



CWU DACS

(DESIGN AND CONSTRUCTION STANDARDS)

0002 General Design Guidelines

01 Energy Conservation – Green Building Standards

The University, as a large user of energy in the operation of its facilities, tries to minimize its energy consumption within the bounds of safety and functional requirements. This implies a comprehensive, interdisciplinary approach to energy-efficient design. Examples include the use of native vegetation in landscaping, proper building orientation, adequate fenestration, appropriate design and performance of mechanical systems, etc. Refer to the Washington State Energy Code for guidelines regarding the University's energy conservation objectives.

Major Renovations and New Construction projects with Washington State legislative funding are required to target LEED (Leadership in Energy & Environmental Design) Silver or better, but CWU has a goal that all major projects (state funded or self support funded) shall strive for LEED **Gold** rating or better. A/E teams shall schedule an eco-charette with CWU representatives early in the design of a project to help meet CWU's sustainability goals.

02 Environmental Issues

There may be environmental issues which must be addressed in the early planning stages of a project and for this purposes, Risk Management and Campus Safety requirements must be considered. Of the greatest concern are environmental regulations imposed at the local, state and federal levels pertaining to air and water quality mandating that considerations be given to vehicular emissions and discharges to storm and/or sanitary systems, as well as the handling of solid and hazardous substances, including their disposal.

03 Campus Accessibility

CWU strives to make university life accessible to students and employees with disabilities. Interior and exterior designs of our buildings need to eliminate accessibility barriers. For more information, please see <https://www.cwu.edu/disability-services/>

04 Areas of Rescue Assistance

Please refer to Division 020302 - Stairs and Areas of Rescue Assistance.

05 Buildings Configuration



Minimize the ratio of the surface area of walls and roofing to the gross building area as much as possible to reduce heat loss and/or heat gain. Design roofs to shed snow, ice and rain in a controlled manner and away from the path of building occupants. All entries and exits must be protected from snowfall by their specific roof design, not by roof-level barriers.

06 Acoustical Privacy

These guidelines apply to all rooms requiring acoustical protection and/or isolation. The items to be considered as general design considerations are as follows:

- a. All plumbing penetrations in walls must be caulked airtight with acoustical caulk.
- b. Where recessed fixtures of any type are installed (e.g., medicine cabinets, fire extinguishers, electric panels, drinking fountains, bookcases, etc.,) the Consultant must ensure that the required acoustical isolation extends behind these elements.
- c. Installation of noise-generating equipment (such as telephones, drinking fountains, vending machines, etc.) should be avoided on walls or rooms requiring acoustical protection.
- d. Use surface-mounted fixtures in rooms adjacent to areas requiring acoustical protection to minimize sound transference.
- e. Locate doors to rooms requiring acoustical protection so that neighboring rooms do not have adjoining doors or openings on opposite sides of corridors facing each other. In cases where acoustical isolation is imperative on both sides of corridors, all doors should be staggered.
- f. Avoid placing doors to rooms requiring acoustical isolation opposite to stairwells, elevator lobbies or restrooms.
- g. When possible, the gap at the bottom of all doors should not exceed 1/2".
- h. Do not locate restrooms (public or private) or lounges directly over rooms requiring acoustical protection, especially rooms having non-carpeted flooring.
- i. Separate studs, with a structural in-wall air gap, must isolate the jambs of all heavily-used corridor doors from any adjacent rooms requiring acoustical isolation.
- j. Mechanical equipment, piping and conduit in spaces above, beside, or below rooms requiring acoustical isolation must be vibration-isolated from walls, floors and ceilings.



- k. Demising walls for general purpose instructional spaces should have a Sound Transmission Coefficient (STC) rating of 50, although higher ratings may be required depending on the room(s) proximity to noise-generating spaces such as mechanical rooms, elevator(s) shafts, restrooms, etc. Ceiling height and material(s) shall provide a Noise Reduction Coefficient (NRC) of .55 to .65.
- l. Back-to-back utility installations shall be avoided. Place these installations one stud spacing apart to avoid sound transmission.

07 Conveyance Standards

Please refer to Division 140000 Elevators.

08 Parking Lots

The following goals provide the basis for this section:

- a. The Architect/Engineer must consider snow removal, parking lot(s) sweeping operations, and the City of Ellensburg Design Standards when developing parking lots layouts.
- b. ADA parking shall be as close to the building entries as possible.
- c. Electric Vehicle (EV) parking shall be considered early in site design and is a LEED credit CWU encourages.
- d. All parking lots to have Type A (curb & gutter) curbs.
- e. All parking stalls width shall be nine feet (9') minimum.
- f. Snow Removal and Storage. In all parking lots, provide an adjacent area, suitable for snow storage, equal to fifteen percent (15%) of the entire parking lot area. If this is a landscaped area, the landscape design must be proven to withstand any impacts of snow removal and storage.
- g. All parking lots must have an emergency (blue light) phone.
- h. All precast concrete bumpers shall be kept to a minimum. When provided, they shall be anchored with two (2) 5/8" smooth bars, twenty-four inches (24") long, minimum.
- i. Parking lots lighting must be per CWU Standards (Verify requirements with the Project Manager).
- j. Daily permit dispensers must be drive-up type placed in a location that does not affect traffic flow.
- k. Parking lot designs shall provide parking signs that meet CWU parking signage requirements, such as: permit requirements, staff parking, carpool spaces, etc. Coordinate signage requirements with CWU PM.



09 Ergonomic Design

CWU strives to provide ergonomic equipment and furniture to improve the safety and health of people. For example, when designing reception spaces, we prefer avoid fixed work surfaces, but rather provide an ergonomically adjustable desk behind a reception counter. Please refer to <https://www.cwu.edu/ehs/ergonomics> for more information.

10 FF&E (Fixtures, Furnishings & Equipment)

A/E Teams shall coordinate with CWU PM regarding the level of FFE design to include in the contract. A/E team shall provide CWU with furniture layout plans established during design, as well as sample finishes for use in FFE purchases.

11 Signage

CWU has standards for exterior wayfinding, building monument signs and interior signs. Please coordinate with CWU PM the number and locations of building monument signs to provide in GC contract, and to provide CWU standard interior signs, preferably in the GC's contract. See Division 102000 for CWU sign standards. One bronze dedication plaque shall be provided and installed within the GC contract. Coordinate plaque verbiage with CWU PM prior to manufacture. See Appendix 340008 for sample bronze plaque.

12 Campus Branding

Capital projects are a reflection of CWU's brand. It is important to consider CWU's brand while designing a new (or renovated) facility. For signage and experiential graphic design in the built environment, refer to CWU's brand identity standards at cwu.edu/brand. The standards contain guidance on messaging, official color codes, university fonts, logos, and more.

13 Safety & Security

Safety:

- I. Notify the University's Department of Environmental Health and Safety (through the Project Manager) of any anticipated or actual hazardous waste generated by the project.
- m. Materials Safety data Sheets (MSD) for all materials used in the project are an essential part of the required Project Closeout documents to be provided to the University. Any and all materials used in CWU projects shall be asbestos and lead-free.

Campus Security:



- a. General. Security is always needed for people, building spaces and equipment. At a minimum, provide a two inch (2") empty conduit installed from building telecommunications room to building telecommunications room and a one-half inch (1/2") empty conduit at all exterior exit doors tied back to telecommunications room(s) for future connection to a security system. Limited access to labs, offices and main computer rooms are always a concern. Access may be by means of keys or magnetic card system(s). In some cases twenty-four (24) hour surveillance may be required.
- b. CEPTED: CWU strives to meet International CEPTED (Crime Prevention Through Environmental Design) recommendations. During Schematic Design and again during Design Development, provide CWU with an analysis of CEPTED recommendations integrated into the design and which are not feasible to incorporate.
- c. Security Levels. In general, there are three different levels of security in most campus facilities although in special cases a fourth level may be required.
 1. Level One (1). Public and Semi-Public Spaces. This security level applies to public spaces with intense traffic and no clear ownership definition. Among the public spaces are: lobbies, unrestricted public corridors, vestibules, classrooms, stairs, elevators, public restrooms, food service facilities, bookstore(s), recreation rooms, parking facilities, etc. Examples of semi-public spaces are: reception areas, seminar rooms libraries/resource centers, theaters, lecture halls, auditoriums, study areas and conference rooms. The following security measures are recommended for public and semi-public spaces:
 - a. Clearly defined hours of use.
 - b. Well-lighted entries, lobbies and corridors.
 - c. A view into the space(s) before entering.
 - d. Doors lockable only by maintenance staff or Campus Police.
 - e. Visibility from adjacent occupied spaces.
 - f. Emergency telephones linked to 911.
 - g. Easily identifiable and accessible exit routes.
 - h. Fire/smoke alarm system.
 2. Level Two (2). Private and Locked Semi-Public Spaces. Parts of a facility may be secured by locked doors. In those areas, traffic flow is smaller and controlled and more valuable equipment and/or risk factors are involved. Examples of private spaces at this level include: faculty and staff offices, teaching labs, exercise facilities, health and safety areas, lecture halls preparation areas, projection booths, dark rooms, private toilets and baths, special collections areas, general museums and exhibit spaces, mail rooms, police and security areas, campus operation and maintenance spaces, building mechanical and electrical rooms. In addition to the security measures recommended for Level One spaces, these areas should include the following:
 - a. Secured doors with inside, vandal-proof, or pinned hinges and



- latch guard.
 - b. Lockable windows.
 - c. Controlled/programmable keying system.
 - d. Non-lift sliding windows or doors (if used).
3. Level Three (3). Secure Spaces. Among these are the following: high-value equipment holding spaces, special collection areas, high value exhibit spaces, supply rooms, computer mainframe rooms, special secured areas, confidential file rooms and vaults. The security requirements for these spaces must be determined on a case-by-case basis, but as a general rule of thumb the following may be considered in addition to all the security features noted before:
- a. Motion Sensors
 - b. Intrusion Alarm(s)
 - c. Electronic Surveillance
 - d. Time clock access restrictions
 - e. Security guard/patrol intervals
 - f. Special ID detection/access systems
4. Exterior Security. The protection of people and vehicles at building exteriors is extremely important. Security at walkways, entries, loading and unloading areas, near ground floor windows and building indentations can be significantly enhanced by applying the same principles followed in the design of other public spaces. Exterior illumination should never be below one (1) footcandle and all plantings which may serve as a hideaway must be kept below three feet (3') in height or above six feet clear trunk with a clear visibility zone between them. All exterior lighting should be vandal-resistant, directed downward and of high-pressure sodium or mercury vapor types. Refer to exterior lighting standards in Division 16, section 16530.
5. Public Emergency Telephones. Provide public/emergency telephones (Blue Light Phones) at strategic locations throughout campus.
6. All elevators shall have the capability to be key-operated after regular working hours.

14 Exterior Walkways

Please refer to Division 033000 Concrete for walkway requirements.

15 Room Numbering Protocol

CWU follows a building room numbering protocol. A/E teams must refer to Appendix "340007 – Protocol for Floor and Room Numbering" when numbering their plans. Prior to the first construction document submittal, the A/E team shall forward proposed plans with room numbers, so CWU can review for consistency with our room numbering protocol.

16 Displays



Consultant must verify corridor display(s) cabinets, digital displays and/or bulletin board(s) requirements with the Project Manager during the Schematic Design phase, but prior to the Schematic Design Submittal.

17 Miscellaneous

- a. Doors on opposite sides of corridors shall be offset to prevent direct view from one room to the other.
- b. No vending machines shall be located in main public corridors. Use vending vestibules and coordinate the number of vending machines with CWU PM early in the design.
- c. All corridors must have 125 volts, 20 amps, GFI duplex outlets located no farther apart than eighty feet (80') from each other.
- d. Roof-Mounted Equipment shall be minimized. All roof-mounted equipment shall have stair access and be fully screened from street level and other building's views.
- e. Exterior doors shall be recessed and/or protected from snow, ice and water. This requirement may be waived for some emergency exits. Verify specifics with the Project Manager.
- f. Construction Controls. Limits to the work, haul routes, staging areas, access points and construction fences shall be shown on the contract documents.