

Home Modifications through Universal Design: A Resource Guide



The City of Irvine is proud to present this Resource Guide for residents interested in making Universal Design modifications to their homes.

This Resource Guide was created to:

- **provide a brief overview of Universal Design** and its benefits,
- **offer some suggested residential modifications** using Universal Design features,
- **act as a guide to related resource materials and organizations**, and
- **explain the steps needed when going beyond ‘do-it-yourself’ projects** in The City of Irvine.

In addition to changes you can make in your home, The City of Irvine is committed to providing an accessible and inclusive community. The City offers a wide range of services for persons of all ages and abilities and maintains accessible facilities, programs and events.

Introduction

All people have varying abilities.

Throughout our lives, many of us may encounter temporary or permanent changes in our ability to conduct the tasks necessary for daily living.

Therefore daily tasks become limited by barriers.

Universal Design is about barrier-free living. Some barriers may exist when:

- moving between rooms in a house,
- turning the faucet on to a desired temperature,
- getting in and out of the shower, or
- visiting a friend's home.

You can limit the impact of barriers by implementing the features of Universal Design. This means that your home can be more responsive to the reality of varying abilities inherent to life.

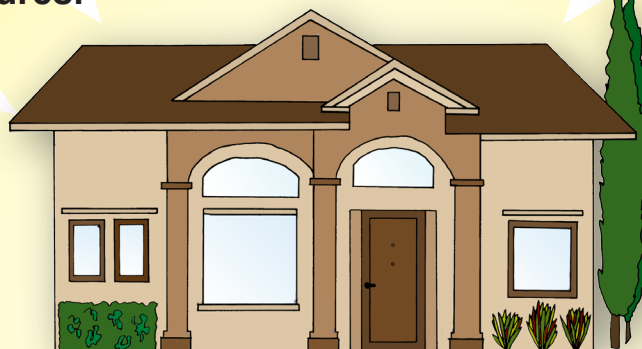
Some suggested Universal Design features are listed in this Resource Guide, although there are many more options available when making changes to your home. **Each image has corresponding notes of the illustrated Universal Design features.**

Universal Design features can:

- **increase accessibility**, or the ability to access regular activities in your home;
- **enhance visitability**, or the ability for friends to visit your home;
- **promote more independent lifestyles**, for your self, family and guests;
- **‘universally’ support** people’s diverse needs and abilities;
- **provide greater safety** in your home; and
- **encourage “Aging in Place.”**

The benefits of home modifications can serve immediate and future needs.

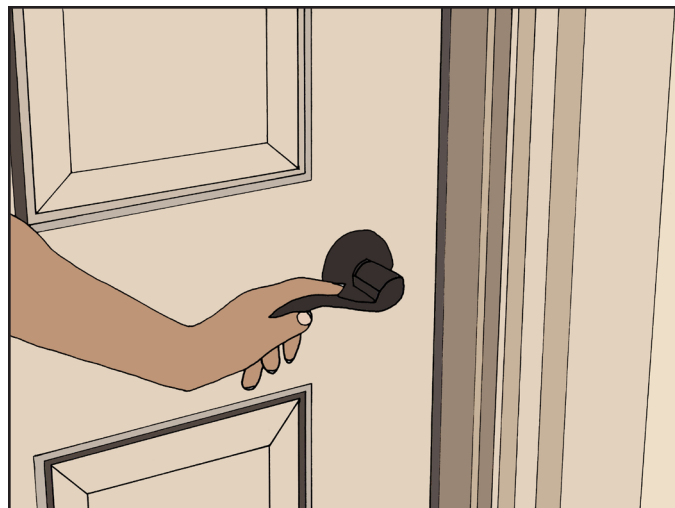
Modifications of Universal Design can be accomplished easily and with limited resources; they can be done at once or phased over time.



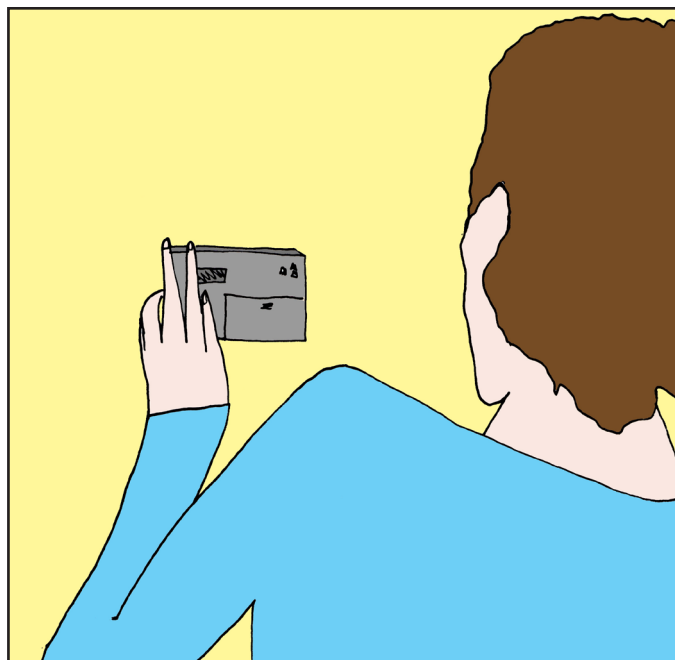
Universal Design Features

Of the numerous Universal Design features, the following are some suggested alterations that can make your home safer and easier to use:

- **Change door handles to levers** (rather than knobs) which can be operated with a forearm, wrist or elbow.
- **Install a secondary 'peep hole' in the front door** from 42"-48" from the floor to support their use for people of all heights.
- **Move outlets and jacks up**, to 18-24" from the floor to be reached more easily.
- **Lower light switches and temperature controls**, to 42"-48" from the floor, for ease of use and better legibility for those of varying heights.
- **Change flooring** to wood, vinyl, non-slip ceramic tile, or high-density and low-pile carpeting.
- **Change cabinet hardware** to 'U' shaped pulls for easier grasping.



• Lever type door handle

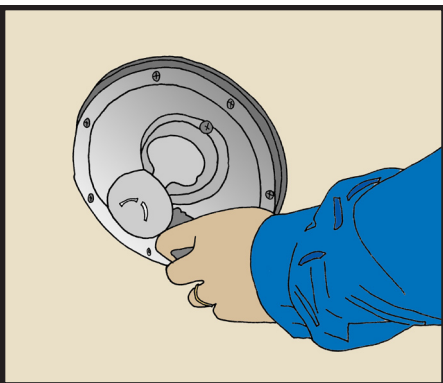


• Temperature controls placed at 48" height from floor

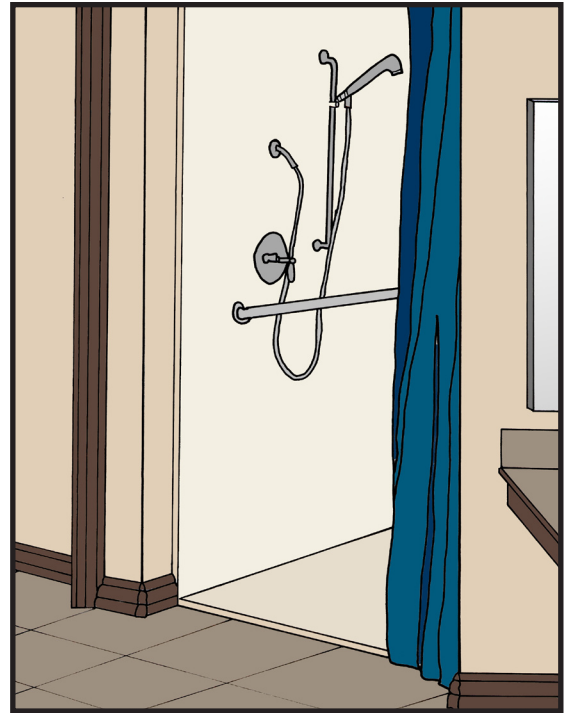
Kitchens and Bathrooms

For kitchens and bathrooms:

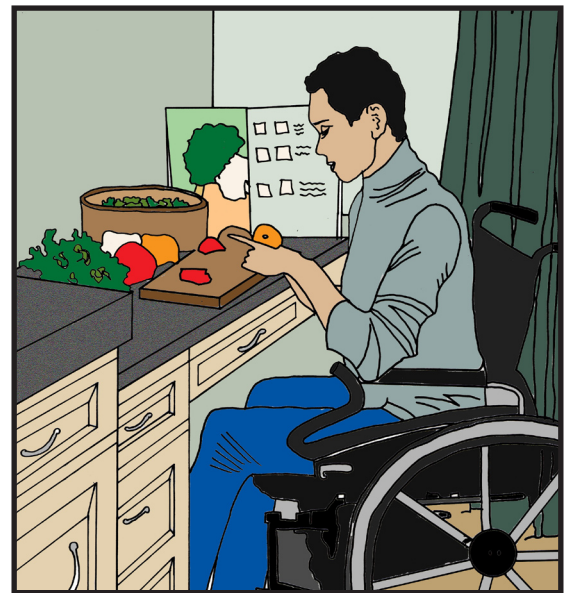
- **Change shower heads and spigots** from a 'fixed' type to one that has a hand-held mechanism.
- **Replace faucets** with a single-control, lever type device for easy operation and temperature selection.
- **Add insulation** to exposed hot water lines beneath sinks to prevent accidental scalding.
- **Install properly placed and supported grab bars**, contrasting in color to the wall for better visibility, in toilet and shower/bathtub areas.
- **Increase the toilet seat height** by changing the toilet, toilet seat or adding an insert where the base meets the floor.
- **Create areas of countertop at differing heights with leg space underneath** for users in seated positions.



- **Single-control lever type shower handle hardware**



- **Low threshold transition into shower stall**
- **Adjustable height shower head with hand-held mechanism**
- **Grab bar properly installed**
- **Open area under countertop**



- **'U'-shaped cabinet hardware**
- **Lowered countertop workspace**
- **Open area under countertop**

Appliances

When selecting or installing appliances, consider the following:

- **Front loading** washers and dryers are more convenient for people of all heights, while
- Some **control buttons** are easy to read and audibly 'click' into the desired settings, making use easier for people with diminishing hearing ability.
- Select **side-hinged** ovens and microwaves; install a pull-out shelf directly below, or next to the appliance to help when removing hot food.
- For people of different heights select **side-by-side** refrigerators which have good access to shelves and
- Install appliances at **comfortable heights** for the user.



- Open area under sink
- 'U'-shaped cabinet hardware
- Side-hinged appliances
- Front-loading washer/dryer on lifts
- Level non-slip ceramic tile floor



- Placement of electrical outlets and light switches
- Side-hinged door on microwave
- 'U'-shaped cabinet hardware

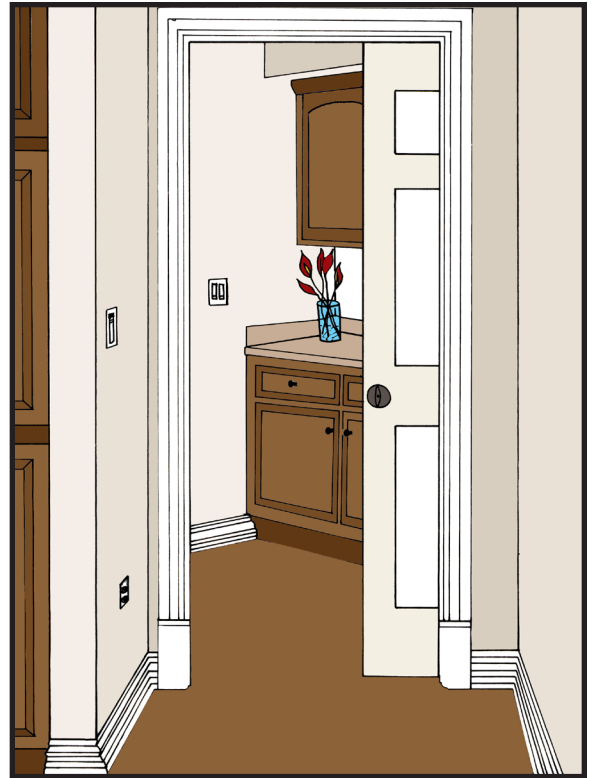


- Side-hinged door on microwave
- Pull-out shelf
- 'U'-shaped cabinet hardware
- High-contrast appliance buttons

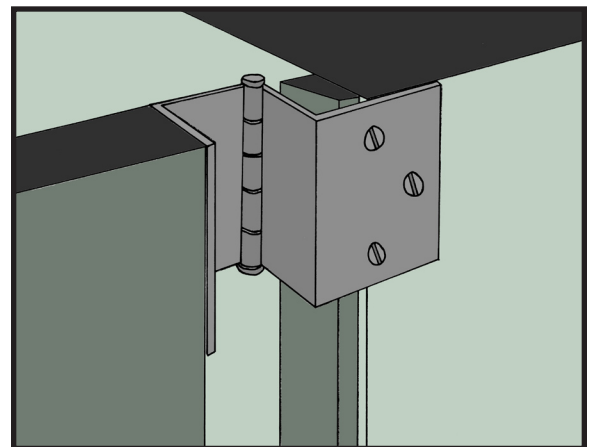
Doorways

Doorway Improvements:

- **Maximize doorway widths** (32" minimum; 36" preferred) by either:
 - Replacing **door** hinges with the 'swing-clear' type,
 - Replacing the door with a pocket door, or
 - Replacing the door with a sliding door on externally wall-mounted glides.
- **Lower threshold transitions** to $\frac{1}{4}$ "- $\frac{1}{2}$ " or add angled wedges to ease movement between rooms.



- Sliding pocket door
- Wood/laminate flooring
- Level doorway threshold
- 'U'-shaped cabinet hardware
- Placement of electrical outlets and light switches



- 'Swing clear' type hinge can increase doorway clearance

Multi-Story Residences

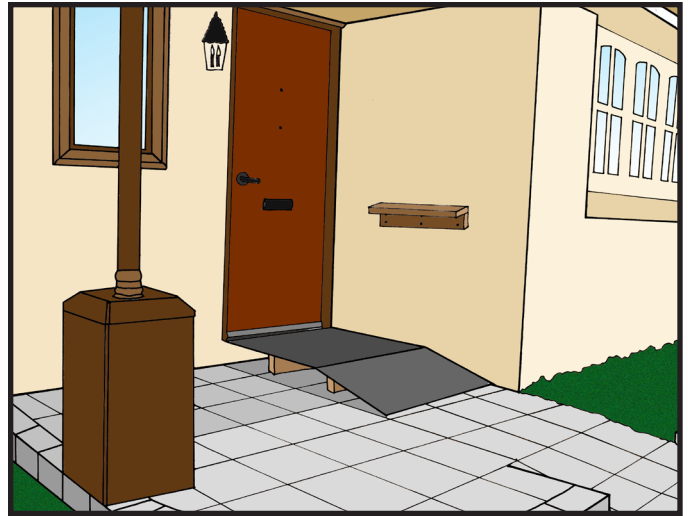
In cases of multi-story residences or homes with grade/elevation changes such as 'sunken' living rooms or stepped entryways, the barriers may be reduced in severity, in the following ways:

Interior

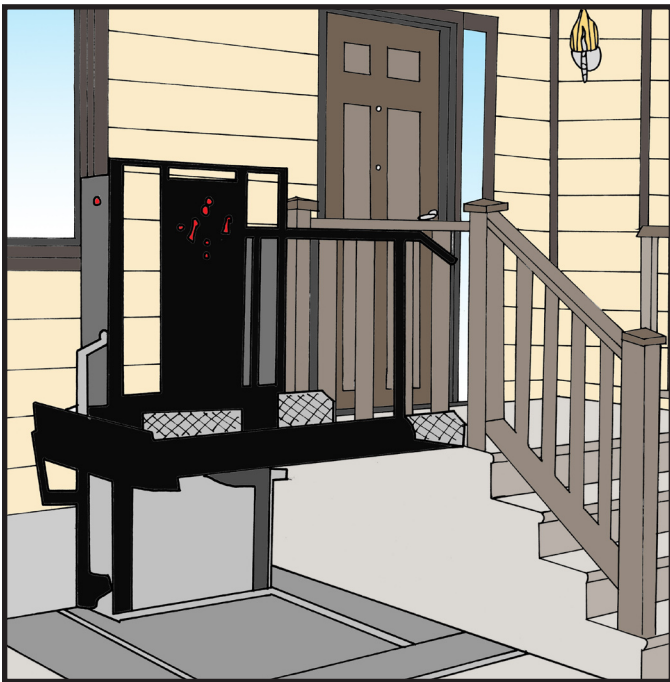
- Install a **residential lift or elevator**,
- **Chair-lift** to transcend a stairway
- Permanent or portable **ramps or wedges**, for uneven living spaces.

Exterior

- **Add a ramp** next to, or over stairs.
- Create an entirely **new entry point** through adding a ramp.



- **Exterior ramp** added to front entry
- **Dual-height peep holes** in front door
- **Package shelf** near door
- **Lever type door handle**
- **Effective lighting**
- **Level tile pavers** to front entry



- **Residential lift** next to stairs at front entry
- **Dual-height peep holes** in front door

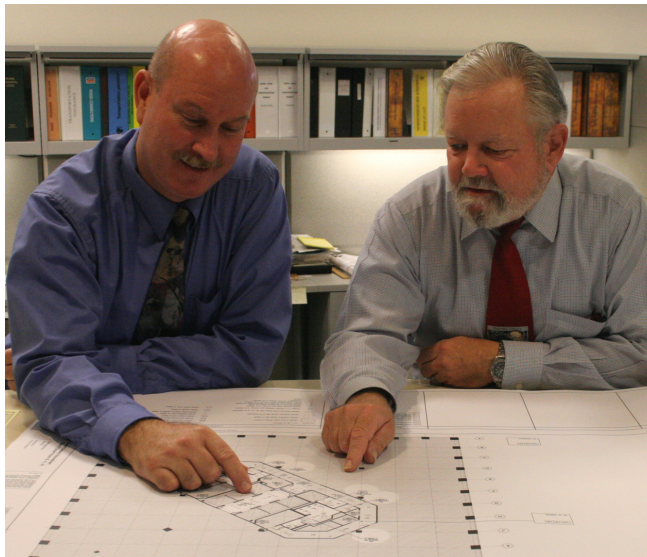


- **Create a concrete ramp** next to existing stairs

Do-It-Yourself

Going beyond 'do-it-yourself'...

- **A licensed contractor is required for any construction work valued at \$500.00 or more.** Contractors are listed in the phone book or on the internet. When selecting a contractor, make sure to verify the license through the California State Contractors Board (*see resources listed on page 8 of this guidebook*) and **ask for all references.**
- **A permit is required for all electrical, mechanical, plumbing, and structural modifications to your home.** Permits are not required for interior painting, wallpaper, flooring, or same-size window replacement.
- **Building plans/blueprints are required in order to receive a permit.**



Permits

Issuance of a City building permit does not relieve you of the legal requirement to obtain approval of the proposed modifications from your **Community or Homeowner Association (HOA)**, which may require separate review. Therefore, **please read the following notes for your particular residential characteristics:**

Attached Homes	Detached Homes	Rental Units
<ul style="list-style-type: none"> • Select a contractor specific to the desired modifications. Verify the contractor's license with the State. Check all references. • Visit your HOA to receive an Approval Letter. • Visit the Community Development counter at City Hall with building plans and HOA Approval Letter to obtain a City building permit. • Commence work after receiving a City building permit. 	<ul style="list-style-type: none"> • Select a contractor specific to the desired modifications. Verify the contractor's license with the State. Check all references. • Visit your HOA to obtain HOA permission for proposed work. • Visit the Community Development counter at City Hall with building plans to obtain a City building permit. • Commence work after receiving a City building permit and HOA approval. 	<ul style="list-style-type: none"> • Discuss modification needs with your Site Manager prior to making any changes. • If reasonable accommodations are not possible, then contact either: <ul style="list-style-type: none"> a. The renter dispute hotline service for Irvine Apartment Communities, or b. The Fair Housing Council of Orange County (FHCOC) provides Irvine residents with education and mediation services regarding fair housing enforcement.

Resources

Local & State Resources

City of Irvine, Community Services

www.ci.irvine.ca.us/depts/cs/default.asp

- Disability Services (949) 724-6732
- Senior Resource Center (949) 724-6926

City of Irvine, Community Development, Building & Safety

www.ci.irvine.ca.us/depts/cd/buildingsafety/default.asp

- Universal Design Information (949) 724-7290
- Permit Processing Center & Information Line (949) 724-6313

Dayle McIntosh Center: Disability Resources and Advocacy

www.daylemc.org

(714) 621-3300; TDD (714) 663-2087

- Housing Services (714) 620-8321

Braille Institute

www.brailleinstitute.org/Centers/OrangeCounty.htm

(800) 272-4553

Rebuilding Together, Orange County

(714) 667-8174

www.rebuildingtogether.org/main-pages.php?page_id=main/home_mods/home_mods.php

Irvine Apartment Community, Renter Dispute Hotline Service

(800) 422-5162

Fair Housing Council of Orange County (FHCOC)

(800) 698-FAIR, info@fairhousing.org

State of California, The Division of the State Architect (DSA), Los Angeles Basin Regional Office

www.dsa.dgs.ca.gov/UniversalDesign/default.htm

(213) 897-3995

Contractors State License Board

www.cslb.ca.gov/contractorEd/FreeInfoPostcard.asp

(800) 321-CSLB (2752)

Resources

Other Resources

AARP (American Association of Retired Professionals)

www.aarp.org/families/home_design/

National Resource Center on Supportive Housing and Home Modification (NRCSHHM)

For information on aging in place

www.usc.edu/dept/gero/nrcshhm/directory/; (213) 740-1364

Paralyzed Veterans of America (PVA) Architecture

www.pva.org/livingsci/architecture/archindex.htm; (800) 424-8200

TTY (800) 795-HEAR (4327)

Center for Universal Design, North Carolina State University

www.design.ncsu.edu:8120/cud/

Info Line: (800) 647-6777

Tel/TTY (919) 515-3082

Kansas State University

www.k-state.edu/humec/atid/UDF/related_resources.htm; (785) 532-1325

Transgenerational Design

www.transgenerational.org/resources/books.htm; (505) 323.4041

Independent Living Institute (Sweden)

www.independentliving.org/links/links-accessibility-and-universal-design.html

Wheelchair Net

www.wheelchairnet.org/WCN_ProdServ/Products/access.html; (412) 586-6908
TDD (412) 383-6598

Accessible Living

www.adaptenv.org/index.php?option=Resource&articleid=405&topicid=28
v/tty(617) 695-1225

Aging Beautifully

www.agingbeautifully.org/abstracts.html
(970) 219-0212

The IDEA Center at University of Buffalo

www.ap.buffalo.edu/idea/Home/index.asp
(716) 829-3485

Concrete Change

www.concretechange.org

Iowa Program for Assistive Technology (IPAT), Center for Disabilities and Development

www.uiowa.edu/infotech/universalhomedesign.pdf
(800) 779-2001

Community and Home Injury Prevention Project for Seniors (CHIPPS) – San Francisco Department of Public Health

www.dph.sf.ca.us/php/chipps.htm
(415) 581-2415

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Other Resources

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**California Department of
Rehabilitation, Fountain Valley**

www.rehab.cahwnet.gov/default.htm
(714) 593-5678

Easter Seals, Santa Ana

(714) 834-1111
[www.southerncal.easterseals.com/
site/PageServer?pagename=CALA_
ResidentialServices](http://www.southerncal.easterseals.com/site/PageServer?pagename=CALA_ResidentialServices)

California Department of Aging

(800) 510-2020
[http://www.aging.state.ca.us/html/
programs/services_menu.html](http://www.aging.state.ca.us/html/programs/services_menu.html)

ABILITY Awareness

www.abilityawareness.org
(949) 854-8700

**U.S. Department of Housing and
Urban Development (HUD), Housing,
Counseling & Referral Line**

(800) 569-4287
www.hud.gov/local/index.cfm?state=ca

