Effective Industrial Growth in a Progressive City

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Bayer Corporation’s biotechnology research and production facilities in Berkeley are the city’s largest industrial employer and the cornerstone of its hope for an expanding biotech future. So the company’s desire to chart a master plan for rebuilding its aging facilities posed important challenges, ones that have led many other companies to abandon cities for easily developable suburban sites.

Bayer (formerly Miles Inc.) sought a flexible plan that would allow its facilities to evolve over 30 years. That required variances from existing zoning heights for production buildings and assurance that the city’s process and time frame for processing permits would be predictable and expedient. The city wanted to retain its largest employer and ensure that any changes in its development policies were balanced with adequate public benefit.

And the community needed the jobs it might get from the company’s expansion, assurances of about the safety of biotechnology, support for local educational programs and confidence that future development would result in a visually appealing site.

In 1991, the company hosted an invited competition and selected Berkeley-based Lyndon/Buchanan Associates to design the first production building and develop design guidelines for the rest of the site. The problem required the designers to look both inward and outward. The plan had to establish a set of relationships among buildings and spaces that created the campus atmosphere Miles desired. Other concerns included servicing the site, making it secure and ensuring that spaces could be flexible enough to accommodate changes in technology and production processes. At the same time, the guidelines—which would require community review and city council approval—had to establish a mutually supportive relationship between the facility and the surrounding West Berkeley neighborhood, which includes a residential district and a waterfront park.

Creating an Urban Setting

The master plan deals with the internal configuration of the complex by setting forth a series of types of building spaces (elevens, including production spaces, service and utility spaces, office and reception spaces, parking and warehousing) and open spaces (ten, including street corridors, courtyards, windbreaks, delivery spaces, entries and boundaries, and surface parking). The streets and service access routes are classified as campus, industrial, or service, each with its own characteristics and relationship to building spaces.
Various types of building spaces are combined in guidelines for a production building. (1) Production spaces; (2) Service and utility spaces; (3) Office and reception spaces; (4) Gathering, conference and relaxation spaces; (5) Mechanical equipment spaces.

and open spaces adjacent to it. The plan also designates uses by zone.

Architectural guidelines are attached to each type of building space; several types of space might be combined in any one building. The guidelines are related to the character of each type of space while meeting functional requirements. For example, production spaces have simple volumes that are large in plan and have high roofs; they would have a loose fit that allows equipment and processes to be properly arranged and serviced and easily changed as the need arises.

Office and reception spaces lend a human scale to larger production volumes and to the spaces next to buildings. So the guidelines recommend that elements for office, lobbies and circulation space should be more finely scaled and independently roofed, with their volumes defined by use of shadow-casting eaves or other devices that establish a horizontal subdivision in the facades. These volumes also could be interrupted by incidental elements, such as recesses, balconies, porches or other openings or volumes that indicate entrances, internal gathering spaces and spaces of visible activity.

The open spaces at the project are also classified into distinctive types, each with its own purpose, character and relation to buildings. For each type of open space, there are guidelines for landscaping and the relationship to building spaces. Several types of space might be combined in any one area, or along any street. Entry courts, for example, located at each main building entry, will have special paving and colorful plants in pots or planters, and the building spaces that adjoin them should be offices and gathering spaces.

Creating a Setting Within a City

At the same time, the master plan was crafted with a sense of the Bayer campus’ position in the city. This involved the treatment of the edges of the site,
Urban design concepts and dimensional requirements for Dwight Way, which borders the West Berkeley residential neighborhood. Guidelines recommend active lower-level uses, a series of open spaces that lead along the street to a nearby waterfront park and a cohesive architectural frontage. Similar guidelines were established for other streets.

Left: Composite of guidelines for buildings, spaces and streets. Below: Important view and movement corridors through the site.

preserving visual corridors through the site and locating large production buildings among the smaller, incidental structures and warehouses.

Most of the campus is separated from the surrounding area by streets, and the character of the areas that abut the property ranges from a residential neighborhood to a waterfront park to heavy industry. Bayer acquired its site piecemeal over the course of several decades, and some of the streets that originally cut through the property still exist. The plan retains much of that street pattern, including the two streets that still relate to the city grid.

It also allows for a web of view corridors, put particularly from the street into the waterfront park, and from the park and the adjoining freeway into the Berkeley Hills two miles to the east. These view corridors are reinforced by setback requirements — some at ground level (especially the current street patterns) and others that locate the upper volumes of taller buildings. Dwight Way runs between the site and perhaps the most sensitive context, a mixed-use, commercial-residential neighborhood. The plan calls for buildings to be set back enough so that a sequence of public open spaces can be created along the street, providing visual access to Aquatic Park; these spaces could comprise a promenade, open green or garden court. Buildings will also be configured so that offices and gathering spaces overlook the street; one new building has added a human presence and around-the-clock "eyes on the street" on a rarely used street and at the railroad tracks, which has been cited as a public nuisance.

Finally, the buildings would create a frontage with a cohesive scale, while the main building entrance at Dwight and Sixth would be made distinctive with an architectural element such as an arcade, porch or canopy, and new buildings at the area of Dwight and Seventh (a prominent intersection) would serve as an architectural anchor.

Approving the Plan; Building the Campus

The master plan is part of a "development agreement" between Bayer and the city. It was drafted through an intense process of community education, negotiation, public hearings and review by sixteen public commissions
and was finally signed in February, 1992. Bayer's projects still need to obtain city permits and approvals, but the development agreement helps make the process predictable by providing detailed, up-front information about what is intended and expected.

Since the agreement was approved, more than sixteen projects totalling 250,000 s.f. of building construction have been reviewed by the city, most going smoothly through the process. Bayer has approved more than $150 million for new construction, substantial rehabilitation and site improvements. These projects include new buildings, additions to existing buildings, an overhead pipe rack that distributes utilities throughout the site, and less visible improvements like seismic upgrades and interior renovations.

The plan has also helped Bayer make incremental investments with the confidence that they will add up coherently. Says Rick Stigley, a vice president at Bayer, "With each building, our project managers face a range of decisions. While technology, cost and project scope ultimately drive the deci-

sion-making process, the design guidelines have been extremely useful in directing the architecture and planning so that we are assured the site is developed with sensitivity and consistency."

Credits
Client: Bayer, Inc.
Urban Design and Architectural Consultant: Lydgate/Buckman

Credits

Strategic Communications Consultant:
Fern Tiger Associates, Oakland

Landscape Architect: John Northmore Robotics and Associates, Berkeley