NOTES FOR SENIOR LIVING: Ann Nichols ASID

 Professor Emeritus NVCC

Universal Design

HOMES

* *Easy Living with Universal Design* is a concept that can appeal to everyone. A home that is universally designed is a home with features that increase the usability of the home for people of all ages, sizes and abilities. It enhances the ability of all residents to live independently in the home as long as possible. Yet, universal design is both practical and beautiful. Existing homes can be modified or retrofitted to become more universally accessible.

LIGHTING

* Preferred Color temperature of 3000oK (Kelvin)
* Night lights choose a “warm” color
* Numerals on you alarm clock, red is preferred over blue

Equivalency (all these numbers may vary by manufacturer or product)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Color | 60 Watts Equivalent | lumens | 100 Watts Equivalent | Lumens |
| IncandescentSoft white | 2700 K | 43 watts | 620 | 72 | 1270 |
| Compact Fluorescent | 2700K | 13 | 900 | 23 | 1600 |
| LED | 3000K | 19 | 650 | 14 | 1400 |

THE EYE AND AGEING

* Twenty/twenty vision is what normal 20-year –olds can see at twenty feet.
* The eyes of a healthy twenty-year-old adjust quickly and easily to changes in brightness in the environment
* As eyes age, they lose their elasticity, reducing their ability to accommodate easily.
* Adaptation from one light level to another takes longer and the range of sensitivity drastically diminishes the ability to see at low light levels.
* A sixty-year-old needs 10 X (ten times) as much light as a normal twenty-year old to perform the same seeing task with equal speed and accuracy
* Older eyes are disabled by glare to a much greater extent.

TIME

* The lower the visibility, the longer it takes to see details. Small size, poor contrast, and low illumination all increase the time needed.
* The time factor is especially important where motion is involved, as in driving.
* Under low light levels, an object appears to move more slowly than under high levels of illumination

ADAPTATION

* Adaptation involves the size of the pupil opening and sensitivity of the retina.
* The pupil of the eye opens wide in low levels of light and gets smaller as the light level increases.
* It takes longer to adapt from light to dark – like going into a movie theater in the daytime – than it does to adapt from dark to light
* In the older eye, the time to adjust to different levels of light increases.

COLOR AND FINISHES

* High contrast in (grey) value
* Dark finishes absorb more light

INTERIOR

* Lever door handles
* Rocker light switches at 42" height
* Open spaces with lots of daylight
* All doorways 36" wide
* All hallways 42” to 60" wide

 IN THE KITCHEN

* Easier to open casement windows
* Custom level appliance
* Roll-under sinks
* Larger toe-kicks
* Raised dishwasher
* Lower light switches
* Raised electrical outlets
* Accessible cabinetry

BATHROOM

* Angled mirrors
* Comfort height toilets
* Roll-under sinks
* Adjusted counter height
* Towel bars are NOT grab-bars require blocking in the walls
* Grab bars by toilet
* Grab bars in shower
* Hand-held shower heads
* Seating in shower
* No threshold shower (is optimal)
* Custom mirror heights

BEDROOM AND CLOSETS

* Access to the sides of the bed equal to the width of hallways 42”-60”
* Height of the bed should be approximately the same as the height of the wheelchair seat
* Provide multiple height clothes bars and shelves.