

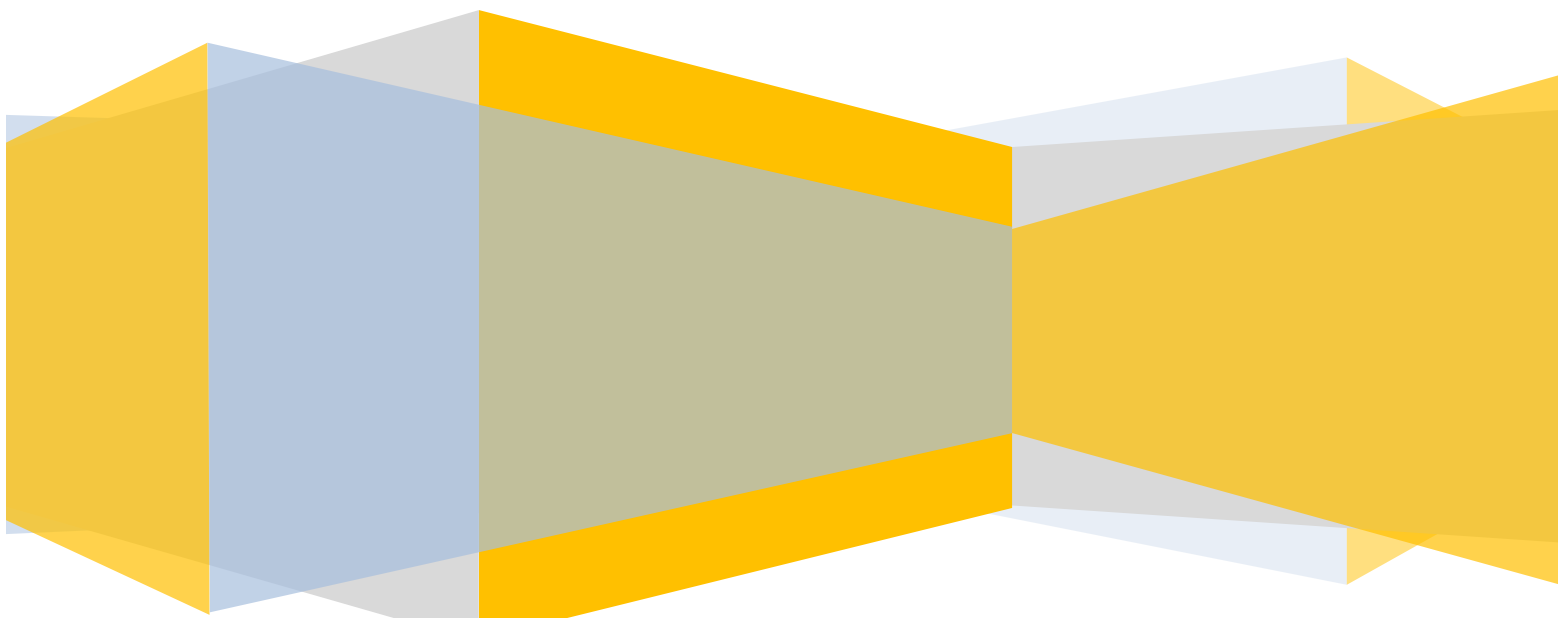


PROJECT RE-ENVISION

UNIVERSITY OF FLORIDA

DESIGN CHARRETTE BRIEFING BOOKLET

NOV 16, 2018
10 am – 2 pm



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AGENDA FOR THE DAY

- 10:00 Introductions and Talent Questionnaire (Sherry Ahrentzen)
- 10:15 Review the Day's Agenda and Goal; Highlights of Briefing Book (Steven Bender)
- 10:30 Tagging Images in Room (Everyone)
- 11:00 Breakout Session 1: Group Deliberations and Initial Solutions
 - a. Announce facilitator and members of each group (Sherry); each group assigned one of the 3 target areas; move to sit at table with group
 - b. Look at tagged comments of images relevant to target area
 - c. Develop ideas/schemes for target area, using tagged comments and briefing book material
 - d. Produce 2 sketched solutions
- 11:45 Working Lunch
- 12:15 Group Presentations of Initial Solutions; Workshop Feedback (Stephen)
- 1:15 Break-out Session 2: Fine-Tune Solutions (based on feedback)
 - a. Each group revises initial solutions based on feedback
 - b. Submit revised solutions
- 1:45 Adieu and Summary of Next Steps (Stephen)



PROJECT RE-ENVISION'S PURPOSE, TARGET AREAS AND PARAMETERS

PURPOSE

For homes with spatial or structural constraints, one approach to enhancing accessibility is that of *repurposing*: that is, replacing or adapting problematic fixtures or spaces with others that were not originally intended for that purpose.

An example would be turning a living room into a bedroom/living/kitchen suite.

What are some of the best ways to repurpose fixtures and rooms in small-scale, existing homes to make them more accessible, affordable and aesthetically pleasing?

TARGET AREAS OF THE HOME TO FOCUS ON

Bedroom to bathroom transition

Kitchen (meal preparation) and eating area

Ground-floor living suite in a two-story townhome

PARAMETERS

2-4 unit attached housing; and townhomes

Older housing stock

Subsidized, HUD assisted or public housing; and naturally occurring affordable housing

For households of low income and assets

With at least one occupant with a disability – primarily mobility/ambulatory (but not necessarily wheelchair-bound) and visual impairments (but not legally blind)



GOAL FOR TODAY'S CHARRETTE

For each of the three target areas, generate at least two repurposed design solutions that enhance occupant accessibility, and are affordable and aesthetically pleasing



BACKGROUND RESEARCH:
**HIGHLIGHTS OF LITERATURE REVIEW OF ADAPTED/REPURPOSED FIXTURES
AND SPACES**

Repurposing spaces to improve a home's functionality was rarely addressed in the research literature.

- One exception was a study finding of how to address a couple's desire to continue sharing a sleeping space when reallocating space to better meet the client's physical needs.

Discussion of altering fixtures (i.e. cabinets, plumbing fixtures, etc.) within homes was common.

- access and mobility both improved when travel paths within the home, such as from the bedroom to the bathroom, were linear rather than circuitous.
- recommended widening doorways and altering stepped entrances with ramps.
- in testing specific clearances and layouts in a bathroom context, wheelchair users found it easier to exit rooms offering 58.5" and 59.5" distances between front and back walls compared to other distances tested.
- recommended removing sliding shower doors for improvements in bath transfer safety.
- positive outcomes such as improved mobility, increased independence, social participation, and caregiver support occurred when hand-held shower units, grab-bars near shower/bath/toilet were installed, and bathroom layouts were reconfigured.
- above study recommended distances between the front and back wall in bathrooms needed to be greater than 55.5 inches to be easily navigated by someone in a standard wheelchair.
- the sink's height was found to be much more important than the sink's distance from the wall.
- recommended 32" bathroom countertop heights.
- to meet motorized-wheelchair user needs, optimal distance between the tub and toilet was 16.5 inches.

Kitchen

- a kitchen's size did not significantly affect the ease of entering it; however, the space available for turning was very important for navigating within the space.



- the standard 60 inch turning radius as well as a 57" turning radius were sufficient while smaller turning radii were substantially more difficult to maneuver.
- the distance from the refrigerator's front to the dishwasher's front did not influence perceived ease of use nor did the distance from the sink's center to the wall.

Much discussion of benefits reaped from implementing needed home modifications.

- improved safety and usability were associated with employing needed modifications.
- direct cost savings - in terms of the cost of the modifications compared to the substantially greater expense of institutionalization – was another direct benefit of improving home accessibility.
- coordinating multi-disciplinary interventions more successfully reduced difficulty with Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs), ultimately reducing the amount of stress clients experienced.
- more indirect benefits such as increased independence and social participation resulting from the more user-friendly home modifications which improved the ease of use and mobility within a client's home.
- quality of life improved when home modifications supported health, safety and usability within the home. reported self-confidence improved

The impact of home modifications on client perceptions of home

- while participants indicated concern about prospective changes possibly diminishing the visual appeal and with that the monetary value of their homes, findings suggested these concerns substantially diminished once the adaptations were completed.

Recommended intervention strategies to better support home modification outcomes.

- supplementing bathroom modifications with greater client education such as teaching clients how to safely transfer to and from the bath.
- increasing the client's role in decision-making during the remodeling project to provide better end results.



BACKGROUND RESEARCH:

FINDINGS FROM FOCUS GROUP INTERVIEWS OF CONSUMERS AND PROFESSIONALS

PROBLEMS + SOLUTIONS FOR BED TO BATHROOM TRANSITION

PROBLEM	SOLUTIONS
Halls too narrow for wheelchairs*	Taking rims off wheelchairs In lieu of a wheelchair some people get by just using a computer chair
Carpet more difficult to maneuver than wood but is more dangerous if a person falls	Gymnastics floor repurposed for a residence
Individuals may not use proper adaptive equipment so these individuals use the wall or bureaus as need support	NO SOLUTION
Thresholds for people with low vision	Using colored tape to mark thresholds to limit tripping risk
Clutter in hallways/circulation areas	NO SOLUTION
Wood floors can be slippery when trying to transfer to/from wheelchair	Using 3x5' rubber mats from home depot on their wood floors to keep wheelchair from slipping when transferring to/from it or to/from shower chair



PROBLEMS + SOLUTIONS FOR KITCHEN

PROBLEM	SOLUTIONS
Cabinets prevent reaching	Removing lower kitchen cabinet doors and replacing with curtains
Generally inaccessible kitchen	Converting dining room into make-shift kitchen Instead of modifying kitchens perhaps an easier strategy would be to modify food packaging
Carpet and soft flooring types impede using wheelchair or wheeled chair	Putting down something hard on top of carpet (i.e. office chair plastic cover)
Sliding your dining chair on a carpeted floor is difficult	Using an office chair mat on carpeted floor to help it be easier to slide chair
Countertops with busy patterns	High contrast tray or cutting board on counter to put things on
	White countertops without pattern
	Using high contrast towels on countertop if countertop matches floor
Not enough light over stove to see food cooking	NO SOLUTION
Difficulty seeing cabinet knobs	Colored duct tape* to indicate cabinet hardware
Trouble locating which items in which cabinets/seeing cabinets	Putting lights – perhaps color-coded for each set of items – around cabinets/shelves. Perhaps a lighted knob
	Having cups on hooks hanging from a bar, cabinet bottom or similar, makes them more accessible
	Having pantry or refrigerator with see-through door would make it easier to help you find things & reduces energy waste
	Transparent plastic storage drawers on wheels can make useful kitchen storage solution
Whole kitchen difficult/impossible to use because only can use one arm and must use their cane	Using kitchen on rolling chair rather than standing

PROBLEM	SOLUTIONS
Moving hot/heavy dishes of food	Office chair with a cutting board put across the chair's arms to move hot dishes or other items from one place to the next
	Instead of lifting hot serving dishes, the participant places these items on a dish towel on the counter. Then participant pulls towel to move item to another place
	Using plastic bags to slide items along the counter
Difficulty seeing food while preparing it	Under cabinet lighting
High items in kitchen are difficult/impossible to retrieve	Grabbers and stepstool to reach high items
	Needed items go on reachable shelves only
	Taking cabinet doors off of cabinets A low drawer that pulls out and serves as stairs
May not be able to tell when cabinets or drawers have been left open (low-vision)	Putting colored tape* on cabinet door/drawer edges to make it easier to see if these are open
Typical flour and other common kitchen containers are hard to tell apart	Variously colored containers with large print labels; or perhaps containers that are noticeably different shapes
Small kitchens or kitchens with little counter space are difficult to use, limited prep space (low-vision)	Having a fold-down table/counter surface that could be used when more counter space is needed
Microwaves – difficult to tell where the edge of the plate is in comparison to the microwave edge without depth perception	A line of color-contrast tape* on edges would help



PROBLEMS + SOLUTIONS FOR BATHROOM

PROBLEM	SOLUTIONS
Lack of blocking	Adding blocking when structures are first built Using sub-standard sized grab bars Extreme suction medical-grade grab bars Using grab bars in vertical orientation so they do not need special backing Mount a grab bar on a 1"x4" block of wood Using Victorian-inspired towel bars that are made of strong-well-anchored materials Orienting grab bars like a towel bar and using these for both functions
Low/Standard Toilet	Adding a temporary raised toilet seat works well
General	Victorian era style furniture that incorporate bed pans and wash basins in furniture
Lack of space for turning radius	Bi-fold doors used for that purpose are attractive because they look like closet doors Instead of remodeling bathrooms a better turning wheelchair
Showering and the resulting wet tile causes slip/fall hazards	NASA showers in space in which the water squirts and vacuums at the same time
When getting in/out of shower slick bathroom tiles can be a problem	Bathtub no-slip strips Instead of just using in the shower or for toileting, participant uses a shower/toilet chair with wheels to go from bedroom directly into the shower (reduces risk of falling); wheels can be locked
Bathroom fixtures being same color as the surrounding surfaces	Brightly colored rugs added into monochromatic bathrooms to signal where fixtures are located

PROBLEM	SOLUTIONS
Narrow Bathroom Doors*	Removing bathroom doors Using cloth drape instead of door Potty chair next to bed Wider doors as design standard
Threshold into bathroom and door not opening far enough	No lip into bathroom and no door stop to help people in wheelchairs have easier access
Heavy doors	Lightweight, easy to operate doors
Door hardware that must be grasped	Doors that can be opened with a push
Closing the bathroom door	Ribbon tied to door handle so that the participant can pull it
Swing doors	Sliding doors are easier to use
Maneuvering a closed door	Having keycode motion sensors for easier access
Grab bars for getting in/out shower are only helpful in one direction if have use of only one are	Participant made a grab bar for shower that could be lifted up and swiveled depending on whether they were entering or leaving shower
Deep Garden Tubs	NO SOLUTION
Stepping over side of standard tub	Cutting Opening in Tub Side (called Clean Cut)
Tub doors	Removing shower doors
Shower with lip is problematic for rolling in which means having to risk slipping	NO SOLUTION

