



Universal Design Check List

The following checklist is designed to verify universal design requirements during the design phase of a project.

DESIGN PHASE

DESCRIPTION	YES	NO
Route:		
Provide at least one accessible route from vehicle drop-off (street) to entry door complying with accessible pathways requirement. The accessible route must extend to the public sidewalk (if any). <i>Sec 202.1</i>		
Provide at least one accessible route from parking area(s) to entry door complying with accessible pathways requirement. <i>Sec 202.1</i>		
Pathway:		
All sidewalks and accessible routes must have maximum 1:20 running slopes and maximum 1:50 cross slopes. Surface to be firm, slip-resistant and smooth. Provide minimum pathway width of 42". <i>Sec 202.2</i>		
Parking:		
Provide space for at least one accessible parking space serving this site and connected to the accessible route. The accessible space may be on the street. Signs and striping are not required. The intent of this requirement is to make sure that the space can be provided in the future without requiring additional grading, paving, or curbing. If the project is large enough to trigger accessible parking requirements, provide spaces, signage and striping per City of St.Louis Building Code and ANSI A117.1 requirements. <i>Sec 202.3</i>		
Parking Location - Parking designated for the dwelling should be as close as possible to the house/unit entry and at the same basic level. The intent is to reduce or eliminate any need for residents to negotiate unassisted vertical transitions (ramps etc.) between parking and entry. Multi-level buildings with elevator service to the parking and entry level(s) are acceptable. <i>Sec 202.3.1</i>		
Parking Space Dimensions (Exterior Covered and Garage) - Provide a 9' x 19' minimum area for the vehicle with a minimum 5' access aisle on one side (14'x19' total). Space and aisle to have a maximum 2% cross slope in all directions. Surface must be paved, firm, slip-resistant and smooth. Striping is not required for aisle at single parking spaces. <i>Sec 202.3.2</i>		
Vertical Clearance - Provide 98" minimum vertical clearance at the parking space, access aisle and vehicle approach route. <i>Sec 202.3.3</i>		
Garage:		
Not required. However, if provided, all portions must comply with the following: <i>Sec 202.4</i>		

DESCRIPTION	YES	NO
Attached Garage – If the garage is attached to the house, provide a ramp or other means of entering the house through no-step entry. <i>Sec 202.4.1</i>		
Detached Garage – If the garage is detached, provide an accessible route from the garage to a no-step entry to the house. <i>Sec 202.4.2</i>		
Garage Door – (If provided): Provide a child-proof automatic garage door opener and automatic lighting. <i>Sec 202.4.3</i>		
Entry:		
Provide at least one no-step entry. This should be a primary house/building entry. While it is preferred that the no-step entry be the front entrance to the home, an accessible side or rear entry is permissible when historic or neighborhood requirements preclude access to the front. <i>Sec 203.1</i>		
House Numbers - Provide address numbers at front and back of house. Numbers should be at least 4" tall and contrast with the mounting background by 70% minimum. Numbers should be illuminated or reflective and easily visible at night. <i>Sec 203.2</i>		
Porch and Decks - (If provided): Decks must be accessible from the interior of the dwelling unit. Accessibility may be provided by either step-less transition or ramp. Provide level (no more that 2% slope in any direction) surface with slip-resistant stable finish. No decking gaps greater than 1/4". <i>Sec 203.3</i>		
Trash - Provide an accessible route to trash containers or trash drop-off area. <i>Sec 203.4</i>		
Mail – Provide an accessible route to the mailbox. Mount mailbox within reach range and provide for either forward or parallel approach. <i>Sec 203.5</i>		
Dwelling Units:		
Route – The interior accessible route must be continuous through all spaces and must connect to all required elements. Primary living spaces (e.g. living room, family and dining spaces) must be on the accessible route. <i>Sec 301.1</i>		
Bathroom(s) – At least one bathroom must be on an accessible level and suitable for use by the Primary Bathroom requirements. All additional bathrooms must comply with Secondary Bathroom requirements. <i>Sec 301.2</i>		
Bedroom(s) – At least one bedroom must be on an accessible level and connected to the accessible route. <i>Sec 301.3</i>		
Closet shelf supports – Provide adjustable shelf supports extending from floor to ceiling in an accessible bedroom closet. Provide blocking for additional shelving and rod supports in all closets. <i>Sec 301.4</i>		
Kitchen – Must be on an accessible level, connected to the accessible route. <i>Sec 301.5</i>		

DESCRIPTION	YES	NO
Doors – All exterior door openings must comply with Entry Door requirements. All interior doors must comply with Interior Circulation requirements. Exception: Doors to shallow closets (24" deep or less) and similar spaces which are not meant to be entered. Utility closets may have door openings narrower than 32" and be deeper than 30" so long as the air handler filter can be easily accessed from outside the space. <i>Sec 301.7</i>		
Laundry – Provide space for parallel approach to both appliances in a side-by-side position on an accessible level. Provide rough-in for combination washer/dryer unit. Set hook-ups to permit future installation of 9" tall platform under units. If a parallel approach, the preferred laundry design, is not feasible, the developer may instead purchase and install (at developers expense) stacking units with controls at or below 54" above the finish floor and service openings within reach range. <i>Sec 301.6</i>		
Windows:		
Sill Height – Locate windows with sills at maximum 32" above the finish floor except over casework. <i>Sec 303.6.1</i>		
Operating Mechanism – Select windows that are easy to operate. Crank casements requiring less than 5 lbs. of effort are preferred. <i>Sec 303.6.2</i>		
Window Locks – Mount locks within reach range. <i>Sec 303.6.3</i>		
Hardware, Fixtures and Fittings – All door hardware, cabinet hardware, faucets, bath and shower valves, diverts and similar items are to be lever and/or wire handle or D-pull (loop) type. All such items must operate easily using a single closed fist. Exception: Panel box and HVAC filter access panel. <i>Sec 301.9</i>		
Primary Entry:		
Door Width and Type – Minimum 36" wide, standard pivot (hinged) door. <i>Sec 302.1.1</i>		
Sidelight – Provide a full length sidelight or other means of seeing visitors from both a standing and seated position. <i>Sec 302.1.2</i>		
Threshold – Maximum threshold height is 1/2" beveled or 1/4" square edged. <i>Sec 302.1.3</i>		
Doorbell – Internally illuminated doorbell, wired to allow retro fit of visible internal signal. Mount doorbell at 36" above level landing outside the door. <i>Sec 302.1.4</i>		
Closer – (If provided): Closer must comply with current ANSI standards for closing speed and force (see ANSI A117.1 1989, 404.2.8-9). <i>Sec 302.1.5</i>		
Weather-stripping – If weather-stripping is installed, the weather seal must allow operation of the door with 5 lbs. of force or less. Seal must not increase the height of the threshold. <i>Sec 302.1.6</i>		

DESCRIPTION	YES	NO
Clear Floor Space – Provide 5' x 5' maneuvering space inside and outside of entry door. At the exterior side of the door, provide a full turning circle (60" radius) of level space clear of the door swing. <i>Sec 302.1.7</i>		
Covered Entryway – Shelter entry from weather with an overhang. <i>Sec 302.1.10</i>		
Lighting – Provide outdoor lighting either in porch roof/ceiling or with a sconce mounted on the latch side of the door. Minimum 100 watt capacity fixture. <i>Sec 302.1.9</i>		
Secondary Hinged (Pivot) Exterior Doors:		
Door - Minimum 36" wide. <i>Sec 302.2.1</i>		
Clear Floor Space – Verify that there is a 5' x 5' maneuvering space on the pull side(s) of the door and a minimum of 36" x 48" approach on the push side. <i>Sec 302.2.2</i>		
Exterior Sliding Doors:		
Decks may be accessed through sliding glass doors, but these may not serve as the primary entry to the building. The maximum height for the sill/threshold of a sliding glass door is 3/4". Sliding glass doors may require up to 8 lbs. of force to operate. Provide a 42" x 48" approach space to both sides of the sliding door. <i>Sec 302.3</i>		
Interior:		
Interior Door - Minimum 32" wide. <i>Sec 303.1.1</i>		
Clear Floor Space – Provide 18" clear approach on pull sides of all doors and a minimum of a 30" x 48" approach space on the push side. On the push side the approach may be forward or may be from the side in a 42" minimum width hallway. <i>Sec 303.1.2</i>		
Floor Surface Changes - 1/2" max. beveled threshold condition between flooring material changes. <i>Sec 303.1.3</i>		
Hallways – Provide minimum 42" hallways. <i>Sec 303.2</i>		
Floor Surfaces – Use non-slip and dense surface materials. <i>Sec 303.3</i>		
Mirror - Provide at least one full length mirror in the bedroom and/or bathroom(s) that connect to the accessible route. <i>Sec 303.5</i>		
Interior and Exterior Stairs (If Provided):		
Max. riser height 7", minimum tread depth 11", minimum width 42". <i>Sec 303.9.1</i>		
Handrails both sides. Extend rails 12" beyond top and bottom risers and parallel to floor. Return rails to wall or newel. <i>Sec 303.9.2</i>		
Minimum width 42" <i>Sec 303.9.3</i>		
Minimum landing depth 48". <i>Sec 303.9.4</i>		
Rough-in power for future lift. <i>Sec 303.9.5</i>		

DESCRIPTION	YES	NO
Kitchen:		
General Kitchen Layout – Provide parallel approach space for refrigerator, microwave, sink and stove. If using “U” or parallel/galley type kitchen, provide 60” between front of counter to front of opposite counter. If using “L” kitchen, provide 42” between the counter and island (if any). Provide continuous center surface between stove and sink and provide space for microwave and toaster oven on counter surface. <i>Sec 304.1</i>		
Sink:		
Faucet – Provide a single lever faucet with separate sprayer. <i>Sec 304.2.1</i>		
Piping – Insulate sink pipes. <i>Sec 304.2.2</i>		
Fixture Bowl – Provide bowl with 6-7” maximum depth with drain set towards back of the bowl area. Disposal should be clear of knee space. <i>Sec 304.2.3</i>		
Approach Space – Provide front approach knee space for sink. Make cabinet front fold back or provide removable base. <i>Sec 304.2.4</i>		
Flooring – Finish floor under sink area. <i>Sec 304.2.5</i>		
Counters:		
Material – Avoid mirror finish counters such as gloss laminate. Polished stone is acceptable. <i>Sec 304.3.1</i>		
Workspace – Include a section of adjustable counter surface with knee space below; or space for a free –standing 24” x 36” table while maintaining required clearances. <i>Sec 304.3.2</i>		
Appliances:		
Range – Provide front controls at range. <i>Sec 304.4.1</i>		
Hood – Provide switched exhaust control within reach range of person using the range. <i>Sec 304.4.2</i>		
Refrigerator – Include rough-in for icemaker. Provide space for side-by-side appliance or bottom freezer appliance. <i>Sec 304.4.3</i>		
Microwave – (If provided). Place within reach range. <i>Sec 304.4.4</i>		
Kitchen Storage – Provide at least 50% of the storage space within reach range. <i>Sec 304.5</i>		
Lighting - Provide fixturing sufficient to provide 55 foot-candle illumination throughout the kitchen workspace. Measure light levels at countertops, appliances and sink. <i>Sec 304.7</i>		
Bathrooms:		
Primary Bathroom – Provide at least one bathroom on the accessible route with toilet, lavatory, and tub/shower or shower and adjacent storage for personal care items. Do not swing door over any required clear floor space for fixture approach. Room must be large enough to provide turning space for a person using a wheelchair. <i>Sec 305.1</i>		
Phone – Provide phone jack. <i>Sec 305.1.1</i>		

DESCRIPTION	YES	NO
Toilet – Locate 18” to center off a sidewall in a clear space minimum 48” wide, 60” deep. Install a fixture with flush valve on the open side of the toilet. <i>Sec 305.1.2</i>		
Seat – Provide toilet with seat height of 17” Exception: unit design for occupant requesting higher or lower fixture. <i>Sec 305.1.3</i>		
Tub – (If provided). Provide a 30” x 48” approach space aligned with side of tub. <i>Sec 305.1.4</i>		
Controls – Locate tub/shower controls the side of the fixture centerline. <i>Sec 305.1.5</i>		
Blocking – Provide blocking for grab bars in a variety of positions at toilet, tub and shower areas. <i>Sec 305.1.6</i>		
Shower – Provide personal shower unit on 30” minimum slide bar. Include shower head with cut off thumb control at head. Provide minimum 60” long hose. <i>Sec 305.1.7</i>		
Shower Stall – (If provided). Minimum shower size is 36” square (interior clear dimensions) with blocking in the walls for grab bars and seats. 1/2” max. high curb at 36” square units. <i>Sec 305.1.8</i>		
Lavatory – Provide 30” x 48” approach space for both parallel and forward approach. Provide finished floor under the lavatory and provide one of the following: removable cabinet, fold back vanity doors or wall hung fixture/counter with knee space. <i>Sec 305.1.9</i>		
Mirror – Bottom edge 38” max. above finish floor, top edge 66” minimum above finish floor. <i>Sec 305.1.10</i>		
Lighting – Provide extra lighting at sides or above lavatory and in or adjacent to the tub/shower area. Maintain minimum 55 foot-candle light levels in the bathroom. <i>Sec 305.1.11</i>		
Power – Provide at least one (1) GFCI electrical outlet located within reach range. <i>Sec 305.1.12</i>		
Secondary Bathroom(s):		
Clear Space – 30” x 48” clear floor space beyond the reach of the door swing. <i>Sec 305.2</i>		
Toilet – Locate 18” to center off a sidewall in a clear space minimum 48” wide, 60” deep. Install a fixture with flush valve on the open side of the toilet. <i>Sec 305.2.1</i>		
Seat – Provide toilet with seat height of 15” (17” optional). <i>Sec 305.2.2</i>		
Tub – (If provided). Provide a 30” x 48” approach space aligned with side of tub. <i>Sec 305.2.3</i>		
Controls – Locate tub/shower controls the side of the fixture centerline. <i>Sec 305.2.4</i>		
Blocking – Provide blocking for grab bars in a variety of positions at toilet, tub and shower areas. <i>Sec 305.2.5</i>		

DESCRIPTION	YES	NO
Shower – (If provided). Minimum 34” square with blocking in the walls for grab bars and seats. Provide 30” x 48” clear floor space adjacent to the open side of the shower. <i>Sec 305.2.6</i>		
Lavatory – Provide a 30” x 48” clear floor space for either parallel or forward approach centered on bowl. <i>Sec 305.2.7</i>		
Life Safety, Environmental and Electrical Elements:		
Smoke Alarms – Wire to allow for future installation of visual alarms. <i>Sec 306.1</i>		
Thermostats - Mount at 48” above finish floor in a position that allows either forward or parallel approach. Unit should have large, legible control markings and be user friendly. <i>Sec 306.2</i>		
Electrical Panel – Provide parallel approach space for electrical panel. Mount with top operating switch/shut-off at 54” above finish floor and bottom of panel no less than 18” above finish floor. <i>Sec 306.3</i>		
Outlets, phone jacks and data ports – Mount at 18” above finish floor minimum. <i>Sec 306.4</i>		
Switches – Mount switches at 36” – 42” above finish floor. Use luminous rocker or toggle switches. <i>Sec 306.5</i>		