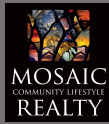


# Safe and Accessible Modifications for Independence

## SAMI

RL Mace Universal Design Institute



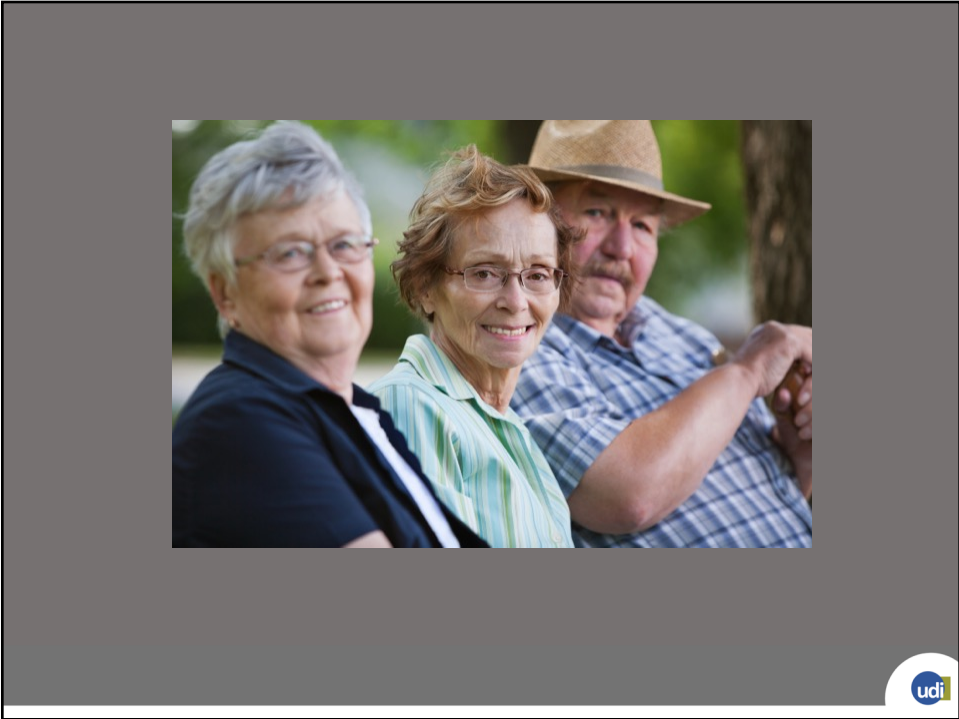
Home Depot



## Today

- Changes with Aging
- Entry Issues
- Lighting
- Indoor Air Quality
- Kitchen
- Laundry
- Resources







## Changes with Aging

Eyes  
Hearing  
Strength  
Stamina  
Balance  
Height  
Reach  
Flexibility



## Takeaways – Focus Groups

Question asked of older individuals and their caregivers: how much trouble do/they you have in the following areas?

Users	Caregivers	Activity Area
55%	90%	Getting in/out of tub
55%	80%	Getting on/off toilet
44%	90%	Climbing stairs
44%	90%	Lifting, carrying heavy items
44%	70%	Reaching in closets
44%	70%	Standing from a seated position
33%	70%	Using appliances/ cabinets/ fixtures in kitchen
33%	40%	Turning knobs
11%	30%	Seeing small objects in low light conditions
11%	20%	Hearing conversations/TV
0%	10%	General navigation in the home




# Typical Homes





## Design Objectives

---

- Safe entry and exit from house
  - Accessible route through house
  - Maneuvering space in each room
  - Useful home technology
  - Environmental quality
  - Good product selection
  - Safe/usable bathroom
  - Usable kitchens
  - Reachable storage and controls
  - Adaptable vertical circulation
- 

## Design Objectives

---

- Safety
- Independence
- Meaningful activities
- Caregivers



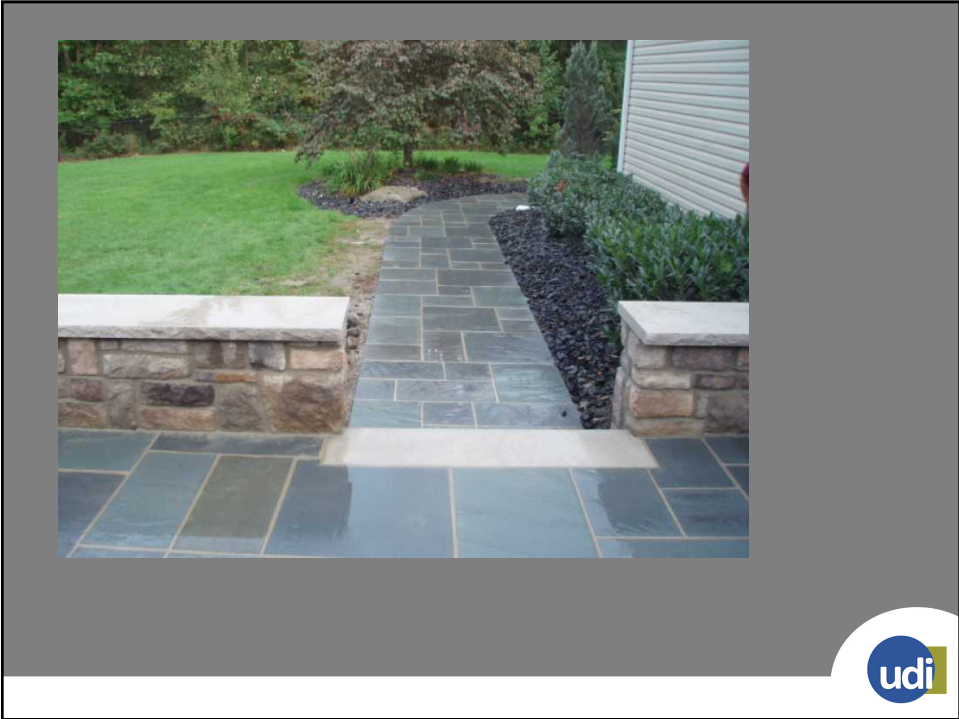
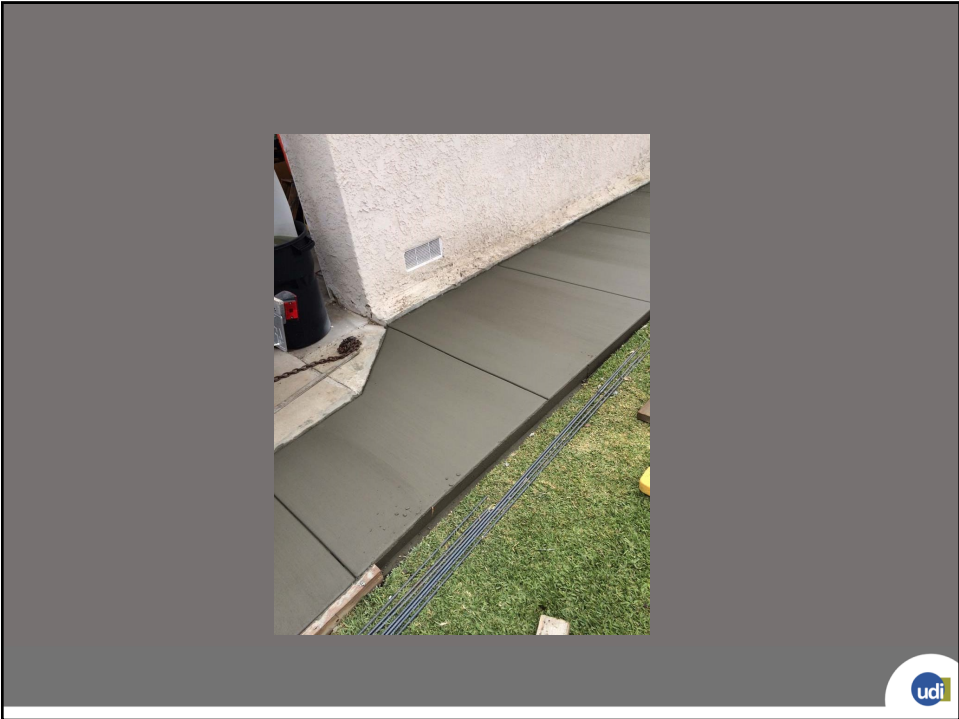
## Ground Surfaces

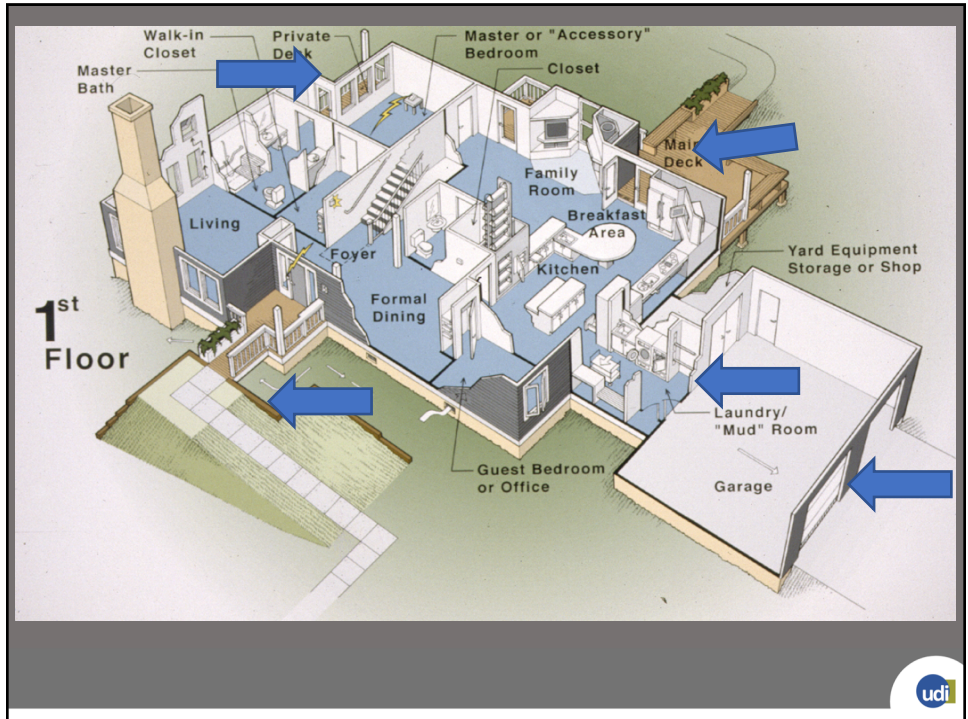
---



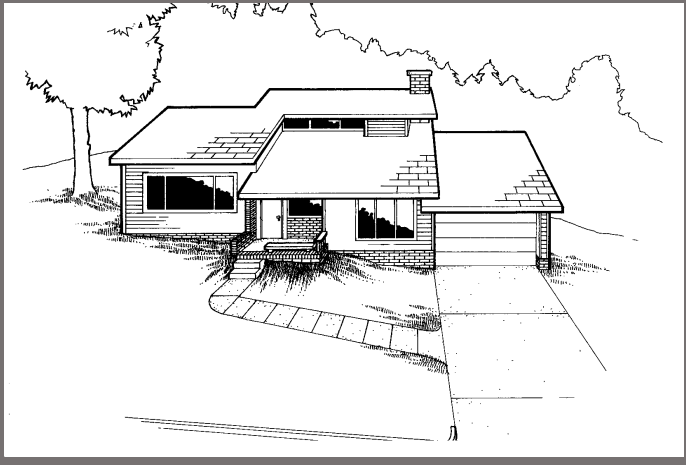




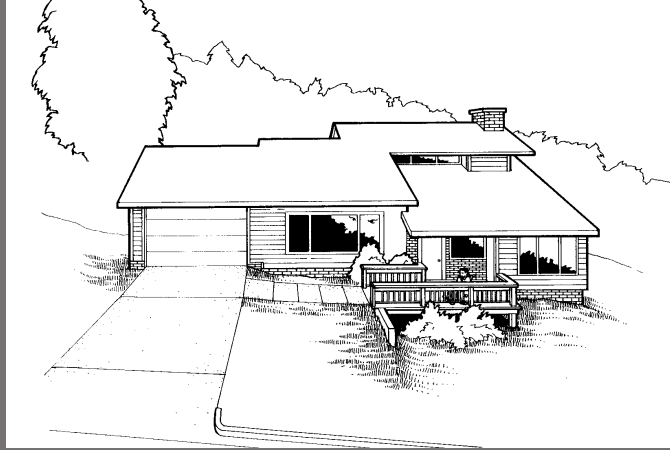




### Site Placement Matters



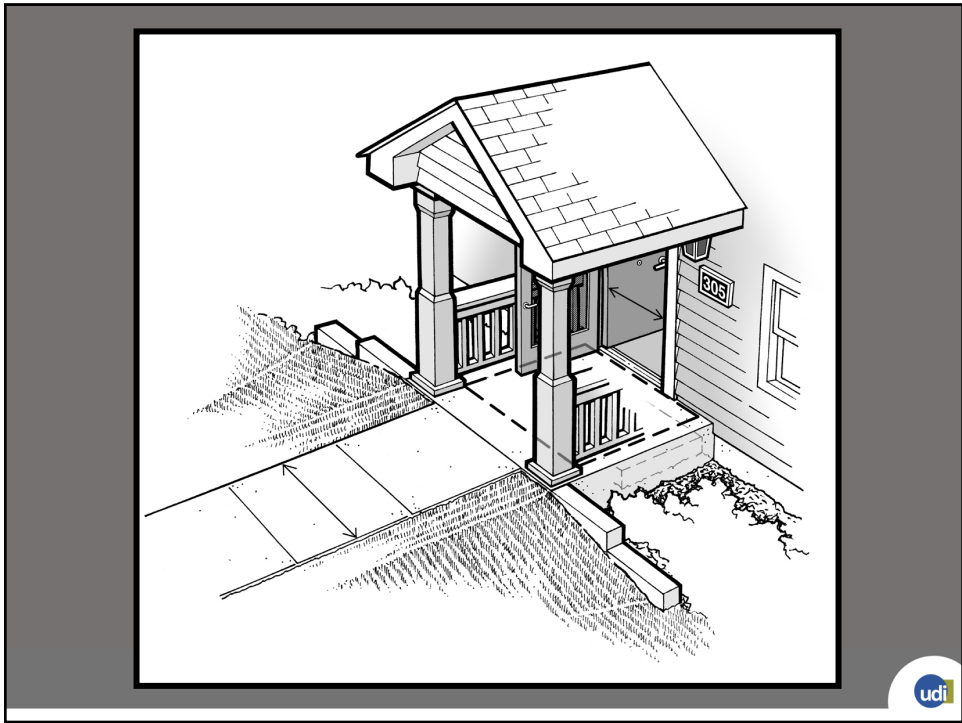
## Problem Solved



## Weather Protection







### With Landscaping and Roof



Louis Tennenbaum

## Renovated Entrance



udi

## Avoid



udi



## Housing



Jon Sanford, RERC on Work Place Accommodations



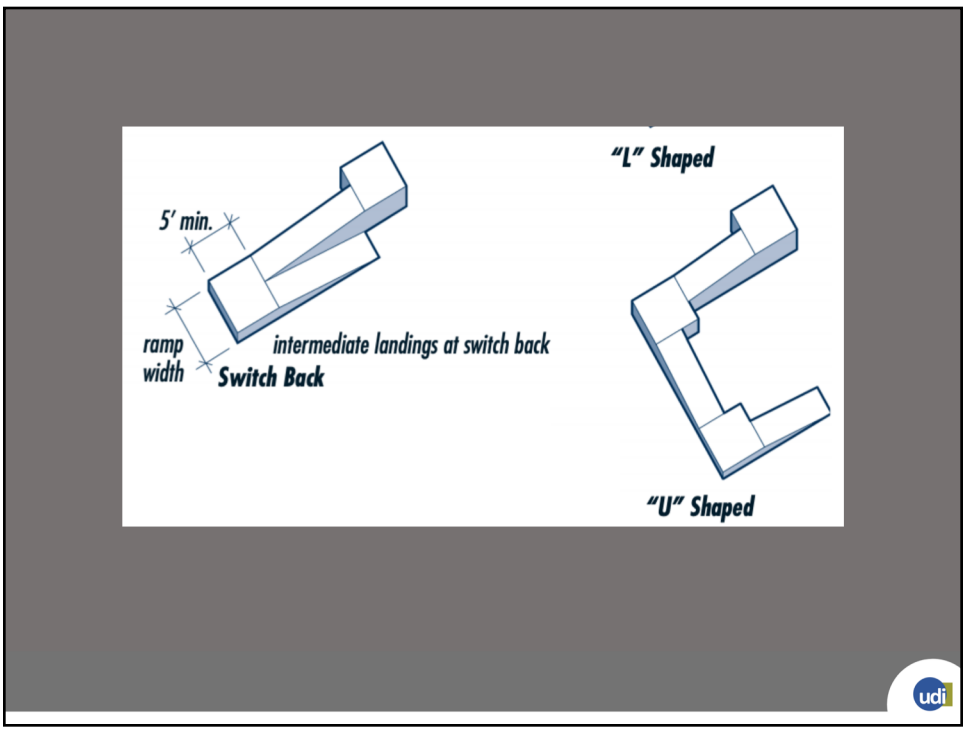
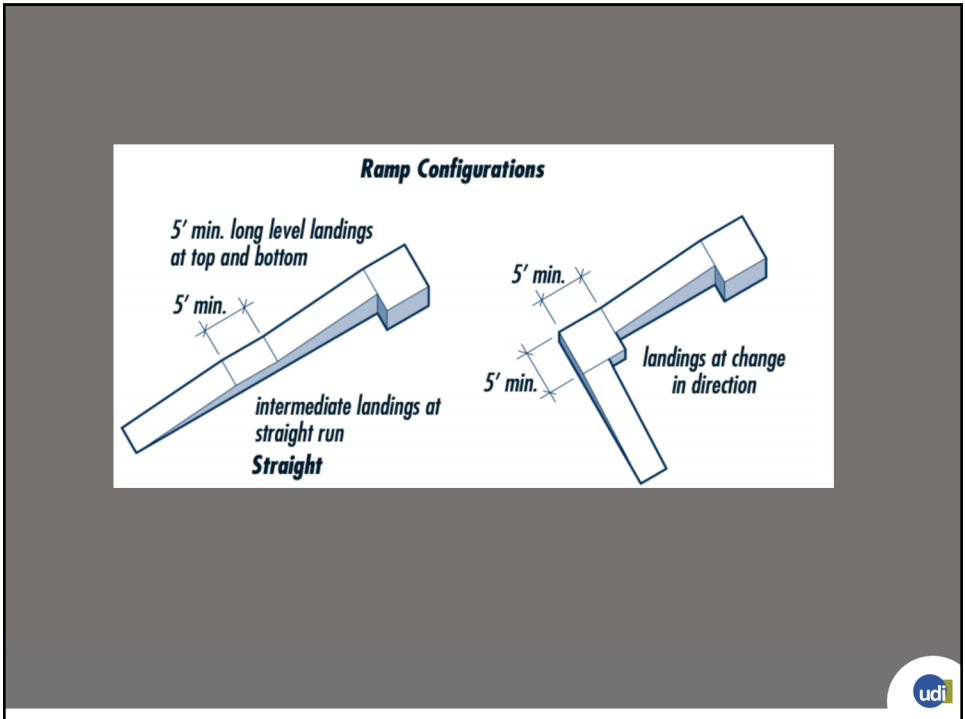


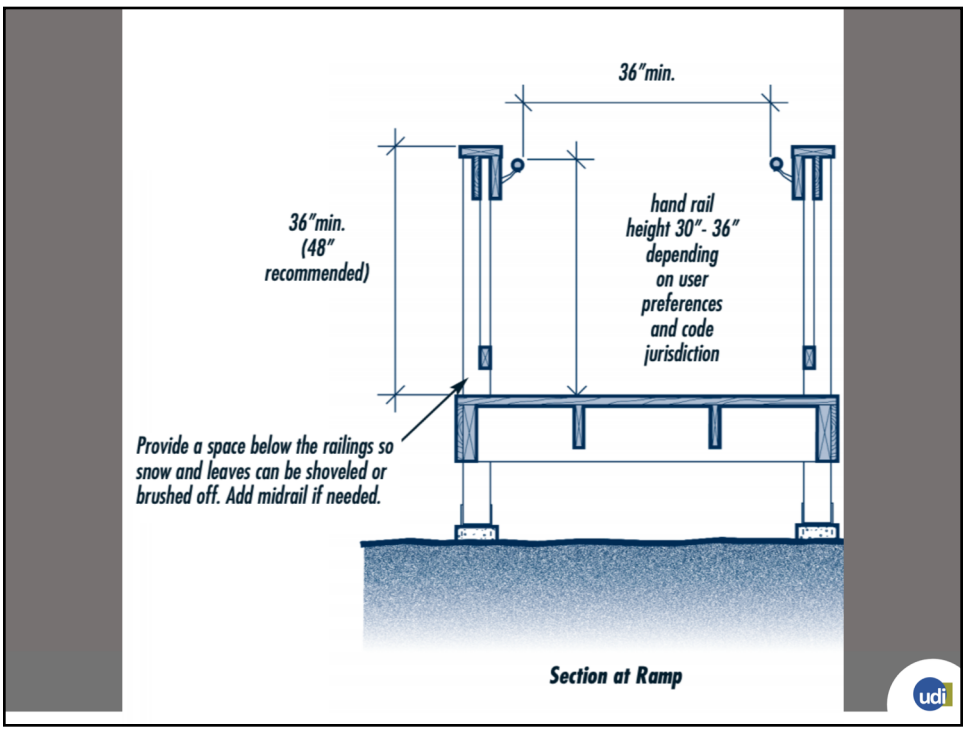
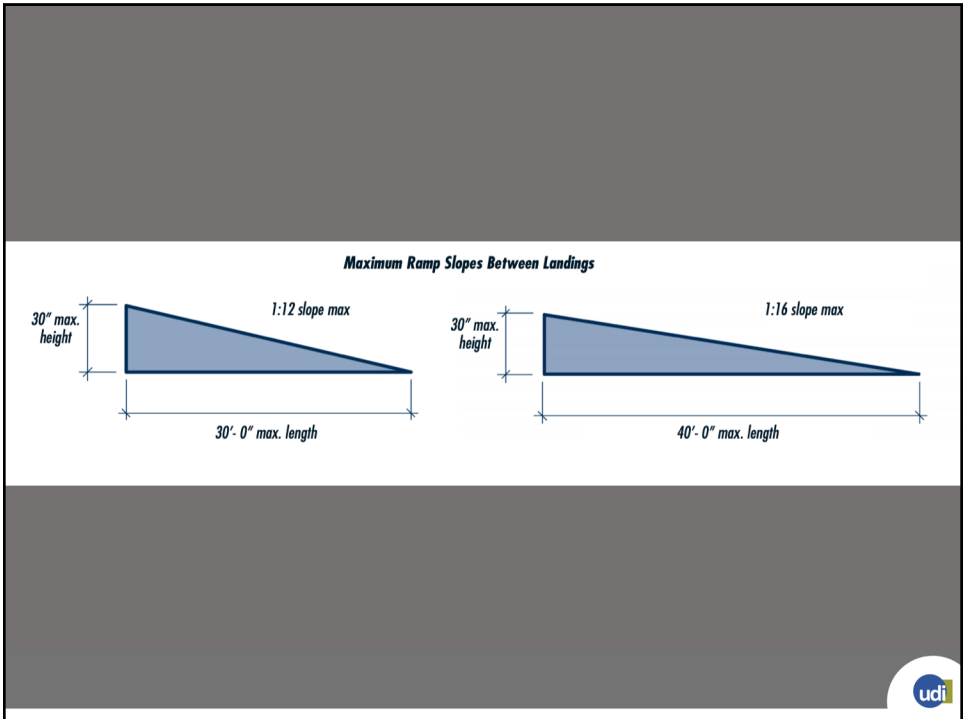
## Pathway to Deck



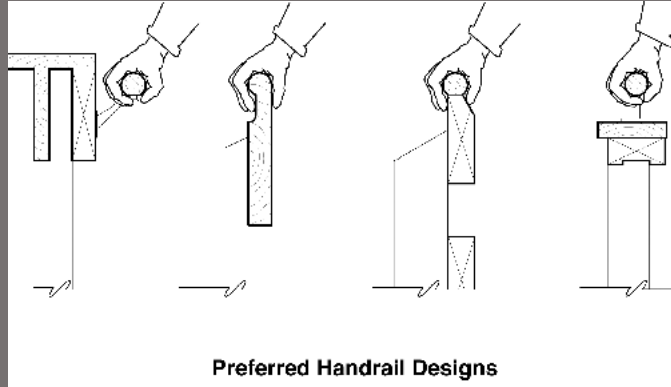
## U - Shaped







# Handrails



The Center for Universal Design

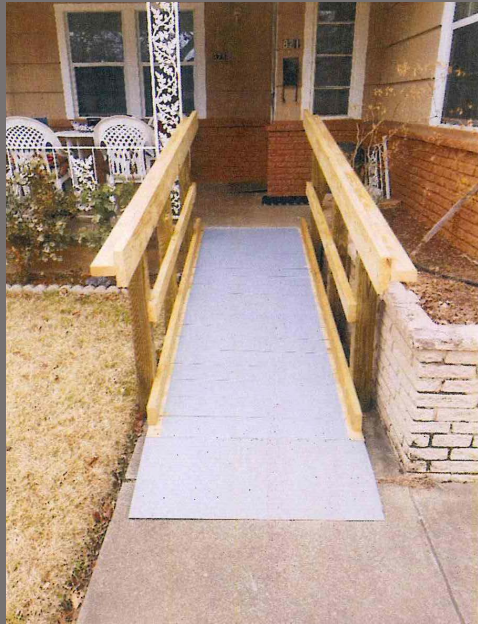










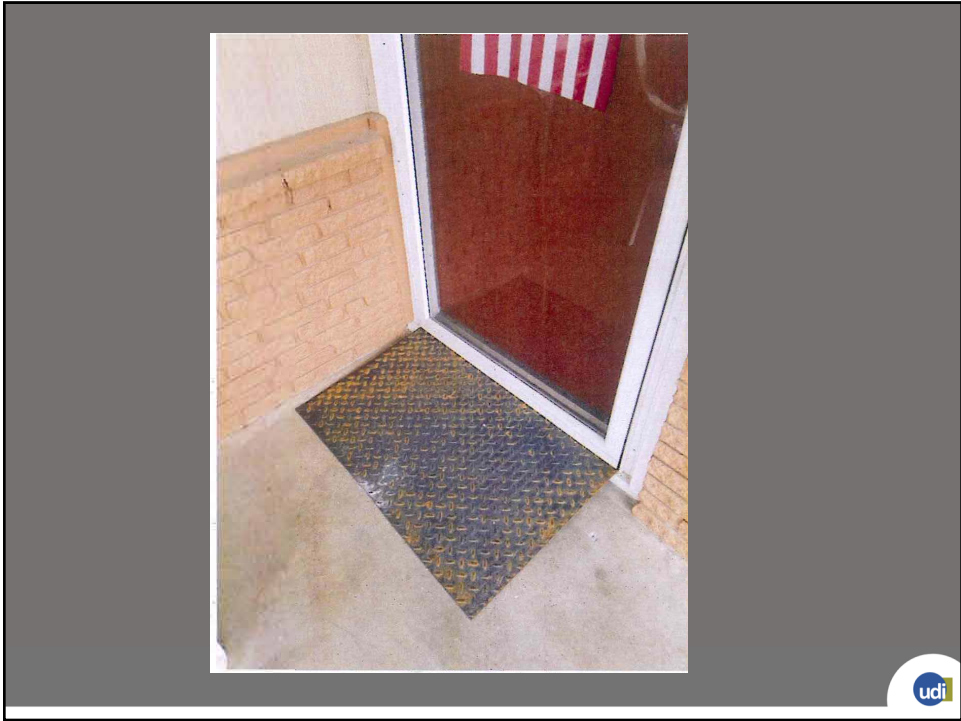


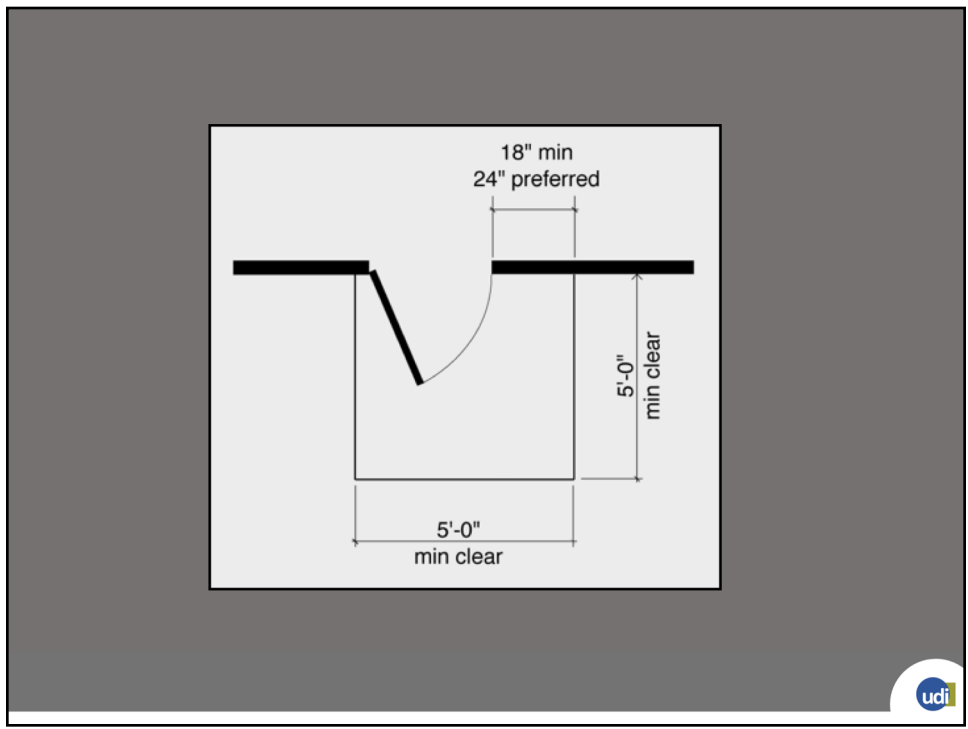
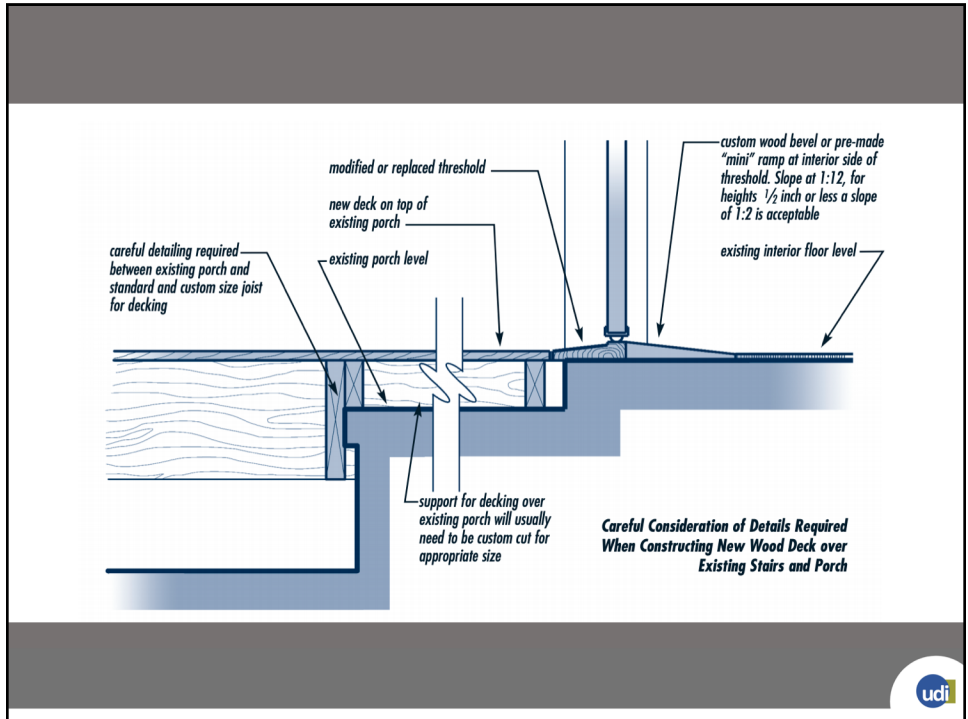




## Entrance







## Entrance



## Step Slopes

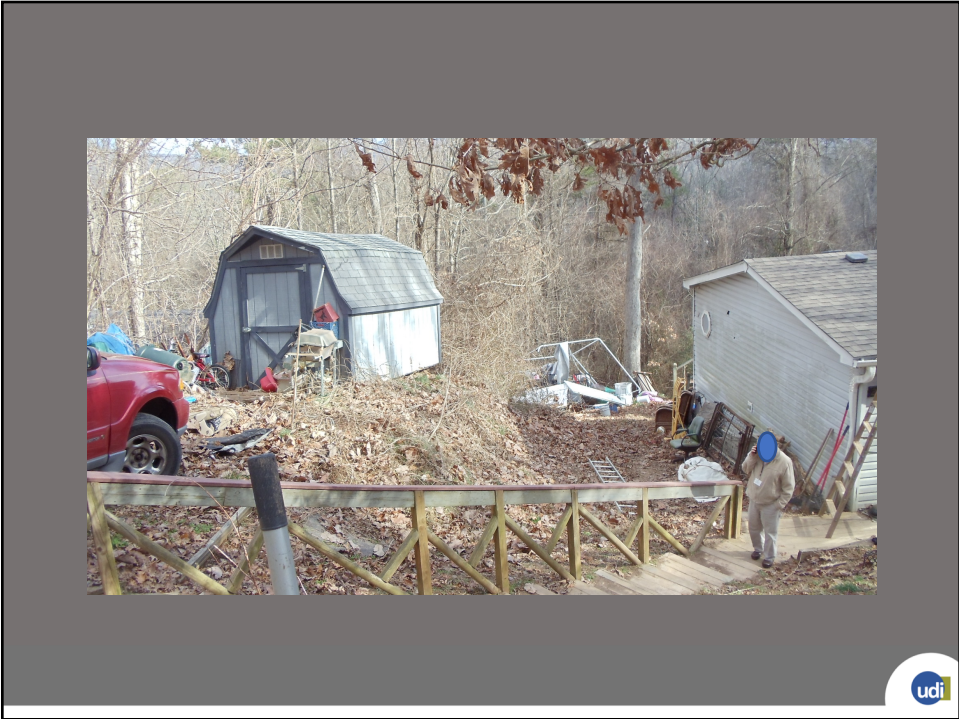
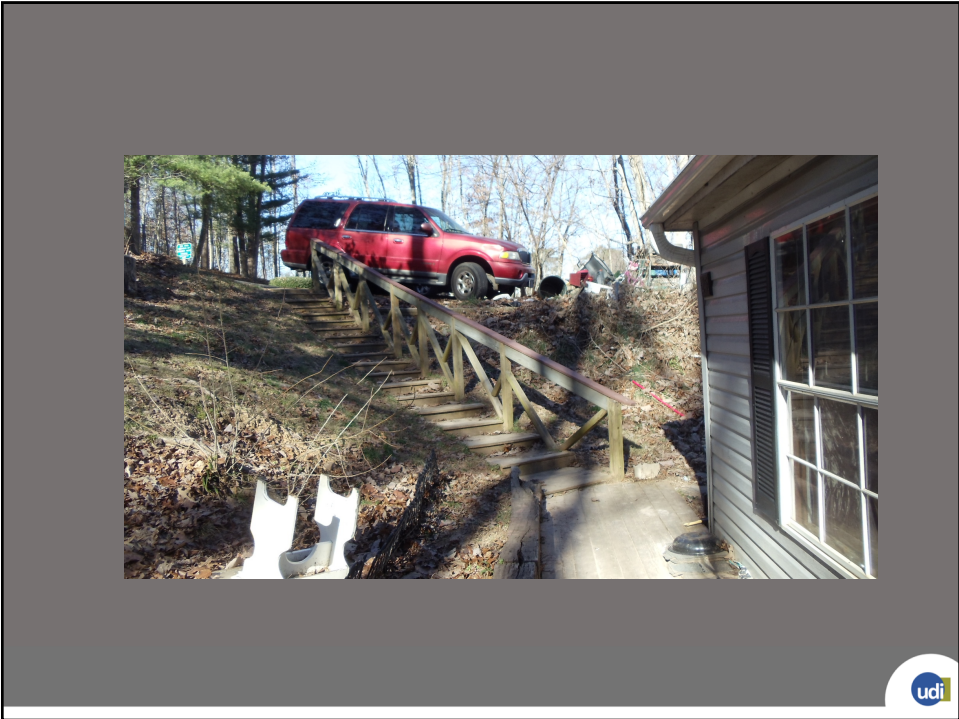




Specific problems for the engineer to address: Client needs better ingress/egress.







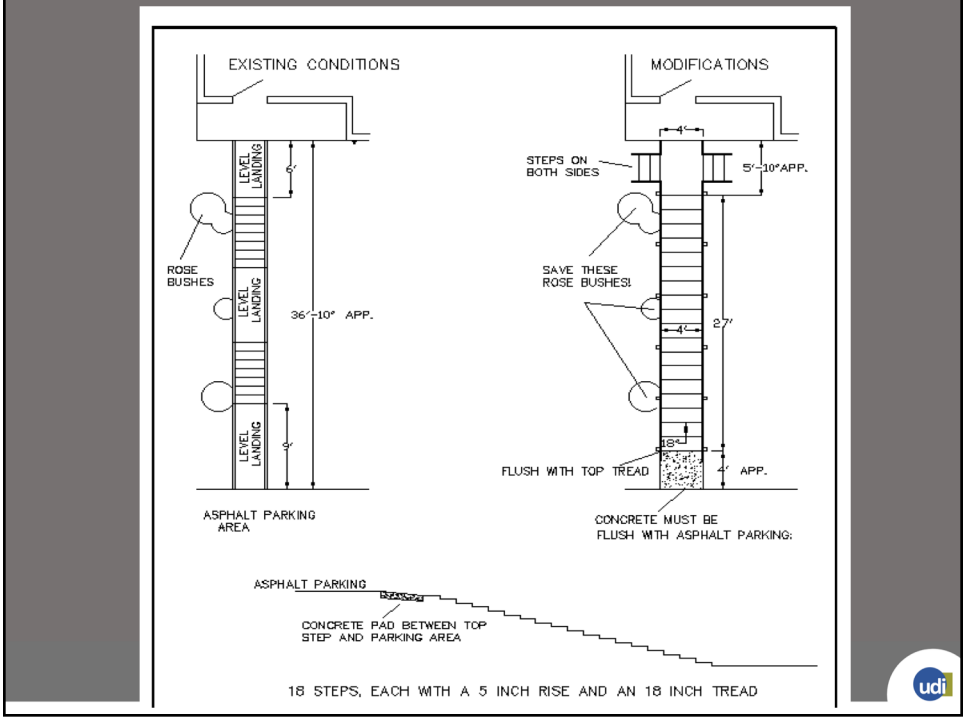




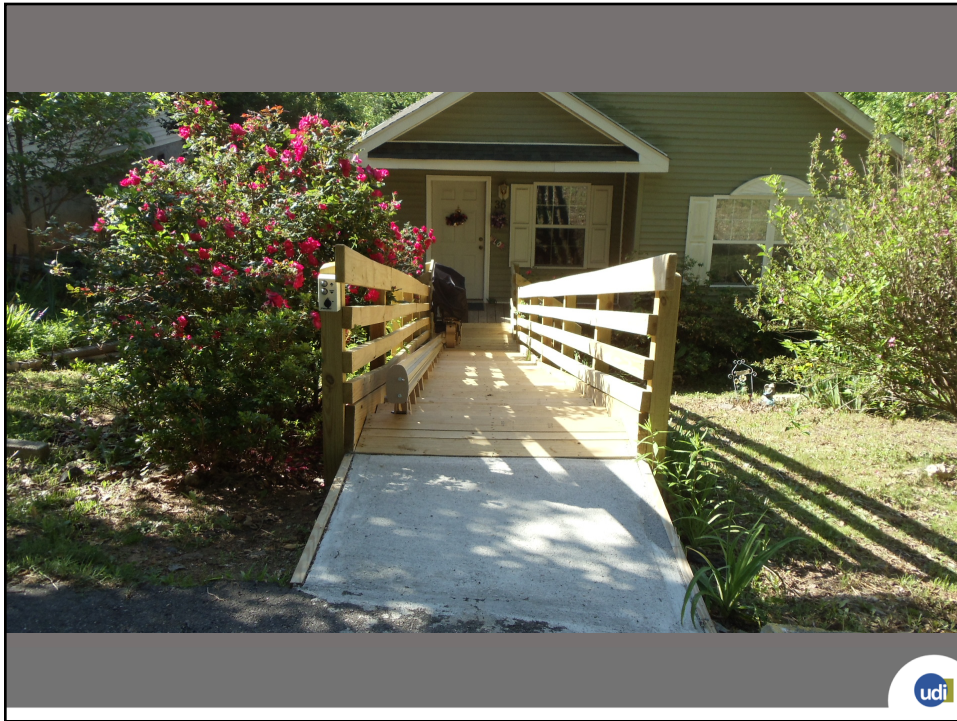
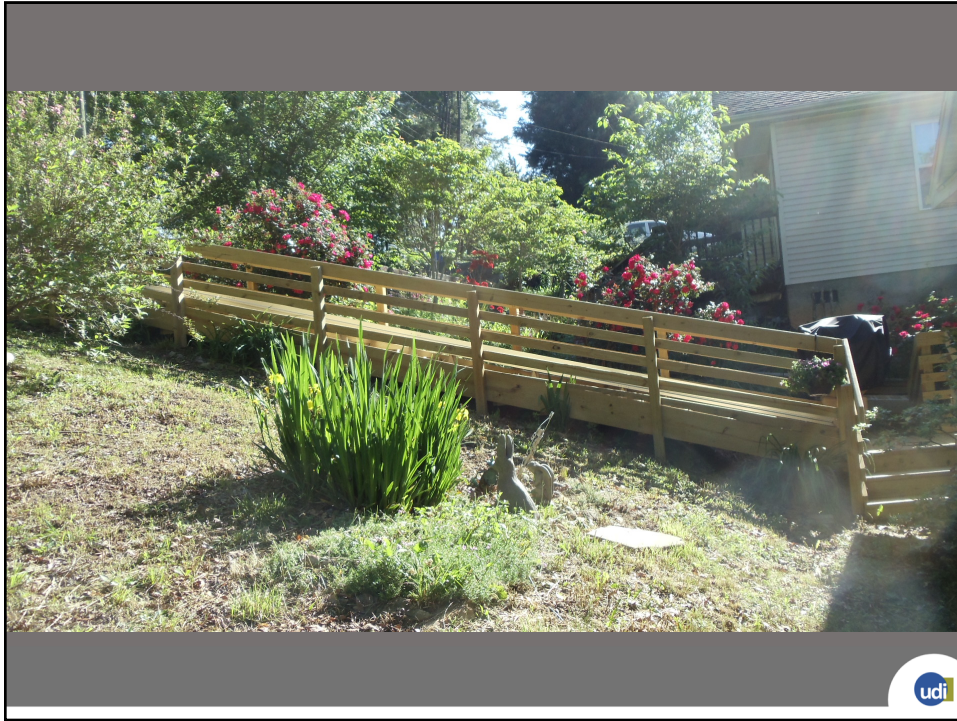
104 feet of ramp  
4 turn landings  
Retaining walls  
Several loads of gravel  
\$15,380



# We're not in Kansas anymore, Toto!







Demolition of existing steps  
and construction of new  
steps; \$3,780

Bruno SRE exterior stair lift,  
30 feet of rail, and electrical  
work; \$6,228

The logo for Universal Design Institute (UDI) is located in the bottom right corner of the slide. It consists of the lowercase letters "udi" in a blue sans-serif font, positioned to the right of a small blue circle.

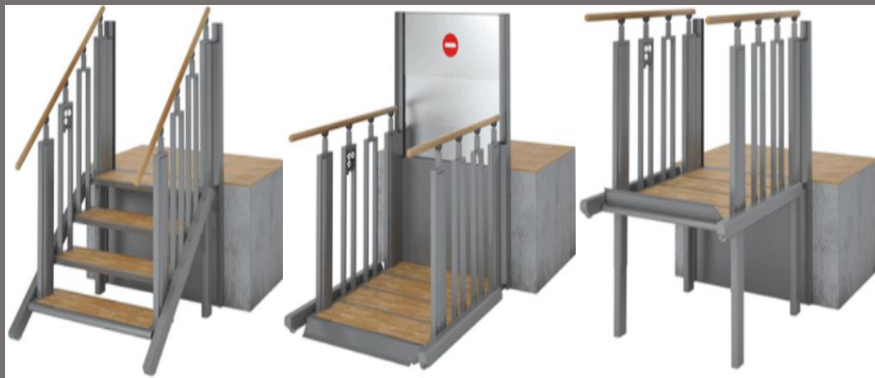
## Ramps

---

Maintenance  
Decking  
Slip resistance

The logo for Universal Design Institute (UDI) is located in the bottom right corner of the slide. It consists of the lowercase letters "udi" in a blue sans-serif font, positioned to the right of a small blue circle.

# Accessible



## Stairs

---

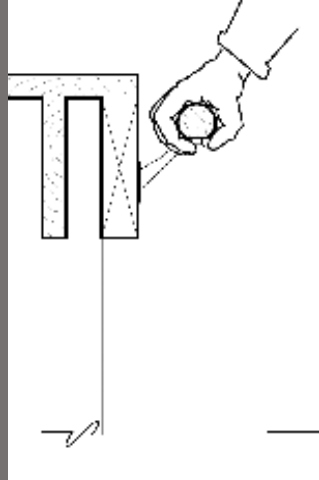


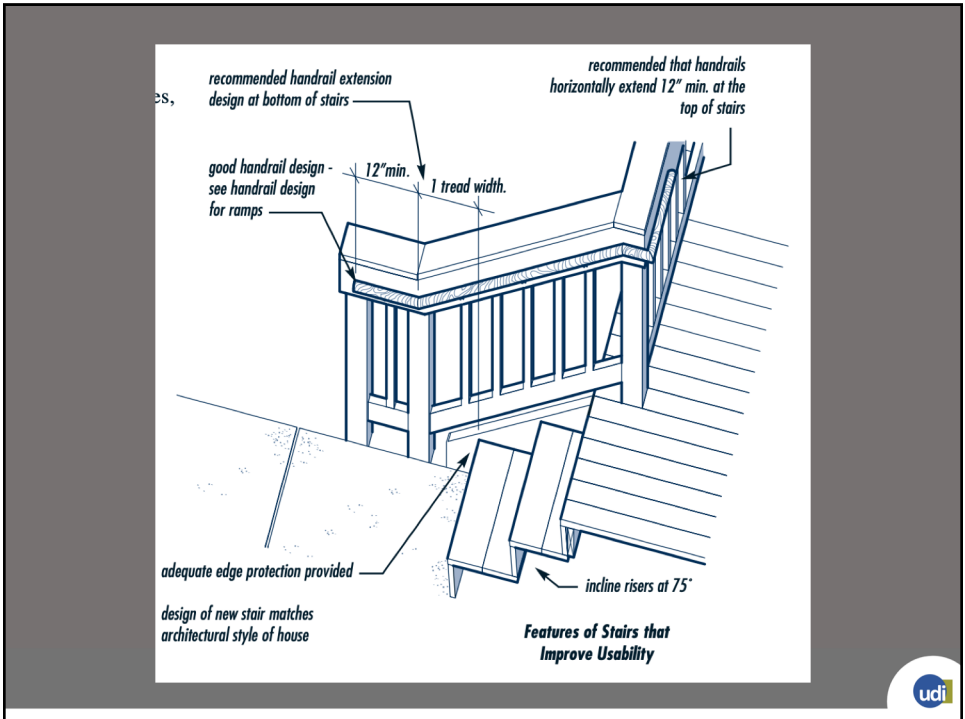
## Inclined Riser





# Handrails





## Products



Features

### Smooth Entry



udi



udi



Concrete Change



Package Shelf





## Entry Objectives

---

- Safe entry and exit from house
- Entry location
- Route to entry
- Ramp design, ramp type
- Graded Entries
- Stair design
- Lifts
- Porch
- Front door – power openers, out swinging



## CONNECT WITH US!

---

Asheville, NC

Office: 919.608.1812  
[www.betterlivingdesign.org](http://www.betterlivingdesign.org)

Richard Duncan  
[rduncan@betterlivingdesign.org](mailto:rduncan@betterlivingdesign.org)



## FIND US ON SOCIAL MEDIA

---



@BetterLivingDesign



@betterlivingdesign



@BetterLD



Richard Duncan



Better Living Design (BLD)



@BetterLD

