SIO HILLSIDE NEIGHBORHOOD PLANNING STUDY

SCRIPPS INSTITUTION OF OCEANOGRAPHY

UNIVERSITY OF CALIFORNIA, SAN DIEGO

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UCSD CAMPUS PLANNING OFFICE
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EXECUTIVE SUMMARY

The overall objective of the Scripps Institution of Oceanography (SIO) Hillside Neighborhood Planning Study is to guide future development by accommodating academic needs and continuing the spirit and traditions of the Scripps community. This document includes:

a development program appropriate to this hillside site and consistent with the Long Range Development Plan for the University of California, San Diego (UCSD) including SIO;

a neighborhood plan that organizes the program and planning requirements, and establishes the overall development and landscape pattern; and

design principles and guidelines that support the plan and extend the unique relationships that exist between SIO and its physical environment.

The Hillside Neighborhood site is a steep tract of land east of La Jolla Shores Drive and the original Scripps campus (SIO West). The 24-acre site slopes towards the west affording expansive views of SIO West, Point La Jolla and the Pacific Ocean. Roads border most of the site except to the south where it is contiguous with the UCSD Park, an open space area where development is restricted. Within the site, natural slopes and patches of native vegetation occur along the north, east and south boundaries. The landscape and landform pattern on the remainder have been disrupted by development, regrading and the introduction of non-indigenous plantings such as eucalyptus. Underlying geotechnical conditions and an unclassified fault line that traverses the site create the potential for slope instability. These conditions can probably be mitigated, but will require further investigation prior to development.

The development program for this neighborhood consists of academic uses and parking facilities. Existing and near-term development consists primarily of physical oceanography, climate and atmospheric science and related support space. The existing and projected program totals for this neighborhood are:

Assignable building area	155,700 square feet
Gross building area	249,000 square feet
Parking	300 spaces on-site
	157 spaces off-site

The Hillside Neighborhood Plan extends the social fabric of SIO West onto this sloped site by interweaving buildings and landscape with indoor and outdoor meeting and work areas. Buildings, carefully fit to the land, create embayments that retain the natural hillside and focus activity around courts located on the existing graded areas. Landscaping outside or "outboard" of development remains rustic in character; landscaping within or "inboard" of development enhances the quality and enjoyment of the workspaces and outdoor rooms. A

grove of trees marks an accessible passageway that moves west to east across the site. This path is the spine of a pedestrian network that focuses movement through the neighborhood, linking the courts and buildings and creating potential for social exchange. These elements combine to create a cohesive neighborhood reflecting the tight-knit SIO community of scholars, scientists, students and work groups.

Six key design principles underlie the provisions of this neighborhood plan. These principles express objectives valued by the SIO community. Supporting guidelines and recommendations for implementation focus on elements of the neighborhood which provide continuity across the boundaries of individual projects or parcels.

- **Site conservation and improvement** recognizes that much of the identity of this neighborhood will be derived from its landform, landscape and micro-climate. The pattern of new development should embrace these characteristics. Buildings, roads and paths should be placed on the hillside in ways that minimize disruption to the intact portions of the site and organize the portions that have been previously disturbed. The overall shape and character of the land should remain evident throughout the neighborhood.

- **View corridors and outlook** are important in orienting and positioning viewers in the larger context. The views to the coast and ocean are especially powerful characteristics of the site. New development within the neighborhood should open to ocean views and should not obstruct public views from higher elevations. Common places and passages within the neighborhood that are used by many people should provide outlook.

- **Scripps Ladder** is an accessible passageway through SIO West and is to be extended into the SIO Hillside Neighborhood. It will help people find their way, link a variety of programs and activities, and provide opportunities for paths to cross. Inclined paths, bridges, elevators and open-air corridors will connect pedestrian circulation to create a fully accessible campus on steeply sloping land.

- **Scripps Courts** extend a pattern of outdoor spaces that exist throughout SIO West into this neighborhood. A hierarchy of defined courtyards define work and service areas as well as large and small outdoor meeting and relaxation places. They provide places of common identity for various working groups, meeting places along paths and primary access to buildings.

- **Linked buildings** step carefully down and across the hillside, forging the connections necessary to extend the ladder, defining the hierarchy of courts, and defining the surrounding open spaces. This principle refines the building concepts in the UCSD Master Plan Study by further identifying building types and siting strategies which provide for the linkages throughout the neighborhood.

- **Building form and character** respond to the micro-climate and landscape characteristics in ways that enhance the usefulness of the workspaces. The structures should be designed to properly respond to their particular solar orientation, harsh ocean exposure, wind and climatic conditions while providing the flexibility required by the scholars, scientists, staff and students who will use them.

A PLACE FOR PASSION

Scripps Institution of Oceanography is a remarkable place in the innovative work being done there, its sense of community and its spectacular setting overlooking the Pacific Ocean. The Hillside Neighborhood Planning Study attempts to identify the essential aspects that contribute to this community of scholars, scientists, students and staff in ways that firmly establish this neighborhood in its landscape and surroundings.

This study sets a series of design principles and guidelines that are quite inclusive. It is clear that such guidelines are required but they must not lead to architectural or planning homogeneity. The very opportunity for an inspired departure requires the existence of a well defined norm. Let no future committee or designer take refuge in these guidelines to avoid considering innovative solutions. The concepts offered within this study come with an implicit understanding that leaves a place for passion, a chance for breaking out of the mold when the temptation is irresistible.

INTRODUCTION

This planning study and associated design and landscape guidelines provide a conceptual framework to steer the physical development of the 24-acre neighborhood of the Scripps Institution of Oceanography (SIO) campus immediately east of La Jolla Shores Drive: The SIO Hillside Neighborhood. This plan is intended to enable anticipated expansion of SIO programs to occur in a cohesive, site-sensitive, and aesthetically superior manner consistent with the spirit and traditions of the Scripps community and following the precepts established in the 1989 University of California, San Diego (UCSD) Long Range Development Plan and the Master Plan study.

PLANNING PROCESS

The SIO Hillside Neighborhood Planning Advisory Committee (PAC) collaborated with the Campus Planning Office and design consultants in the conceptual development of the plan. Specifically, the PAC members interpreted the spirit and traditions of the Scripps community and expressed their individual visions of the future development of the SIO Hillside Neighborhood, which assisted the design team in formulation of the neighborhood plan.

The Marine Sciences Physical Planning Committee (MSPPC) reviewed the plan for its conformance with the SIO Master Plan and for its impact on the areas outside the study area boundaries. The plan was also reviewed by the Park Committee for its impact on the UCSD Park lands adjoining the study area, and the Design Review Board considered the proposed design and landscape guidelines. Final review and recommendation to the UCSD Chancellor for acceptance was given by the Campus/Community Planning Committee for the neighborhood plan and by the Design Review Board for the design and landscape guidelines.

DOCUMENT ORGANIZATION AND USE

Part I: <u>Planning Context</u> relates the relevant considerations of previous plans, describes the existing physical conditions of the neighborhood and establishes program requirements for the future development.

Part II: <u>Neighborhood Plan</u> organizes the program and planning requirements and establishes the overall development, circulation and landscape structure for the neighborhood. Further, the plan suggests development phasing strategy.

Part III: <u>The Design Principles</u> set down design objectives for the work of future architects and planners that will ensure development is consistent with the spirit and traditions of the Scripps community. These principles are interrelated and extend into many facets of the physical environment. They are intended to inform the designers of individual projects of the responsibilities they have to the larger whole when designing a specific piece of this neighborhood. The design guidelines which support each design principle are descriptive

and intended to convey the character of the SIO Hillside Neighborhood. Implementation strategies critical to the neighborhood's integrity are identified for further study.

The information provided in this document is meant to serve as the initial basis for discussion and investigation among administrators, the user groups, cognizant committees and architects. It is important that the neighborhood plan and design guidelines be considered from the very start of program development and funding identification for individual projects, that they be explicitly adopted or adjusted by all parties at the beginning of a project, and that they serve as the basis for continuing evaluation.

If project specific discussions should indicate that provisions of this planning study should be modified, immediate consideration of the impact of changes on the entire neighborhood should occur.

PART I: PLANNING CONTEXT

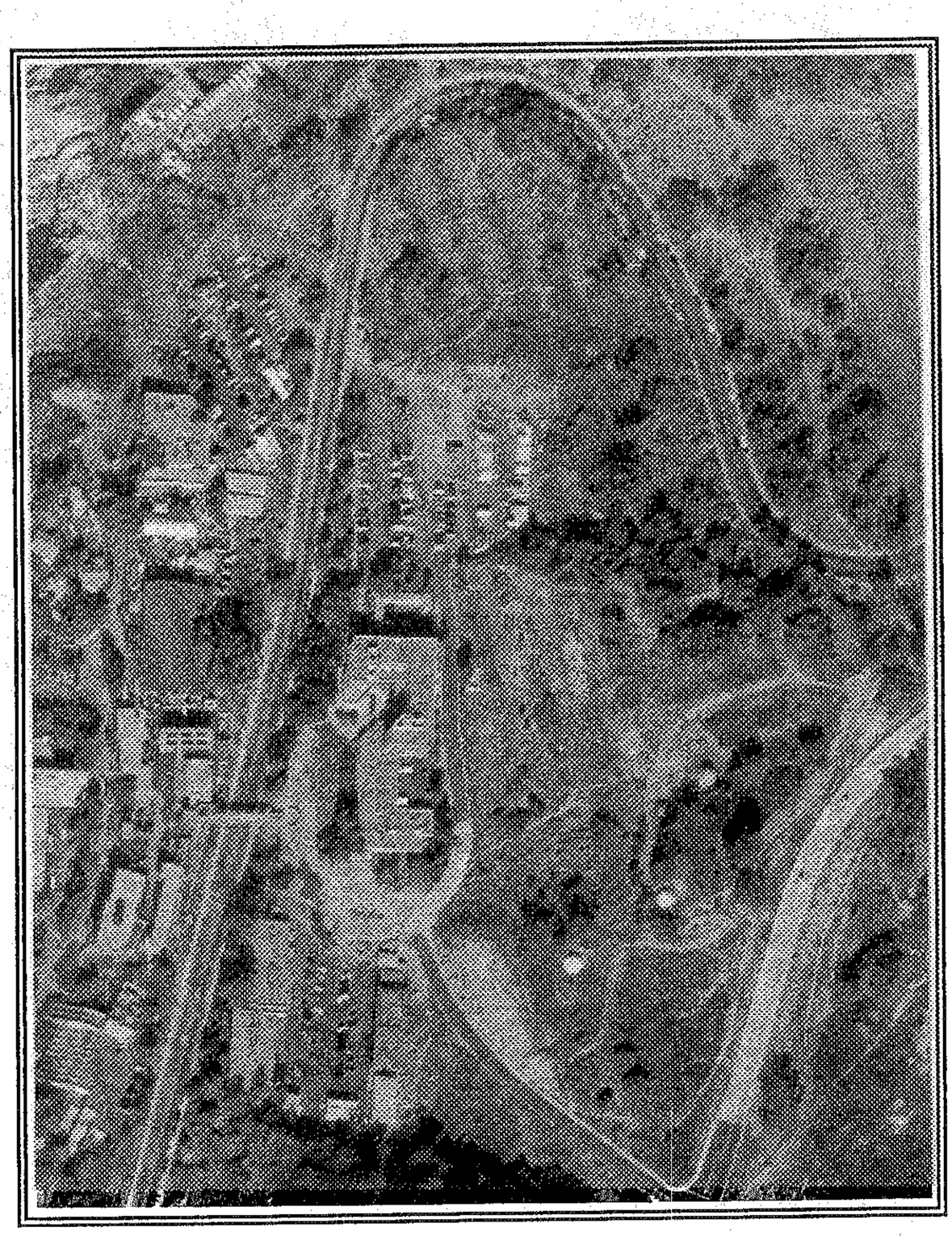
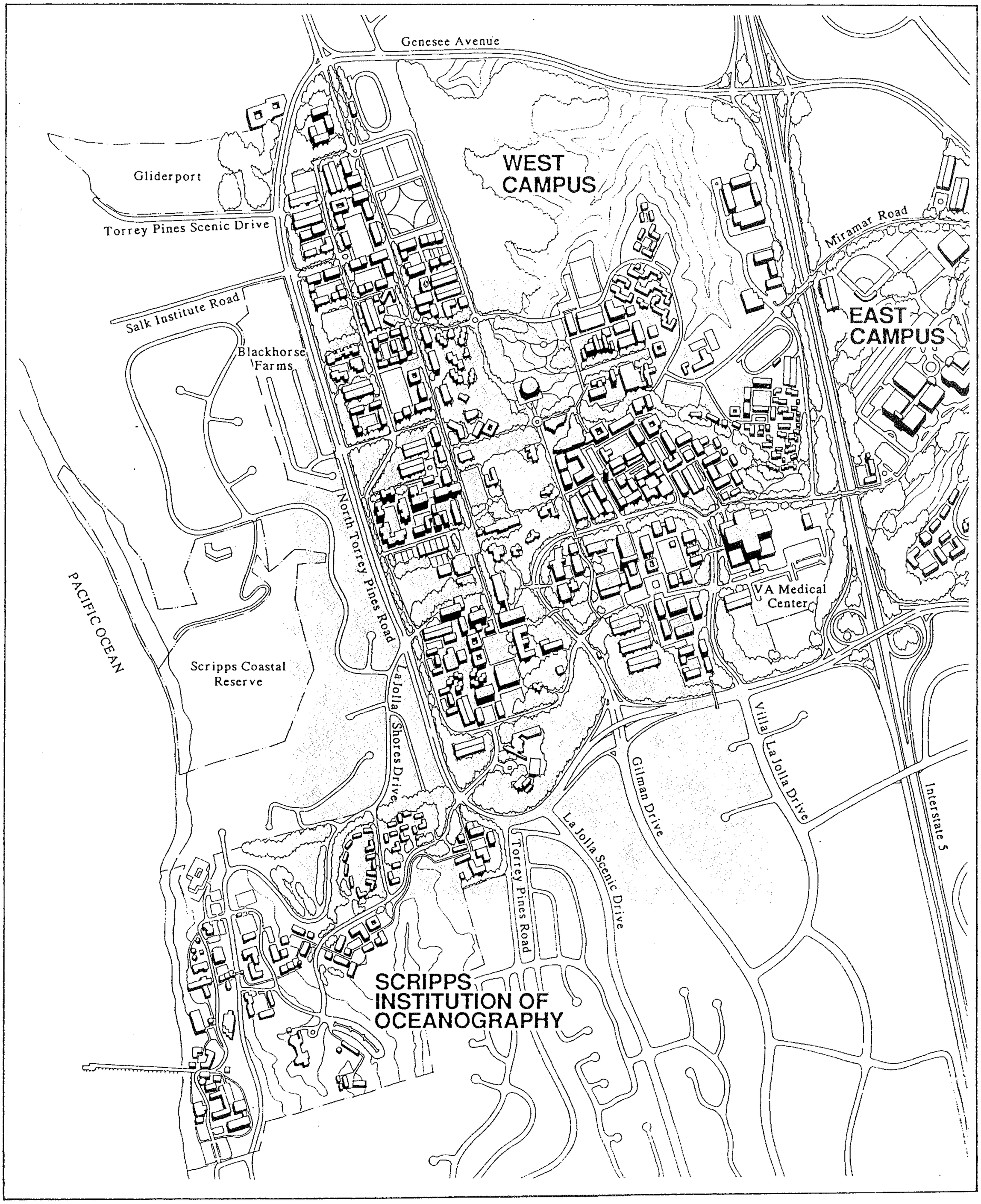


FIGURE 1

UCSD Master Plan



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PLANNING BACKGROUND

UCSD Master Plan and Planning Principles - The 1989 UCSD Master Plan study established a number of guiding principles intended to enable UCSD to conserve and enhance the functional effectiveness, environmental quality, and ambiance of the campus, and to equip UCSD to manage growth in an orderly fashion. Overall, the plan was established so that the quality of the campus environment would become an ever more potent force for attracting the very best faculty, students, and staff, and thereby complement the academic excellence of UCSD.

Intended to guide the development of future buildings, open spaces, and infrastructure, five planning principles were adopted.

1) Development will occur within definable **neighborhoods** with clear boundaries and character.

2) The related academic departments and disciplines will be located within **academic corridors** established across the neighborhood boundaries.

3) The shoreline, canyons, eucalyptus groves and large areas of native vegetation will remain interconnected and constitute **the UCSD Park**, a prominent natural resource to be respected and preserved.

4) **Connections,** consisting of roads, paths, public entries and view corridors will provide critical links between different sectors and thereby enhance the coherence of the campus.

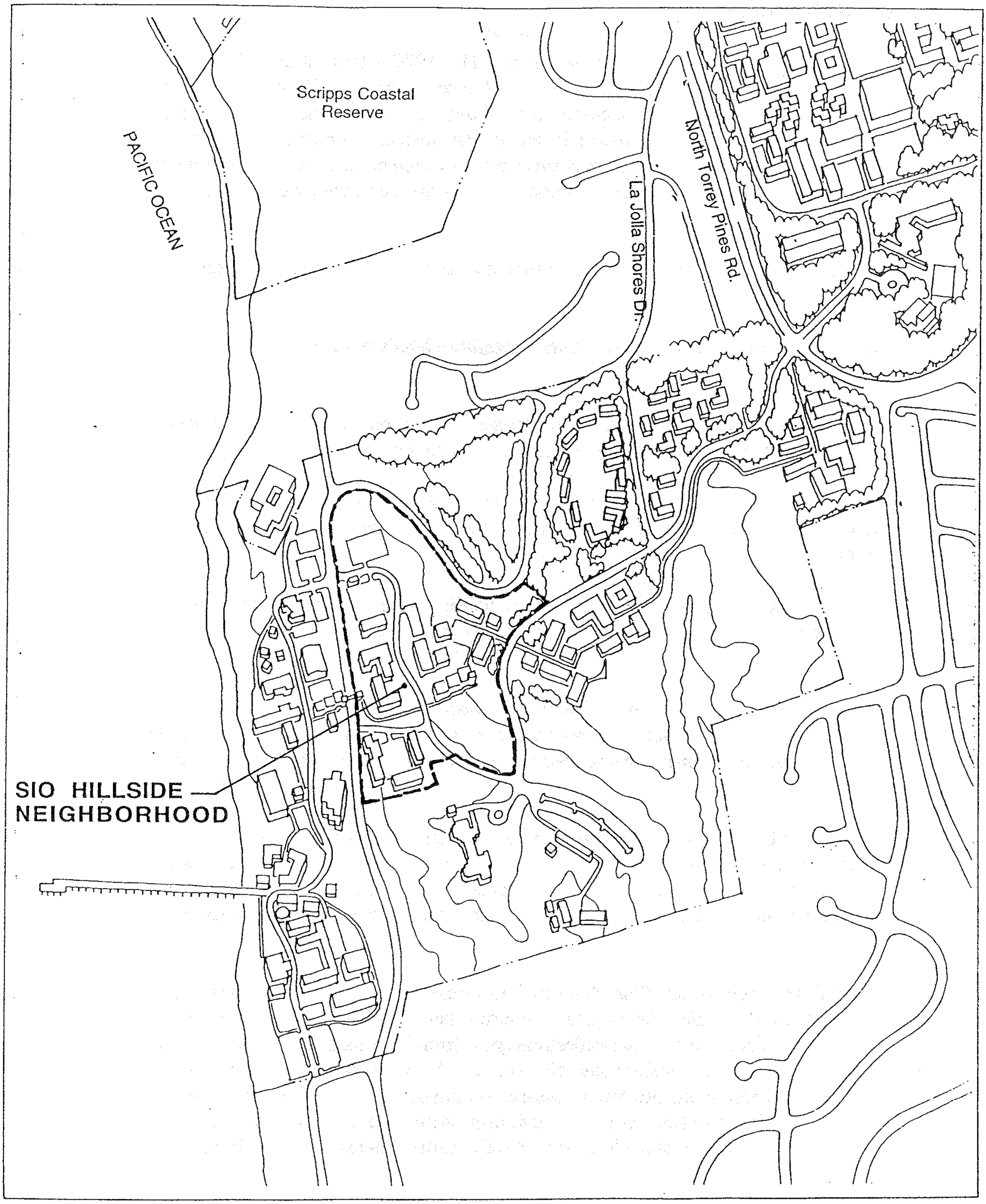
5) The **University Center** will develop as a special neighborhood and provide the social "heart" of the campus, be accessible to the public, and serve as a model for smaller scale developments within campus neighborhoods as commons or gathering areas.

The UCSD Master Plan study (Figure 1) also includes a detailed analysis of the SIO campus which houses the programs of the Marine Sciences division of UCSD. The SIO campus consists of 160 acres of land extending from the ocean to Torrey Pines Road, with La Jolla Shores Drive, a public road, bisecting the campus into two parts: SIO West and SIO East.

SIO Master Plan - The Master Plan study of SIO foresees future growth resulting from replacement or infill at SIO West and primarily new development in clusters or neighborhoods organized along a main pedestrian spine from La Jolla Shores Drive to North Torrey Pines Road. The development clusters at SIO East will be single purpose neighborhoods accommodating academic/research buildings, housing facilities, or special facilities such as the Stephen Birch Aquarium-Museum complex. The academic neighborhoods extending from SIO West to the Revelle College neighborhood will form the

FIGURE 2

SIO Master Plan



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Marine Sciences academic corridor linking SIO programs to those occurring on the central campus. Expedition Way (road to the Aquarium-Museum) provides vehicular access from the SIO campus to the central campus via the UCSD Revelle College entrance.

The SIO Hillside Neighborhood Planning Study (Figure 2) was undertaken to fully understand development opportunities within the future academic neighborhood nearest the eastern edge of La Jolla Shores Drive and to ensure appropriate siting of two currently proposed SIO academic/research buildings, as well as subsequent facilities.

PLANNING PROGRAM AND ASSUMPTIONS

Building Program - The SIO Hillside Neighborhood currently contains approximately 50,000 ASF (assignable square feet) of usable space, in Nierenberg Hall and the Deep Sea Drilling Project (DSDP) complex. In addition, a fenced staging and storage area (15,000 SF) serves as a support facility for academic/research functions in Nierenberg Hall and several other SIO facilities located west of La Jolla Shores Drive.

The proposed building program for future facilities in this neighborhood was derived from the SIO Master Plan study. The plan allocated 174,000 GSF (gross square feet) of new space to this study area and assuming a 70% efficiency factor the area would accommodate 122,000 ASF (assignable square feet) of building space. Based on the completed UCSD research laboratory facilities and the steep terrain of the site, this study assumes a more conservative 60% efficiency ratio for assignable space resulting in 105,000 ASF of new building space to be identified with this neighborhood.

The entire future building program for this neighborhood consists of academic and support space including outdoor staging associated with laboratories at the ground level. The outdoor staging areas associated with individual buildings should take precedence over land allocations for parking uses. More specifically, physical oceanography, climate and atmospheric programs are expected to expand in this area of the SIO campus in the near term. At present, a variety of programs in these disciplines are housed in Nierenberg Hall. Immediately to the west of Nierenberg Hall, across La Jolla Shores Drive, are facilities with similar research emphasis, such as the Hydraulics Laboratory, the Norpax Building and the Institute of Geophysics and Planetary Physics complex (IGPP I & II, recently renamed Munk Laboratory and Revelle Laboratory respectively).

The Vaughan Hall/T-Building Replacement Facility (VH/TBR) and Nierenberg Hall Annex (NHA) project, a 16,000 GSF structure, consisting of laboratories, offices and a classroom, was sited in the SIO Hillside Neighborhood and designed during the preparation of this plan. Further, in January 1995, preliminary design may commence on a second building, a 25,000 GSF Ocean/Atmosphere Research (OAR) facility. For this study, it is assumed that the remainder of the undesignated academic building program will occur in increments of varying sizes (Table 1).

TABLE 1: BUILDING PROGRAM

BUILDINGS	ASF	GSF
Existing		
Nierenberg Hall	28,900	48,400
DSDP Complex Building A	17,800	22,500
Building B	2,200	2,300
Image Processing Lab (IPL)	1,100	1,200
Storage Unit	500	600
Subtotal	50,500	75,000
Future:		
VH/TBR Facility[a]	7,600	11,700
NH Annex[a]	2,800	4,300
OAR Facility[b]	15,000	25,000
Other Academic Space[b]	79,800	133,000
Subtotal	105,200	174,000 [c]
TOTAL	155,700	249,000

[a] Facilities in design have an efficiency ratio of 65%.
[b] Efficiency ratio of 60% was assumed for the OAR and future facilities.
[c] The SIO Master Plan Study allocated 174,000 GSF to the Hillside Neighborhood.

The Nierenberg Hall cruise staging and storage yard, located at the east end of Parking Lot 014, will be displaced by the OAR Facility. The storage function of this area may be relocated to Seaweed Canyon outside the neighborhood but the staging function would stay within the neighborhood. The cruise staging activities have priority over the availability of nearby parking.

Redevelopment of the DSDP Complex site may eventually occur, but in the interim, this site is considered an ideal area for consolidation of Scripps campus services given its central location and the ease of vehicular access. Such existing uses as physical plant maintenance and grounds shops, storehouse, and specimen storage could be relocated here to free land on the SIO West campus for academic uses. Conversion of the DSDP complex for primarily service and specimen storage uses would require relocation of existing academic uses in the DSDP buildings to other locations. Relocation of the machine shop function to this site would be advantageous because of the proximity to major users of the shop's services. A new structure would have to be constructed to house the machine shop operations. Parking would remain a component of the DSDP parcel, but would be scaled down from its present size.

Parking Program - The projected parking demand for the SIO Hillside Neighborhood was derived from data provided by SIO; *i.e.*, a current population estimate was based on recent surveys of population density (ASF/person) and parking demand by existing occupants of Nierenberg Hall (Tables 2 and 3). In addition a survey of parking demand by the occupants of Munk and Revelle Laboratories indicated that approximately 19% of those commuting by car parked in this neighborhood.

The SIO Master Plan study assumed a ratio of .64 spaces per person as the basis of future projections of SIO parking requirements. However, since the recent survey of the existing population in this neighborhood indicates a ratio of .71 spaces per person, this ratio forms the higher range of projected parking demand at the full buildout of this neighborhood. Since the street parking spaces are currently fully utilized, it was assumed that all parking to accommodate the future inhabitants of the SIO Hillside Neighborhood would be provided within the boundaries of the Scripps campus.

Planning Assumptions - For the purposes of this planning study the following assumptions regarding physical constraints on the development of the study area were adopted:

a) Since geotechnical investigations of the area are beyond the scope of this study, potential geotechnical constraints are considered mitigable.

b) Presence of disturbed coastal sage scrub in the study area may constrain near term development (2-3 years), but is assumed mitigable in the long term.

c) Areas exceeding 25% slopes containing native vegetation are not considered a constraint with respect to California Coastal Commission development regulations.

TABLE 2: EXISTING AND PROJECTED BUILDING SPACE AND POPULATION

	ASF[a]	POPULATION	ASF/PERSON
Existing Buildings:			
Nierenberg Hall	28,900	168	172
DSDP Complex	21,600	47	460
Subtotal	50,500	215	234
Future Buildings:			
VH/TBR Facility	7,600	47	161
NH Annex	2,800	12	234 [b]
OAR Facility	15,000	64	234
Other Academic Space	79,000	341	234
Subtotal	105,200	464	226
TOTAL	155,700	679	229

[a] ASF = assignable square feet.
[b] 234 ASF/person is an estimated ratio for Nierenberg Hall Annex, which consists of 4 lab spaces and 8 offices. This ratio is used for to the OAR Facility and other academic space.

TABLE 3: PARKING DEMAND

BUILDINGS	POPULATION	PARKING	SPACES/PERSON
Existing:			
Nierenberg Hall	168	85	.51[a]
DSDP Complex	47	24	.51[a]
Facilities at SIO West[b]	NA	20	NA
Subtotal	215	129	
Future:			
VH/TBR Facility	47	33	.71
NH Annex	12	8	.71
OAR Facility	64	45	.71
Other Academic Space	341	242	.71
Subtotal	464	328	
TOTAL	679	457	

[a] Existing buildings have a ratio of .71 spaces/person but use of street parking decreases the need for on campus parking to .51 spaces/person.
[b] A parking location survey of occupants of Munk and Revelle Laboratories (IGPP I & II) indicated that up to 19% of persons commuting to the campus by car, during weekday regular hours, park east of La Jolla Shores Drive and occupy 20 spaces.

d) Existing ocean views across the study area from La Jolla Shores Drive and Expedition Way must be preserved.

e) On hillside sites, buildings should "stair-step" to avoid mass grading of the terrain. Stairs and elevators alongside buildings should enable pedestrians to move easily among the different buildings and up and down the hillside.

f) "Scripps Ladder," a fully accessible pedestrian route (utilizing paths, ramps and elevators, as needed), should be extended from Scripps Crossing to all the buildings within the neighborhood.

g) Building setbacks shall be 60 feet along Expedition Way and at least 30 feet along La Jolla Shores Drive. Parking lots will require a 30-foot setback from Expedition Way.

h) No additional access points will be provided from La Jolla Shores Drive.

i) The neighborhood density should be predominantly low featuring two and three-story buildings.

SITE CONDITIONS

The study area encompasses 24-acres bounded by La Jolla Shores Drive, Expedition Way, Downwind Way, and the UCSD Park. Approximately one acre of the UCSD Park lands is located within the neighborhood's geographical boundaries (Figure 3).

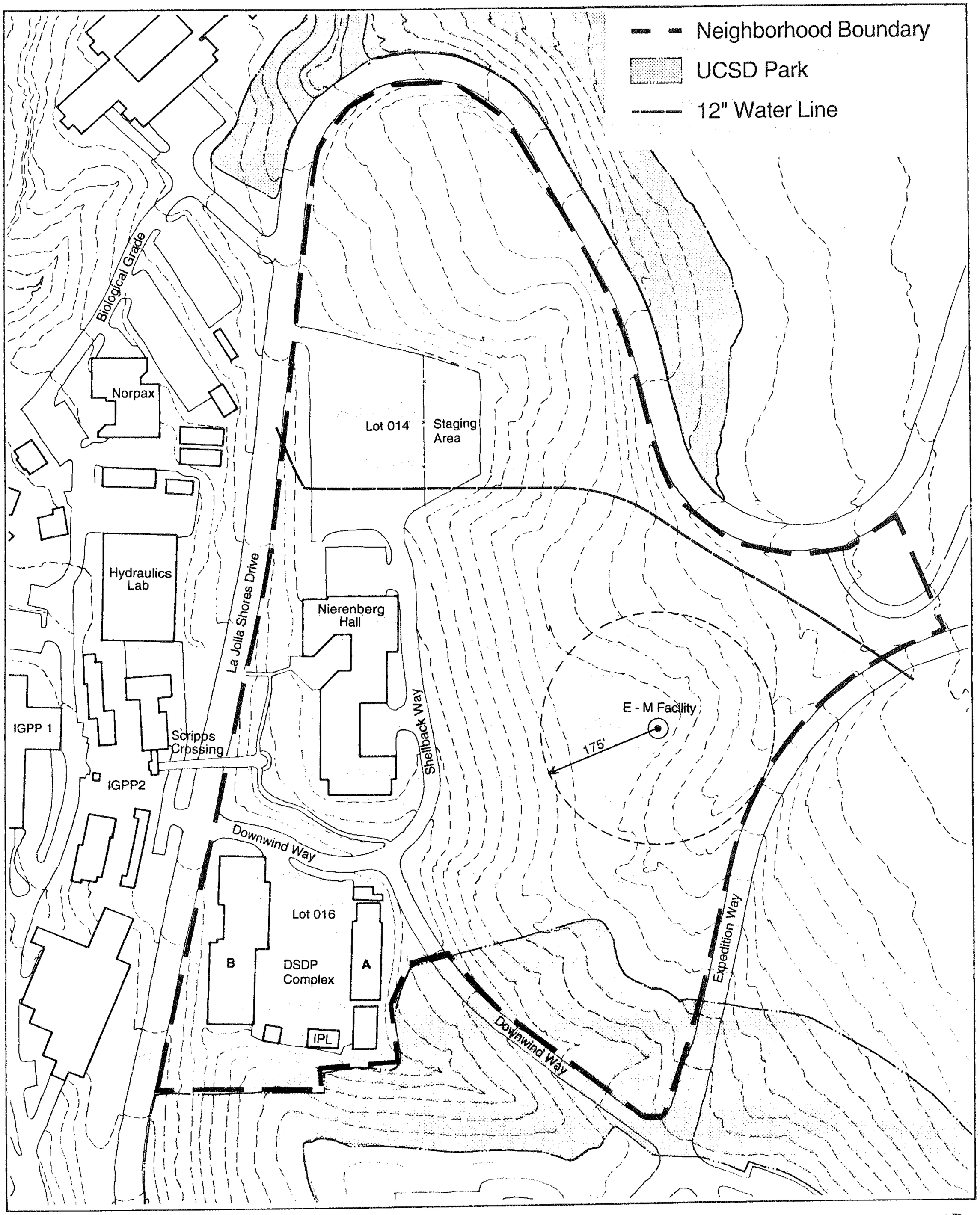
The existing topography of mesas and hillsides includes natural and man-made slopes. The site's topography affords expansive views of ocean to the west, and the shoreline and picturesque community of La Jolla to the southwest. Scenic views of the ocean and La Jolla exist throughout the study area and are also enjoyed by the public traveling on La Jolla Shores Drive and Expedition Way.

Vegetation consists of a mix of native and exotic shrubs and grasses with several stands of eucalyptus trees in the northeast portion of the study area. Ornamental landscaping is in evidence around the existing buildings and along La Jolla Shores Drive.

Existing Facilities - Existing buildings in the study area include Nierenberg Hall, a one-to-four story structure, and the Deep Sea Drilling Project (DSDP) complex consisting of one and two-story permanent and temporary structures. Nierenberg Hall consists of laboratories, a classroom, and offices for faculty, researchers and support staff. The DSDP complex houses offices, refrigerated storage for oceanic sediment/rock cores, SIO's geological core collection, the Image Processing Laboratory (IPL), and Parking Lot 016 (86 spaces). Parking Lot 014 (130 spaces) is located to the north of Nierenberg Hall. To the east of Lot

FIGURE 3

Existing Conditions



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014 is a fenced-in equipment storage and staging area for scientific expeditions associated with research programs emanating primarily from activities in Nierenberg Hall. Several scientific testing facilities are located east of the existing facilities. For example, the Electromagnetic (E-M) Test Facility is located on the small mesa above Nierenberg Hall to minimize physical impacts (*e.g.*, noise, vibrations, magnetic pulses) from the built environment that would otherwise impair calibrations and measurements associated with these research programs. Development within a 175-foot radius of this facility will be impermissible until 1998; thereafter, this facility will be dismantled or relocated. In the vicinity of this test facility there are two small geodesic dome structures used as research laboratories.

Scripps Crossing, a cable-stayed pedestrian bridge over La Jolla Shores Drive provides a safe route between this neighborhood and the SIO campus west of La Jolla Shores Drive. Two paths have been built from the east landing of the bridge (elev. 180'); the path to the north provides a link to the stairs leading to the Nierenberg Hall courtyard and the path to the east connects to a sidewalk at the intersection of Shellback Way and Downwind Way, leading to the Aquarium-Museum. This path also provides a connection to the DSDP complex via a new set of stairs.

Utilities are generally located within road rights-of-way surrounding the study area. However, a 12" water line crosses the site north of Nierenberg Hall from Expedition Way to La Jolla Shores Drive. This major line serves this area as well as the SIO West campus, and may require relocation because it is in the path of future development.

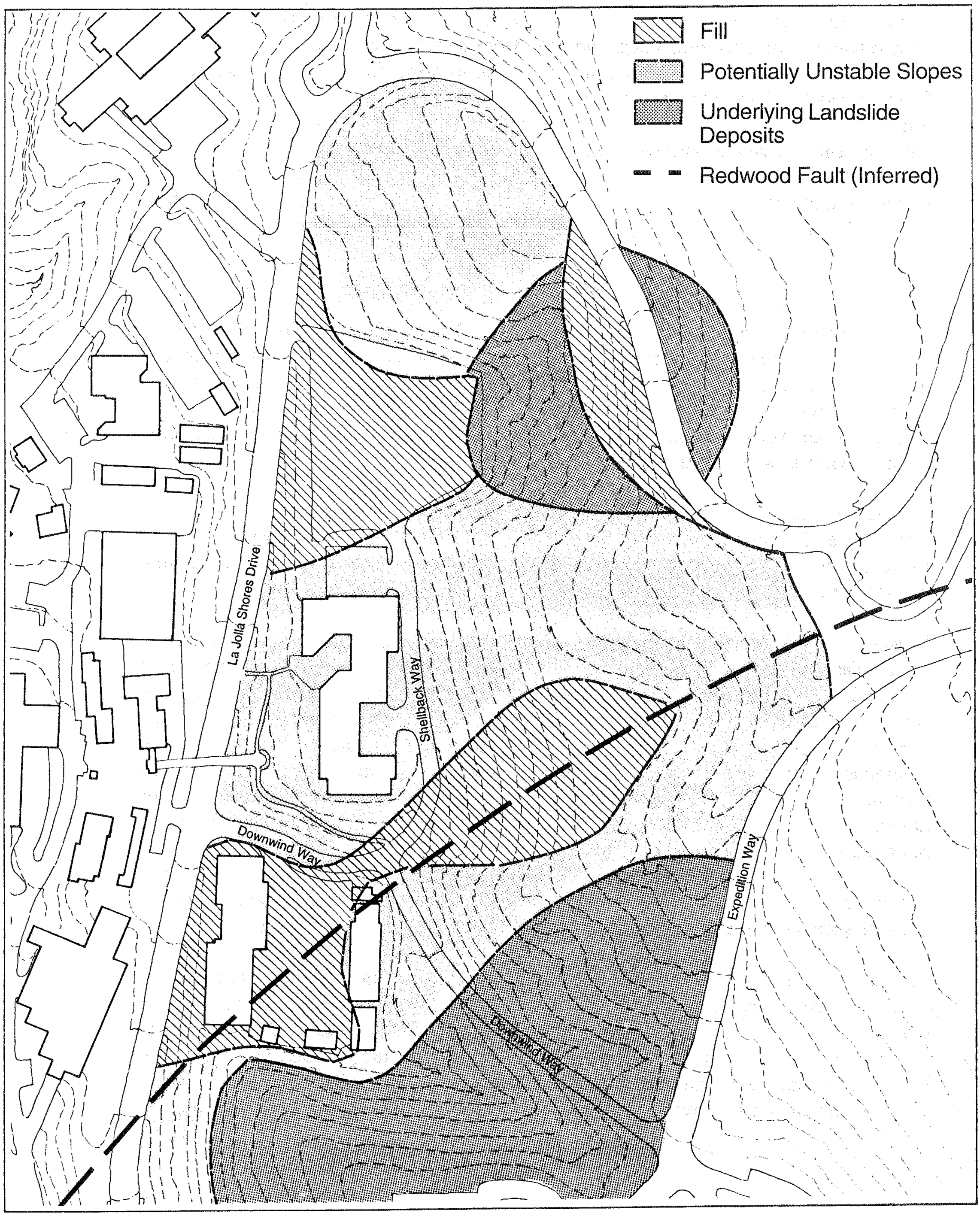
Existing Circulation - This neighborhood has three existing entry points from La Jolla Shores Drive: one at the south end, via Downwind Way; the second at the north end, via Parking Lot 014/Shellback Way; and the third at the northeast end, via a restricted unpaved service road leading to the Electromagnetic Test Facility on the upper mesa. This latter driveway is on a dangerous blind curve and, therefore, should be retained only for emergency access/exit purposes. Expedition Way, along the site's eastern boundary, provides additional access opportunities. Currently, this access is restricted to daytime hours; it is anticipated that lockable gates at two locations on Expedition Way will be removed as the neighborhood develops.

Public access from Downwind Way to Expedition Way is restricted in order to prevent daytime access to the new Aquarium-Museum facility from La Jolla Shores Drive.

Vehicular connections between SIO West and East are problematic because of inadequate sight-lines and the relatively high speed of traffic on La Jolla Shores Drive. The Biological Grade (the SIO northwest entrance) connection to Shellback Way is particularly problematic due to inadequate intersection offsets precluding separate left turn pockets in both directions. Instead, an intermittent center lane is provided on La Jolla Shores Drive to allow left turns. Since Shellback Way allows right turns only to La Jolla Shores Drive, Downwind Way is

FIGURE 4

Geological Conditions



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the only roadway that provides vehicular access from this neighborhood to all SIO West entrances, because it allows left and right turns to La Jolla Shores Drive.

The major pedestrian entry into the neighborhood is Scripps Crossing, which encourages interaction between members of the Scripps community working in the facilities separated by the busy roadway and provides safe access to the parking lots east of La Jolla Shores Drive.

Bicycle access to the neighborhood occurs via La Jolla Shores Drive and Expedition Way. The former is a dangerous route because of the speed of traffic and parking along the curb; the latter has a fairly steep slope (14%) which is troublesome for bicyclists making the uphill climb.

UCSD's transportation service has a shuttle stop at Nierenberg Hall. The public transit bus stops on La Jolla Shores Drive near the entrance to Parking Lot 014, and at Downwind Way.

Geological Conditions - The geology of the SIO Hillside Neighborhood area may pose a number of physical challenges to development; it includes artificial fill, unstable and potentially unstable slopes, areas of suspected underlying slide deposits, and evidence of a geologic fault (Figure 4).

In 1964, prior to realignment and widening of La Jolla Shores Drive, the study area contained two natural canyons: one on the site of the parking lot north of Nierenberg Hall and the other stretching across the DSDP complex and ending at the mesa above the Electromagnetic Test Facility. The roadway realignment project as well as subsequent University-related developments filled those canyons. Development on these filled areas will generally require testing to determine development suitability and stability.

A geologic overview completed in 1988 by geologist William Elliott found that the entire study area has underlying geotechnical conditions that could influence future development. The site is transversed by *Redwood Fault* whose exact location and activity classification are not known. A 200-foot wide strip of land on each side of the fault trace will need to be investigated when future development in this vicinity is contemplated. The degree of development constraint will largely be dependent on the activity classification of the fault and the sensitivity of the proposed facility to possible ground shaking.

Potential for slope instability exists throughout the site, especially in the areas of steeper slopes and where layered sedimentary deposits are adversely oriented with respect to the existing or proposed slopes.

There are two areas of suspected underlaying landslide deposits within the boundaries of this neighborhood. One is located east of the northern parking lot and the other is at the southeast corner of the neighborhood, almost entirely on the UCSD Park lands. Geotechnical analyses indicating long-term stability (under worst-case conditions), and slide

stabilization measures would generally be required to confirm the "developability" of these areas.

Topography, Slopes, and Views - The Hillside Neighborhood comprises two topographically distinct areas: One consists of graded mesas along La Jolla Shores Drive stepping up from south to north; the other consists of a hillside rising 160' from west to east with a small mesa at the quarter-point up the slope. A relatively level area also occurs at the top of that rise. Overall, the study area rises 140 feet from south to north and 200 feet from east to west. Generally, development west of La Jolla Shores does not block existing or potential views from the site.

The majority of slopes (42%) in this neighborhood exceed 25% gradients. Approximately one-fifth of the sloped areas have gradients between 16% and 25%. Consequently, future facilities in this neighborhood will compel higher site development costs than customarily associated with UCSD projects in other, flatter neighborhood areas.

The view of the Pacific Ocean across the study area from the crest of Expedition Way should not be diminished: It is a glorious announcement of Scripps' proximity and association with this great body of water. Similarly, views over the study area from La Jolla Shores Drive at Coast Apartments, as the road begins to turn steeply downhill, are important and provide the public with sights of the coastline that should be preserved.

The public impression of the site will be most encompassing from boats on the ocean, from La Jolla Shores beach, and from north-facing slopes in La Jolla.

PART II: NEIGHBORHOOD PLAN

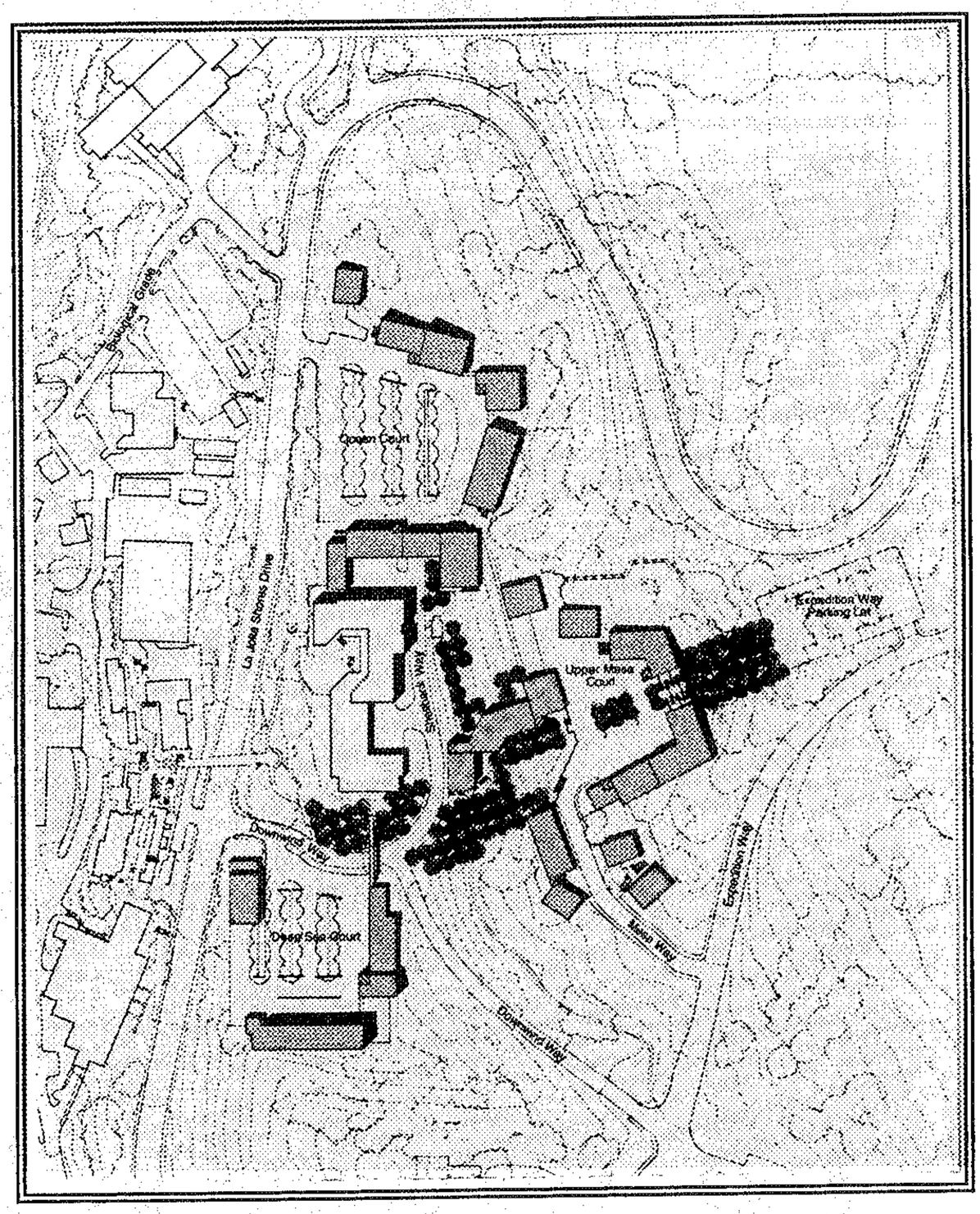

FIGURE 5

Neighborhood Plan

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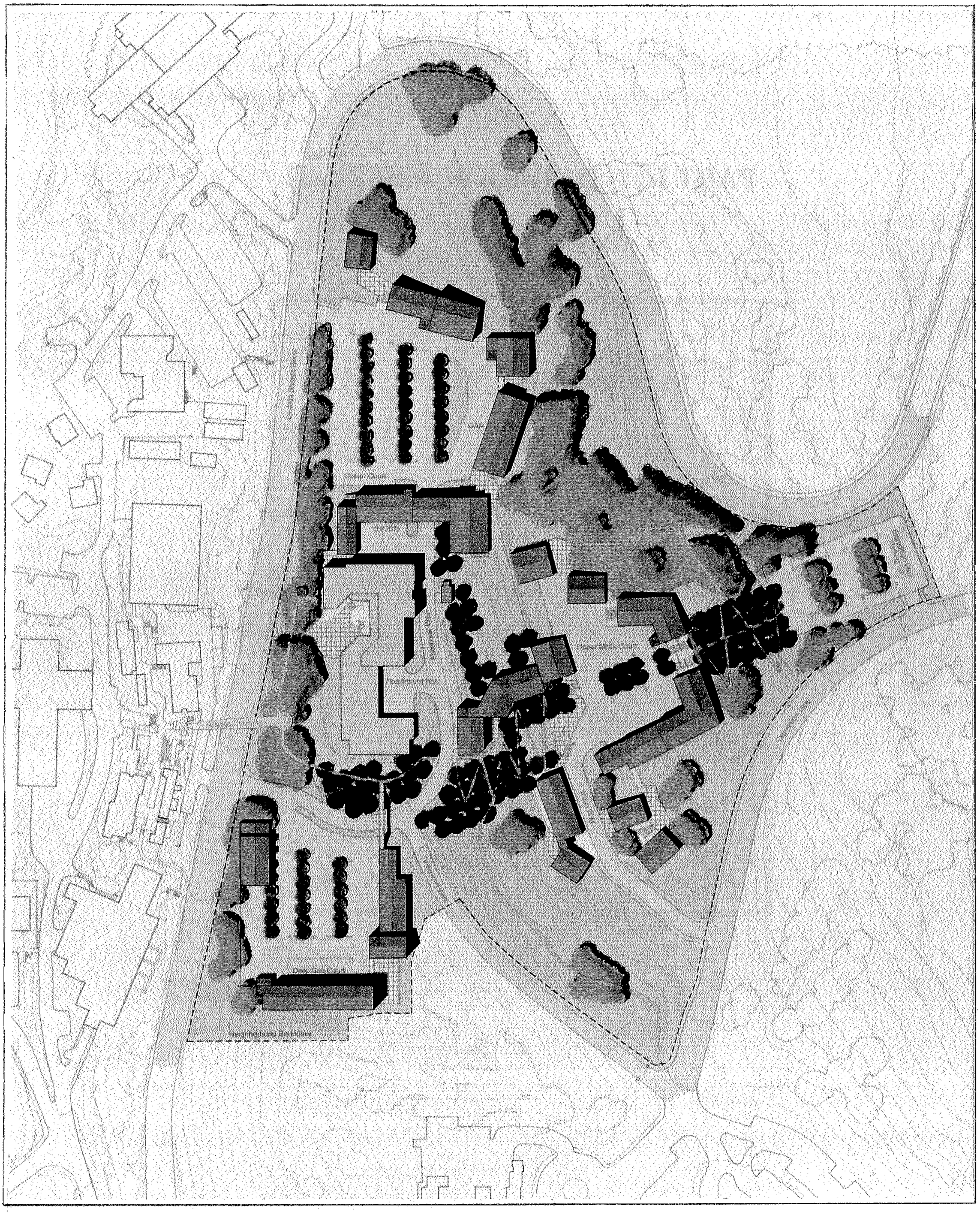
FIGURE 5

Neighborhood Plan



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NEIGHBORHOOD PLAN

The overall objective of the plan is to firmly establish the character of a neighborhood in which buildings and landscape are interwoven with indoor and outdoor meeting and working areas. On the existing campus the favored spaces and buildings are mostly small in scale, intimate but serviceable and conducive to fruitful exchange among faculty, staff and students.

Discussions with the Planning Advisory Committee indicate that the Munk Laboratory (IGPP I) and its related open spaces can serve as an exemplary model of the relationships being sought for the SIO Hillside Neighborhood. It is built simply, but carefully fitted to the land, taking advantage of changes of grade for service areas and for exceptional views from the commonly used areas of the building and from many offices. The outlook provided is not only to ocean views but in some cases to close, well tended landscaped areas, including a wind-sheltered picnic and outdoor seminar area. Entry to the building is easily identified and circulation spaces within the building are spacious and pleasant. Wooden surfaces and compatible colors lend an inviting warmth and informality to a structure that is rational, carefully detailed and straightforward. Many of these same qualities may be found in the recently completed Revelle Laboratory (IGPP II) complex which serves as the connection point between SIO West and the SIO Hillside Neighborhood.

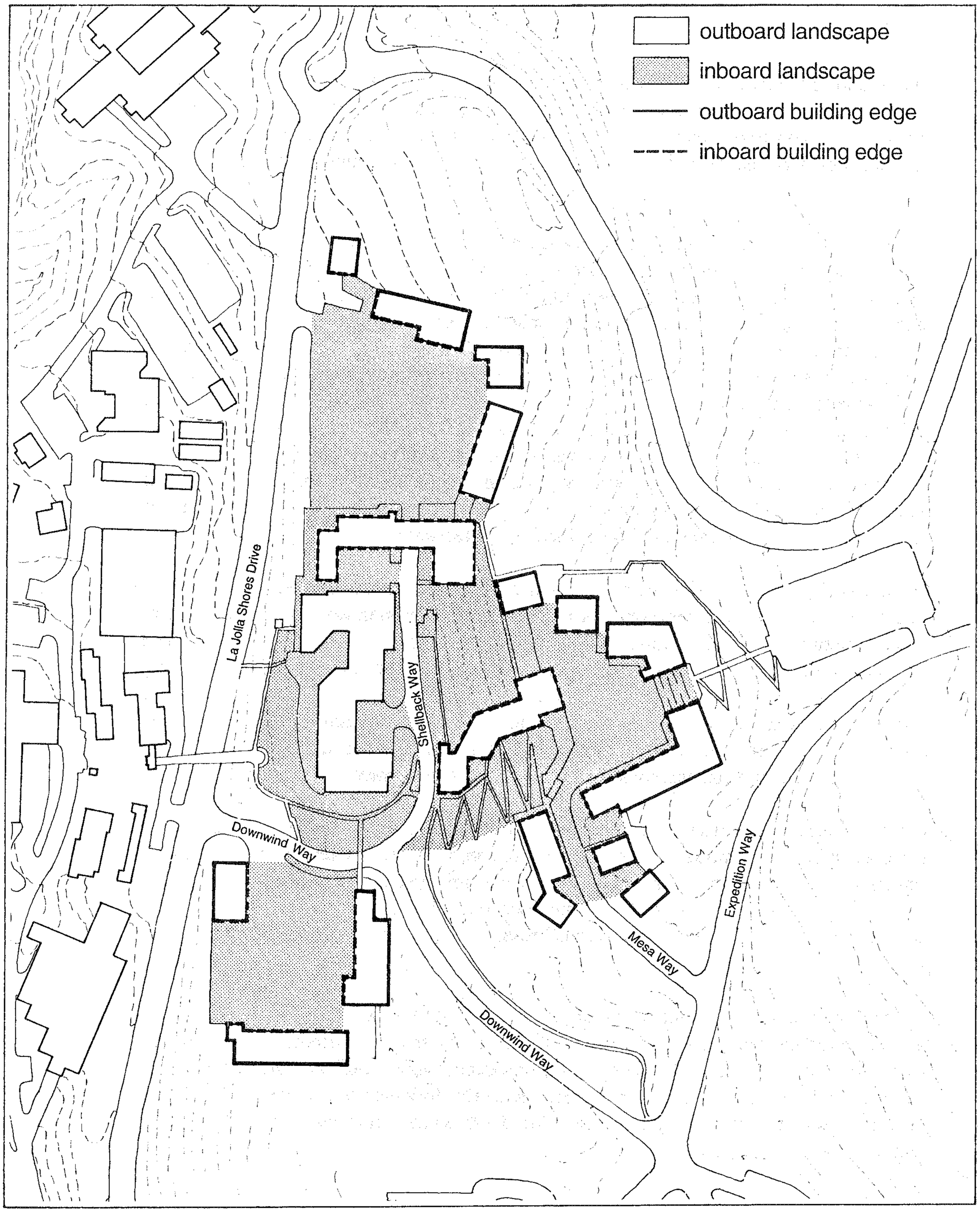
In the SIO Hillside Neighborhood buildings create embayments or land dams that retain the natural hillside outboard of development and focus activity around west facing courts located on the existing graded areas inboard of development (Figures 5 and 6). Simply massed structures, predominately three-story, accommodate the required building program and shape large, multi-purpose outdoor rooms. Deep Sea Court to the south and Ocean Court to the north accommodate parking, fire access, building services and lay-down areas. Upper Mesa Court to the east meets the access requirements but is limited in the amount of parking and outdoor work space it can accommodate by the steep topography of the hillside.

The development pattern shapes a contiguous open space along the eastern edge of the site. The open space is contained to the west by a permeable built edge intermittent with terraces that engage the surrounding landscape. To the east the open space is bordered by La Jolla Shores Drive, Expedition Way and the Expedition Way parking lot. Approximately one acre of the open space east of Deep Sea Court is Preserve Lands, a category of open space within the UCSD Park system.

The Scripps Ladder and connecting path network rely on the buildings, inclined paths and bridges within the neighborhood to link activities. Two transition buildings provide elevator access required for accessibility from lower elevations along Shellback Way to the Upper Mesa Court buildings. The Scripps Ladder generally follows the Redwood Fault, taking advantage of the swath of open space the fault creates through the middle of the neighborhood.

FIGURE 6

Inboard / Outboard



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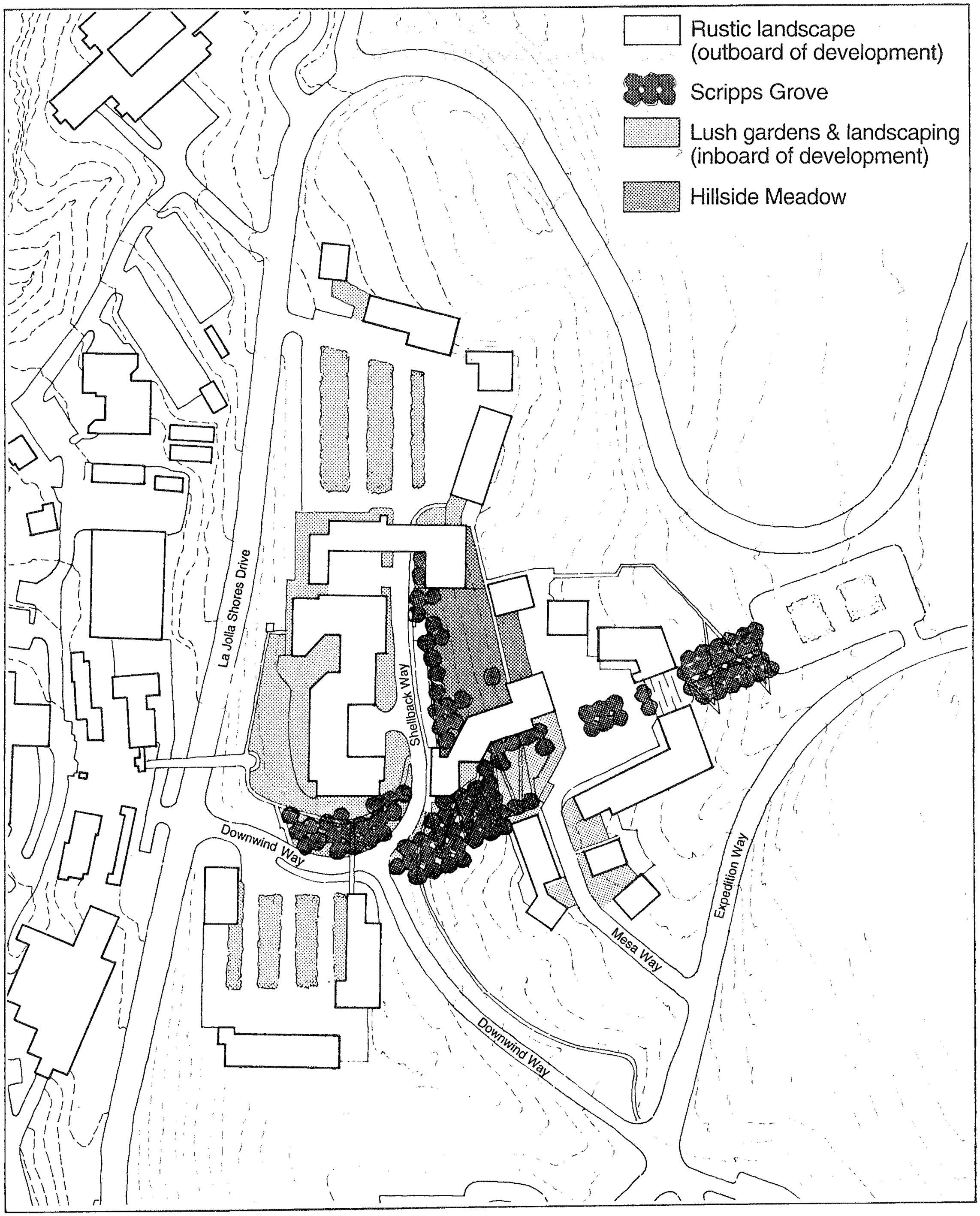
Existing roads are used where possible to accommodate buildings around the lower courts. The Upper Mesa Court will require the installation of a new short access road.

FIGURE 7

Landscape Plan



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LANDSCAPE PLAN

The landscape is as important as the buildings in forming outdoor rooms and setting the character for open spaces that people will use, move through and view. Like the building configuration, proposed landscape interventions engage the entire site and are important in establishing continuity across the neighborhood (Figure 7).

The landscape outboard of development remains rustic in character. New plantings in this area should be in keeping with the existing coastal sage scrub and eucalyptus. Fire regulations will limit what is allowable in close proximity to the structures and this will establish a partially irrigated buffer between the buildings and the existing, outlying landscape. The emphasis is on maintaining a native vegetation context while introducing irrigation within this zone.

On the inboard or courtyard side of the buildings, color and formal plantings should serve to strengthen the presence of the Scripps Ladder, individualize courts and emphasize the difference between the rustic and transformed environments. Instead of the rigor of a fire code which primarily effects the landscape character outboard of development, the views required by the users, occupants and community require an equally demanding rigor for inboard areas.

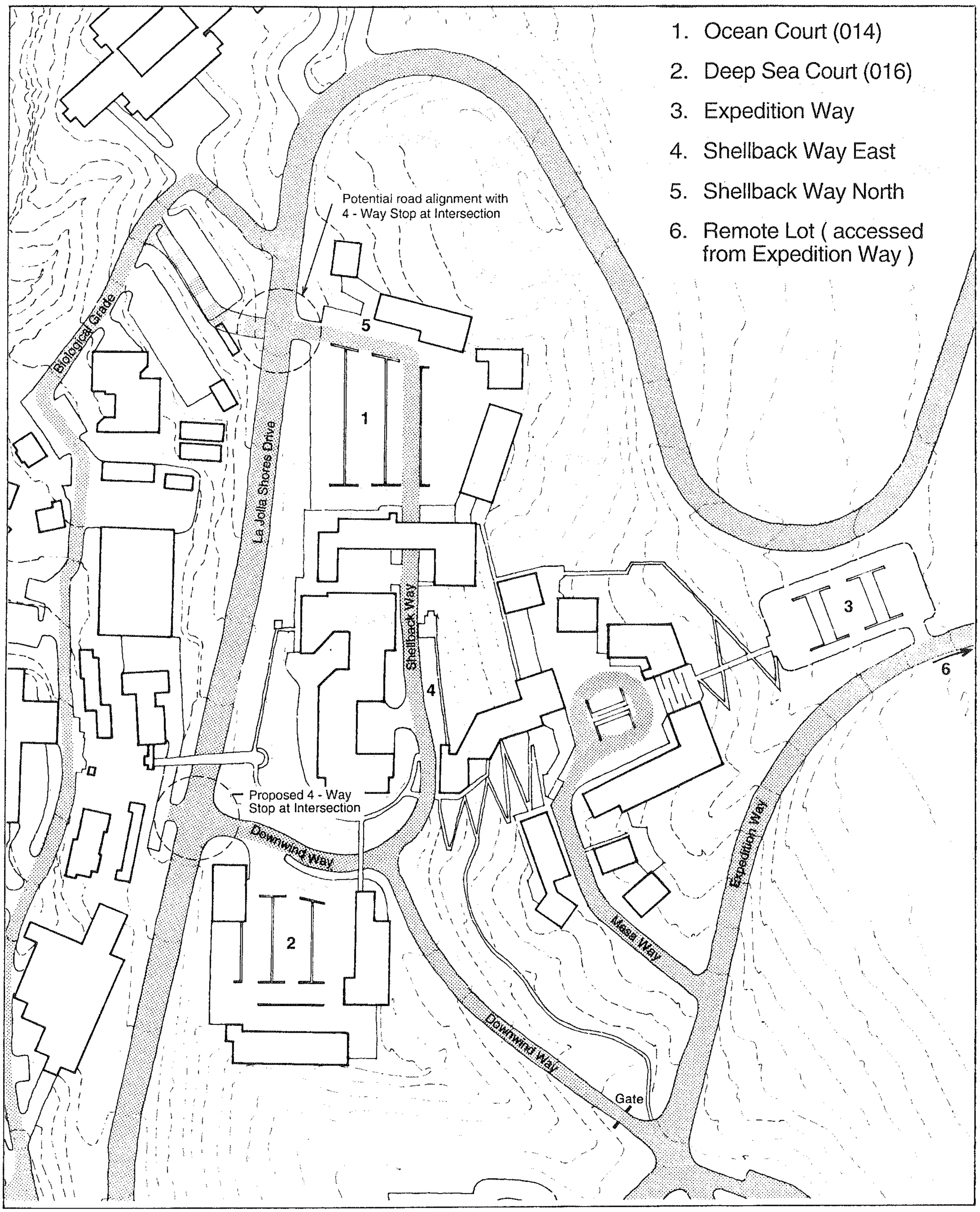
The establishment of Scripps Grove along the Ladder underscores the significance of the pedestrian path. This is the most important landscape intervention in the plan. The core of the neighborhood from the western edge of Nierenberg Hall to the eastern parking lot is marked with a stand of low headed trees planted in rows.

Colorful trees should be planted in the parking areas of the arrival courts to provide shade, break-up the scale of the court and help distinguish the courts from one another.

The Hillside Meadow, flanked by buildings to the north and south and edged with circulation to the east and west, is the previously graded bank that rises east of Nierenberg Hall. It should be planted with blossoming ground cover that provide a foreground to ocean views from higher elevations and a pleasant outlook from the work spaces around it.

FIGURE 8

Vehicular Circulation and Parking Plan



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CIRCULATION PLAN

Vehicular Circulation - The vehicular access and circulation on the lower mesas of the SIO Hillside Neighborhood will remain unchanged except for realignment of Shellback Way to the periphery of Parking Lot 014 at Ocean Court. This realignment will provide improved access to the OAR Facility parcel. Upper Mesa Court will be reached from Expedition Way via an access road that would end in a turnaround on the court. This road will serve as an emergency, service, shuttle, and drop-off access to facilities on the upper mesa. (Figure 8).

A full intersection on La Jolla Shores Drive connecting Shellback Way with Biological Grade was proposed in the SIO Master Plan. A detailed study of topography revealed that Biological Grade could be realigned through Parking Lot 013 to create this intersection. The new intersection would include left-turn pockets on La Jolla Shores Drive to improve the safety of left turning movements over the existing center lane accommodation. This direct connection to the SIO West campus across La Jolla Shores Drive would be desirable, but it would be unsafe without a four-way stop or traffic signal because of the inadequate sight-line distance on the curving La Jolla Shores Drive. However, traffic conditions and volumes at this intersection are not such, as outlined in the City of San Diego criteria for the installation of stop signs, to warrant a four-way stop at this time. Therefore, realignment of Biological Grade should be revisited when potential redevelopment of the area north of Hydraulics Laboratory and the growth in the Hillside Neighborhood increase the traffic volumes to justify the four-way stop.

The Downwind Way intersection with La Jolla Shores Drive is located on a straight stretch of the road and has good visibility in both direction. Since a left turn movement is not allowed from Shellback Way, Downwind Way provides the only vehicular connection between this neighborhood and southbound La Jolla Shores Drive. It is recommended that a four-way stop be installed at this intersection in anticipation of the higher traffic volumes to be generated by the new development in this neighborhood and the potential conversion of the DSDP parcel to service uses.

Parking - The SIO Master Plan recommended that the future parking improvements be provided in smaller lots associated with individual buildings. This recommendation may be achievable in the neighborhoods where topography is relatively level, but given the predominance of steep terrain it is not possible here. Therefore, this neighborhood planning study carefully considered other parking options.

The projected parking demand, at the full build-out of the SIO Hillside Neighborhood, is estimated to be as much as 457 spaces (Table 4). However, the neighborhood plan identifies parking capacity of only 300 spaces within the boundaries of the neighborhood. These spaces will be located in two existing parking lots (Lot 014 and 016), the new Expedition Way parking lot and two small parking areas associated with individual buildings.

FIGURE 9

Transit Circulation

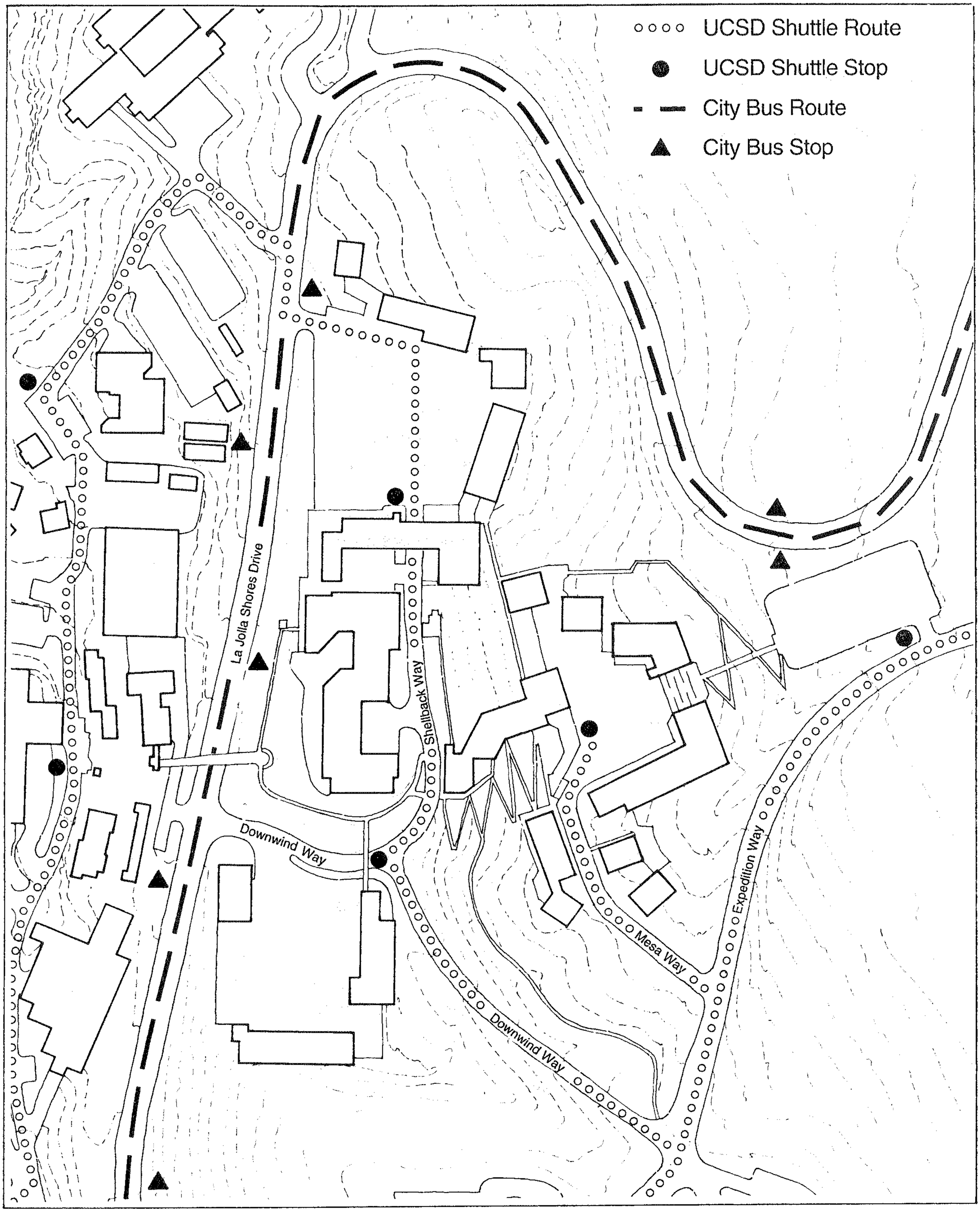

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TABLE 4: PARKING LOCATIONS AND SUPPLY

LOCATION	SPACES
1 - Lot 014 at Ocean Court	115
2 - Lot 016 at Deep Sea Court	70
3 - Expedition Way Lot	75
4 - Shellback Way East*	20
5 - Shellback Way North	20
Total On-Site Parking	300
6 - Off-Site Parking**	157
GRAND TOTAL	457

*Optional use for this area would be for staging activities associated with Nierenberg Hall.
**Location, to be determined, elsewhere within the Scripps Campus boundary.

Approximately 157 additional parking spaces will have to be provided outside of the neighborhood at the full build-out. There are several ways to accommodate this demand:

1. Build remote parking lots outside the SIO Hillside Neighborhood boundaries, but within the Scripps campus. Assume adequate shuttle service.

2. Utilize excess capacity in the Aquarium-Museum parking lot during the school year and in the Revelle Campus parking lots during summer months.

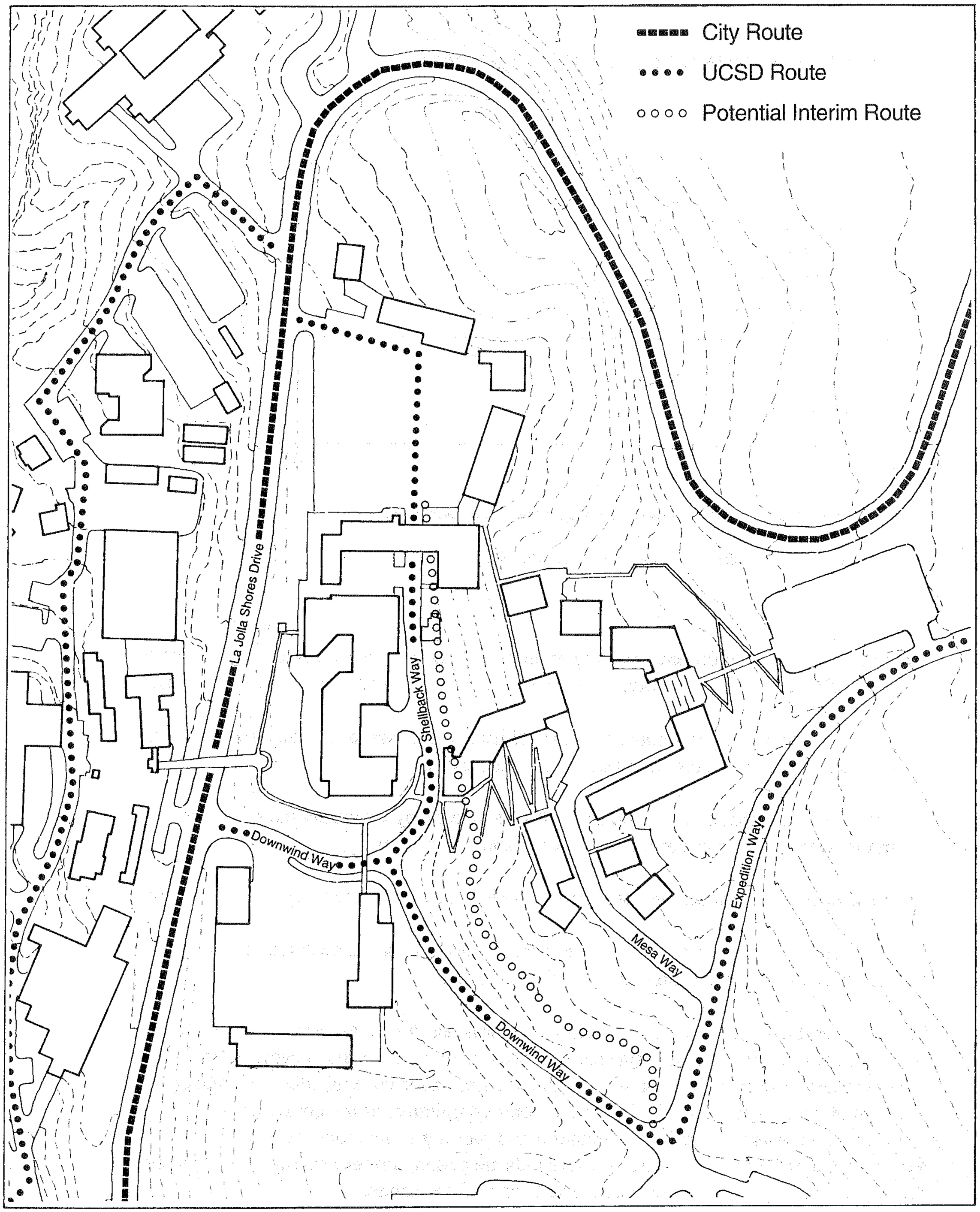
3. Build decked or underground parking with redevelopment of the Deep Sea Court parcel.

The feasibility of building decked or underground parking should be evaluated during pre-design efforts for new development around Deep Sea Court.

Since the parking demand for this neighborhood was based on a greater population density and parking ratio (space/person) than experienced overall on the Scripps campus, an estimate of anticipated growth in population and related demand for parking should be made at the time a new facility is planned. Two years after completion of the construction, a survey should be conducted to verify if population and parking projections were on target. It is recommended that at the time when surveys indicate parking lots are nearing full occupancy, a new parking project of appropriate capacity should be planned.

FIGURE 10

Bicycle Circulation



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To assure timely implementation of additional parking to serve the SIO campus, when supported by the survey results, the UCSD Transportation Policy Committee should be alerted. This Committee is charged with evaluating needs and setting priorities for parking improvements. Subsequently, potential parking lot sites would be evaluated and the project processed for approval.

It is anticipated that the construction of the VH/TBR Facility and the OAR Facility, both, fronting on the Ocean Court (Lot 014) will fill the existing lots to capacity. This may require implementation of an increment of new parking, especially since the Ocean Court parking lot will be used increasingly by the occupants of Revelle Laboratory. A remote location along Expedition Way, east of the neighborhood, may be the best site for this parking improvement project because of availability of level ground and proximity to the shuttle route.

Transit Circulation - The SIO Shuttle will continue to transport people between the lower and upper portions of the SIO campus and to the UCSD central campus. As the SIO campus develops, the effectiveness of shuttle stops will be constantly monitored and adjusted to respond to the needs of the SIO community. Typically, shuttle stops will be at locations which link to pedestrian routes or remote parking lots (Figure 9).

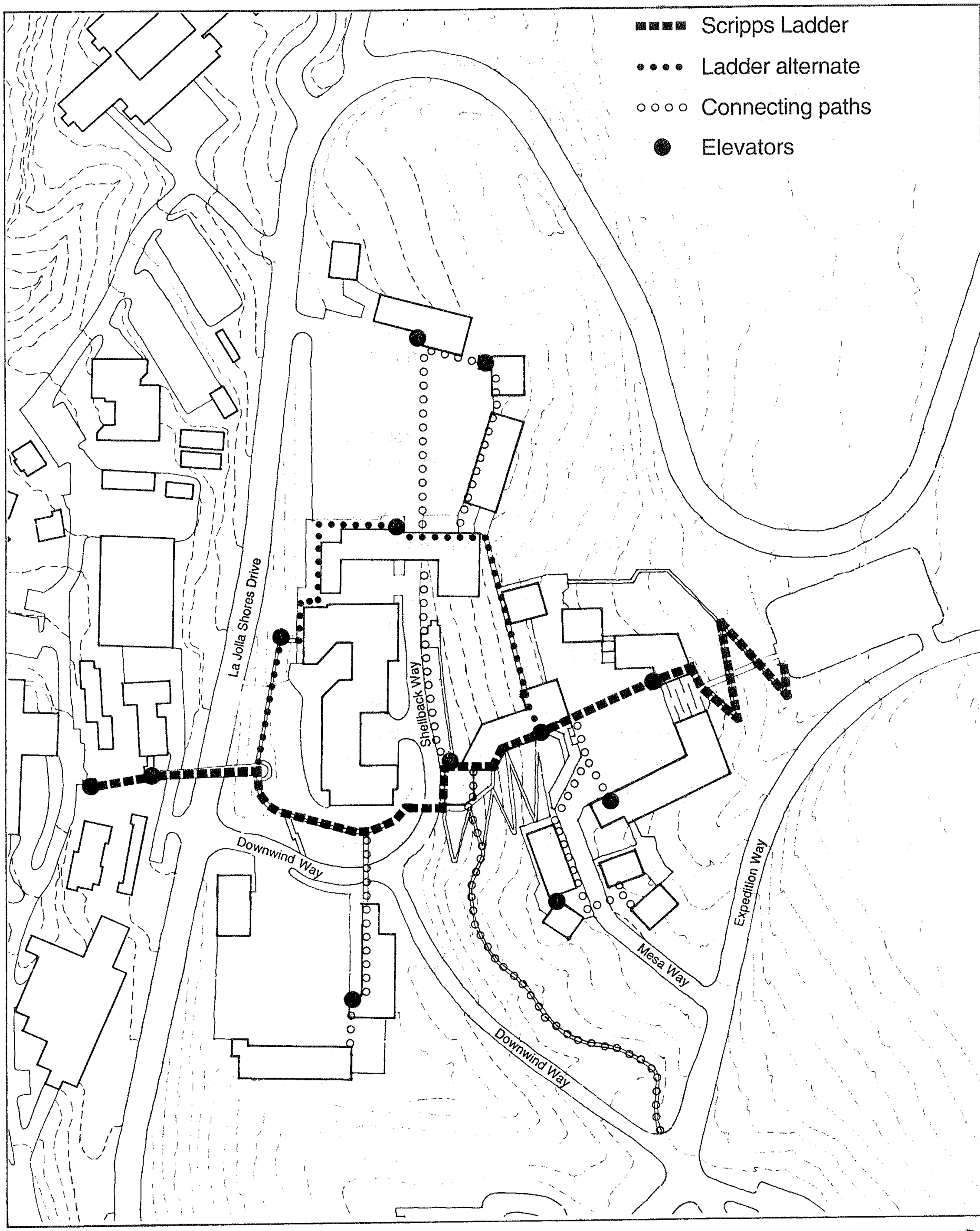
San Diego Transit buses serve SIO and offer connections to La Jolla, Pacific Beach, downtown San Diego, La Jolla Village Square, and University Towne Center. Three bus stops on La Jolla Shores Drive serve the neighborhood.

Bicycle Circulation - Bicycle circulation in this neighborhood will be confined to the existing roadways because of the steep terrain (Figure 10). Generally, bicyclists should be encouraged to use campus roadways wherever possible to avoid potentially dangerous traffic and curbside parking conditions present on public roadways.

Bicycle parking areas will be provided with each new facility. Bicycle parking requirements are outlined in the 1993 Campus Bicycle Circulation and Parking Planning Study.

FIGURE 11

Pedestrian Circulation



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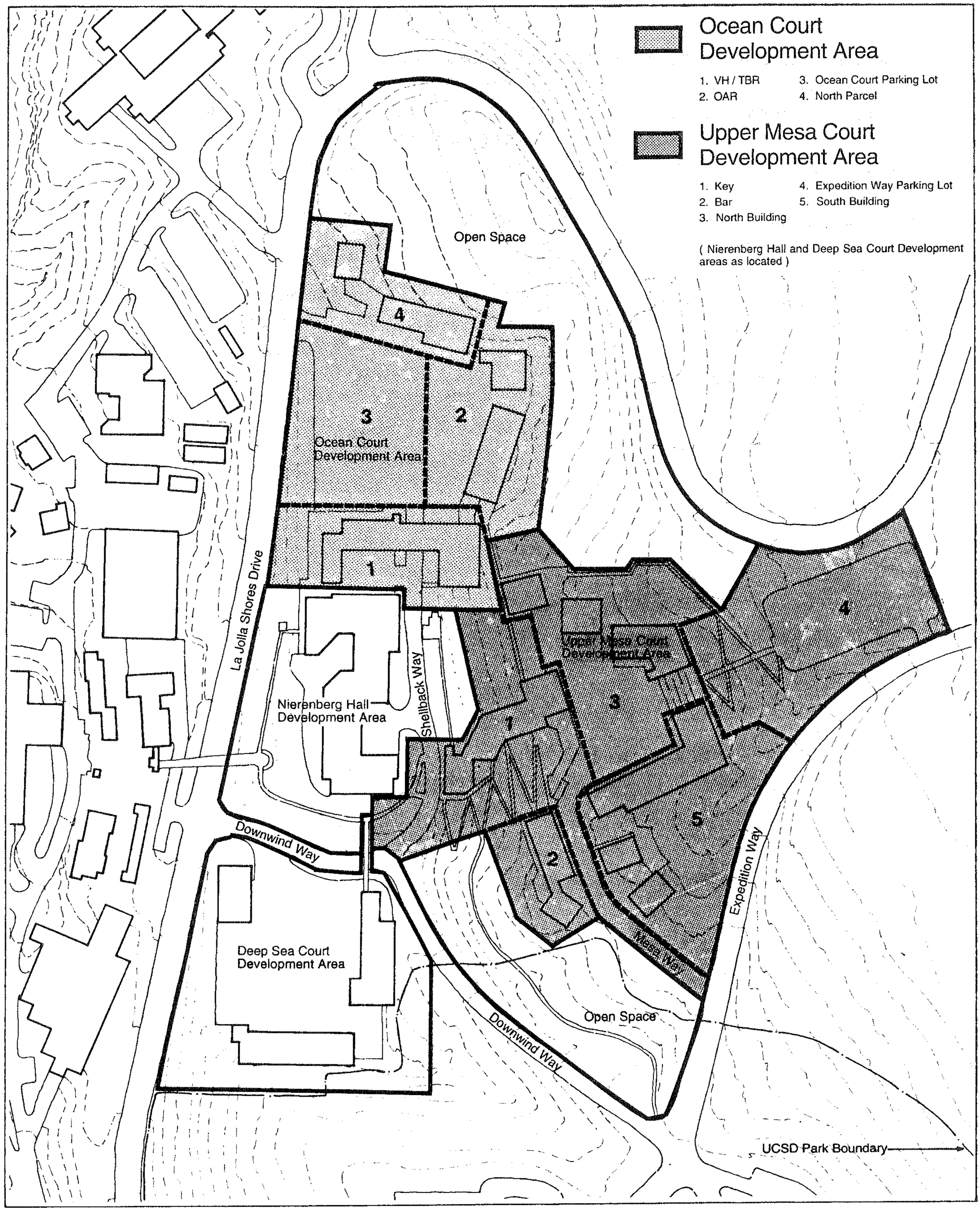
Pedestrian Circulation - The path system within this neighborhood is designed to extend the social fabric of SIO West via an accessible passageway into the SIO Hillside Neighborhood (Figure 11). The possibilities for casual meetings and social encounters are maximized by concentrating direct movement through the neighborhood and overlapping the use of building corridors and elevators with pedestrian through-traffic.

Scripps Ladder moves from Scripps Crossing to the Expedition Way parking lot around the south end of Nierenberg Hall. A Ladder alternate goes around the north end of Nierenberg Hall through VH/TBR. The connecting paths generally run north to south, accessing places not directly adjacent to the Ladder. Paths parallel to the Ladder provide outdoor routes that do not require use of elevators. The Eucalyptus Walk north of development connects Ocean Court to the Expedition Way parking lot. The Scripps Ladder, Scripps Ladder alternate, and the connecting paths are accessible via elevators, gently inclined paths and exterior building walkways while the parallel paths and the Eucalyptus Walk are not.

FIGURE 12

Development Area and Parcel Map



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PARCEL DESCRIPTIONS AND DEVELOPMENT PARAMETERS

The placement of development shown in this neighborhood is informed by the specific context of each parcel and by the principles set down to extend the valued planning aspects of SIO West. The intent is the creation of a neighborhood that is rooted in its site and composed of defined and useful spaces. Landscaping and buildings work together to form the gateways, focal points, activity centers and passageways that make this neighborhood pleasant to work in and easy to move through. Because the program for most of the neighborhood development was not determined at the time of the study, the urban design described is conceptual and intended to indicate the opportunities the site offers in the planning a neighborhood that fits its setting. All development on the site is subject to view studies which will inform more specifically the heights and mass of the buildings in the neighborhood.

The neighborhood is divided in four development areas: Nierenberg, Ocean Court, Deep Sea Court and Upper Mesa Court. The remainder of the neighborhood area is dedicated to open space (Figure 12).

The individual parcels bordering on the open space typically include a 35' subzone of an 85' brush management zone mandated by the campus fire marshall. The remainder of brush management zone is within the open space areas. The landscape character of these areas should, insofar as possible, match that of the existing rustic landscape. Upon completion of development for a parcel, this area should be preserved and maintained as open space.

NIERENBERG HALL DEVELOPMENT AREA

This site is bounded by Downwind Way on the south, La Jolla Shores Drive on the west, and the VH/TBR Facility parcel on the north. It extends into the hillside east of Shellback Way. This area accommodates Nierenberg Hall, its south service yard, the eastern landing of Scripps Crossing and two paths from the crossing, one leading north to Ocean Court Parking Lot 014 and the other east to Shellback Way.

The southerly, one-story, component of Nierenberg Hall contains laboratories fronting on the south service yard. The laboratories are surrounded by an inadequate number of support offices. An opportunity exists for additional building space along the west side of this building component. New offices could either be clustered around a ground level atrium connected to the existing building, or they could be constructed as a second level addition over the existing offices. It is recommended that the south service yard entrance be widened to improve service access by trucks.

A pedestrian route between Scripps Crossing and the Ocean Court parking lot will require additional improvements to achieve full accessibility. A new elevator at the west end of Nierenberg Hall is recommended as a means of providing this access.

This elevator would also provide access to the proposed new entrance at the west side of Nierenberg Hall.

An area along the east side of Shellback Way could be developed to accommodate a limited component of staging activities, or it could be improved for a 20-space parking area. This area would be about 35 feet in depth, set into the hillside, and 170 feet in length. Approximately a 12-foot high wall would be required along its length to retain the hillside. If implemented, this project should include the proposed landscape improvements intended for the Hillside Meadow bordering the site to the east. Pedestrian circulation is to be accommodated along the eastern side of Shellback Way, whether staging or parking go there.

OCEAN COURT DEVELOPMENT AREA

The Ocean Court site resulted from the filling of two small canyons that come together at this location. The east and north sides are bounded by steep hillsides. The area to the south was graded to accommodate Nierenberg Hall and associated work yards. Ocean Court accommodates vehicular traffic between La Jolla Shores Drive and Shellback Way. It is surrounded on three sides by development parcels; the fourth side of the court remains open to the west and ocean views. The proposed massing for this court steps up in height from the west to the east, following the slope of the hillside. The court elevation is approximately 220 feet above sea level.

There are four individual parcels within this development area: VH/TBR Facility, Ocean Court Parking Lot, OAR Facility and North Parcel.

VH/TBR Facility Parcel (1) - This parcel is the approved site for Vaughan Hall/T-Building Replacement (VH/TBR) Facility and Nierenberg Hall Annex (NHA), which is being designed concurrently with preparation of the plan. The proposed project will consist of laboratories and associated offices, a 60-seat classroom, a photo/video facility, and the Marine Life Illustration unit.

This site adjoins the north end of Nierenberg Hall, contains its northern service yard and encompasses a portion of the hillside to the east. It borders Ocean Court to the south. Shellback Way separates the level and sloping portions of this site.

The massing of the VH/TBR Facility is critical to the preservation of existing ocean views from Nierenberg Hall offices and to the preservation of service access to the existing laboratories opening on the north service yard. To this end and to fit with the landform the building steps up in height from the west to east. The eastern mass helps to enclose the existing service area between Nierenberg Hall and VH/TBR. The western mass anchors the structure into the hillside and sits within the Hillside Meadow. Between the two ends the building steps up to span over Shellback Way.

The elevator which serves this building also provides an accessible pedestrian route by means of outside building passageways and paths on grade between Ocean Court and Upper Mesa Court. It is situated just west of Shellback Way and connects to the terraces between VH/TBR Facility and OAR Facility via open walkways.

OAR Facility Parcel (2) - This parcel is an approved site for the Ocean/Atmosphere Research (OAR) Facility. The proposed OAR Facility will consist of offices, laboratories and outdoor testing facilities necessary for high technology oceanographic and atmospheric research. This 25,000 GSF building will comprise research and instrumentation laboratories requiring service access at the ground level and associated offices and electronic laboratories on the upper levels of the building. A service yard for this facility will contain a saltwater test pool, pressure test chambers, an overhead crane, and an area for staging and sea-going shipping containers. This area needs to be fenced off from public access. Shellback Way will be aligned along the west boundary of this parcel to provide easy access by large flat bed trucks.

This site is presently used for equipment storage and provides a staging area for sea-going expeditions connected with research activities housed in Nierenberg Hall. Relocation of this storage and staging area is required for the development of the OAR Facility. The Seaweed Canyon area and the DSDP parking lot are potential relocation sites.

The future building on this parcel is configured in two segments. The longer segment is turned to the northwest parallel to the contours of the hill behind. The building is three stories tall on the courtside and partially dug into the hill. The smaller building tucks into a draw in the northeast corner of Ocean Court. This four-story portion is a taller element which provides a focus when entering the court from La Jolla Shores Drive.

The smaller building contains the main entrance and an elevator core that serves both building segments. Open-air walkways span between buildings providing views of the ocean, the pocket garden below and the open space to the east. Terraces on the second and third levels at the south end of the OAR Facility access the VH/TRB Facility and walkways that lead to Upper Mesa Court and Expedition Way parking lot.

The court-level workspaces have direct access to the lay-down area which is configured to allow easy access for flat bed trucks.

Ocean Court Parking Lot (3) - This parcel is to remain a parking lot, which will be modified with the development of the OAR parcel. The proposed modifications include expanding the paved surface to the west to increase parking capacity, realigning Shellback Way to the east and north edges of the lot and installing landscape islands to visually improve the space. Trees should be planted in the parking area to break down the scale, soften the view of the buildings from the west and the upper levels of the surrounding buildings.

North Parcel (4) - This parcel is a sloping site which has excellent views of the coastline and is visible from La Jolla Shores Drive along the neighborhoods western boundary. Access to this parcel can be gained only from Shellback Way at the northern edge of Ocean Court. Development on this site should be low in profile to preserve ocean views from the portion of La Jolla Shores Drive lying to the east of the site.

Two buildings within this parcel climb in height from the west to the east. The eastern building, partially dug into the hill, steps up from two to three stories. The height change occurs at the elevator core and main entry which is sited at end of Shellback Way.

The western building is a two-story cottage also dug into the hill. It is sited to face La Jolla Shores Drive and serve as a marker for the vehicular entrance into Ocean Court. The pedestrian entry for the cottage is from a terraced garden between the two buildings. The lower terrace is slightly carved out of the hillside, providing direct access from Ocean Court. The upper terrace connects the second floors of the two buildings, providing elevator access to the upper floor of the cottage.

A walkway at the east end of the parcel provides a connection between an upper level of the eastern building and the OAR Facility.

DEEP SEA COURT DEVELOPMENT AREA

The site of Deep Sea Court was created by filling a portion of the canyon which intersects the court on the southwest corner. The south wall of the canyon contains the court, blocking views of La Jolla to the southwest and of surrounding public roads. The east side of the court is defined by a less steep hillside. To the north and west, the site opens to views of the Pacific Ocean. The court is approximately 160 feet above sea level, and is traversed by Redwood Fault.

The neighborhood plan recommends that, for the extended period of time (15-20 yrs.), the Deep Sea Court area be used for the SIO campus service and support functions. Given the convenient vehicular access and centrality of location, SIO physical plant services (consisting of storehouse, grounds, maintenance offices, and storage facilities) may be suitably relocated into the existing Deep Sea Drilling Project (DSDP) building complex. The SIO machine shop presently located at the beachfront location near the SIO's south entrance is another candidate for relocation to this site to be closer to research facilities that are its primary customers.

Since the displacement of the existing buildings is not contemplated in the near term, the only potential site for the machine shop and its service yard would be at the south end of this parcel and would require relocation of the Image Processing Laboratory trailer and a storage trailer to another location outside the neighborhood. Development of the machine shop may preclude the potential use of the Deep Sea Court area for the staging facility, presently located on the OAR Facility parcel.

Resettling the SIO service and support functions would free sites on the SIO West campus for development of new academic facilities and would allow for potential conversion of the existing machine shop structure into a Scripps Campus Commons facility.

Finally, some parking capacity would remain at this site for service vehicles and general parking, but the lot would be reduced considerably in size from its current 86-space capacity.

In the very long term, assuming that an opportunity for an academic facility requiring a large level outdoor work area would present itself, the DSDP complex may be demolished and the entire parcel redeveloped. At that time, the impact of this redevelopment on the currently contemplated service uses for this site would have to be carefully evaluated. Relocation of existing uses to other sites on the SIO East campus, such as the Seaweed Canyon area, would be required. Parking and the machine shop would be integral components of the redevelopment project.

The future redevelopment building program is concentrated in three structures. Two buildings are sited to frame the canyon. The tallest building is set into the steep canyon wall south of the court. The eastern building steps down from four stories at the south end to two stories at the north end, minimizing its impact on public views from Expedition Way and La Jolla Shores Drive. The space between the two buildings forms a pocket garden at the foot of the canyon.

A single elevator core serves both buildings, marking the extent of the four story section of the eastern building. Open-air bridges connect the buildings, offering views to both the canyon and the ocean.

The third building establishes the extent of the court by anchoring the northeast corner. This building mass, a one-story building with a low vaulted roof, best suits the machine shop planned for this parcel. An accessible walkway is provided from Scripps Ladder by a bridge over Downwind Way that connects to the roof of the eastern building. The roof design needs to consider those who walk along it and those who view it from above. The elevator core at the end of the walkway provides access to all other levels of the court. To minimize the length of the rooftop walk the core should be placed as far north as possible without impacting public views.

The court is configured to accommodate flat bed trucks which need to access both the service yard and the lay-down area. Trees with wide and low canopies planted in the parking area serve to break down the scale of the court and provide shade.

UPPER MESA COURT DEVELOPMENT AREA

The graded area at this location resulted from filling the existing canyon with soil from the Nierenberg Hall site. At the time of the study, the development on Upper Mesa Court is limited to small, temporary experiment facilities. Having the highest elevation of all the

courts, this court commands the most impressive views of the shore and Point La Jolla. Upper Mesa Court accommodates the most program area of the three courts. Hillside Commons, a public gathering place, is situated to the west and terraced down from the court level. Mesa Way, the access road between the southwest corner of the court and Expedition Way, moves transversely across the hillside at approximately the same elevation of the court, 270 feet above sea level.

The buildings which shape the court generally step up from west to east. The building walls that face the surrounding rustic landscape are typically less than two stories above grade. On the interior of the court the buildings to the east may be as tall as four stories as they retain more of the hillside.

Key Building Parcel (1) - This building steps up the hillside from Shellback Way to Upper Mesa Court. It is the most complex building in this plan, responding to a number of different opportunities and constraints presented by the site. It is central to the neighborhood plan and as a link in the pedestrian circulation through the neighborhood. Elevators and open-air corridors within the building contribute to a direct route from Scripps Crossing to Upper Mesa Court. This parcel also includes a portion of Scripps Grove, a stroll garden and the Hillside Commons.

The key building has three portions. At the west end, a three-story portion is sited across Shellback Way from the south end of Nierenberg Hall to form a gateway at Shellback. Scripps Grove, along the south edges of the buildings, provides landscape symmetry on either side of Shellback Way, reinforcing the presence of the gateway.

The building portion at the eastern end of the building has one story above Upper Mesa Court and one story below which opens onto the Hillside Commons. The silhouette of this end of the key building is simple yet distinctive, providing a focal point at the end of Mesa Way.

The building in between the two ends is configured to clear the seismic corridor that runs south of the building. It has a single-level roof, either flat or bowed, which is lower in height than the elevation of the court. This portion of the key building runs perpendicular to the contours of the hillside so while it is only one story above grade at the eastern end, it is four stories at the western end. It borders the Hillside Meadow to the north and borders the stroll garden through Scripps Grove to the south.

Two elevators serve this building and are critical to the Scripps Ladder between Shellback Way to Upper Mesa Court. An elevator at Shellback Way accesses the Hillside Commons via open-air walkways along the south side of the building. A second elevator connects the Commons to Upper Mesa Court. Access to these elevators from Shellback Way, Upper Mesa Court, the Hillside Commons and the gallery connecting the elevators should be direct, clear and prominent.

Mesa Way Parcel (2) - This parcel is located along the west side of Mesa Way. It is comprised of two building segments separated by an elevator core and main entrance. The structure is two stories, the lower story is at the same level as the Hillside Commons to the northeast and the upper story is at the same level as Mesa Way. This building together with the proposed development across Mesa Way forms a gateway into Upper Mesa Court.

The longer of the two segments is sited parallel to Mesa Way. The shorter segment turns to follow the contours of the hillside. Gardens fill the spaces created by the building. The garden on the east side of the elevator core should be irrigated and complementary to the gardens located between the buildings across the street. To the north, the building edges the stroll garden and Scripps Grove. To the south, the parcel is limited by the UCSD Park boundary. At the time of the development of this parcel the Park boundary should be reevaluated and possibly reconfigured to benefit both the project and the native vegetation resources in this area.

Upper Mesa North Parcel (3) - This parcel includes the development north of the court, Upper Mesa Court improvements and Eucalyptus Walk.

Upper Mesa Court is shaped to accommodate the necessary fire truck access, service areas directly adjacent to court-level laboratories and work spaces, and handicap parking. The parking area is centered in the court, shaded by a fragment of Scripps Grove. It is bisected by Scripps Ladder in the form of a pathway that connects the Hillside Commons to the stair that leads to the Expedition Way parking lot. Redwood Fault traverses the court and creates the gap between the buildings that accommodates this stair.

Building development in this parcel is sited against the eucalyptus grove north of the court. The program is accommodated in three buildings which step in plan as well as in height. The western building is two stories with one story below the court level. The middle building can be either two or three stories. The L-shaped building in the northeast corner of the court is the tallest, at either three or four stories, and accommodates the elevator core. A exterior stair between the middle and eastern building accesses grade level behind the buildings.

Exterior walkways facing the court connect the levels of these buildings. Bridges at the east side of the court link to the development in the Upper Mesa south parcel.

Expedition Way Parking Lot Parcel (4) - This parcel is a site for a terraced parking lot stepping down the hill from its entrance level off Expedition Way. Planter areas created by the ramps and terraces would be planted with rustic landscape materials compatible with those outboard of development. Eucalyptus trees like those in the nearby grove should be considered as a way to help screen the cars and frame the public view to the west. Sight-line studies would be required to ensure that the parked cars do not become a foreground view for motorists travelling south on La Jolla Shores Drive who presently enjoy views of the ocean and the shoreline through the trees located on the site. This parking lot and its

access path and steps to Upper Mesa Court should be developed together with the L-shaped building in the Upper Mesa north parcel.

Upper Mesa South Parcel (5) - The building development in this parcel is similar to that in the parcel to the north. The buildings step up in height from two stories to a maximum of four stories at the east end of the court. Access to the fourth floor of the larger building is provided by the elevator in the corresponding building to the north via the connecting bridges. The elevator core to the west is sited where the building steps up from two to three stories and only serves the second and third floors.

The cottages at the west end are sited to parallel both Mesa Way and the contours of the hillside. The southernmost cottage is tucked into a small draw in the landform. Their lower levels are accessible from the street and the upper levels are accessed from a terrace garden behind that connects to the second level of the south court building. The cottages and gardens between them work with the court building across the way to form a gate into Upper Mesa Court.

OPEN SPACE AREAS

Two open space areas in the neighborhood are left undeveloped. Upon completion of development, 35' of the open space area adjoining the building parcels will be a brush management zone subject to vegetation pruning and clearance guidelines to ensure fire safety. The open space, including the brush management zone, should be maintained and preserved in its existing rustic character. The open space at the southern end of the neighborhood is a part of the preserve lands within the UCSD Park system. This area will be subject to appropriate resource management policies developed for the UCSD Park lands.

PARCEL DEVELOPMENT CAPACITY

Programs for most of the parcels had not been developed at the time of the planning study. On the accompanying chart a range in area is shown for various parcels (see Table 5). This range provides for the greatest amount of flexibility in locating square footage within the SIO Hillside Neighborhood while maintaining the maximum overall allowable building area of 249,000 gross square feet. The range in area is reflected in the range of heights listed for these parcels.

TABLE 5: PARCEL DEVELOPMENT CAPACITY

Building	No. Stories	Gross Sq. Ft.[a]
Ocean Court Development Area		
VH/TBR Parcel	2-4 stories	16,000
OAR Facility Parcel	3-4 stories	25,000
North Parcel		
Court Building	2-3 stories	10,000
Cottage	2 stories	2,500
Upper Mesa Court Development Area		
Key Building Parcel	1-4 stories	19,000
Mesa Way Parcel	2 stories	10,200
Upper Mesa North Parcel		
Court Buildings	2-3 stories & 2-4 stories	21,000 - 30,000
Cottage	2 stories	2,500
Upper Mesa South Parcel		
Court Building	2-3 stories & 2-4 stories	26,000 - 30,900
Cottages	2 stories	5,000
Deep Sea Court Development Area		
Machine Shop	1 story	10,000
Court Buildings	2-3 stories & 2-4 stories	35,000 - 44,200

[a]Range given where applicable

IMPLEMENTATION

The proposed implementation phasing strategy divides the neighborhood into four distinct areas where development can occur independently to one another; however, two development areas, Ocean Court and Upper Mesa Court, are subject to internally structured phasing (see Figure 12).

It may be desirable to fully build out development areas nearest to the SIO West campus, such as Ocean Court, before commencing development on the Upper Mesa Court, but that could occur only if the targeted increment of the new building space and use is compatible with the available site. For example, the Ocean Court development area has four parcels, three of them (VH/TBR, OAR and Ocean Court parking lot) are slated for development or redevelopment within the next 3-4 years. The remaining building site is the North Parcel which can accommodate about 12,500 GSF of building space with very limited yard space. Should the building program have different requirements other sites would have to be considered.

The most structured phasing strategy will be required for the Upper Mesa Court development area. To accomplish an orderly development of this area and accommodate access to individual parcels during construction periods the development should occur in the following sequence. The key building and the Upper Mesa Court access road (Mesa Way) should be constructed first. The Mesa Way building is next to be followed by the development of the north building and the Expedition Way parking lot with connecting stairways and paths. The construction of the south building completes the development of the Upper Mesa Court area.

The Nierenberg development area consists of several small infill projects that can be implemented at any time funds become available.

The Deep Sea Court development area may require some new construction to accommodate support functions that may be a long-term interim use of the area. These improvements can be implemented as decisions to allocate new functions to this area occur.

The open space areas within this neighborhood should be maintained on a continuous basis irrespective of the development timing for the designated building parcels in the area.

PART III: DESIGN PRINCIPLES & GUIDELINES

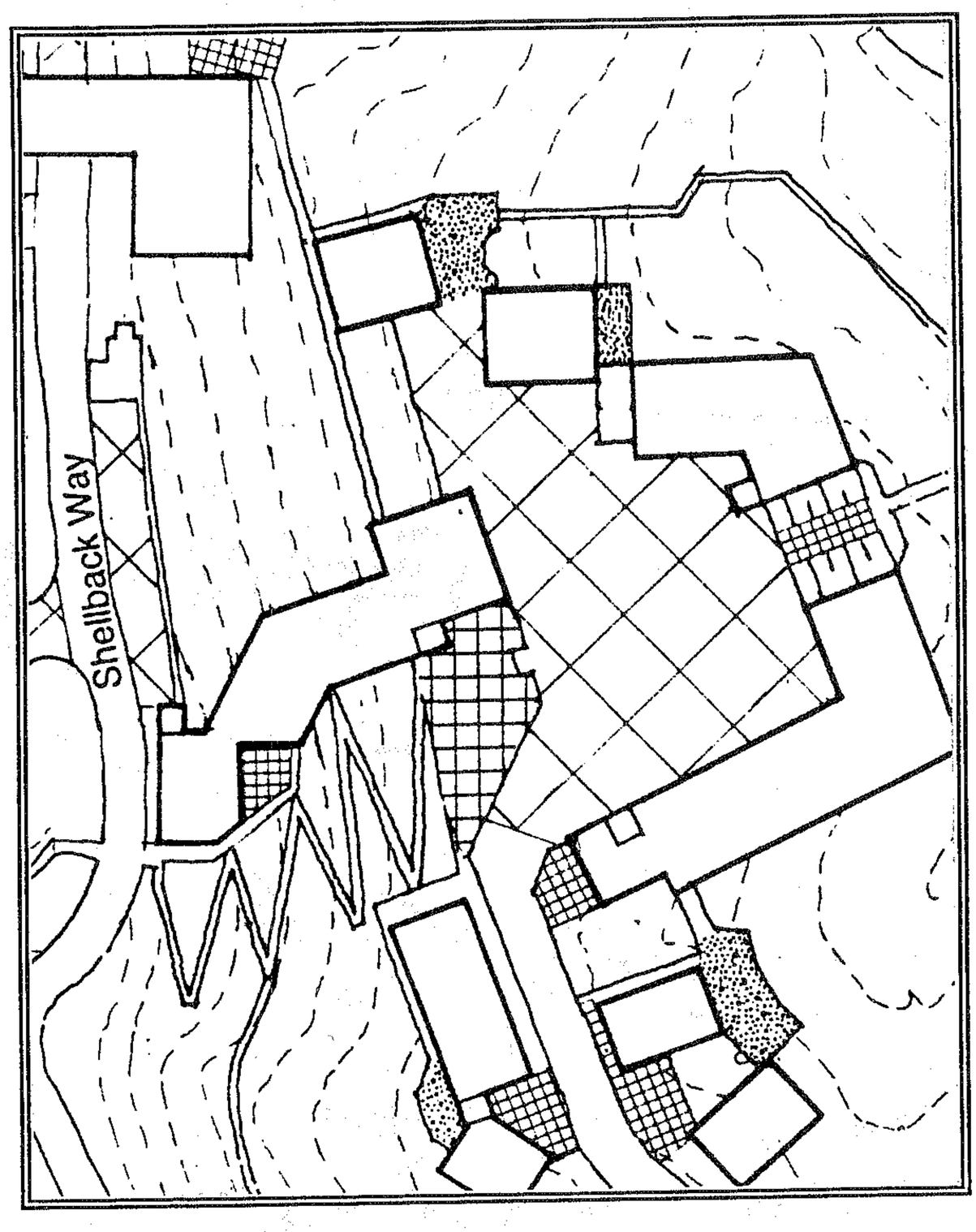
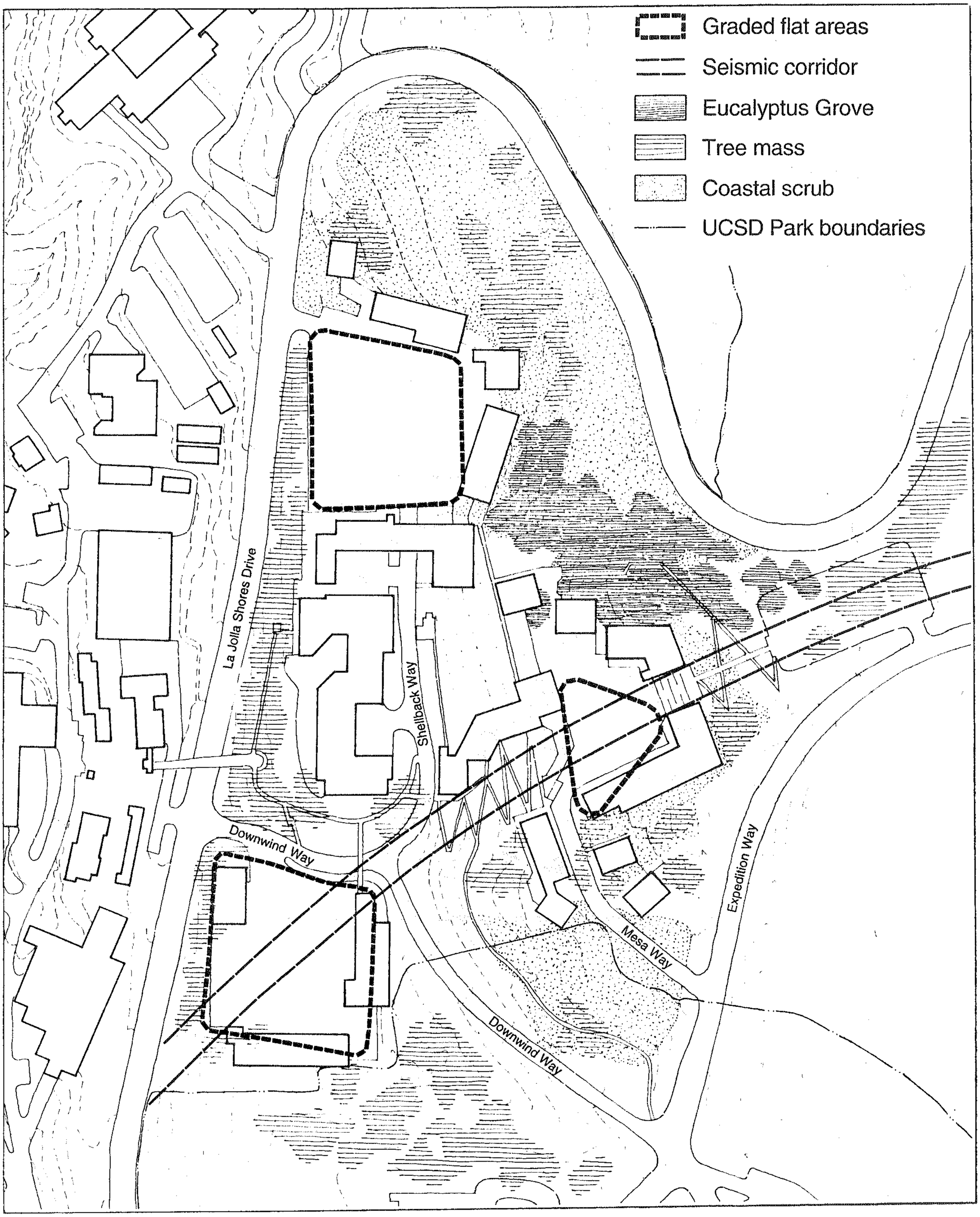


FIGURE 13

Site Conservation



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SITE CONSERVATION AND IMPROVEMENT

The study area is located in a distinct coastal setting characterized by steep slopes and rugged vegetation. The coastal sage scrub on weathered slopes is a direct response to the orientation, ocean exposure, steady on-shore wind condition and dry climate. The pattern of this natural landscape has been changed by major interventions such as the filling of two canyons that once bisected the site, the establishment of non-native plant species particularly eucalyptus, and extensive grading for development and roadways. Development proposed by this plan arranges the existing landscape fragments into a new landscape pattern. The disturbed landscape inboard of development is transformed into the setting for Scripps work and activity. The rustic landscape outboard of development, including coastal sage and eucalyptus, is preserved and enhanced.

As evidenced by development on the west side of Scripps, the introduction of irrigation substantially changes the landscape character. Given the preciousness of water in southern California and the University's changing policies regarding irrigation, the landscape of this neighborhood should remain consistent with the micro-climate. The landscape materials planted outboard of buildings should be selected to blend with and extend the naturally drought-tolerant landscape that exists on the hillside. Irrigated garden areas should be limited to places that receive frequent use. Lush and colorful use of plant materials should occur in inboard areas, providing shade and wind protection, framing views, defining outdoor rooms and passageways.

GUIDELINES

Development should be organized around and serviced from graded areas that exist on the site. It should be consolidated and compact to keep disruption of the rustic landscape to a minimum and to maintain the general shape of the topography (Figure 13).

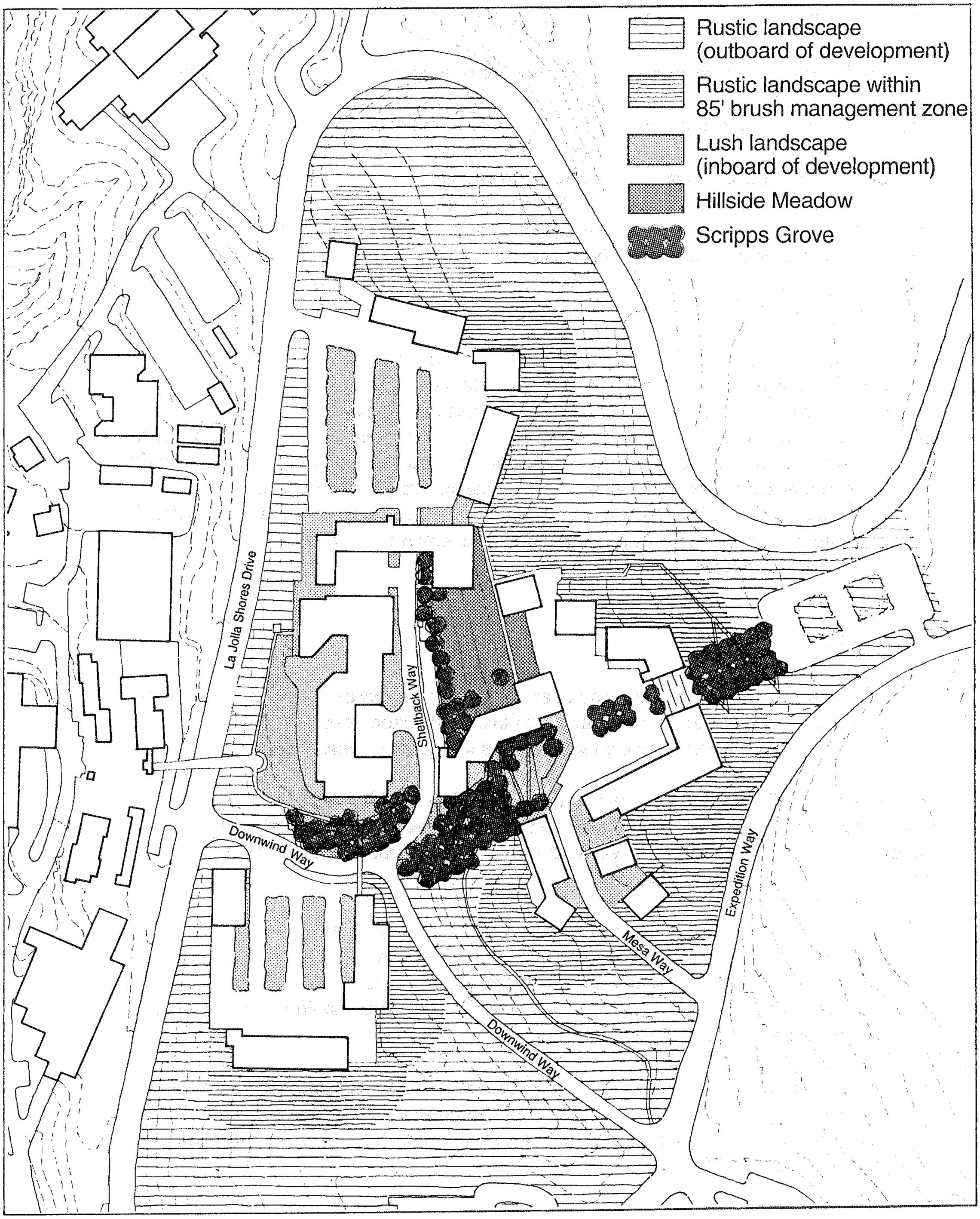
Grading and landshaping will be required in developing this hillside neighborhood. It should be done in a manner that deliberately merges the buildings and roads into the larger landform and provides access to exterior spaces from within buildings for the use and enjoyment of the Scripps community.

Roads on hillsides can cause great disruption to the overall shape of the land. Where possible, new development should be accessed from existing roads. New roads through the rustic landscape areas should be kept short and their width should not exceed the minimum required for fire protection access. Insofar as possible, new roads should follow the contour of the land to minimize cutting and filling.

Parking should be accommodated in large, efficient lots. No parking should be allowed along access roads in an effort to keep widths to a minimum. The only exception to this is along Shellback Way which passes through a development area. See *Scripps Courts* for planting guidelines in parking areas.

FIGURE 14

Site Improvement



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Drainage from new development (buildings, courts, and roads) must be channeled into an existing storm drain system and away from the hillside to minimize erosion, slippage of the hillside, and pollution of nearshore waters.

Utilities should be installed underground beneath roadways and courts, but not below planted open spaces.

Outboard of development plant material should be selected and placed to merge the buildings with the surrounding landscape and augment the existing landscape character (Figure 14). The University's policy is to follow fire limitations on design outlined by the City of San Diego Planning Department in *The Landscape Technical Manual*. An 85-foot brush management zone is extended beyond the buildings. Three sub-zones specify differing degrees of pruning, trimming and management. The emphasis of this plan is on maintenance of a native vegetation context while introducing limited irrigation within this zone. These restrictions coupled with the suggested water budget make the design and selection of planting a rigorous design exercise.

Native Diegan Coastal Sage Scrub includes plant materials that were historically extensive in this coastal area and that have been largely lost due to development. The patches of scrubland that exist on the northern and southern portions of the site should be preserved and augmented to the extent possible as a remnant of this unique environment.

Eucalyptus groves have become characteristic features of the main UCSD campus. The stand on the east edge of the site, especially the masses which screen development from adjacent roads, should be preserved. Extending the grove into planting areas in the Expedition Way parking lot may be an appropriate way to help maintain the rustic character of the outboard area and screen the cars in the lot from public view.

The maximum number of trees permitted within the 85-foot brush management zone should be retained or planted with native species like oak and toyon. Tree plantings of all species must respect the public views of the ocean and Point La Jolla from La Jolla Shores Drive and Expedition Way.

Low plantings and ground covers should be selected to reinforce the existing vegetation patterns and blend with the color and texture of the coastal sage scrub. These should be extended into the planting areas in the Expedition Way parking lot. Individual project landscaping should not be limited to the immediate building footprints.

Inboard of development colorful plant materials should be used in conjunction with outside spaces and circulation paths. Soil conditions should be evaluated and amended as required to accommodate the selected plant material. They should not be set up as the counter-focus to the larger hillside landscape character, but placed to enhance the enjoyment of the outdoor life that occurs within the Scripps community. North of Munk Laboratory, the small,

well-tended glade that is surrounded by the native bluff vegetation exemplifies this kind of landscape definition. The glade, lush yet simple, carves a wind protected place out of the rustic vegetation.

Tree plantings are required within the development areas primarily to provide shade and wind protection. Neighborhood and private views west to the ocean are considered a primary amenity and need to be preserved and enhanced. Dense canopy intrusions into long range views should be minimized.

Trees close to buildings with high-headed and/or lacy, open canopies should be selected to filter direct sun from the south and west; minimize view intrusion by allowing views past trunks and through canopies; and settle the buildings in the bigger landscape. Native species are preferable, but eucalyptus should not be overlooked where their planting can strengthen an existing landscape character such as outboard Upper Mesa Court along the east edge of the buildings or within pocket gardens adjacent to the existing stand of eucalyptus.

Trees out from buildings within views should have low canopies that provide shade underneath but allow for outlook from the upper levels of the surrounding buildings and common terraces.

Ground covers should be selected to enhance views and to protect the hillside and cut slopes from erosion.

Scripps Grove is central to the plan and Scripps Ladder. It is the most important and visible new planting in the neighborhood. It should be an extension of the established tree characteristics (*i.e.*, drought tolerant and rustic), while having a low, open canopy for views through and over the Grove. See *Scripps Ladder* for specific guidelines on the Grove.

The Hillside Meadow is a mix of low ground covers, preferably monochromatic, which provide a long lasting blossom for those passing by it or looking down on it from surrounding buildings. The Meadow is also the foreground for ocean vistas from Upper Mesa Court and higher elevations. Drought tolerant ground covers such as *Lantana montevidensia* "Dwarf White" (Trailing Lantana) and *Lonicera japonica* "Halliana" (Hall's Honeysuckle) or other native species would be well suited for the field. *Trachelospermum jasminoides* (Star Jasmine), which has a pleasant fragrance would be appropriate along the walkways. On the east side of Shellback Way trees of the Scripps Grove should be planted at the toe of the slope and irregularly up the hillside, to extend the Grove around the key building and to soften the downhill edge of the Meadow. On the west side of Shellback Way and adjacent to the tall mass of Nierenberg Hall, a new colorful planting could be established to break the heaviness of the architectural form and provide color in front of the existing melaleuca trees.

IMPLEMENTATION

A water budget should be established by the University for the Hillside Neighborhood in a manner similar to a construction budget. A specific amount of water will be allotted to each individual project as part of the project description. Landscape materials selection and design will be limited by this allotment.

An open space preservation and maintenance plan should be established by the University to protect and maintain the native vegetation, natural landforms and rustic landscape outboard of development within this neighborhood. As suggested by the UCSD Master Plan, a program for maintenance and improvement of the existing eucalyptus trees should be undertaken. These elements serve to establish the character of the SIO Hillside Neighborhood and to screen development from public views.

FIGURE 15

View Corridors and Outlook

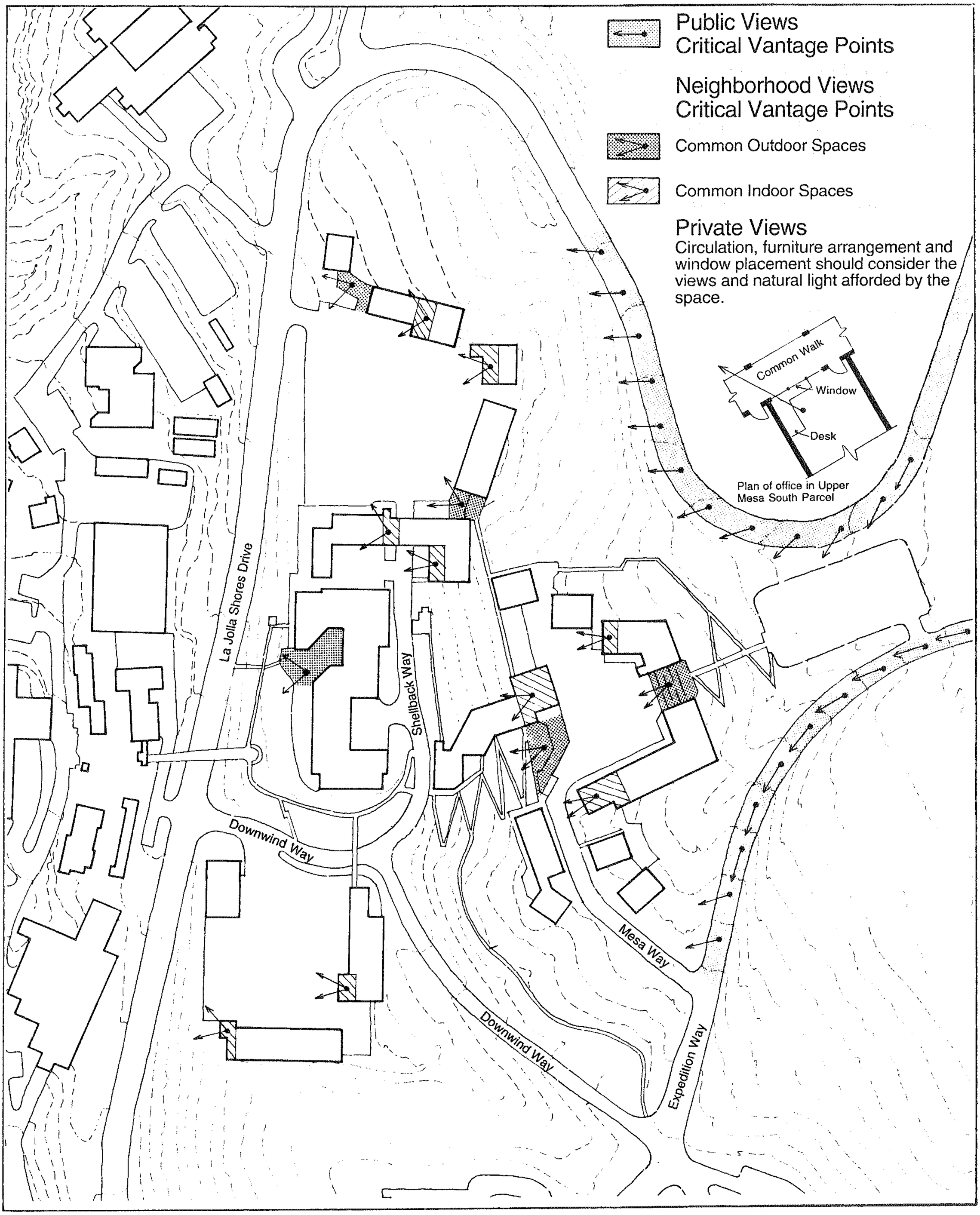

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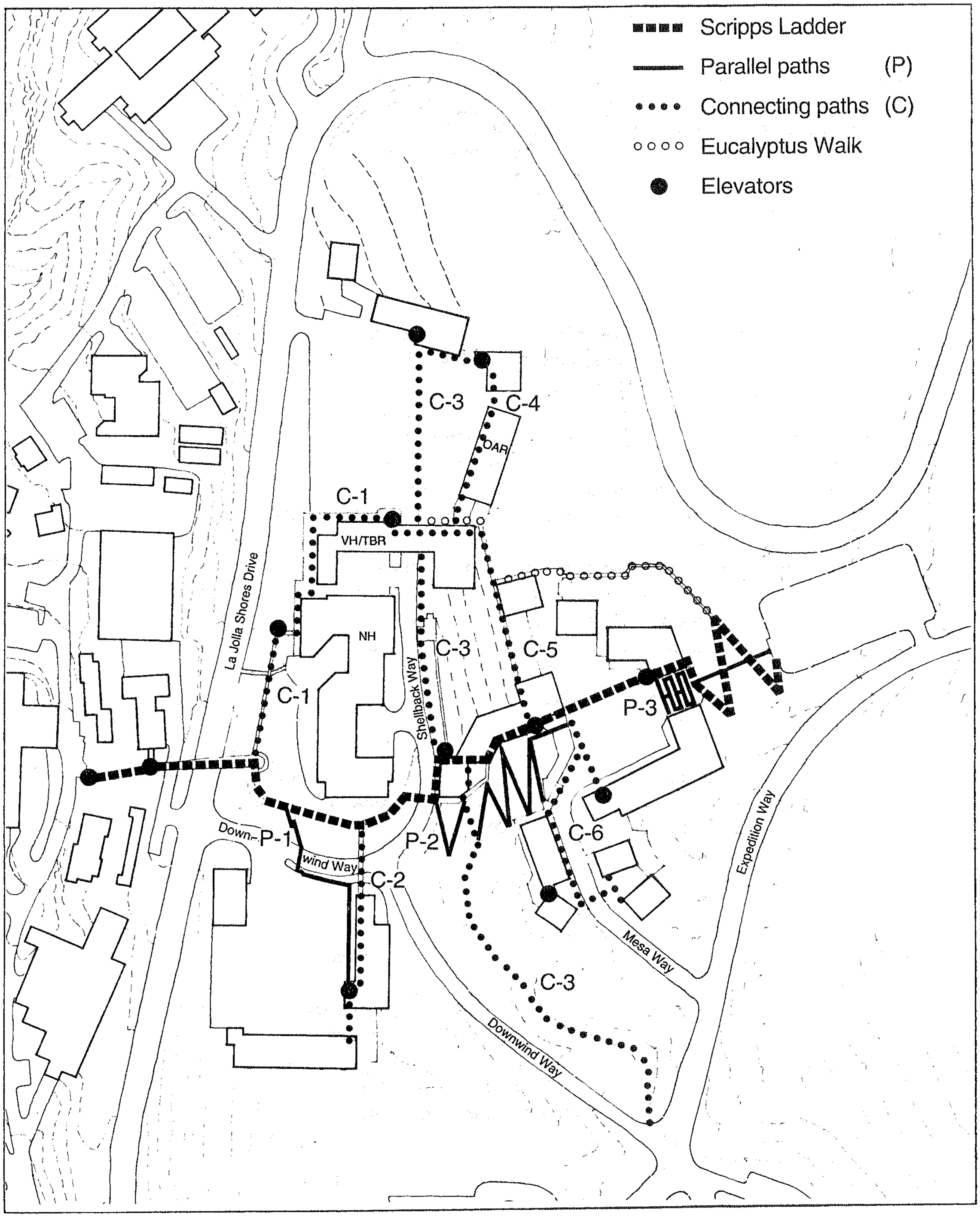
FIGURE 16

Scripps Ladder and Path Network



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SCRIPPS LADDER AND PATH NETWORK

The concept of Scripps Ladder was implemented by the Revelle Laboratory project as a means for linking buildings along an accessible passageway eventually connecting the entire SIO campus. The portions of the Ladder along Discovery Way and through Revelle Laboratory serve as models for accessibility within the SIO Hillside Neighborhood. The Ladder through Revelle Laboratory is celebrated with elevators and terraces intentionally integrating the required accessibility to buildings with west-facing and wind-protected outdoor meeting places. Further south the Ladder becomes Discovery Way, the main route through that part of campus. Scripps activity is concentrated along both sides of the roadway. Buildings, gathering places and outdoor work areas face it and most campus traffic (pedestrian and vehicular) passes along it.

Drawing from these examples, the Ladder and related path network through the SIO Hillside Neighborhood should extend full accessibility in ways that help people find their way, link activities, and allow for casual social encounters. The Hillside Neighborhood portion of Scripps Ladder will be primarily a pedestrian passage, moving across the hillside with the use of inclined paths, bridges, elevators and exterior corridors along the sides of the buildings.

A strong visual identity of the path network is critical to successful social interaction within the project and is important in giving Scripps Ladder an identifiable and memorable character throughout the Hillside Neighborhood.

PATH ORGANIZATION

Four different paths and path types make up the network (Figure 16). These are sited and aligned to be direct and connect places within the neighborhood that people frequent, such as building entrances, elevator lobbies, large class or seminar rooms and natural meeting places. A prime concern of the Scripps community is the security of the people who will use the path. Visibility, lighting and emergency provisions, such as call boxes, should be considered in the design of Scripps Ladder and path network.

Scripps Ladder through this neighborhood extends from Scripps Crossing to the Expedition Way parking lot by the most direct route possible. It is a completely open and accessible exterior passageway. The Ladder goes around the south edge of Nierenberg Hall to Shellback Way, then through a building to Upper Mesa Court. An elevator across the court to the east connects to a switchback path that leads to the Expedition Way parking lot. Eventually the Ladder will connect to future development across Expedition Way. The entirety of this path must conform to the Americans with Disabilities Act.

Paths parallel to the Ladder serve to provide an alternative route for people moving up or down the hill that does not involve going through buildings or using elevators. These paths are not necessarily accessible. For the purposes of strengthening the presence of the Ladder,

VIEW CORRIDORS AND OUTLOOK

The views afforded by this site comprise some of the most memorable and engaging characteristics of the study area. Of the views, the ones west of SIO, La Jolla and the Pacific Ocean are the most powerful and the most desirable. They are long and broad and provide a direct, visible connection between the Scripps community and the Pacific Ocean. This broad panorama together with close and intimate views work to give viewers a special sense of their place in the landscape.

VIEW TYPES

Public views of the ocean must be respected where they are not blocked by existing vegetation and landform. New development should not create view obstructions from La Jolla Shores Drive and Expedition Way east of the site (Figure 15). Buildings should be sited and their masses limited so that the existing natural obstructions such as the stand of eucalyptus and the landform west of the site will screen them from public view. Public views of the Hillside Neighborhood from the west are also of concern. The selected color palette, materials and landscaping are proposed to help settle the buildings into the surrounding landscape, screen them from view and visually break up their mass.

Views from within the neighborhood, or neighborhood views, should draw attention to the distinct characteristics of this physical setting. Windows and balconies in buildings and outdoor gathering places throughout the neighborhood should be positioned so that they have pleasant outlooks to the ocean, the distant Point La Jolla, nearby groves of trees and the newly created courts and terraces. The ocean outlook is most desirable and particularly appropriate for common outdoor places, public passages and rooms that are frequently used by many people.

Private views from laboratories, offices and work stations should be carefully examined when organizing floor plans. Circulation, furniture arrangement and window placement should consider the views and natural light afforded by the space.

IMPLEMENTATION

Accurate view studies should be required for the Marine Sciences Physical Planning Committee, Campus/Community Planning Committee, and Design Review Board during the schematic design phases of individual projects. The studies should assist in determining the massing and height of the proposed development and their impact on views. The University should provide design teams with digitized site information for three dimensional computer modeling of the proposed schemes. As an alternative, the University could install on-site story poles which mark the corners and heights of proposed buildings.

the materials, colors and landscaping for the parallel paths should match those of the Ladder. Seating should be accommodated at the landings of these paths.

P-1 South of Nierenberg Hall a stair connects Scripps Ladder across Downwind Way to a sidewalk along the north edge of Deep Sea Court. The walk accesses buildings around the court without requiring use of the bridge over Downwind Way or the elevators in the court buildings.

P-2 An accessible walk through Scripps Grove is a switchback path that connects Shellback Way to Upper Mesa Court.

P-3 Upper Mesa Stair connects the east end of the court to the path leading to the Expedition Way parking lot. Large, square landings at the intersection of the Ladder and the stair run should provide places to sit and view the ocean through Scripps Grove.

Connecting paths link areas to the north and south of the Ladder. These are accessible paths.

C-1 A path turning north past Scripps Crossing connects to the southeast corner of Nierenberg parking lot, providing access to the buildings surrounding Ocean Court. A free standing elevator or lift will have to be installed along the path west of Nierenberg Hall to make this path accessible.

C-2 A bridge across Downwind Way on the south end of Nierenberg Hall connects Scripps Ladder to Deep Sea Court along a building. Flowering vines along its sides soften the mass of the structure across Downwind Way.

C-3 A gently sloping path between Ocean Court and the corner of Expedition Way and Downwind Way moves along the east side of Shellback Way and through the rustic landscape north of Downwind Way. The northern portion of this path will be a primary pedestrian link between Ocean Court and Deep Sea Court. A concrete sidewalk on the east side of Shellback Way and west of the proposed staging/parking area is required.

C-4 An exterior corridor or gallery along the west face of OAR connects the terrace at the south end of OAR to the north end of the building and to the north parcel.

C-5 An exterior corridor or gallery along VH/TBR connects to the upper levels of OAR and provides a secondary link to the Hillside Commons and Upper Mesa Court.

C-6 A sidewalk along the west edge of Upper Mesa Court provides access to the buildings along Mesa Way.

Eucalyptus Walk connects Ocean Court to the Expedition Way parking lot. This path has two sections. A stepped walk accesses the terrace between VH/TRB and OAR facilities above Ocean Court then moves along the stand of eucalyptus north of Upper Mesa Court, offering a quiet alternative walk to Scripps Ladder.

The portion of Eucalyptus Walk from Ocean Court to the terrace between VH/TRB and OAR should be treated as an extension of the buildings adjacent to it. The portion through the trees should be in character with the rustic landscape, such as asphalt or gravel with railroad tie steps. Rails and lighting should not be a primary feature of this walk and should be used only as required. The rails should be metal pipe rails dark in color to blend with the vegetation. The lighting should be provided from pole mounted fixtures.

GUIDELINES

The character of Scripps Ladder and supporting paths should reflect the nautical nature of Scripps and extend the character of Scripps Crossing. With the exception of Eucalyptus Walk (described above), materials and lighting should be consistent throughout the neighborhood when traveling between buildings (Figure 17). The Ladder should be differentiated from the connecting paths with landscape and the use of more intense colors. A color portfolio devised for this neighborhood specifies the colors for the paths.

Handrails, guardrails and lighting should be placed on the downhill side of the paths and designed as an integral aspect of the path system. The placement of lights on the downhill sides will create beads of light along the hillside as seen from below, illuminate the hillside, and increase the sense of security along the path network. Concentrating the vertical elements on one side of the path minimizes the clutter along the walkways and hillside.

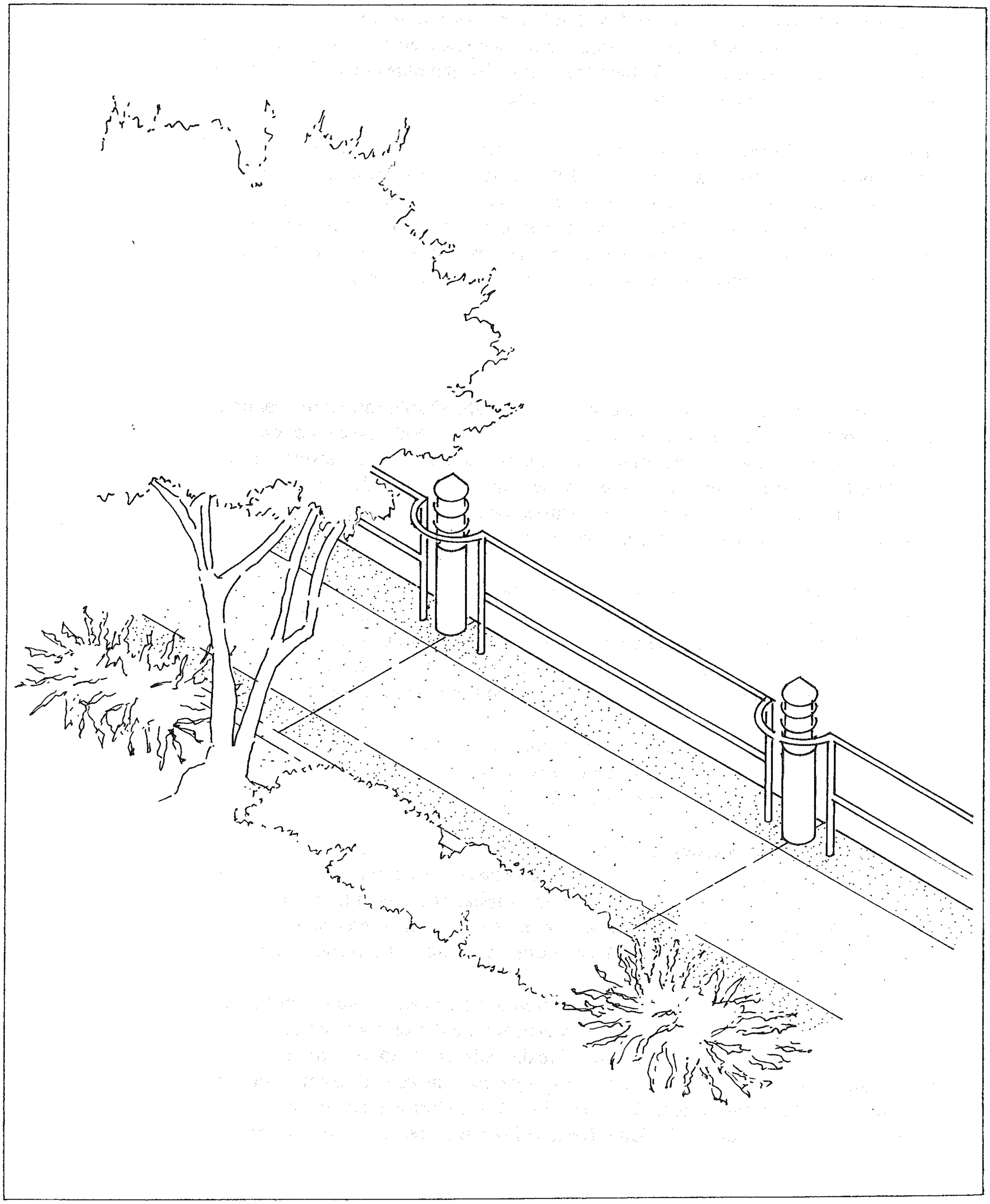
The paving materials should integrate colors and textures to emphasize the direction of movement. The sides of the paths should be lined with a continuous colored or textured concrete band along a natural concrete walk.

Guard and hand rails should be simple, metal pipe railings anchored to the downhill side of the path and should be carried into buildings where they continue the paths. They should be in regular lengths which correspond to the spacing of the path lighting. A deeper, more intense color could identify Scripps Ladder and a lighter, less intense one should mark the supporting paths. The colors should be consistent throughout the neighborhood.

Path lighting should provide the light required for passage at night and minimize light pollution. Bollard standards, preferably metal, should direct light into pools on the paving and screen the light source from above. Like the rails, the bollard lighting standards should be on the downhill side of the path. The spacing required for proper illumination will establish the standardized length of the rails. The lighting needs to comply with UCSD Outdoor Lighting Policy and Lighting Design Guidelines which require low pressure sodium

FIGURE 17

Scripps Ladder



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lamps. The Planning Advisory Committee preferred the bollard standards to the typical campus pole standard.

Scripps Grove, a special planted landmark, should be used to strengthen Scripps Ladder's visual presence. Taking the central campus eucalyptus grove as a paradigm, the area including the Ladder between Shellback Way and Upper Mesa Court should be treated as a grove planted along the path with regularly spaced, low headed trees so not to impact the view from higher elevations and particularly the Hillside Commons. The selected tree species *Eucalyptus torquata* spaced at approximately 20 feet in terraces will blend with the established vegetation and grow to a maximum of 25 feet in height. The soil condition should be evaluated and amended as required to accommodate the trees and other plantings along the grove. Scripps Grove should extend across Shellback Way and contain the pathway to the southern edge of Nierenberg Hall. The same trees should provide shade in the Hillside Commons and along the path as it moves across Upper Mesa Court and the hillside to the Expedition Way parking lot.

Secondary planting along Scripps Ladder should feature the most brightly colored usage of landscaping in the neighborhood to underscore the importance of the passageway. Colorful bougainvillea on the south side of the central transition building, and along the walls of Upper Mesa Court would be appropriate. Red bougainvillea would be particularly so because it is planted in the Revelle Laboratory complex. *Lantana montevidensia* "white dwarf" as a ground cover would extend the Hillside Meadow below Scripps Grove.

Building elevators which serve as vertical access along the path system should be sited and delineated as obvious continuations of the public passageway. Elevator shafts and cabs should be open (*i.e.*, glass enclosed) so that their operation is visible. Landings should be generous and signs should clearly indicate accessibility and the level on which the path continues.

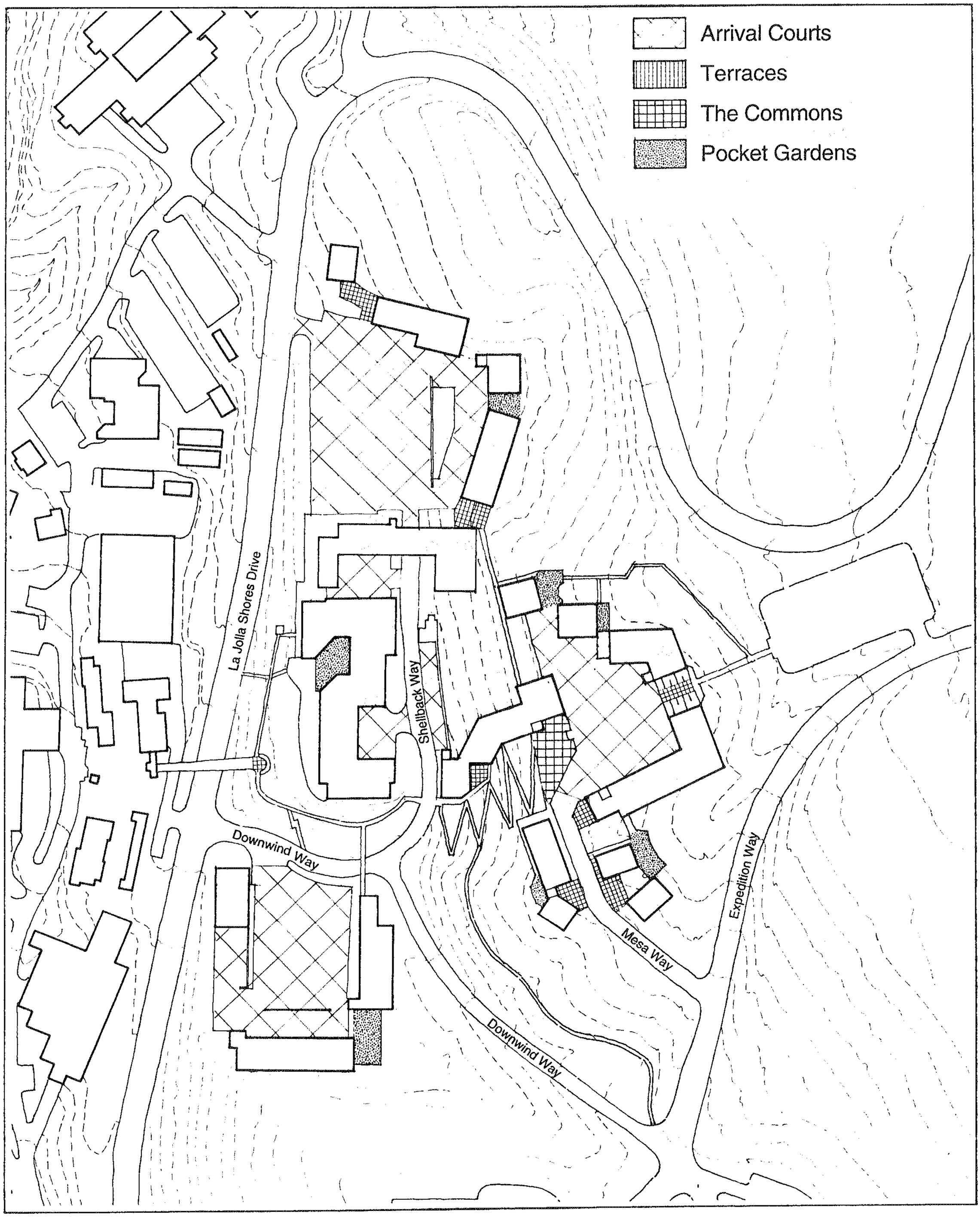
24-hour passage should be provided by Scripps Ladder. Security must be evaluated for the uses that occur in proximity to public exterior circulation along buildings.

IMPLEMENTATION

A special landscape budget should be established by the University for the design, construction and maintenance of an identifiable path network as it moves through the open spaces within the neighborhood. The budget should allow for the preparation of designs that specify paving and rail materials, colors, lighting standards and path widths which are consistent with the guidelines and campus policies on paths and lighting.

FIGURE 18

Scripps Courts



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SCRIPPS COURTS

A variety of outdoor working and meeting places are central to the social framework of SIO. Four different types of courts establish a hierarchy of outdoor work and service areas as well as large and small outdoor meeting and relaxation places. They are created by the buildings, the path network and roads which surround and pass through them. Each court type plays a particular role in the life of this neighborhood; all accommodate being outdoors and provide places of common identity for various working groups (Figure 18).

COURT TYPES AND GUIDELINES

Arrival Courts are landmark features of the neighborhood. They are large, graded and paved surfaces which aggregate the programmatic elements of the neighborhood. They are multi-purpose places that provide for main entrances to buildings, parking, outdoor work areas, lay-down yards and fire access.

Trees in the arrival courts parking areas should be used to create a smaller, more friendly scale of open space suggestive of the scale of SIO West. Species with low, wide canopies and colorful blossoms should be planted in an orchard pattern. Care should be taken in selecting trees that minimize view obstructions from surrounding buildings. A different species should be selected for Ocean Court and Deep Sea Court to accentuate the individual character of each. The landscaping focus should be on the center or field of the lot, not around the edges. The trees in Upper Mesa Court are the same as those in Scripps Grove. Trees in the parking lots should have adequate permeable area to provide air and water to the roots. Should the parking areas be decked trees should be accommodated on the topmost level.

Permeable paving materials should be considered for the arrival courts as a way to absorb water that otherwise would be lost to runoff and lend distinction to the court spaces.

Terraces are transition places where the Scripps Ladder and supporting paths intersect or provide access to buildings. They should be designed as meeting spots, with comfortable places for visiting or resting in both sun and shade. In terms of materials, color and landscaping, terraces should be treated as extensions of Scripps Ladder or connecting paths if they occur off the Ladder.

Wind protection is critical to the usefulness of outdoor gathering places at SIO. If landscaping and shrubbery is not sufficient or appropriate for mitigating wind and framing views, glass panels could be used. The spaces they contain should be designed as outdoor rooms of the buildings from which they extend, like the glass-paneled terrace at Revelle Laboratory.

The Hillside Commons is a central gathering place planned for west of Upper Mesa Court. It is placed at the intersection of many paths and it should serve as the collector for the neighborhood. It should be designed to open to the south and west engaging ocean views, and it should be protected from the westerly wind. A variety of places to sit in the sun or shade should be provided. The uses adjacent to the court should draw people from throughout the Scripps community (as would a commissary, a lecture hall or classrooms) so the Commons can be shared by as many people as possible. The colors, materials and landscaping for the Commons should include the palette of Scripps Ladder. (See guideline for wind protection following *Terraces.*)

Pocket gardens are situated in places where a building opens onto or reaches into the outboard landscape. They should be designed as landscaped rooms formed by exterior walls of buildings and vegetation where small groups could meet outdoors for seminars or relaxation, or a person can be alone. The materials and colors of the pocket gardens should be treated as an extension of the building. Shrubs should occur to define these courts and to create a sense of privacy and protection for the occupants. Where the gardens are outboard of development the planting should be selected to blend with the character and color of the surrounding rustic landscape. Where inboard the gardens can be more lush like the one north of Munk Laboratory. (See guideline for wind protection following *Terraces.)*

IMPLEMENTATION

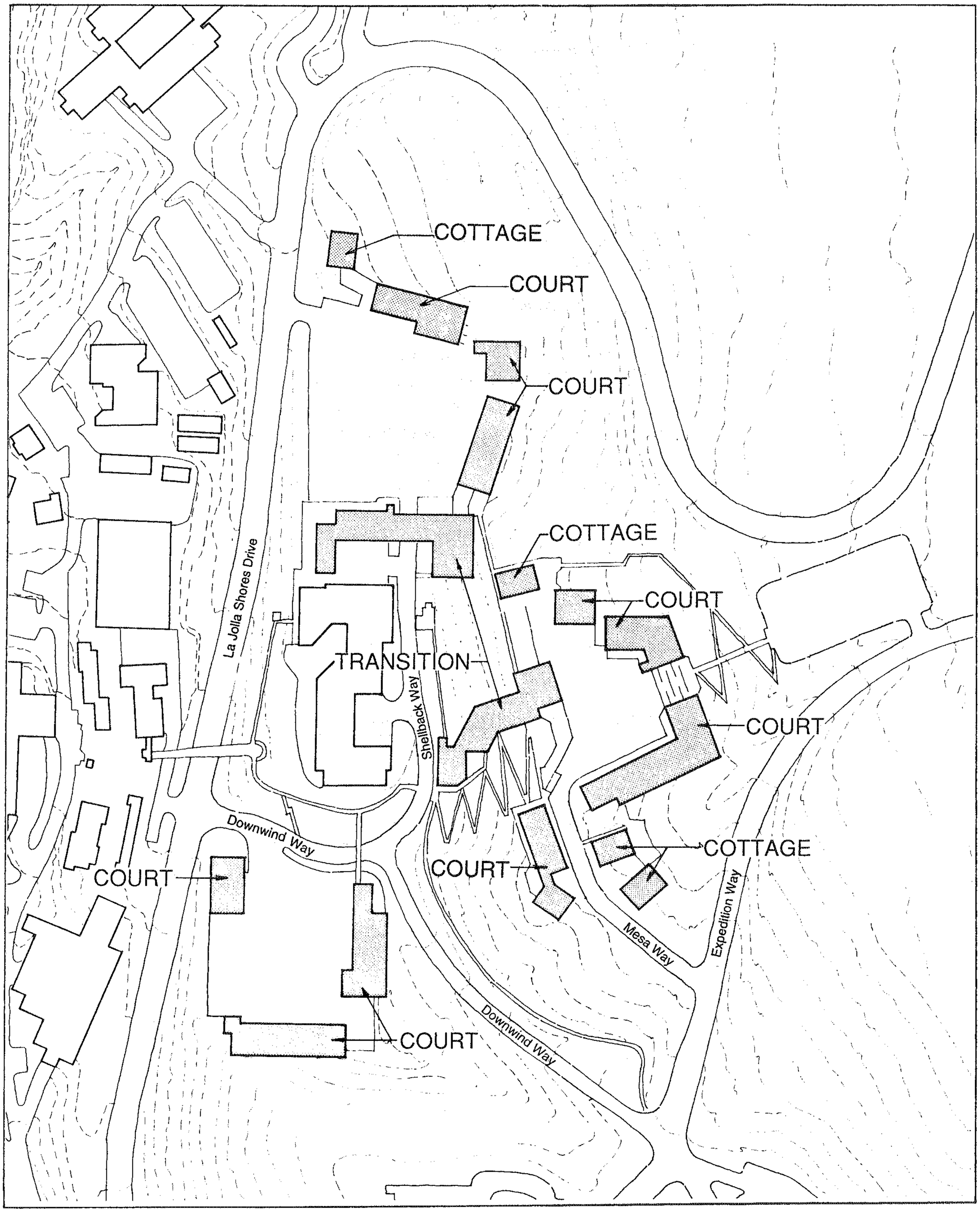
As individual projects are identified, they should be considered in light of the entire neighborhood organization and assigned to the arrival court which best serves their program requirements.

Arrival court levels need to be tested and established to facilitate phased construction and assure that the desired pedestrian connections can be made. This will effect floor to floor heights within buildings.

Landscape standards for parking areas within the neighborhoods need to be established by the University for the number of trees and size of permeable area around them.

FIGURE 19

Linked Buildings



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LINKED BUILDINGS

The siting of the buildings on this hillside is critical in the formation of an integrated neighborhood plan. Buildings will have to carefully step down and across the hillside in ways that retain the surrounding open space and preserve public views while forging the connections required by Scripps Ladder and defining the hierarchy of Scripps Courts. They should offer ease of circulation and provide frequent points of interaction with the outdoors, and they should reflect the variety of working groups that make up the Scripps community. Larger buildings should efficiently accommodate laboratories, vehicular access and shared support requirements. Smaller buildings should accommodate uses that are more independent and require less space (Figure 19).

Building types are classified to further elaborate the "stair-step" and courtyard building concepts proposed in the SIO Master Plan. This system of classification encourages the use of more than one building type in any given parcel within the neighborhood. The intention is to afford appropriate siting strategies that preserve and engage the hillside while enhancing both visual and physical linkages throughout the site.

BUILDING TYPES

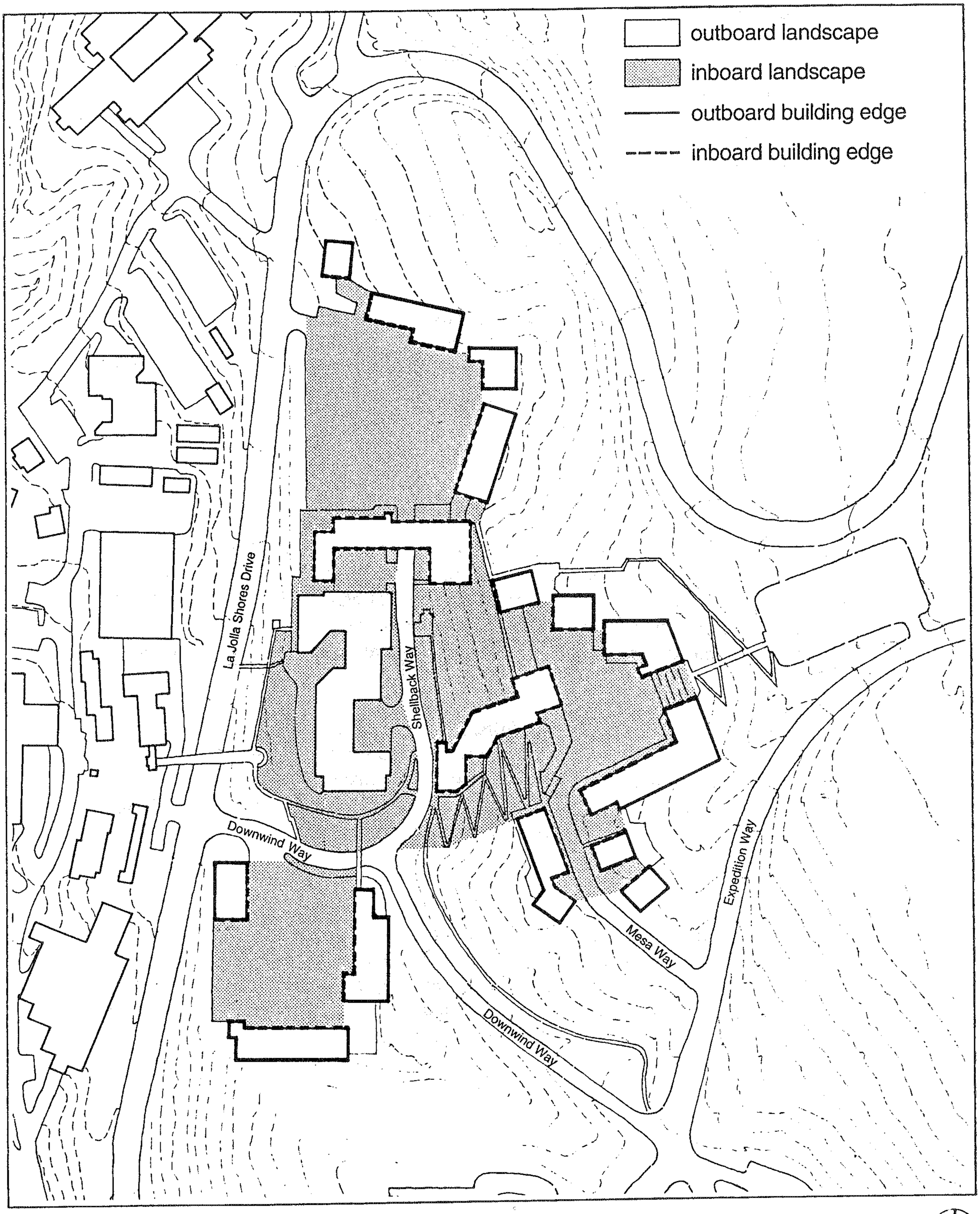
Transition buildings run perpendicular to the contours, generally east/west, and provide elevator access required by the Scripps Ladder and path network. An elevator should connect the lowest building level to the highest. Making the most efficient use of the elevators requires that these buildings be taller than three stories and may require a second elevator. This type can accommodate a building program which requires limited vehicular access and service.

Court buildings typically act to retain the hillside around the arrival courts. On one side they open onto the court, on the other they merge with the surrounding landform, which may be as much as 30' higher than the court elevation at the eastern edge. Court buildings generally run perpendicular or parallel to the contours. The ground level of these buildings are particularly appropriate for high-bay laboratory spaces because they can open up directly onto a vehicular service area.

Cottages are small buildings set within the landscape. These smaller structures should be similar in scale to the carpenter's cottages on SIO West, which seem to embody the character of the tight-knit Scripps community in ways that larger institutional buildings do not. The cottages would most readily accommodate offices, meeting rooms, and dry labs for small working groups, and should be sited on the hillside to allow direct accessibility from building floor levels to grade at uphill and downhill access points.

FIGURE 20

Inboard / Outboard



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BUILDING FORM AND CHARACTER

The SIO Hillside Neighborhood will primarily consist of laboratories, offices, work yards, and gathering places. The work that occurs here is the event, not the buildings. The structures should be readily adaptable to the various demands placed upon them by the scholars, scientists, staff and students who will use them. To provide the buildings with a degree of continuity and to enhance the usefulness of the work and gathering places, the structure of the buildings should have functional integrity that is consistently responsive to the micro-climate, natural ventilation, solar orientation and salt-air corrosion.

GUIDELINES

The building massing should be simple and straight forward. The buildings should provide a clear edge to the outboard open space and not protrude into it with major building projections or extensions. The buildings should be massed in units small enough to allow standard-length fire hoses to reach all sides from central service areas and adjacent roads without requiring additional grading outboard of development for fire access. The general shape of the building should be longer than wide and the roofs should be the dominate element in the massing of building.

Heights of buildings are important in maintaining the small scale of SIO and to the preservation of public views from the east over the site. Building heights vary throughout the Hillside Neighborhood; refer to *Parcel Descriptions* for specific height limitations. Generally development can be as tall as four stories on the uphill sides of arrival courts and step down the hillside following the contour of the land. Stories or floor-to-floor heights will deviate depending on use, structural and mechanical requirements and connections to other buildings and shared terraces. High-bay laboratory spaces may be as high as 20'; office and support space as low as 10'.

Access to buildings is required on different levels to link paths between buildings and to open onto terraces and gardens. The primary entrances and elevator lobbies of all buildings should open onto arrival courts. Secondary entrances off terraces and courts should not compete in importance or scale with primary entrances.

Circulation within buildings is critical in linking buildings into the social framework and it should be distinct and identifiable. People should know where they are when in a building passageway.

> **Exterior passages along buildings** are desirable and especially appropriate in accessing levels which have only one frontage and require a single-loaded circulation configuration. The hierarchy between privacy, views and public exterior circulation must be considered when identifying building sites, preparing space planning and conceptual designs for individual projects.
>
> **Corridors** within the buildings should have outlook at the ends.

The conceptual approach to building materials and color should be consistent throughout the neighborhood. Buildings can be thought of as geodes, with hard, simple exterior shells that blend with their surroundings and protect the delicate gems within. Colors should be selected from the color portfolio prepared for this neighborhood.

The outboard side should be quiet and simple, of colors and materials that reflect and complement the surrounding vegetation - the deep greens and browns of the eucalyptus or the sage greens of the native vegetation (Figure 20).

The inboard side, on the other hand, should be brighter with more colorful hues and expressive of the work that will happen in and around the building (Figure 20). Although the body of the building may be the same all around, balconies, exterior circulation, large court-level openings, deep overhangs providing sun control are encouraged on the inboard side providing opportunities to use metal and brighter accent colors.

The finish siding or cladding on buildings should be wood, preferably left natural and self-weathering. The intent is the creation of a cohesive neighborhood which is compatible with and complementary to the setting. Wood is a warm material which has small scale definition and is not institutional in feeling. Within the specificity of self-weathering woods (*i.e.*, redwood, cedar, western cedar and cypress) a variety of cladding systems can be used, such as board-and-batten, shingles, vertical and horizontal boards.

The exterior siding should follow the contour of the grade and not be stepped, exposing only a minimum amount of concrete foundation.

Building roofs are an important concern of this neighborhood because they are very visible from higher grade elevations. The roofs should be considered as fifth elevations and treated with the same attention and concern.

Roofs silhouettes should be simple, and either flat or shaped in low bows. The location of roof top equipment should be carefully considered and covered from view.

Roof materials such as metal and rolled roofing should not be reflective or shiny and the colors should be deep, not light or bright, to minimize glare. Gravel coverings should be neutral in color toward dark values.

Retaining walls extending from buildings into the surrounding landscape should be carefully designed to suit the activities which they are accommodating.

Surface erosion around buildings on hillside sites has been a problem in the past at SIO. Design and site planning of parcels should consider potential erosion caused by water run-off around the uphill edges and corners of buildings.

Building service areas and trash containers should be accommodated within the building envelope at the arrival court elevation.

The structural system should be separate from interior partitioning so future expansion or connection between interior spaces can be easily accommodated.

Windows should be designed to incorporate shading devices and minimize glare depending on the solar orientation of the opening. Special attention should be given to windows with western exposure because they are desired to frame the ocean view, but can cause substantial heat gain and glare within the building if not properly treated with overhangs and shading devices. (The Hillside Neighborhood color portfolio should discuss the color of the glass regarding ultraviolet reduction or exclusion.)

IMPLEMENTATION

Roof plans, site plans and elevations submitted to the Design Review Board should be required to show all equipment such as elevator penthouses, satellite dishes, antennae, mechanical equipment, electrical sub-stations, that would have to be accommodated on roofs or around the building. They should be evaluated for visual and amenity impact on surrounding spaces.

A color portfolio specifying the palette for the neighborhood should be prepared and distributed with the design information for individual projects.

Harsh weather conditions require that UCSD develop a maintenance program for the upkeep of buildings and site improvements.

The issue of natural and controlled ventilation systems within future buildings should be investigated during preliminary design phase of future buildings to determine the most effective and long term solution to proper ventilation. While natural ventilation of interior work spaces is preferred, spaces that house climate-sensitive equipment require appropriate HVAC and desalinization systems.

ACKNOWLEDGEMENTS

UCSD COMMUNITY

Campus Planning Office

Campus/Community Planning Committee

Marine Sciences Physical Planning Committee

Design Review Board

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