Development Framework

FIGURE 3.8 (right) Building and infrastructure forms at Berkeley Lab have a purpose-built, industrial character with a consistent palette of materials, and colors

CONTEXT AND EXISTING CONDITIONS

As the country's oldest national laboratory, Berkeley Lab has a long history of constructing facilities on an as-needed basis in response to national scientific priorities. When new scientific initiatives warranted, new facilities designed to meet the specific need at the time were constructed on the relatively level areas available on the main site.

Across the Laboratory, rustic landscape surrounds clusters of research buildings constructed with the most appropriate and cost-effective methods available at the time under a design framework that emphasized function. These straightforward buildings among a rustic landscape and the extraordinary views defines the Laboratory's informal character and unique sense of place.

During the earliest periods of construction, development resulted in clusters of stand-alone buildings that are mostly one to two stories in height. The space between these buildings is largely undefined and congested with support equipment, vehicular service access, and parking. While the main site includes several landscaped areas dedicated to pedestrian circulation, they often overlap with vehicular uses.

As a result, research programs are often dispersed among dissimilar buildings across the site and access between these buildings can be confusing. This situation underutilizes the land that is best suited for development and tends to dampen operational efficiencies and opportunities for interaction among researchers.

FIGURE 3.7 (left) Aerial view of the Laboratory in 2003 reveals how the cluster development pattern follows the main site's hillside topography









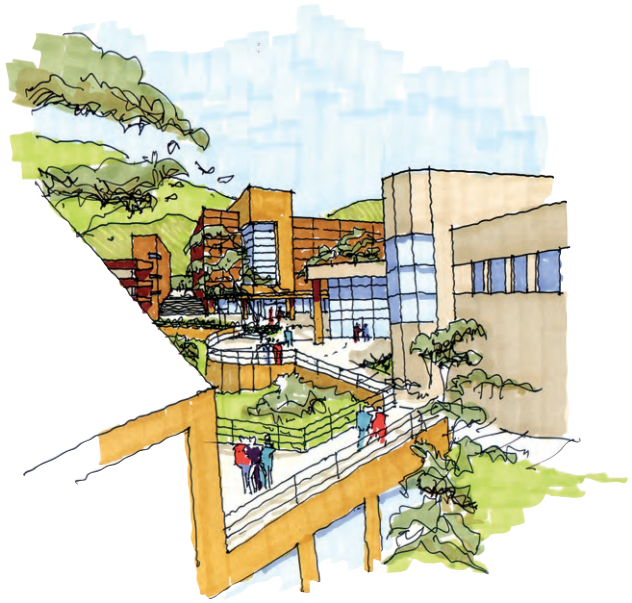

FIGURE 3.9 Future development will focus on creating Research Clusters which will reinforce a more campus-like environment at the Laboratory

DEVELOPMENT FRAMEWORK STRATEGIES

The Development Framework defines the rationale for where and how new development should occur within the zones defined in the Land Use Plan, and provides a means to implement these six strategies:

- Increase development densities within areas corresponding to existing clusters of development to preserve open space, and enhance operational efficiencies and access
- To the extent possible, site new projects to replace existing outdated facilities and ensure the best use of limited land resources
- To the extent possible, site new projects adjacent to existing development where existing utility and access infrastructure may be utilized
- Create a more "collegial" environment that encourages and facilitates interaction among the variety of Berkeley Lab employees and guests
- Site and design new facilities in accordance with *UC Presidential Policy for Green Building Design* to reduce energy, water, and material consumption and provide improved occupant health, comfort, and productivity
- Exhibit the best practices of modern sustainable development in new projects as a way to foster a greater appreciation of sustainable practices at the Laboratory

The Development Framework illustrated in Figure 3.10 has four components: research clusters, outdoor use areas (cluster commons), linkages among research clusters, and the Central Commons.

Research Clusters

Future development at Berkeley Lab will build upon and strengthen the existing hillside cluster development pattern to create a more campus-like setting that reflects its unique site and functional needs. The main site is organized into six "research clusters" defined by major topographic features encompassing research functions that share common needs and interests. One "service cluster" provides a central location for facilities and shipping/receiving operations.

A network of pedestrian paths links these clusters to the "Central Commons" area that serves as the social heart of the Laboratory. The Central Commons and pedestrian pathways are essential elements of the Laboratory's functional and experiential qualities and are discussed in further detail on the pages that follow.

Most new buildings will be located on infill sites and/or adjacent to existing facilities, resulting in a higher density of development within each cluster, improving operational efficiencies and creating a

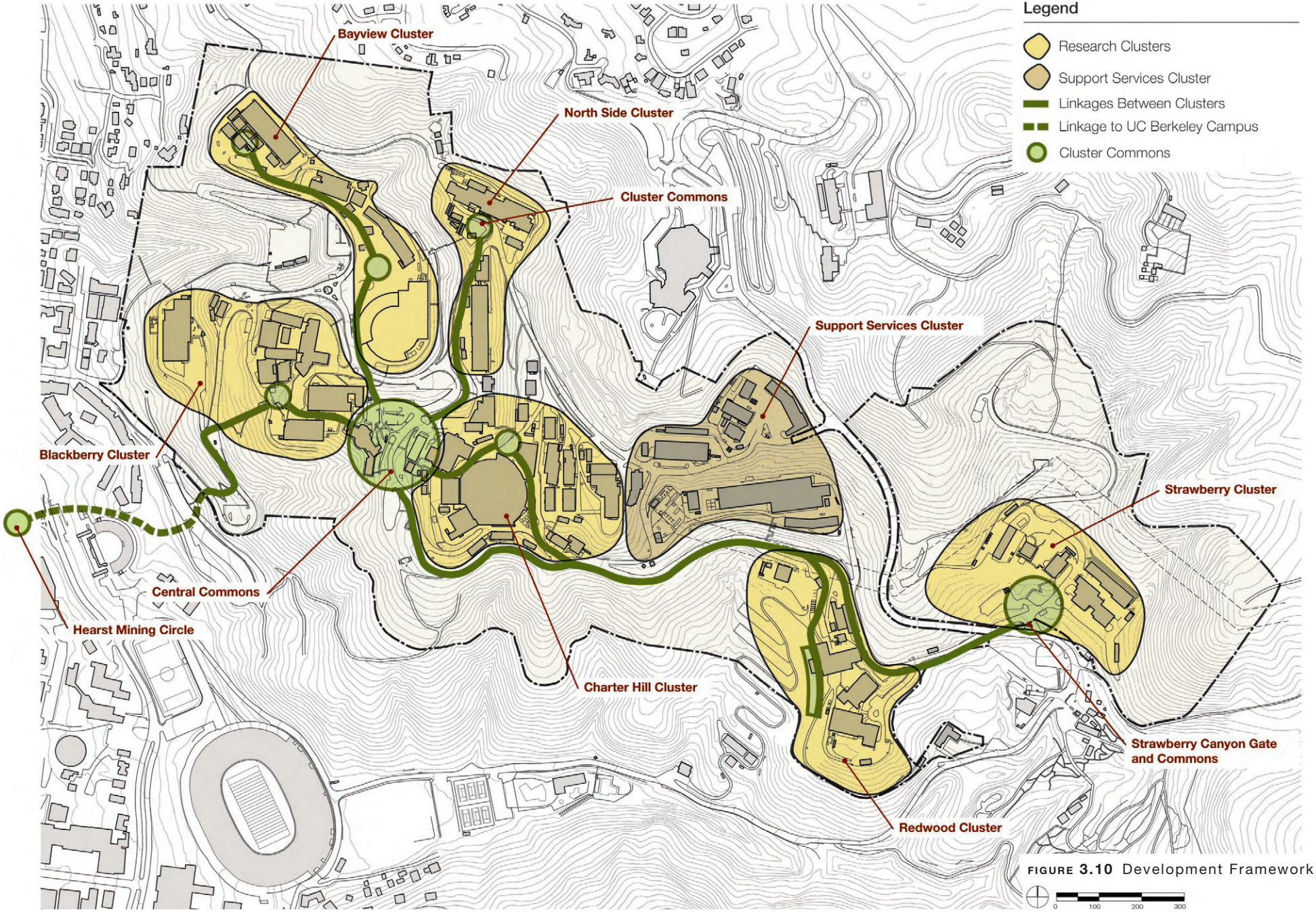

FIGURE 3.10 Development Framework

more collegial setting. These new facilities will also be planned and designed to segregate vehicular and pedestrian uses. Spaces for vehicular circulation, parking, deliveries, and service activities will be located at the perimeter of each research cluster. Outdoor spaces for pedestrian uses will be located towards the center of these clusters, in spaces formally defined by the edges of new and existing buildings.

The specific configuration and design of new development within these clusters will be guided by illustrative plans and design guidelines prepared by the Laboratory. These guidelines, while separate from this LRDP, support the objectives of the Laboratory and address the specific design of outdoor spaces and buildings. They are intended to result in an arrangement of facilities that will improve the Laboratory's appearance and functionality, and foster a sense of community and interaction.

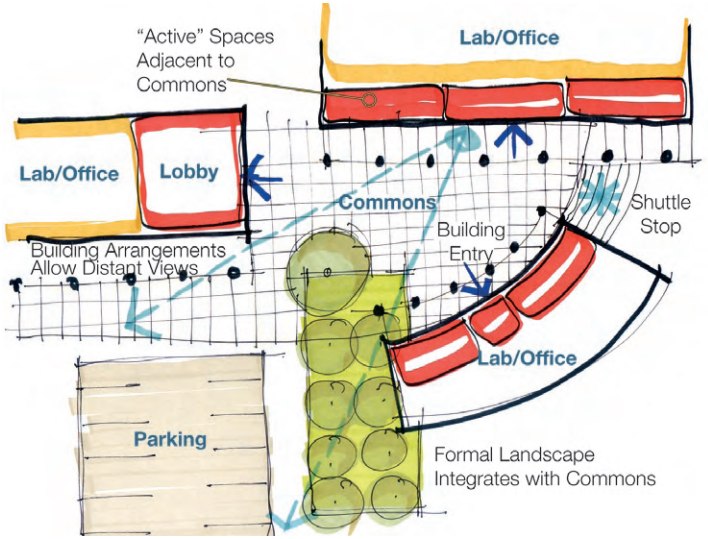

FIGURE 3.11 Cluster commons will create outdoor use areas

Cluster Commons

Within each research cluster at the Laboratory, improvements will be made to the outdoor areas at their centers. These outdoor areas, many of which are currently occupied by surface parking, temporary buildings, or service fixtures, will be transformed into small quads or plazas as might be found on a university campus. These outdoor areas, furnished with benches, lighting and other amenities will provide informal venues for discussion, relaxation or meals. Located at the front doors of adjoining facilities and on pedestrian routes linking parking and other clusters, these areas will be opportunities for interaction for Laboratory researchers and guests.