

# Multi-Family Dwellings

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*2009 North Carolina Building Code*  
*2003 ANSI A117.1*



Prepared by:  
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NC Dept of Insurance/OSFM

# *If you download this presentation*

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- The slides in this program complement the verbal presentation and cannot stand alone.
- Without the verbal presentation, the slides may only partially express the concept or fact.
- Therefore, a reader who did not attend the presentation may misinterpret the meaning of the slides.

# *The examples in the slides*

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- The graphics are intended to complement the presentation and serve as examples.
- They may not entirely comply with everything indicated in the section being represented but the example was the best available at the time.
- Some examples may have been intended to represent what did not comply with the presentation but you had to be present at the presentation to be aware of that fact.

# Transition Memo – dated Sept. 29, 2009

## 2004 NCAC Ch. 30

TRANSITION FROM 2004 NC ACCESSIBILITY CODE to Chapter 11 & 2003 ANSI A117.1

2009 NCBC

What accessibility code is in effect now for NC? On June 9, 2009, the NC Building Code Council voted to allow a transition period between codes to extend from the date that the legislature adjourns (August 1<sup>st</sup>) until the end of the year (December 31<sup>st</sup>). Transition Period: August 11, 2009 through December 31, 2009. Code: 2004 NC Accessibility Code or 2008 NC Building Code Ch. 11 + 2003 ANSI A117.1.

Beginning January 1<sup>st</sup>, 2010, both the state and local jurisdictions will begin enforcing 2008 NC Building Code Ch.11, along with the referenced standard 2003 ANSI A117.1. The transition time allows for designers and jurisdictions to familiarize themselves with the overlap of the state and federal requirements that go into effect on January 1<sup>st</sup>.

What effect does the 2008 NC BC have on accessibility provisions? Provisions in 2009 NC Building code such as NCBC 3409, NCBC 3409 and Appendix E have already been in effect for buildings under the 2008 NC Building Code. Some of these provisions are similar to provisions in the 2004 NC Accessibility Code. Some, such as NCBC 3409.3, which requires areas of refuge for all buildings, even prohibited ones, with few exceptions, may be more restrictive. Horizontal exits may be used to access the area of refuge. NCBC 2007.2 requires that an elevator in a building be used as one path of egress when 4 stories above the level of exit discharge. These sections are new to NC (because NC deleted 2007 in earlier codes), but nowhere to NC so there is no change bar beside the text.

What happens to the ADA Standards\* requirements? Several designers have asked what will happen to the NCAC requirements on Jan. 1, 2010, when NCDOI and local jurisdictions begin enforcing NCBC Ch. 11 + ANSI A117.1 and stop enforcing the 2004 NCAC. The 2004 NCAC is equivalent to the ADA stds. The ADA stds\* requirements will continue to be enforced on the federal level by the US Department of Justice. It is estimated by USDOJ that the current ADAAG requirements (what is in the 2004 NCAC) will remain as federal accessibility requirements until approximately 2012 and the future ADA/ABA is adopted. [The ADA/ABA stands for the Americans with Disabilities Act/Architectural Barriers Act.] The ADA/ABA provisions contain those requirements adopted in the 2009 NCBC Ch.11 + 2003 ANSI A117.1 and which are both more and less restrictive than the current ADA Std requirements. That language is available on the US Access Bd's website at [www.access-board.gov](http://www.access-board.gov). When adopted by US Dept. of Justice, it becomes enforceable. [An NCAC Std is available from the NCDOI office that also contains the current ADA stds\* language and appendices. Call NCDOI at 919-661-8550 + ask for code sales.]

What differences are there between the NCAC and the ANSI Codes? The 2004 NCAC was certified on November 28, 2005 as complying with the ADA Standards\*. Designing to the 2004 NCAC will provide rebuttable evidence in court that you have designed a building that is ADA-compliant. The 2003 ANSI code contains language that is from the future ADA/ABA that has not yet been adopted by the US Dept. of Justice and is not likely to be adopted until 2012. The provisions, depending on the category, are both more restrictive and less restrictive than the current ADA Standards\*. After January 1, 2009 and until the USDOJ adoption of the ADA/ABA, designers will have to address the worst case scenario between the applicable codes [2004 NCAC (as the federal ADA Standards\* equivalent) and NCBC Ch. 11/ANSI A117.1] since both will apply on a state and federal levels. Where codes overlap, design to comply with both.

What changed from ANSI is required? 2008 NC Building Section 3304.2 references ICC ANSI A117.1. NC Building Code Ch. 25 on page 544 requires ICC ANSI A117.1-03 of the standard. It can be ordered through the International Code Council; at their website at [www.iccsafe.org](http://www.iccsafe.org). You may order either the standard or the commentary. Getting the commentary is recommended. The language in the commentary may be helpful, however, commentary language is not enforceable, it is merely explanatory. The wording is in Ch.11; technical requirements are in ANSI. Both are necessary. Be aware that comments for one section may be listed under another section in the commentary.

Further questions may be directed to: L.W. Wright, Chief Accessibility Code Consultant, NCDOI/OSFM 919-661-8580 Extension 247

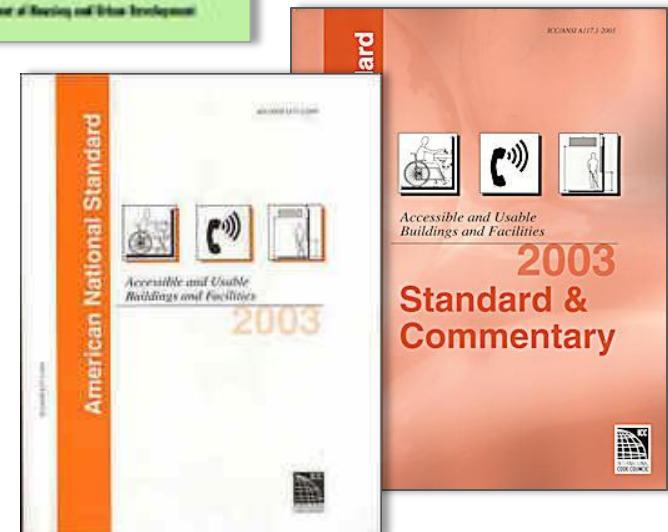
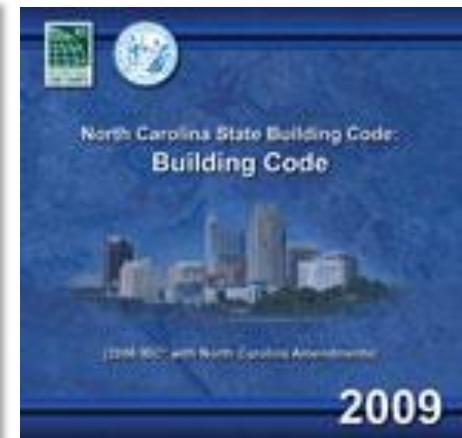
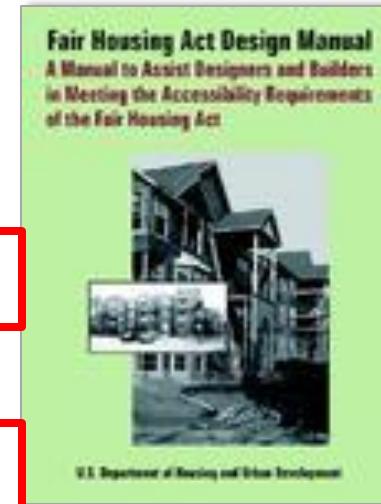
1990= ADAAG (Americans with Disabilities Act Accessibility Guidelines)  
1994 amendments to ADAAG = ADA Standards  
  
L.W. Wright – Rev. September 29, 2009

## 2009 NCBC Ch. 11 + ANSI

- BCC in June meeting:
  - Transition period:
    - Legislature departure until – December 31, 2009
  - ANSI 117.1 enforcement date:
    - January 1, 2010
  - Federal regulations still enforceable until 2012
    - ADAAG
  - Federal Fair Housing Act Guidelines [FHAG]
    - Uses ANSI
    - Safe Harbor under ICC

# Codes/Standards to Have

- 2003 ANSI A117.1
- 2009 NC Building Code
- **2009 ICC Commentary**
- 2003 ANSI A117.1
- **2003 A117.1 Commentary**
- Federal Fair Housing Act Design Manual (*can order from HUD publications online for \$5 – search online or download pdf for free*)



# *Fair Housing Act Design Manual*

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- Go to:  
[www.google.com](http://www.google.com)
- Enter:  
fair housing act design manual  
in the **SEARCH** field
- The top link:  
[Fair Housing Act Design Manual: A Manual to Assist  
Designers and ...](#)  
<http://www.huduser.org/publications/destech/fairhousing.html>

# Fair Housing Act Design Manual

Address <http://www.huduser.org/publications/destech/fairhousing.html>

The screenshot shows the HUD USER Publications website. At the top, there's a navigation bar with links for 'My Cart' (with a shopping cart icon), 'HUD Home', 'HUD USER Home', a search bar, and 'Advanced Search'. Below the navigation is a menu bar with links for 'About', 'Topics', 'Newsletters', 'Assisted Housing', 'Market Studies', 'Resources', and 'Site Map'. A banner image at the top features several buildings, including a red house, a yellow townhouse, a brick apartment complex, and a building with a 'FOR RENT' sign. On the left side, there's a sidebar with links for 'What's New', 'About PD&R', 'Publications', 'Periodicals', 'Data Sets', 'Bibliography', 'Order Online', 'Ongoing Research', 'eLists', 'Secretary's Awards', 'Regulatory Reform', 'Other Resources', and 'State of the Cities'. At the bottom left is a 'Maps' section with a link to 'Programs Of HUD'. The main content area features a large heading 'Fair Housing Act Design Manual (Revised April 1998, 130 p.)'. Below the heading is a detailed description of the manual, mentioning its publication date (1996), purpose (to assist designers and builders in meeting accessibility requirements), and content (guidance on design and construction). It also notes the inclusion of HUD's interpretation of the Act and recommendations for alternative accessibility approaches. To the right of the main content is a purple sidebar with ordering options. It includes a 'Send this to a friend' link, a section for 'Order Revision sheets if you have 1996 edition' with an 'ORDER' button, a section for 'Order full document:' with an 'ORDER' button, and a section for 'Hard Copy \$5.00' with an 'ORDER' button. Below these are sections for 'FULL TEXT:' and 'Adobe Acrobat (.pdf 25.6 MB)'. Arrows from two callout boxes point to the 'ORDER' buttons in the sidebar.

**Fair Housing Act Design Manual (Revised April 1998, 130 p.)**

First published in 1996, the *Fair Housing Act Design Manual: A Manual to Assist Designers and Builders in Meeting the Accessibility Requirements of The Fair Housing Act* provides clear and helpful guidance about ways to design and construct housing which complies with the Fair Housing Act. The manual explains the accessibility requirements of the Act, which must be incorporated into the design and construction of multifamily housing covered by the Act. A clear statement of HUD's interpretation of the accessibility requirements of the Act is included so that readers may know what actions will provide them with a "safe harbor." Recommendations are made which, although not binding, meet the Department's obligation to provide technical assistance on alternative accessibility approaches that are, at least minimally, in compliance with the Act. The latter information allows housing providers to choose among alternatives and provides persons with disabilities with information on accessible design approaches.

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# *What we will cover today*

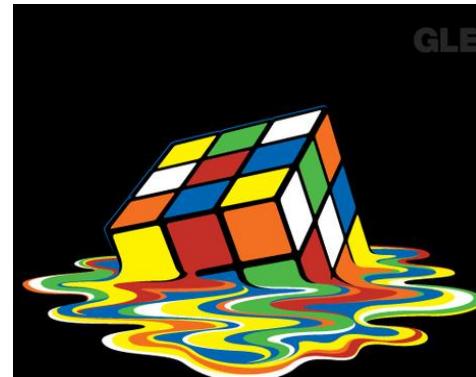
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## 2009 NCBC Ch. 11 - WHERE

- Scoping requirements
  - Look here **1<sup>st</sup>** for:
    - Where required
    - When required

## 2003 ANSI A117.1 – HOW

- Technical requirements
  - Look here **2<sup>nd</sup>** for:
    - How to do
    - Specifics



**How to prevent the meltdown**

# What we will cover today

## 2009 NCBC Ch. 11 - WHERE

- 1101 General
- 1107 Dwelling Units + Sleeping Units
  - 1107.6 Group R
  - 1107.6.1 R-1
  - **1107.6.2 R-2**
  - **1107.6.3 R-3**
  - 1107.6.4 R-4
  - 1107.7 Gen. Exceptions
    - 1107.7.1 W/o Elevator
    - 1107.7.1.2 Add. Stories w/B units
    - 1107.1.2 Multistory units
  - 1107.7.3 Elev. Service to lowest story w/units
  - 1107.7.4 Site impracticality
  - 1107.7.5 Design flood elevation

## 2003 ANSI A117.1 – HOW

- Ch. 10. Dwelling Units and Sleeping Units
  - 1002 Accessible Units
  - 1003 Type A Units
  - 1004 Type B Units
  - 1005 Units with Accessible Communication Features



# 1107.6 Group R Requirements

- 1107.6.1 R-1 *Hotel, Motel*



- 1107.6.2 R-2 *Apartment, Condo*



- 1107.6.3 R-3 TH, Congregate living <16

- 1107.6.4 R-4 *Residential care facilities*

- 1107.7 General Exceptions

- 1107.7.2 Multistory Units



Adults & Elders

## *1107.2 Dwelling Units + Sleeping Units*

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Dwelling units and sleeping units that are required to be:

- Accessible units
- Type A units
- Type B units



shall comply with the applicable portions of ICC  
**ANSI117.1 Chapter 10.**

## 1107.2.1.2 Multistory Dwelling Units

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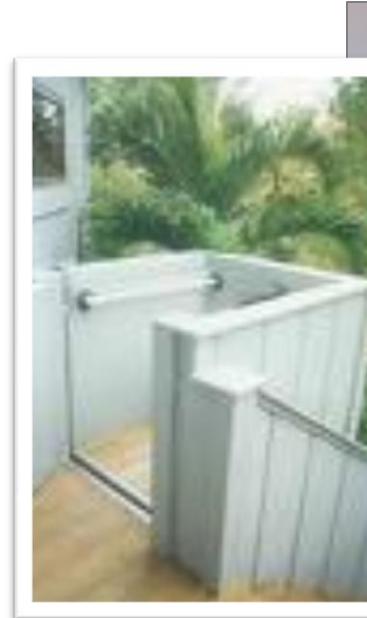
- A multistory dwelling unit or sleeping unit which is **not provided** with elevator service is **not required** to be a Type B unit.
  
- Where a multistory unit is provided with **external elevator service to only one floor**, the floor with the elevator service
  - Shall be the primary entrance to the unit
  - Shall comply with Type B
  - A toilet facility shall be provided on that floor.

## 1107.2.1.3 Elev service to lowest story

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- Where elevator service in bldg provides accessible route *only* to lowest story containing dwelling or sleeping units...

...*only* the units on that story occupied as a residence are Type B



## 1107.6.3 Group R-3

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Where there are 4 or more dwelling units –  
every dwelling unit occupied as a residence in a  
single structure shall be a

- Type B units



### EXCEPTION:

Type dwelling units may be reduced per 1107.7

**Site Impracticality**

# *What is an Accessible Unit?*

**AN ACCESSIBLE UNIT IS CONSTRUCTED FOR FULL  
ACCESSIBILITY IN ACCORDANCE WITH ANSI A117.1 - 1002**

- Bathroom grab bars in place
- Front approach provided at Kitchen + Lavatory
- 32" clear approach at all doors w/maneuvering clearances
- Lever hardware at all doors
- None of unit elements constructed for adaptability
- Requirements more restrictive than Type A or Type B

# *What is a Type A Unit?*

---

A TYPE A UNIT IS CONSTRUCTED FOR ACCESSIBILITY IN  
ACCORDANCE WITH ANSI A117.1 - 1003

- Bathroom grab bars are adaptable; blocking in place
- Front approach provided at Kitchen + Lavatory
- 32" clear approach at all doors w/maneuvering clearances
- Lever hardware at all doors
- Unit elements may be constructed for adaptability
- Requirements less restrictive than Accessible
- Requirements more restrictive than Type B

# What is a Type B Unit?

A **TYPE B UNIT** IS CONSTRUCTED FOR MINIMAL ACCESSIBILITY IN ACCORDANCE WITH FHActDESIGN MANUAL + ANSI A117.1 - 1004

- Bathroom grab bars are adaptable; blocking in place
- Side approach at kitchen + lavatory permitted
- 32" clear approach at all entry doors w/maneuvering clearances
- 36" entry / 31-3/4" interior doors (clear opening) w/ no maneuvering clearances
- Lever hardware - all doors
- Unit elements may be constructed for adaptability
- Requirements less restrictive than Accessible
- Some areas permitted to be non-accessible:
  - Sunken living room
  - Mezzanine bedrooms

# *1107.2 Unit Substitution*

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- Units required to be **Type A units**...  
...are permitted to be designed and constructed as **Accessible units**.
- Units required to be **Type B units**...  
...are permitted to be designed and constructed as **A units**.

You can always design up.

# 1107.6.2 Group R-2

---

- Provide
  - Accessible units
  - Type A units
  - Type B units
- ...per Sections 1107.6.2.1-1107.6.2.2

- 1107.6.2.1 Apt houses, monasteries + convents
- 1107.6.2.2 Group R-2 other than apartment houses, monasteries + convents

# 1107.6.2.1 Group R-2

## 1107.6.2.2.1 ACCESSIBLE UNITS

- Provide accessible dwelling/sleeping units per Table 1107.6.1.1
  - 1-25 units = 0 roll-in / 1 unit
  - 26-50 units = 0 roll-in / 2 units
  - 51-75 units = 1 roll-in /4 units
  - 76-100 units = 1 roll-in /5 units
  - 101-150 units = 2 roll-ins /7 units
- Table is similar to NCAC 29.4.1 for transient lodging + dorms.

## 1107.6.2.2.2 TYPE B UNITS

Where 4 or more dwelling units / sleeping units in a single structure, every dwelling unit intended to be occupied as a residence shall be a Type B unit.

- **EXCEPTION:**
  - See 1107.1 for Site Impracticality reduction.

## **1107.6.2.2 Other than Apt Houses**

---

- **1107.6.2.1.1 In Group R-2 occupancies other than Apartment houses, monasteries, and convents:**
  - Provide Type A and Type B units
  - Per 1107.6.2.2.1
    - Same table on previous slide.
  - Per 1107.6.2.2.2.
    - Site impracticality reductions permitted.

# 1107.6.2.2 Group R-2

## 1107.6.2.1.1 TYPE A UNITS

- R-2 with <11 dwelling or sleeping units at least 5% but NLT one of each type of the units shall be a Type A unit
- To determine # of units + required # of Type A units: all units on site shall be considered
- Type A units shall be dispersed among the various classes of units.

## 1107.6.2.1.2 TYPE B UNITS

- Where 4 or more dwelling units / sleeping units in a single structure, every dwelling unit intended to be occupied as a residence shall be a Type B unit.

- **EXCEPTION:**

- See 1107.1 for Site Impracticality reduction.



# 2003 ANSI A117.7 Ch. 10

## ■ CH. 10. DWELLING UNITS + SLEEPING UNITS

- 1001 - General
- 1002 - Accessible Units
- 1003 - Type A Units
- 1004 - Type B Units
- 1005 - Units with Accessible Communication Features



*How*

# *1003 Type A Units*

## Type A

- 
- .1 General
  - .2 Primary Entrance
  - .3 Accessible Route
  - .4 Walking Surfaces
  - .5 Doors + Doorways
  - .6 Ramps
  - .7 Elevators
  - .8 Platform Lifts
  - .9 Operable Parts
  - .10 Laundry Equipment
  - .11 Toilet/Bathing Facilities
  - .12 Kitchen
  - .13 Windows
  - .14 Storage

# 1003.2 Primary Entrance

A

- Accessible primary entrance on accessible route
- From public + common areas
- Not to a bedroom



# 1003.3 Accessible Route



## EXTERIOR SPACES < THAN 30" IN DEPTH OR WIDTH COMPLY WITH 1003.3.1, 1003.3.3, 302 AND 303

- **1003.3.1 Location**
  - At least one route connect spaces + elements that are part of the unit.
  - Where only one provided, shall not pass through baths, toilet rooms, closets of similar spaces.
- EXCEPTION:**
  - An accessible route not required to
    - Unfinished attics
    - Unfinished basements (part of the unit)
- **1003.3.2 Turning Space**
  - All rooms served by an accessible route shall provide a 304 turning space.
- EXCEPTION:** Non -1003.11 toilet rooms + bathrooms
- **1003.3.3 Components**
  - Accessible route consist of 1 or more of the following:
    - Walking surfaces w/slope NTE 1:20, ramps, elevators, and platform lifts,

# 1003.3 Accessible Route

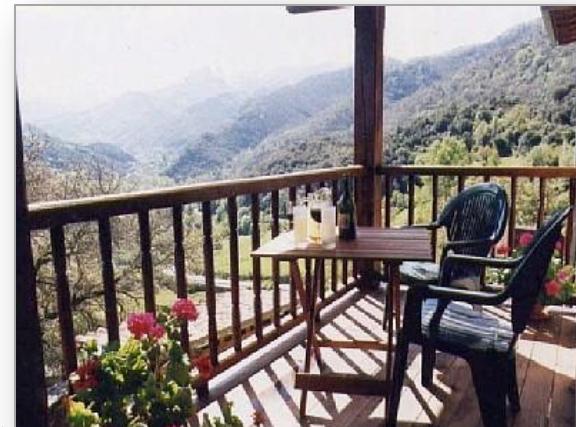


EXTERIOR SPACES < THAN 30" IN DEPTH OR WIDTH COMPLY WITH 1003.3.1, 1003.3.3, 302 AND 303



If balcony <30" deep,

- Floor surface
- Level change provisions are applicable
- Turning space not required
- (Space level with inside)



# 1003.3.2 Turning Space

A

**ALL ROOMS SERVED BY AN ACCESSIBLE ROUTE SHALL PROVIDE A TURNING SPACE COMPLYING WITH 304 (60" OR T – SHAPE SPACE).**



## EXCEPTION:

Non -1003.11 toilet rooms + bathrooms

**Use knee + toe clearances under rods + shelves.  
Maintain 36". Door clearances in + out.**



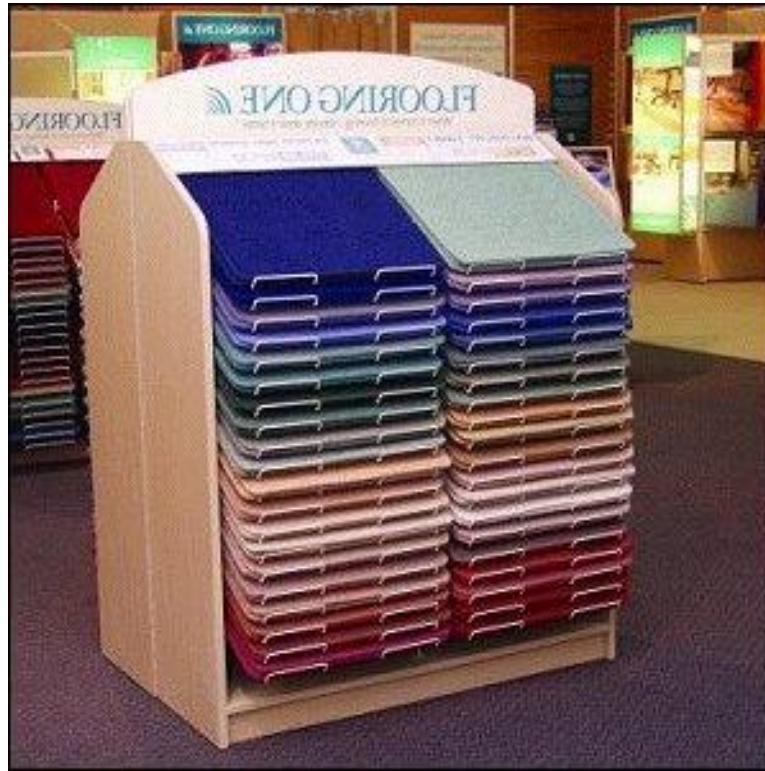
# 1003.4 Walking Surfaces

- That are part of an accessible route shall comply with 403
  - Slope NMT 1:20
  - Cross-slope NST 1:48
  - Level changes per 303
  - Clear width Table 403.5
    - 48" exterior width
  - Clear width at turn
  - 60" Passing space every 200 ft. or T-intersection



## IMPERVIOUS SURFACES

# 1003.4 Walking Surfaces



- 403 requires walking surfaces to be:
  - Stable, firm
  - Generally level
  - Clear width of 36"

**firm cushion or no pad**

# 1003.5 Doors + Doorways



**PRIMARY ENTRANCE, ALL OTHER PASSAGE DOORS, COMPLY w/ 404**

## **404: Doors + Doorways**

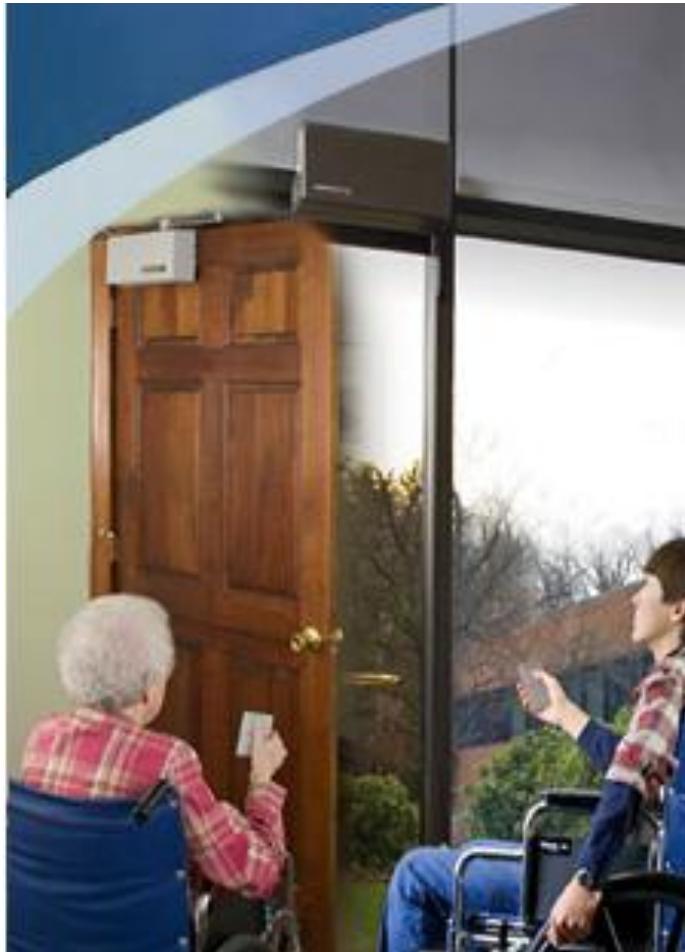
- 404.2 Manual Doors
  - 404.2.1 Dbl-Leaf Drs + Gates
  - 404.2.2 Clear Width
  - 404.2.3 Maneuvering Clearances
    - 404.2.3.1 Swinging Drs
    - 404.2.3.2 Sliding + Folding Drs
    - 404.2.3.3 Doorways w/o Drs
    - 404.2.3.4 Recessed Drs
    - 404.2.3.5 Floor Surface
  - 404.2.4 Thresholds
  - 404.2.5 Two Drs in Series
  - 404.2.6 Door Hardware
  - 404.2.7 Closing Speed
    - 404.2.7.1 Door Closers
    - 404.2.7.1 Spring Hinges
  - 404.2.8 Door-Opening Force
  - 4.4.2.9 Door Surface
  - 404.2.10 Vision Lites
- 404.3 Automatic Doors



# 1003.5 Doors + Doorways



AUTO DOORS WITH AUTO GATES SHALL COMPLY W/ 404.3



## 404: Doors + Doorways

- 404.3 Automatic Doors
  - Full-powered: ANSI/BHMA A156.10
  - Power-assist/low-energy: ANSI/BHMA 156.19
  - 404.3.1 Clear Opening Width
  - 404.3.2 Maneuvering Clearances
  - 404.3.3 Thresholds
  - 404.3.4 Two Doors in Series
  - 404.3.5 Control Series

# 1003.5 Doors + Doorways

A

## PRIMARY ENTRANCE, ALL OTHER PASSAGE DOORS, COMPLY W/ 404

- Primary door is the main door to access the unit
- Reach-in (closets) doors not required to meet 404
- 404: Doors + Doorways

### EXCEPTIONS:

1. Exterior sliding door thresholds:  $\frac{3}{4}$ " max, provided beveled with slopes NTE 1:2 [[Ext balcony/deck](#)]
2. Toilet rooms/bathing rooms not required to comply with 1003.11: maneuvering clearances not required on toilet or bathroom side of door



# 1003.6 Ramps

A



- Comply with 405
  - **405.2** Running slope - NTE 1:12
  - **405.3** Cross Slope - not steeper than 1:48
  - **405.4** Floor Surfaces – comply with 302
  - **405.5** Clear Width – 36" [Ext: 48"]
  - **405.6** Rise – 30" maximum rise
  - **405.7** Landings – Bottom + top each run
  - **405.8** Handrails – with rise >6", comply with 505
  - **405.9** Edge Protection – Required, some exceptions
  - **405.10** Wet Conditions – Design to prevent H<sub>2</sub>O

# 1003.7 Elevators

A

Same as  
Type A  
Reqmt

ELEVATORS WITHIN UNIT SHALL COMPLY WITH 407, 408 OR 409.

- **407** Elevator
- **408** Limited-Use/Limited Application Elevator [LULA]
- **409** Private Residence Elevator



# 1003.8 Platform Lifts

- Within the unit shall comply with 410 + ASME A18.1



Current ASME A18.1 standard limits maximum rise to 12 feet

# *1003.9 Operable Parts*

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- Lighting controls
- Electrical switches and receptacle outlets,
- Environmental controls,
- Appliance controls,
- Operation hardware for operable windows,
- Plumbing fixture controls, and
- User controls for security or intercom systems

...shall comply with 309

**EXCEPTIONS:** A red arrow points to the right, indicating that the following text provides exceptions to the requirements listed above.

# 1003.9 Exc. To Operable Parts

A

## EXCEPTIONS:

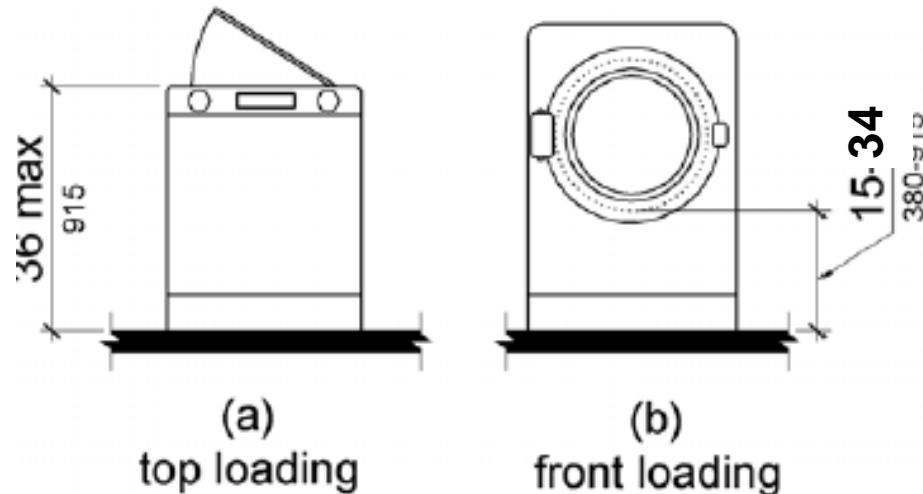
1. Receptacle outlets serving a dedicated use.
2. One receptacle outlet N/R to comply w/309 where all are the following are met:
  - a) Receptacle above countertop w/o sink or appliance.
  - b) At least one 1003.9 receptacle provided for length of countertop.
  - c) All other receptacles provided along countertop comply with 1003.9.
3. Floor receptacle outlets.
4. HVAC diffusers.
5. Controls mounted on ceiling fans.
6. Where redundant controls other than light switches are provided for a single element, one control in each space shall not be accessible.

# 1003.10 Laundry Equipment

A

## WASHING MACHINES + CLOTHES DRYERS COMPLY WITH 611

- 611.2 Clear Floor Space
  - Parallel approach
  - Centered on the appliance
- 611.3 Operable Parts: 309
  - Doors
  - Lint screens
  - Detergent/bleach compartment
- 611.4 Height
  - Top-loading 36" max AFF door to laundry compartment
  - Front-loading 15" min/ 34"max door opening to laundry compartment

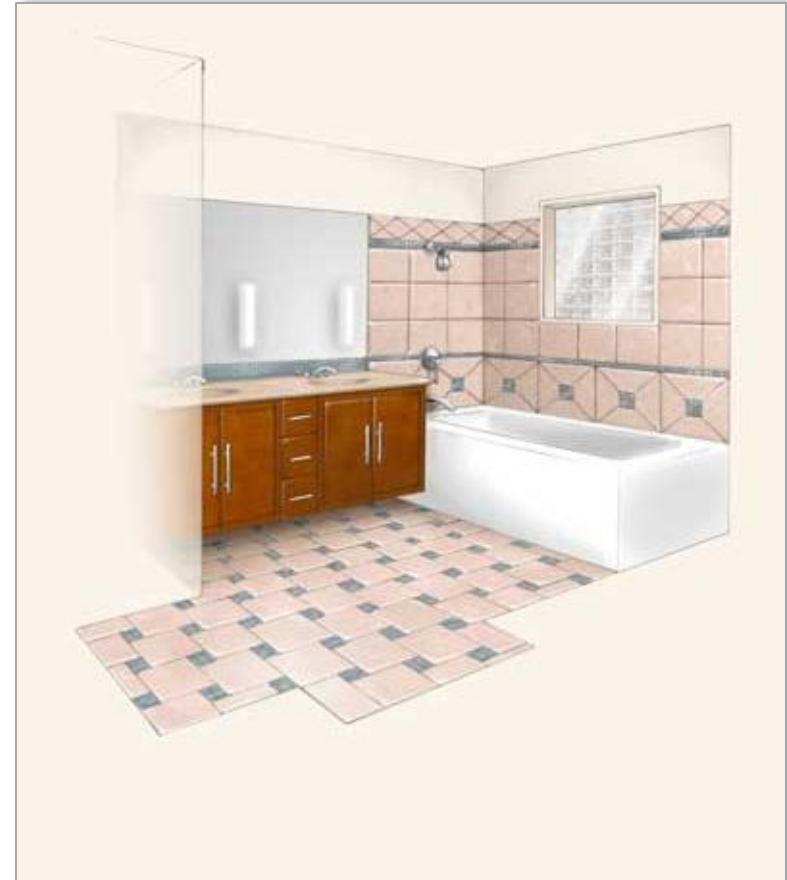


ANSI std does not address whether removal of doors is an adaptable feature.

# 1003.11 Toilet + Bathing Facilities



- .1 General
- .2 Doors
- .3 Overlap
- .4 Reinforcement
- .5 Lavatory
- .6 Mirrors
- .7 Water Closet
- .8 Bathtub
- .9 Showers



# 1003.11.1 General



- All toilet + bathing areas: comply with 1003.11.4 (reinforcement)
- At least one area comply with 1003.11
  - One lavatory
  - One toilet
  - One tub or shower
- Accessible fixtures in a single area so no travel thru other parts of unit

Only 1 bathroom needs to comply, but each bath shall be on an accessible route.

# 1003.11.2 Doors

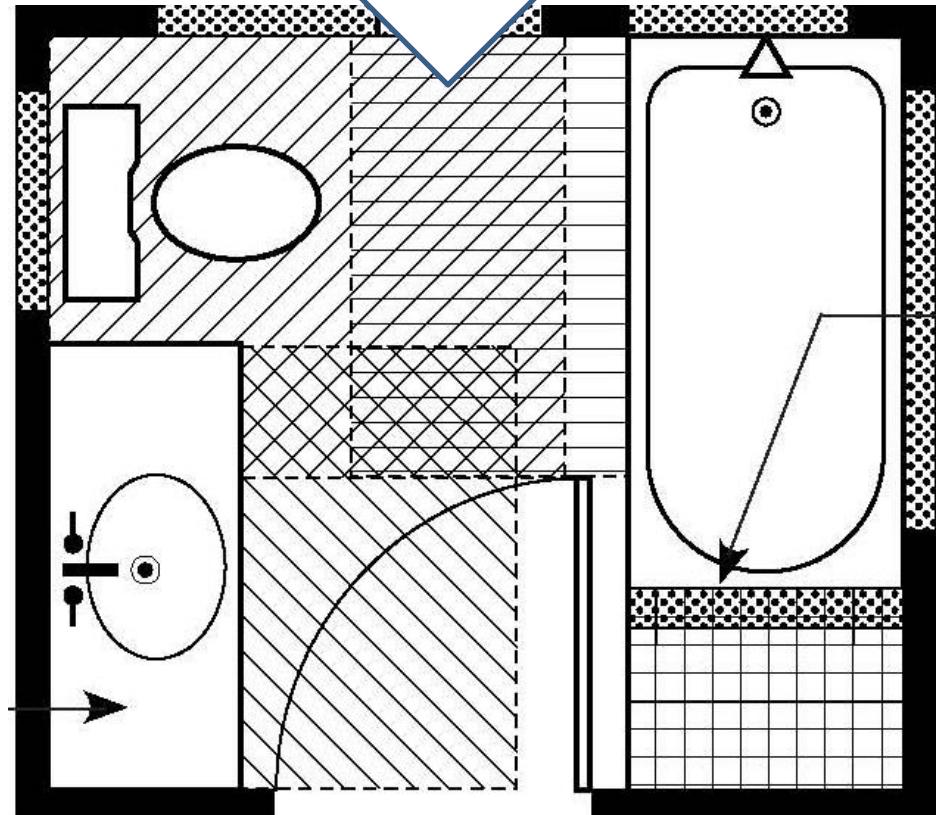
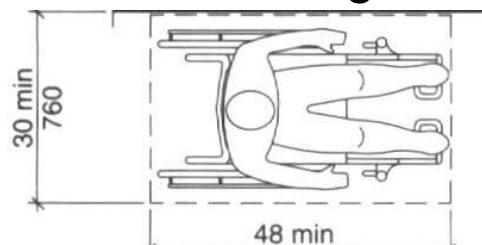
A

Not an A bath –  
no turning  
circle or clr flr  
area at toilet;  
just an example

- Doors shall not swing into the clear floor space or clearance for any fixture.

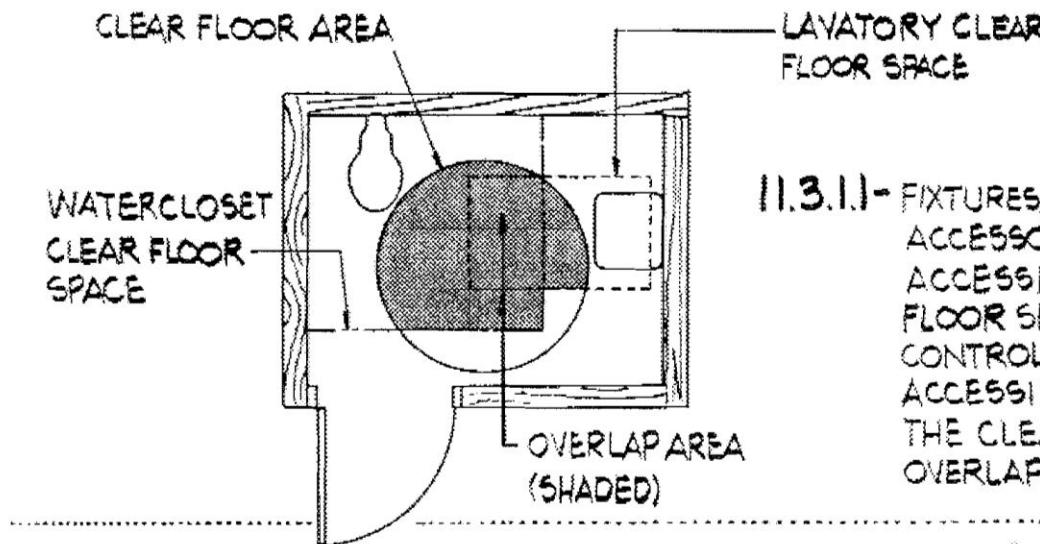
## EXCEPTION:

Where 305.3 clear floor space is provided within the room beyond the arc of the door swing.



# 1003.11.3 Overlap

- The following are permitted to overlap:
  - Clear floor spaces
  - Clearances at fixtures
  - Turning spaces



11.3.1.1- FIXTURES, CONTROLS AND ACCESSORIES SHALL BE ON AN ACCESSIBLE ROUTE. THE CLEAR FLOOR SPACE AT FIXTURES, CONTROLS AND ACCESSORIES, THE ACCESSIBLE ROUTE ITSELF, AND THE CLEAR FLOOR AREA MAY OVERLAP.

54" MIN.

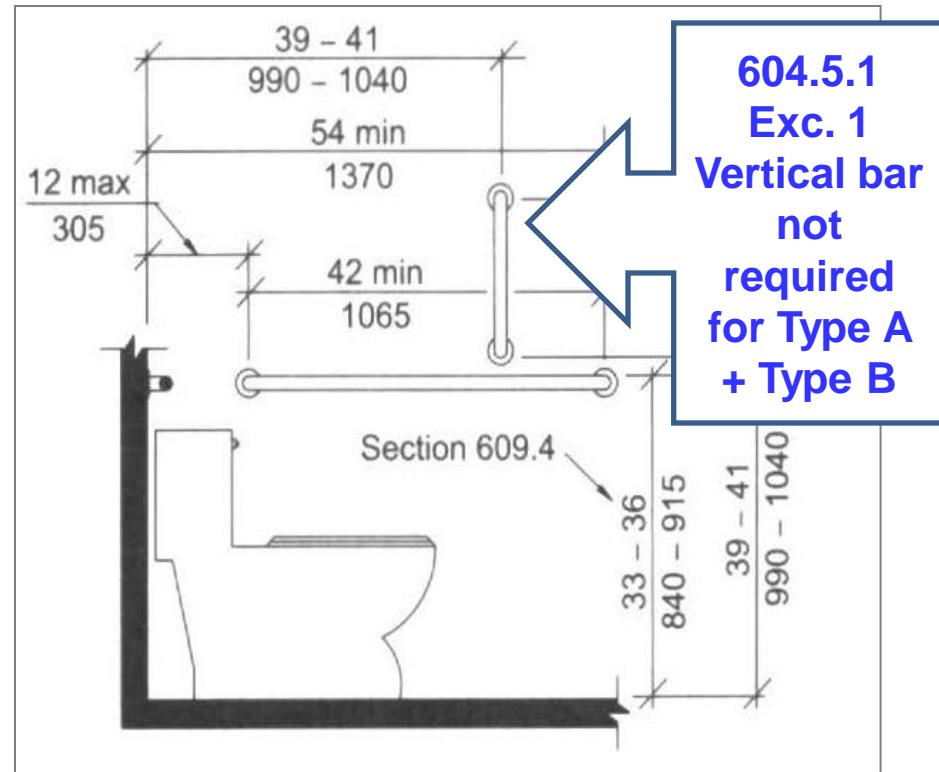
# 1003.11.4 Reinforcement

## FUTURE INSTALLATION OF GRAB BARS AND SHOWER SEATS

- Water closets
- Bathtubs
- Shower compartments

Provide reinforcement where walls located to permit installation complying with:

- 604.5 – Water Closets
- 607.4 – Bathtubs
- 608.3 – Transfer Showers
- 608.4 – Roll-in Showers



# 1003.11.4 Reinforcement Exc.

A

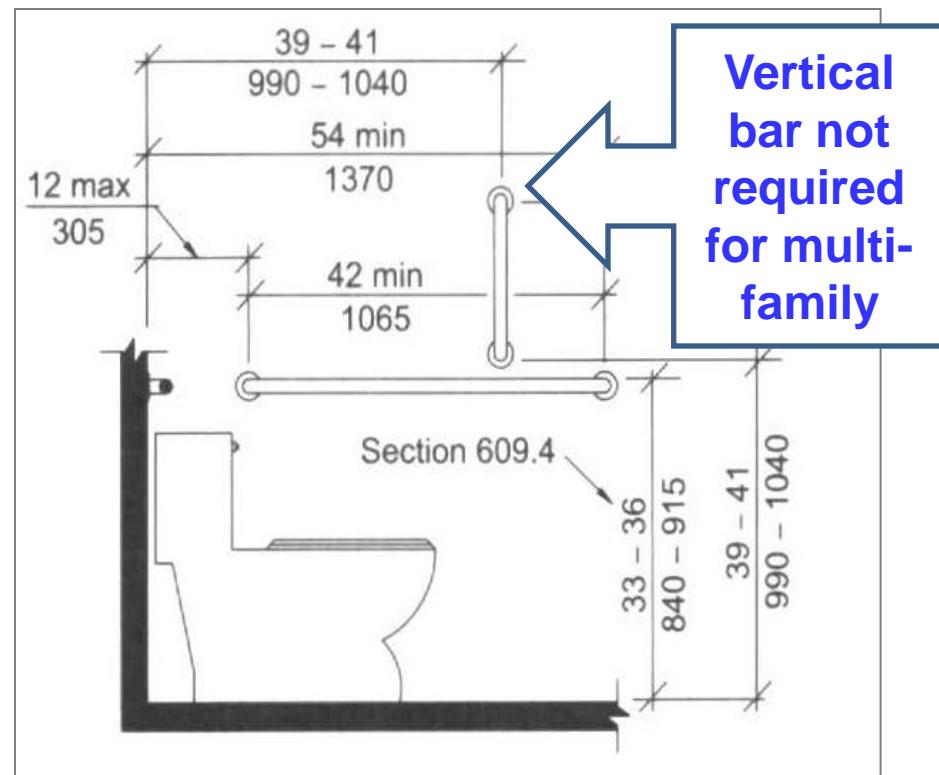
## FUTURE INSTALLATION OF GRAB BARS AND SHOWER SEATS

**EXCEPTION:** Reinforcement not required in room containing only:

- a) Lavatory and
- b) Watercloset

provided:

the room does not contain the only lavatory or watercloset on the accessible level of the dwelling unit.



# 1003.11.5 Lavatory

- Comply with 606.

## BASIC REQUIREMENTS:

- 34" high lavatory
- Clear floor space for front approach
- Associated knee + toe clearances
- Faucets meet operable parts
- Protected pipes beneath

**EXCEPTION:** Cabinetry permitted under the lavatory, provided:

- a) Cabinetry can be removed w/o removal or replacement of the lavatory;
- b) Floor finish extends under such cabinetry; and
- c) Walls behind and surrounding cabinetry are finished.

# 1003.11.6 Mirrors

- Mirrors above lavatories shall have the bottom edge of the reflecting surface 40" maximum above the floor.

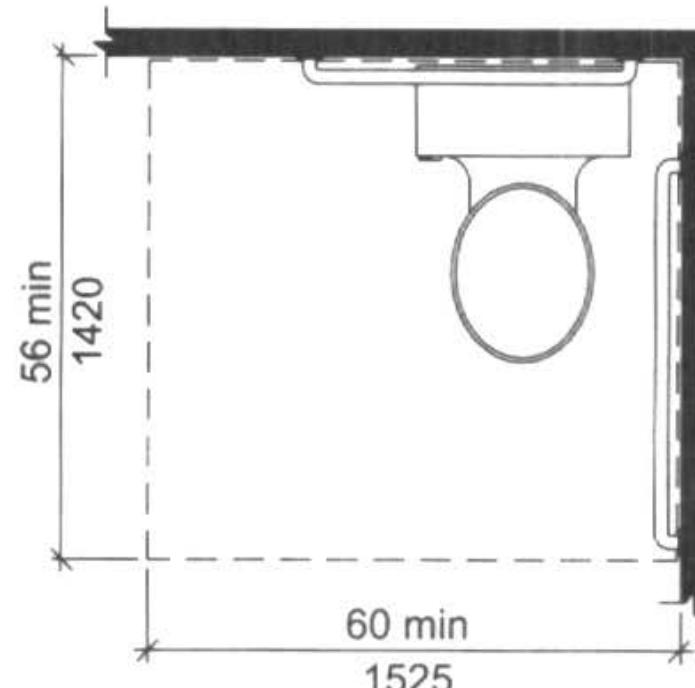


# 1003.11.7 Water Closet



- Water Closet
  - Location
    - Wall: one to the rear, one to the side
    - CL: 16" min -18" max from sidewall
  - Clearance
    - 60" min perpendicular from sidewall
    - 56" min perpendicular from rear wall
  - Overlap →
  - Height : 15 – 19" AFF to top of seat
  - Flush Controls
    - Hand-operated; comply w/1003.9
    - Located on open side

# 1003.11.7.2 Clearance



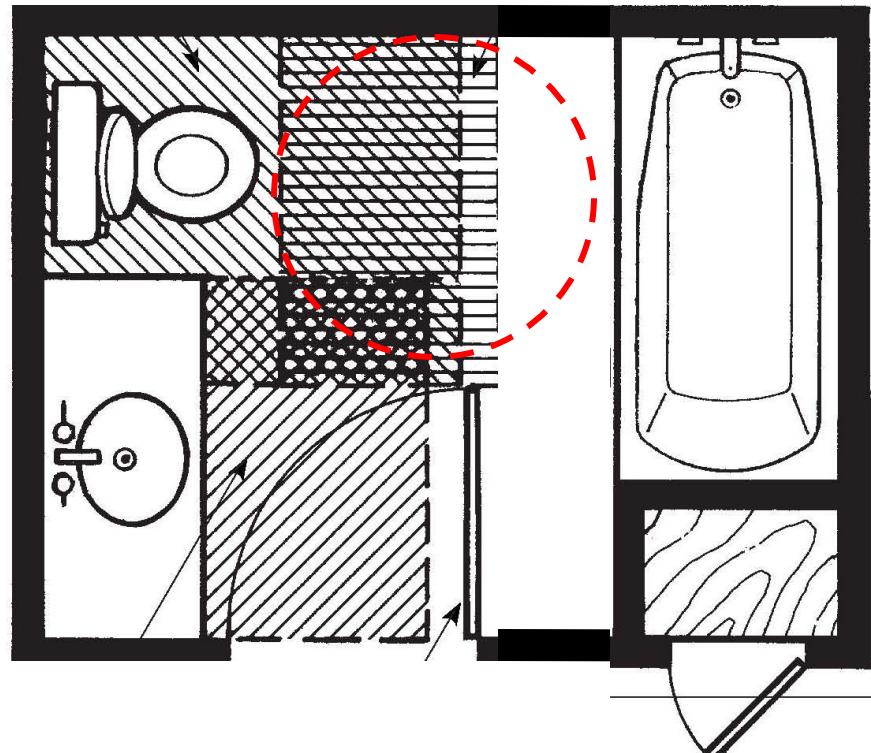
- Clearance
  - 60" min perpendicular from sidewall
  - 56" min perpendicular from rear wall

# 1003.11.7.3 Overlap

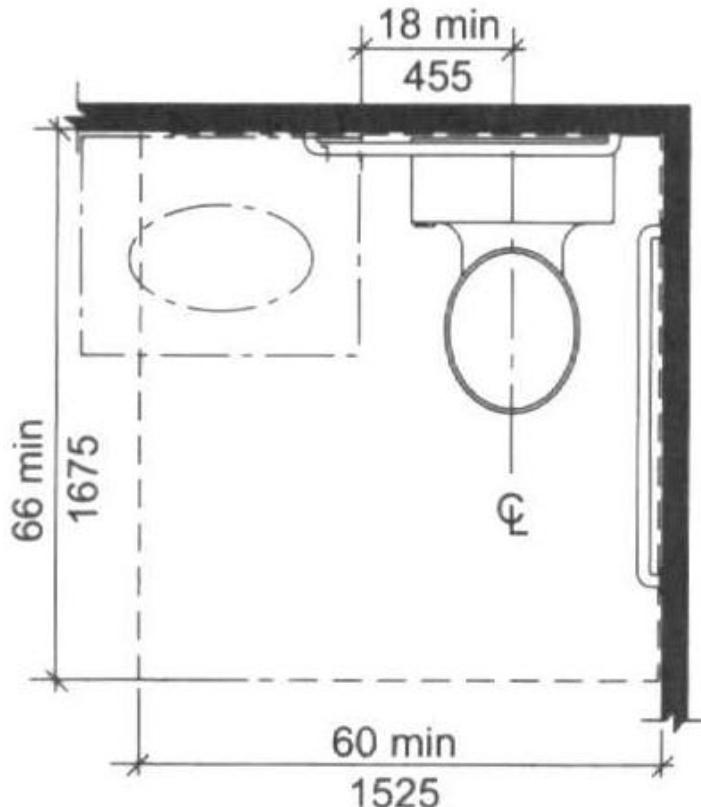
The required clearance around the watercloset shall be permitted to overlap the:

- watercloset,
- associated grab bars,
- paper dispensers,
- coat hooks,
- shelves,
- accessible routes,
- clear floor space required at other fixtures, and
- the wheelchair turning space.

Type B lav shown;  
Needs full  
floor area  
at toilet



# 1003.11.7.3 Overlap Exception



(c) Clearance with Lavatory  
(Overlap Exception)

- **EXCEPTION:**

A 1003.11.5 lavatory shall be permitted on the rear wall 18" min from CL of watercloset where clearance at WC is 66" minimum measured perpendicular from the rear wall.

# 1003.11.8 Bathtub

## COMPLY WITH 607

- .1 General
- .2 Clearance
- .3 Seat
- .4 Grab Bars
- .5 Controls
- .6 Hand Shower
- .7 Bathtub Enclosures
- .8 Water Temperature

## EXCEPTIONS:

1. Removable in-tub seat required by 607.3 is not required.
2. Removable countertops and cabinetry permitted at control end of clearance provided floor finish extends under cabinetry.

# 1003.11.9 Showers

## COMPLY WITH 608

- .1 General
- .2 Size and Clearances
- .3 Grab Bars
- .4 Seats
- .5 Controls + Hand Showers
- .6 Hand Shower
- .7 Thresholds
  - $\frac{1}{2}$  " max roll-in or transfer
- .8 Shower Enclosures
- .9 Water Temperature

## EXCEPTIONS:

Removable countertops and cabinetry permitted at control end of clearance provided floor finish extends under cabinetry.



In existing facilities, 2" max for transfer showers where TI

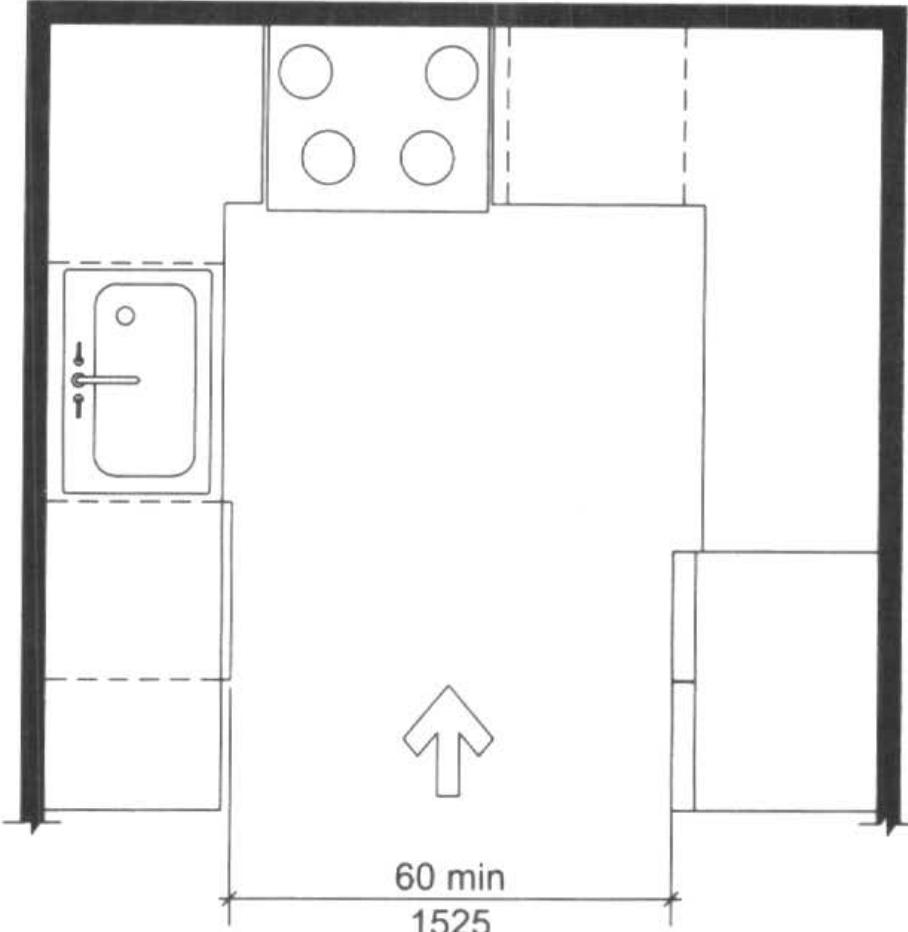
# 1003.12 Kitchens

- .1 Clearance
  - Min Clearance – 40”
    - U-Shaped Kitchens – 60”
- .2 Clear Floor Space
- .3 Work Surface
- .4 Sink
- .5 Kitchen Storage
- .6 Appliances
  - Operable Parts
  - Clear floor space
  - Dishwasher
  - Range
  - Oven
  - Refrigerator
- .7 Trash Compactor



plus NCBC 1109.4 – Kitchens + Kitchenettes

# 1109.4 Kitchens + kitchenettes



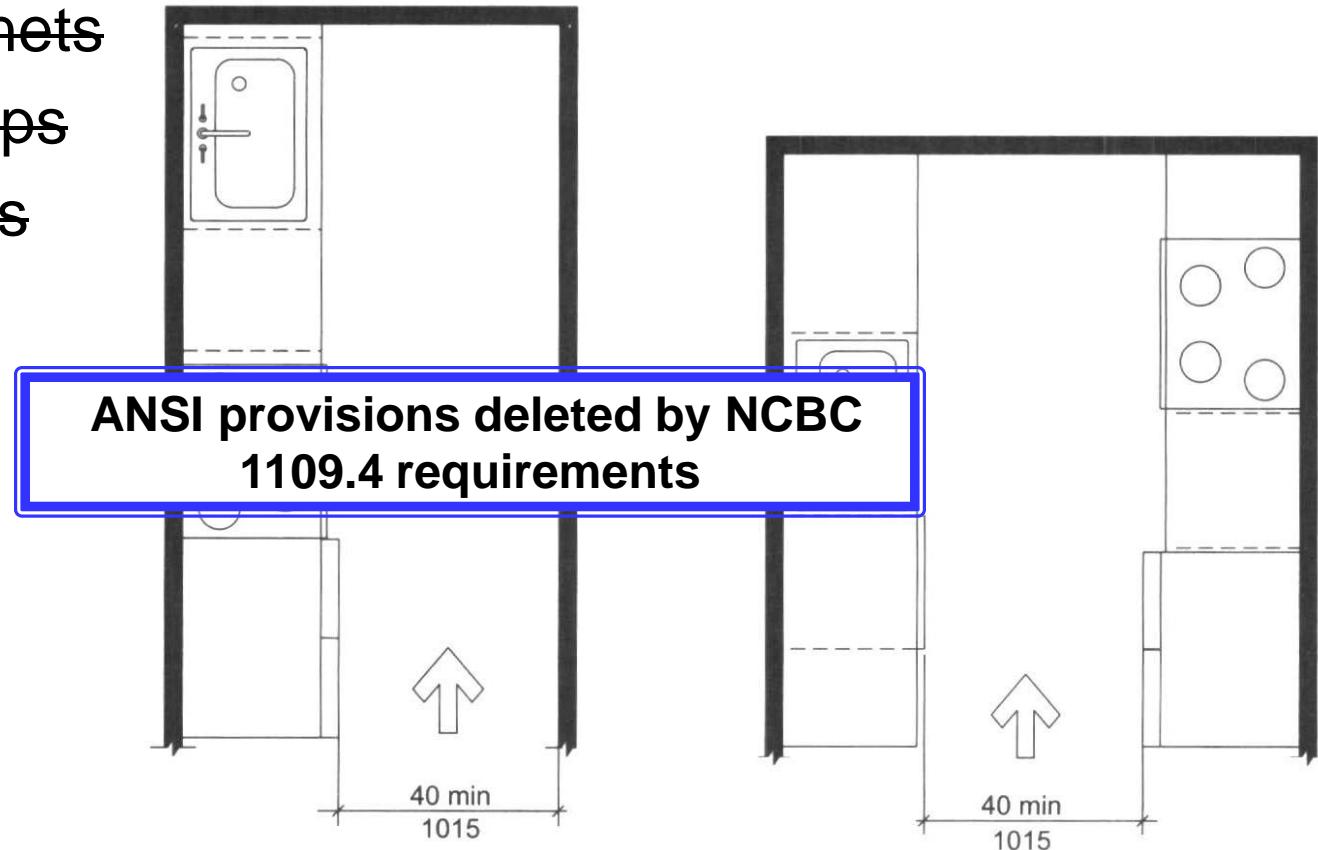
- A minimum 60" clear turning space between shall be provided within the kitchens of all Type A units
- A maximum 6-in deep by 9-in high toe space beneath a cabinet shall be permitted to provide part of the 60" clear floor area on one side only.

# 1003.12.1.1 Min Clearance

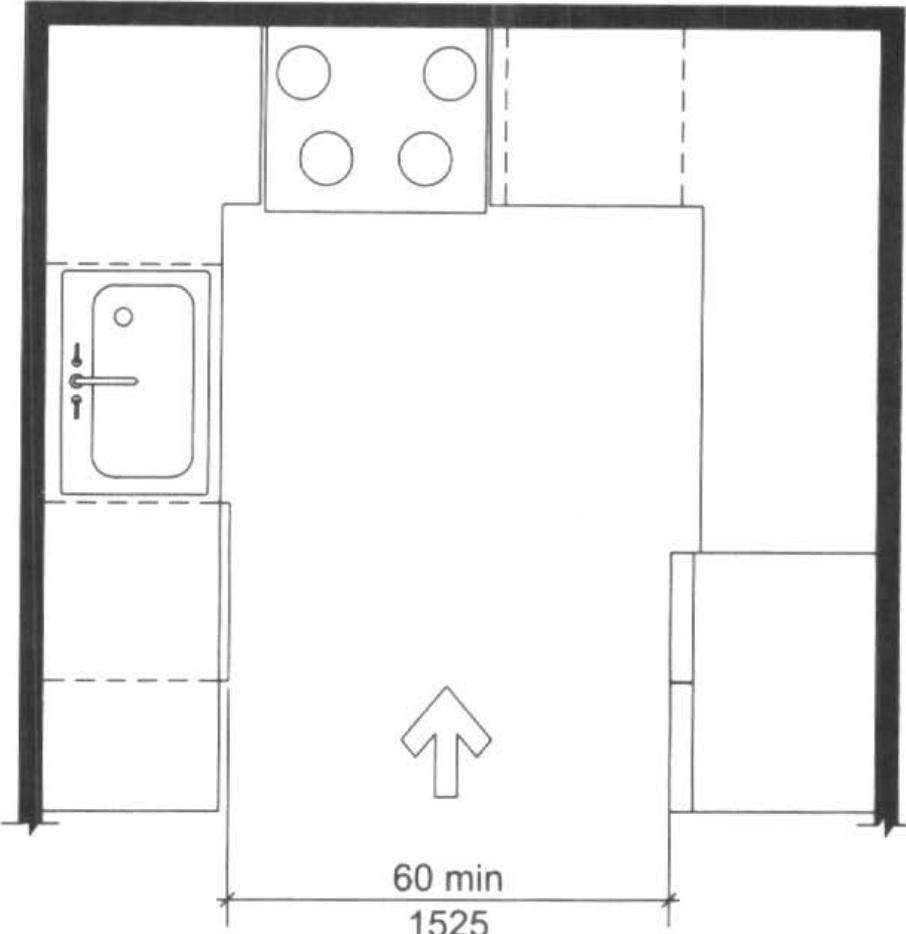
A

- 40" minimum between all opposing:

- Walls within the kitchen area
- Base cabinets
- Counter tops
- Appliances



## 1003.12.1.2 U-Shaped Kitchens

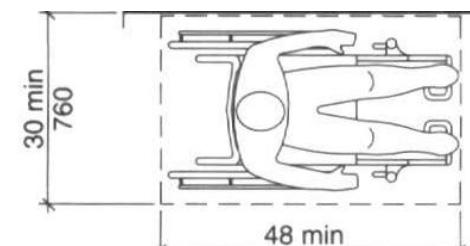


- 60" minimum between all opposing:
  - Walls within the kitchen work areas
  - Base cabinets
  - Counter tops
  - Appliances

# 1003.12.2 Clear Floor Space

A

- Clear floor spaces required by 1003.12.3 through 1003.12.6 shall comply with 305. 
- Work surface
- Sink
- Kitchen Storage
- Appliances
- 305 Clear Floor Space
  - Size 30" x 48"
  - Floor surface slope NTE 1:48
  - Knee + toe clearance per 306
  - Full unobstructed side adjoins accessible route
  - Additional maneuvering clearance provided if necessary
  - Approaches:
    - Parallel
    - Side



# 1003.12.3 Work Surface



**BASIC REQMT: AT LEAST ONE SECTION OF COUNTER WITH WORK SURFACE 30" MINIMUM IN LENGTH COMPLYING WITH 1003.12.3**

## ■ 1003.12.3.1 Clr Flr Space

- Forward approach
- 306 knee + toe clearance
- Ctr approach on **work surface**
- **EXCEPTION:**
  - Removable cabinetry permitted under **work surface** provided:
  - Cabinetry can be removed without removal or replacement of the **work surface**,
  - Floor finish extends under cabinetry, and
  - Walls behind and surrounding cabinetry are finished.

**Permanent or  
Adjustable**

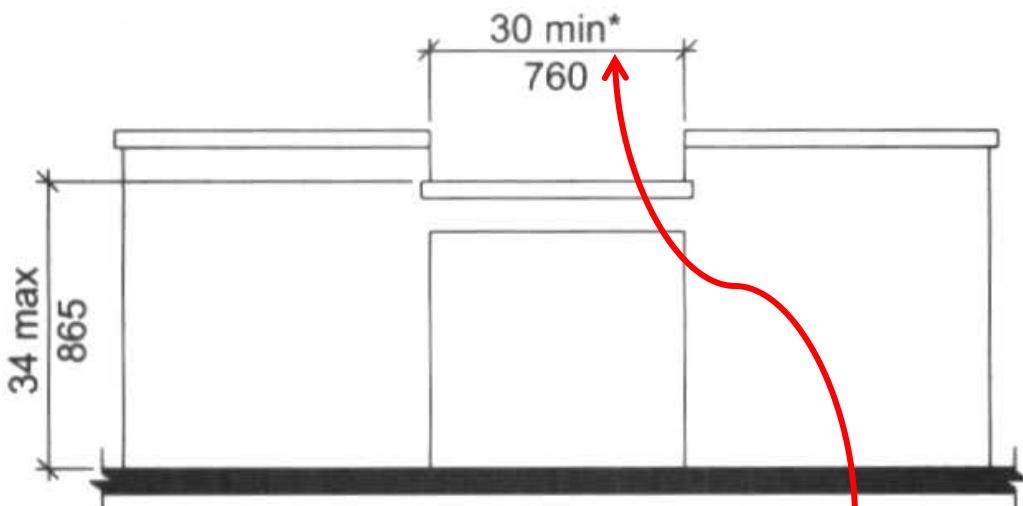
## ■ 1003.12.3.3 Exposed Surfaces

- No sharp or abrasive surfaces under exposed portions of work surface counters

# 1003.12.3 Work Surface

AT LEAST ONE SECTION OF COUNTER WITH WORK SURFACE 30" MINIMUM IN LENGTH COMPLYING WITH 1003.12.3

- 1003.12.3.2 Height – 34"

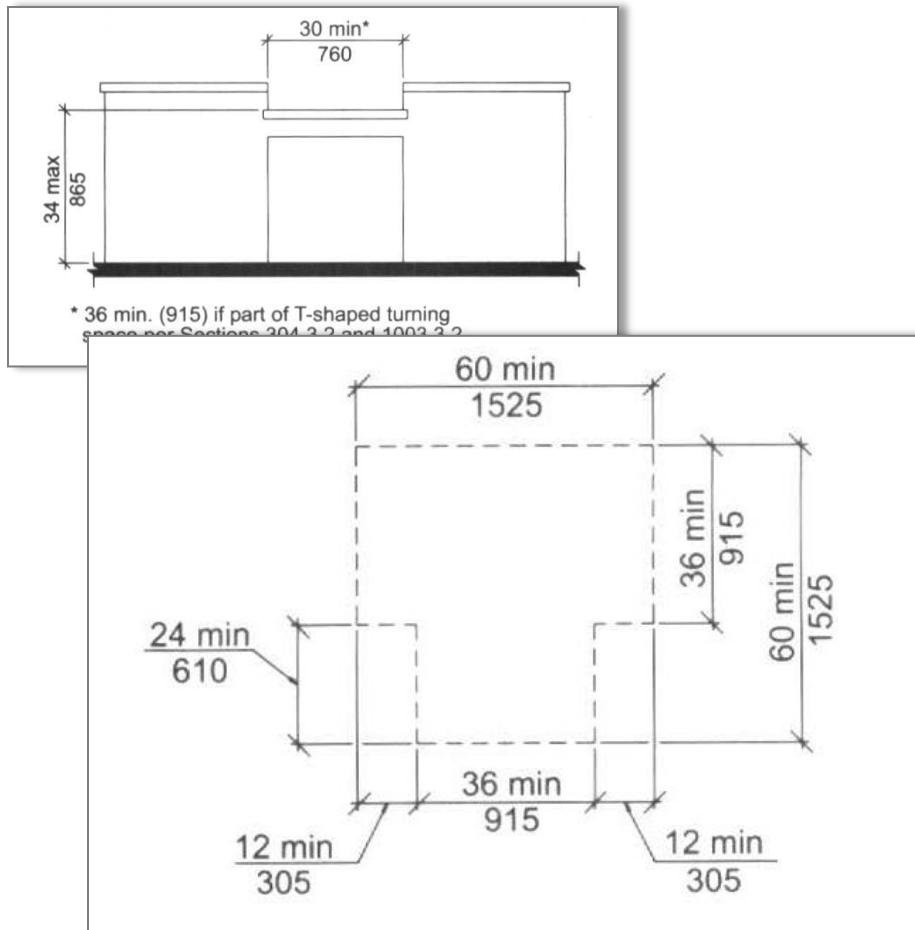


\* 36 min. (915) if part of T-shaped turning space per Sections 304.3.2 and 1003.3.2

**EXCEPTION: (Permitted)**

- Adjustable work counter with variable heights:
- 29" min – 36" max AFF or
- can be relocated within that range w/o cutting/damaging counter or adjacent cabinets, walls, doors, and structural elements.

# 1003.12.3 Work Surface



## ■ 1003.3.2 Turning Space

All rooms served by an accessible route shall provide a turning space complying with 304.

- **EXCEPTION:**

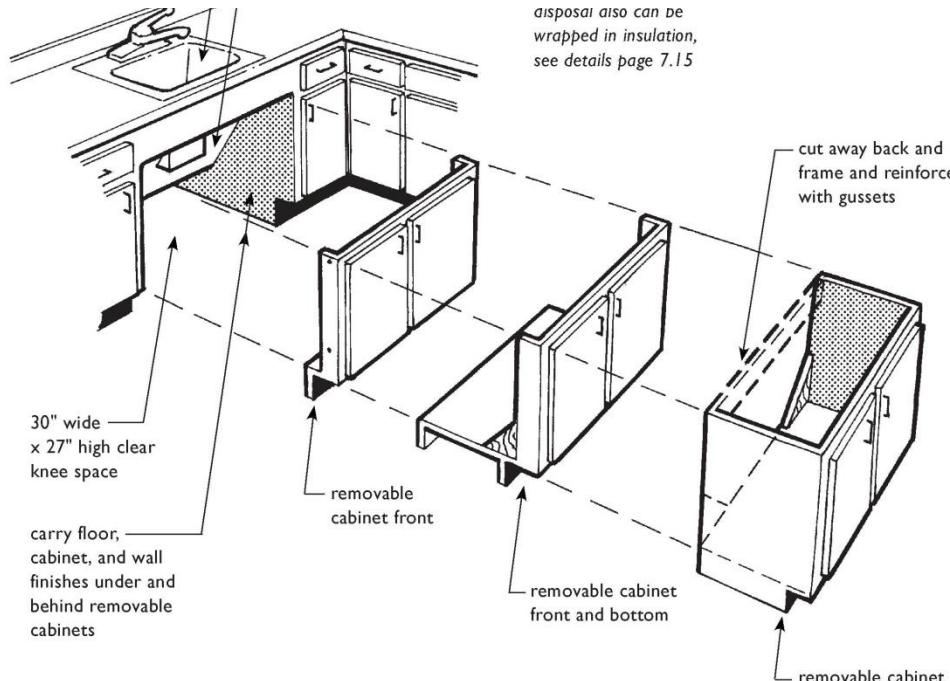
- Toilet rooms + bathing rooms not required to comply with 1003.11. [Type A units]

## ■ 304.3.2 T-Shaped Space

# 1003.12.4 Sink

A

- .1 Clear Floor Space
  - Forward approach
  - 306 knee + toe clearance
  - Center approach on sink bowl



- **EXCEPTION:**

- Knee/toe clearance shall not apply to more than one bowl of multi-bowl sink.
- Removable cabinetry permitted under sink provided:
  - Cabinetry can be removed without removal or replacement of the sink
  - Floor finish extends under cabinetry, and
  - Walls behind and surrounding cabinetry are finished.

# 1003.12.4.2 Sink

- .2 Height
  - 34" rim or counter surface
  - **EXCEPTION:** (Permitted)  
Sink +work counter adjustable with variable heights 29" min – 36" max AFF or can be relocated within that range w/o cutting/damaging counter or adjacent cabinets, walls, doors, and structural elements provided rough-in plumbing permits connections of supply + drain pipes for sinks at 29".
- .3 Faucets
  - Comply with 309 – Operable Parts
- .4 Exposed Pipes + Surfaces
  - Insulate or protect H<sub>2</sub>O supply/drain pipes (**or otherwise configure**)
  - No sharp or abrasive surfaces under sinks



**Insulation does not comply**

# 1003.12.4.2 Sink

A

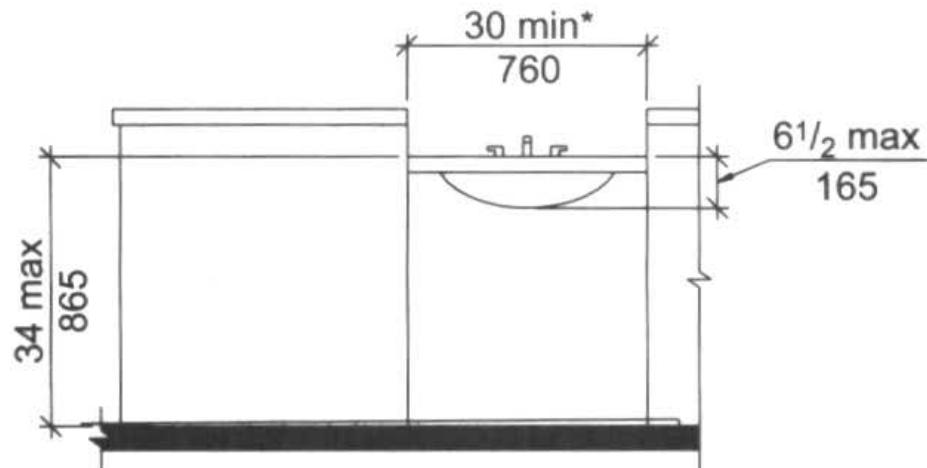
## ■ 1003.3.2 Turning Space

All rooms served by an accessible route shall provide a turning space complying with 304.

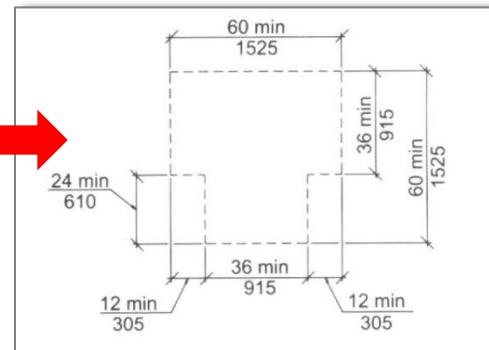
### EXCEPTION:

- Toilet rooms + bathing rooms not required to comply with 1003.11 [Type A units]

## ■ 304.3.2 T-Shaped Space



\* 36 min. (915) if part of T-shaped turning space per Sections 304.3.2 and 1003.3.2

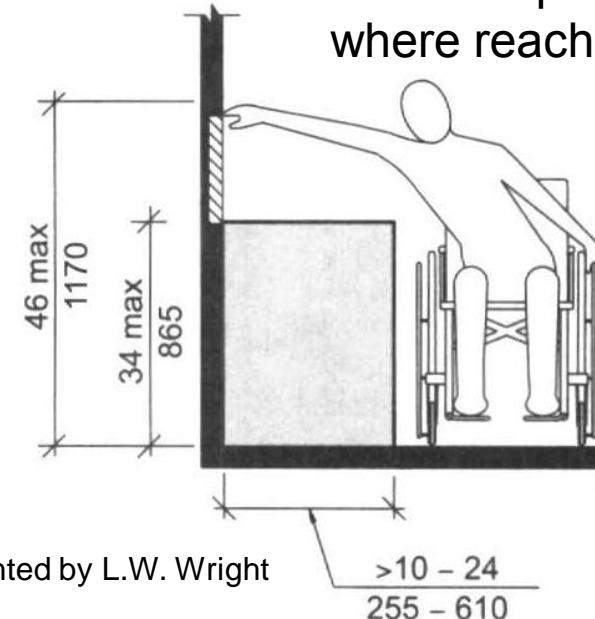
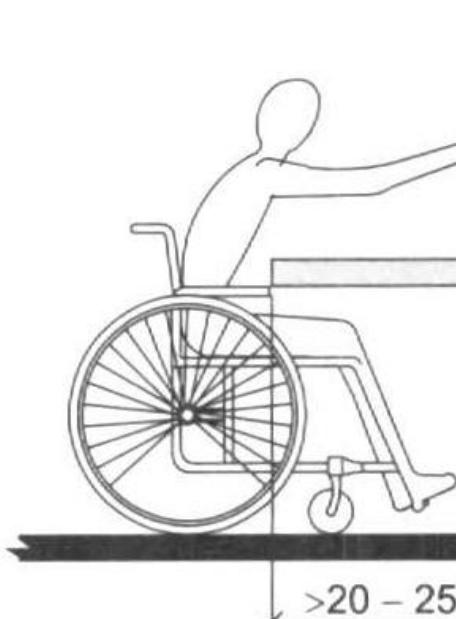


# 1003.12.5 Kitchen Storage

A

PROVIDE CLEAR FLOOR SPACE FOR PARALLEL OR FORWARD APPROACH TO THE KITCHEN CABINETS.

- 308.2 Forward approach
  - 308.2.2 Obstructed
    - Reach depth 20" max /48" high
    - Reach depth 25" max/44" high
- 308.3 Side approach
  - 308.3.2 Obstructed (Ht 34")
    - Reach depth 34" max/48" high where reach to 10"
    - Reach depth 25" max/46" high where reach >10"



resented by L.W. Wright

# 1003.12.6 Appliances

- .1 Operable Parts
- .2 Clear Floor Space
- .3 Dishwasher
- .4 Range or Cooktop
- .5 Oven
  - Side-Hinged Door Ovens
  - Bottom Hinged Door Ovens
- .6 Refrigerator/Freezer
- .7 Trash Compactor



# 1003.12.6.1 Appliance: Operable Parts

**ALL APPLIANCE CONTROLS SHALL COMPLY WITH 1003.9 – OP PARTS**

■ **EXCEPTIONS:**

1. Appliance doors + door latching devices not required to comply with 309.4.  
[Grasping, wrist-twisting.]



■ **EXCEPTIONS:**

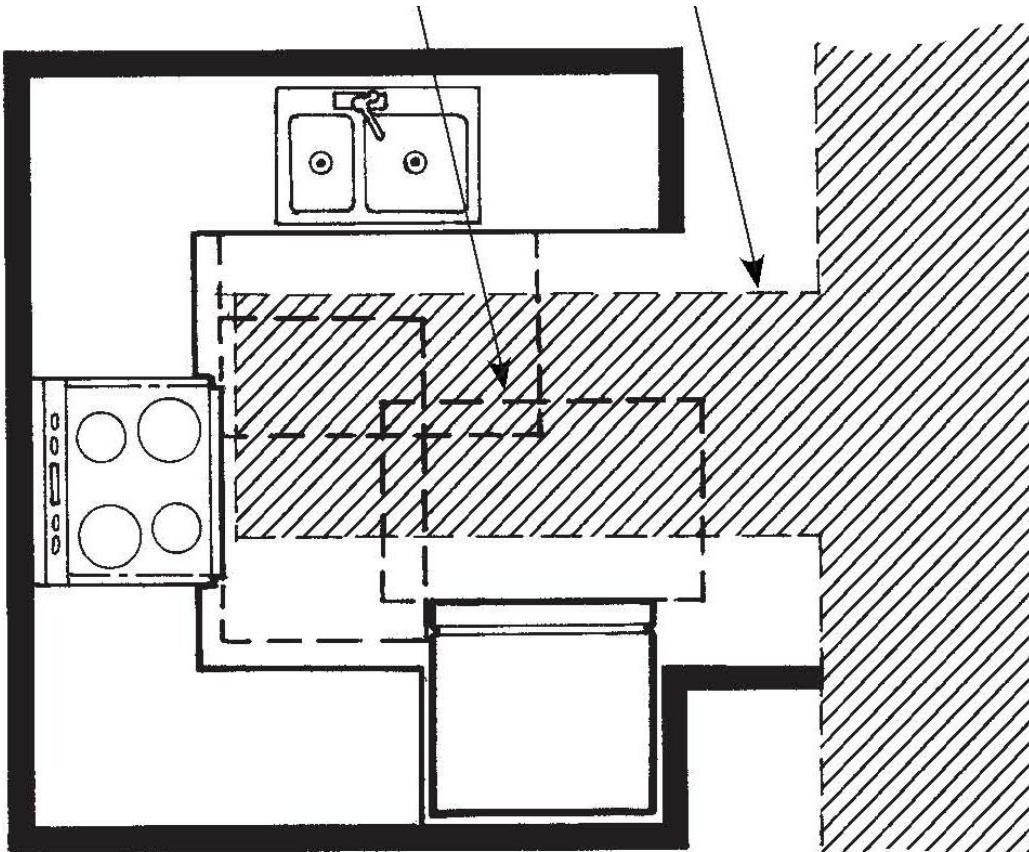
2. Bottom-hinged appliance doors, when in open position, not required to comply with 309.3. [Reach range height.]



# 1003.12.6.2 Appliance: Clr Flr Sp

A  
Appliance: Clr Flr Sp

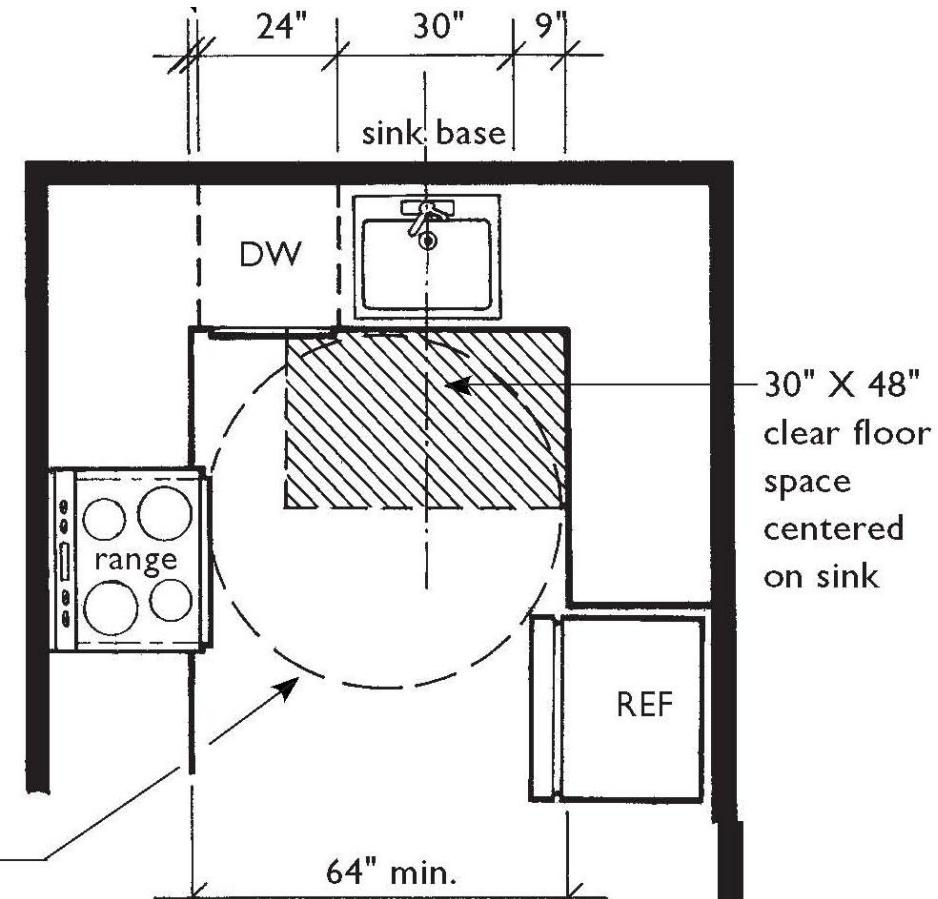
## CLEAR FLR SPACE, SIDE OR FORWARD, PROVIDED AT EACH APPL.



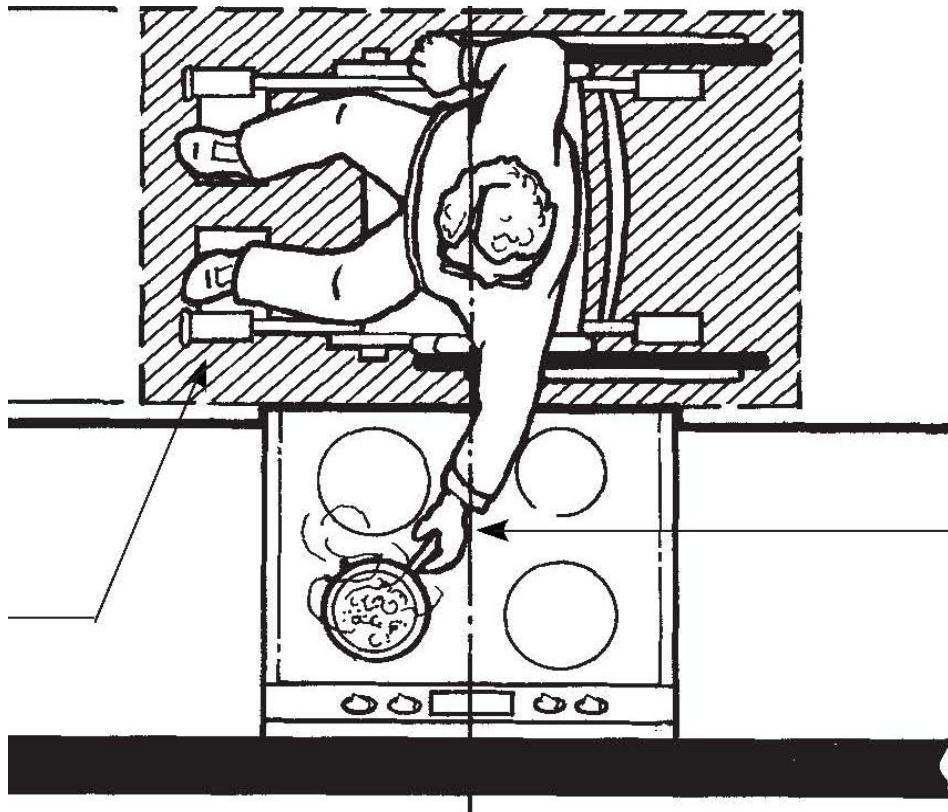
- Provide at each appliance
- The clear floor spaces are permitted to overlap
  - Side
  - Forward

# 1003.12.6.3 Appliance: Dishwasher

- Provide:
  - Clear floor space
  - Adjacent to DW door
- DW door in open position shall not obstruct the clear floor space for
  - The dishwasher or
  - Adjacent sink
- Need 9" toe space under open DW door for this to work when door open



# 1003.12.6.4 Appliance: Range/Cktop



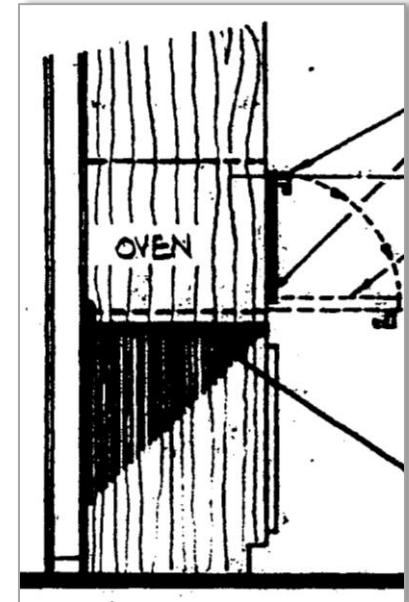
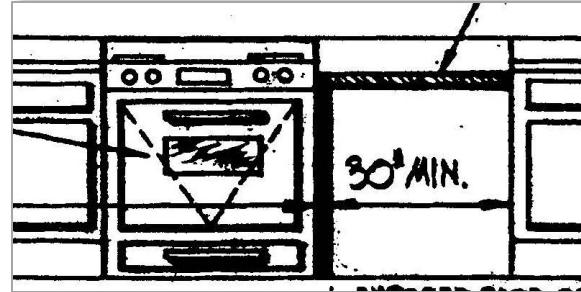
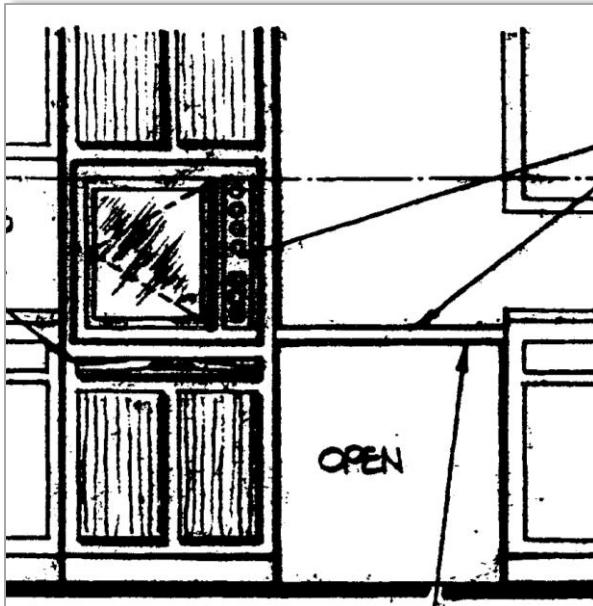
**Space for Parallel Approach Required  
at Range and Cooktop**

- Provide:
  - Clear floor space
  - Parallel or forward approach
- Where positioned for **forward** approach:
  - 306 knee + toe clearance
  - Insulate underside of range and cook top against
    - Burns
    - Abrasions
    - Electrical shock
- Control location shall not require reaching across burners

# 1003.12.6.5 Appliance: Oven

OVENS SHALL HAVE CONTROLS ON FRONT PANELS, EITHER SIDE OF DOOR

- .1 Side-Hinged Dr Ovens
  - Have countertop adjacent to latch side of oven door
- .2 Bottom-Hinged Dr Ovens
  - Have countertop adjacent to one side of oven door



# 1003.12.6 Appliance: Refer/Freezer

## COMBINATION REFRIGERATOR/FREEZERS:

- Shall have:
  - At least 50% of freezer compartment
  - Including bottom of freezer 54" max above the floor
  - When shelves are installed at *maximum heights possible* in the compartment



## CONSIDERATIONS: CFA to open door

- Top freezer: bottom compartment max 54"
- Bottom freezer: one shelf min 15" AFF

# 1003.12.2.7 Trash Compactor

A

- Provide a clear floor space, positioned for a parallel or forward approach.



- Consider access to unit in the open position.
- Locate CFA so that it does not obstruct the door of the compactor in the open position.

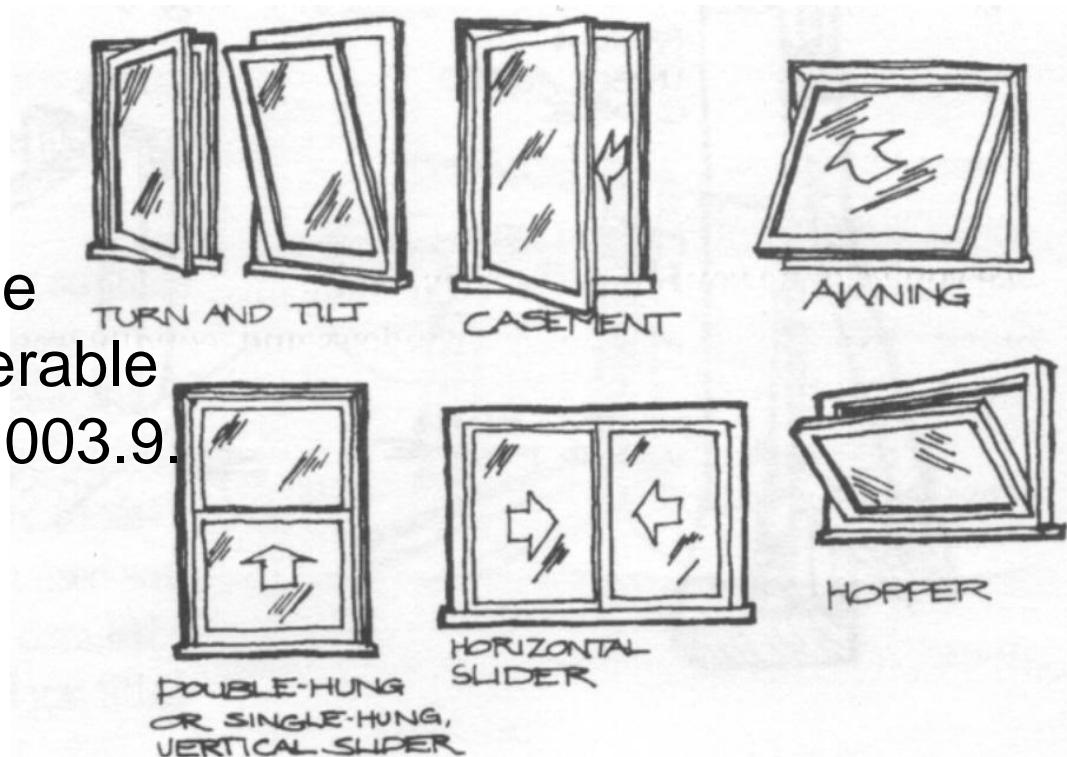
# 1003.13 Windows

Required for Type A;  
not required for Type B

## WHERE OPERABLE WINDOWS PROVIDED:

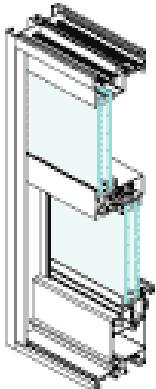
- At least one window shall have operable parts in each:
  - Sleeping,
  - Living,
  - Dining space.
- Each required operable window shall have operable parts complying with 1003.9.

A

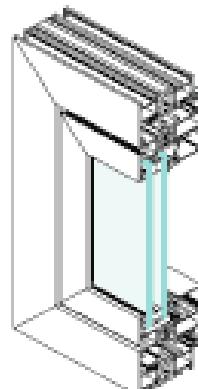


# 1003.13 Windows

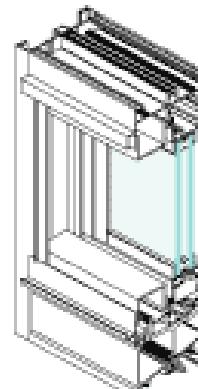
A



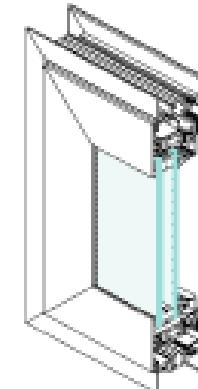
Single/Double Hung



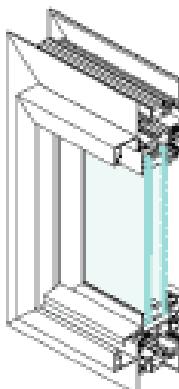
Tilt-Turn



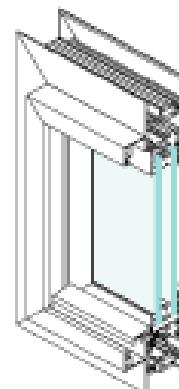
Thermal Slider



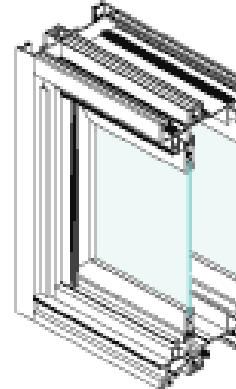
Casement



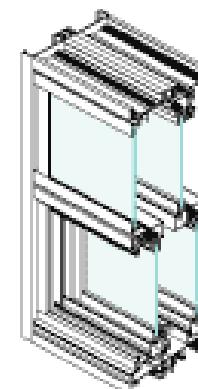
Awning



Hopper



Acoustic Slider



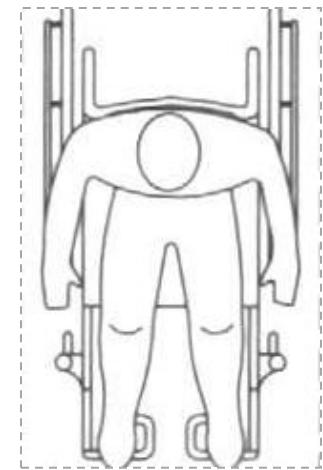
Acoustic Hung

# 1003.14 Storage

A

WHERE PROVIDED, COMPLY w/1003.14; KITCHEN CABS:1003.12.5

- 1003.14.1 Each storage facility shall have
  - Compliance with 305 clear space
  - Positioned for parallel or side approach
- 1003.14.2 Height
  - Portion of storage area
  - Comply with at least one of 308 reach ranges
- 1003.14.3 Operable Parts
  - Compliance with 309
    - Clear floor space
    - Height
    - Operation (one hand; no twisting; 5 lbs max force)



30" x 48"

# 1004 TYPE B UNITS

B

- .1 General
- .2 Primary Entrance
- .3 Accessible Route
- .4 Walking Surfaces
- .5 Doors + Doorways
- .6 Ramps
- .7 Elevators
- .8 Platform Lifts
- .9 Operable Parts
- .10 Laundry Equipment
- .11 Toilet/Bathing Fac
- .12 Kitchen

# 1004.2 Primary Entrance

B

- Accessible primary entrance on accessible route
- From public + common areas
- Not to a bedroom



# 1004.3 Accessible Route



**EXTERIOR SPACES < THAN 30" IN DEPTH OR WIDTH COMPLY  
WITH 1003.3.1, 1003.3.3, 302 AND 303**

## ■ 1004.3.1 Location

- At least one route connect spaces + elements that are part of the unit.
- Where only one provided, shall not pass through baths, toilet rooms, closets of similar spaces.

### EXCEPTION:

- An accessible route not required to one of following:
  - Raised floor area in living, dining, or sleeping room; or
  - Sunken floor area in living, dining, or sleeping room; or
  - Mezzanine with no plumbing fx or enclosed habitable space.

## ■ 1004.3.2 Components

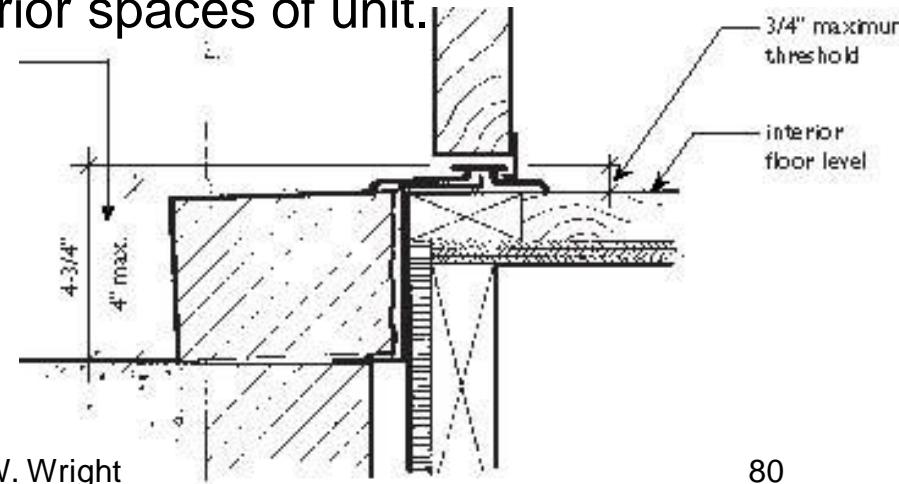
- Accessible route consist of 1 or more of the following:
  - Walking surfaces w/slope NTE 1:20, ramps, elevators, and platform lifts,

# 1004.4 Walking Surfaces

B  
D

- That are part of an accessible route shall comply with 1004.4 [B:403]
  - 1004.4.1: Clear width per Table 403.5
    - 48" exterior width [NCBC1104.2]
  - 1004.4.2: Level changes per 303
    - **EXCEPTION:** Where ext. deck, patio, balcony surface impervious, finished ext. impervious materials 4" max. below floor level of adjacent interior spaces of unit.

## IMPERVIOUS SURFACES



# 1004.5 Doors + Doorways

B  
B

## PRIMARY ENTRANCE, ALL OTHER PASSAGE DOORS, COMPLY W/1004.5 [B:404]

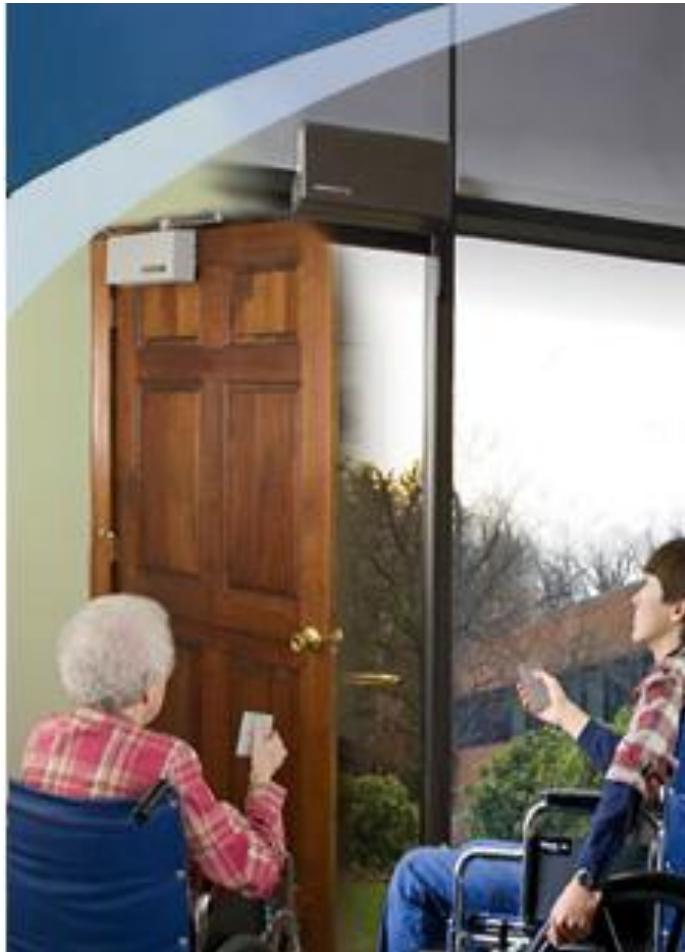


- 1004.5.1 Primary Entrance Door
  - Comply with 404
    - **EXCEPTION:** 404.2.3 Maneuvering Clearances not required on unit side of primary entrance door
- 1004.5.2 User Passage Doorways
  - 1004.5.2.1 Clear Width: 31-3/4" min
  - 1004.5.2.2 Thresholds per 303
    - **EXCEPTION:**  $\frac{3}{4}$ " max if beveled with slope NTE 1:2
  - 1004.5.2.3 Automatic Doors per 404.3
  - 1004.5.2.4 Double Leaf Doorways
    - Use active leaf – see language.

# 1004.5 Doors + Doorways



AUTO DOORS WITH AUTO GATES SHALL COMPLY W/ 404.3



## 404: Doors + Doorways

- 404.3 Automatic Doors
  - Full-powered: ANSI/BHMA A156.10
  - Power-assist/low-energy: ANSI/BHMA 156.19
  - 404.3.1 Clear Opening Width
  - 404.3.2 Maneuvering Clearances
  - 404.3.3 Thresholds
  - 404.3.4 Two Doors in Series
  - 404.3.5 Control Series

# 1004.6 Ramps

Same as  
Type A  
Reqmt



- Comply with 405
  - 405.2 Running slope - NTE 1:12
  - 405.3 Cross Slope - not steeper than 1:48
  - 405.4 Floor Surfaces – comply with 302
  - 405.5 Clear Width – 36" [Ext: 48"]
  - 405.6 Rise – 30" maximum rise
  - 405.7 Landings – Bottom + top each run
  - 405.8 Handrails – with rise >6", comply with 505
  - 405.9 Edge Protection – Required, some exceptions
  - 405.10 Wet Conditions – Design to prevent H<sub>2</sub>O

B

# 1003.7 Elevators

B  
D

**ELEVATORS WITHIN UNIT SHALL COMPLY WITH 407, 408 OR 409.**

- 407 Elevator
- 408 Limited-Use/Limited Application Elevator [LULA]
- 409 Private Residence Elevator



# 1004.8 Platform Lifts

B  
D

- Within the unit shall comply with 410 + ASME A18.1



# 1004.9 Operable Parts

B

- Lighting controls
  - Electrical switches and receptacle outlets,
  - Environmental controls,
  - ~~Appliance controls,~~
  - ~~Operation hardware for operable windows,~~
  - ~~Plumbing fixture controls,~~ and
  - User controls for security or intercom systems
- ...shall comply with 309.2 and 309.3

**EXCEPTIONS:** 

# 1004.9 Exc. To Operable Parts

B

## EXCEPTIONS:

1. Receptacle outlets serving a dedicated use.
2. One receptacle outlet N/R to comply w/309.2 and 309.3 where all are the following are met:
  - a) Receptacle above countertop w/o sink or appliance.
  - b) At least one ~~1003.9~~ 1004.9 receptacle provided for length of countertop.
  - c) All other receptacles provided along countertop comply with ~~1003.9~~ 1004.9.
3. Floor receptacle outlets.
4. HVAC diffusers.
5. Controls mounted on ceiling fans.
6. **Controls or switches mounted on appliances.** Where redundant controls other than light switches are provided for a single element, one control in each space shall not be accessible.
7. Plumbing fixture controls.

# 1004.10 Laundry Equipment

B  
D

## WASHING MACHINES + CLOTHES DRYERS COMPLY WITH 1004.10



- 1004.10.1 Clear Floor Space
  - Clear floor space complying with 305.3
    - 305.3: 30" x 48"
  - Parallel approach
  - Centered on the appliance
- ANSI std does not address whether removal of doors is an adaptable feature.

# 1004.11 Toilet + Bathing Facilities

- .1 Clear Floor Space
- .2 Reinforcement
- .3 Toilet + Bathing Rooms
  - .3.1 Option A
    - Lavatory
    - Water Closet
    - Bathing Facilities
      - Tub/shower
  - .3.2 Option B
    - Lavatory
    - Water Closet
    - Bathing Facilities
      - Tub/shower



# 1004.11 Toilet + Bathing Facilities

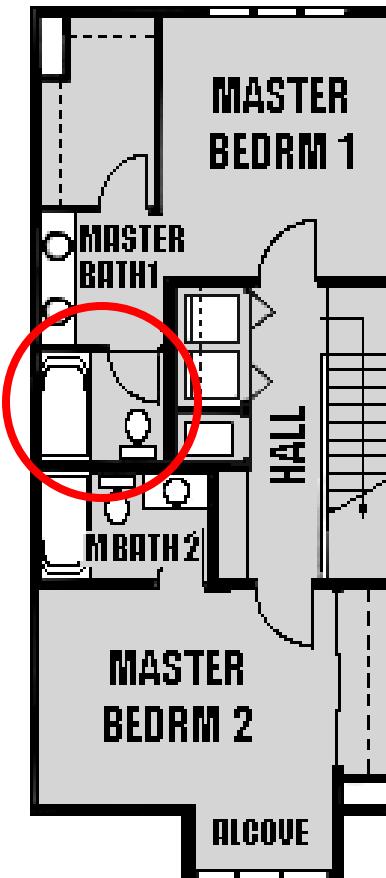
B  
B

TOILET + BATHING FIXTURES  
COMPLY WITH 1004.11

CLEAR FLR SPACE: OPTION A + B  
COMPLY WITH: 1004.11.1 + 305.3

**EXCEPTION:** Fixtures on levels  
not required to be accessible.

- **1004.11.1 Clear Floor Space**
  - **.1.1 Doors** – shall not swing into clear floor space for any fixture
    - Exc: Where 305.3 CFS, excluding knee + toe, is within room beyond door swing

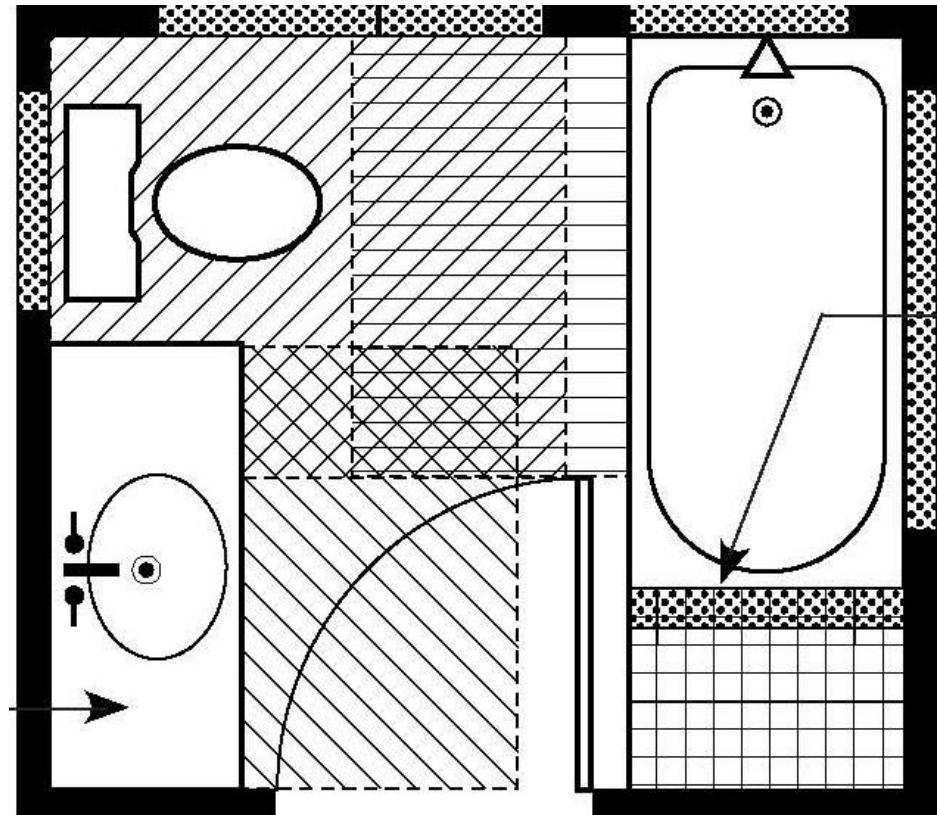


# 1004.11.1.1 Doors

- Doors shall not swing into the clear floor space or clearance for any fixture.

**EXCEPTION:**

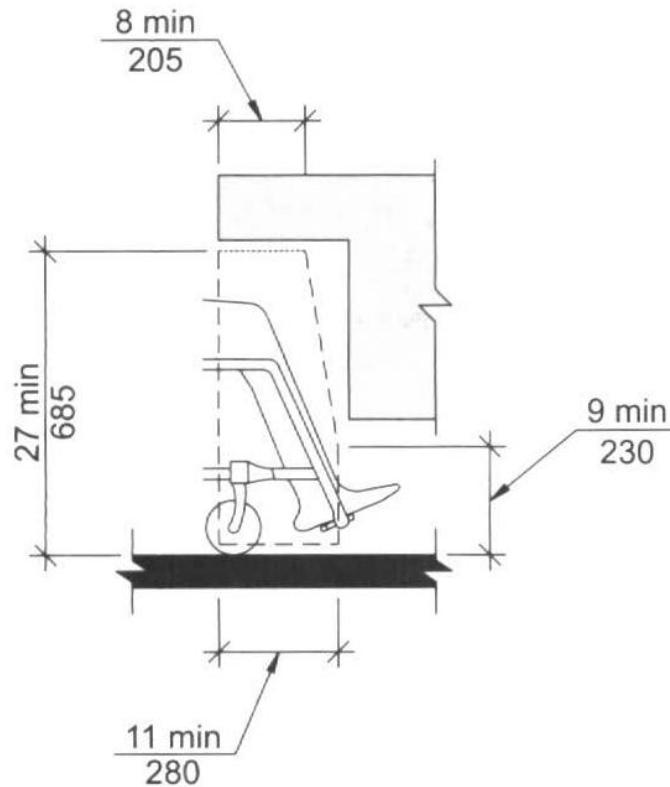
Where 305.3 clear floor space is provided within the room beyond the arc of the door swing, excluding toe and knee clearances under elements.



# 1004.11.1.2 Knee/Toe Clearance

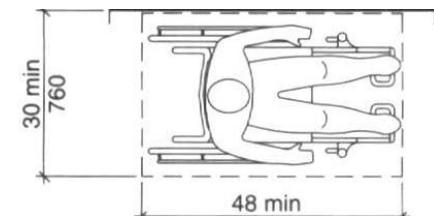
B

## TOILET + BATHING FIXTURES COMPLY WITH 1004.11



**EXCEPTION:** Fixtures on levels not required to be accessible.

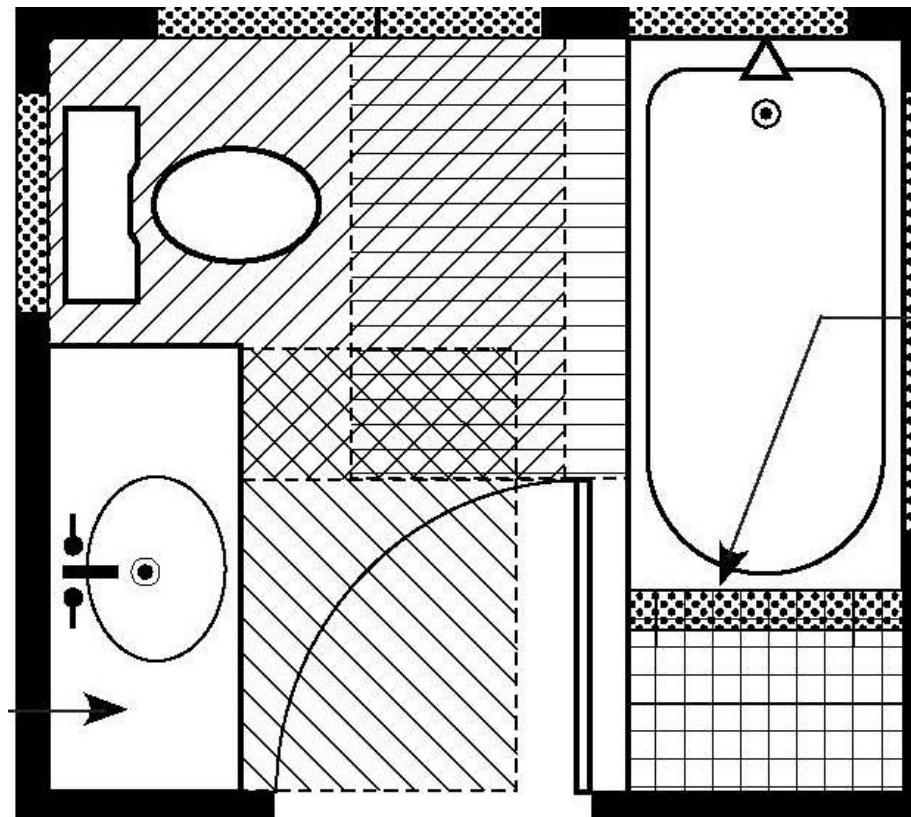
- **1004.11.1 Clear Floor Space**
  - .1.2 Knee + Toe Clearance – include 306 toe + knee clearances
    - 9" toe
    - 27" knee



**CLEAR FLOOR SPACE: OPTION A + B  
COMPLY WITH: 1004.11.1 + 305.3**

# 1004.11.1.3 Overlap

- Clear floor spaces shall be permitted to overlap



# 1003.11.2 Reinforcement

SAME AS  
TYPE A  
UNITS

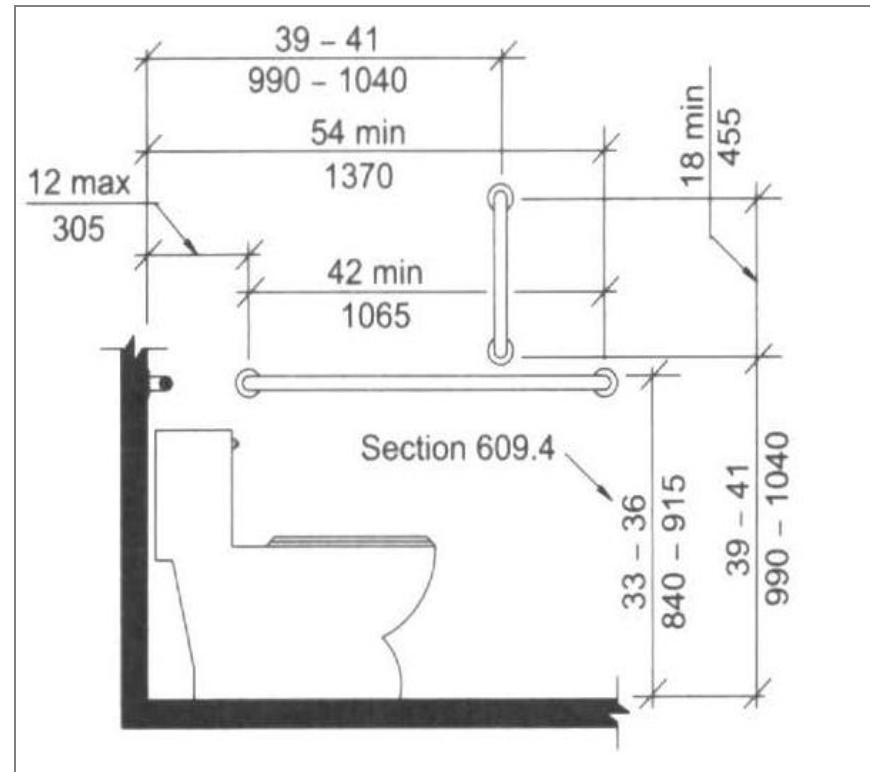
B

## FUTURE INSTALLATION OF GRAB BARS AND SHOWER SEATS

- Water closets
- Bathtubs
- Shower compartments

Provide reinforcement where walls located to permit installation complying with:

- 604.5 – Water Closets
- 607.4 – Bathtubs
- 608.3 – Transfer Showers
- 608.4 – Roll-in Showers



# 1004.11.2 Reinforcement Exc.

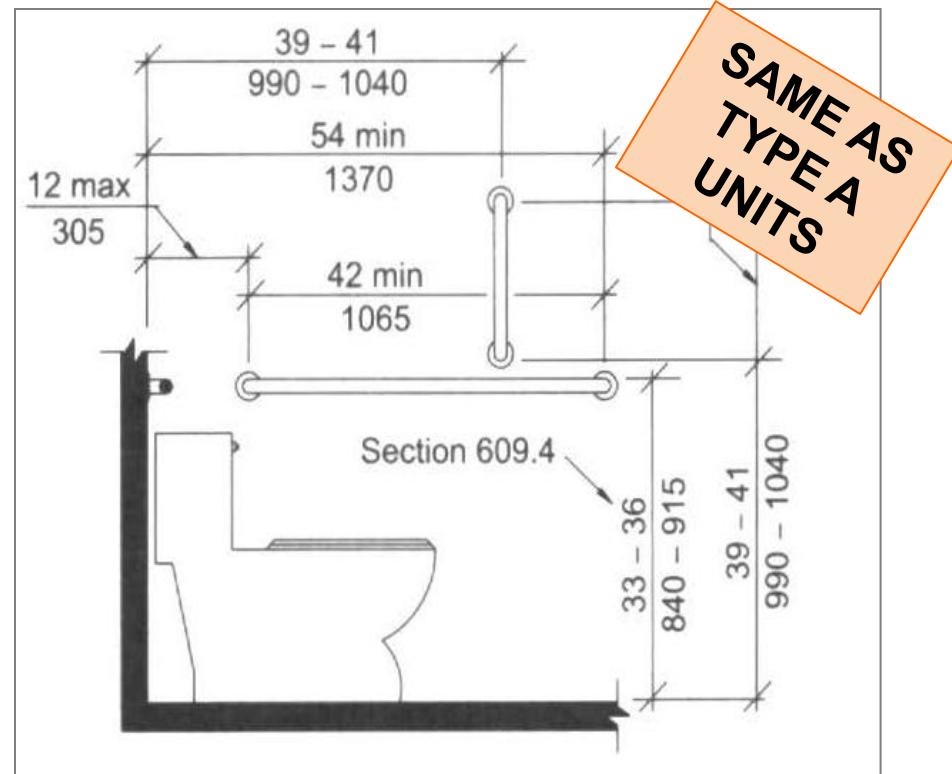
## FUTURE INSTALLATION OF GRAB BARS AND SHOWER SEATS

**EXCEPTION:** Reinforcement not required in room containing only:

- a) Lavatory and
- b) Watercloset

provided:

the room does not contain the only lavatory or watercloset on the accessible level of the dwelling unit.



# 1004.11.3 Toilet + Bathing Rooms

EITHER:

1. ALL TOILET + BATHING ROOMS COMPLY WITH **OPTION A** OR
2. ONE TOILET + BATHING ROOM SHALL COMPLY WITH **OPTION B**

■ **1004.11.3.1 Option A**

- .1 Lavatory
- .2 Water Closet
  - Parallel Approach
  - Forward Approach
  - Parallel or Forward Approach
- .3 Bathing Facilities
  - Parallel Approach Bathtubs
  - Forward Approach Bathtubs
  - Shower Compartment

■ **1004.11.3.2 Option B**

- .1 Lavatory
  - Clear Floor Space
  - Position
  - Height
- .2 Water Closet
- .3 Bathing Facilities
  - Bathtub
  - Shower Compartment

# 1004.11.3.1 Option A

EACH FIXTURE COMPLIES  
WITH 1004.11.3.1 – OPT A

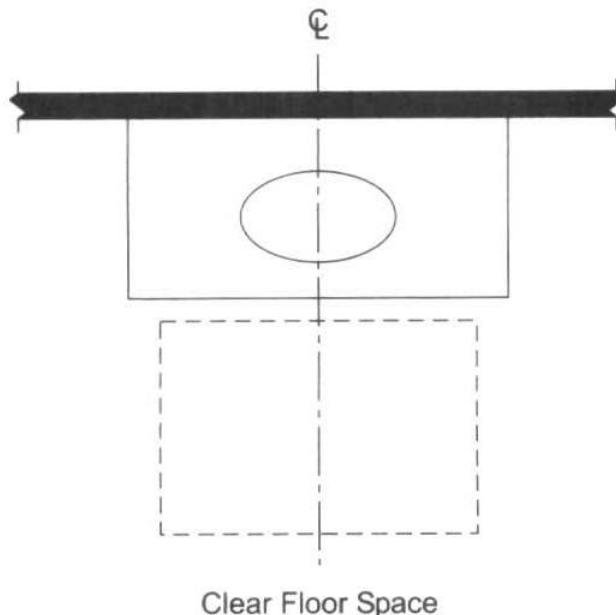
**EXCEPTION:** room containing lav + WC, provided not only lav + WC on accessible unit level

- .1 Lavatory
- .2 Water Closet
  - Parallel Approach
  - Forward Approach
  - Parallel or Forward Approach
- .3 Bathing Facilities
  - Parallel Approach Bathtubs
  - Forward Approach Bathtubs
  - Shower Compartment

# 1004.11.3.1.1 Opt A Lavatory

- Provide:

- 305.3 clear floor space
- Parallel approach
- Centered on lavatory

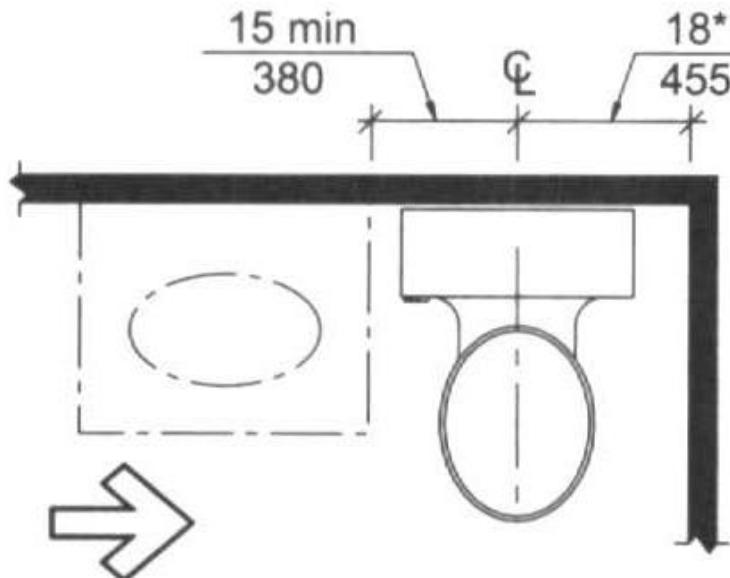


## EXCEPTION:

1. Comply with 606.
  - 34" high lavatory [606.3]
  - Clear floor space for front approach
  - Associated knee + toe clearances
  - Faucets meet operable parts
  - Protected pipes beneath
2. Cabinetry permitted under the lavatory, provided:
  - Cabinetry can be removed w/o removal or replacement of the lavatory;
  - Floor finish extends under such cabinetry.

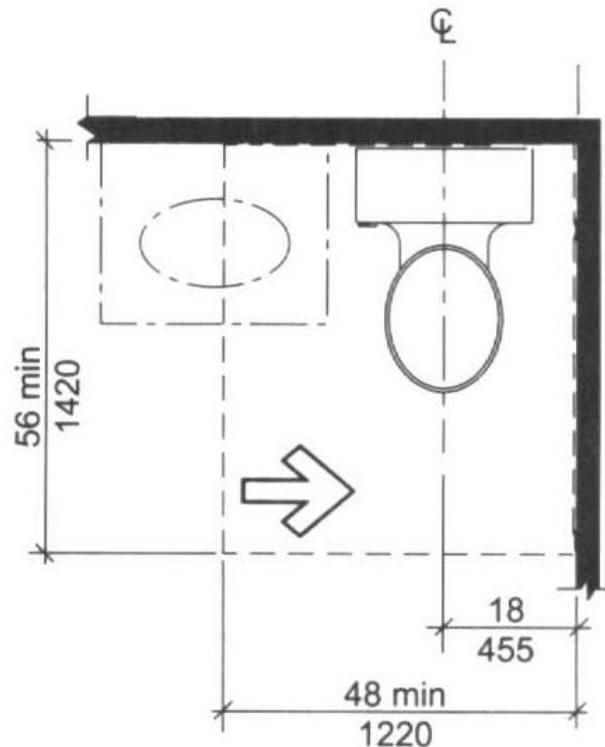
# 1004.11.3.1.2.1 Water Closet

- 1004.11.3.1.2 WC location



\*18 min (455) to a fixture

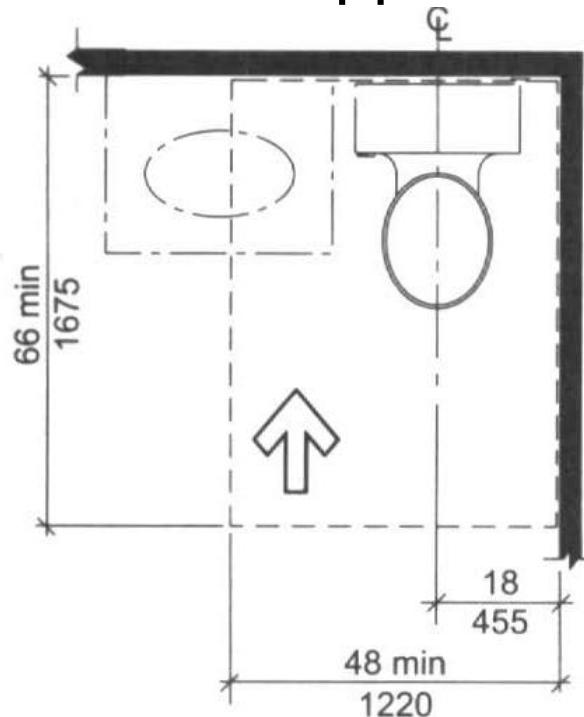
- 1004.11.3.1.2.1 Parallel Approach



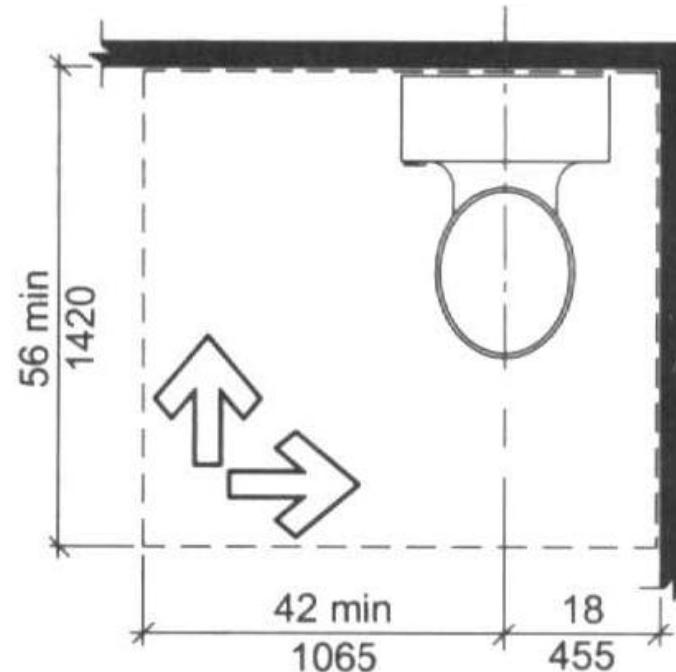
Measured to:  
 • Tub  
 • Wall

# 1004.11.3.1.2.2/3 Water Closet

- 1004.3.1.2.2  
Forward Approach



- 1004.3.1.2.3 Parallel or Forward Approach



# *1004.11.3.1.3 Option A Bathing*

---

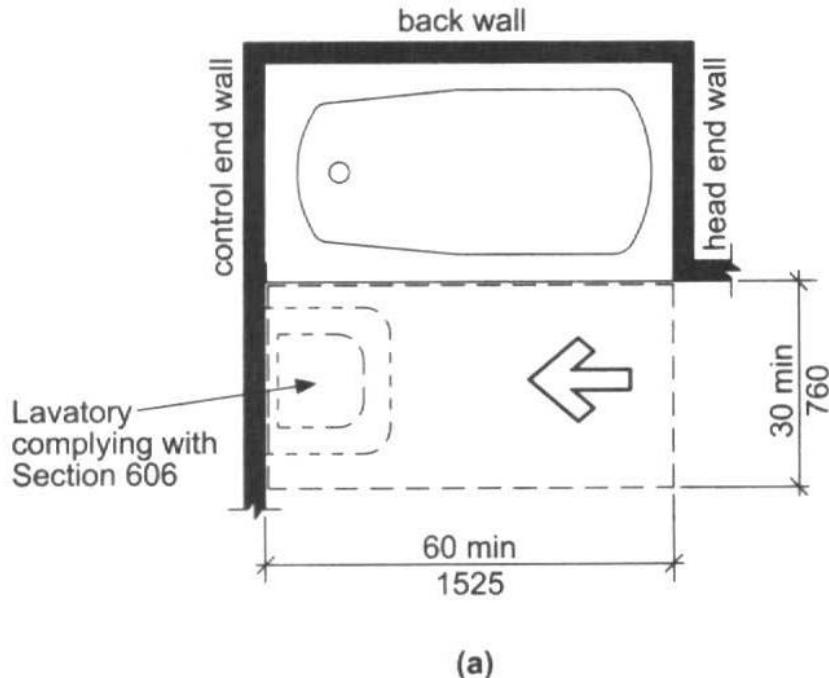
## **WHERE TUB OR SHOWER COMPARTMENT PROVIDED:**

Comply with:

- 1004.11.3.1.3.1 - Parallel Approach Bathtubs (2)
- 1004.11.3.1.3.1.2 - Forward Approach Bathtubs (1)  
or
- 1004.11.3.1.3.1.3 - Shower Compartment



# 1004.11.3.1.3.1 Opt A Parallel

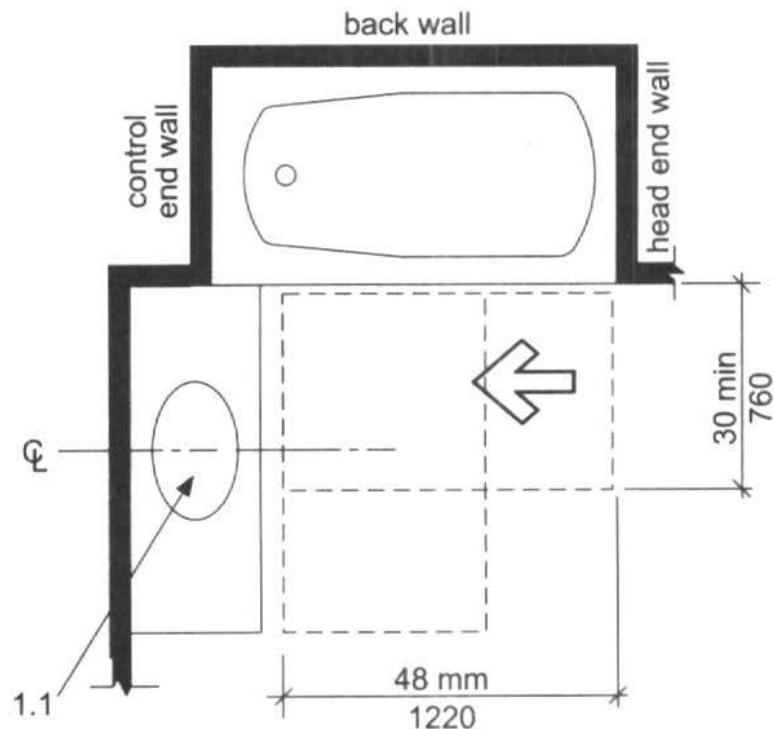


- 30" min x 60" min CFA
- Lavatory in CFA is OK
- Side approach

- 1004.11.3.1.3.1 - Parallel Approach Bathtub - #1

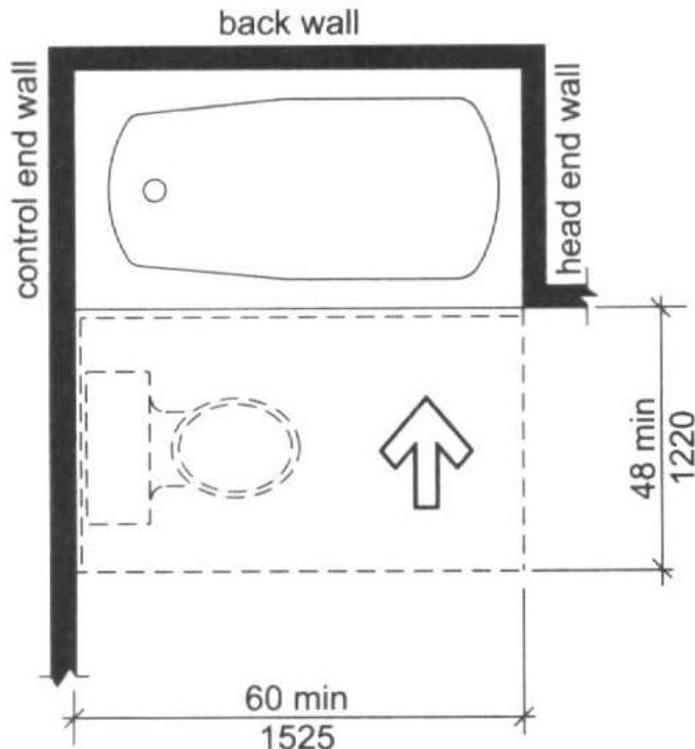
# 1004.11.3.1.3.1 Opt A Parallel

- 30" min x 48" min CFA
- Lavatory in partial CFA is OK
- Approach: either
  - Side
  - Forward



- 1004.11.3.1.3.1 - Parallel Approach + Forward Bathtub #2

## 1004.11.3.1.3.2 Opt A Forward

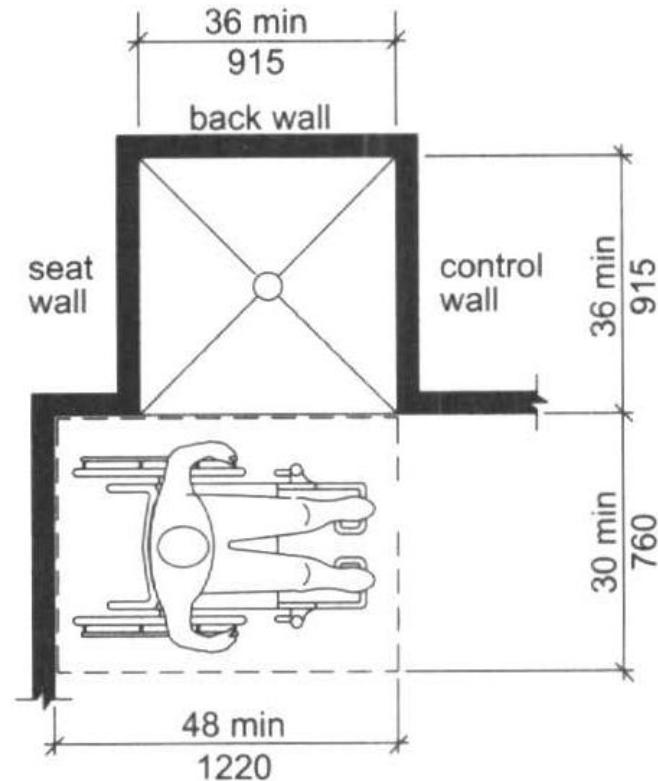


- 60" min x 48" min CFA
- WC in CFA is OK

- 1004.11.3.1.3.2 - Forward Approach Bathtub

# 1004.11.3.1.3.3 Opt A Shower

- 36" min x 36" min shower
- 36" min x 48" min CFA
- 12" overhang in seat side



- 1004.11.3.1.3.3 – Shower Compartment

# 1004.11.3.2 Option B

**REMINDER - OR: ONE TOILET + BATHING ROOM SHALL COMPLY WITH **OPTION B****

**OPTION B: COMPLIES WITH 1004.11.3.2**

## BASIC REQUIREMENTS:

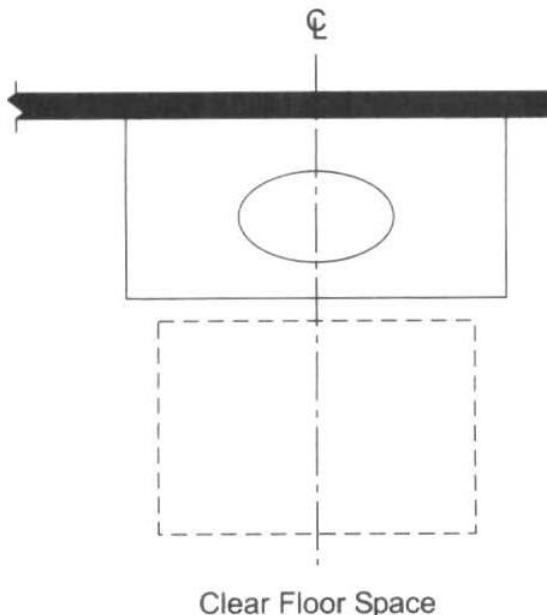
- 1 of each type of fixture
- In a single toilet/bath area
- Such that travel between fixtures does not require travel thru other parts of the unit

## 1004.11.3.2 Option B

- .1 Lavatory
  - Clear Floor Space
  - Position
  - Height
- .2 Water Closet
- .3 Bathing Facilities
  - Bathtub
  - Shower Compartment

# 1004.11.3.1.2 Opt B Lavatory

- Comply with 1004.11.3.2.1 (Opt A)
  - 305.3 clear floor space
  - Parallel approach

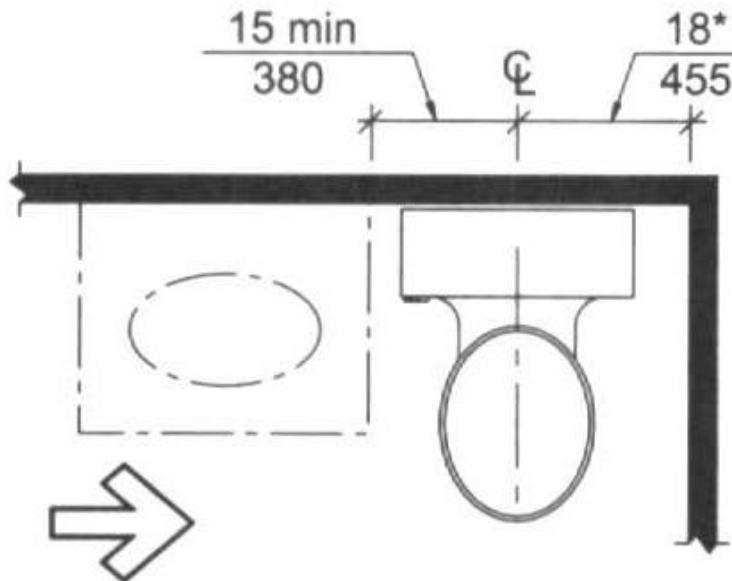


## EXCEPTION:

1. Comply with 606.
  - 34" high lavatory [606.3]
  - Clear floor space for front approach
  - Associated knee + toe clearances
  - Faucets meet operable parts
  - Protected pipes beneath
2. Cabinetry permitted under the lavatory, provided:
  - Cabinetry can be removed w/o removal or replacement of the lavatory;
  - Floor finish extends under such cabinetry.

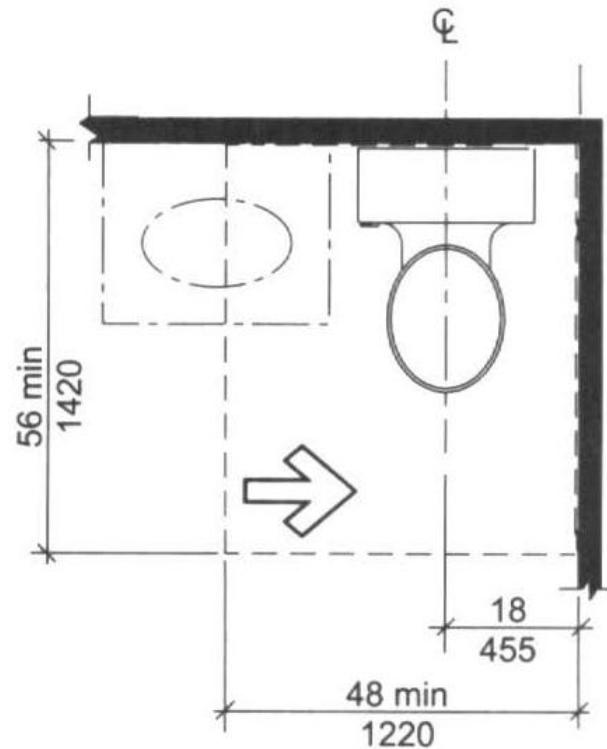
# 1004.11.3.2.2 Opt B WaterCl

- 1004.11.3.1.2 WC location



\*18 min (455) to a fixture

- 1004.11.3.1.2.1 Parallel Approach



Measured to:

- Tub
- Wall

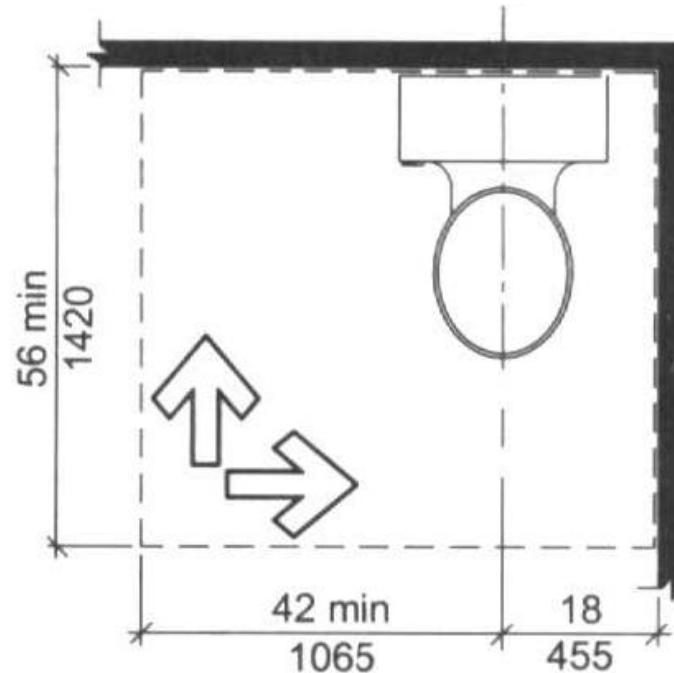
The watercloset shall comply with 1004.11.3.1.2 – same as Option A.

# 1004.11.3.2.2 Opt B WaterCl

- 1004.3.1.2.2 Forward Approach



- 1004.3.1.2.3 Parallel or Forward Approach

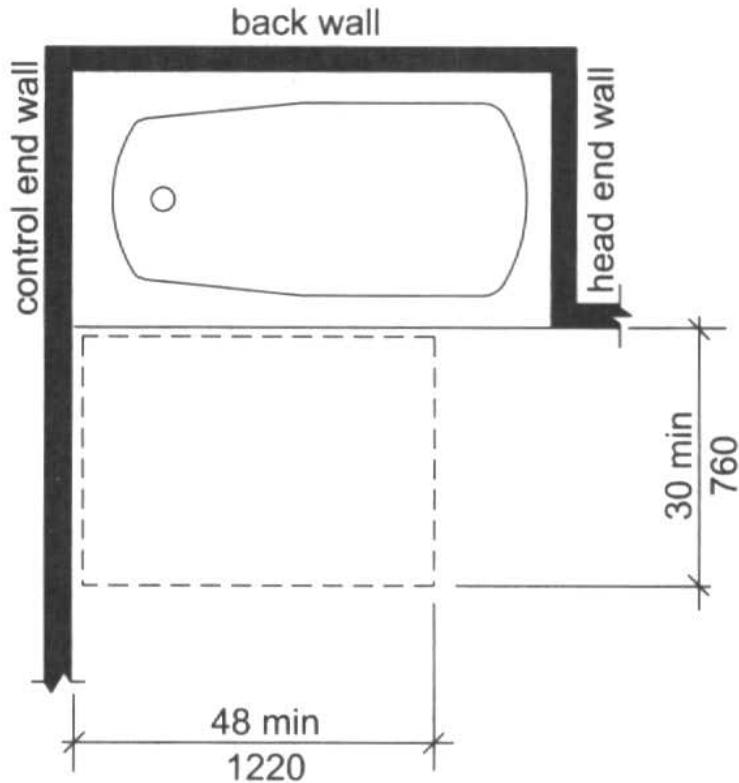


The watercloset shall comply with 1004.11.3.1.2 – same as Option A.

# 1004.11.3.1.3 Option B Bath Tub

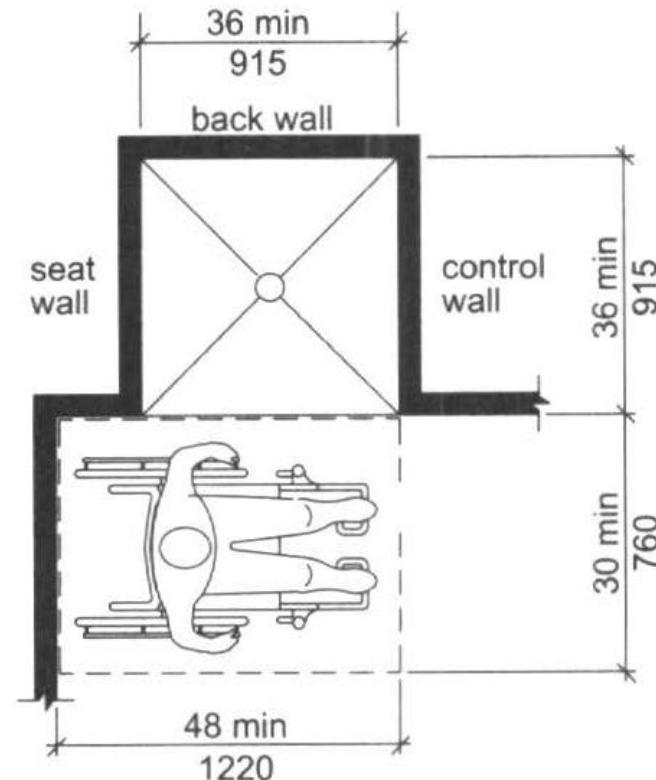
## WHERE TUB PROVIDED:

- 1004.11.3.2.3.1 – Bathtub
  - 30" x 48" CFA
  - Perpendicular from control end of tub



# 1004.11.3.2.3.2 Option B Shower

- **1004.11.3.2.3.2 - Shower Compartment**
  - Comply with 1004.11.3.1.3.3
  - Same as **Option A**
- 36" min x 36" min shower
- 36" min x 48" min CFA
- 12" overhang in seat side



- **1004.11.3.1.3.3 – Shower Compartment**

# 1003.11.8 Bathtub

## COMPLY WITH 607

- .1 General
- .2 Clearance
- .3 Seat
- .4 Grab Bars
- .5 Controls
- .6 Hand Shower
- .7 Bathtub Enclosures
- .8 Water Temperature

## EXCEPTIONS:

1. Removable in-tub seat required by 607.3 is not required.
2. Removable countertops and cabinetry permitted at control end of clearance provided floor finish extends under cabinetry.

# 1003.11.9 Showers

## COMPLY WITH 608

- .1 General
- .2 Size and Clearances
- .3 Grab Bars
- .4 Seats
- .5 Controls + Hand Shwrs
- .6 Hand Shower
- .7 Thresholds
  - $\frac{1}{2}$  " max roll-in or transfer
- .8 Shower Enclosures
- .9 Water Temperature

## EXCEPTIONS:

Removable countertops and cabinetry permitted at control end of clearance provided floor finish extends under cabinetry.



# 1004.12 Kitchens

B

- .1 Clearance
- .2 Clear Floor Space
- .3 Cooktop
- .4 Oven
- .5 Refrigerator/Freezer
- .6 Trash/Compactor



# 1004.12 Kitchens



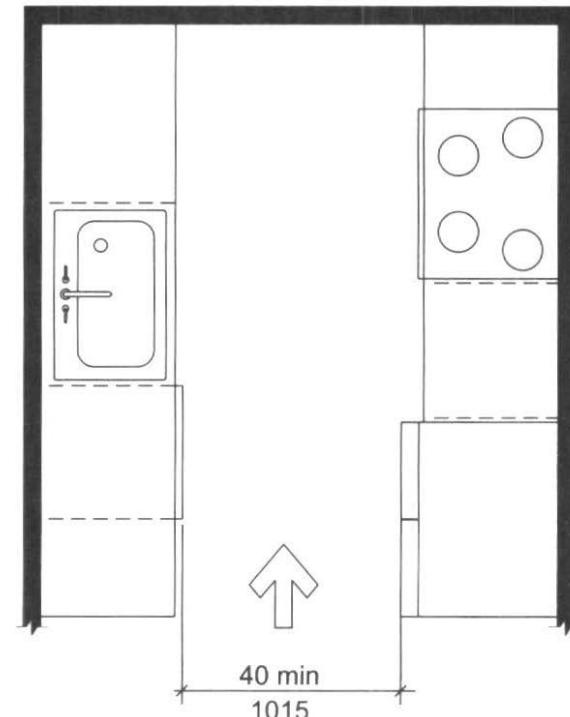
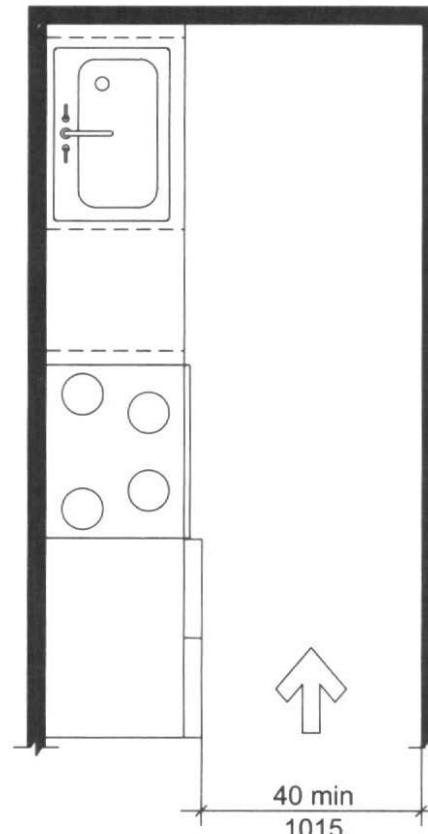
- .1 Clearance
  - Min Clearance – 40”
  - U-Shaped Kitchens – 60”
- .2 Clear Floor Space
- .3 Work Surface
- .4 Sink
- .5 Kitchen Storage
- .6 Appliances
  - Operable Parts
  - Clear floor space
  - Dishwasher
  - Range
  - Oven
  - Refrigerator
- .7 Trash Compactor



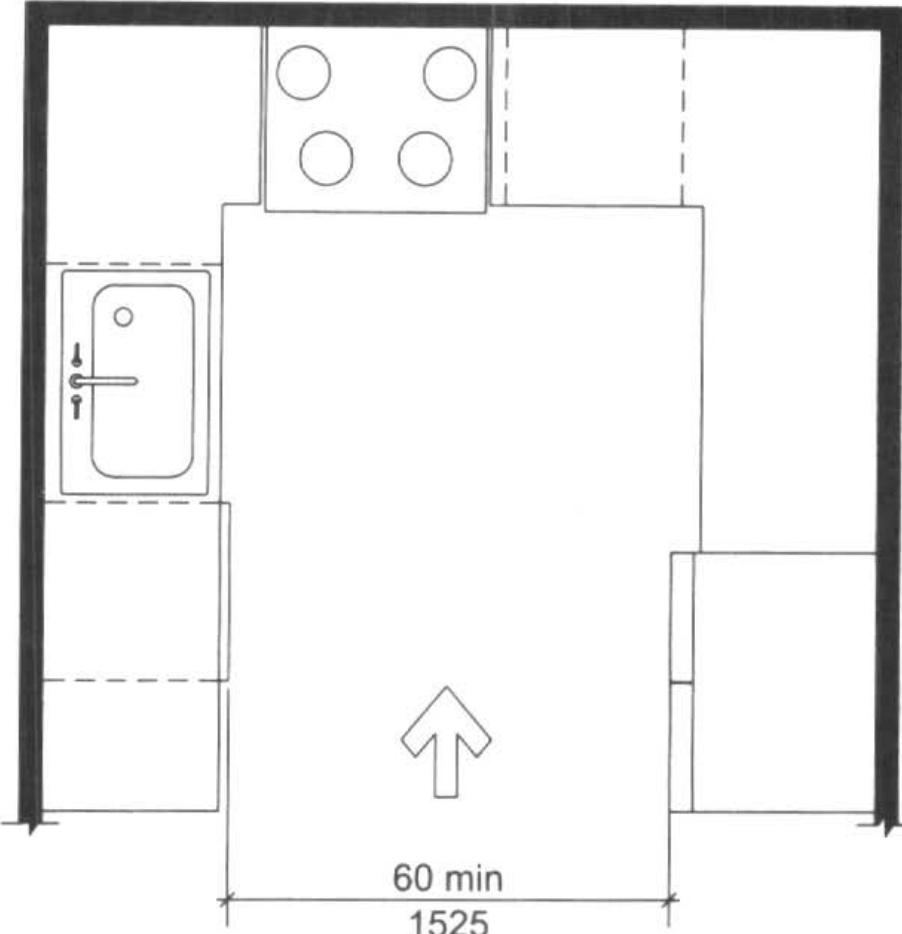
# 1004.12.1.1 Min Clearance

- 40" minimum between all opposing:

- Walls within the kitchen area
- Base cabinets
- Counter tops
- Appliances



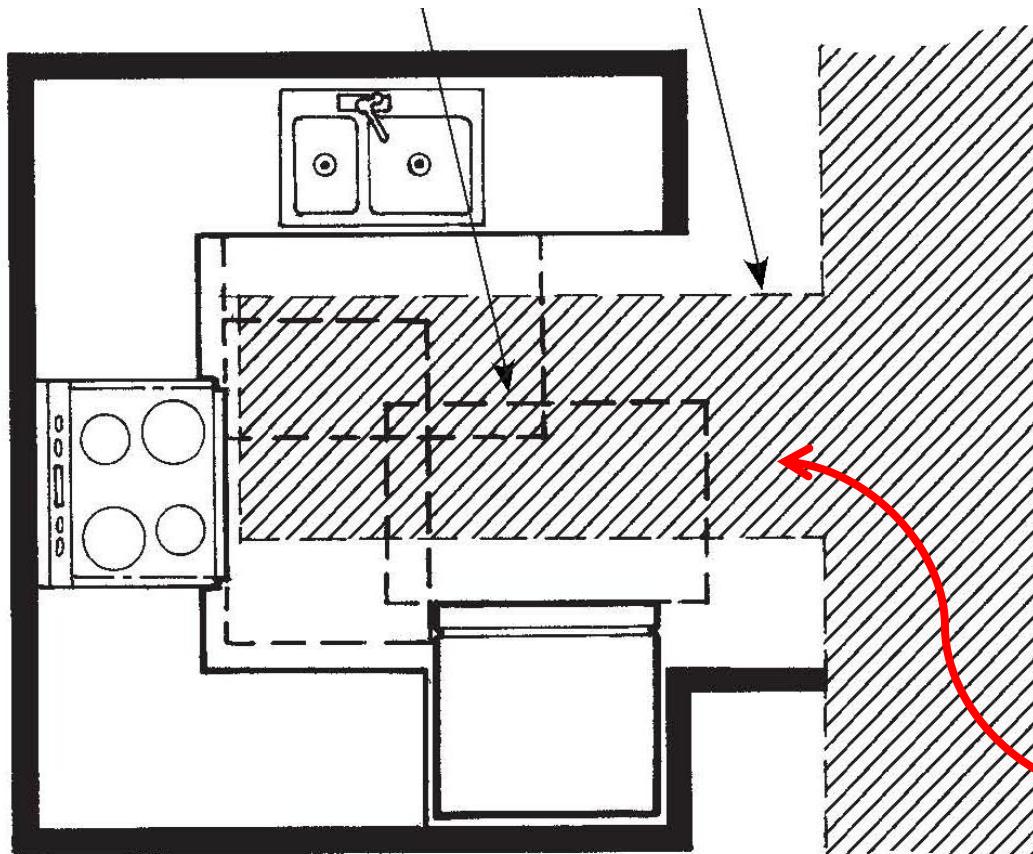
## 1004.12.1.2 U-Shaped Kitchens



- 60" minimum between all opposing:
  - Walls within the kitchen work areas
  - Base cabinets
  - Counter tops
  - Appliances

# 1004.12.2 Clear Floor Space

## CLEAR FLR SPACE, SIDE OR FORWARD, PROVIDED AT EACH APPL.



- Provide 305.3 CFS at each appliance
  - Side
  - Forward
- The clear floor spaces are permitted to overlap

This shows 60" turning space; could be 40".

# 1004.12.2.1 Sink

PROVIDE CFS PARALLEL TO SINK + CENTERED ON THE SINK

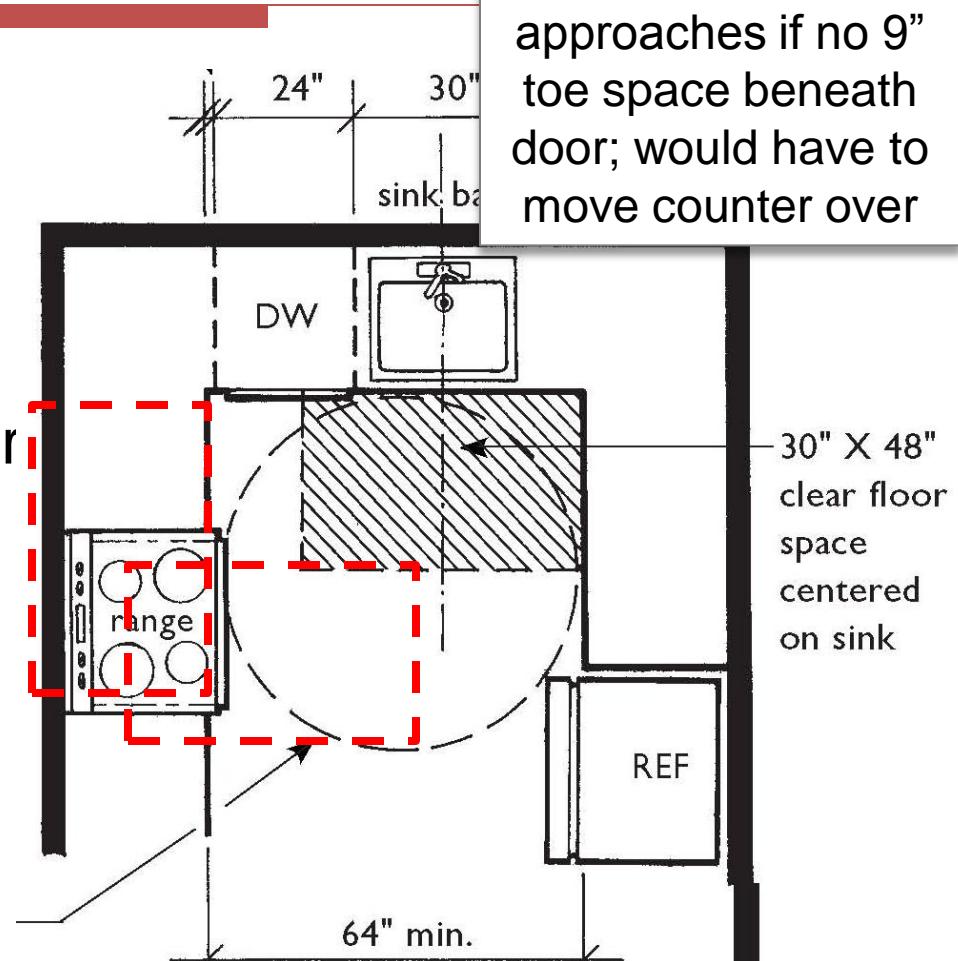


EXCEPTION: SINKS COMPLYING w/606 SHALL HAVE CFS FOR A PARALLEL OR FORWARD APPROACH

- 606 Lavatories + Sinks
  - Intent: kitchen sink required in an Accessible unit [1002.12, 804.4 + 606]
    - Rim height 34" AFF
    - Front approach
    - Knee + toe clearances
    - Pipe protection
    - Faucets with operable parts
    - *Allows for sink designed to be adaptable [exceeds Type B reqmt]*

## 1004.12.2.2 Dishwasher

- Provide:
  - Clear floor space
  - Adjacent to DW door
- DW door in open position shall not obstruct the clear floor space for
  - The dishwasher or
  - Adjacent sink
- Provide:
  - min 9" toe space beneath door when open or
  - CFA must be located past dr



# 1004.12.2.3 Cooktop

**ALL APPLIANCE CONTROLS SHALL COMPLY WITH 1003.9 – OP PARTS**

■ **EXCEPTIONS:**

1. Appliance doors + door latching devices not required to comply with 309.4.  
[Grasping, wrist-twisting.]

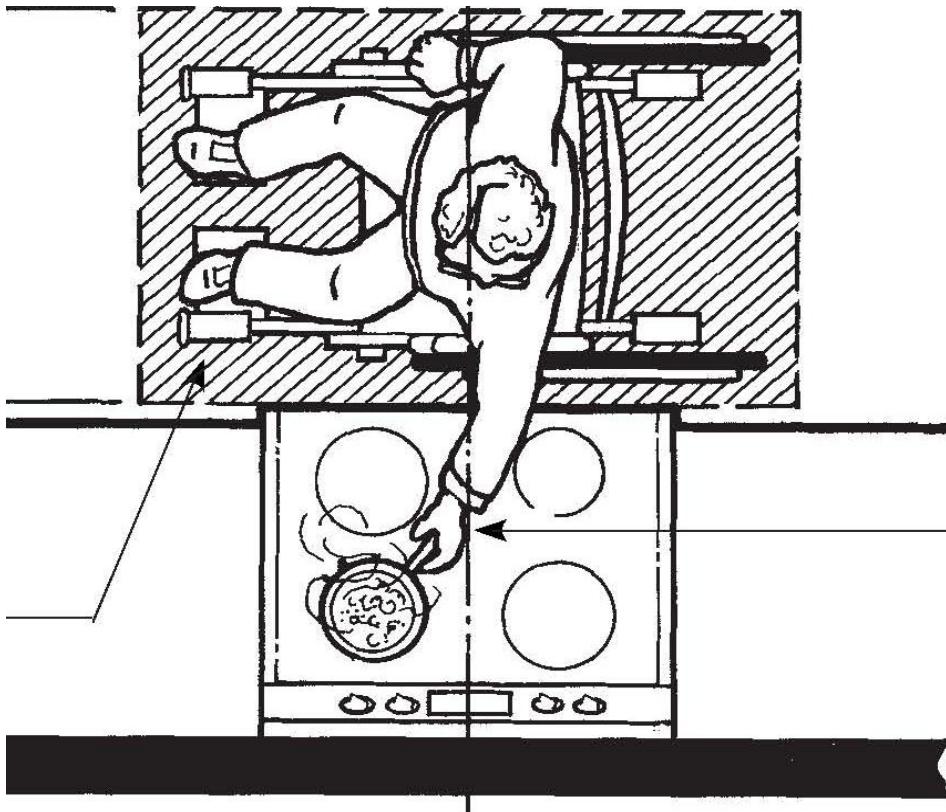


■ **EXCEPTIONS:**

2. Bottom-hinged appliance doors, when in open position, not required to comply with 309.3. [Reach range height.]



# 1004.12.2.4 Oven



**Space for Parallel Approach Required at Range and Cooktop**

- Provide:
  - Clear floor space
  - Parallel or forward approach
- Where positioned for **forward** approach:
  - 306 knee + toe clearance
  - Insulate underside of range and cooktop against
    - Burns
    - Abrasions
    - Electrical shock
- Control location shall not require reaching across burners

# 1004.12.2.5 Refrigerator/Freezer

## PROVIDE CLEAR FLOOR SPACE TO REFRIGERATOR/FREEZERS:

- May be either:
  - Parallel or forward
- Consider:
  - How door will be accessed
    - 90 -180 degree door opening
  - Pull-out freezers require CFA with freezer drawer is fully open
- H<sub>2</sub>O+Ice thru door or inside
  - Considered a feature
  - CFA required to door



# 1004.12.2.6 Trash Compactor B

---

- Provide a clear floor space, positioned for a parallel or forward approach.



- Consider access to unit in the open position.
- Locate CFA so that it does not obstruct the door of the compactor in the open position.

Same as Option A

# Questions



- For further questions:

- PHONE            919-661-5880 x 247
- FAX              919-662-4414
- E-MAIL          Laurel.Wright@ncdoi.gov

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- who you are with
- phone number
- project the e-mail is about



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