# around the HOUSE

## Roll Into an Accessible Garage

**When we arrive home the garage** needs to accommodate all of our mobility equipment. An orderly and clean garage area is necessary for general safety and to avoid tripping. Good quality lighting is required, as a poorly lit garage could impair balance for most anyone.

In new-home construction, a no-step entry is one of the most basic accessibility requirements. The no-step entry is preferred at all entrances but absolutely must be located at the most often used location, and that is usually the rear carport/garage.

### Ramp It Up

If you're remodeling, the obvious alternative is a ramp. However, ramps require a long length and will use up much of the allocated garage/carport area.



The electrical panel should be free of clutter and have a minimum 36-inch-by-48-inch clear space in front of it.

The Americans with Disabilities Act (ADA) maximum slope of 8.3% is often too steep for elderly independent use without a power chair. Remember, ADA is a commercial code only and shouldn't be used as a basis for residential universal design.

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A good alternative to the ramp is a chair lift that has a gate but isn't enclosed and requires about 6 square feet. These will rise from 6 inches to 12 feet.

This is often the best solution on remodels, flood-prone areas as well as hilly terrain locations where the garage may be at a lower elevation. Make sure it has a battery backup as is usually standard.

A 5-foot-by-5-foot nonskid, flat space adjacent to the no-step entry is a good way to go. This allows for a 5-foot wheelchair turning diameter, making it easier for a wheelchair user to maneuver. This area should be absolutely flat.

### Getting In

Entry doors all should have a maximum half-inch threshold, so wheelchairs and walkers can maneuver easily into the house.

There also should be a 2-foot clearance on the lever side of the door for wheelchair-footrest clearance, allowing you to reach the door lever.

For the sake of convenience, have a bench or table nearby, so you can set down bags and easily open the door. This can also prove a useful safety feature, as it provides stability for anyone entering the home.

The older 2006 International Residential Code (IRC) required that

the garage door be 6 inches minimum lower than the house entry door. The 2009 IRC code doesn't!

However, this may still be a code requirement in your area, so be sure to verify. The reasoning was so fluids and gases would not enter the house.



An illuminated garage door opener and automated timed garage light should be selected with a battery backup.

In new construction, I slope the slab ¼ inch per foot (which is just over a 2% slope). This lowers the garage door bottom 6 inches over a 24-foot length. So the 5-foot flat entry mentioned earlier is at the door in front of the 24-foot sloping slab.

For this reason, I design wheelchair-accessible enclosed garages 29–30 feet deep. The additional space along the front of the sloping slab is used for recycling bins, garbage and yard storage. A sink can be specified and used for gardening, cleanup after car work, etc.

### Space It Out

A universal-designed garage or carport must be larger to allow room at the side of the car if it has an integrated chair ramp. The reasoning is

The basic design for a two-car garage should be 30 to 32 feet wide, while a single-car garage or carport should be a minimum of 14 feet wide.

similar to wider ADA parking stalls and serves the same purpose.

A 5-foot space between cars may be sufficient in a double garage, but an 8-foot-wide aisle is preferred, allowing for the car ramp and bottom ramp turnaround chair space.

There should also be a 2-foot-6-inch to 3-foot space on the non-wheelchair user side so the door does not hit the house wall or carport posts.

In new construction, I design a double-car garage from 30 to 32 feet wide and a single-car garage or carport a minimum 14 feet wide. An 8-foot carport clearance or 8-foot-high garage door is necessary, as some adaptive vans require a higher top clearance.

I prefer a double-car garage with side entrance doors so the doors do not overwhelm the house from the street view.

### The Right Spark

Make sure the electrical panel (if in the garage) is no higher than 48 inches to the top switch so you can reach and see it.

It should be free of clutter and have a minimum 36-inch-by-48-inch clear space in front of it for a side wheelchair approach. Electrical outlets should be 18–24 inches above the floor so they can be reached without bending.

Task lighting should be included at the entry area and in the additional front work area as well as directed toward the door or switches and not toward your face. An illuminated garage door opener and automated timed garage light should be selected with a battery backup.

Adequate light throughout the garage is also critical. In a double-car garage that is 30–32 feet wide, I specify a minimum of six evenly spaced 1-foot-by-6-foot vapor-tight fluorescent fixtures.

With proper lighting and the additional space in front of the cars, the garage also doubles nicely as a workshop area. The floor surface should be nonslip for safety.

There is more to consider in the garage, but that is a good start.

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