



AGE-FRIENDLY DESIGN FEATURES IN HOUSES

This house feature list was created to ease adoption by builders and developers. These characteristics are the elements, features, ideas or concepts that contribute to or can be components of a universal house. This list is intended as a guide.

Remember, a key component of universal design is the market appeal of the home and the integration of universal features into the overall home scheme. Universal design becomes a virtually invisible element of a home when done well.

Entrance
Decks
Interior circulation
Bathroom
Kitchens

Switches and Controls
Garages and carport
Switches and Controls
Laundry
Storage

Home Tech
Light and color
Windows

Entrances

- One step-free route
- Site grading and earth work (with foundation waterproofing) and sloping walks at 1 in 20 maximum slope. Avoid ramping if possible.

Other Entrance Features

- One-half inch maximum rise at entrance thresholds.
- Space at entry doors should be a minimum 5' x 5' level clear space inside and outside of entry door for maneuvering while opening or closing door.
- Clear door opening width (32" minimum = 34" wide doors), for all entrance doorways.
- View of callers for all people, including children and seated users through sidelights, wide angle viewers, TV monitors, windows in doors, and/or windows nearby.
- A place to put packages while opening doors: bench (also for seating; an indoor bench near the entry door is also a good idea) or table located on the outside next to the door.
- Address/house number should be large, high contrast, located in a prominent place, easy for friends and emergency personnel to locate.

- Weather protection shelter while unlocking and opening doors, such as porches, stoop with roof, awnings, long roof overhangs, and/or carports.
- Use slatted decking for positive drainage.
- Light for operating at entry doors: focused light on lockset, general illumination for seeing visitors at night, and/or motion detector controls that turn on lights when someone approaches the door to eliminate the problem of dark approaches to home and adds a sense of security.
- Pathway lighting for nighttime safety

Garages and Carports

- Extra length and width inside for circulation around parked cars.
- Consider step-free entrance through this covered route

Decks

- Build deck at same level as house floor.
- Roofs over decks at entrances

Interior Circulation

- Clear door opening width (32" minimum, 34" wide doors), for all doorways.
- Clear floor space (18" minimum) beside door on pull side at latch jamb provides space to move out of the way of the door swing when pulling it open.
- Circulation route (42" minimum width) to provide maneuvering room in the hallways and archways.
- Turning space in all rooms (5' diameter or T Turn).
- An open plan design, minimizing hallways and doorways and maximizing sight lines.
- Floor finishes that minimize glare, are slip resistant, and offer low resistance to walking or rolling. Check on the floor material's Dynamic Coefficient of Friction (DCOF) for a rating of minimum threshold of 0.42 DCOF, as measured by the DCOF AcuTest.

Sliding Doors

- Exterior sliding doors: - choose door systems with low profile tracks.

- Interior pocket doors: When fully open door should extend 2" minimum outside door jamb and be equipped with open-loop handles for easy gripping.
- By-passing closet doors - each panel should create an opening at least 32" clear

Vertical Circulation

- Stair handrails placed on both sides of stairs
- Provide stair geometries of no more than 7 ¾' riser and no less than a 10" tread
- All stairs with closed risers
- Carpeted stair runners – low nap, tightly wrapped. Avoid thick padded carpeting on stair.

Windows

- Crank operated windows.
- Adaptable to power operators whenever possible.

Bathrooms

At least one bathroom on the accessible level must have one of the following accessible bathing fixtures:

- Minimum 5' x 3' (4' preferred), deep curbless shower
- Adequate maneuvering space: 60" diameter turning space in the room (or T Turn) and 30" x 48" clear floor spaces at each fixture. Spaces may overlap.
- Clear space (3') in front and to one side of toilet allows for easy maneuvering to and around toilet.
- Toilet centered 18" from any side wall, cabinet or tub.
- Broad blocking in walls around toilet, tub, and shower allows for future placement and relocation of grab bars while assuring adequate load-bearing and eliminates the need to open up wall to add blocking later.

Fixture Controls

- Single-lever water controls at all plumbing fixtures and faucets.
- Mix valve with pressure balancing and hot water limiter prevents scalding people who cannot move out of the way if water temperature and/or pressure changes suddenly.
- Hand-held shower heads in all tubs and showers, in addition to fixed heads, if provided. Single lever diverter valves if needed.
- Adjustable height, movable hand-held shower head or 60" flexible hose allows easy use by people of all heights.

Additional features for all bathrooms

- Countertop lavatories preferred with bowl mounted as close to front edge as possible.
- Offset controls in tub/shower with adjacent clear floor space allows for easy access from outside the tub with no inconvenience when inside.
- Grab bars, if installed, should not be stainless steel or chrome. Use finishes to match decor.
- Use hand holds and dual use grab bars/towel bars.

Kitchens

- Space between face of cabinets and cabinets and walls should be 42"-48" minimum.
- Single-lever water controls at all plumbing fixtures and faucets or touchless faucets.
- Contrasting color border treatment on countertops. Color or contrast difference allows easy recognition of the edges of counters and the different heights to prevent accidental spills.
- Stretches of continuous counter tops for easy sliding of heavy items, particularly between refrigerator, sink, and stove top, for easy one-level food flow.
- Glare-free task lighting to illuminate work areas without too much reflectivity.
- Under wall cabinet lighting

Storage

- Full-extension, pull-out drawers, shelves and racks in base cabinets for easy reach to all storage space.
- Adjustable height shelves in wall cabinets.
- Pantry storage with easy access pull-out and/or adjustable height shelves for easy reaching of otherwise hard-to-get items.

Kitchens - Appliances

- Side-by-side refrigerator allows easy reach of otherwise hard-to-get items, particularly if pull-out shelving is provided.
or
- Use under counter or drawer type refrigerators and install them for optimum access at 18" - 48" above finished floor.
or

- Bottom-located drawer-style freezer
- Front mounted controls on appliances to facilitate easy reach.
- Cook top or range with staggered burners and front or side mounted controls to eliminate dangerous reaching over hot burners.
- Built-in oven set for one pull-out oven rack at the same height as adjacent counter top.
- Dishwasher raised on a platform or drawer unit, so top rack is level with adjacent counter top, puts bottom racks within easy reach requiring less bending.

Switches and Controls

- Light switches above floor, 42" - 48" maximum, and thermostats at 48" maximum height.
- Electrical outlets, 18" – 24" minimum height, allows easy reach from a sitting position as well as for those who have trouble bending over.
- Electrical panel with top no more than 54" above floor located with a minimum 30" x 48" clear floor space in front.
- Easy-touch rocker or hands-free switches. (See Home Tech)
- Additional electrical outlets at bed locations and desk for equipment, four-plex boxes each side for computer and electronic equipment as well as personal use equipment.

Laundry Areas

- Front loading washers and dryers, with front controls, raised on platforms to reduce need to bend, stoop, or lean over.
- Clear space 36" wide across full width in front of washer and dryer and extending at least 18" beyond right and left sides. (Extended space can be part of knee space under counter tops, sink, etc.)

Storage

- 50% of storage to be no more than 54" high.
- Adjustable height closet rods and shelves allow for flexibility of storage options.

Home Tech

- Entertainment, HVAC, Communications, Security, Lighting, Appliances, and Home Health Tech.
- A way for visitors to communicate with residents, such as lighted doorbell at a reachable height, audio/video intercom/video with mobile phone link, and/or hardwired intercom.
- Motion detector light switches in garages, utility spaces, entrances, and basements.

- Wi-Fi/remote controls for selected lights.
- Remote controls for heating and cooling.

Lighting and Color

- Select dimmable higher lumen LED lighting
- Color contrast between floor surfaces and trim allows easy recognition of the junction of floor surfaces and walls. Avoid glossy surfaces.
- Color contrast difference between treads and risers on stairs.
- Ambient and focused lighting allows lots of light. Lighting that is thoughtful and variable, emphasizing lighting at stairs, entrances and task lighting
- Contrast between counter tops and front edges or cabinet faces.
- Motion sensing lighting at stairs and as nightlights
- Closet lights

Windows

- Windows for viewing, 36" maximum sill height.
- Casements, awnings, hoppers are better ergonomic choices than single or double hung windows

Hardware

- Easy to use, requiring little strength and flexibility:
 - lever door handles
 - loop or D-handle pulls on drawers and cabinet doors—no knobs
 - touch latches