Creating Livable Places: Sustainable Communities for All

Dory Sabata, OTD, OTR/L, SCEM
Center for Assistive Technology & Environmental Access

Creating Livable Places
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Housing Has Not Been Designed For Users of Various Abilities

- Life Span Development
- Aging-in-Place
- Acute Injury
- Chronic Disability
Peter Pan Housing is For People Who Never Grow Old
Lifespan

- Intergenerational
- When long-term care is needed, preferred to receive it at home
Aging-in-Place

- 35.9 million people age 65+ in U.S.  
  (Source: U.S. Census Bureau, 2004)

- As We Get Older, We Limit Participation in Activities  
  (Source: Chartbook on Disability, 1999)

- People Prefer to Age in Place at Home  
  (Tabbarah et al, 2000)

- Adults Age 45+  
  - 77% Live in Single Family Homes
  - 85% Own Their Home  
    (Source: Fixing to Stay, 2002)
Injuries Often Occur at Home

- In 2002, 5,305 children died from accidental injuries
  - (i.e. suffocation, drowning, falls, burns, firearms, poisoning)
  - 40% occurred in and around the home
    (Source: Safekids Worldwide)

- Falls are the leading cause of death among older adults
  (Source: Falls Free)
People Are Living With Functional Limitations and Chronic Disability

People with motor, sensory, &/or cognitive impairments can participate in everyday activities.
Disability Results From A Mismatch Of The Person-Environment Fit

- People with functional limitations are not disabled unless the environmental demands exceed their abilities
How can design better address the needs of a population that is aging and with increasing disability?
Simplification Can Enhance:

- Orientation and awareness
- Physical function
- Comfort
- Safety
Definitions

- Visitability
- Universal Design
Visitability

- One ZERO-STEP entrance
- Doors with 32 inches of clear passage space
- Bathroom on the main floor

http://www.concretechange.org/
Universal Design

- Design for all potential users to the greatest extent possible
Universal Design

1. Equitable Use
2. Flexibility in Use
3. Simple and Intuitive Use
4. Perceptible Information
5. Tolerance for Error
6. Low Physical Effort
7. Size and Space for Approach and Use

(Source: NC State University, The Center for Universal Design, 1997)
3 Major Problem Areas of the Home:

- Outside Steps To The Entrance
- Inside Stairs To A Second Floor
- Unsafe Bathrooms

Source: HUD (2001)
Important Activities at Home

- Entering and Exiting the Home
- Moving Around the Home
- Bathing
- Toileting
Problems with Entering and Exiting the Home

- Change in elevation (AKA steps)
- Lacks visual contrast
- Lacks upper body support (handrails)
Entering and Exiting

- The home
- A vehicle
Other Alternatives to Entrance with Outside Steps

- Ramps
- Earth Berms/Walkways
- Lifts
- Zero Step entrance
Features when Moving Around

- Upper body support
- Lighting
- Visual contrast
- Type of flooring
- Door width
Other Strategies for Getting Upstairs

- Chair lift
- Elevator
- Relocate rooms to main floor
Moving Around in the Kitchen

- Maneuverability
- Appliance access
  - Separate oven/stove
- Storage
  - Cabinet height
  - Lazy susans
Bathing

- Transferring
- Controls
  - Water direction
  - Temperature
- Accessing soap/towels
Strategies for Bathing

- Bath bench/chair
- Bath lift
- Grab bars
- Visual contrast
- Non slip surface
- Hand held showerhead
- Shower/wet room
- Curbless shower
Toileting

- Transferring
  - Height of toilet
  - Grab bars/safety frame
- Flushing
  - Hand, foot, automatic
Grooming

- Sink Access
  - Open underneath
  - Height adjustable

- Controls
  - Single lever
  - Automatic
When Designing Sustainable Communities for All:

- Apply Universal Design Principles
- Anticipate that abilities will vary & change
- Recognize that modifications may be necessary in order to facilitate community participation
Contact Information

Center for Assistive Technology & Environmental Access (CATEA), Georgia Institute of Technology

www.catea.org

Email: dory.sabata@coa.gatech.edu