





PHRC Webinar Series | Tuesday, February 20th @ 1pm

A Look Into Visitability - Why & How?

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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

Description

- Another component to the Universal Design Trilogy is Visitability. Visitability is a design practice that allows the dwelling to be accessed and or visited by someone who is physically disabled. In this webinar, we will take a look at different solutions from the design of the interior space and room requirements to the construction of zero-step entry details at different entry points.

Learning Objectives

- Understand the physical needs that occupants may encounter throughout their time living in a home
- Review how specific construction practices can contribute to the sustainability to the structure
- Understand how relay unconventional details to building code inspectors and review building codes related to specific details
- Review the safety component of the Visitability design and how it can impact the occupant in a positive way during their entire stay in the home



Outline

- What is Visitability?
- Why Design and Build a Visitable Home?
- How do We Get There?
- Average Costs for Visitable Amenities



What is Visitability?



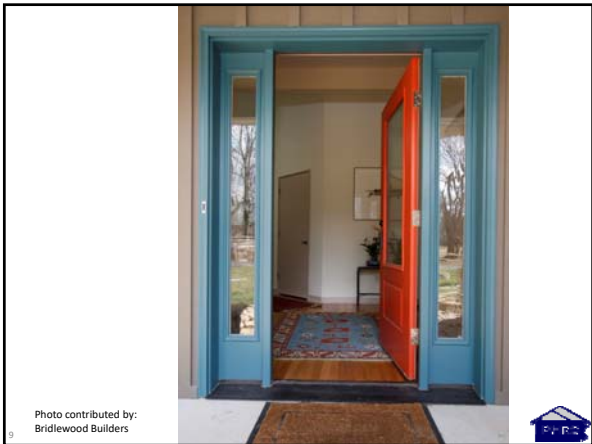
Visitability Defined

- **Visitability** is a growing trend nationwide. The term refers to single-family or owner-occupied housing designed in such a way that it can be lived in or visited by people who have trouble with steps or who use wheelchairs or walkers.
visitability.org
 - Visitability is **not** ADA
- **Visible Design** refers to a minimum level of accessibility that allows a person using a wheelchair basic access to the ground floor of a home.
NAHB



Visitability Design Principles

- **Must meet three basic design requirements:**
 - At least one no-step or zero-step entrance
 - Has been defined as less than or equal to 1/4"



Visitability Design Principles

- **Must meet three basic design requirements:**
 - At least one no-step or zero-step entrance
 - Doors and hallways wide enough to navigate through
 - Hallways are finished at a width of 43"
 - Doors are 36"
 - Door handles should be of the lever type

10



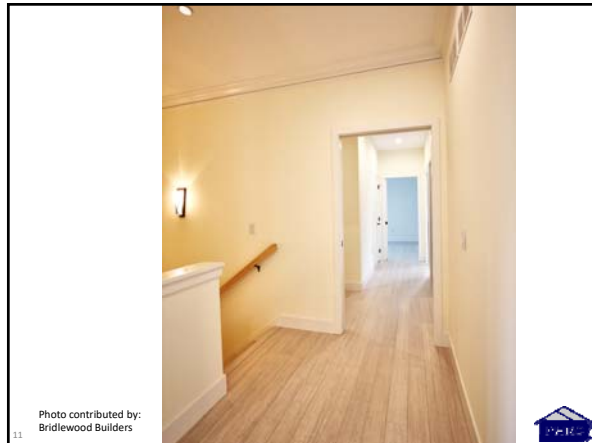


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11

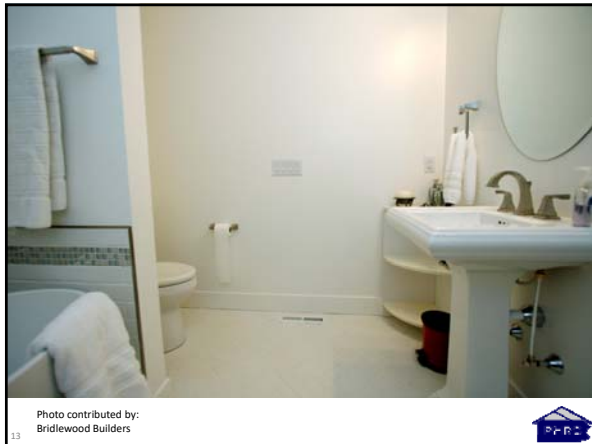


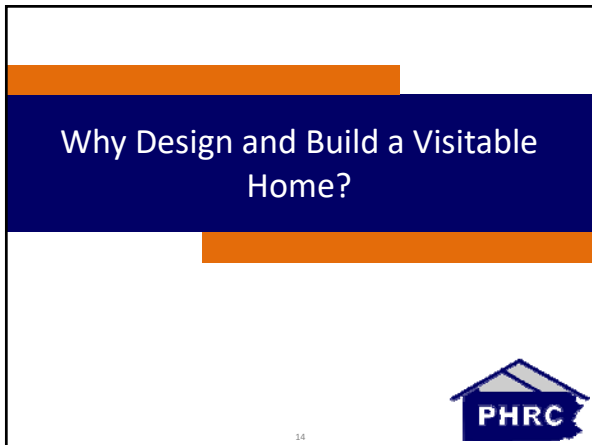
Visitability Design Principles

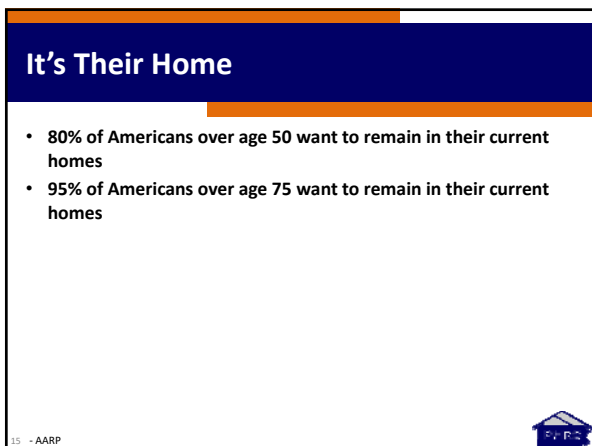
- **Must meet three basic design requirements:**
 - At least one no-step or zero-step entrance
 - Doors and hallways wide enough to navigate through
 - Hallways are finished at a width of 43"
 - Doors are 36"
 - Door handles should be of the lever type
 - Bathrooms on visitable floors
 - Has at least one toilet and one sink
 - Has floor space that can accommodate a wheelchair
 - Sink faucets should have lever handles
 - Blocking preinstalled in wall cavities for future grab bar installation

12









How Many?

- In 2010, more than 3.7 million baby boomers turned 60
- In 2016, nearly 15% of the U.S. population was over age 65
- U.S. Census information
- The total increase of the American population 65 and over will increase an expected 57% from 2000 to 2020 and have an estimated 73 million older than 65 by 2030
- Ortman, Velkoff, and Hogan, 2014 & NAHB
- The number of Americans over 65 is projected to more than double from 46 million in 2016 to over 98 million by 2060.
- Population Reference Bureau – www.prb.org

16



How Can Visitability Help?

- One out of every five adults has a disability. The most common functional disability type was a mobility limitation – defined as serious difficulty walking or climbing stairs
- Centers for Disease Control and Prevention
- 11.5 million Americans have physical disabilities that make going outside the home difficult or practically impossible
- U.S. Census information

17



Unexpected Events

- **Surgery**
 - Knee replacement
 - Hip replacement
- **Injury**
 - Broken leg
 - Broken ankle

18



Outlook and Demand

- More than 90% of the existing housing stock is not visitable
- Approximately 70% of Americans live in single family homes

19 • Journal of the American Planning Association



Benefits of Visitability

- **Flexibility**
 - Traumatic experience
 - Aging in Place



20



Benefits of Visitability

- **Flexibility**
 - Life changing experiences



21

Benefits of Visitability

• Hospitality

- Visiting Friends or Family



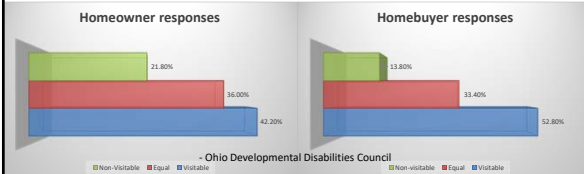
22

Benefits of Visitability

• Marketability

- Providing a product to the market that eases future's uncertain questions without losing desired ascetics or curb appeal
- Simply put, the convenience, flexibility and hospitality of a visitable home leads to a greater marketability for the product

Percentage of responses indicating which house would sell for more



Benefits of Visitability

• Convenience

- Ease of entrance and exit while moving items



24


How Do We Get There?



25

Visitable Entrance

- Can a Visitable entrance be applied to any lot?
YES (well, almost!)
- Entrance does not have to be front door. Move Visitable entrance to flattest option
- Very steep sloping lots with out a first floor driveway are usually not conducive to a visitable home
- On average, only 2% of site conditions are not suitable for a visitable entrance



26





27

New Construction Design

- Ramps can be added during **new construction...**

28





29





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Bridlewood Builders

30



Existing Home

- Ramps can be added during new construction and as a retrofit

31







33







Ramps

- The slope of the ramp must not exceed 1:12.

A diagram of a ramp showing a slope of 1 inch for every 12 inches. The diagram is a right triangle with a horizontal base of 12'-0" and a vertical rise of 1'-0". The slope is labeled "SLOPE 1" 12"". The diagram is enclosed in a rectangular frame.

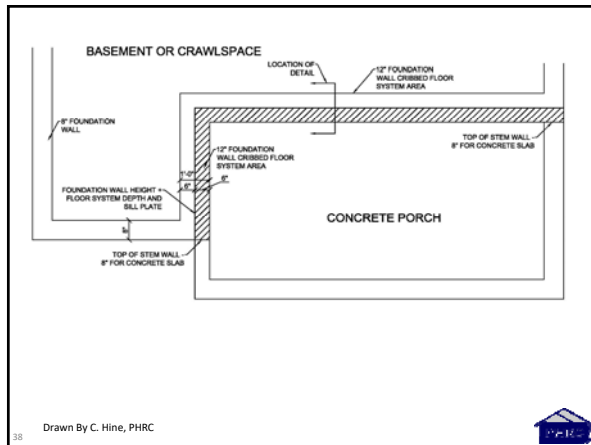
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Construction Details

- To obtain a zero-step entry, there are a few different options
 - Cribbing the floor system

37

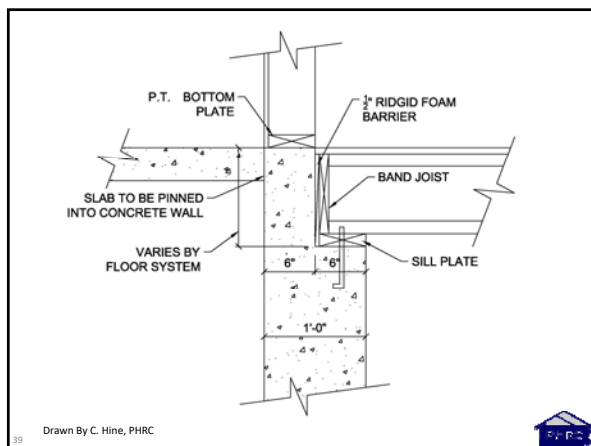




38

Drawn By C. Hine, PHRC





39

Drawn By C. Hine, PHRC

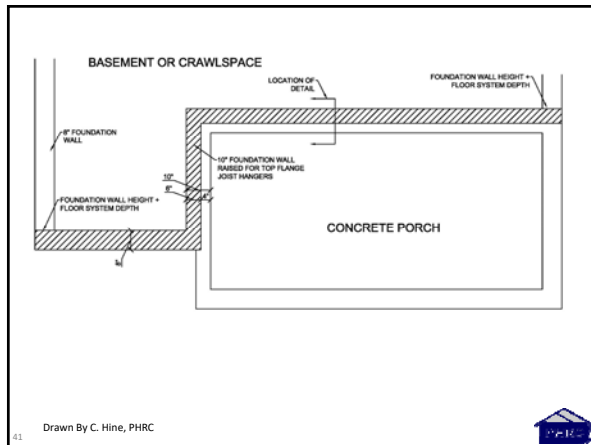


Construction Details

- To obtain a zero-step entry, there are a few different options
 - Cribbing the floor system
 - Hanging joist with top flange joist hangers

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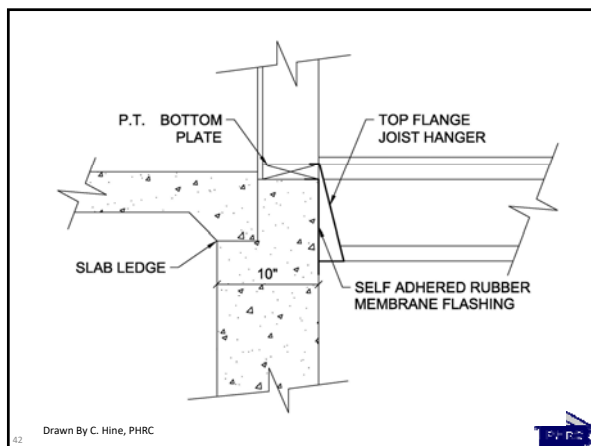




41

Drawn By C. Hine, PHRC





42

Drawn By C. Hine, PHRC



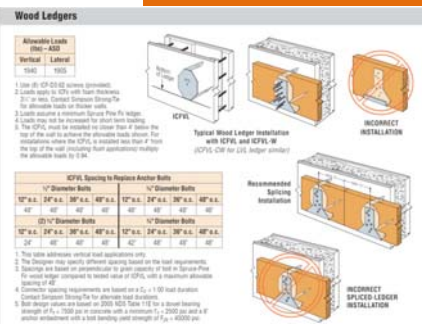
Construction Details

- **To obtain a zero-step entry, there are a few different options**
 - Cribbing the floor system
 - Hanging joist with top flange joist hangers
 - Insulated Concrete Forms (ICF)

43



Proprietary Connectors



44

strongtie.com



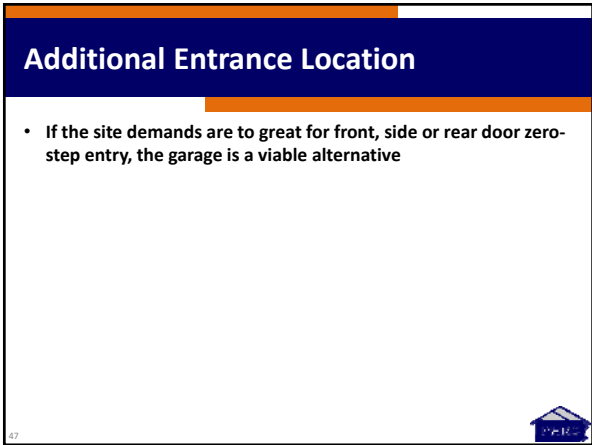
Photo contributed by: Tom McCosby
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45





Photo contributed by: Tom McCosby
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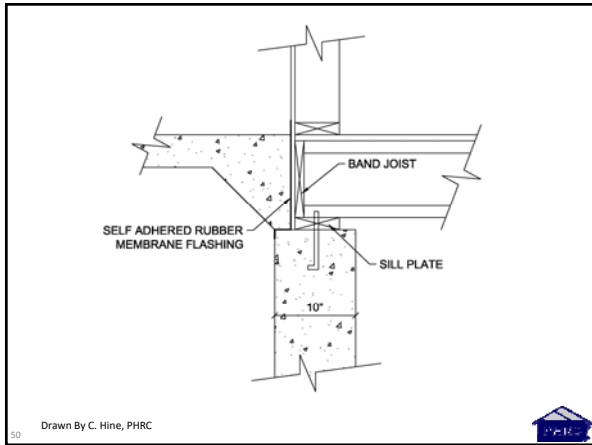
Additional Entrance Location

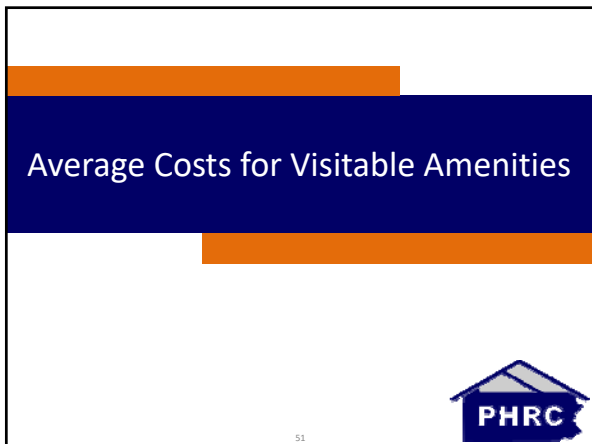
- If the site demands are to great for front, side or rear door zero-step entry, the garage is a viable alternative



Photo contributed by:
Bridlewood Builders







Average Cost of a Zero-Step Entry

- **Retrofit a zero-step entry can be upwards of \$3,300**
 - Removal of existing sidewalk and stairs
 - Addition of flashing
 - Addition of new concrete or wooden ramp
- **New construction with prior planning**
 - \$300-\$600 for new construction with crawlspace or basement
 - \$100 for new construction with slab on grade
- **All price dependent on site conditions and preferred construction details**

52 Data pulled from Visitability.org



Average Cost of Increasing Interior Doors

- **Retrofit oversize doors could be upwards of \$700 / door**
 - Removal of existing door
 - Re-frame doorway
 - Finish drywall
 - Re-trim doorway
 - Only works if space is available
- **New construction with prior planning**
 - \$50 for the entire project
 - Assumption of 10 doors with current pricing of \$5 upcharge per door for standard prehung interior door

Data pulled from Visitability.org

53 Data pulled from Visitability.org



Average Cost for Bath on Primary Floor

- **Retrofit main floor bathroom**
 - Depending on the circumstances and current floor plan, it can start from \$1000 and go up from there.
- **New construction with proper planning**
 - Bath can be incorporated into the plan with a pre-design

54 Data pulled from Visitability.org



Summary

- **Basic design requirements**
 - At least one zero-step entry
 - Door and hallways large enough to navigate through
 - Doors – 36"
 - Hallways – 43"
 - At least one half-bath on the first floor
 - Space for a wheelchair
 - Faucet to have lever type handles

55



Summary

- Statistics show much of the population want to remain in their current home
- This percentage only gets higher as they age

56



Summary

- **Benefits of Visitability**
 - Flexibility
 - Hospitality
 - Marketability
 - Convenience

57



Summary

- **Many options for zero-step entry**
 - Cribbing the foundation
 - Hanging joist
 - Proprietary products
 - Garage entry

58



Other Thoughts?

– ??

59



References

- Visitability; www.visitability.org
- National Association of Home Builders; www.NAHB.org
- AARP; www.aarp.org
- Population Reference Bureau; www.prb.org
- United States Census Bureau; www.census.gov
- Centers for Disease Control and Prevention; www.cdc.gov
- American Planning Association; www.planning.org
- Ohio Developmental Disabilities Council; ddc.ohio.gov
- Simpson Strong Tie; www.strongtie.com

60