



**FAIR HOUSING ACCESSIBILITY**  
**FIRST** Fair Housing Instruction, Resources, Support, Technical Guidance

## Common Design and Construction Violations with Solutions

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- Initiative sponsored by the U.S. Department of Housing and Urban Development (HUD)
- Designed to promote compliance with the Fair Housing Act's design and construction requirements.
- Fair Housing FIRST provides:
  - Comprehensive training curriculum,
  - Toll-free information line, and
  - Website designed to provide technical guidance to the public.



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Technical guidance via a website and toll free hotline:

**1-888-341-7781** V/TTY

**[www.fairhousingfirst.org](http://www.fairhousingfirst.org)**



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## Introduction

### LCM ARCHITECTS

CHICAGO, ILLINOIS



- Licensed Architectural & Accessibility Consulting Firm
- Fair Housing Act, ADA Title II & Title III & Universal Design
- 48 Staff Members
- Member - U. S. Access Board (1996 – 2011)
- Member - ANSI A117.1 Committee
- Manager - HUD's Fair Housing FIRST Program
- Certifications - IBC, CASp, TAS

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## Introductions



### John Ritzu, RA

Associate  
LCM Architects  
Chicago, Illinois



### Douglas J. Anderson,

CASp, R.A.S  
Partner  
LCM Architects  
Chicago, Illinois

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## Housekeeping

- Question & Answer Period
- Training Evaluations
- AIA CEU Credits

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During this training session, we will discuss:

The requirements of Fair Housing Act contained in the Fair Housing Act Accessibility Guidelines for:

### Common Violations and Solutions

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The goal is to increase the supply of multifamily housing units that comply with HUD's FHA requirements.



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Gathered opinions and ideas from over 850 stakeholders, including:

#### Stakeholder Groups

- Builders
- Architects
- Landscape Architects
- Disability Rights Advocates
- Government Officials
- Trade Associations
- Property Managers
- Media
- Code Officials
- Civil Engineers
- Enforcement Agencies

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Technical guidance via a website and toll free hotline:

- 1-888-341-7781 v/TTY
- www.fairhousingfirst.org



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### Units Covered by the Fair Housing Act

The design and construction requirements apply to “covered multifamily dwellings” designed and constructed for first occupancy after **March 13, 1991**

**Covered Multifamily Dwellings Include:**

- All dwelling units in buildings containing four or more units, with an elevator
- All ground floor units in buildings containing four or more units, without an elevator

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### Seven Design & Construction Requirements

1. Accessible building entrance on an accessible route
2. Accessible and usable public and common use areas
3. Usable doors
4. Accessible routes into and through covered unit
5. Light switches, electrical outlets, thermostats, and other environmental controls in accessible locations
6. Reinforced walls in bathrooms for later installation of grab bars
7. Usable kitchens and bathrooms



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## Safe Harbors for Compliance

1. HUD Fair Housing Accessibility Guidelines and the Supplemental Notice
2. ANSI A117.1 (1986), used with the Fair Housing Act, HUD's regulations, and the Guidelines
3. CABO/ANSI A117.1 (1992) used with the Fair Housing Act, HUD's regulations, and the Guidelines
4. ICC/ANSI A117.1 (1998) used with the Fair Housing Act, HUD's regulations, and the Guidelines
5. The Fair Housing Act Design Manual (1998)
6. Code Requirements for Housing Accessibility 2000 (ICC/CRHA)
7. International Building Code 2000 with 2001 Supplement
8. International Building Code 2003, with one condition
9. ICC/ANSI A117.1 (2003) used with the Fair Housing Act, HUD's regulations, and the Guidelines
10. International Building Code 2006, with the January 31, 2007 Errata

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## Safe Harbors

### CAUTION:

(HUD Policy)

Safe harbor standards constitute safe harbors only when adopted and implemented in accordance with the policy statement that HUD published in the Federal Register on March 23, 2000. That policy statement notes, for example, that **if a jurisdiction adopts a model Building Code that HUD has determined conforms with the design and construction requirements of the Act, then covered residential buildings that are constructed in accordance with plans and specifications approved during the building permitting process will be in compliance with the requirements of the Act unless the building code official has waived one or more of those requirements or the building code official has incorrectly interpreted or applied the building code provisions.**

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## Safe Harbors Used for Today's Training

1. HUD Fair Housing Accessibility Guidelines and the Supplemental Notice (1991)
2. ANSI A117.1 (1986), used with the Fair Housing Act, HUD's regulations, and the Guidelines
3. The Fair Housing Act Design Manual (1998)

[www.huduser.gov/portal/publications/destech/fairhousing.html](http://www.huduser.gov/portal/publications/destech/fairhousing.html)



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## Common Violations & Solutions



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## Common Violations & Solutions



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## What Are Common Violations?

Documented non-compliance with the design and construction requirements.

The most common violations are drawn from enforcement, industry, and advocacy sources



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## Attention to Detail

- Accessibility is measured in fractions of inches and percentage of slope.
- Know your standards
- Detail matters!



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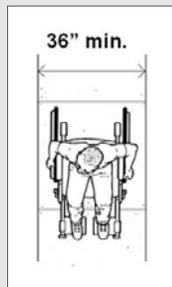
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## Construction Tolerances



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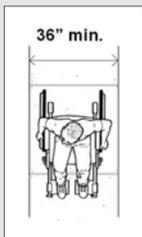
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## Construction Tolerances



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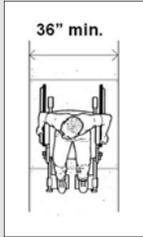
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## Construction Tolerances



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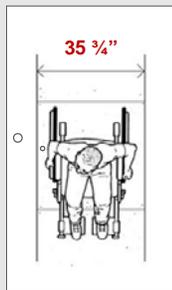
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## Problem

OUCH!



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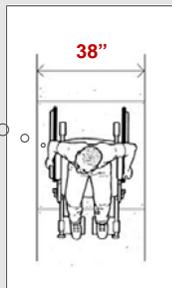
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## Solution?

AHHH!



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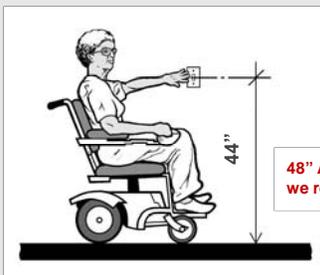
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## Solution?

Design to anticipate construction deviations



48" AFF is allowed but we recommend 44" AFF.

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## Confirm Compliance During Construction

8.3% slope was shown on plans



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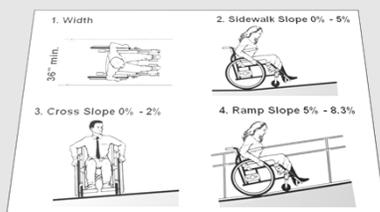
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## Requirement 1 Accessible Routes



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## Problem



Vertical Level Changes

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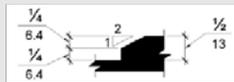
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## Solution



Vertical Level Changes

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## Problem



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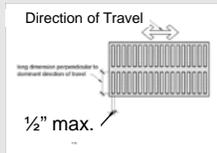
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## Solution



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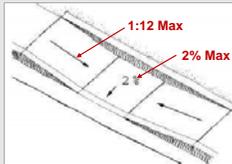
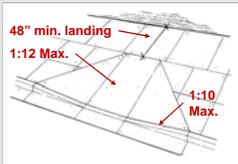
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## Curb Ramps

Design and install curb ramps to meet or exceed the minimum design standards



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## Curb Ramps & Problems

Flush transitions between materials

Max. Counter Slope - 5%

Max. Curb Ramp Slope - 8.33% (1:12)



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## Curb Ramps & Problems

Flush transitions between materials      Max. Counter Slope - 5%      Max. Curb Ramp Slope - 8.33% (1:12)



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## Problems



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## Problems



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## Problem



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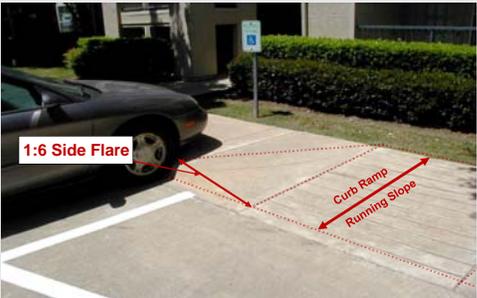
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## Problem



1:6 Side Flare

Curb Ramp  
Running Slope

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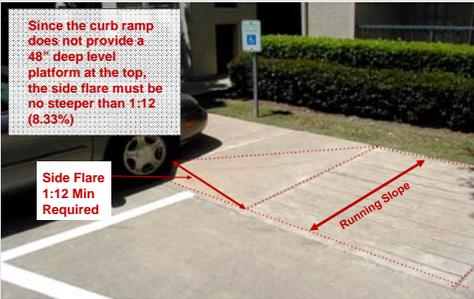
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## Solution



Since the curb ramp does not provide a 48" deep level platform at the top, the side flare must be no steeper than 1:12 (8.33%)

Side Flare  
1:12 Min  
Required

Running Slope

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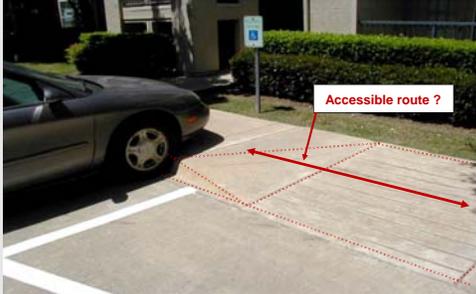
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## Problem?



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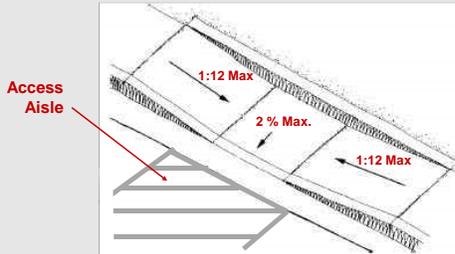
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## Solution



Inline/Parallel Curb Ramp

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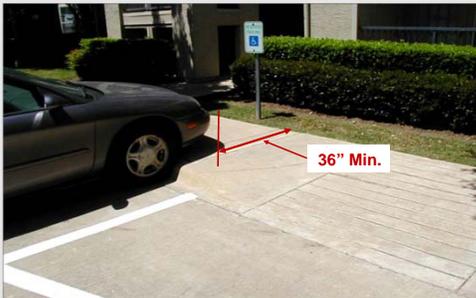
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## Problem?



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### Problem



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### Problem



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### Problem



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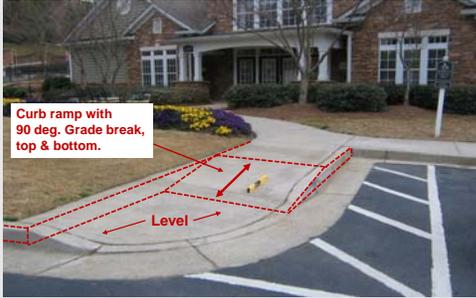
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## Solution



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## Cross Slope



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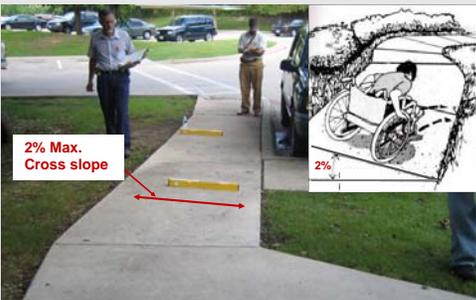
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## Problem?



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## Ramps



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## Problems



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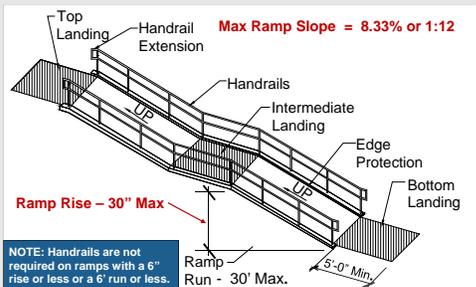
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## Solution



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## Accessible Route Surfaces

Surface - Firm, Stable and Slip Resistant



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## Accessible Route Surfaces

Surface - Firm, Stable and Slip Resistant



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## Solutions

Surface - Firm, Stable and Slip Resistant



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## Problem



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## Problems



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## Solutions



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## Problems



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## Protruding Objects



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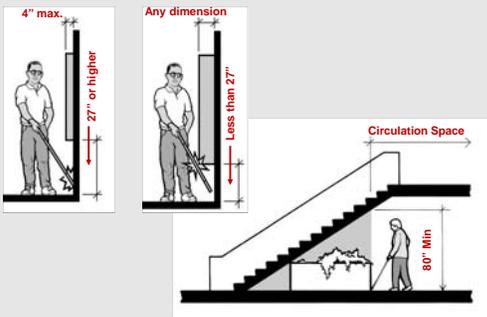
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## Solutions



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## Problems



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## Solutions



Permanent barrier mounted  
27" AFF or lower

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## Requirement 2 Accessible and Usable Public and Common Use Areas

### Typical FHA issues in Common Areas

- Parking
- Common-use restrooms and showers
- Mailboxes
- Pet areas
- Common site amenities

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**Requirement 2**  
**Accessible and Usable**  
**Public and Common Use Areas**



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**Parking**



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**Problem**



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## Parking

Parking access aisle is not provided



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## Solution #1



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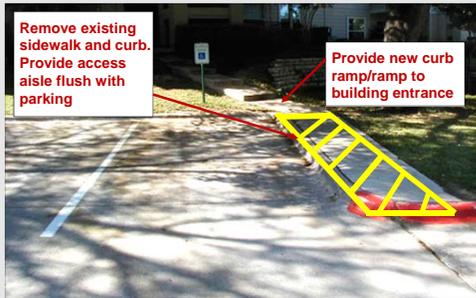
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## Solution #2



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## Parking Access Aisle



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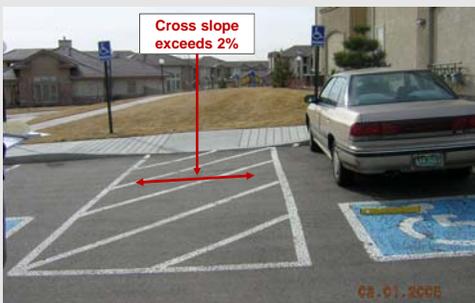
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## Problem



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## Solution



- Provide level accessible parking and access aisles
- Provide access aisles at accessible parking spaces
- Provide accessible spaces for 2% of parking spaces serving FHA units
- Provide an accessible parking space at amenities if parking is provided

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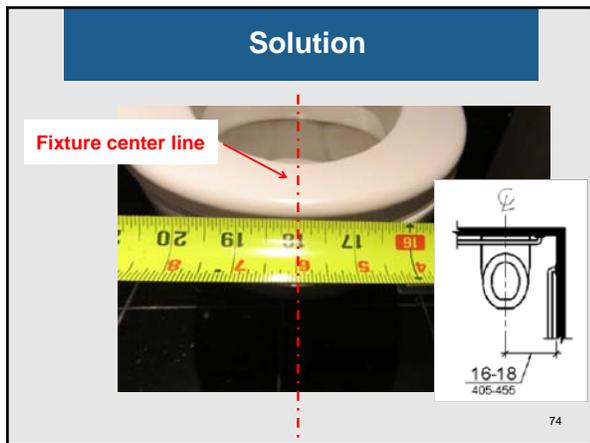
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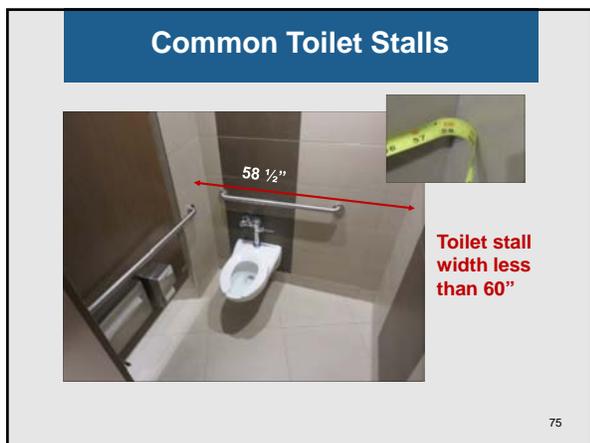
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## Solution



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## Showers Layout



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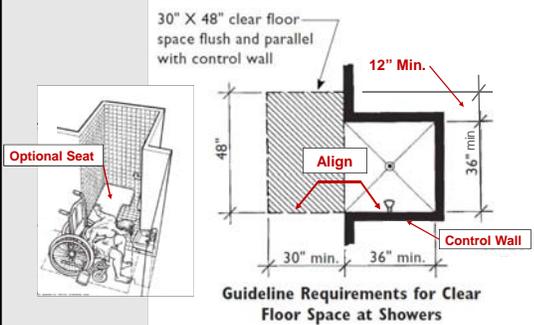
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## Showers



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## Common Kitchen Problems



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## Solution



*"Public & common use kitchens must be usable and at least meet the requirements in the Guidelines for kitchens." In addition, "kitchen sinks must be accessible per ANSI 4.19." (FHA Design Manual)*

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## Solution



**Provide 30" wide Min. knee space below the sink**  
ANSI 1986 - 4.19

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## Mailboxes



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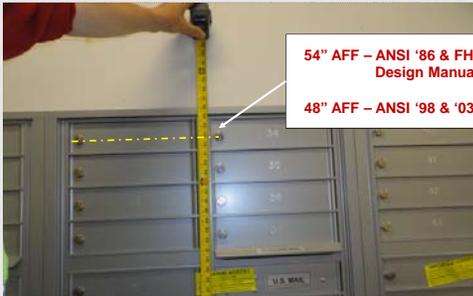
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## Mailboxes



54" AFF – ANSI '86 & FHA Design Manual  
48" AFF – ANSI '98 & '03

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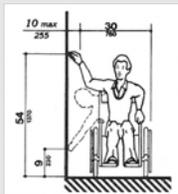
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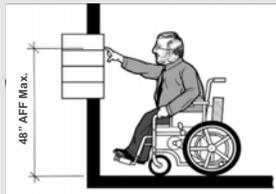
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## Solution



Side Reach



Forward Reach

ANSI 1986 & FHA Design Manual

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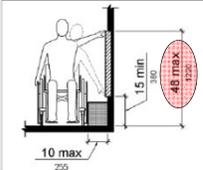
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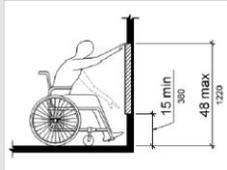
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## Solution



Side Reach



Forward Reach

**NOTE:**  
ANSI 1998, 2003 and later editions of ANSI limit the high side reach to 48" AFF.  
The US Postal Service may also limit the location of the lowest mailbox.

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## Problems



Accessible route not provided to the dog run gate.

Pet waste station not on an accessible route



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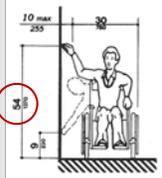
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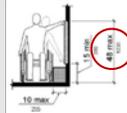
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## Solutions



1986 ANSI & FHA Design Manual

2003 ANSI & 2006 ANSI



Pet waste station not on an accessible route



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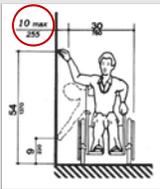
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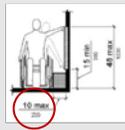
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## Dog Runs & Litter Stations



1986 ANSI & FHA Design Manual

2003 ANSI & 2006 ANSI



Pet waste station not on an accessible route



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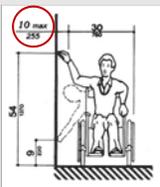
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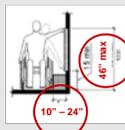
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## Dog Runs & Litter Stations



1986 ANSI & FHA Design Manual

2003 ANSI & 2006 ANSI



Pet waste station not on an accessible route



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## Solution



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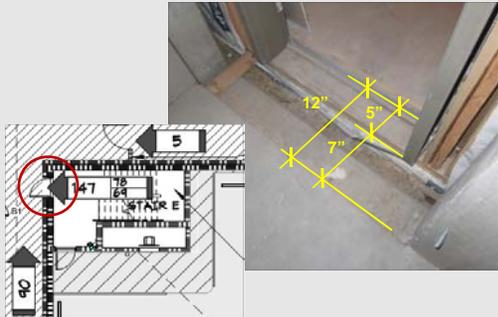
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## Maneuvering Clearances At Doors



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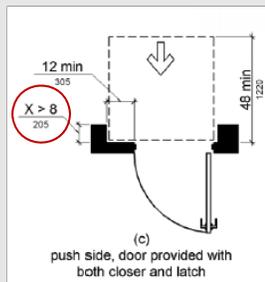
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## Solution



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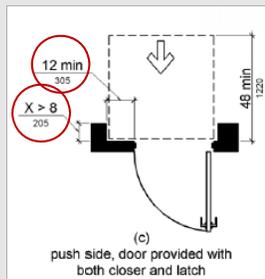
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## Solution



96

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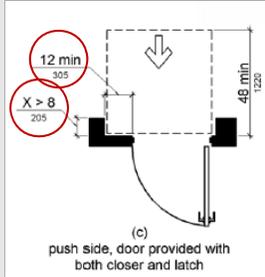
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## Solution



**NOTE: Not allowed by ANSI 1986**

97

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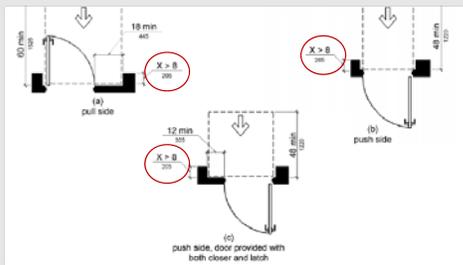
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## Solution



**NOTE: Not allowed by ANSI 1986**

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## Play/Recreation Area



99

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## Solution



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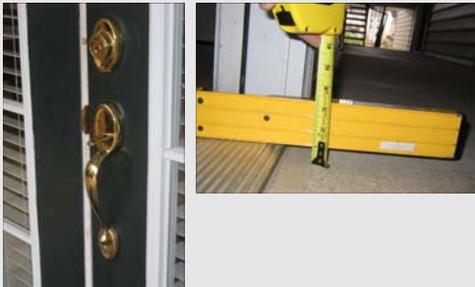
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## Requirement 3 Usable Door Problems



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## Solutions

No tight grasping, pinching or twisting of the wrist.

Examples of Accessible Door Hardware			
Handle	Pull	Bar	Lever

102

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**Solution**

1:2 Slope Min.

1/2" Max.

Interior Exterior

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**Common Area Doors & Maneuvering Clearance**

104

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**Solution**

(a) front approach, pull side

18 min

18" Min. - pull side/latch side

105

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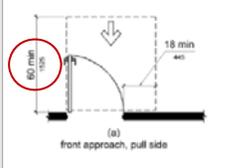
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## Solution



18" Min. - pull side/latch side

106

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## Problem

Provide maneuvering clearance at exterior gates per safe harbor doors clearance requirements



107

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## Problem

Provide maneuvering clearance at exterior gates per safe harbor doors clearance requirements



108

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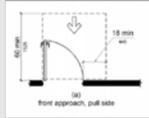
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## Solution

Provide maneuvering clearance at exterior gates per safe harbor doors clearance requirements.



18" plus gate width



109

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## Dwelling Units



110

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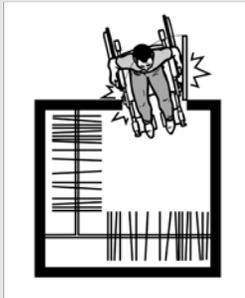
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## Unit Passage Doors



111

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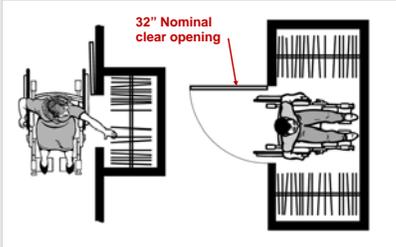
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## Solution

All passage doors including “walk-in” closets, storage rooms & patio doors are required to provide a 32” nominal clear opening door



112

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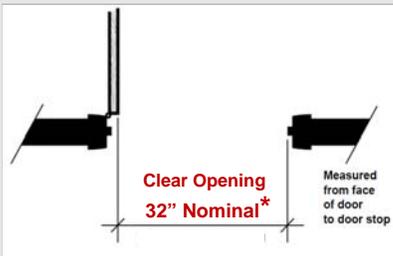
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## Usable Passage Doors Within a Dwelling Unit



- 34" Min. Wide Door Leaf or 31 5/8" Min. Clear Opening
- ANSI 1998 & 2003 – 31 3/4"

113

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## Requirement 4 Accessible Route Into and Through the Unit



114

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## Problem



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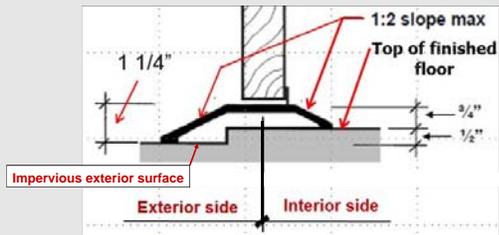
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## Solution



116

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## Secondary Entrance Threshold



117

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## Problem



4" Riser



1" Quarter Round

118

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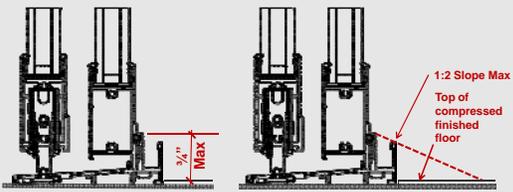
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## Solution



3/4" Max. Threshold at 1:2 Slope Max.

119

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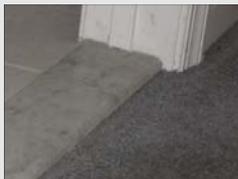
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## Floor Transitions



Raised Thresholds



Carpet Strips

120

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## Problem



Raised Thresholds



Carpet Strips

121

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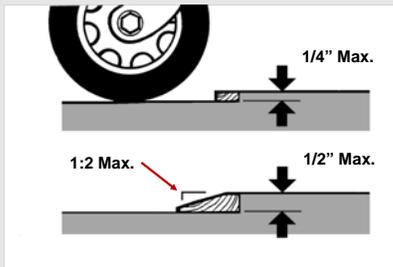
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## Solutions



122

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## Solutions



Flush Transitions

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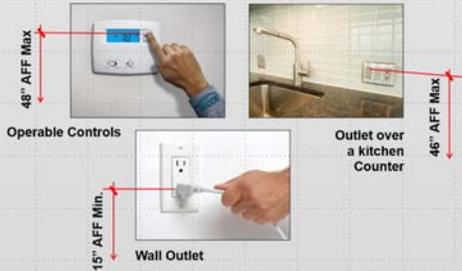
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## Requirement 5 Light Switches, Electrical Outlets, Thermostats & Other Environmental Controls



124

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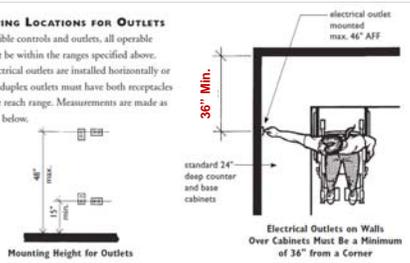
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## Solution

### MOUNTING LOCATIONS FOR OUTLETS

For accessible controls and outlets, all operable parts must be within the ranges specified above. When electrical outlets are installed horizontally or vertically, duplex outlets must have both receptacles within the reach range. Measurements are made as illustrated below.



5.8

FAIR HOUSING ACT DESIGN MANUAL

125

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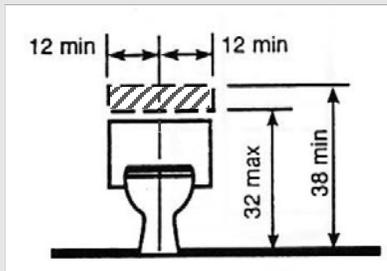
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## Requirement 6 Reinforced Walls for Grab Bars



126

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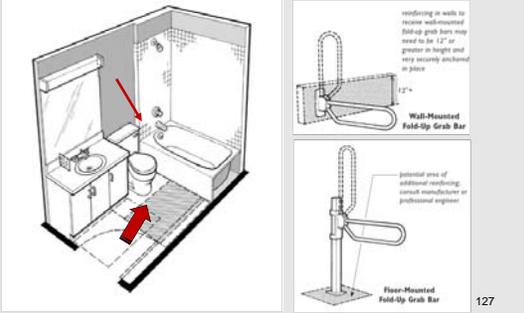
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## Reinforced Walls for Grab Bars



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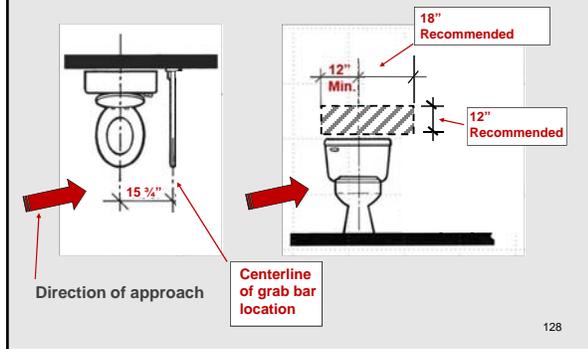
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## Reinforced Walls for Grab Bars



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## Requirement 7 usable Kitchens & Bathrooms



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## usable Kitchens & Bathrooms



130

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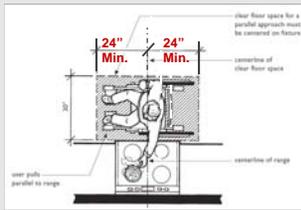
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## Problem & Solution



131

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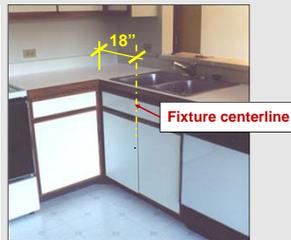
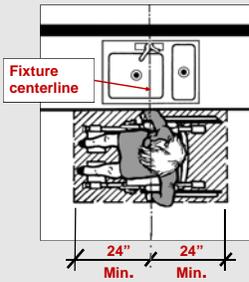
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## Problem & Solution



132

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**Problem**

Sink  
Centerline

30" X 48" Clear  
Floor Space at  
sink

12"

133

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**Problem**

134

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**Problem**

135

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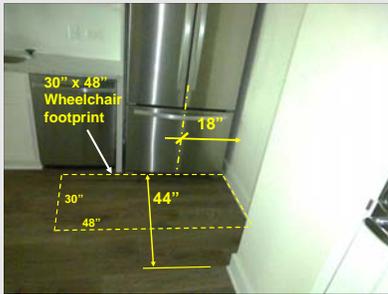
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## Problem



136

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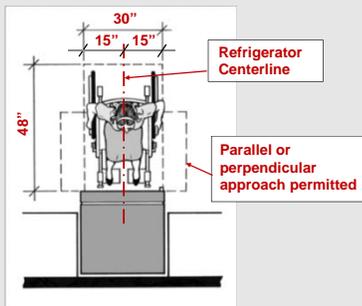
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## Solution



137

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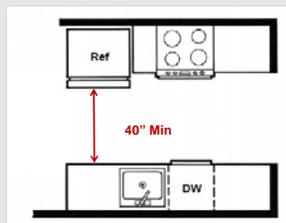
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## Solution



Beware refrigerator creep!

138

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## Usable Bathrooms



139

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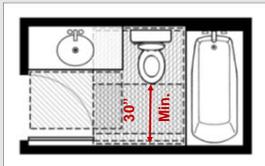
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## Problem



30" x 48" required:

- Beyond the swing of the door
- Perpendicular approach to the bathtub.

140

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## Problem



141

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### Solution

24"  
Min.

Note:  
At least one Lav. must be compliant in a Spec. "B" bathroom. All Lav's must be compliant in a Spec. "A" bathroom

Spec. "B" bathroom

142

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### Problem

16"

Parallel approach to the lavatory

30" x 48" wheelchair footprint

143

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### Solution

24" Min.

1" or 2" under WC Allowed

Centered parallel approach to the lavatory

144

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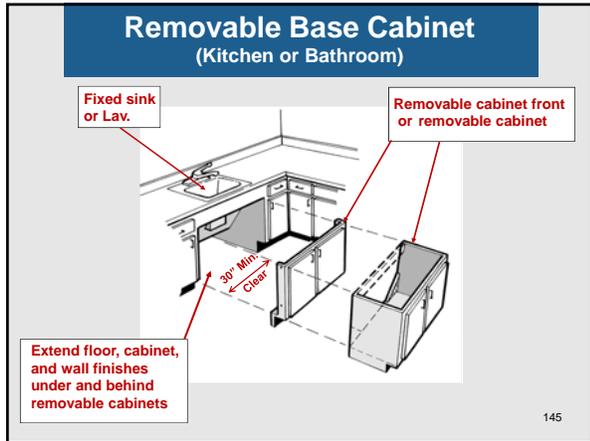
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## Problem



148

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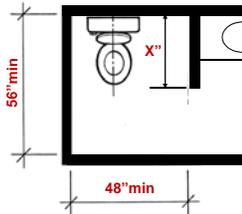
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## Solution

**Note:**  
If "X" is greater than 24", clear floor space must be at least 48" wide.



149

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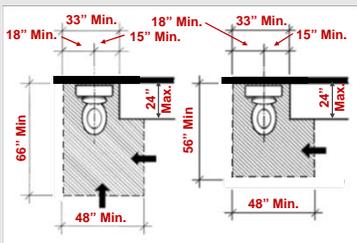
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## Usable Bathrooms



**Specification A and B**  
Clear Floor Space – Toilets

150

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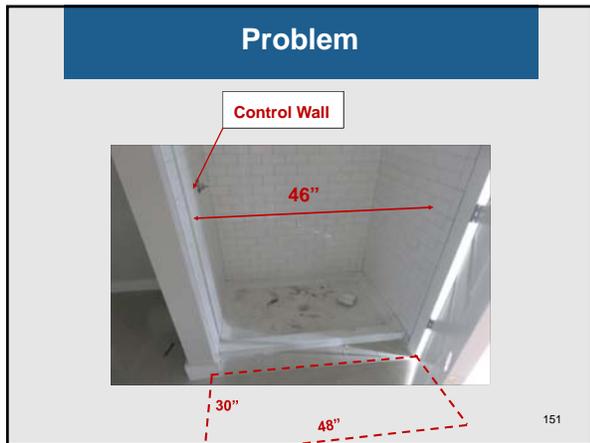
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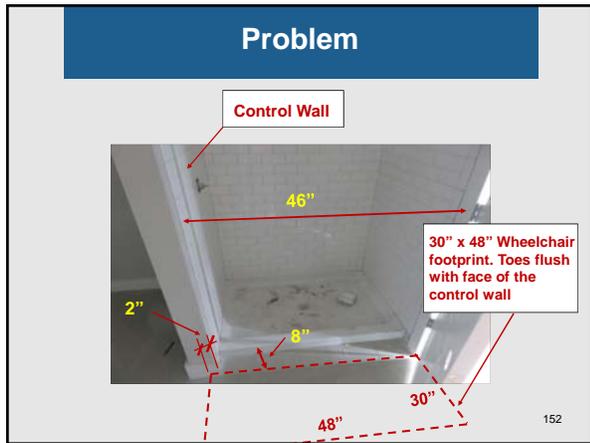
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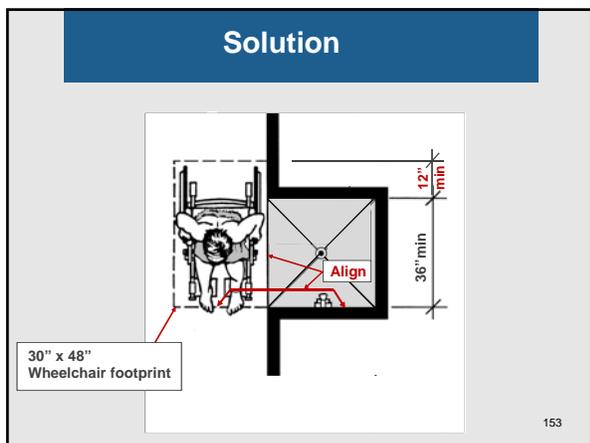
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Fair Housing Accessibility **FIRST**  
Information Line  
**1-888-341-7781 V/TTY**



Fair Housing Accessibility **FIRST**  
Website  
**[www.fairhousingfirst.org](http://www.fairhousingfirst.org)**



154

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