Concept:

Evans Hall is replaced with a pair of new pavilions linked below grade, restoring the view from the Mining Circle to Memorial Glade and the Bay. A new oval green is created at the base of the pavilions, on axis with the Campanile, completing the east end of Memorial Glade.

STRATEGIC GOALS

CENTRAL CAMPUS & ENVIRONS

The purpose of the New Century Plan is to ensure each capital investment is optimized in terms of its benefit to the campus as a whole. The Strategic Goals, Policies and Initiatives in the next ten sections describe a physical framework for future capital investment, to ensure each individual project not only meets the needs of the academic enterprise, but also contributes to our legacy of buildings and landscape, fosters a dynamic intellectual community, and enhances the experience of campus life.

Figure 0.2: Campus Vision

*The Campus **Vision** illustrated in figure 0.2 depicts one way in which the **Policies, Initiatives** and **Guidelines** might be realized on the Berkeley campus. More detailed views of this illustrative plan, with notes on the individual projects, are presented in the **Project Portfolio.***

*Projects illustrated in the **Vision** and **Portfolio** are conceptual. New buildings are represented as prototypes, based on modular dimensions adaptable to a range of university functions. However, the buildings are configured to respect and enhance spatial and architectural relationships, and are meant to inform the design of future projects by depicting concepts consistent with the **Strategic Goals**.*

*The **Portfolio** also includes several concepts for new public realm investments in the spirit of this vision. These same concepts and others are illustrated in the perspectives located at section breaks.*

Existing buildings

Planned/potential buildings (2002)

The New Century Plan is organized around a set of **Strategic Goals**. Each deals with an aspect of the capital investment strategy, and is supported by Policies and Initiatives, which outline the specific actions the university should take to implement the Goals.

- **Policies** are measures the campus shall take to guide and shape - and in some instances limit or prohibit - new capital investment, to ensure resources are used wisely, and the quality and amenity of the campus environment is enhanced by each project.
- **Initiatives** are more proactive. Whereas the Policies enable the campus to guide and shape new projects, the Initiatives describe actions that serve the interest of the campus as a whole.

Campus Vision

While topography and landscape are the primary formgivers of the campus, buildings play a key role in framing and imparting character to campus open spaces. On our compact urban campus, where space is at a premium, each new capital investment must be designed to maximize its contribution to intellectual community by creating dynamic, interactive places.

The **Campus Vision** illustrated in figure 0.2 depicts one way in which the Policies, Initiatives and Guidelines might be realized on the Berkeley campus. More detailed views of this illustrative plan, with notes on the individual projects, are presented in the **Project Portfolio**.

Projects illustrated in the Vision and Portfolio are conceptual. New buildings are represented as prototypes, based on modular dimensions adaptable to a range of university functions. However, the prototypes are configured to respect and enhance spatial and architectural relationships, and are meant to inform the design of future projects by depicting concepts consistent with the Strategic Goals. The Portfolio also includes details of several concepts for new public realm investments in the spirit of this vision. These same concepts and others are illustrated in the perspectives located at section breaks.

Concept:

Sproul Plaza is refurbished with new paving, lighting, site furniture and signage. The existing café terrace is redesigned and enlarged, to realize its potential as a place of study and conversation at the primary student gateway to campus.

1 GROWTH & RENEWAL

The dramatic increase in college age Californians is only one of many drivers for new and improved facilities. New academic initiatives and continued growth in sponsored research also create demand for more space on and around the campus. While some of this demand can be met through strategic renewal of existing buildings, new buildings are also required, particularly to house programs that involve high performance infrastructure and other advanced features renovated space can not provide.

Strategic Goals

Capital investment shall ensure adequate capacity for campus growth and change by:

- **basing each investment decision on an objective, life cycle analysis of alternate solutions.**
- **implementing guidelines, audits and quality reviews to optimize the use of campus space.**
- **redeveloping underused sites on and adjacent to the core campus with more intensive uses.**
- **reserving core campus space for functions that serve or directly involve students, and sites on adjacent blocks for functions that require core campus proximity.**
- **developing one or more new research centers on blocks adjacent to campus.**
- **encouraging more intensive development of privately owned sites adjacent to campus.**
- **preparing campus subarea plans to align physical capacity with program needs.**

UC Berkeley is the oldest campus of the university, and over half the built space on campus is over forty years old. Both instruction and research have undergone dramatic change during this period, in terms of both the workstyles we employ and the infrastructure we require. Today, many instructors and researchers struggle with spaces and systems compromised not only by age, but also by decades of underinvestment. The renewal of our facility inventory is crucial to our ability to recruit and retain exceptional individuals, and to pursue new paths of inquiry and discovery.

Strategic Investment

Given the scarcity of both land and capital in relation to the future needs of the academic enterprise, the campus must ensure each investment decision represents the best possible use of these limited resources, and the best long-term solution for the campus as a whole.

Capital investment decisions are often made based on lowest first cost: seismic retrofits, for example, are often much cheaper than new buildings. But seismic retrofits alone do not replace old and worn out systems, nor reconfigure dysfunctional layouts, nor improve poor design. On the contrary, they perpetuate and often exacerbate them. Reversing this practice, and basing each investment decision on a full consideration of alternate solutions and a full recognition of life cycle cost, is absolutely critical to the long-term future of the facility inventory. It is also, as described in strategic goal 10, critical to the wise and responsible use of resources.

Policy 1.1 Analyze a range of alternate solutions at the feasibility phase of each major capital investment.

As a general rule, the set of options for this analysis should include retrofit, renovation, adaptive reuse, replacement, relocation and, if relevant, noncapital solutions such as reorganization. The options should consider alternate models for project delivery, as described below, and sustainable design features, as described in strategic goal 10. For new buildings, the range of options should also include structural enhancements to reduce downtime after a magnitude 7.0 earthquake to no more than 30 days.

Policy 1.2 Base the options analyses on the life cycle costs of alternate solutions, including the discounted cost of future expenditures.

For example, a given building may have not only a backlog of deferred renewal - building systems past the ends of their useful lives - but may also have other systems nearing the same point. In order to make a valid comparison with the replacement option, the retrofit and renovation options must include these known future costs.

Policy 1.3 **Explore project delivery models that include partnerships with private developers.**

Such partnerships may involve non-profit foundations or for-profit developers, and may be located on land owned by the university or the partner. While such partnerships have clear advantages in terms of leveraging university capital, advocates also cite their potential to reduce both cost and time to delivery. The advantages a well chosen partner brings to a project include extensive experience with the project type, established relationships with providers of labor, materials, and services, and state-of-the-art management.

The Academic Plan recognizes the strategic value of a broader range of delivery options, and recommends the campus establish a new office of real estate to to provide a more coherent and proactive approach to space acquisition. The initial charge of this office shall include:

- identifying potential strategic land acquisitions, particularly on the blocks adjacent to campus,
- exploring joint ventures with private developers to create new campus facilities, and
- partnering with other public and private organizations to create new facilities that benefit the campus as well as other organizations, such as a new downtown hotel/conference center.

Initiative 1.4 **Implement guidelines, audits and quality reviews to optimize the use of campus space.**

Given the age and condition of the facility inventory, and the limited land and capital available for new buildings, we must strive to optimize our use of existing campus space, and ensure our investments in maintenance and renewal are strategic rather than ad hoc. The Academic Plan recommends a comprehensive program of asset stewardship, to be implemented by the Space Assignments and Capital Improvements Committee, and to include at least the following elements:

- guidelines and required findings for location priority,
- guidelines and required findings for space utilization,
- regular space audits to verify the actual use of campus space, and
- comprehensive quality reviews of campus research and instructional space.

This plan includes proposed **Location Guidelines** for campus units. The university already prescribes general, campuswide standards for instruction and research space: the **Space Utilization Guidelines** in this plan show how these standards may be refined to provide a baseline for the space audits.

Intellectual Community

A true strategy for growth and renewal is more than a list of individual projects. A great research university also requires a dynamic intellectual community, one that provides exposure to a wide range of cultures and perspectives, and generates interactions that lead to new insight and discovery. For such a community to thrive requires a campus organized and designed to encourage those interactions.

Although the academic structure of the campus reflects the traditional disciplines defined over a century ago, they are no longer insular and self-contained. On the contrary, the potential for synergy is *everywhere*. The health sciences initiative, for example, brings together researchers from physics, biology and chemistry, while academic programs focusing on culture, gender and ethnicity integrate the social sciences and humanities.

Because the potential for synergy is *everywhere*, and because we cannot predict where productive interactions may emerge in the future, the campus must pursue a capital investment strategy that retains and reinforces the contiguity of the academic enterprise on and around the core campus. A vital intellectual community can only thrive when the entire scope of the academic enterprise is located in close proximity, in order to foster the formal and informal encounters that lead to productive interactions.

Policy 1.5 **Accommodate new and growing programs primarily through more intensive use of university-owned sites on and adjacent to the core campus, by:**

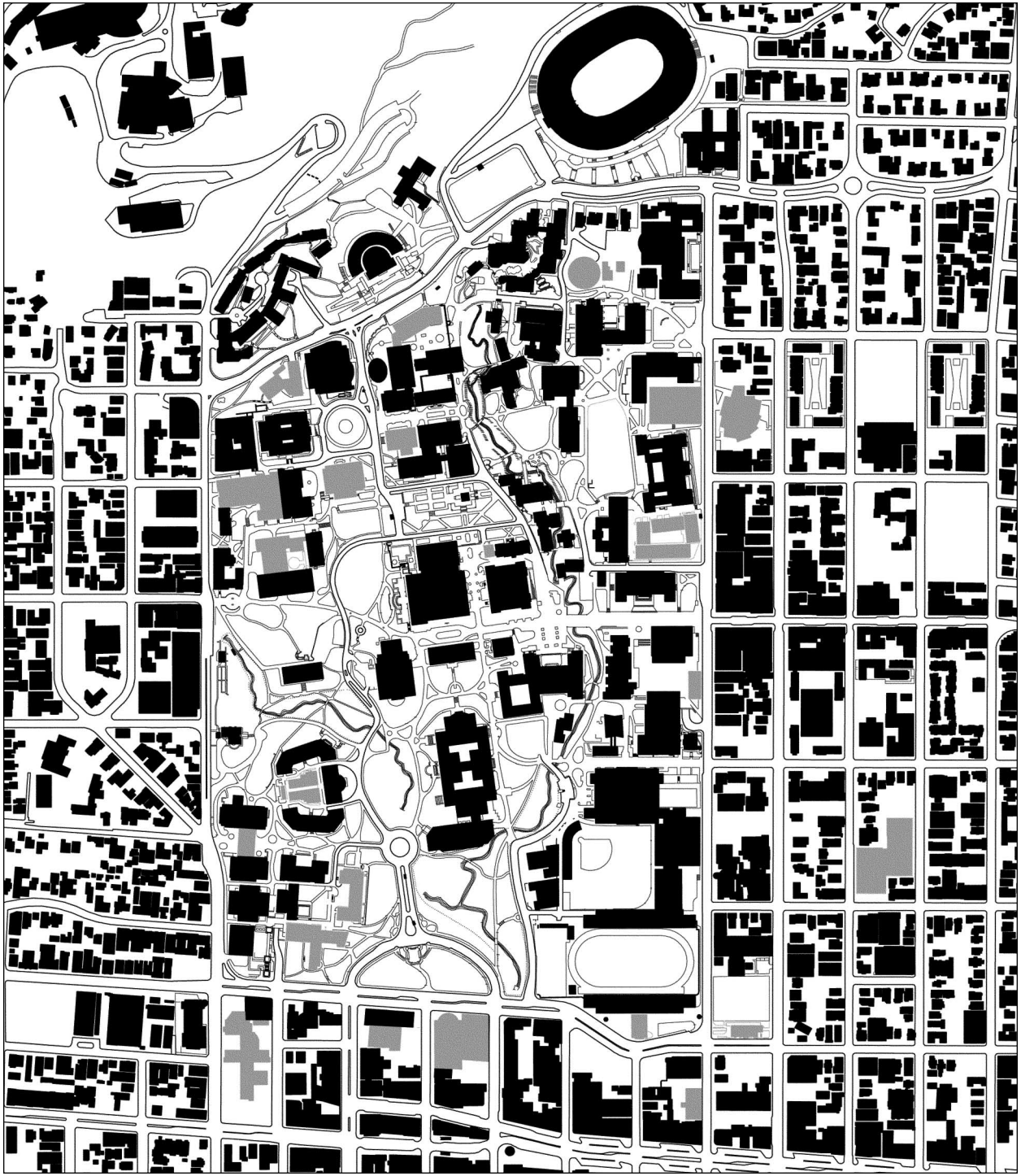
- **redeveloping parking lots and other underused sites with new academic buildings, and**
- **renovating or replacing existing academic buildings in conjunction with seismic upgrades.**

There are of course exceptions. Certain functions are incompatible with the core campus and its urban environs due to scale, service requirements, or environmental considerations. These functions should be relocated to Richmond Field Station or other, more suitable sites as prescribed in the **Location Guidelines**.

Policy 1.6 **Reserve core campus space for functions that serve or directly involve students.**

This includes research in which graduate or undergraduate students have an integral role, since the synergy of instruction and research is a critical element of a Berkeley education. It also includes spaces, both formal and informal, that serve to promote intellectual exchange among faculty and students, both graduate and undergraduate. The **Location Guidelines** prescribe criteria to ensure the optimal utilization of core campus space.

Figure 1.1: Candidate Buildings for Replacement



Existing/under construction

Replacement candidates

The actual course of action for each building shall be determined through the analysis of options described in Strategic Goal 1 and performed at the feasibility stage of the Approvals Process.

Figure 1.2:
Development Concept

Illustrative development

The projects shown in this figure represent a strategy to renew and expand the campus facility inventory by selectively redeveloping:

- *candidate buildings for replacement, as shown in figure 1.1, and*
- *other underutilized sites such as surface parking lots.*

This concept shows only projects on UC-owned land. Other projects may be pursued in collaboration with the city and the private sector.

Policy 1.7 **Prioritize sites on adjacent blocks for research, cultural and service functions that require core campus proximity.**

As defined in the **Location Guidelines**, functions that require frequent and multiple trips per day to and from the core campus should have first priority for sites on adjacent blocks. However, some of these sites may be suitable for mixed-use projects that include program space, housing, and/or retail space, particularly where such projects would also help create more active and livable streets, and a more graceful transition from campus to city. The range of options evaluated for each such site should include mixed-use as well as exclusively program space solutions.

Initiative 1.8 **Develop one or more new research centers adjacent to campus.**

Such centers should be designed to provide flexible research space for existing and new research projects which may not involve substantial student participation, but which have a demonstrable need for proximity to the core campus.

Both to encourage intellectual collaboration and to maximize synergy with the core campus, these research centers should be planned in terms of disciplinary clusters: so, for example, a center housing social science units could be located to the south of campus, while one oriented to the health and biological sciences could be located to the northwest. However, because the future directions of research cannot always be predicted, the space in these centers should be designed to be flexible and adaptable to a wide range of research programs.

Initiative 1.9 **Encourage more intensive development of privately owned sites on blocks adjacent to campus.**

Many privately owned sites on blocks adjacent to campus are now underutilized: for example, with one-story retail buildings with no significant historic value. They have the potential to accommodate significant amounts of housing or offices on the upper floors as well as ground floor retail. These sites could be redeveloped in ways to benefit both campus and community, but this requires a collaborative strategy with common objectives. The campus should take the initiative to explore such a strategy with the City and property owners.

Capacity Analysis

At the conceptual level of this Plan, estimates of capacity are necessarily rough. On a campus as diverse as UC Berkeley, each site presents a unique set of conditions that may constrain project size and configuration: for example, subsurface conditions may limit the amount of below-grade space. Program requirements may also have an impact: for example, the ratio of net or 'assignable' (ASF) space to gross (GSF) space can vary significantly with type of use.

However, a campus plan that does not explicitly address capacity is not a strategic plan. If design principles are to play a significant role in capital investment decisions, then their implications for our ability to meet the demands of the academic enterprise must be clear. This section presents a concept-level analysis of what new campus development, consistent with the **Goals**, **Policies** and **Guidelines,** might yield in terms of net growth in academic & support space, based on the concept shown in figures 0.2 and 1.1-1.2.

- **Core campus.** This category includes everything within the traditional core campus boundaries of Bancroft, Oxford, Hearst and Gayley/Piedmont.
- **Adjacent blocks near-term.** University-owned sites on adjacent blocks that do not require existing buildings to be vacated and removed.
- **Adjacent blocks long-term.** University-owned sites on adjacent blocks where existing buildings must be vacated and removed before new development can occur.
- **Parking.** As described in policy 5.7, the parking strategy is based on consolidating most campus parking into structures within walking distance of the core campus.
- **Housing.** The capacity estimates do not include university housing, since most future projects are expected to be located outside the core campus and adjacent blocks. Initiatives 8.1-8.4 describe the scope of the proposed housing program based on the Academic Plan.
- **Joint venture potential.** Some university needs may be met through private development. Given the speculative nature of these projects, we do not include them in our estimates, although their cumulative potential my be significant.

The capacity estimates are summarized in table 1.1. The GSF estimates are conservative: they are calculated using a 'design factor' of 90% of the prescribed envelope, to allow for design flexibility. ASF is estimated as an average of 60%, although 55% is a more typical ratio for laboratory buildings.

Table 1.1: Potential Development Capacity

	New Space Created		Existing Space Removed		Net New Space Created	
	GSF	ASF	GSF	ASF	GSF	ASF
Potential Additional Capacity by Area*						
Core Campus						
Buildings	1,744,200	1,046,500	(758,400)	(447,700)	985,800	598,800
Parking Spaces		680		(460)		220
Adjacent Blocks: Near Term						
Buildings	180,900	108,500	(14,400)	(5,400)	166,500	103,100
Parking Spaces		710		(380)		330
Adjacent Blocks: Long Term						
Buildings	905,500	543,300	(219,500)	(139,900)	686,000	403,400
Parking Spaces		1,320		(350)		970

* Excluding projects which already have environmental approvals

Subarea Plans

The above analysis indicates the design framework defined by the **Goals**, **Policies** and **Guidelines** can, in fact, accommodate a significant amount of growth on and around the core campus. However, the distribution of physical capacity may not always correspond precisely with actual program needs. For this reason, the New Century Plan needs to be supplemented by more detailed plans at the subarea or 'precinct' level, in which physical capacity can be aligned more closely with space demand.

The College of Engineering Master Plan, completed in 2002, is a useful prototype for future subarea plans. It first describes an organizational concept for College space based on program goals, then shows how this concept can be accommodated through a sequence of building and landscape projects consistent with the physical framework described in the New Century Plan.

Initiative 1.10

Prepare a set of subarea plans to address future programmatic needs, consistent with the New Century Plan and Long Range Development Plan.

The definition of the subareas should reflect both physical and program considerations, although the traditional concept of proximity based on disciplinary 'precincts' should be reexamined in light of the more interdisciplinary nature of modern instruction and research.