powered by feet first

feet first policy

taking a stance to advance walkability

Contact us for information about Feet First

314 1st Avenue S
Seattle, WA 98104
www.feetfirst.org
info@feetfirst.org
206 652 2310

Pedestrian Friendly Campus Building Guide

Prepared by Feet First for the University of Washington

Contents

Campuswide - Necessary

Campus Layout

The university campus should balance open space with building density to avoid a sprawling scale. As students and employees have strict time routines (e.g., as little as 10 minutes between classes), expanding the campus too large will discourage walking and force students to drive around campus.

Similarly, some services are needed by a wide variety of users. Administrative and recreational facilities such as cafes, fitness gyms, security offices, and student activity offices should be distributed across campus for easier access.

Construction Mitigation

Minimize the impact of a construction project on the pedestrian and bike path network, transit access, and building entrances. It is better to build overhead protection than to close a pathway at a construction site.

feet first
promoting walkable communities

Pedestrian Friendly Campus Building Guide

If closing a pathway is unavoidable, it should be done for as short a time as possible, and a well-signed alternate route must be provided. If the closed pathway is next to a parking area or a three or more lane street, then parking or a vehicle lane should be transformed into a pedestrian/bicycle detour route. Avoid pedestrian and bike detours that require crossing to the other side of a street and back again.

Other Amenities

Amenities such as pedestrian-scale lighting, drinking fountains, garbage and recycling containers, rain canopies, patios, and plazas can greatly improve the walking environment.

Pedestrian-scale lighting should be bright enough to distinctly illuminate the intended pedestrian routing, blend into the ambient lighting conditions, and emanate from appropriately-scaled fixtures. They should be placed so as to eliminate light pooling and minimize contrast shadows.

The size of a patio or plaza should be a function of the adjacent feeder pathways' pedestrian load, its connectivity among routes, the scale of surrounding environments, and their intended or expected use.

Pathway Width

Pedestrian pathways should be wide enough to comfortably accommodate all users. The appropriate path width varies as a function of the volume of walkers, their walking speed, and how much space they need walk comfortably. The following guide is appropriate for a generic "walking commuter:"

Less than 50 users per hour at peak = six feet
Between 51 and 150 users per hour at peak = eight feet
More than 151 users per hour at peak = twelve feet

These numbers may need adjustment based on particular conditions. For example, pathways near entrances, scenic attractions, view corridors, and congregation areas might need to be wider. Space for street furniture should be in addition to the pathway width.

Proximity to Resources

Within a ½ mile walk (route distance) there should be access to food, shops, park or open space, and a place to sit and relax.

Proximity to Transit

Ideally, new buildings should be within ¼ mile of a transit stop (route distance) so that transit is close and convenient. At the very least, they should be no further than ½ mile from a transit stop.

Sightlines

It is important to maintain clear sightlines between pedestrians, cyclists, and vehicles to prevent collisions where roads and pathways cross. However, where sightlines cannot be maintained, the Federal Highway Administration's Manual on Uniform Traffic Control Devices provides guidelines for warning signage. Vehicle parking and unloading should not be allowed where they might obscure sightlines.

Cover photo courtesy of Flickr user sea turtle.

feet first
promoting walkable communities

Pedestrian Friendly Campus Building Guide

Wayfinding – Pedestrian Pathways

Paths that connect buildings to the larger pedestrian network should include wayfinding elements in the path design to communicate thematic information and indicate the approach to a building entrance. For example, use one material for paving the main paths, and a different material for the spur paths to buildings. Inlay color, shaped brick, and icons embedded into the path can also be used to communicate where a spur path is heading. Clear sightlines keeping noteworthy landmarks in view also assist people finding their way around the campus.

Wayfinding – Transit

Provide directional signage to transit, particularly near a building's main entrance. Additionally, transit locations should be clearly noted on all campus maps.

Pedestrian Priority Crossings

If a building is separated from the rest of campus or other major pedestrian generators by a vehicle thoroughfare, provide convenient marked crossings to connect to the pedestrian network. If the pedestrian crossing load on the vehicle road is more than 100/any four hours or 180/and one hour and there are fewer than 60 gaps of sufficient interval to permit pedestrian crossing, install an on-demand traffic signal and/or in-roadway warning lights at marked crosswalks.

Paving Surfaces

Surfacing materials should be selected for the best combination of drainage, traction, and comfort.

Additionally, both vehicular and pedestrian paving surfaces must be universally accessible according to the standards set forth in the Americans with Disabilities Act (ADA) regarding texture, joinery, slope, drainage, and associated site furnishings. Pavement color and finish are also constrained by reflectivity, glare, and permeability needs as they relate to climate setting and local code requirements (see Pedestrian & Streetscape Guide, Georgia Department of Transportation, Toolkit 2: "Accessibility"). These requisites have not and should not severely restrict the designer from differentiating the intended uses of the paved surfaces, fully developing visual and tactile textural clues, or creating a sense of place.

Campuswide – Recommended

Interactive Art and Landscaping

Pathside landscaping should support the use of pathways as a venue for socialization, relaxation, and contemplation. These purposes can be enhanced by stimulating and attractive artwork and other hardscape features.

Shared Bikes

Provide a campus-wide program of shared or free bikes to make it easy for anyone to use a bicycle around campus. These types of programs have been demonstrated as effective in several cities in Europe including Rennes & Paris, France, and Oslo, Norway, as well as colleges in the U.S. (including the University of New England and Vassar College). Washington, D.C. now has a program sponsored by Clear Channel Outdoor, the first of the European sponsors. These programs vary considerably in intent, costs, and success, but indicate strong commitments to

reducing SOV traffic and upgrading pedestrian/bicycle environments. Additionally, University of New England has entered into a relationship with Zipcar to provide reduced rental rates to encourage students to matriculate car-free.

Some example programs include:

In Paris – City wide, ubiquitous and popular:
http://www.nytimes.com/2008/07/13/world/europe/13paris.html

At Vassar – Pink Donation:
http://sharedbikes.vassar.edu/

At University of New England – Zipcar & Free Bikes for Freshmen:
http://pressherald.mainetoday.com/story.php?id=206078&ac=PHnws

In Washington, D.C. – sponsored by Clear Channel Outdoor
https://www.smartbikedc.com/program_information.asp

Building Exterior – Necessary

Bicycle Parking

Bicycle parking should be available near primary and secondary entrances. However, bicycle parking should be designed so as to minimize conflict between bicyclists and pedestrians. Bike racks should not dominate the pedestrian area at the entrance of a building. Additionally, bicycle parking should be sited on a paved surface, with appropriate lighting and shelter to protect from rain and snow (UWMP-Seattle Campus Development Program, p. 66).

Covered exterior bicycle racks should be installed to provide enough spaces for ten percent of the building population faculty, staff, and paid student workers) plus five percent of the maximum student classroom capacity, or twenty-four spaces, whichever is greater. However, if a greater demand for bicycle parking is identified during site programming, this increased demand should be provided.

Secured bike parking should be installed to provide enough spaces for three percent of the building population or ten spaces, whichever is greater. However, if a greater demand for bicycle parking is identified during site programming, this increased demand should be accommodated by the project (University of Washington Transportation Services, Building Programming Issues, p. 9).

Entrance Amenities

Building entrances should include transitional walk-off areas and an awning over the entrance porch, thereby creating a covered gathering area with added seating located within twelve feet of the door. They should also have pedestrian-scale lighting.

Vehicle Parking and Access

Every building needs a minimum of three different types of vehicle parking stalls adjacent to the building: load/unload, service/physical plant, and disabled/wheelchair" (University of Washington Transportation Services, Building Programming Issues, p. 8). In some circumstances, however, ADA parking may be the only parking adjacent to a building.

Pedestrian Friendly Campus Building Guide

When a parking lot is associated with a building, the lot should be given a location secondary to pedestrian pathways, bike parking, and transit stops. The most direct path for walkers, bicyclists, and transit riders to the main building entrances should not be through the parking lot.

Do not place a loading, maintenance, or vehicle idling area within fifty feet of the main entrance, twenty-five feet of secondary entrances or exits, near operable windows, adjacent to intake air vents, or where the exhaust or noise would impact the outside non-motorized environment.

Building Exterior – Recommended

Building Siting

Locate new building where they can be efficiently served by the existing transportation network. For example, place buildings close to its feeder street to provide direct pedestrian access from the street and reduce the distance service vehicles must travel through a chiefly pedestrian oriented environment.

Exterior Design

All new buildings embrace the streetscape and create an engaging pedestrian environment along its interaction with the street or path. This will assist will repurposing walls, areas making the areas more visually inviting to walk.

Entrance Location

All building entrances should be designed to pedestrian scale, but large enough to accommodate intense short-term crowding before and after classes and other scheduled events. Building access points should be located and oriented to a convenient transition to the campus pedestrian pathway system. Feeder paths from the main pedestrian network to the entrances of the building should be relatively short and easy to navigate.

Natural Lighting

In siting and orienting new buildings or expansions, consider the shadow the structure will cast. Avoid shadowing places where people are expected to congregate (plazas, main entrances, large seating areas, etc.).

Building Interior – Necessary

Interior Wayfinding

Signage and directories should be placed at entrance points to the building and each floor. These wayfinding aids should encourage use of stairs and be helpful to those who did not use a car to access the site (e.g., directions to transit stops, showers, coat rack/locker facilities, etc.).

Lockers & Showers

Provide shower and changing facilities in the building or within 200 yards of a building entrance, for five percent of Full-Time Equivalent occupants. On average, eight percent of the building occupants will bike, but not all of them need to shower and store clothes. Showers, lockers and restrooms shall be fully compliant with ADA standards for access and safety. If the building will serve people who

may only come once (e.g., performance hall, library, etc.), it is recommended that some lockers will be open to the general public and easy to find.

Lounges and Places to Relax

Buildings should have a wide variety of places where people can relax, wait, study, work together, and meet. These activities require appropriately-sized and scaled spaces (e.g. a nook, larger landing or hallway, a small room), and adequate furniture and amenities (e.g. couch, chair, table, windowsill seat, electrical plug-in, reading lamp). To encourage people to use them, they should be located in quiet, yet convenient, settings. They should be attractive in layout and appointments, and include both natural and controllable light sources with good ventilation at high refreshment rates.

Stairways

The main stairway should be invitingly situated and designed as the primary method for people to move between floors. This is especially true for buildings under four stories (or with the main lobby within three floors of the lowest and highest common-access levels).

The lobby should flow toward the staircase landing, with the elevator lobby located where it is easy to find. Elevators and stairs should terminate at the same location on the upper floors to provide equal access and experiences for all users.

For wayfinding between floors, there should be appropriate signage guiding users to both stairs and ADA access (elevators). At each floor there should be sufficient signage and clear visual cues to maintain user orientation.

Building Interior – Recommended

Signage

Throughout buildings, include signage highlighting the building's conscious design, its place in campus or local history, and local news. This could include, for example, a plaque concerning the design intentions surrounding the staircase's location and configuration in an attempt to elicit dialogue about the built environment, or information about healthy eating and active living, or a community bulletin board, or a display on an aspect of local history. These signs both increase the local knowledge of the space and encourage multiple and alternative uses.

Hallway Network

The configuration of the interior hallways is important to how safe and comfortable people feel. The hallways should provide visual cues about where one is and where one is going. This can be done through patterns of color (e.g. give sections of a building a color theme), frequent transparency to the outside, and/or an intuitive building layout. To improve the sense of safety, avoid narrow and long corridors, dead ends, and low lighting.

Room and Space Co-Location

Cluster rooms or spaces whose functions work together (e.g. place a classroom, computer station, and student lounge together). This will encourage people to connect

uses and trips to make more active use of the space and resources.

Stairwells

In addition to code compliance issues, secondary stairwells should be placed to provide convenient access between floors and emergency access. These secondary exit paths should be considered an important part of the interior circulation and be well distributed throughout a building's layout.

In order for the stairwells to be functional, they must remain unlocked and accessible from each floor. Keep stairwell doors unlocked for access on all floors (except in the case of security risks).

Wayfinding for the stairwells is also important. Provide visibility (within code limits) into each floor (e.g. a window, or a window in the door) and to the outside. Appropriate signage should be located at each floor access point to guide users to their destination.

Provide routine maintenance and cleaning. Enliven the stairwells with color, design elements, murals, etc.

Above is an example of using murals to enliven an environment for people walking. The features on the mural are representative of the neighborhood. Location: Aurora and 45th Street, Seattle WA

Visual Transparency

Provide transparency to the outside on the lower floors of buildings. Windows and glass doors make the outside safer by providing eyes on to the campus, and create a more visually stimulating environment for pedestrians.

In the interior, provide routes for ambient daylight to travel between rooms. The time-dependent qualities of natural light in an interior environment helps users stay oriented and comfortable in a building. Natural light also reduces energy use.

Customer Service – Necessary

Building Assessment and Evaluation

In developing new structures or additions, take advantage of available design and assessment tools. Carry out a proper assessment of the impact that the project will have on the campus over the long term (on health, transportation, community, economic activity, etc.), as well as the impact that will happen during construction (e.g. construction closures, route mitigation, closing of open space, dust and noise levels, etc.). Some recommended tools include the Healthy Development Measurement Tool, LEED certification, walking audits (such as done by Feet First), and a Health Impact Assessment. Additionally, Transportation Services should be included in the discussion of building and site design.

Issue Reporting

Pedestrian Friendly Campus Building Guide

The University of Washington's Accessibility Barrier Report provides a quick and simple means for the community to report accessibility issues (http://www.washington.edu/admin/ada/barrier.htm). This mechanism should be expanded to include barriers to cycling, walking, and transit riding. With active reporting by the community, Transportation Services can gather input on needed maintenance work, wayfinding, aids to accessibility, suggestions on capital projects, etc.

Customer Service – Recommended

Building Activities

Buildingwide events and activities can encourage users to be more physically active. Work to establish teams for intramural sports, and hold open houses, barbeques, and other activities like scavenger hunts. These social and community events can develop the habits and traditions of an active lifestyle.

Event Directions

In addition to car directions, make sure to provide directions for those who travel on foot, bike, and bus. For events that do not necessitate a car, non-vehicular travel should be written as the preferred method of transportation to the event.

Resources

"University of Washington Campus Master Plan," January 2003, Development Program Parts 1-4
http://www.washington.edu/community/cmp_site/final_cmp.html

"Time Saver Standards for Landscape Architects," Harris & Dines, 2nd Edition

"Pedestrian Facilities Guidebook," Washington State D.O.T. et al, September, 1997
ftp://ftp.wsdot.wa.gov/dotshare/LocalPrograms/Walk/PedFacilityGB.pdf

"Transportation Services: Building Programming Issues," University of Washington, Revised: 2001; 2003, pp. 1-11.

"Manual of Uniform Traffic Control Devices," MUTCD 2003 edition, Parts 2C - "Warning Signs," 4 – "Highway Traffic Signals," & 9 – "Traffic Controls for Bicycle Facilities," US Department of Transportation.
http://mutcd.fhwa.dot.gov/

"U.S. Access Board, ADA and ABA Accessibility Guidelines," 2004, with amendments.
http://www.access-board.gov/ada-aba/index.htm

"Pedestrian and Bicycle Facilities in California," California Department of Transportation, July, 2005.
http://www.dot.ca.gov/hq/traffops/survey/pedestrian/TR_MAY0405.pdf

feet first
promoting walkable communities

Pedestrian Friendly Campus Building Guide

"Pedestrian & Streetscape Guide," Georgia Department of Transportation, September 2003
http://www.bikewalk.org/pdfs/sopgeorgia_ped_streetscape_guide.pdf

"Guide for the Development of Bicycling Facilities," American Association of State Highway and Transportation Officials, 1999.
http://www.fhwa.dot.gov/environment/bikeped/design.htm

"Design Standards for US Transportation Infrastructure: The Implications of Climate Change," Michael Meyer, Georgia Institute of Technology
http://onlinepubs.trb.org/onlinepubs/sr/sr290Meyer.pdf

Since 2001, Feet First has worked to ensure all communities in Washington are walkable.

For more information, contact:
Feet First
314 First Avenue South
Seattle, WA 98104

206.652.2310
info@feetfirst.org
www.feetfirst.org

feet first
promoting walkable communities