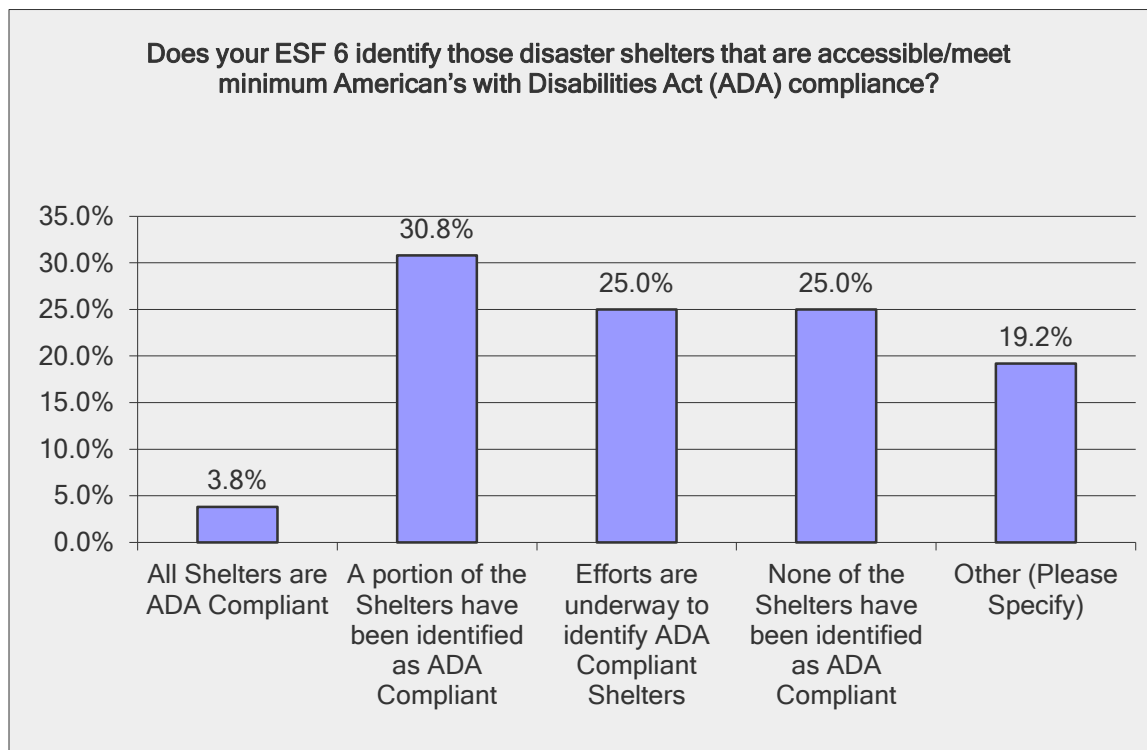


Shelter Accessibility in Iowa

Title II of the American's with Disabilities Act (ADA) requires that state and local governments provide emergency and disaster related services, activities, communication and facilities in the most integrated and accessible setting to avoid discrimination against people with disabilities (PWD). This includes all services provided by third parties such as Red Cross, faith based groups and private nonprofits that are acting in a response capacity.

The Disability and Health Program (DHP) at the Iowa Department of Public Health has been providing training, technical assistance and accessibility surveys of shelters to ensure inclusion and ADA compliance. In an effort to determine how many shelters in Iowa were accessible county emergency coordinators were asked to respond to a series of questions on shelter planning and compliance with the ADA. Completed in the fall of 2012, 52 out of 89 coordinators responded. Nearly 35% reported that they have an accessible shelter located within their county plans, 25% reported they have efforts underway and another 25% reported that none of their identified shelters are compliant. The "Other (Please Specify)" 19% didn't respond or had an outside entity providing sheltering and/or did not know.



Identifying accessible disaster shelters may be challenging, especially in rural areas but temporary modifications can be a practical way to meet minimum ADA compliance. Because disaster shelters are considered a temporary structure, temporary modifications can be used; however they must be safe, sturdy and meet ADA specifications. Some municipalities may have restrictions on temporary structures and signage. Determine ahead of time if any of these modifications are possible or if a waiver could be issued in the event of a disaster/emergency. More compliance information can be found on www.ada.gov .

Disaster shelters typically consist of four main areas – parking, entrance, common areas (sleeping/eating/case management), and bathroom/shower. If space allows quiet rooms are desirable elements to sheltering, providing a much needed space to get away. The following are ways to increase accessibility and meet minimum ADA requirements using temporary modifications.

Parking

If the parking lot already exists at the identified facility marked parking spaces does not meet minimum ADA requirements simply designate temporary stalls closest to the accessible entrance, like the photo posted below.

- Three stalls = two accessible stalls
- Use the middle stall as an access aisle, blocking with an orange cone for example (orange cones are easy to move if needed)
- Stalls should be near accessible side walk and entrance
- Stalls should be on a flat, level surface
- Post temporary upright signs using the universal symbol of accessibility at least 60 inches (5 feet) from the lower edge of the sign to the finished surface
- One space needs to be van accessible, with the access aisle on the rider's side of the vehicle
- The van accessible stall needs to be closest to the accessible entrance

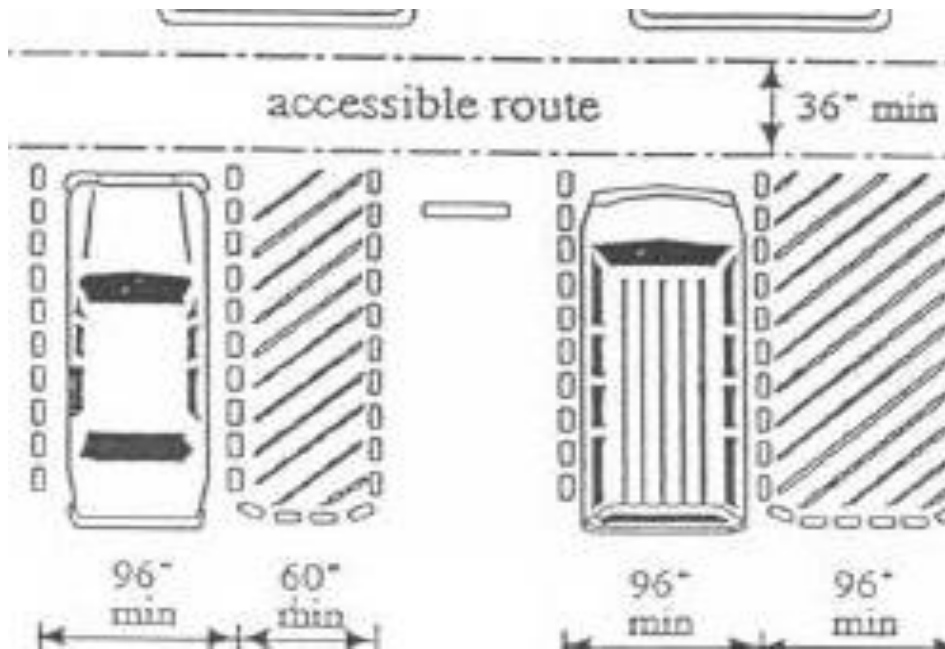


(The photo shows the upright signs mounted in orange cones, this was for visual purposes only. All signage should be fastened securely.)

Use the universal symbol of accessibility for signage, like the ones pictures below. The signage can be purchased or photo copied then laminated for posting. Iowa code requires that the signage be no smaller than 18 x 12 to ensure those the parking spaces are able to view the signage.



The graphic below indicates the dimensions of the stalls. Accessible parking spaces for cars have at least a 60 inch wide access aisle located adjacent to the designated parking space. For van accessible parking spaces, the access aisle on the passenger side should be a minimum of 96 inches wide and signage identifying the space as "van accessible". Repeat the process to achieve the number of spaces to meet minimum compliance.



Below are the requirements for the number accessible parking stalls. The number of van-accessible spaces is one of every six accessible parking spaces.

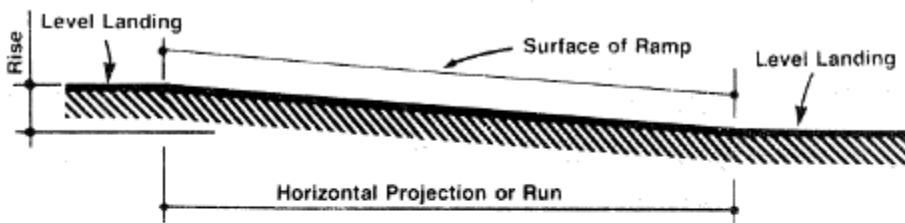
Total Number of Parking Spaces in Parking Facility (Lot or Garage)	Minimum Number of Accessible Parking Spaces Required
1 - 25	1
26 - 50	2
51 - 75	3
76 - 100	4
101 - 150	5
151 - 200	6
201 - 300	7
301 - 400	8
401 - 500	9
501 - 1000	2% of total
1001 and over	20, plus 1 for each 100, or fraction thereof, over 1000

Entrance

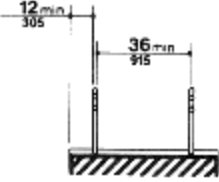
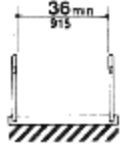
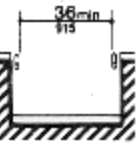
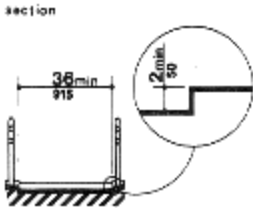
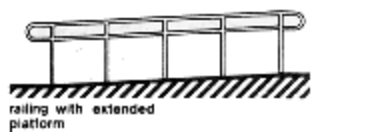
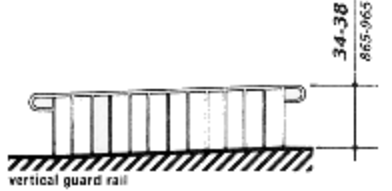
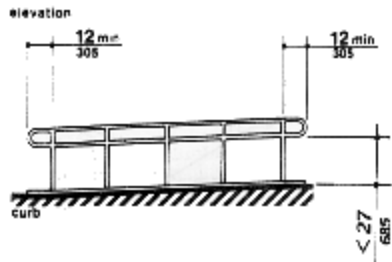
If the entrance is not accessible because of stairs, a temporary ramp can be installed to eliminate that barrier. The graphic below indicates the rise or slope of the ramp to meet ADA compliance. Ramps can be wooden or made from any material but be sure that the surface is not slick, or able to pool water. Ramps

must be sturdy and able to hold significant weight, for example, motorized scooters and wheelchairs alone can weigh over 400 pounds.

- If the slope of a ramp is between 1:12 and 1:16
- The maximum rise is 30 inches
- The maximum horizontal run is 30 feet
- If the ramp is between 1:16 and 1:20
- The maximum rise is 30 inches
- The maximum horizontal run is 40 feet
- Most people who are ambulatory or who use a wheelchair can manage a slope of 1:16
- Many people can't manage a slope of 1:12 for 30 feet
- When possible, build with the least amount of slope
- For permanent fixtures the maximum slope is 1:12, maximum rise 30 inches
- The width of the ramp is a minimum of 36 inches
- Ramps that change direction at landings, the minimum landing size is 60 inches by 60 inches
- If ramp run has a rise greater than 6 inches or a horizontal projection greater than 72 inches, then handrails are needed on both sides
- Railings need to be smooth, continuous, inside handrail with a switchback or dogleg
- Handrail gripping surfaces shall be mounted between 34 in and 38 inches
- If used predominantly by children the handrail should be no higher than 28 inches
- A lower handrail can be installed in addition to meet that standard
- If the handrail is mounted on the wall the space between the wall and rail can be no more than 1 1/2 inches
- Handrails cannot rotate in their fittings
- Handrails should extend out 12 inches at landings unless it would obstruct traffic flow



Slope	Maximum Rise		Maximum Horizontal Projection	
	in	mm	ft	m
1:12 to < 1:16	30	760	30	9
1:16 to < 1:20	30	760	40	12



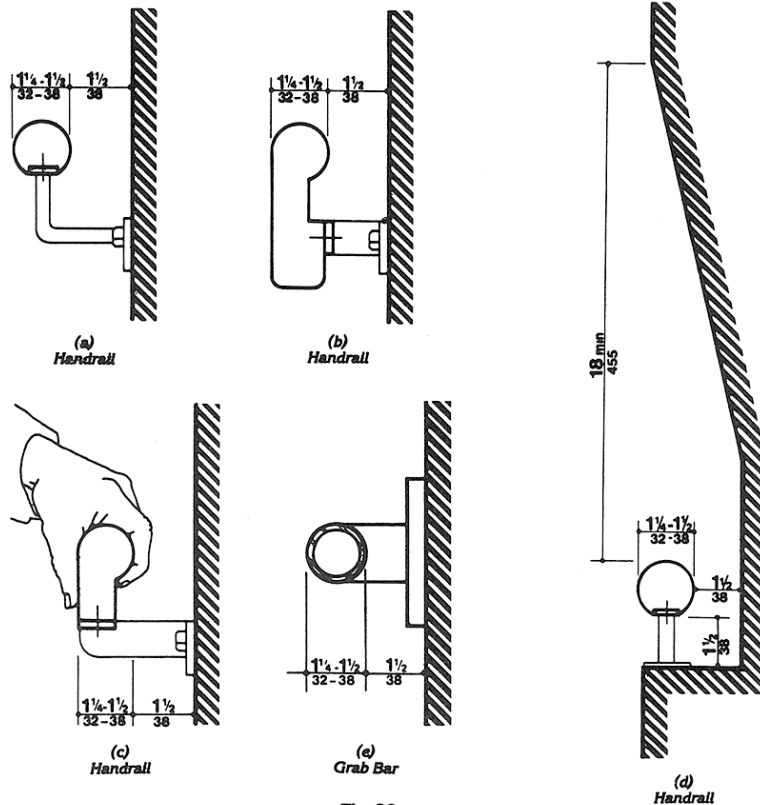


Fig. 39
Size and Spacing of Handrails and Grab Bars

Below are photos of temporary ramps for purchase, however these can be expensive. Some disability organizations have programs that will loan assistive technology. That may be an option instead of purchasing, however There would need to be planning though, to ensure the ramp would work in the shelter location. There is the risk that the ramp would be in use elsewhere so an alternate plan should be determined.

All areas that are available to the public should be accessible. However, if a shelter has several levels or floors without an elevator and services can be provided on the accessible level that is acceptable.



Doorway width must be 32 inches clear. Fire code usually determines the weight of exterior doorways. All interior doors must have a push/pull weight of 5 pounds or less. This can sometimes be achieved by adjusting the closer hardware on the door. **Automatic doors are not required.** There is no language in the ADA requiring automatic doors, it is recommended. In a shelter setting it is acceptable to have staff or shelter residents assist with opening doors. Lever door handles can

increase accessibility. Below is a photo of a lever handle which can be purchased at hardware or big box stores and installed on knob handles.



Bathroom/Shower

There are many options that increase the accessibility of a bathroom/shower. Below are temporary grab bars. They must be able to support up to 250 pounds of pressure. If you are considering purchasing temporary grab bars be sure to determine if they meet that weight requirement. These could be used beside a toilet and in the shower.



Risers for toilets can achieve the 17 – 19 inch requirement for the height of a toilet. There are many different types. Some with handles on the side may limit the ability to transfer for people using wheelchairs. The grab bars on the wall are a much better option.

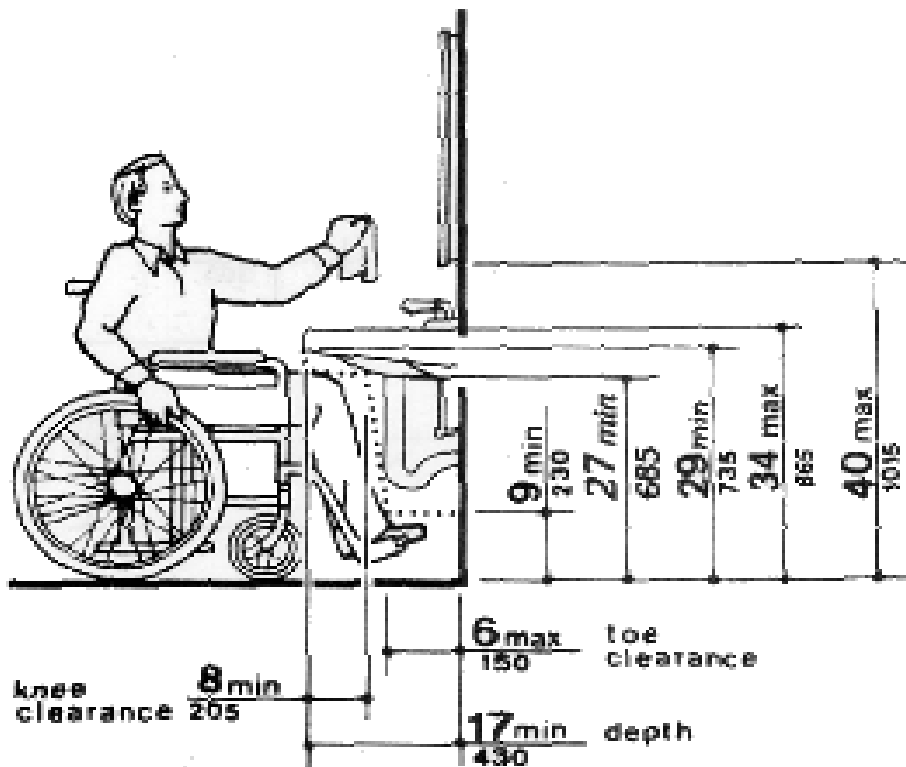


Transfer benches like the one pictured below can be used to increase accessibility of a tub to a shower. Another feature to increase accessibility would be a handheld shower head.



The graphic below shows the requirements for a compliant sink. These temporary modifications can increase accessibility.

- If the soap and paper towel dispensers are out of reach range place another bar of soap or dispenser with towels on the counter
- If the pipes underneath the sink are exposed purchase insulation for sink pipes at a hardware or big box store and install
- Temporary lever handles could be installed
- If the mirror is too high install another at a maximum 40 inches from finished floor



The DHP will provide site visits and technical assistance to help identify and establish accessible disaster shelters. For assistance, please contact:

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