A photograph of two women outdoors. One woman, wearing glasses and a dark blazer, is seated in a red wheelchair and smiling broadly. She is holding a large bouquet of bright orange flowers. The other woman, wearing a dark top and a blue scarf, stands to her right, also smiling and looking at the bouquet. They are positioned on a paved area in front of a light blue house with white trim and a green lawn. The scene is brightly lit, suggesting a sunny day.

# Making Homes Visitable

## **A Guide for Wheelchair Users and Hosts**

Dot Nary, Ph.D., Brenna A. Buchanan Young, M.A. ARCH,  
& Val Renault, M.A.

# Foreword

Humans are social creatures. We are hardwired to connect with one another, to gather and create shared experiences. A wide body of research shows these interactions are vital to our emotional and physical well-being. Coming together nourishes us, feeding our minds and spirit. For all of us, these bonds start with family, and they start in the home.

Our homes, regardless of size, type, or location, reflect and help define who we are and how we live. They are also where we most often meet with others to socialize.

Those of us with mobility challenges face common questions when someone invites us to “come on over.” Will there be steps? Will the paths of travel be accessible for my wheelchair? Is there a first-floor bathroom I can enter and use? These three elements define visitability, and their presence or absence can make the thought of a home visit enjoyable or anxiety-ridden.

This guide serves two powerful purposes: as a tool offering practical solutions to *architectural* barriers that may exist; and as a way to ease the *social* barriers that may prevent a host or guest from successfully addressing – or even asking about – those environmental challenges. The checklists included in the pages that follow provide an opportunity for safe and open conversations that can focus on constructive problem solving.

More than at any time in history, people with disabilities (of all ages) are living in and meaningfully contributing to their home communities. The promise of the Americans with Disabilities Act and U.S. Supreme Court’s landmark *Olmstead* decision has led to more integrated workplaces and neighborhoods. We are your friends and colleagues, wanting to talk and laugh and connect in any place we can, especially the home. *Making Homes Visitable* is a much-needed and powerful resource that will help make this possible. I’m thrilled to see its publication.

## **John Tschida, MPP**

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National Institute for Disability, Independent Living, and Rehabilitation Research (NIDILRR)  
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# Dedication

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This resource is dedicated to Eleanor Smith, visitability advocate and role model, who established the organization Concrete Change to promote visitability policy in the U.S. She worked tirelessly for years to raise public awareness about the importance of building visitable homes.

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The goal of this resource is to make it possible for people who use wheelchairs and their hosts to plan for visits to inaccessible homes. It shows how temporary modifications can accommodate these visits, and also provides guidance on more permanent ones. Meanwhile, we work to achieve Eleanor’s vision that every new single-family home is built with features that permit ease in visiting by all.

## **A Note to Users**

Please note that although this resource focuses on guests who use wheelchairs, it can be used to address the needs of any guests who experience mobility limitations, including those who use scooters, walkers, canes, or crutches, or those who just cannot negotiate steps. People experiencing temporary mobility limitations may find it useful, as well.

Because the space needed to accommodate a scooter may be different than that of a wheelchair, it would be helpful to note the actual dimensions of the scooter when considering access issues. Also, if the guest using a scooter is able to walk short distances, consider the possibility of entering the home using the scooter and then “parking” in order to move around the home on foot.



A photograph of an elderly woman in a wheelchair and a young girl decorating a Christmas tree. The woman is seated in a wheelchair, looking up at the tree. The girl is standing and reaching up to place a decoration on the tree. The scene is set indoors, likely in a living room. The entire image has a blue color cast.

“A visitable home is a home that is desirable for all the generations – for families pushing kids in strollers, for home workers accepting delivery packages, for older people and visiting grandparents.”

– Rachel Adelson

# Why Visitability Matters

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Very simply, people with mobility limitations want to visit their friends and families, and hosts want to offer them hospitality.

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Spending time together to maintain social relationships is important to people of all ages. That could be a child using a wheelchair who looks forward to attending a classmate's birthday party, a colleague using crutches who wants to join the group for a Super Bowl gathering, or a grandmother relying on a walker who doesn't want to miss the holiday dinner.

Much of life unfolds in private spaces that are not governed by legislation such as the Americans with Disabilities Act (ADA). Unfortunately, current residential building practices rarely incorporate a level of accessibility that supports convenient and safe use by people with limited mobility.

As one wheelchair user said, "People's homes are the museums of their lives, and we don't get to see them!"

Making a home visitable is typically very doable, but requires collaboration between

the host and the guest for the best outcome. Understanding the basics of making a home visitable, having a discussion about the needs of a specific guest, and then making changes to create accessibility are the steps needed to make visits happen. Please use this resource to make those visits happen and share it with others who want to do the same.

We recommend using this resource in the following way:

1. Understand the potential barriers to a visit
2. Complete the host and guest worksheets
3. Discuss worksheet answers with each other
4. Remove or remediate barriers based on the guest's needs

While the original concept of visitability addresses new home construction, this resource focuses on achieving visitability by making temporary or permanent modifications that accommodate a person with limited mobility in an existing home.



This cartoon by the late John Callahan illustrates a common barrier – steps – that people in wheelchairs often encounter when invited to a gathering.

*"Sorry, Bill! We'll try to get a ramp for those stairs before our next dinner party! Need more potatoes?"*

# What Is a Visitable Home?

Visitability is a residential design concept that promotes the design of new single-family homes with three accessible features:

- **One zero-step entrance** approached by an accessible route on a firm, nonslip surface that is also not too steep and typically is accessed from a driveway or sidewalk. This can be any entrance into the home: a front, side, rear or garage entrance that does not have steps and that has a threshold less than ½" high.
- **Accessible interior and exterior pathways** to all spaces that will be used for an event, with 32" door openings and 36" wide hallways.
- **One bathroom on the main floor** – at least a half-bath – that a guest can enter and use, preferably without more assistance than usually needed.

Whether your home is a house, apartment, condo or trailer, these features will permit wheelchair users and others with mobility limitations to be involved in the many life events that unfold in private homes. These features comprise the minimum level of

accessibility needed to enable a wheelchair user to visit a residence.

Although all of these features are important, hosts typically find that providing an accessible bathroom is the most problematic due to built-in fixtures and spatial configurations. However, as noted further on in this resource, some people may still be able to visit a home without an accessible bathroom as long as the other two features are accessible (getting into the home and through the home and rooms).

A visitable home does NOT mean that a home is fully accessible, nor does it mean that alterations must be permanent. Instead, visitability provides a sufficient level of accessibility to allow a guest to visit.

With some forethought and planning by the host and communication with the guest, you can create an environment that permits visiting. Communication is the key to removing barriers that will allow a guest to actively engage and be included in the events happening inside houses, apartments and other residential environments.

## Visitable homes provide three minimum features:

- a zero-step entrance (1/2" threshold or less)
- an accessible exterior and interior path
- a usable bathroom on the level of the gathering

## When making decisions about how to make a home visitable, hosts should consider the following:

- the length of the guest's visit
- the specific access needs of the guest
- whether modifications will be temporary or permanent

In preparing for a visit, think about how a guest will:

- get into the home?
- move through the home?
- use the bathroom?
- get to the rooms/spaces where activities are planned?
- participate in the activities?

### **Some background on visitability as a movement**

Visitability as a social movement began in the U.S. in 1987 when Eleanor Smith launched an advocacy group called Concrete Change. Visitability aims to make newly built single-family homes usable by anyone and to provide access to everyone. In this sense, visitability is characterized by affordable, sustainable, and accessible design solutions for newly constructed or remodeled single-family homes. These homes follow the principles of “universal design.”

Concrete Change has been and continues to be strongly involved with increasing public awareness and promoting changes to legislative and regulatory building codes so that all new single-family home construction will incorporate visitable features.

Research on visitability demonstrates overwhelming consensus that incorporating visitable design features **does not increase building costs for new construction and will decrease the likelihood that future modifications are necessary** to allow accessibility. This is especially relevant with the increase in demand for housing that allows aging in place. Just think — you wouldn’t be reading this or need to modify your home if it was built to be visitable in the first place.

Visitability is the least stringent concept intended to create a barrier-free home – and

“Concrete Change is an international network whose goal is making all new homes visitable, not just ‘special’ homes. Being at the party, the meeting, the family reunion...not isolated.”  
– Eleanor Smith

it is achievable due to its emphasis on three home features. Modifications intended to make a home visitable do not mean the home will meet the Americans with Disabilities Act (ADA) accessibility standards. This is acceptable because visitability modifications are intended to enable visiting for a limited period versus more extensive modifications that would allow full use of the home.

The success of the visitability movement is largely attributed to the simplicity and achievability of the three key features of visitability: an accessible entrance, accessible pathways and one usable bathroom.

**Note:** ADA codes are intended for buildings used by the general public, not residential design. However, it is common for construction and design professionals to use ADA guidelines as a minimum standard to achieve what is commonly considered residential accessibility. It is important, though, to understand that “standard” does not mean “usable” for everyone. Therefore, the best way to ensure a pleasant visit is for hosts and guests to work together to find options for creating visitability.

# Let's Chat: How to have a productive discussion with potential guests or hosts

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Sharing information about your home and about your guest's accessibility needs is the first step toward making a visit happen.

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Creating access to most homes is achievable to some degree, and begins with a frank discussion about home barriers and access needs. Being open can help in understanding what barriers might impede the guest and how to remove them. This initial discussion – and possible follow-up conversations – can facilitate a pleasant visit that benefits both host and guest.

However, wheelchair users report that discussing home barriers can be problematic. Potential hosts may misinterpret the mention of barriers in their home as criticism of their dwelling. They may feel guilty about the lack of access and their inability to welcome the person with mobility limitations to their home. Conversely, wheelchair users may not want to draw attention to their personal needs and/or they may worry that initiating a conversation about access will create conflict in relationships with family members or friends.

Sadly, forgoing discussion about home barriers may prevent productive problem solving that could make a mutually enjoyable visit possible.

## **Tips to facilitate discussion**

The following tips may help hosts and guests have a frank discussion regarding home barriers and visiting.

- Understand that neither host nor guest is to blame. At this time and in most communities, there are typically few accessible homes for sale that can accommodate wheelchair users and others with mobility limitations.
- Recognize that the problems presented by homes with barriers are increasingly common as the U.S. population ages and as persons with disabilities or mobility limitations participate more fully in their communities. Many families have members or friends with limited mobility whom they want to include in activities.
- Focus attention on actual barriers, versus the perception that a home is too inaccessible to be welcoming. Systematically identifying and removing barriers may be easier than it first appears.

See the next page for examples of how to start a conversation about access.



## Address the issue openly and factually. Relay needs and possible solutions as in these examples:

*"My brother's home has steps and here is how I get in there in my wheelchair."*

*"We want you to come to our party. Let's talk about how we can accommodate you."*

*"I'd love to stop by for a beer. Here's what we need to think about to make that happen."*

*"There are seven steps up to our front door – too hard. But we could have the dinner in our daylight basement. There is a path around the house to a door with no steps."*

*"If I visit for just a few hours, I won't need to use a bathroom."*

*"We think if we relocate our love seat, you can easily get into our living room."*

*"My daughter would love to attend your daughter's birthday party! We can bring a portable ramp to make it easier for her to get into your home."*

*"Everyone is going over to Mike's after work for happy hour. His dad uses a wheelchair and I know he has visited Mike's home. We want to figure out how you can visit as well. Let's talk about this."*

The following pages provide worksheets to help you have a discussion about visiting needs, along with guidance on removing barriers.

# Preparing for a Visit: Worksheets

## Personal Access Worksheet for the Guest

This worksheet is intended for use by guests. It provides a means to record your access needs in preparation for a discussion with a potential host. A wheelchair user may share all or just some of this information to assist in identifying and removing barriers to permit a visit. Please note that these items are suggestions only. Guests can choose which ideas are most relevant for their own visit in a particular situation. Also, if you have access needs not mentioned here, they can be recorded in the Notes section.

### My wheelchair is \_\_\_\_ " W (width) x \_\_\_\_ " L (length)

Width (from outer edge of one tire to the other tire): \_\_\_\_ inches

Length (from rear edge of tire to front edge of foot plate plus foot overhang, including anti-tippers, if used): \_\_\_\_\_ inches

The combined weight of me and my chair is \_\_\_\_\_ lbs. (*Chair + person + any on board attachments/personal items*)

I am willing to be lifted up steps in my wheelchair.  YES  NO

How many steps?  1  2  3 or more

I am willing to be lifted out of my chair and carried inside.  YES  NO

I can provide a portable ramp.  YES  NO  
If yes, the ramp can cover up to \_\_\_\_ steps.

### I plan to arrive at the home:

- by public transportation (bus or taxi)
- via transportation with another guest
- in my own vehicle
- by wheeling there

**Parking needs:** \_\_\_\_\_

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I am able to walk a few steps (such as into a bathroom).  YES  NO

### I need the following to use the bathroom:

- 32" door opening
- sufficient space (\_\_\_\_ inches wide) to get to the toilet (5' radius is common)
- grab bars to transfer to the toilet
- toilet seat 17"-19" from the floor

### If a bathroom is not accessible, I would prefer to:

- stay for a short amount of time  
Approximately how long? \_\_\_\_\_
- leave the home and go to the closest public bathroom
- have the host set up a private space where I can use a personal commode

**Notes:** I want to ask or remind my host about...

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# Worksheets (continued)

## Home Access Worksheet for the Host

This worksheet addresses the most important features of a visitable home and can help hosts have a productive discussion with their guest.

Does my home have a step-free entrance (“zero entry”)?  YES  NO

If yes, where is this entrance?  
front side rear garage

If no, which entrance has the fewest number of steps? \_\_\_\_\_

How many steps are there? \_\_\_\_\_

Are the steps all together, or are they broken up with a landing or change in direction? \_\_\_\_\_

Is parking accessible? See guest worksheet for needs.  YES  NO

Outside the home, is there an accessible pathway to the entrance?  YES  NO  
If no, what barriers exist?

- sharp turns
- steps, slopes or level changes
- surface changes (gravel, grass, etc.)
- poles, planters, decorations

Within the home, is there a barrier-free path of travel from the entrance area to the gathering space?  YES  NO

If no, what barriers exist?

- sharp turns
- steps or level changes
- flooring changes
- furniture or decorations
- doorways less than 32” of clear space

Is the bathroom on the floor where the gathering will be held?

YES  NO

Is the door opening at least 32” wide?

YES  NO

Is there sufficient space (36” wide) for a wheelchair user to reach the toilet?

YES  NO

Are grab bars available to facilitate transfer to the toilet?  YES  NO

**Notes:** I want to ask or remind my guest about...

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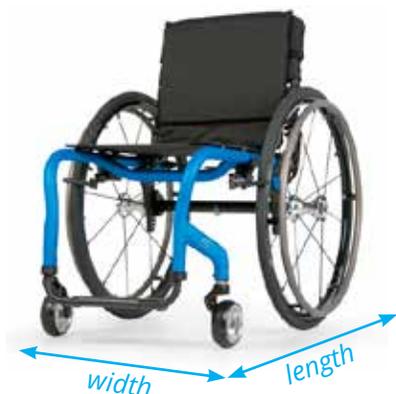
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**Tip: Sharing photos or videos of potential barriers may assist your guest to better understand what he/she may encounter in the home, and allow troubleshooting to remove those barriers.**

# Mobility Equipment and Access Tips

Your guest may use one of these mobility devices. A guest can measure the length and width before a visit (see "Personal Access Worksheet") so the host can determine which areas of the home are accessible.



*Manual wheelchair*



*Power wheelchair (battery operated)*



*Scooter*



*Walker*



*This custom-made ramp enables a wheelchair user to roll over a small threshold.*



*Portable or "suitcase" ramps may be rented from home supply companies or may be available for loan from state assistive technology programs. See "Resources."*



*Make sure you include molding or other objects when measuring the width of a hallway or interior path.*

# Visitable Features

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Here are things to consider in order to achieve the main features of visitability.

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## **Accessible Outside Pathway to the Entrance:**

- Is the exterior pathway at least 36" wide?
- Is it made of concrete or other hard, smooth and non-slip material?
- Are curb cuts (from street to sidewalk) manageable? Or do you need a temporary ramp?
- If the path is gravel or grass, can you safely assist the wheelchair user through this area? Is your guest willing to accept a push assist?
- Is the pathway clear of objects, such as trash cans, plants, debris, etc.?
- Is the path well lit?

## **Zero-step Entrance:**

- Do you need a ramp to remediate entrance steps? If so, ensure that the slope of the ramp will not be too steep. One foot of ramp for every inch of rise (height) is considered safe and accessible. A steeper ramp may be acceptable if the guest is comfortable with it and willing to accept help in negotiating it. (See "How to Measure Slope" for more ramp information.) Some equipment rental agencies carry ramps.
- Is the doorway 32" wide or more? If not, can you remove or replace the door hinges? Can you install swing-away hinges? Or, is a wider entrance available elsewhere?

- Do you need to cover the threshold to make a smoother entrance for someone on wheels? Any rise of more than ½" can be a barrier. A small carpet may work.

## **Accessible Pathways Inside the Home:**

- Is the interior pathway at least 36" wide?
- Do the flooring surfaces change? If flooring surfaces change and there are ridges or raised thresholds, are the transitions manageable for wheeling?
- Is the pathway clear of objects, such as tables, chairs, plants, toys, etc.?

## **Usable Bathroom:**

- Can your guest get into the bathroom? Does the doorway provide 32" of clear space? (See "How to Measure Doorways.") If not, can you replace the door hinges with swing-away hinges to widen the space, or can you remove the door and replace it with a curtain?
- Is the space wide enough for your guest to reach the toilet?
- Can your guest transfer to the toilet independently? Is there adequate room to maneuver from wheelchair to toilet? Is there a grab bar or other fixed item the guest can use for support while transferring?
- Can your guest signal if help is needed?

**Parking:** Many visits start with parking. Where can your guest park? How far away is the accessible entrance from this spot? Can this distance be shortened? Also, consider that a guest who drives a van with a ramp may need as much as 8 feet of space on the passenger side of the vehicle (or, less typically, the rear of the vehicle) to put the ramp down and exit safely.

**Other Options:** If the main level of the home is not accessible, consider entertaining in alternative areas that might provide access. Some examples:

- When weather permits, an event might be moved outside to a yard or patio to accommodate a wheelchair user.
- Use the lower level if a home is a walk-out rancher or has a basement door that can be reached by traveling around the home.
- In poor weather or for a large group of guests, a garage can be cleared and climate controlled with patio heaters or fans.



*A guest who drives a van with a ramp may need as much as 8 feet of space on the passenger side of the vehicle to lower the ramp and exit safely. However, some vans open from the rear of the van, so space would be needed there.*



*A threshold that is more than 1/2" high creates a barrier.*

**Assistance:** To learn about any assistance you may need to provide, have your guest provide information via the "Personal Access Worksheet." If you are unsure of anything, ask questions!



*Threshold ramps can be purchased at home improvement stores.*

# Removing Barriers to Make Your Home Visitable

Are any of the entrances to your home accessible? Entrances with steps create a critical barrier for wheelchair users. Consider the possibility of a temporary or permanent ramp. (Ramps may be rented from home supply companies or other equipment providers.)

## **Accessible Approach/Pathway**

An accessible route on a firm surface that is at least 36" wide, not steep and proceeds from a driveway or public sidewalk is best.

**Solutions:** If the surface is not firm, is made of gravel or has grass along the pathway, consider a temporary remedy such as using large pieces of cardboard. These can often be obtained at no charge from an appliance or home store and can facilitate temporary access over uneven surfaces and wet and/or muddy paths.

If the slope is steep and difficult to negotiate, ask if the person would accept help – offer to softly push them or provide an arm for balance.

These issues should be discussed with the guest, as needs and preferences will vary.



*A large piece of cardboard can be used to increase access on uneven surfaces or muddy paths.*



### Accessible Entrances

- Zero-step entrance
- Low threshold (1/2" or less, preferably beveled)
- Entrance area clear of barriers

**Solutions:** For a single step use a plywood sheet as a ramp.

If the threshold is too high, install a piece of quarter round wedged against the threshold to help level it. Or consider installing a threshold ramp, which can easily be purchased at a hardware store. Some guests will be able to push their chair over a higher threshold, but consultation with the guest will be very helpful in deciding what accommodations are needed for a mutually successful visit. (See "Barrier Removal Checklist" for more solutions.)



*Make sure that exterior and interior pathways are clear of objects, such as planters, decorations, chairs, toys, etc.*

On either side of the door, items such as planters, coat racks, boot trays, umbrella stands, etc. can easily be moved to allow your guest room to maneuver.

### Door Opening

Measure the clear opening of the entrance to ensure that it is a minimum of 32" wide (see "How To Measure Doorways"). This width will accommodate most wheelchairs, but you should check with your guest to ensure that this is adequate. Some mobility equipment may be wider.

**Solutions:** If the door width is too narrow or insufficient, offset hinges (aka "displacement hinges") can add an additional 2" and are easy to install.

If the door opening cannot be widened enough or other barriers exist that are too difficult to remove, look for alternative entrances to the home.



*An offset displacement hinge can add 2" to a door opening.*

# Removing Barriers (continued)



Instructions for building ramps can be found online.



This example comes from <https://lifecurrentsblog.com>.

## Ramps

Now that you have identified the entrance that can most easily be reached by the guest, has a wide enough door and a threshold that is  $\frac{1}{2}$ " high or less, you need to modify any steps that exist along the route. Hopefully this route also has the fewest number of steps.

Consider how many steps there are, how they're configured, and how steep they are. You may decide to build, buy, rent or borrow a ramp.

**Solutions:** Sometimes there are several steps up to a landing, followed by another step or series of steps into the home. In this case, a ramp may be used for the first set of steps, and then an additional ramp placed at the single step into the home – if there is sufficient space on the landing. Or, it may be possible to lift the person in his or her chair up the single step. This is a situation in which sharing photos and discussing the best option with the guest will be important.

For safety, prevent the slope from becoming too steep by making the ramp one foot long for every inch of rise.

For example, if a set of steps is 3 feet (36") tall (the "rise"), the ramp would need to be 36 feet long in order to comply with ADA building codes. A shorter ramp might work in some settings and situations, especially when helpers are available to push a wheelchair user up the ramp and also ensure that the person does not flip over backwards. Remember visitability does not aim to meet ADA codes but to allow a guest to visit your home safely.

Whether a wheelchair user feels comfortable using a steep ramp depends on the person's preferences, type of equipment, and sense of safety. This again illustrates the importance of a conversation between the host and the guest.



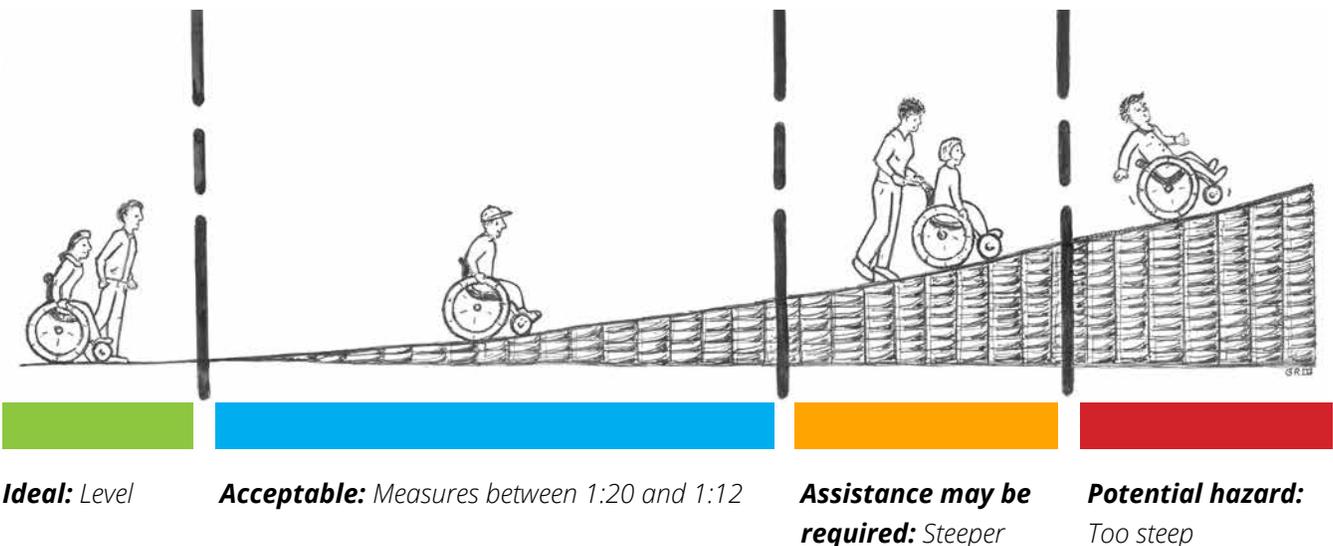
Portable ramps can provide access for many users of mobility devices. See "How to Measure Slope for Ramps" for details.

## Bathrooms

Because of fixed features such as vanities and toilets, the bathroom is often the most difficult area in a home to make accessible.

Some homes with 26" bathroom doorways, limited space, and obstructed paths simply may not accommodate a wheelchair user. Permanent fixtures may present barriers that cannot be removed without remodeling.

Answering the following questions will help assess bathroom accessibility. A few suggestions that could improve accessibility are provided, plus some ideas about what to do when the bathroom cannot be made temporarily accessible for your guest.



## Removing Barriers (continued)

- Is the bathroom on the main level of the home? Or on the same level where the gathering will be held?
- Is the bathroom opening at least 32" wide? (See "How To Measure Doorways.")
- Does the door open outside of the bathroom versus opening to the inside and taking up valuable room? (Do you push the door in? If yes, the door opens to the inside.)
- If the door opens outside of the bathroom, is there a way for the user to pull it closed independently? Suggestion: Tie a rope or cord to the door lever or knob so the wheelchair user can pull it shut. Or stay close by so you can shut the door for the guest.
- Once your guest is inside, is there enough unobstructed space to reach the toilet and transfer safely? Is the toilet seat between 17-19" from the floor? Suggestion: If the toilet is too low, a "riser" or elevated toilet seat might be helpful. (These can be purchased fairly inexpensively.) Note, however, that a riser needs to be sturdy and securely attached to the toilet – most are not safe enough for a wheelchair user.
- Are grab bars available to assist the wheelchair user when transferring to and from the toilet? If not, this may not be easy to remedy on a temporary basis. However, some wheelchair users may be able to transfer safely without grab bars. Others may not need to transfer to use the toilet (i.e., they may empty a urine bag). Providing a photo of the toilet area may be very helpful to your guest.
- Is the toilet paper reachable?
- Can the wheelchair user reach the washbasin to wash his/her hands? If not, it would be thoughtful for the host to place a bottle of hand sanitizer close by.
- What if the bathroom itself can accommodate a wheelchair but the doorway is simply too narrow? Suggestion: Temporarily removing the door and replacing it with a curtain on a tension rod may provide access to the bathroom. This works best if the bathroom is not directly off the area where the gathering is being held. For example, a bathroom off a bedroom versus a main hallway might still provide sufficient privacy with a curtain rather than a door. Another option is installing displacement hinges to increase the door opening by several inches.

However, a typical 26" bathroom doorway is unlikely to work for most wheelchair users.

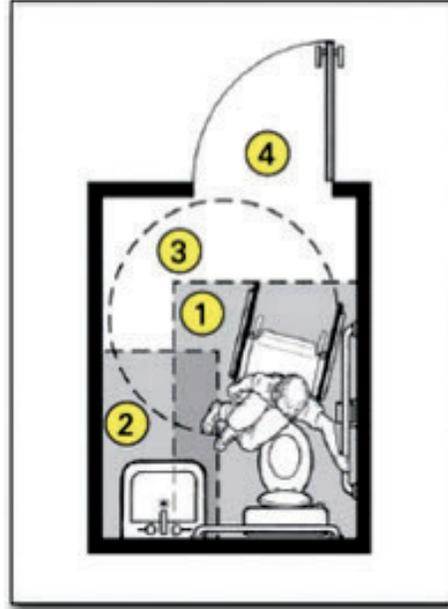
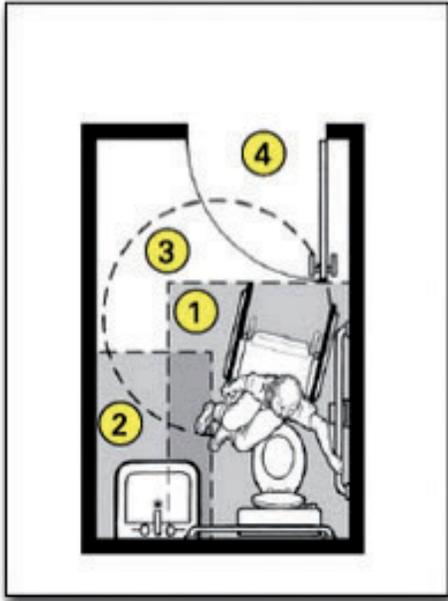
### **Non-accessible bathrooms: what are my options?**

A less perfect but still desirable solution may be to seek an alternative arrangement. If the bathroom simply will not accommodate a wheelchair user (and this is not unusual), here are some suggestions based on common scenarios.

#### **Scenario 1: Short visit**

If the visit will be a short one, the wheelchair user may not need to use the bathroom during a visit.

In this situation, the host may advise the wheelchair user of the limitations of the



*Doors that swing out provide more maneuverability. Note that a 36" wide doorway is necessary to achieve a 32" clear opening.*

bathroom so that the wheelchair user can make a decision about whether or not the visit is possible. Or, the guest may wish to make the visit brief.

Another option is for the host to identify a nearby public location with an accessible restroom that will be available during the gathering. For example, a nearby public library or a fast food restaurant might accommodate the wheelchair user's needs. The guest could visit this restroom before and/or after the visit.

**Scenario 2: A longer visit**

In the case of a longer gathering, the visitor might leave to use a public restroom and then return to the gathering.

**Scenario 3: Close family or friend**

If the guest is a close family member or friend, it may work to place a commode in a bedroom where the wheelchair user can use it in privacy. While this is not ideal, it may permit a wheelchair user to participate in a gathering that is important to him or her without having

to leave the location. This scenario would require careful planning by both the guest and host to make it workable.



*If you need to remove a bathroom door to create access, you can add privacy by hanging a curtain from a tension rod or tacking it to the trim.*

# How-To Tips

## Tools Needed:

- 20' measuring tape
- 24" bubble level or digital level
- Hula hoop or broomstick
- Camera
- Checklists
- Pen
- Clipboard



*Measure from the door stop to the edge of the door.*

## How to Measure Doorways

The minimum width of a door opening for most wheelchair users is 32".

Accurately determining the size of a doorway, path or turning radius is critical to knowing if your home is accessible and if your guest can visit. If you measure wrong, your guest could arrive and find out that your home is actually not visitable. Worse yet, someone could get hurt. If you have questions or are unsure of anything, discuss it with your guest.

Measuring the width of a doorway may seem easy, but if you don't measure the actual opening correctly, you will get an inaccurate measurement. This is critical because you won't know if you need to modify the door or be able to determine the best modification for your situation.

Doorways are easy to measure once you know how. You should measure the narrowest space that is available.

1. Make sure the door is open at least 90 degrees.

2. Using a tape measure, measure from the door stop (the narrow piece of wood that projects from the center of the door jamb or casing).
3. Stretch the tape across to the door, not to the other door jamb! If you measure from jamb to jamb, your measurement will be off by the thickness of the door, which could be 2"-3" or more. This is not something that non-chair users typically notice or think about when they walk through doors. But, if the door has typical hinges, the door itself decreases the opening by however thick it is.
4. Also, note anything else that could narrow the pathway on the other side of the door, such as a base molding or objects.

## How to Measure Pathway Width

Checklist for accessibility:

- Are pathways to the home's entrance at least 36" wide?
- Is the surface of the path non-slip and clear of objects? (Note surface changes, like concrete to carpet, and objects, such as power cords.)

- Are thresholds and flooring transitions less than ½" tall and beveled?
  - Are there 18" of clear wall space on the pull side of the door (adjacent to the handle) so the wheelchair user can reach the handle?
  - Can objects near the door be moved to allow room for maneuvering (such as planters, tables, coat racks, etc.)?
1. Measure pathway width to determine if it is at least 36" wide and clear of any objects.
  2. Take notice if the measuring tool or your knuckles brush against any walls or objects. If the objects are moveable, remove them to create access.
  3. Suggestions: You can make a measuring tool from a hula hoop, yard stick, broomstick handle or anything else that you can carry easily that measures about 36" wide. This can be used inside your home as well to find areas that could cause potential barriers. The hula hoop is an especially good tool because it gives you a sense of the turning radius of a wheelchair, or what it is like to navigate rooms and pathways as if you were in a wheelchair.

### How to Measure Slope for Ramps

Measuring the slope of something can seem daunting. In any case, always consult with your guest. The following instructions are to help

you get a sense of what is "steep" and how steep is too steep to temporarily modify. Every ramp or inclined surface has a slope measurement. The slope is a proportion of how much the height changes in relation to the length. This is also known as "rise over run."

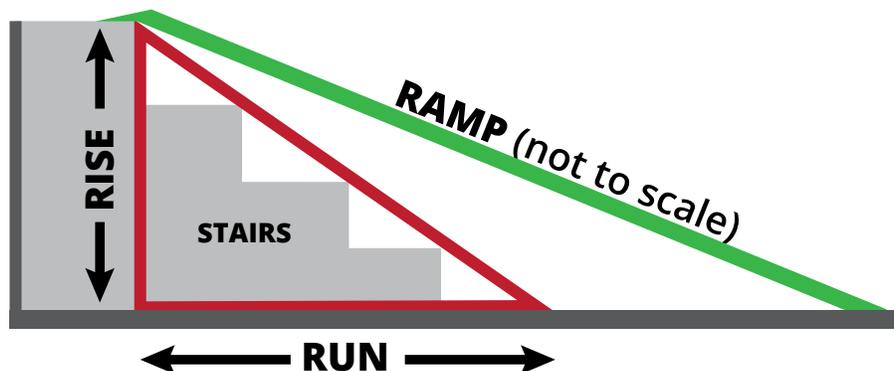
Common ramp measurements are 1:12 and 1:20. A 1:12 slope is a standard ADA measurement, which means that for every one inch of height change (rise), the ramp provides 12" of distance (run).

A typical gentle grade slope is 1:20, which is even easier to wheel up. It covers a longer distance for the same amount of height change.

Note that you can use a digital level (including a mobile phone app) to measure the slope of ramps and pathways, but be familiar with what units you are using in the level app. It might be set to gradient, percent, or degrees. A 1:12 gradient is similar to about 8% or about 5 degrees.

Your guest may want to make an advance visit to discuss whether the steps can be ramped. Also, several photos of the site from different angles may help.

#### LANDING OR PORCH



*A 1:12 slope means that for every one inch of rise, the ramp provides 12" of run.*

# How-To Tips (continued)

## How to Be a Good Guest

### Accepting help as a wheelchair user

If someone is trying to help without your permission or helping in a way that puts you in danger, be ready to stop the action in a polite way. Don't hesitate to speak up. Try redirecting the person by saying something like, "Please wait! That makes me uncomfortable. Let me explain how you can best help me."

If you agree to be carried up steps in your manual chair, remember to remove or turn up anti-tippers that can make it difficult to lift the chair up steps. Be sure to remind those carrying you to not grab your wheelchair by the wheels, but instruct them to grab the sturdy bars on the frame of your chair.

### Respecting the home

In wet weather, bring along a towel or cloth to wipe snow, water, sand or mud off the wheels in the entry way of the home. If you do not have one, ask your host for a rag or towel and explain that you want to be able to wipe off your wheels before entering.

When maneuvering through a home, move slowly and carefully to avoid scraping walls and doorways, or running into furniture. While your own home may be arranged to permit ease of movement, paths of travel may be narrower in another home and will require more care when moving around to prevent damage.

If space inside a home is limited, remaining in your wheelchair, versus transferring to a sofa or chair, might save space for other guests or for maneuvering within the home.

## Suggesting accommodations

Be ready to suggest accommodations for any home features that do not work for you. For example, if a dining table is not high enough for you to pull your chair under, consider pulling up to the table from the side, if there is room, or requesting a lap tray. Advising the host of the best way to accommodate you can help both parties enjoy the visit.

Bathroom needs are probably the most personal and difficult accessibility issues to negotiate. Consider how you will handle this issue before the visit to avoid embarrassment on the part of both guest and host.

## How to Be a Good Host

### Preparing the home

Just before a visit, remove any small objects like toys, shoes and cords that may block a path. Especially for power chair users (motorized wheel chairs), remove any small area rugs or thin mats that might get wound up in chair wheels.

Consider the area of the home where the guest or guests will gather. Can the wheelchair user find space close to where people will be interacting? If not, can furniture and other objects be rearranged to make the setting more inclusive and facilitate interaction?

### Providing help

Always ask the wheelchair user if help is needed, and if it is requested, ask how to best provide it.

If you are assisting a person in a wheelchair up or down a curb or step, for example, ask the wheelchair user which part of the chair

would be best to hold on to. (Some chairs have handles, others don't.) If going down a curb facing forward, remember to tip the chair backward to avoid dumping the person out of the chair.

Request permission from the person using the wheelchair before touching, and especially before moving, the chair.

Create a plan for how your guests can notify you upon their arrival. This will be especially pertinent if assistance might be needed to get from the street to the home in case of weather-related barriers, or to enter the home. If you provide a phone number to the guest, be sure the ringer is turned on and be attentive to your phone.

If guests must be helped into the home, don't make their arrival the focus of unwanted attention. Try to direct the attention of other guests elsewhere, and minimize disruption of any ongoing activity. If the wheelchair user leaves the gathering to use a restroom elsewhere and then returns, facilitate a discrete departure and arrival.

Be sensitive to the guest's needs within the home. For example, if a meal is served buffet-style in close quarters, ask the guest if they would like to go first before the area is crowded and offer to help reach items. Or, ask if the guest would like you to fill their plate.

### **Interacting**

When speaking for more than a minute or two with a person using a wheelchair, pull up a chair, kneel or crouch to get down to that person's eye level, if possible. Alternatively, you may suggest relocating to an area of the house where there are seats. This will create a more comfortable conversational setting for all involved.

**Remember that the goal of a visit is to spend time together or share an event. Being flexible and seeking mutually agreeable solutions to access problems can help both parties enjoy the visit.**

If an activity moves from outside to inside, or vice versa, during a visit, remember not to leave the person in the wheelchair out of the action. If the person cannot move with the group, ensure that someone stays with the person until the others return or suggest relocating with the group.

### **Accommodating**

If a guest prefers to transfer to a sofa or chair, allow them to keep the wheelchair within reach at all times. Similarly, allow a person who uses a walker or a cane to keep equipment nearby. This will allow the guest to have freedom of movement, as an ambulatory person has, and to have access to the equipment in case of an emergency. If space is limited, be sure to talk with the individual first to ask if it is okay to relocate their wheelchair and/or device, but still within reach and close proximity.

Despite your best planning, if an access problem arises during a visit, do not despair. Ask the person how you might best accommodate. People with disabilities are typically very experienced at improvising. So, for example, if a dining table is not high enough to pull the wheelchair under, ask what might help. The person might be able to pull up to the table sideways, or might ask for a lap tray.

# Barrier Checklist

The following checklist will help reveal barriers in your home that could prevent you and your guest from enjoying the visit. If you answer no (“N”) to any of these questions, see the suggestions provided. These solutions are intended to stimulate thinking. Be creative! Any questions or uncertainty may be resolved by a discussion between the host and guest.

## Key Measurements

- 36” pathway that is non-slip and clear of objects
- ½” max. thresholds
- 32” door opening
- 18” clear wall space on the pull side of the door
- 60” turning radius

Each suggested solution has been categorized as either temporary, moderate or permanent based on the relative difficulty, cost and/or permanence.

● **Temporary** – easy, affordable, quick, reversible

▲ **Moderate** – somewhat more complex and expensive, but might solve problem permanently

■ **Permanent** – most complex, most expensive, likely requires professional help

**1. Make a list of all the rooms or areas where activities are likely to take place. This is considered the destination area or activity area.**

a. **Example:** Kitchen

- b. \_\_\_\_\_  
c. \_\_\_\_\_  
d. \_\_\_\_\_  
e. \_\_\_\_\_

**2. Make a list of all the various ways to get to each of the rooms or areas you listed above.**

a. **Example:** front door – hallway – turn R – living room or turn L – bathroom

- b. \_\_\_\_\_  
c. \_\_\_\_\_  
d. \_\_\_\_\_  
e. \_\_\_\_\_

3. **Plan the accessible routes for your home – make sure that all the locations listed above have accessible pathways to, from and through each destination area. The following checklist will guide you through this process. Refer to the How-To section and other sections of this resource for further explanations or instructions.**

Remember to consider these factors when deciding what modification solution is right for you and your guest:

- Length of visit
- Frequency of visits
- Severity of barrier
- Permanence of modification

## Outside pathways to the entrance

1. **If the pathway has steps, how many? \_\_\_\_\_ Are the steps grouped together or separated by landings?**

### Solutions:

- Borrow or rent a ramp.
- ▲ Buy a ready-made ramp.
- Assist the wheelchair user up and down the steps (ask permission).
- Remove steps from pathway and replace with appropriate surface and slope.

2. **Does the pathway connect to the arrival area?**  Y  N

**If no, is the gap between the pathway and the arrival area short enough to use a temporary solution?**  Y  N

### Solutions:

- Consider another pathway that connects to the entrance pathway.

- Use plywood, cardboard, or drywall to cover the gap.
- ▲ Install new landscaping to create a pathway.
- Assist guest across gap (ask permission).

3. **Is the pathway at least 36" wide?**

Y  N

**If no, how wide is it?** \_\_\_\_\_

### Solutions: widen pathway

- If there is space, add plywood or cardboard over the yard and path to soften the difference between the two surfaces and widen the pathway.
- ▲ Use pavers to expand the width of the pathway.
- Modify landscaping to create a new wider path with firm, non-slip material.

4. **Is the pathway relatively flat?**

Y  N

### Solutions: use your best judgment

- If the slope is uphill, ask your guest if you can assist them by pushing the wheelchair up the hill.
- If the slope is downhill, hold on to the chair back to prevent going too fast and losing control.
- Regrade the landscape and pave with appropriate firm, non-slip material.

**Warning:** Wet pathways that are sloped may be slick and dangerous.

# Barrier Checklist (continued)

5. Is the pathway made of non-slip surface continuous material – without breaks, cracks, or uneven areas?  Y  N

**Note:** Uneven surfaces should be shorter than ¼” tall (thickness of a standard pen or pencil) to be usable.

### Solutions:

- Repair gaps with sand and soften cracks.
- Repair breaks or large vertical shifts with a piece of wood or other material that will create a bridge and make a smooth non-slip continuous path.
- Find an alternative route.
- Regrade the landscape and pave with appropriate firm, non-slip material.

6. Is the pathway clear of all obstacles and debris?  Y  N

### Solutions:

- Remove obstacles and debris

## Getting into and through the home

1. Is there an entrance that does not require steps?  Y  N

**If yes, where is this entrance located?**

front  rear  side  garage

2. Are all doorways at least 32” wide?

Y  N

**Note:** 36” doors typically allow for the minimum 32” clear opening. See “How to Measure Doorways” for instructions. If an opening along the route is not at least 32” wide, how wide is it? \_\_\_\_\_

### Solutions:

- Remove door temporarily for visit.
- Replace hinges with off-set/displacement hinges. To match hinge holes, count how many hinges you need, typically two or three per door, and note the placement and number of screws.

**Note:** If you don’t want to put new holes in your existing doors, consider purchasing a cheaper door which you can install with the off-set hinges and switch out the doors as needed.

3. Are the thresholds less than 1/2” tall (no-trip threshold)?  Y  N

Are the thresholds beveled?  Y  N

### Solutions:

- Place a small carpet over the threshold to soften it. Consult with the guest to determine if this will be adequate.
- Push the guest’s chair over the threshold (ask permission).
- Remove the threshold and replace with one 1/2” high or lower.

# Barrier Checklist (continued)

4. Is there at least 18" of clear wall space on the pull side of the door (adjacent to the handle)?  Y  N

### Solutions:

- Open and close the door for the guest when signaled.
- Attach a pull cord to the inside of the door.
- Remove any temporary obstacles (waste basket, clothes hamper) that block wall space.
- Relocate any permanent obstacles that block wall space.

5. Are the hallways and pathways at least 36" wide and clear of obstacles?  Y  N  
If no, find an alternate route.

6. Are there any sharp turns?  Y  N

**Note:** Most wheelchair users need a minimum of 60" turning radius (a circle) or a clear area that measures 30" by 48".

### Solutions:

- Find an alternate route.
- Relocate objects that contribute to the need for sharp turns.

7. Are there any flooring surface changes that result in a barrier of 1/2" or more?  Y  N

### Solutions:

- Tape a piece of cardboard down to cover the area and soften the level change.
- Use a threshold cap or cover.
- Remodel to level the flooring surface.

8. Are there any steps or significant level changes?  Y  N

### Solutions:

- Find an alternative route
- ▲ Rent, buy or build a ramp (assuming there is enough space to accommodate a reasonable slope)
- Remodel to eliminate the level change

## Bathrooms

1. Is the door opening at least 32" wide?  Y  N

If no, see inside pathways above for solutions or see solutions for number 2 that follows.

# Barrier Checklist (continued)

2. Does the door open into the bathroom (inward swing) resulting in insufficient space to accommodate a wheelchair?

Y  N

### Solutions:

- Remove door for visit.
- Replace door with a curtain hung from a tension rod or tacked to the trim.
- ▲ Reverse door hinges so that the door opens outward.
- Replace hinges with offset/displacement hinges.
- Remodel to widen door opening.

3. Can your guest close the door without assistance?  Y  N

### Solutions:

- Tie a cord around the door knob or lever so that your guest can pull the door closed when inside.
- Have someone close the door behind the guest and remain nearby to open it when the guest has finished using the bathroom.
- Remodel to expand the clear space around the door.

4. Is the toilet seat at least 17" from the floor?  Y  N

### Solutions:

- Install a toilet "riser" but check with your guest to ensure that it will be safe for them to use.
- Install a new toilet that meets ADA standards (top of bowl is 17-19" from the floor).

5. Can your guest transfer to the toilet safely?  Y  N

**Note:** This is a very individual access issue and should be discussed with the guest before making any changes.

### Solutions:

- Install temporary grab bars that attach to the toilet or tub (may not work for fiberglass tub enclosures).
- Install permanent grab bars securely to the walls behind and next to the toilet.
- May require a remodel if there is no wall next to the toilet to accommodate a grab bar.

6. Can your guest reach the sink and manipulate the faucets to wash their hands?  Y  N

### Solutions:

- Place a bottle of hand sanitizer in a reachable location.
- Remodel to increase accessibility.

# Resources

## Information on adaptive equipment

AbleData provides objective information about assistive technology products and help in locating companies that sell products such as offset hinges.  
<https://abledata.acl.gov/>

This site has information on ADA guidelines for ramps, with a table about ramp guidelines and platform specifications. It also sells an assortment of ramps, including suitcase and threshold ramps.  
[www.ramps.org/ramps-for-homes.htm](http://www.ramps.org/ramps-for-homes.htm)

Vendor of kits to build affordable wooden ramps.  
<http://www.wheelchair-ramps-diy.com/>

Vendor of adaptive equipment, including offset hinges and ramps.  
[www.adaptiveaccess.com](http://www.adaptiveaccess.com)

Information on assistive technology programs in all U.S. states and territories that may have portable ramps for loan:  
<https://www.at3center.net/>

## Assisting Wheelchair Users

This site provides instructions to assist a wheelchair user safely up or down a curb or step.  
<https://patienteducation.osumc.edu/Documents/wheel-chair.pdf>

## Accessibility Guidelines

The United States Access Board issues building standards for public buildings to comply with the Americans with Disabilities Act, but these standards can also be useful for home modifications to increase visitability.  
<https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards>

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## Visitability

AARP has numerous reports on both visitability and universal design solutions; one example is titled "Increasing Home Access: Designing for Visitability."  
[https://assets.aarp.org/rgcenter/il/2008\\_14\\_access.pdf](https://assets.aarp.org/rgcenter/il/2008_14_access.pdf)

The National Council on Independent Living explains the concept of visitability as a growing nationwide trend.  
<https://visitability.org>

SUNY Buffalo maintains a listserv on visitability with a searchable archive.  
<http://listserv.acsu.buffalo.edu/archives/visitability-list.html>

## Universal/Accessible Design

The Center for inclusive Design and Environmental Access provides a variety of resources on accessible design that are worth exploring.  
<http://idea.ap.buffalo.edu/home/index.asp>

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## Credits

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**Birthday parties ...**  
**Wedding showers ...**  
**Graduation parties ...**  
**Game nights ...**  
**Holiday gatherings ...**

Friends and family members who use wheelchairs and other mobility devices can be a part of all these events and more. This resource is designed to help hosts and guests find ways to make homes visitable – so everyone can enjoy the party.

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