## **Universal Design & Green Home Survey Checklist**

©2016 Leonard A. Sandler **University of Iowa Clinical Law Programs** leonard-sandler@uiowa.edu **April 2016** 

We developed this checklist in conjunction with the Washington Court Housing Survey, a report on universal design and accessibility in affordable housing, <u>www.uiowa.edu/legalclinic</u>. It is designed for use by consumers, architects, developers, realtors and other stakeholders interested in designing and building livable, energyefficient homes and apartments that people of all ages and abilities can use, enjoy and adapt to suit their changing needs. Our goal is to promote independent living, safety, comfort, convenience and conservation of energy and natural resources. A few words, cautions, and disclaimers are in order.

Think Family: Try to anticipate the children and adults who might live, own, rent or visit the residence. People come in all shapes, sizes, and abilities -- tall, short, lean, hefty; so do our pets and service animals.

Think Ahead: Consider your current and future needs, resources, budget, and health.

Think Green: Be energy conscious when you design, build, and occupy the home. Conserve heat, water, electricity, and energy to reduce your utility bills and protect the environment. Recycle and reuse materials and buy local whenever possible. For ease of use, we have marked all of the Green Features with an asterisk \*

Do Not Think Disability, Wheelchairs or Ramps. But keep in mind that our lives -- and your family's lives -could change in an instant without warning because of accident, injury or aging.

Do Not Think ADA, Fair Housing Act or Other Accessibility Guidelines. Most of these standards do not apply to private homes and address mobility and vision impairments primarily. They provide only minimum standards that too often do not reflect the real world needs of most people with and without disabilities.

Keep In Mind the Magic Numbers. Your home should at least meet the minimum dimensions in these accessibility codes: www.hud.gov/offices/fheo/disabilities/accessibilityR.cfm and https://www.accessboard.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/ada-standards

36 inches: width of an accessible route, path, sidewalk or hallway 32 inches: width of the interior opening for all doors (clear passage) 30 by 48: space needed for a standard wheelchair expressed in inches 60 by 60: maneuvering room needed for a standard wheelchair expressed in inches or 5 feet by 5 feet 28 to 34: finished tabletop or countertop heights for accessibility expressed in inches 27 to 29: knee clearance measured from finished floor to bottom of desk, table, etc. expressed in inches 15 to 48: minimum and maximum height for controls, outlets, shelves, items expressed in inches

1: 12: maximum slope of ramps expressed in a ratio (1 inch of rise per 12 inches in length)

1: 48: maximum slope of parking spaces, access aisles, etc. expressed in a ratio or a percentage (2%)

One Size Does Not Fit All: No two people are alike. We cook, bathe, socialize, study, play, learn, and live differently. This checklist is not intended to address how to modify or customize a home, room, or feature for a particular person's disability, special need, or functional limitation.

Think Beyond: This checklist is not intended to be comprehensive, and no single checklist or source can provide all of the information you need. Please refer to the checklists, websites, and other information in the Washington Court Housing Survey: A Study of Accessibility and Universal Design in Affordable Housing-Executive Summary <a href="http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1624940">http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1624940</a>, 19 Journal of Affordable Housing 191 (2010)

<u>Using This Checklist:</u> Take this checklist, a clipboard, a pen or pencil, and a tape measure with you around your home. Check all of the features and amenities present in each room. The checklist begins with the outside of the home, but you may start wherever you like.

<b>Looking From The Outside</b>	In:
---------------------------------	-----

	Gently-sloped, obstacle-free path from public transportation, sidewalks, parking or garage to step free entrances
	Movement-sensor/Motion-sensor lighting along walkway as well as additional exterior lighting *
	Address numbers are easy to see from a distance and are illuminated or reflective for easy night visibility
<u>En</u>	<u>itryway</u>
	No-step entrances preferably at front, garage and other primary entrances
	Rails or supports at stepped entrances when needed
	Maneuvering space at each entrance: $\Box$ five feet by five feet $\Box$ six feet by six feet
	Nonslip surfaces on walk and driveways with ice and snow melt systems
	Covered entry or overhang to protect against weather
	Saturated lighting, ambient lighting and lighting focused on the front door and keyhole
	Shelf or bench for packages, keys and other items
	Mail slot or mail box is conveniently located, and is easy to reach and use for both letters and packages
	Doorbell is back-lit, easy to reach and has visual and audible cues
	Intercom system is hardwired to landline phone or linked to cell phone or other systems
	At least 18 inches of space at the latch side of the entry door
En	try Door(s)
	Three foot wide (3'-0" or 36") door with low or no threshold
	Door with swing hinges provides at least 32 inches of clear passage space when open
	Power-assist door and touchplates to open the door
	Kickplate on the door extends 10 to 11 inches from the bottom
	Keyless or remote entry systems and security systems with visual and audible alarms
	Rough in and pre-wire door and entry for future installation of power door and touch plates *
*	Green Feature Page   2

☐ Security wide angle peephole with a 132° - 200° viewing angle set at eye level or at 60 inches (standard), or multiple peepholes at various heights			
☐ Sidelight security window that is full-length			
☐ Keyhole is backlit			
☐ Lever style door handle/hardware			
General Interior			
☐ Open floor plan			
$\square$ If another floor plan is used, the use of interior load bearing walls is limited to allow future renovations			
☐ Locate the main kitchen, one bathroom, laundry and one bedroom (or space for a bed) on the ground floor or accessible floor			
☐ Hallway Width: ☐ 42 inches ☐ 44 inches ☐ 46 inches			
☐ Products and finishes are low maintenance and easy to clean			
☐ Reinforced ceiling for future installation of lift with a 600 pound capacity			
Doors			
☐ Door Width: ☐ 34 inches with 32 inch clear interior width ☐ 36 inches			
☐ Lever style hardware			
☐ Low- or no-threshold			
☐ No more than 5 pounds of force is needed to open or close doors			
☐ At least 18 inches of space at the latch side of door			
☐ Different colors and textures mark transitions between door jambs and walls			
☐ Pocket doors open and close with minimal force and have easy-to-use hardware			
Flooring			
☐ Floors are smooth, durable, slip-resistant and non-glare			
☐ Durable, low pile carpet (less than ½ inch thick), is low density and on top of a firm pad fragrance-free			
☐ Different colors and textures mark transitions between surfaces and rooms			
□ Low to no Volatile Organic Compound (VOC) materials *			
Windows			
☐ Viewing window sills no higher than: ☐ 32 inches ☐ 30 inches ☐ 26 inches ☐ 23 inches			
☐ Windows are lightweight and either: ☐ Crank operated ☐ Power operated			
* Green Feature Page   3			

☐ Rough-in and pre-wire for remote-operated window
☐ Casement, awning, hopper or jalousie style windows, which can be easier to use, but should be checked for energy efficiency
Hardware
☐ All interior door handles are lever style
☐ Handle pulls on drawers and cabinets are D or loop-shaped
☐ Touch latches are magnetic
☐ Power door push plates are located where needed
Lighting and Electrical
☐ General, indirect and task specific lighting is fluorescent and Energy Star rated *
☐ Light fixtures with electronic ballasts and linear or compact fluorescent bulbs placed to reduce glare *
☐ Wall outlets at varied heights: ☐ 18 inches ☐ 20 inches ☐ 22 inches
☐ Telephone jacks at varied heights: ☐ 18 inches ☐ 20 inches ☐ 22 inches
☐ Rocker style light switches are easily reached, large, illuminated and mounted 39 to 44 inches above finished floor measured to the center of the switch
☐ Light switches are located at the entrance of each room and are within easy reach
☐ Thermostat has a large backlit digital display and is easy to operate with a large keypad
☐ Thermostat mounted above the finished floor: ☐ 40 inches ☐ 42 inches ☐ 43 inches ☐ 44 inches
☐ Vacancy sensor/automatic-off switches in laundry, bathrooms and closets for lights, fans, etc. *
☐ Motion sensor lights in bathrooms *
☐ Strategically placed photocell lighting between bedrooms and bathrooms for wayfinding *
☐ Skylights and light tubes incorporate natural light *
Closets and Storage
☐ Half of all storage space located less than 48 inches above the finished floor
☐ Closet rods and shelves can be adjusted to different heights
☐ Shelving units that seated user can access and reach
☐ Electrical outlets in master bedroom closet and other closets for environmental and personal needs
equipment *
□ Power operated clothing carousels in closets
* Green Feature Page   4

Safety and Security					
☐ Smoke, Fire and Carbon monoxide alarms with visual and audible alarms are hard-wired with battery backup					
☐ Security alarm with visual and audible alarms					
☐ Movement-sensor lighting along walkway and additional exterior lighting					
☐ Home is wired for security to alert police, fire and emergency responders					
☐ Security/Intercom system allows monitoring of all systems from a TV, the internet, or handheld devices					
☐ Wall mounted phone outlets in the bathroom, kitchen and laundry for convenience and safety					
☐ Voice-activated, sound-activated, light-activated and motion-activated devices as needed					
☐ CO <sub>2</sub> and other exhaust fans in the garage					
<u>Kitchen</u>					
Circulation and Floor Plan					
☐ U or L shaped floor plan					
☐ Floor space is unobstructed for easy work and traffic flow					
☐ Circulation route widths: ☐ 40 inches ☐ 42 inches ☐ 44 inches					
☐ Maneuvering space: ☐ five feet by five feet ☐ six feet by six feet					
☐ Hard flooring materials are water-resistant and easy to clean and maintain					
☐ Visual barriers, cabinet fronts, etc. work to conceal kitchen essentials and mess					
☐ Maneuvering space at each work station of at least 30 inches by 48 inches					
Cabinetry and Storage					
☐ Storage is open, visible, flexible and available at the point of use					
☐ Cook-top and adjacent countertop are flush and level at 34 inches above the finished floor					
☐ Cabinets with removable or slide back hinged doors and removable sub-base to permit clear space or storage underneath:					
☐ Cook-top ☐ Sink ☐ Kitchen Island ☐ Food prep area					
☐ Cabinets beneath the sink and cook-top are a finished 30" wide x 30" high x 24" deep					
☐ Some upper cabinets are mounted 14 or 15 inches above the countertop instead of the standard 18 inches					
☐ Additional electrical outlets are strategically placed under upper cabinets					
☐ Drawers and shelving at varied heights with pull-out full extension tracks					
*					
T. Contra Factions					

K Green Feature Page | 5

☐ Lazy Susan or other similar storage in corner cabinets
☐ Handles on all cabinets are easy to grasp and use (D or loop shaped handles)
☐ Cabinets are adaptable and provide knee space under work surface areas and near appliances
☐ Hinges swing open to 170 degrees
☐ Glass doors on upper cabinets for better content visibility
☐ Roll-out carts stored under the cabinet, sink or other features
☐ Lower cabinets have a toe kick area (9 to 12 inches high and up to 6 inches deep for turning)
☐ Spice and towel racks pull out from strategically located cabinets
☐ Pull-out work board(s) near: ☐ Oven ☐ Refrigerator ☐ Microwave
☐ Cabinets constructed from non-toxic materials *
Countertops
☐ Durable and easy to clean and maintain
☐ Countertops at varied heights: ☐ 30 inches ☐ 34 inches ☐ 36 inches ☐ 40 inches ☐ 42 inches
☐ Countertops adjacent to the oven and cook-top are made of heat resistant materials, or a heat resistant pad is used between the stove and countertops
☐ Countertops have rounded or beveled edges
☐ Counter space on both sides of cook-top
☐ Countertops on at least one side of the refrigerator and oven
☐ Countertops are at least 30 inches wide
☐ Countertops are no more than 24 inches deep
☐ Countertops constructed from non-toxic materials *
☐ Countertops next to dishwasher, stove, etc. are flush with appliance's center or top rack
☐ Countertops, cabinets and cabinet bases have contrasting colors to provide visual cues
Sink and Water Systems
☐ Single-lever faucet mounted at the side of a low profile sink (or ADA packet sink)*
☐ Anti-scald valve or device set at 120 degrees maximum *
$\square$ Basin sink with offset rear drains no deeper than: $\square$ 7 inches deep $\square$ 6 inches deep $\square$ 5 inches deep
☐ Pipes and garbage disposal are offset and mounted near the back of the sink
☐ Water lines insulated to prevent heat loss and burns *
* Groon Footure

\* Green Feature Page | 6

☐ Pot filler and water line at cook-top if distant from the sink				
☐ Water filtration devices and systems are easy to reach and use *				
Lighting				
☐ Fluorescent or LED lights with electronic ballasts under upper cabinets *				
☐ Saturating fluorescent, recessed lights or surface lighting fixtures, with electronic ballasts and compact fluorescent bulbs *				
☐ Varied light sources and types, with reduced glare				
☐ Dimmer switches for adjustable lighting				
☐ Preset lighting options *				
☐ Movement sensors where appropriate *				
☐ Light switches are luminous rocker style				
Appliances				
Oven: self-cleaning, convection, with controls located no higher than:				
☐ 46 inches ☐ 52 inches (double stack oven)				
☐ Oven's center or top rack is level with adjacent countertop				
☐ Dishwasher raised 8 to 10 inches above floor with top rack aligned parallel to countertop				
☐ Refrigerator and/or freezer: Side-by-side model with water and ice dispensers mounted on the door and pull-out adjustable shelves				
☐ Refrigerator and/or freezer: Bottom-freezer may provide greater access to contents				
☐ Refrigerator and/or freezer with doors that open 160 to 180 degrees				
☐ Controls for exhaust fan and lights mounted in front of countertop near stove/oven				
☐ Controls for disposal located towards the front of the countertop near the sink				
☐ All appliances have front controls that are easy to reach, see and operate:				
☐ Cook-top ☐ Oven ☐ Dishwasher ☐ Refrigerator ☐ Microwave				
☐ Exhaust Fan ☐ Garbage Disposal ☐ Other				
☐ Safety shut-offs and multiple cues on all appliances				
☐ Garbage disposal switch is spring-loaded so that it must be held to remain on				
☐ Exhaust fan runs quietly with sufficient capacity, and is Energy Star rated *				
* Green Feature Page   7				

©2016 Leonard A. Sandler, University of Iowa Clinical Law Programs

☐ Side hinged appliances:	☐ Oven	□ мі	icrowave		
☐ Top loading (drop-down)	microwave mounted	beneatl	h the counterto	рр	
<b>Custom Power Features</b>					
☐ Power sink that raises or	lowers with push of fr	ont mo	unted controls	with a kill switch (sucl	h as AD•AS)
☐ Power cabinets that raise	☐ Power cabinets that raise or lower with front mounted controls with a kill switch				
Miscellaneous					
☐ Ceiling fans and lights op	erated with remote de	evice or	rocker style ba	ick-lit light switch	
☐ Desk built into the kitche	n with data port, cable	e conne	ction and outle	ets for office or person	al use
<u>Bathroom</u>					
Circulation and Floor Pla	an				
☐ Maneuvering space:	☐ five feet by five fe	eet	☐ six feet by	six feet	
☐ T-shaped room:	☐ three feet by five	feet	☐ four feet b	oy six feet	
☐ Circulation routes at leas	t 40 inches wide to ge	t to the	bathroom		
☐ Walls reinforced with ¾ i	nch plywood/wood blo	ocking f	for later grab ba	ar installation near the	2:
☐ Toilet	☐ Bathtub	☐ Sh	ower	☐ Sink	
☐ Flooring is slip-resistant a	and all surfaces are du	rable ar	nd easy to clear	n and maintain $^{f *}$	
☐ High volume inline exhaust fan that is quiet and on an automatic sensor *					
☐ Fixtures are self cleaning	or easy to maintain:	☐ Sir	nk/Faucet	☐ Showerhead	☐ Toilet
Personal Grooming					
☐ Vanity is Euro style with I with removable, adjustal				e clear space and knee	space beneath
☐ Full length mirror extend	ing at least 72 inches a	above tl	he finished floc	or	
☐ Medicine cabinet should be located to the side of	-		_	•	ould preferably
Bathroom Sink					
☐ Single lever faucet with a	nti-scald valve or devi	ce set a	t 120 degree m	naximum *	
☐ Countertop sink with box	พl placed close to the f	front ed	lge		
* Green Feature					Page   8

©2016 Leonard A. Sandler, University of Iowa Clinical Law Programs

☐ Sink and vanity cabinets with recessed or removable doors and adjustable shelving to provide open space or storage underneath 30 inches wide by 30 inches high					
☐ Wall hung sink	_				
Cabinetry and Sto	orage				
☐ Cabinets adapt to provide clear space and knee space beneath with removable/adjustable shelving					
☐ Point of use, easily accessible and adaptable storage					
☐ Lower cabinets with a toe kick area (9 to 12 inches high with sufficient space underneath for turning)					
☐ Storage provided	at various heights, with half of all storage located lower than 48 inches				
☐ Hooks and hoops	are utilized for storage				
☐ Waste basket bei	neath or alongside sink or vanity				
Toilet					
☐ Toilet is elongate	ed 16-1/2 to 17-1/2 inches				
☐ Toilets are 17 to	19 inches from the floor for greater comfort				
☐ Toilet is centered at least 18 inches from a wall allowing grab bars to be within easy reach but far enough from the wall to permit access using a wheelchair					
☐ If in an alcove or	compartment, provide an option to open the space up for greater access				
Bathing and Shov	ver Facilities				
☐ Shower Unit:	☐ Combination tub/shower unit ☐ Wet room				
	☐ No-step or low-step shower				
☐ Shower Size:	□ 36" x 36" □ 36" x 48" □ 36" x 60" □ Larger				
☐ Controls located	to minimize stooping, bending and reaching				
☐ Low- or no-thresh	hold entry				
☐ Anti-scald valve set at 120 degree maximum *					
☐ Fixed showerhead and detachable handheld showerhead with a 6 foot flexible hose on vertical slider bar					
☐ Single lever shower control mounted near the shower entry and 40 to 45 inches from finished floor					
but 43 inches pre	eferred *				
☐ Seat or bench in	the shower				
☐ Additional controls within reach of shower seat or bench					
* Green Feature	Page	9			

☐ Grab bars or wall backing for future installation
☐ High volume, inline exhaust fan that is quiet and on an automatic sensor *
Bathtub
☐ Bathtub has a non-slip bottom
☐ Controls located to minimize stooping, bending and reaching
☐ Lever type controls that are offset near tub entry
☐ Anti-scald valve set at 120 degrees maximum *
☐ Grab bars or wall backing for future installation
☐ Two-foot long platform at end of tub to permit easy entry or transfer, or to place toiletries
Lighting & Electrical
☐ Saturated fluorescent and task lighting from varied sources with adjustable controls *
☐ Sufficient shielded light to prevent shadows at vanity while grooming
☐ Electrical outlets within reach at the point of use
☐ Linear or compact fluorescent fixtures with electronic ballasts *
☐ Movement sensor lighting *
☐ Backlit rocker style light switches for night navigation
<u>Bedrooms</u>
☐ Saturated fluorescent and task lighting from varied sources with adjustable controls *
☐ Ceiling fan/light combo units are Energy Star rated *
☐ Ceiling fan/light combo units are operated by: ☐ Remote control ☐ Rocker style switch
☐ Closets with adjustable shelving and clothing rods at varied heights
☐ Fluorescent lighting in all walk-in closets with switch located just outside the closet doors *
☐ Walk-in or roll-in closets
☐ Closet doors are at least 36 inches wide
☐ Clear space of at least 36 inches on two sides of the bed
☐ Clear space of 60 inches next to the closet
☐ Additional electrical outlets throughout the room and near the bed to accommodate medical or other equipment
* Green Feature Page   10

☐ Telephone jacks, internet and other connections located near the bed
☐ Wall backing next to the bed and elsewhere *
☐ Reinforced ceilings to allow future installation of lifts or devices with 600 pound capacity *
Laundry and Utility Room
lacktriangle Laundry and utility room located on the main floor near the bathrooms and bedrooms
$\square$ Washer and dryer are front loaders with controls on the front; a top loading washer is acceptable
☐ Front loading washer and dryer are mounted 9 to 10 inches above the finished floor
☐ Controls and dispensers are easy to read, reach and operate
☐ When placed side to side, front loading washer is to the left and dryer is to the right for easy transfer of laundry
☐ Floor drain or drain pan under the washer
☐ Sink and some countertops are no more than 34 inches above finished floor with space underneath
☐ Space saving folding table
☐ Wheeled carts
<u>Decks</u>
☐ Doors are easy to open, close and lock and provide a minimum of 32 inches for clear passage
☐ Low or no threshold between home interior and deck
☐ Sliding doors and screens should provide at least 32 inches of clear passage when opened completely
☐ Decking is slatted to allow for easy drainage
<u>Stairways</u>
☐ Low-rise, wide stairs with high traction surfaces
☐ Stair treads: ☐ 8 inches deep ☐ 10 inches deep ☐ 12 inches deep
☐ Stair rise is between 7 and 8 inches high
☐ Stair treads do not stick out past the riser (unless required by code, then, use "cant strip" stair design)
☐ Stairway width: ☐ 42 inches ☐ 44 inches ☐ 46 inches ☐ 48 inches (for incline lift)
☐ Stairway width: ☐ 42 inches ☐ 44 inches ☐ 46 inches ☐ 48 inches (for incline lift) ☐ Install stairway lift or rough-in, pre-wire and provide backing and support for future lift *
☐ Install stairway lift or rough-in, pre-wire and provide backing and support for future lift *
<ul> <li>Install stairway lift or rough-in, pre-wire and provide backing and support for future lift</li> <li>Install elevator or anticipate future installation by stacking two closets on top of one another</li> </ul>

\* Green Feature Page | 11

Driveways and Garages
☐ Driveways and garages are flat on grade level with the accessible entrance level
☐ Power operated overhead doors
☐ Kickplate on garage door extends 10 to 11 inches from the bottom
☐ Eight feet high clearance or alternate on-site parking for tall vehicles
☐ Five to eight feet of space available between spaces for an accessible van and a car
☐ CO <sub>2</sub> exhaust fans and other ventilation *
☐ Sensor lighting focused on the aisle or path between vehicles *
Ramps (If you must have one)
☐ No more than 1 inch of rise for every 14 inches of length or a 1:14 ratio; 1:16 preferred
☐ Landings are 5 feet by 5 feet at all entrances
☐ Integrated into the overall design and landscaping
Water Conservation
☐ Appliances are Energy Star rated to use less water *
☐ Toilets are of the low water use variety *
☐ Sink and shower faucets are low flow *
☐ Roof and impermeable surfaces have a rainwater collection system for landscape irrigation *
☐ Water-permeable paving system to allow groundwater to be absorbed *
Overhangs on the roof are at least 24 inches*
Energy Efficiency
☐ Orientation to the sun as a passive solar home *
☐ Windows are energy efficient and provide the home with plentiful light during daylight hours *
☐ Solar panels are placed on the home exterior *
☐ Passive solar to allow sun in during winter months and shield home during summer *
☐ Raised heel roof trusses for better insulation and energy efficiency *
☐ Well ventilated attic space with solar powered vent fans *
☐ Windows are treated for energy efficiency *
* Green Feature Page   12

Page | 12

$lacksquare$ Insulation is high efficiency and located throughout all walls, ceiling and attic $^*$
☐ Soybean foam insulation made in selected areas *
☐ Water heater is tankless with heat exchanger unit installed between the compressor and heater *
☐ Foundation walls are cast-in-place concrete and are styrofoam insulated or an insulated concrete form
system, foam-in under roof, rather than just insulation $^{f *}$
☐ Lighting and appliances are Energy Star rated *
☐ Temperature controls divide the home into multiple zones *
☐ Heat pump with energy efficient HVAC System *
☐ Geothermal system with sealed ductwork *
☐ Fireplace or wood burner is high performance and vented with a combustion air intake *
$lacktriangle$ Mechanical fresh air heat exchanger ventilation system with carbon monoxide detectors $^*$
Indoor Air Quality
☐ Foundation and floor are moisture controlled *
☐ Air sealing and advanced insulation techniques are utilized *
☐ Heating systems are energy efficient and sealed *
☐ Air filtration is high efficiency *
☐ Whole house ventilation system*
☐ Radon detection devices or mitigation system *
☐ Construction products and all material selected for low or no volatile organic compounds (VOCs) *

## **Acknowledgements and Resource Guide**

The University of Iowa Clinical Law Program wishes to acknowledge the individuals and organizations that have been instrumental in developing and promoting guidelines, recommendations, and checklists for universal design and sustainable features in residential and other facilities. We have learned from, valued, and utilized their expertise when developing these materials. The Student Legal Interns on the project team who contributed most to this checklist are Andrew Ward, Scott Burrill, David Milender, Abby Van Harpen, Tom Reuland, Sara Stephenson, Trent Norman, and Reuben Ortega.

The Practical Guide to Universal Home Design: Tour your home to make it livable and barrier-free. Visit http://www.iowaat.org/udbooklet of Iowa Program for Assistive Technology

Access for Everyone: A Guide to the Accessibility of Buildings and Sites with References to ADASAD: Dr. Arvid E. Osterberg and Donna J. Kain, Ph.D.; Iowa State University. Visit the website at www.fpm.iastate.edu/accessforeveryone/default.asp

Center for Excellence in Universal Design of Ireland: Simply the best when it comes to explaining and implementing universal design in housing and in facilities. The materials are first-rate and are suited to all audiences (although they use metric measurements). http://universaldesign.ie/Built-Environment/Housing/

Arkansas Usability Standards in Housing (Universal Design): The standards offer a spectrum of options and tolerances to consider when designing or building a home. The materials are based on a scale of inclusiveness and were developed for the state's tax credit programs. http://adfa.arkansas.gov/home-program-documents

Universal Design Living Laboratory: One of the best sources for articles, tips, checklists and solutions for universal design, sustainability and energy efficiency in residential housing. Learn how to work with architects, builders, remodelers and consumers. Visit www.udll.com

**Lifemark** ™ of New Zealand has developed standards, tips, and certification and design recommendations for homes that suit people of all ages. http://www.lifemark.co.nz/

American Association of Retired Persons: Provides information and checklists on aging in place. Visit its website at http://www.aarp.org/home-garden/livable-communities/info-04-2011/universal-design-helpspeople-age-in-their-homes.html

Better Living Design Institute: Dick Duncan has been in the vanguard of universal design initiatives and projects for years. http://betterlivingdesign.org/homeowners/

New Home Universal Design Option Checklist: California officials developed a checklist to help prospective homebuyers and builders understand and consider features and amenities to make homes usable and livable for every stage of life. The checklist is online at http://www.hcd.ca.gov/codes/state-housing-law/ab1400.html

Smart Design Livable Homes: Shared Solutions America, Great Ideas for Better Living Checklist provides suggestions, guidelines, and dimension recommendation for home construction and renovations. Visit the website at <a href="http://www.livablehomes.org">http://www.livablehomes.org</a>

WELLComeHome: Home assessment, design, tours, case studies, suggestions and more from Ball State University. http://wellcomehome.iweb.bsu.edu/index.html

Green Feature Page | 14 Residential Remodeling and Universal Design: Making Homes More Comfortable and Accessible: This publication includes priority lists, building tips and solutions. It is available through HUD. Visit <a href="https://www.huduser.gov/portal/publications/destech/resid.html">https://www.huduser.gov/portal/publications/destech/resid.html</a>

**Six North Apartments** is one of the first multifamily residential buildings featuring 100 percent universal design. The case study, floor plans and referral information are online at <a href="http://casestudies.uli.org/6-north-3/">http://casestudies.uli.org/6-north-3/</a>

Minimum UD Requirements for New Construction of Affordable Housing: Building code and standards. Visit <a href="https://www.stlouis-mo.gov/government/departments/affordable-housing/documents/upload/UD-Requirements-Revised-2008.pdf">https://www.stlouis-mo.gov/government/departments/affordable-housing/documents/upload/UD-Requirements-Revised-2008.pdf</a>

**Home Modifications Listserv:** Post questions to professionals who can answer nearly every question about construction, equipment and solutions, with special thanks to Wally Dutcher. Visit the website at <a href="http://listserv.buffalo.edu/cgi-bin/wa?A0=HOMEMODIFICATIONS-LIST">http://listserv.buffalo.edu/cgi-bin/wa?A0=HOMEMODIFICATIONS-LIST</a>

**All About Your House:** A public television site with a very basic introduction to universal design, home safety, hiring a contractor and related issues. <a href="http://www.pbs.org/hometime/house/udesign.htm">http://www.pbs.org/hometime/house/udesign.htm</a>

**The Green Home Guide:** A one-stop site and primer from the U.S. Green Building Council with articles, checklists, standards and examples of green homes and sustainable communities. Online at <a href="http://www.greenhomeguide.com/">http://www.greenhomeguide.com/</a>

**Concrete Change** is a clearinghouse for information concerning the visitability of residential homes, common myths about universal design, and many other issues. Write to them at 600 Dancing Fox Road Decatur, GA 30032, call 404-378-7455 or visit the web site: http://www.concretechange.org/

**Center for Inclusive Design and Environmental Access:** The Center practices human centered design through research, development, service, dissemination and educational activities. University of Buffalo School of Architecture and Planning. <a href="http://www.ap.buffalo.edu/idea/Home/index.asp">http://www.ap.buffalo.edu/idea/Home/index.asp</a>

Universal Design for the Home: Great Looking, Great Living Design for All Ages, Abilities, and Circumstances by Wendy A. Jordan. The book is available at <a href="http://www.amazon.com/Universal-Design-Home-Abilities-Circumstances/dp/1592533817/ref=sr">http://www.amazon.com/Universal-Design-Home-Abilities-Circumstances/dp/1592533817/ref=sr</a> 1 1?ie=UTF8&s=books&qid=1245086662&sr=1-1

**Video Tour of Universal Design Complex:** The City of Dubuque posted a video that chronicles the 759 Bluff Street Project which involved Step By Step, Inc. and the UI Legal Clinic. Available at <a href="http://cityofdubuque.granicus.com/MediaPlayer.php?publish\_id=155">http://cityofdubuque.granicus.com/MediaPlayer.php?publish\_id=155</a>

**Universal Design in Single-Family Housing – A Health Impact Assessment:** This study from the Pew Charitable Trust examines the connection between the built environment and the health of residents. http://www.pewtrusts.org/en/~/media/Assets/2013/11/UniversalDesignandHousinginDavidsonNC

**City of San Antonio Universal Housing Design:** A captioned-picture tour of homes that include seven design features required of homes built with city financial assistance. http://www.sanantonio.gov/DAO/ADADesign/UniversalHousingDesign.aspx