

# Standard Eight

## Instructional and Support Facilities

WSU has continued to expand its facilities statewide. In the 1990s, 25 buildings with more than 830,000 gross square feet of space have been added to the Pullman campus. Significant new additions include an addition to Holland Library (284,428 gross square feet), a Veterinary Teaching Hospital (129,836 gross square feet), a renovation of Todd Hall (153.682 gross square feet), a new Engineering Teaching and Research facility (97,215 gross square feet), Bohler Gymnasium addition (45,800 gross square feet), Animal Sciences Laboratory (24,463 gross square feet), and the Plant Growth Center (32.300 gross square feet).

During this same time the new WSU Vancouver campus began to develop. The first four buildings opened in Fall 1996 (approximately 145,050 square feet). Funding has been received from the state for construction of the Early Childhood Education Building and the design of the next two academic buildings. The Consolidated Information Center (73.622 gross square feet) opened in Summer 1997 at the WSU Tri-Cities campus. WSU has also occupied over 40,000 net square feet of space on the Riverpoint campus in Spokane.

In the 1989-91 biennium, WSU received \$65,350,000 in funding for capital projects (from all sources of funds). In the 1991-93 biennium, the figure grew to \$105,379,286 and in the 1993-95 biennium the total was \$130,874,146. For the 1995-97 biennium (without the supplemental budget), WSU received \$104,621,876 for capital projects. Generally, appropriations from the State Building Account amount to \$40 million to \$70 million, the WSU Building Account has added another \$16 million to \$20 million, and the balance has come from federal and local sources.

Although various units on campus experience acute shortages of space and maintaining aging space is a constant challenge, the remarkable success of WSU's statewide capital program has provided better than adequate space for the effective operations of programs. Maintaining this rate of success will be an ongoing challenge, but the State of Washington appears committed to continued funding of capital programs in higher education.

### Design Standards

WSU has design standards for each type of space on campus. The design standards for classrooms, offices, and laboratories are given here. Other standards are available on the CD, WSU Uniform Design Standards.

### Classroom, Seminar Room, and Conference Room Standards

1. Preferred classroom seating is continuous table top and swivel chairs. Moveable tablet arms are not a preferred method of seating due to the high cost of maintenance and the small amount of usable surface area.
2. Classrooms with pedestal mounted tablet arm chairs-15 sq. ft./station.
3. Classrooms with movable tablet arm chairs-15 sq. ft./station.
4. Classrooms with tiered theater-type seating-12 sq. ft./station.

5. Classrooms with pedestal mounted continuous table tops and swivel chairs-18 sq. ft./station.
6. Conference and/or Seminar Rooms-20 sq. ft./station.
7. Classrooms with more than approximately 60 occupants or approximately six rows of seating are to be provided with stepped fixed seating with fixed or folding tablet-arms, either theater or pedestal mounted. Seating choices for mobility impaired persons shall be distributed throughout the seating area to the extent possible.
8. Classrooms generally should have the entrance door near the rear of the room so that late-arriving students do not disturb the class. Additional entrance(s) must be provided for all classrooms seating 50 or more students, per code.
9. Wheelchair spaces shall be provided in accordance with ADA. They shall not be less than 33 inches wide and 48 inches deep where forward or rear approach is provided. Where only side approach is provided, wheelchair spaces shall be not less than 60 inches in depth. They shall be accessible and shall be located in places with unobstructed sight lines. Wheelchair spaces shall be reasonably distributed throughout the seating plan and located on an accessible route of travel.
10. One percent, but not less than one, of all fixed seats shall be aisle seats with no armrests, or shall have removable or folding armrests on the aisle side. Each such seat shall be identified by a sign complying with Section 3106 of the ADA code.
11. All aisles shall not be less than 36 inches in width.
12. Unless specifically approved and provided for in the program, all classroom flooring shall be vinyl tile.
13. Lighting shall comply with the Washington State Nonresidential Energy Code.

The design standards for classrooms also include audio-visual provisions for teaching classrooms, seminar rooms, and lecture rooms. A project officer or designated Facilities Development representative verifies those audio-visual capabilities to be designed into the building. Particularly, a review of the building program for specific requirements is necessary. In addition, planning for telecommunication, closed-circuit television installations, and/or computer hook-up; for classrooms, seminar rooms, lecture halls, auditoriums, and laboratories; and for other facilities is coordinated with the Department of Information Technology (IT) and as directed by Facilities Development project officer or designated Facilities Development representative. Developments in this field change dynamically over short periods of time, and planning for specific applications and use may differ greatly for the various installations. For this reason, early involvement of IT personnel in the planning and design of facility system requirements is important.

### **Office Standards**

1. Planning considerations: Offices assigned to faculty members are to have an outside window. Offices that might eventually be assigned to faculty members, but may be temporarily occupied by graduate assistants, should also have an outside window, if possible. Offices that will be assigned permanently to graduate students on appointment need not have an outside window.
2. Staff members whose position description and job responsibilities generate the need for a private office as outlined in the statewide Facilities Evaluation Planning Guide are to be provided an outside window as well as the primary clerical offices for each academic or administrative unit. The building program statement prepared for each major remodeling and new construction project will outline which offices are to be provided an outside window. Such information will be summarized under the General Considerations section of the program statement.

3. Average office area allowances:

Deans	200-225 sq. ft.
Chairs and directors	150-175 sq. ft.
Faculty offices	120-140 sq. ft.
Clerical space (one person)	100 sq. ft.
Graduate student cubicles	60 sq. ft.

Suggested office ceiling height 8 foot-6 inches

4. Office furniture plans: In order to coordinate locations for telephone outlets, convenience outlets, and wall shelving within a given office, it is necessary to obtain approval for suggested room arrangements from the project officer or designated Facilities Development representative, prior to finalizing locations of fixed items noted above. Final design drawings and interior elevations show all telecommunication, electrical, thermostats, fire alarms and horns and other wall mounted fixtures and how they relate to and coordinate with interior furnishings.

### **Laboratory Standards**

1. Consideration must be given to building position and how it affects other adjacent structures. Avoid setting a building with laboratories where it will create a dead air space that holds exhaust products, or where exhaust can be re-circulated into fresh air supplies. It is suggested to incorporate wind tunnel modeling and similar analytical techniques to assess airflow patterns, and prevailing winds.
2. Lab design considerations: A detailed list is requested to ensure the researcher that as many of his specific and special requirements are provided for as are possible in the new building design and construction. Even if the budget does not allow the inclusion of a special item or space, it can still be planned for, and the lab design can be made flexible to be able to include future work.
3. Open concept labs: Careful consideration shall go into airflow and the elimination of dead air spaces. With the open concept lab there is an increased potential for exposing individuals to hazards or contamination or for different experiments to interface. Considerations and accounting shall be made for proper design practice encompassing but not limited to ventilation, exhaust, degree of hazard protection required, proper chemical use procedures (both use and disposal), chemical storage, and hazard protection.
4. Lab design criteria: Obtain as much specific information as possible from each researcher on what they will be doing in their lab space-an overall narrative describing the general research and how the lab will function.
5. Laboratory utilities and requirements: Each lab will be equipped with steam and condensate return, chilled water supply and return, domestic water, lab water, sanitary sewer, storm sewer, compressed air, vacuum, natural gas, de-ionized water, electrical service, and temperature controls. (This is a central WSU system that provides for the lab environment. It has the flexibility to be basic or quite complicated.)
6. Laboratory design considerations and required information: The designer shall ascertain information with input from the research department or building program committee, including the type, model number, manufacturer, and size (dimension) of all new and existing equipment. In addition, any other special services or requirements must be listed in detail, e.g., power

conditioning, dedicated power source, electronic or radio frequency shielding, dedicated air conditioning, special access needs, acoustic and vibration measures required, any special air or water filtration requirements, and dedicated exhaust for chemical or heat removal.

### **Institutional Facilities**

Goal Five of the WSU Strategic Plan states the necessity to assure the availability of the material resources needed to deliver programs of high quality, and addresses the need for adequate financial support for facilities. Of particular concern are the maintenance, management, and operation of institutional facilities. The 1997 WSU Financial Report shows that spending on Operation and Maintenance of Plant has increased approximately 16% in the last five years (from \$22,895,620 to \$26,508,892). The increase between 1996 and 1997 was approximately 6.5%. The State of Washington has a formal budgeting process to provide ongoing funding for maintenance and operations of new buildings and other capital projects. This includes funding for fire protection, safety, hazardous waste management, and security.

As a part of the Strategic Plan, planning and design standards are important. WSU has a long-standing commitment to providing safe and accessible facilities. A prioritization of design elements is used in evaluating the completeness and appropriateness of design. Designs that do not meet these criteria are not acceptable. Life safety considerations include fire alarm and sprinkler systems, lighting, snow removal, well-lit, slip-resistant stairways, removal of loading dock hazards, hand and guardrail designs, and protection of the drinking water.

Second only to safety is the consideration of the accessibility of the facilities. All new designs conform to the Americans with Disabilities Act (ADA), Public Accommodations and Commercial Facilities, and Washington State Regulations for Barrier Free design (WAC 51-30). The model building codes, including the Washington State Administrative Code (WAC), take precedence over all issues other than life safety and accessibility. Where the requirements of the WSU Uniform Design Standards are more stringent than minimum model code requirements, WSU Uniform Design Standards take precedence.

It is the responsibility of the designer to ensure that the building envelope meets or exceeds stringent energy saving requirements of the university. All facilities within the State of Washington are governed by the Washington State Non-Residential Energy Code. This code is a minimum standard for design of energy-utilizing and energy saving elements in the facility.

The Building Program governs the utilization guidelines of the building design. The Building Program cannot be usurped for the sake of architectural enhancements and extraneous design elements. The Building Program has been established by the building users. WSU Uniform Design Standards are included as part of the Building Program. It is the desire of the University to maintain and enhance the rich design heritage of the various WSU campuses. All facilities design attempts to conform to the requirements listed within these Uniform Design Standards.

As the nature of public construction goes, funds are very limited. WSU facilities are first and foremost constructed to enhance the teaching and learning environment. It is, therefore, paramount that designers are responsible with the appropriation of public funds. The building design first targets the teaching and learning environment within the above design priorities and,

second, architectural elements. This is not to say that new structures are spartan or unattractive. In fact, the college experience is enhanced by beautiful and historical facilities.

### **Evaluation of Leased Spaces**

When WSU needs to buy or lease program space, a set of criteria based on particular program needs is developed, and potential spaces are evaluated against these criteria. Generally, this evaluation is conducted by the program administrators, although, depending on the complexity of the arrangement, legal and financial advice might be provided by the Office of Business Affairs, and technical advice might be provided by the appropriate campus unit (e.g., Facilities Development, Information Technology, or WHETS). Generally, the same physical standards for accessibility and safety are applied to leased space as apply to space owned by WSU. Space for classrooms is evaluated on the same basis as potential classroom space on campus. The technical staff in the WHETS unit evaluates space for WHETS classrooms. Most of the space that is leased/borrowed by WSU is owned by some other public entity.

### **Equipment and Materials**

Grants and state and local operating funds all contribute to the purchase of needed equipment for teaching, research, and public service. During 1995-97, the university spent more than \$12 million per year on equipment from these sources. Additionally, the Washington legislature provided the university with an omnibus equipment appropriation in the capital budget of \$5 million for major equipment purchases in FY 97-99. 1.70 million dollars of the appropriation is to fund replacement of farm, field, and other equipment for the College of Agriculture and Home Economics. Most of the balance is earmarked for instructional technology. Equipment is maintained in proper condition by the college, is inventoried and controlled, and is replaced or upgraded as needed.

The university has an extensive hazardous materials program. The Department of Environmental Health and Safety within the Office of Business Affairs provides training, consulting and hazardous waste disposal services to instructional, research, and operational units on campus and statewide. The university has spent \$3.3M over the past three biennia to construct dedicated hazardous waste handling facilities on the Pullman campus. The university's current capital budget request includes a request for an additional \$8M to complete development of these facilities at WSU sites throughout the state.

### **Physical Resources Planning**

The WSU Comprehensive Physical Plan integrates the academic, physical and capital programming process for the University. The Comprehensive Physical Plan is shaped by the mission and academic goals set forth in the *Strategic Plan for Washington State University*. The physical plan is developed based on plans prepared by the colleges and other units of the WSU system which take into consideration academic requirements, student enrollment projections, building conditions and changing technology. Elements of those plans are reviewed and approved by the leadership of the institution, and are then used to develop and update WSU's Ten-Year Capital Plan. On a biennial basis, the University's capital and operating budget request is submitted to the Office of Financial Management and the Washington State Legislature for funding.

WSU has an aggressive capital program for the addition and renovation of facilities. The ten-year program for the Pullman campus alone totals more than one billion dollars. The ten-year plan for branch campus development exceeds \$349 million.

### **Constituent Involvement in Planning**

The Board of Regents of Washington State University and affected constituent groups are involved in all aspects of planning physical facilities. Numerous university departments, committees, faculty, staff, student groups, and the City of Pullman, where appropriate, are involved in project review in order to allow all those impacted an opportunity to comment and assist with appropriate refinement of the project.

The Regents' initial involvement is the review and approval of the university's comprehensive planning document. All university stakeholders participate in the development and review of the plan prior to Regents' approval. The Regents then review and approve all biennial and supplemental capital requests before submission to the state.

The Vice President for Business Affairs appoints a project planning committee composed of Facilities Development staff, building users, and other stakeholders for each major capital project. The Board of Regents delegates authority to the Vice President via the President to approve selection of the architectural firm and to proceed with pre-design and schematic design. Once the schematic design, construction estimate, and construction schedule are complete, they are submitted to the Regents for review and approval. The schematic design addresses project scope, site selection, and architectural elements. At the start of construction, the Regents are informed of the contractor selected. Periodically throughout the project, a subcommittee of the Board is briefed on project status. At project completion, the Vice President closes out the contract. Project completions are reported to the Regents at their next meeting. Currently, the 1994 Comprehensive Planning Process is undergoing revision. Approval is anticipated in the 1999-00 fiscal year.