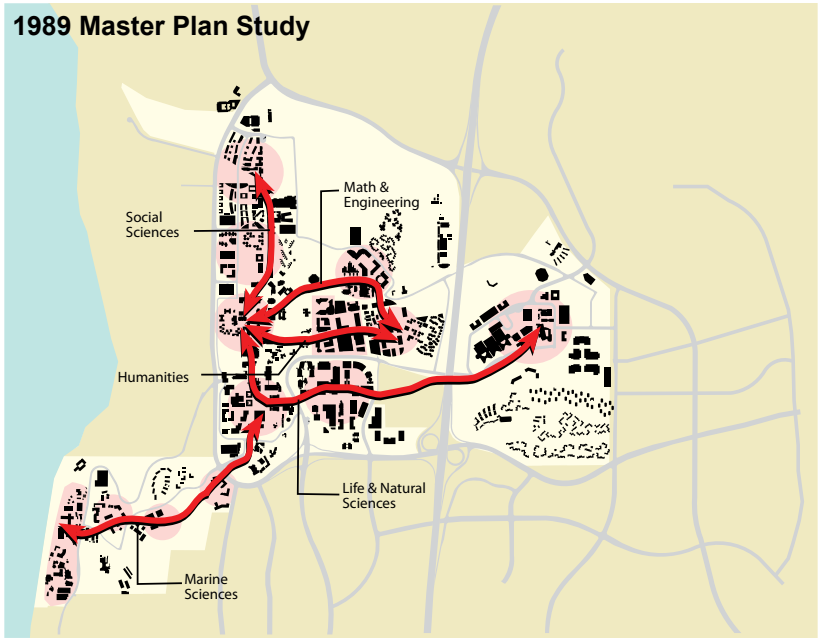


Figure 10. Academic Corridors

- The Humanities corridor extends east from Muir College to the Sixth College;
- The Mathematics and Engineering corridor encompasses Mathematics in Muir College and Engineering, spanning Warren and Sixth Colleges, and the University Center;
- The Life and Natural Sciences corridor extends south from Muir College to Revelle College, through the School of Medicine (SOM) and Veterans Administration Medical Center, and ends at the UC San Diego Medical Center La Jolla on the eastern area of the campus;
- The Social Sciences corridor extends north from Muir College to Eleanor Roosevelt College; and
- The Marine Sciences corridor extends through the entire span of the Scripps Institution of Oceanography portion of the campus to North Torrey Pines Road.

E. Connections

An integrated system of roads, paths, public entries, landmarks, view corridors, and landscape features ties the campus together and reinforces the smaller scale and distinct atmospheres of the neighborhoods. This system of connections encourages the involvement of the local community in campus programs, yet preserves academic ambiance (Figure 11).

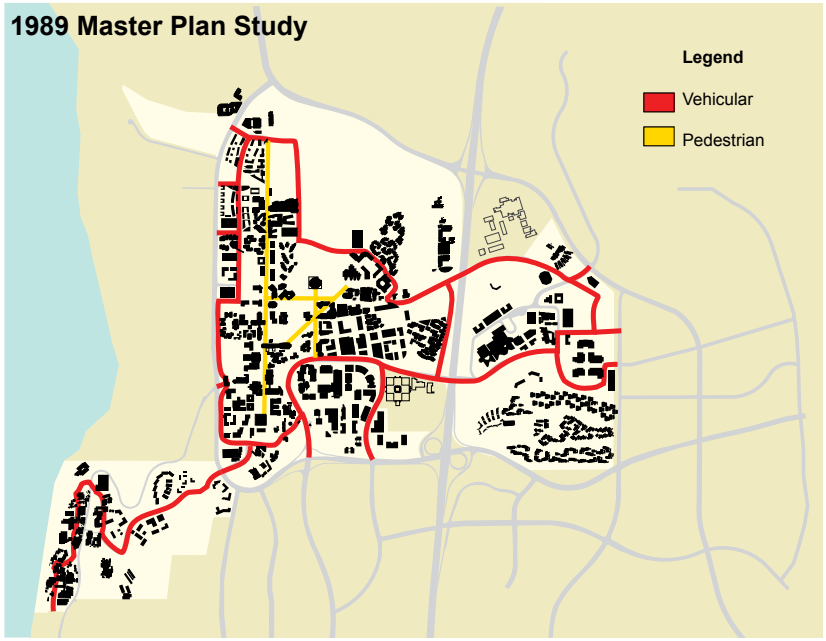


Figure 11. Pedestrian and Vehicular Connections

F. Campuswide Planning Objectives

In addition to the five guiding principles above, the Physical Design Framework addresses several other key objectives, including physical connections to the community, view corridors, density, and sustainability. These objectives are summarized below and also addressed in the individual neighborhood planning studies.

1. Physical Connections to the Community: There are 13 entrances to the campus, each of which provides direct access to the comprehensive loop road that facilitates internal circulation and reduces traffic on the adjacent public roads. Given the bifurcation of the main campus by Interstate 5, there is an exisiting bridge over the freeway that connects the West and East campuses. The LRDP and subsequent campus plans call for a second bridge at a more southerly location. Finally, there are several pedestrian bridges over heavily-trafficked roads that provide both intra-campus connections as well as links between campus and properties not owned by the University.



Pedestrian Bridge at Scripps Institution of Oceanography

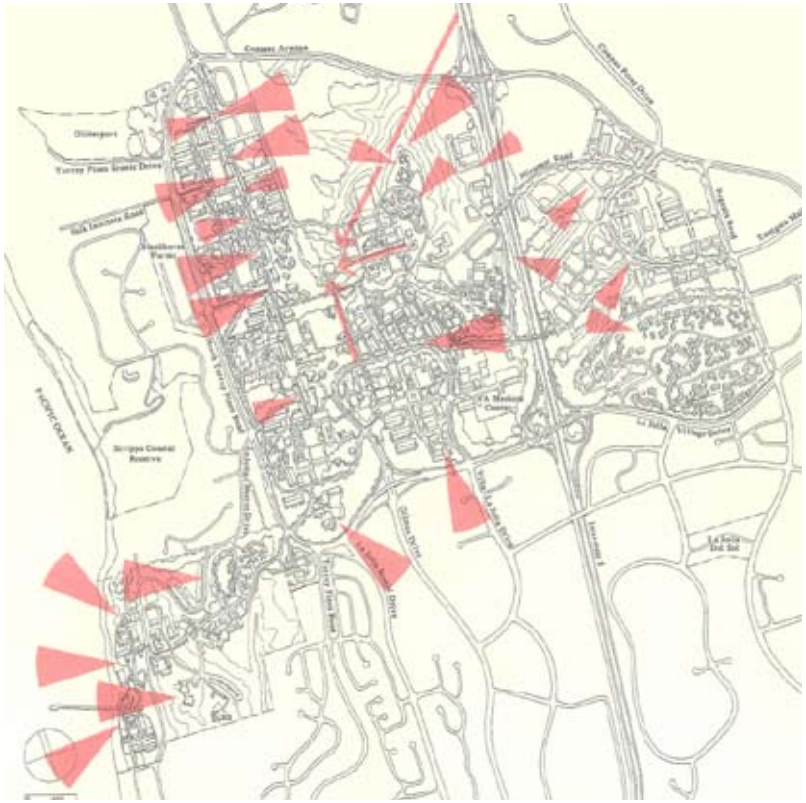


Figure 12. Excerpt from Master Plan Study-View Corridors

2. View Corridors: The campus contains a number of view corridors which establish connections with the ocean, as well as nearby foothills, canyons and open space (Figure 12). These views provide faculty, staff, students and visitors with a sensory connection to the surrounding region and environment. Ocean views are particularly compelling and occur primarily in areas within the West Campus and Scripps Institution of Oceanography. These views are protected, framed, and enhanced with future development.

3. Density: As noted previously, growth will result in increased floor-to-area ratios in the built environment to avoid suburban sprawl and enable the preservation of open space areas. The neighborhood planning studies define building parcels and setbacks from circulation and open space areas. Development sites include raw land, infill development, and redevelopment. It is recognized that not every building program will match exactly the development parcel characteristic. However, programs are evaluated against density goals prescribed in the neighborhood planning studies.



Balance of Density and Open Space at Warren Mall

4. Sustainability: Important components of the capital planning and design process entail complying with the University of California Policy on Sustainable Practices (and the campus' Climate Action Plan which ensures conformance with that policy), incorporating environmentally sustainable features, and adopting energy efficiency improvements to the fullest extent possible. Because sustainability is an evolving area, and UC San Diego is intent upon becoming a state-of-the art, carbon-neutral campus that embraces sustainable facility designs and maximizes "green" operations, the Capital Financial Plan provides additional information on an annual basis about the status of sustainability efforts.

V. Design Objectives, Guidelines and Standards

A. Design Objectives and Guidelines.

As noted previously, UC San Diego's neighborhood planning studies provide site specific design guidelines to bridge the gap between the broader principles contained in the campuswide planning documents (e.g., the LRDP and the Master Plan Study) to advance individual building projects. These neighborhood studies (which can be found in their entirety in Appendix 3) detail specific programmatic objectives, and identify development parcels, architectural and landscape design guidelines, relationship to and scale of open spaces, materials, and color palettes. UC San Diego does not prescribe a specific campuswide architectural style, but rather provides guidance with respect to architectural elements and treatments to be used in any given neighborhood. The following design objectives and guidelines are applied on a project by project basi,s and documented with accordingly.

1. Development Objectives: To meet the growth goals defined in the LRDP, UC San Diego has identified development parcels to accommodate building and program needs; these parcels will allow preservation of key existing open spaces and development of new open spaces to ensure a balance between the built and natural environment. Each neighborhood planning study defines the capacity and use of future development sites, and this information is fundamental to the evaluation of potential building sites for new projects (Figure 13). A project site may be approved for development if consistent with the planned use and site capacity defined in the neighborhood planning study.

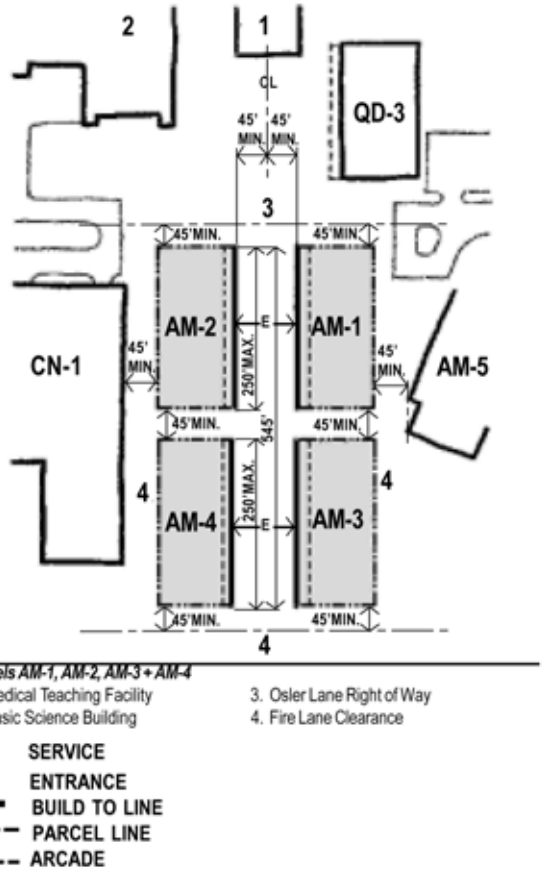


Figure 13. Excerpt from School of Medicine Neighborhood Planning Study - Development Parcels

2. Building Design Guidelines: The neighborhood planning studies establish design guidelines for building heights, setbacks, and relationships to open space and circulation (Figure 14). During the preparation of these studies, development sites are evaluated through three-dimensional modeling techniques and section drawings, both to understand massing implications, and to enable the development or preservation of adjacent open spaces that are properly sized to provide visual and physical relief. These guidelines allow the campus to achieve planned density objectives, and to maintain appropriate balance, scale, and relationships between developed and open spaces.

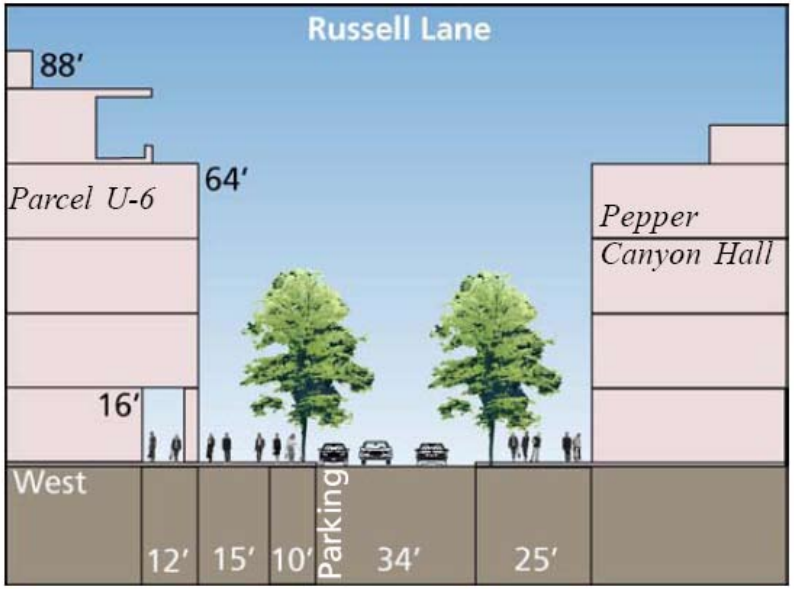


Figure 14. Excerpt from University Center/Sixth College Neighborhood Planning Study - Illustrative Section Drawing

3. Open Space Design Guidelines: Given that UC San Diego does not prescribe a specific, campuswide architectural style, open spaces are used as a unifying element to knit the campus together. The location and attributes of open spaces have been identified in the neighborhood planning studies (Figure 15) and Master Plan Study with the intention of achieving the vision of creating future buildings that are "inhabitants of the landscape." Given the benign Southern California climate, campus open spaces add immeasurably to the experience for students, faculty, staff and visitors. These spaces are where memories are created and define a sense of place for the campus. As a result, the identification and development of open spaces carries the same weight as the buildings that frame them. The attributes of key open spaces have been defined in the planning studies, including intended purpose of the space, recommended dimensions, and specific landscape requirements. In addition, planning studies provide landscape palette recommendations that ensure consistency with and connection to the larger campus context.

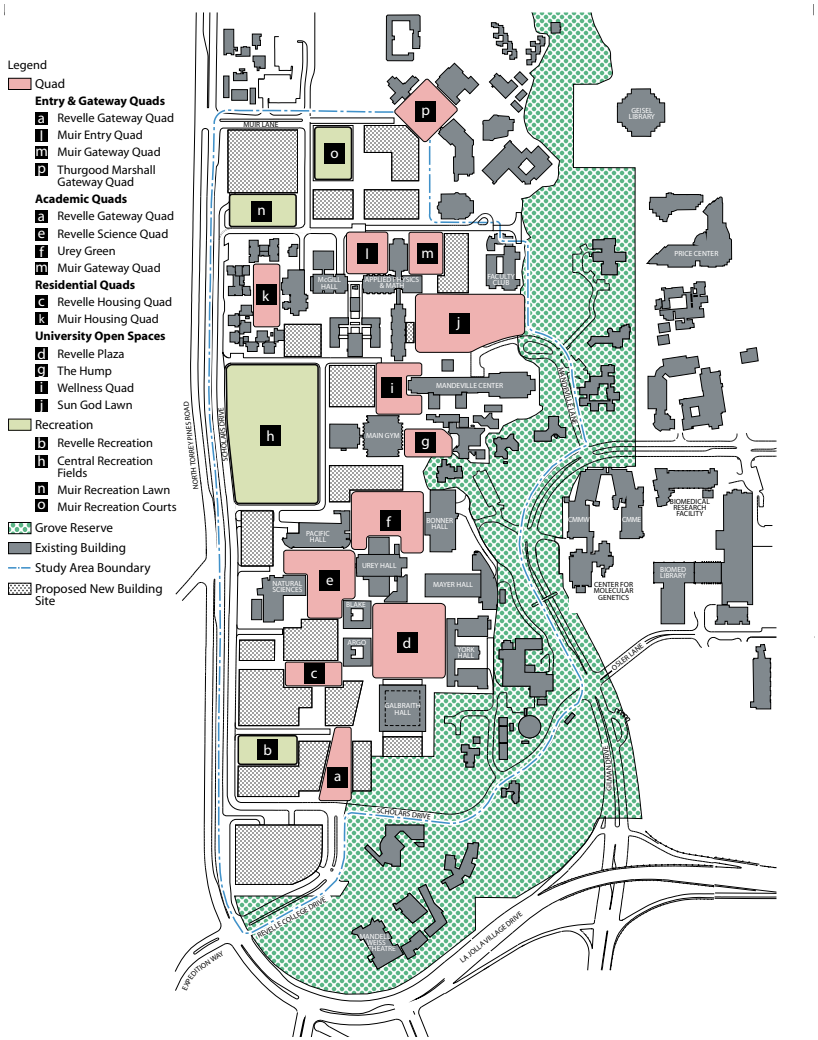


Figure 15. Excerpt from Revelle and Muir Colleges Neighborhood Planning Study - Open Space Framework

4. Color and Material Guidelines: Each neighborhood planning study provides a color and material palette. These color guidelines apply to the bodies of buildings as well as accent features. Similarly, the studies contain building material guidelines, which typically call for the use of concrete, stone, and wood materials, and reflect recommendations pertaining to glazing and hardscaping features. Overall, although a prescriptive architectural vocabulary is not employed, cohesion within campus neighborhoods, including open spaces, is created through the use of color and material palettes, and siting parameters that create clusters of buildings with similar design attributes.

Campus staff review neighborhood planning study concepts, diagrams, and renderings with building project Executive Architects to ensure understanding of key design intentions and unique attributes of particular sites. These objectives and guidelines are followed to the greatest extent possible; however, there are occasionally compelling reasons for minor deviations from the campus planning documents. In these instances the Campus/Community Planning Committee and/or the Design Review Board, described in the Physical Planning & Design Process section below, review the proposed modifications, consider the justification, and determine whether the changes are consistent with the fundamental concepts of the plan. Minor modifications to the design objectives and design guidelines may be made at the campus level; however, a change to any of the Planning Principles (see section IV) may require an amendment to the UC San Diego Physical Design Framework and approval by the Regents.

B. Design Standards

In addition to adhering to the requirements of University and public code design policies and standards, UC San Diego has prepared a number of policies to ensure cohesive campus development. Two examples are the campus signage policy and the outdoor lighting policy.

1. Signage: UC San Diego's signage policy and program was developed to ensure campuswide design continuity and effective signage. This program provides specific designs for the majority of campus signs including: campus entries, vehicular and pedestrian directional signs, campus orientation maps, neighborhood identification markers, kiosks for posting of handbills, parking lot identification signs, and campus shuttle stop signs.



Campus Signage

2. Outdoor Lighting: Campus lighting design is consistent with UC San Diego's Outdoor Lighting Design Guidelines and the Outdoor Lighting Policy (Figure 16). The former enables consistent lighting design through specifications provided to design professionals, and the latter provides technical guidance so that UC San Diego minimizes pollution or "sky glow" to contain potential negative impacts on local scientific astronomy facilities (i.e., observatories at Mount Palomar and Mount Laguna). While controlling light pollution is a primary focus, other important campus lighting objectives are also considered, such as creating a safe and pleasurable environment that meets the needs of its users.

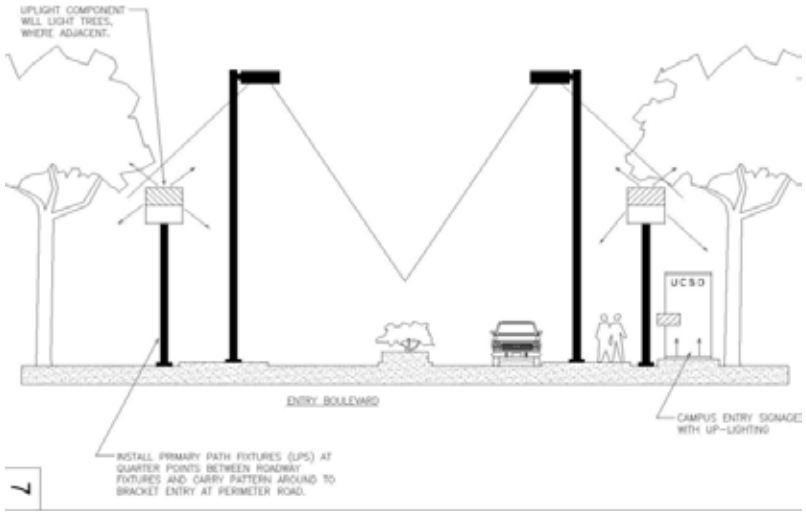


Figure 16. Excerpt from UC San Diego Lighting Policy

C. Sustainability

Project level sustainability planning activities are consistent with the goals set forth in the UC Policy on Sustainable Practices and the campus' Climate Action Plan. UC San Diego routinely evaluates design features that will result in USGBC LEED Gold (or higher) ratings. Examples of sustainability elements that are considered at the project level follow:

- 20% Post-consumer recycled content material
- Bicycle facilities/employee showers
- Carbon dioxide sensors
- Cool roof system
- Dedicated parking for low emission vehicles
- Displacement ventilation system
- Grey water use potential
- Naturally ventilated office modules
- Photovoltaic infrastructure
- Reclaimed water for irrigation
- Storm water treatment system
- Ultra low flow plumbing fixtures

Life cycle costing analyses are part of the building design process so that economy and sustainability in the design of systems and selection of equipment may be achieved. Parameters evaluated include cost, energy savings, operation and maintenance, replacement cost, and upgradeability. Further, projects that have upgraded both the campus and medical center utilities plants, renewal of building systems and implementation of new energy management and energy conservation equipment, have proven to be efficient and cost-effective.

Working with private sector energy experts and in partnership with industry, UC San Diego is developing an alternative energy program to use the campus as a living laboratory of 40,000+ inhabitants engaging students and faculty from multiple disciplines, and working

with campus operations staff in designing and deploying renewable energy systems to provide power for the university. In addition to a state-of-the-art cogeneration plant that supplies about 85 percent of the campus' electricity, plans are underway for expanded use of photovoltaic systems, enhanced energy efficiency programs, installation of stationary fuel cells powered by renewable methane, use of renewable methane at the cogeneration plant, and electrical power produced by Southern California wind farms, so that UC San Diego develops into a state-of-the-art carbon-neutral campus.



Photovoltaics on Hopkins Parking Structure



Recycled materials used at Student Services Center

V. Physical Planning & Design Process

The capital planning and design process at UC San Diego is impelled by parallel processes to define academic and extracurricular program objectives (see the accompanying UC San Diego Capital Financial Plan for a discussion of the key program objectives). With the goal of developing land use and building project plans that balance aesthetics and functionality, and advance the development of the campus' environs and facilities in a financially responsible manner, UC San Diego relies on a number of planning processes that actively engage faculty, students, and staff on a variety of committees.

A. Standing Committees

The development and implementation of land use and capital improvement plans at UC San Diego is overseen by three standing committees: the Campus/Community Planning Committee, the Design Review Board, and the Capital Outlay and Space Advisory Committee.

1. Campus/Community Planning Committee: This group advises the Chancellor on issues pertaining to the physical development of the campus. The membership comprises six faculty members, six administrators, one undergraduate and one graduate student representatives, and a representative from the Staff Association. This Committee:

- oversees the preparation of long range physical planning studies,
- provides comments to the Design Review Board regarding designs of buildings and major landscape projects,
- evaluates options and recommends preferred sites for new facilities in the context of approved plans, and
- monitors developments in the surrounding community and evaluates potential impacts on the University to ensure adequate consideration of campus interests including nearby housing, retail services, open spaces and parks, pedestrian and vehicular access, and mass transit needs.

2. Design Review Board: In conformance with Regental policy, this group advises the Chancellor on facility design and landscaping guidelines, and the designs of new buildings and major landscape projects to ensure consistency with applicable planning guidelines. The membership includes three peer recognized architects from the private sector, one landscape architect from the private sector, the academic and administrative co-chairs of the Campus/Community Planning Committee, an at-large representative of the Academic Senate, and the Vice Chancellor of Resource Management & Planning.

3. Capital Outlay and Space Advisory Committee: Development of the 10-year Capital Financial Plan, including State and non-State funded capital improvements, is overseen by this group of senior administrators representing each of the Vice Chancellorial areas, an at-large representative of the Academic Senate, one undergraduate and one graduate student. The primary responsibilities of the committee are to analyze information on proposed projects and to ensure consistency with the driving academic and strategic planning objectives that guide the 10-year Capital Financial Plan. An associated key responsibility is to recommend priorities for projects to be included in the State-Funded Capital Improvement Plan. This committee also generates information that is essential to effective administrative processes pertaining to fund raising, financial analyses, and physical planning.

B. Ad Hoc Committees

1. Planning Advisory Committees: The preparation of campuswide or neighborhood level physical plans is overseen by a committee of faculty, students, administrative leaders, and senior planning and design staff. These studies identify sites for new academic, administrative, housing, recreation, parking and support facilities; define vehicular and pedestrian circulation improvements; develop design guidelines that define neighborhood site characteristics and building attributes; and provide phasing plans to enable orderly growth.

2. Building Advisory Committees: For each major building and landscaping project, programmatic and design input is overseen by a committee of faculty, students, administrative leaders, and senior planning and design staff. These committees work closely with the appointed design professionals so that each project meets the predefined program goals and design objectives. In addition, Resource Management and Planning units (Capital Planning, Facilities Design and Construction, Physical Planning, and Real Estate) collaborate to complete required project documents, including project description and justification analyses, environmental impact assessments, site plans, design documents, a construction schedule, and a budget. Other campus consultants from Environmental, Health and Safety, Facilities Management, Telecommunications, etc., also provide technical assistance and advice to Building Advisory Committees.

C. Associated Processes

1. Architect Screening and Selection Committees: UC San Diego complies with the Regents policy which requires that selection of Executive Architects be done through a two-step process. First, a Screening Committee prepares a "shortlist" of firms to be interviewed, and a Selection Committee then interviews the firms and makes recommendations to the Chancellor. Note that one of the consulting architect/landscape architect members of the Design Review Board serves on each Screening Committee and Selection Committee as a non-voting advisor.

2. Design Approval and Environmental Certification Process: In September, 2008, the Regents amended the policy for approving capital improvement projects. Specifically, the Regents retained authority to review and approve projects above a defined budget limit ($60 million), and the revised policy also delegated authority to the President to review and approve projects below the defined budget limit; further, the Regents expressed the intent for that authority to be redelegated to the Chancellors. Thus, for projects considered under that delegated authority, UC San Diego submits information to the UC Office of the President and the Office of General Counsel, prior to the Chancellor's approval of each project. That information validates consistency with the campus' portfolio and external financing requirements, compliance with CEQA, and conformance with applicable Regental and Presidential policies. This documentation is accompanied by a completed project checklist signed by the Chancellor which affirms that the project adheres to germane policies and legal requirements. UCOP and OGC staffs then have 15 working days to review the package and return it to the campus with an indication that the documentation either is ready for the Chancellor's approval, or requires minor campus revisions prior to the Chancellor's approval, or requires substantial revisions and resubmittal to UCOP and OGC, or requires consideration of significant issues by the Executive Vice President and potential discussion with the Regents.

Also, UC San Diego administers processes to notify the public regarding the availability and status of environmental documents, and provides notification of pending campus level approvals. UC San Diego provides project approval and environmental review information to the community via a campus website which provides complete copies of CEQA documents and information on milestone dates.