Making the “Invisible” World “Visible”
Vision Loss: A Growing Problem

Best estimates indicate that over 21 million Americans are experiencing vision loss, most with low vision. These numbers are growing everyday as the baby boomers age.
We Live in an Invisible World

Our building design concepts in this country have led to an invisible world. As we age our need for lighting and contrast dramatically increases.
Falls and Vision Loss

• People with reduced visual acuity are 1.7 times more likely to fall.

• They are 1.9 more times more likely to have multiple falls than are people with normal vision.

• The odds of hip fracture are between 1.3 and 1.9 times greater for people with reduced visual acuity (Legood, Scuffham, Cryer, 2002).
Vision Simulation

Macular Degeneration

1. Street scene

2. Picture of heads of two children holding balls.
Macular Degeneration continued

Reading with Macular Degeneration

MAKING THINGS BRIGHTER
Use a gooseneck 45 to 65 watt lamp for reading, writing, playing cards, doing
Carry a tiny flashlight in pocket or purse.

GETTING A GRIP ON GLARE
Inside: Cover shiny surfaces with a cloth.
Outside: Wear amber fitovers or clip-ons and...
Diabetic Retinopathy

- Street Scene
- Two boys holding balls
Glaucoma

• Reading
• Two boys holding balls
AFB Center on Vision Loss

“ADA Doesn’t Have to Be Ugly.” Come Inside and See For Yourself”
Simple Design Principles that Can Make the Built Environment Easier to “See” and Navigate

• If done upfront, they are not expensive to implement--Rick Lee, DFW Architect

• Most can be retrofitted easily

Rick Lee, Architect
Using Environmental Organization to Promote Wayfinding

Corridor Doors that Line Up & Floor Texture Change
Using Contrast and Texture to Promote Wayfinding and “Visibility”
Another Use of Texture to Enhance Wayfinding
Contrast on Steps and Handrails
Using Contrast in the Bath
Using Contrast in the Kitchen
Using Contrast on Door Frames & Light Switches
Control Glare
Design Concepts That Enhance Wayfinding

• Increasing “visibility” with high contrast
• Providing sufficient lighting and glare control
• Using logical, consistent layouts in building design
• Eliminating extra/distracting sounds/echoes
• Using tactile surfaces for flooring.
• Consistently placing signage in LP and braille