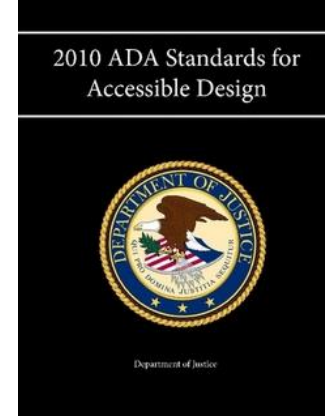
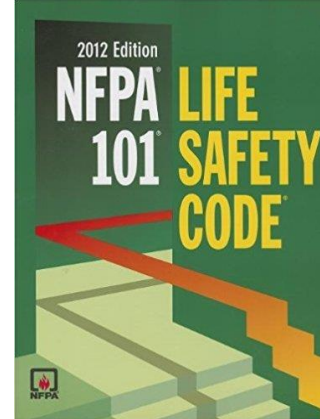
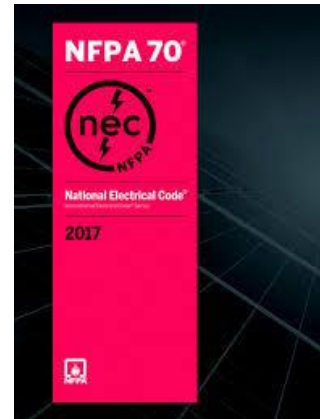
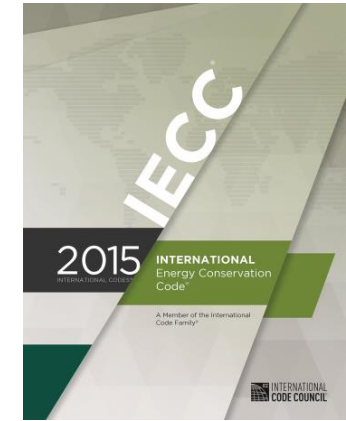
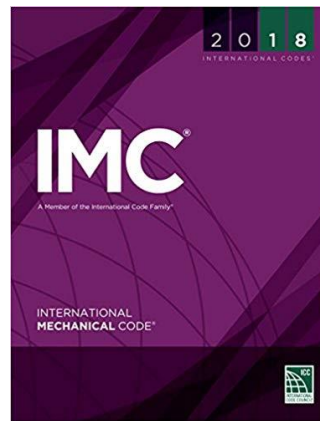
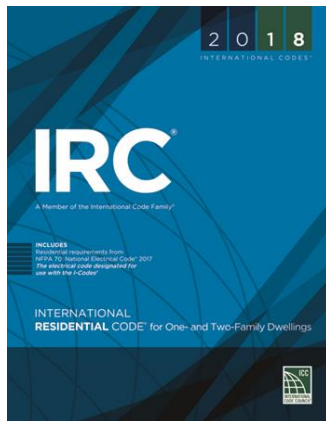


**WELCOME
2019
CATOOSA COUNTY
CONTRACTORS
MEETING**

July 25, 2019

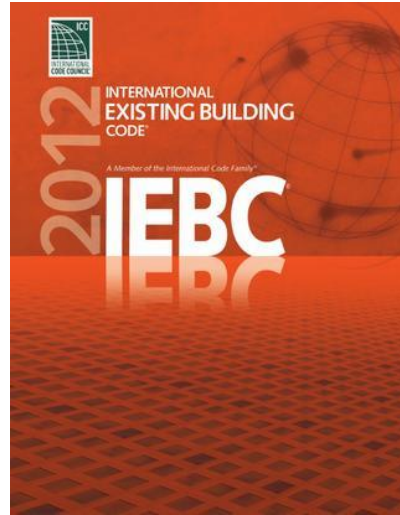


MANDATORY CODES AS OF JANUARY 01, 2020 (ADOPTED WITH GEORGIA AMENDMENTS)



PERMISSIVE CODES AS OF JANUARY 01, 2020

(ADOPTED WITH GEORGIA AMENDMENTS)



PROCEDURES REVIEW

1. OBTAIN A BUILDING PERMIT BEFORE SITE PREPARATIONS BEGIN
2. ALL INSPECTIONS REQUIRE A 24 HOUR NOTICE
3. DO NOT CALL THE INSPECTOR TO SCHEDULE AN INSPECTION
4. YOU **MUST** CALL THE OFFICE AT **706.965.4226** IN ORDER TO SCHEDULE AN INSPECTION
5. HAVE ADDRESS AND PERMIT NUMBER HANDY WHEN CALLING TO SCHEDULE AN INSPECTION
6. SUBCONTRACTORS ARE REQUIRED TO COME TO THE OFFICE AND SIGN THE PERMIT AND PAY ANY SUBCONTRACTOR FEES.
7. CONTRACTORS GETTING MULTIPLE PERMITS SHOULD BE PREPARED TO LEAVE THE INFORMATION AND BE CALLED BACK WHEN THE PERMIT ARE READY TO BE ISSUED.
8. ALL CONTRACTORS ARE REQUIRED TO HAVE A CURRENT GEORGIA STATE LICENSE IF TRADE REQUIRES
9. IF YOU INSPECTION FAILS, YOU ARE SUBJECT TO A \$25.00 RE-INSPECTION FEE. YOU MUST PAY THIS FEE BEFORE SCHEDULING ANY FURTHER INSPECTIONS.

REQUIRED INSPECTIONS REVIEW

1. PERMIT MUST BE POSTED (***IF PERMIT IS NOT POSTED THE INSPECTOR WILL NOT DO INSPECTIONS***)
2. BMP INSPECTIONS (SILT FENCE, CONSTRUCTION ENTRANCE AND PORT-O-JOHN)
3. FOOTING
4. TEMP. POLE
5. UNDER SLAB PLUMBING
6. FOUNDATION
7. SLAB
8. BASEMENT/POURED WALL
9. ROUGH-INS (FRAMING, ELECTRIC, HVAC, PLUMBING AND GAS) **TRADE MUST BE SIGNED OFF ON PERMIT BEFORE INSPECTION**
10. INSULATION
11. HOUSE WRAP (INCLUDES WINDOW FLASHING TAPE)
12. PRE-FINAL (PANEL MUST HAVE ALL BREAKERS AND FIXTURES INSTALLED, IF FIXTURES ARE NOT INSTALLED CONDUCTORS MUST HAVE WIRE NUTS INSTALLED)
13. FINAL INSPECTION MUST BE REQUESTED WITHIN 60 DAY OF PRE-FINAL INSPECTION
14. FINAL INSPECTION/CERTIFICATE OF OCCUPANCY (***NOTE: NO CERTIFICATE WILL BE ISSUED ON PERMITS THAT DID NOT HAVE ALL REQUIRED INSPECTIONS AND NO CERTIFICATE WILL BE ISSUED AND NO INSPECTOR WILL ENTER ANY BUILDING OR RESIDENCE THAT CONTAINS POSSESSIONS OR HAS BEEN OCCUPIED***)



IRC CHAPTER 3 BUILDING PLANNING

R302 FIRE-RESISTANT CONSTRUCTION

GEORGIA AMENDMENTS

R302.1 Exterior walls. Construction, projections, openings and penetrations of *exterior walls* of *dwelling*s and accessory buildings shall comply with Table R302.1(1); or *dwelling*s equipped throughout with an *automatic sprinkler system* installed in accordance with Section P2904 shall comply with Table R302.1(2).

R302.2 Townhouses. Walls separating townhouse units shall be constructed in accordance with Section R302.2.1 or R302.2.2.

*Revise Section R302.1 'Exterior walls' to read as follows:

R302.1 Exterior walls. Construction, projections, openings and penetrations of *exterior walls* of *dwelling*s and accessory buildings shall comply with Table R302.1(1); or *dwelling*s equipped throughout with an *automatic sprinkler system* installed in accordance with NFPA 13D shall comply with Table R302.1(2).
(Existing exceptions to remain as written).
(Effective January 1, 2020)

*Revise Section R302.2 'Townhouses' to read as follows:

R302.2 Townhouses. Each *townhouse* shall be considered a separate building and shall be separated by fire-resistance-rated wall assemblies meeting the requirements of Section R302.1 for exterior walls.

Exception: A common 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses, if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with the National Electrical Code (NEC). Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.
(Effective January 1, 2020)

R302.2 TOWNHOUSE SEPARATION

IRC 2015

Language describing townhouses as separate buildings and reference to Section R302.1 have been removed. Common walls separating townhouses must now be rated for 2 hours when an automatic fire sprinkler system is not installed in townhouse dwelling units.

IRC 2018

Two paths for achieving the fire-resistant separation between townhouse dwelling units – two 1-hour walls or a common wall – are spelled out in the townhouse provisions

R302.2 Townhouses. Walls separating townhouse units shall be constructed in accordance with Section R302.2.1 or R302.2.2.

R302.2.1 Double walls. Each townhouse shall be separated by two 1-hour fire-resistance-rated wall assemblies tested in accordance with ASTM E119, UL 263 or Section 703.3 of the *International Building Code*.

R302.2.2 Common walls. Common walls separating *townhouses* shall be assigned a fire-resistance rating in accordance with Item 1 or 2. The common wall shared by two *townhouses* shall be constructed without plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing.

TABLE R302.1(1)
EXTERIOR WALLS

EXTERIOR WALL ELEMENT		MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE
Walls	Fire-resistance rated	1 hour—tested in accordance with ASTM E119, UL 263 or Section 703.3 of the <i>International Building Code</i> with exposure from both sides	0 feet
	Not fire-resistance rated	0 hours	≥ 5 feet
Projections	Not allowed	NA	< 2 feet
	Fire-resistance rated	1 hour on the underside, or heavy timber, or fire-retardant-treated wood ^{b, c}	≥ 2 feet to < 5 feet
	Not fire-resistance rated	0 hours	≥ 5 feet
Openings in walls	Not allowed	NA	< 3 feet
	25% maximum of wall area	0 hours	3 feet
	Unlimited	0 hours	5 feet
Penetrations	All	Comply with Section R302.4	< 3 feet
		None required	3 feet

For SI: 1 foot = 304.8 mm.

NA = Not Applicable.

- a. The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave overhang if fireblocking is provided from the wall top plate to the underside of the roof sheathing.
- b. The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the rake overhang where gable vent openings are not installed.

TABLE R302.1(2)
EXTERIOR WALLS—DWELLINGS WITH FIRE SPRINKLERS

EXTERIOR WALL ELEMENT		MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE
Walls	Fire-resistance rated	1 hour—tested in accordance with ASTM E119, UL 263 or Section 703.3 of the <i>International Building Code</i> with exposure from the outside	0 feet
	Not fire-resistance rated	0 hours	3 feet ^a
Projections	Not allowed	NA	< 2 feet
	Fire-resistance rated	1 hour on the underside, or heavy timber, or fire-retardant-treated wood ^{b, c}	2 feet ^a
	Not fire-resistance rated	0 hours	3 feet
Openings in walls	Not allowed	NA	< 3 feet
	Unlimited	0 hours	3 feet ^a
Penetrations	All	Comply with Section R302.4	< 3 feet
		None required	3 feet ^a

For SI: 1 foot = 304.8 mm.

NA = Not Applicable.

- a. For residential subdivisions where all dwellings are equipped throughout with an automatic sprinkler system installed in accordance with Section P2904, the fire separation distance for exterior walls not fire-resistance rated and for fire-resistance-rated projections shall be permitted to be reduced to 0 feet, and unlimited unprotected openings and penetrations shall be permitted, where the adjoining lot provides an open setback yard that is 6 feet or more in width on the opposite side of the property line.
- b. The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave overhang if fireblocking is provided from the wall top plate to the underside of the roof sheathing.
- c. The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the rake overhang where gable vent openings are not installed.

R302 FIRE-RESISTANT CONSTRUCTION

GEORGIA AMENDMENTS

R302.2.1 Double walls. Each townhouse shall be separated by two 1-hour fire-resistance-rated wall assemblies tested in accordance with ASTM E119, UL 263 or Section 703.3 of the *International Building Code*.

* Delete Section R302.2.1 'Double walls' without substitution.
(Effective January 1, 2020)

R302.2.2 Common walls. Common walls separating *townhouses* shall be assigned a fire-resistance rating in accordance with Item 1 or 2. The common wall shared by two *townhouses* shall be constructed without plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing.

* Delete Section R302.2.2 'Common walls' without substitution.
(Effective January 1, 2020)

Electrical installations shall be in accordance with Chapters 34 through 43. Penetrations of the membrane of common walls for electrical outlet boxes shall be in accordance with Section R302.4.

1. Where a fire sprinkler system in accordance with Section P2904 is provided, the common wall shall be not less than a 1-hour fire-resistance-rated wall assembly tested in accordance with ASTM E119, UL 263 or Section 703.3 of the *International Building Code*.
2. Where a fire sprinkler system in accordance with Section P2904 is not provided, the common wall shall be not less than a 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E119, UL 263 or Section 703.3 of the *International Building Code*.

R302 FIRE-RESISTANT CONSTRUCTION

GEORGIA AMENDMENTS

R302.2.6 Structural independence. Each individual *townhouse* shall be structurally independent.

Exceptions:

1. Foundations supporting *exterior walls* or common walls.
2. Structural roof and wall sheathing from each unit fastened to the common wall framing.
3. Nonstructural wall and roof coverings.
4. Flashing at termination of roof covering over common wall.
5. *Townhouses* separated by a common wall as provided in Section R302.2.2, Item 1 or 2.

R302.5.1 Opening protection. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1³/₈ inches (35 mm) in thickness, solid or honeycomb-core steel doors not less than 1³/₈ inches (35 mm) thick, or 20-minute fire-rated doors, equipped with a self-closing or automatic-closing device.

*Revise Section R302.2.6 'Structural independence' to delete exception #5 without substitution.
(Effective January 1, 2020)

*Revise Section R302.5.1 'Opening protection' to read as follows:

R302.5.1 Opening protection. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb-core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute fire rated doors.
(Effective January 1, 2020)

R302.2 FIRE-RESISTANT CONSTRUCTION

GEORGIA AMENDMENTS (CONTINUED)

*Revise Table R302.6 'DWELLING-GARAGE SEPARATION' to add a new footnote "a" to read as follows:

TABLE R302.6
DWELLING-GARAGE SEPARATION

SEPARATION	MATERIAL
From the residence and attics	Not less than 1/2-inch gypsum board or equivalent applied to the garage side
From habitable rooms above the garage	Not less than 5/8-inch Type X gypsum board or equivalent
Structure(s) supporting floor/ceiling assemblies used for separation required by this section	Not less than 1/2-inch gypsum board or equivalent
Garages located less than 3 feet from a dwelling unit on the same lot	Not less than 1/2-inch gypsum board or equivalent applied to the interior side of exterior walls that are within this area

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- a. Separation of floor/ceiling assemblies is not required in garages protected by an automatic sprinkler system that meets the following criteria:
1. The sprinkler system shall be connected to a reliable water supply system with or without an automatic operated pump
 2. A piping system serving both the sprinkler and domestic needs shall be acceptable
 3. Ordinary-temperature-rated residential or quick response (135 to 170 degrees F) with a 1/2 " orifice shall be installed
 4. The minimum operating pressure of any residential or quick response sprinkler shall be 7 psi (0.5 bar)
 5. Walls that resist the passage of smoke shall separate the sprinklered compartment from any other space(s). Openings in this wall shall be regulated by Section R302.5
 6. The maximum area protected by a sprinkler head shall not exceed 144 sq. ft.
 7. The maximum distance between sprinklers shall not exceed 12 feet
 8. The maximum distance to a wall or partition shall not exceed 6 feet
 9. The minimum distance between sprinklers within a compartment shall be 8 feet
 10. Pendent and upright sprinkler heads shall be positioned so that the deflectors are within 1 to 4 inches below framing
 11. Sprinkler heads shall located on a looped piping configuration
 12. Minimum pipe size for, including that for copper. Listed CPVC and PB piping shall be 3/4 inch
 13. Garage doors in the open position shall not interfere with the operation of a sprinkler head.
 14. A smoke alarm detector shall be installed in accordance with Section R314
- (Effective January 1, 2020)

*Delete Section R302.13 'Fire protection of floors without substitution
(Effective January 1, 2020)

R302.2 FIRE-RESISTANT CONSTRUCTION

GEORGIA AMENDMENTS (CONTINUED)

R302.13 Fire protection of floors. Floor assemblies that are not required elsewhere in this code to be fire-resistance rated, shall be provided with a $\frac{1}{2}$ -inch (12.7 mm) gypsum wall-board membrane, $\frac{5}{8}$ -inch (16 mm) wood structural panel membrane, or equivalent on the underside of the floor framing member. Penetrations or openings for ducts, vents, electrical outlets, lighting, devices, luminaires, wires, speakers, drainage, piping and similar openings or penetrations shall be permitted.

Exceptions:

1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section P2904, NFPA 13D, or other approved equivalent sprinkler system.
2. Floor assemblies located directly over a crawl space not intended for storage or for the installation of fuel-fired or electric-powered heating appliances.
3. Portions of floor assemblies shall be permitted to be unprotected where complying with the following:
 - 3.1. The aggregate area of the unprotected portions does not exceed 80 square feet (7.4 m²) per story.
 - 3.2. Fireblocking in accordance with Section R302.11.1 is installed along the perimeter of the unprotected portion to separate the unprotected portion from the remainder of the floor assembly.
4. Wood floor assemblies using dimension lumber or structural composite lumber equal to or greater than 2-inch by 10-inch (50.8 mm by 254 mm) nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance.

R302.13 FIRE PROTECTION OF FLOORS

IRC 2015

The provisions for fire protection of floors have been relocated from Chapter 5 to the fire-resistant construction provisions of Section R302. New language clarifies that the code does not regulate penetrations or openings in the fire protection membrane.

IRC 2018

Fire-resistant membrane protection is now required for applicable floor framing materials above crawl spaces containing fuel-fired or electric-powered heating appliances

***Delete Section R302.13 'Fire protection of floors' without substitution
(Effective January 1, 2020)**

R303.4 MECHANICAL VENTILATION

LESS THAN 3 AIR CHANGES PER HOUR SHALL REQUIRE WHOLE-HOUSE VENTILATION

R303.4 Mechanical ventilation. Where the air infiltration rate of a *dwelling unit* is 5 air changes per hour or less where tested with a blower door at a pressure of 0.2 inch w.c (50 Pa) in accordance with Section N1102.4.1.2, the *dwelling unit* shall be provided with whole-house mechanical ventilation in accordance with Section M1505.4.

Mechanical ventilation IS NOT mandatory for all new home construction in Georgia as the following section of the IRC was amended in Georgia:

R303.4 Mechanical ventilation. Where the air filtration rate of a dwelling unit is **3** air changes per hour or less where tested with a blower door at a pressure of 0.2 inch w.c (50 Pa) in accordance with Section N1102.4.1.2, the dwelling unit shall be provided with whole-house mechanical ventilation in accordance with Section M1505.4

Georgia amendments to:

2015 IECC R402.1.2 Testing. All one and two-family dwelling units shall be tested and verified to less than 5 air changes per hour at 50 Pascals (ACH50) for Climates Zones 2,3,and 4. Testing shall be conducted in accordance with ASTM E 779 or ASTM E 1827 or ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.c (50 Pascals). A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creations of all penetrations of the building thermal envelope. Testing shall be conducted by a certified duct and envelope tightness (DET) verifier.

(Remainder of section left unchanged)

(Effective January 1, 2020)

Note: Catoosa County Building Official recommends that testing be performed by a third party.

**Test Results:
5 – 3.01 Pass
3 or Less – Passes
but shall require
whole-house
mechanical
ventilation**

CHAPTER 3

BUILDING PLANNING



R304.1 Minimum Habitable Room Area

2015 IRC

The requirement for one habitable room with a minimum floor area of 120 square feet has been removed from the code.

2018 IRC

No changes to section

R305 Ceiling Height

2015 IRC

The minimum ceiling height for bathrooms, toilet rooms and laundry rooms has been reduced to 6 feet 8 inches. The exception for allowing beams, girders, ducts or other obstructions to project to within 6 feet 4 inches of the finished floor has been expanded to include basements with habitable space.

2018 IRC

No changes to section

R306.5

2018 IRC Georgia New Section Addition

R306.5 Exterior hose bibs, sill cocks, or outside hydrants. One and two-family dwellings shall have not less than two exterior hose bibs, sill cocks or outside hydrants with one being located on the side or rear of the structure.
(Effective January1, 2020)

CHAPTER 3

BUILDING PLANNING



R308.4 Glazing Adjacent to Doors

2015 IRC

Glazing installed perpendicular to a door in a closed position and within 24 inches of the door only requires safety glazing if it is on the hinge side of the inward swinging door.

2018 IRC

Glazing within 24 inches of the hinge side of an in-swinging door now requires safety glazing where the glazing is at an angle less than 180 degrees from the plane of the door.

R308.4.4 Glazing in Guards and Railings

2018 IRC

Unless laminated glass is used, structural glass baluster panels in guards now require an attached top rail or handrail.

R308.4.5 Glazing and Wet Surfaces

2015 IRC

The exception for glazing that is 60 inches or greater from the water's edge of a bathtub, hot tub, spa, whirlpool, or swimming pool has been expanded to include glazing that is an equivalent distance from the edge of a shower, sauna, or steam room.

R308.4.7 Glazing Adjacent to the Bottom Stair Landing

2015 IRC

Glazing adjacent to the bottom stair landing is now defined as the area in front of the plane of the bottom tread.

2018 IRC

Figure R308.4.7 has been replaced with a new figure and the caption modified to more accurately reflect when safety glazing is required near the bottom landing.

***See the following three (3) slides for pictures clarifying these code sections**

R304.1 Minimum Habitable Room Area

2015

- Deletes 120 square foot minimum area



Small dwelling complying with minimum area requirements



2018 IRC Transition from the 2012 IRC

LEARNING center

R305 Ceiling Height

2015

- 6 feet 8 inches:
 - Bathrooms
 - Toilet rooms
 - Laundry rooms
- 6 feet, 4 inches all basements:
 - Beams
 - Girders
 - Ducts
 - Other obstructions



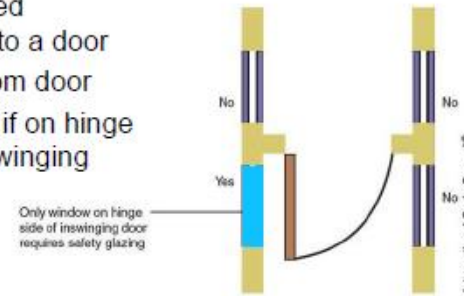
2018 IRC Transition from the 2012 IRC

LEARNING center

R308.4.2 Glazing Adjacent to Doors

2015

- Glazing installed perpendicular to a door
- < 24 inches from door
- Safety glazing if on hinge side of an in-swinging door



Windows adjacent and perpendicular to door



2018 IRC Transition from the 2012 IRC

LEARNING center

R308.4.2 Glazing Adjacent to Doors

2018

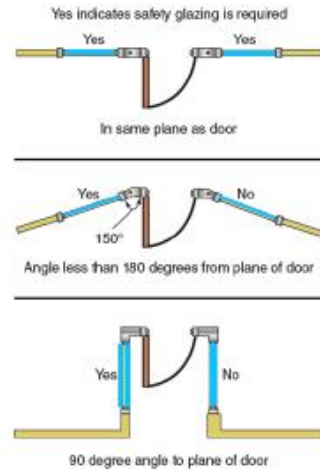


2018 IRC Transition from the 2012 IRC

LEARNING center

R308.4.2 Glazing Adjacent to Doors

2018



2018 IRC Transition from the 2012 IRC

LEARNING
center

R308.4.4 Glazing in Guards and Railings

2018



2018 IRC Transition from the 2012 IRC

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R308.4.4 Glazing in Guards and Railings

2018



Glass infill panels are not structural balusters



2018 IRC Transition from the 2012 IRC

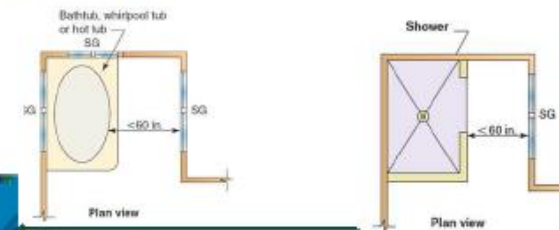
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R3804.5 Glazing and Wet Surfaces

2015

Not safety glazing when ≥ 60 in. from edge of

- Shower
- Sauna
- Steam room

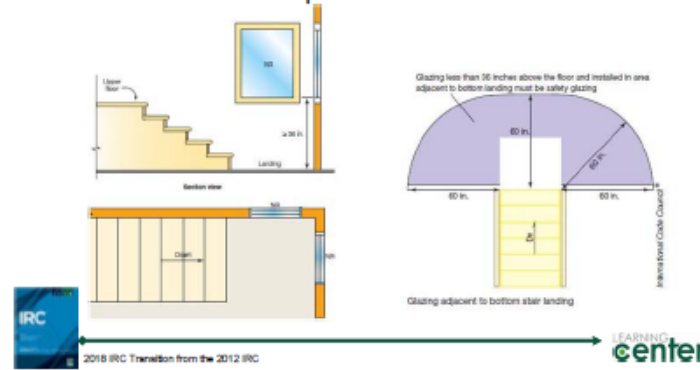


2018 IRC Transition from the 2012 IRC

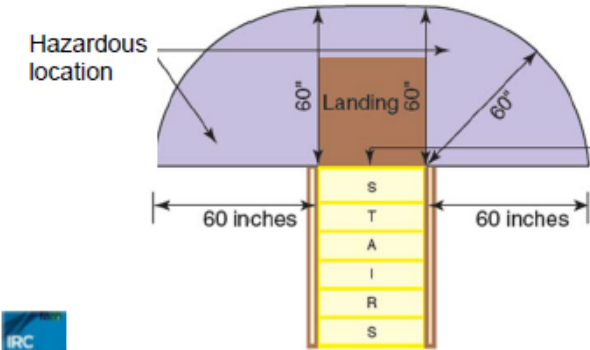
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R308.4.7 Glazing Adjacent to the Bottom Stair Landing 2015

- Area in front of the plane of the bottom tread.

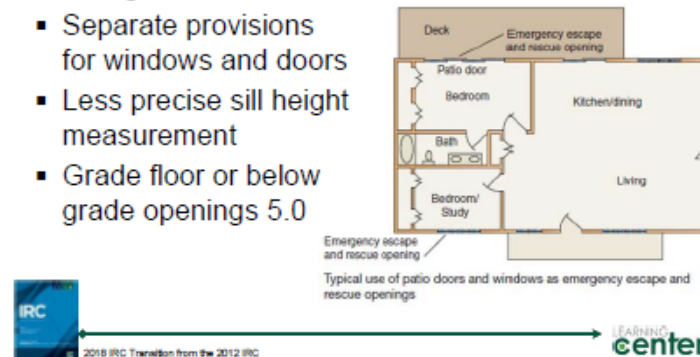


R308.4.7 Glazing Adjacent to the Bottom Stair Landing 2018

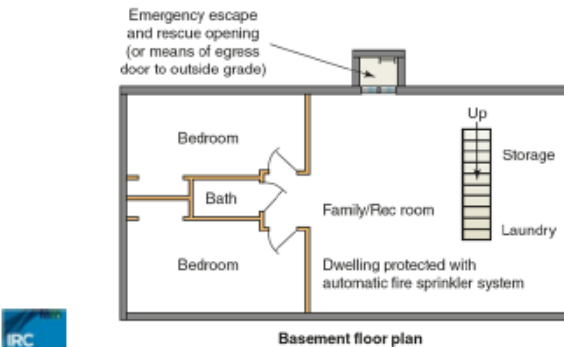


R310 Emergency Escape and Rescue Openings 2015

- Reorganized
- Separate provisions for windows and doors
- Less precise sill height measurement
- Grade floor or below grade openings 5.0



R310.1 Emergency Escape and Rescue Openings 2018



CHAPTER 3

BUILDING PLANNING



R311.7.3 Maximum Stair Rise between Landings

2015 IRC

Maximum vertical rise increased from 12 feet to 12 feet 3 inches

2018 IRC

Maximum vertical rise increased to 12 feet 7 inches

R314 Smoke Alarms

2015 IRC

Battery-operated smoke alarms are permitted for satisfying the smoke alarm power requirements when alteration, repairs and additions occur. Household fire alarm systems no longer require monitoring by an approved supervising station. New provisions address smoke alarms near bathrooms and cooking appliances

2018 IRC

The exemption for interconnection of alarms during alterations based on feasibility has been removed from the code

R315 Carbon Monoxide Alarms

2015 IRC

Carbon monoxide alarms now require connection to the house wiring system with battery backup. Exterior work such as, roofing, siding, windows, doors, and deck and porch additions no longer trigger carbon monoxide alarms for existing buildings. An attached garage is one criterion for requiring carbon monoxide alarms, but only if the garage has an opening into the dwelling. A carbon monoxide alarm is required in bedrooms when there is a fuel-fired appliance in the bedroom and adjoining bathroom.

2018 IRC

Interconnection is now required where multiple carbon monoxide alarms are required in a dwelling unit.

R315.2.1 New construction. For new construction, carbon monoxide alarms shall be provided in dwelling units where either or both of the following conditions exist.

1. The dwelling unit contains a fuel-fire appliance.
2. The dwelling unit has an attached garage with an opening that communicates with the dwelling unit.

Georgia Amendment:

R315.2.1 New construction. For new construction, carbon monoxide alarms shall be provided in dwelling units



CHAPTER 4

FOUNDATIONS



CHAPTER 4 FOUNDATIONS

R403.1.1 Minimum Footing Size

2015 IRC

Minimum Footing size and thickness is divided into three expanded tables based on the type of construction; light-frame, light-frame with veneer and concrete or masonry. The values are also based on the type of foundation; slab on grade, crawl space or basement.

R403.1.1 Minimum size. The minimum width, W, and thickness, T, for concrete footings shall be in accordance with Tables R403.1(1) through R403.1(3) and Figure R403.1(1) or R403.1.3, as applicable. The footing width shall be based on the load-bearing value of the soil in accordance with Table R401.4.1. Footing projections, P, shall be not less than 2 inches (51 mm) and shall not exceed the thickness of the footing. Footing thickness and projection for fireplaces shall be in accordance with Section R1001.2. The size of footings supporting piers and columns shall be based on the tributary load and allowable soil pressure in accordance with Table R401.4.1. Footings for wood foundations shall be in accordance with the details set forth in Section R403.2, and Figures R403.1(2) and R403.1(3). Footings for precast foundations shall be in accordance with the details set forth in Section R403.4, Table R403.4, and Figures R403.4(1) and R403.4(2).

TABLE R403.1(1) MINIMUM WIDTH AND THICKNESS FOR CONCRETE FOOTINGS FOR LIGHT-FRAME CONSTRUCTION (inches) ^{a, b}							
SNOW LOAD OR ROOF LIVE LOAD	STORY AND TYPE OF STRUCTURE WITH LIGHT FRAME	LOAD-BEARING VALUE OF SOIL (psf)					
		1500	2000	2500	3000	3500	4000
20 psf	1 story—slab-on-grade	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	1 story—with crawl space	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	1 story—plus basement	18 × 6	14 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	2 story—slab-on-grade	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	2 story—with crawl space	16 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	2 story—plus basement	22 × 6	16 × 6	13 × 6	12 × 6	12 × 6	12 × 6
	3 story—slab-on-grade	14 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	3 story—with crawl space	19 × 6	14 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	3 story—plus basement	25 × 8	19 × 6	15 × 6	13 × 6	12 × 6	12 × 6

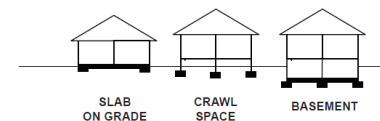
TABLE R403.1(2) MINIMUM WIDTH AND THICKNESS FOR CONCRETE FOOTINGS FOR LIGHT-FRAME CONSTRUCTION WITH BRICK VENEER (inches) ^{a, b}							
SNOW LOAD OR ROOF LIVE LOAD	STORY AND TYPE OF STRUCTURE WITH BRICK VENEER	LOAD-BEARING VALUE OF SOIL (psf)					
		1500	2000	2500	3000	3500	4000
20 psf	1 story—slab-on-grade	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	1 story—with crawl space	15 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	1 story—plus basement	21 × 6	15 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	2 story—slab-on-grade	15 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	2 story—with crawl space	20 × 6	15 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	2 story—plus basement	26 × 8	20 × 6	16 × 6	13 × 6	12 × 6	12 × 6
	3 story—slab-on-grade	20 × 6	15 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	3 story—with crawl space	26 × 8	19 × 6	15 × 6	13 × 6	12 × 6	12 × 6
	3 story—plus basement	32 × 11	24 × 7	19 × 6	16 × 6	14 × 6	12 × 6

TABLE R403.1(3) MINIMUM WIDTH AND THICKNESS FOR CONCRETE FOOTINGS WITH CAST-IN-PLACE CONCRETE OR FULLY GROUTED MASONRY WALL CONSTRUCTION (inches) ^{a, b}							
SNOW LOAD OR ROOF LIVE LOAD	STORY AND TYPE OF STRUCTURE WITH CMU	LOAD-BEARING VALUE OF SOIL (psf)					
		1500	2000	2500	3000	3500	4000
20 psf	1 story—slab-on-grade	14 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	1 story—with crawl space	19 × 6	14 × 6	12 × 6	12 × 6	12 × 6	12 × 6
	1 story—plus basement	25 × 8	19 × 6	15 × 6	13 × 6	12 × 6	12 × 6
	2 story—slab-on-grade	23 × 7	18 × 6	14 × 6	12 × 6	12 × 6	12 × 6
	2 story—with crawl space	29 × 9	22 × 6	17 × 6	14 × 6	12 × 6	12 × 6
	2 story—plus basement	35 × 12	26 × 8	21 × 6	17 × 6	15 × 6	13 × 6
	3 story—slab-on-grade	32 × 11	24 × 7	19 × 6	16 × 6	14 × 6	12 × 6
	3 story—with crawl space	38 × 14	28 × 9	23 × 6	19 × 6	16 × 6	14 × 6
	3 story—plus basement	43 × 17	33 × 11	26 × 8	22 × 6	19 × 6	16 × 6

For SI: 1 inch = 25.4 mm, 1 plf = 14.6 N/m, 1 pound per square foot = 47.9 N/m².

a. Interpolation allowed. Extrapolation is not allowed.

b. Based on 32-foot-wide house with load-bearing center wall that carries half of the tributary attic, and floor framing. For every 2 feet of adjustment to the width of the house, add or subtract 2 inches of footing width and 1 inch of footing thickness (but not less than 6 inches thick).



R403.1.1 Minimum Footing Size

2015

Conventional Light-Frame Construction				
Snow load	Type of foundation	Load bearing value of soil		
30 psf		1,500	2,000	2,500
1-story	Slab-on-grade	12 x 6	12 x 6	12 x 6
	With crawl space	13 x 6	12 x 6	12 x 6
	Plus basement	19 x 6	14 x 6	12 x 6
2-story	Slab-on-grade	12 x 6	12 x 6	12 x 6
	With crawl space	17 x 6	13 x 6	12 x 6
	Plus basement	23 x 6	17 x 6	14 x 6



2018 IRC Transition from the 2012 IRC

Learning center



Minimum Required Footing

2015

- Two-story house with slab on grade foundation:
 - Light-frame construction
 - Soil-bearing strength @ 1500 psf
 - Roof Live Load @ 20 psf
 - 32ft. wide building with interior load-bearing wall

Minimum Footing Width		
2012	2015	Smaller footing width allowed
15x6	12x6	



2018 IRC Transition from the 2012 IRC

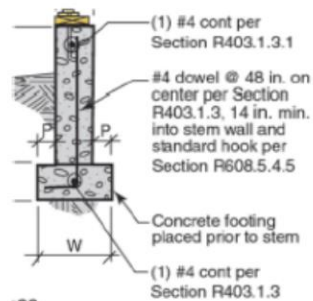


Slab on grade

R403.1.3 Footing and Stem Wall Reinforcing in Seismic Design Categories D₀, D₁, and D₂

2015

- Defines required reinforcing
- Updated figures



2018 IRC Transition from the 2012 IRC

Learning center

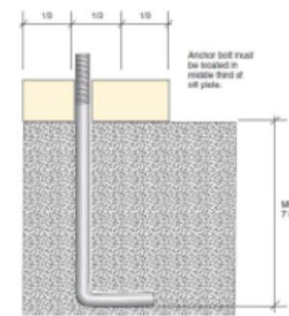
R403.1.6 Foundation Anchorage

2015

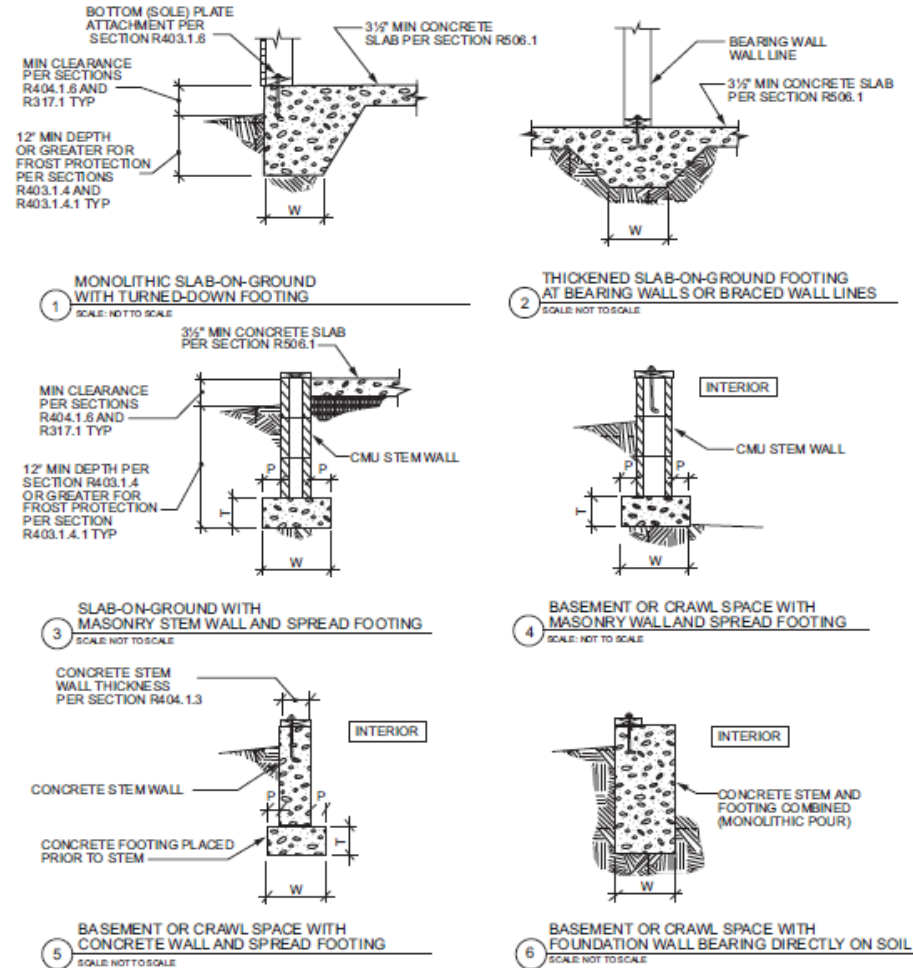
- Anchor bolts in the middle third of sill plate
- Measured to edge of bolt
- (Optimum 1 1/4 in.)



2018 IRC Transition from the 2012 IRC



Learning center



For SI: 1 inch = 25.4 mm.

W = Width of footing, T = Thickness of footing and P = Projection per Section R403.1.1.

NOTES:

- See Section R404.3 for sill requirements.
- See Section R403.1.6 for sill attachment.
- See Section R506.2.3 for vapor barrier requirements.
- See Section R403.1 for base.
- See Figure R403.1.3 for additional footing requirements for structures in SDC D₀, D₁ and D₂ and townhouses in SDC C.
- See Section R408 for under-floor ventilation and access requirements.

CHAPTER 4 FOUNDATIONS

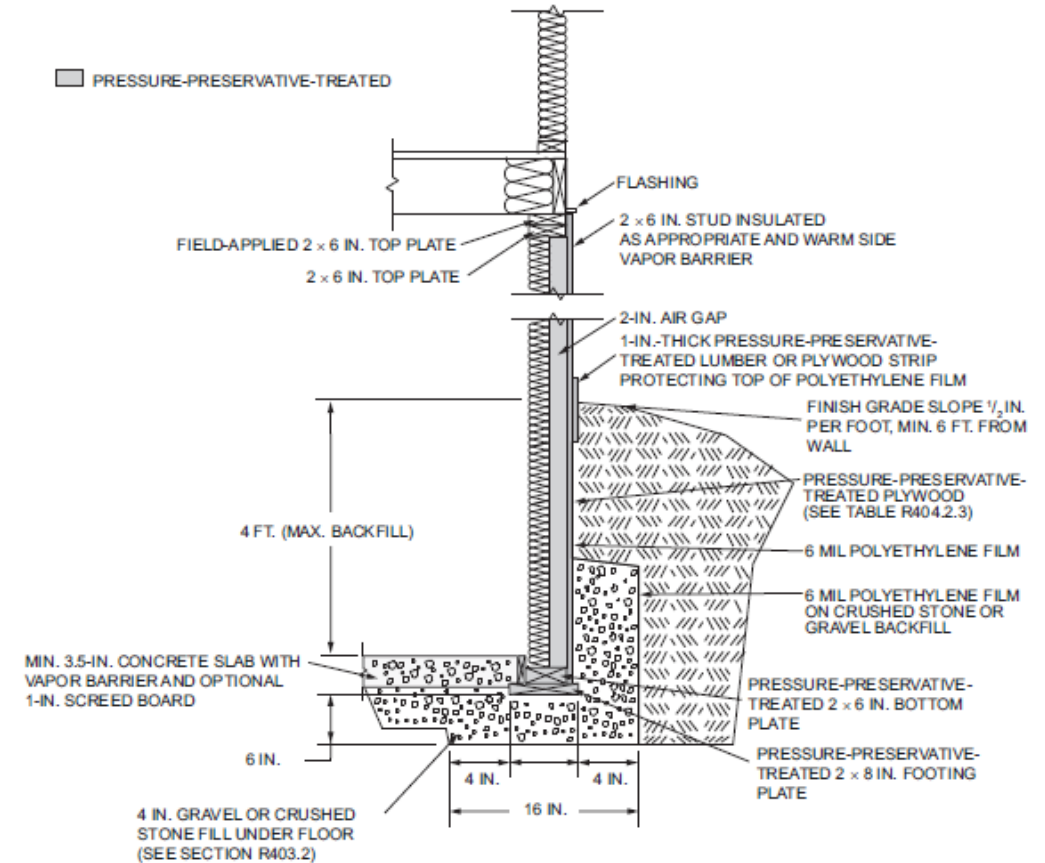


FIGURE R403.1(1)

PLAIN CONCRETE FOOTINGS WITH MASONRY AND CONCRETE STEM WALLS IN SDC A, B AND C^{a,b,c,d,e,f}

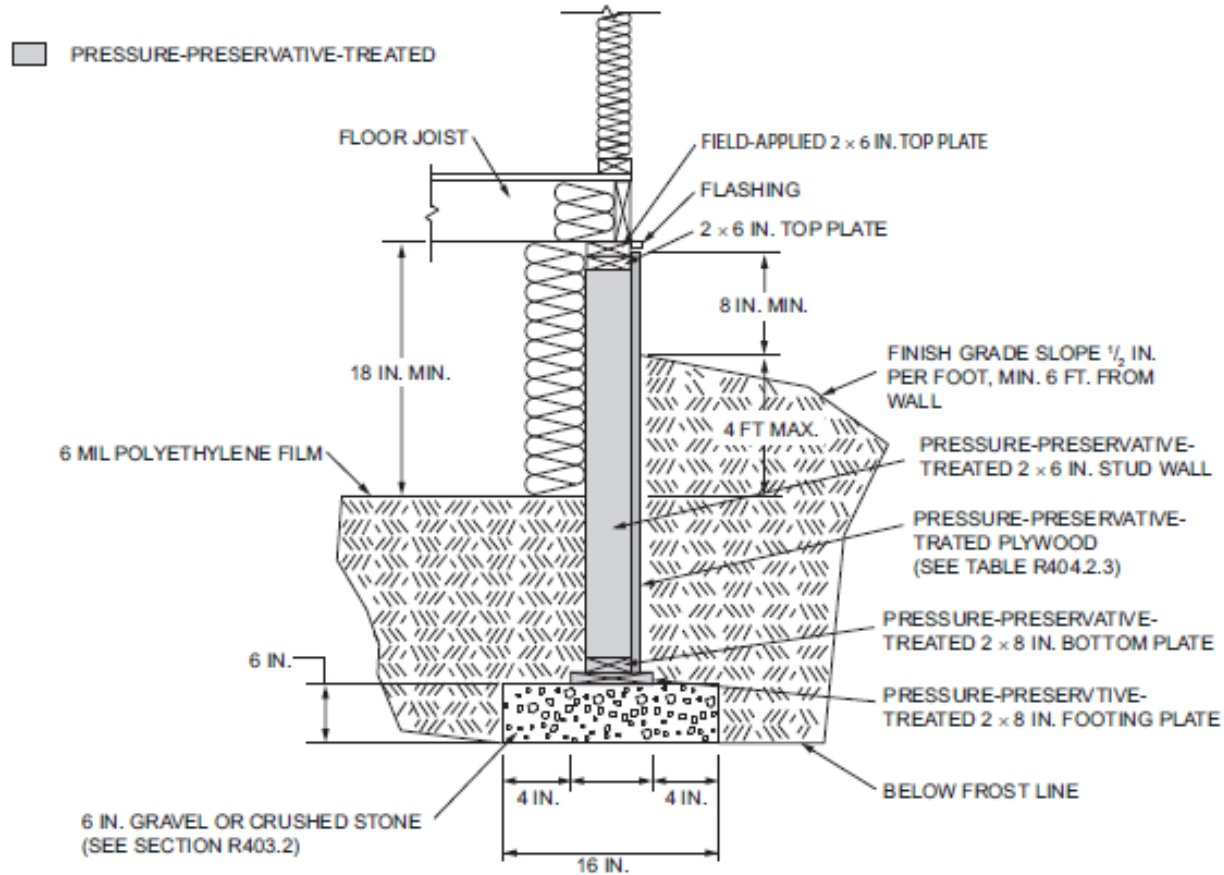


CHAPTER 4 FOUNDATIONS



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mil = 0.0254.

FIGURE R403.1(2)
PERMANENT WOOD FOUNDATION BASEMENT WALL SECTION



CHAPTER 4 FOUNDATIONS

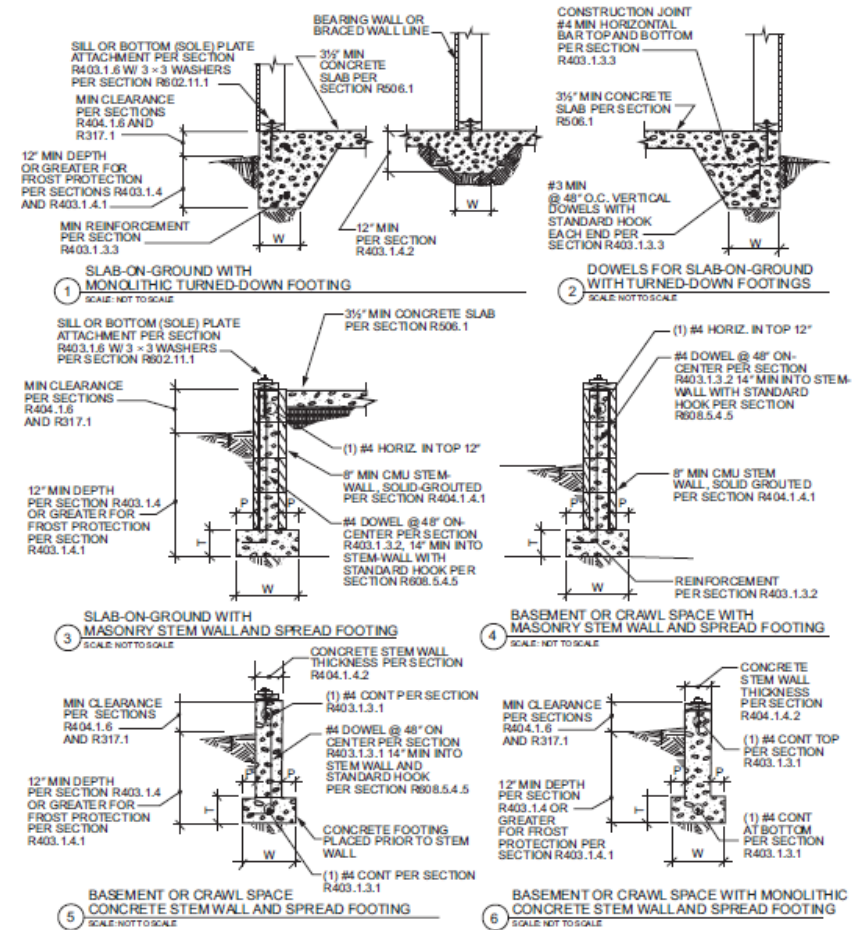


For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mil = 0.0254 mm.

FIGURE R403.1(3)
PERMANENT WOOD FOUNDATION CRAWL SPACE SECTION



CHAPTER 4 FOUNDATIONS

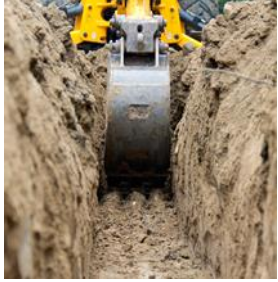


W = Width of footing, T = Thickness of footing and P = Projection per Section R403.1.1

NOTES:

- See Section R404.3 for sill requirements.
- See Section R403.1.6 for sill attachment.
- See Section R506.2.3 for vapor barrier requirements.
- See Section R403.1 for base.
- See Section R408 for under-floor ventilation and access requirements.
- See Section R403.1.3.5 for reinforcement requirements.

FIGURE R403.1.3
REINFORCED CONCRETE FOOTINGS AND MASONRY AND CONCRETE STEM WALLS IN SDC D₀, D₁, AND D₂

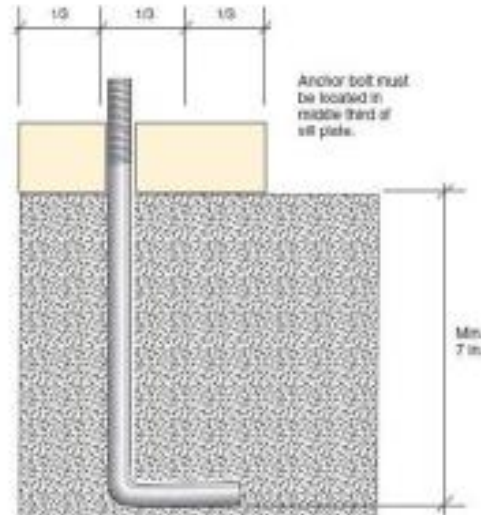


CHAPTER 4 FOUNDATIONS

R403.1.6 Foundation Anchorage

2015 IRC

Anchor bolts are now required to be placed in the middle third of the width of the sill plate. Approved anchors may be used instead of $\frac{1}{2}$ inch anchor bolts.



R403.1.6 Foundation anchorage. Wood sill plates and wood walls supported directly on continuous foundations shall be anchored to the foundation in accordance with this section.

Cold-formed steel framing shall be anchored directly to the foundation or fastened to wood sill plates in accordance with Section R505.3.1 or R603.3.1, as applicable. Wood sill plates supporting cold-formed steel framing shall be anchored to the foundation in accordance with this section.

Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of *braced wall panels* at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with minimum $\frac{1}{2}$ -inch-diameter (12.7 mm) anchor bolts spaced not greater than 6 feet (1829 mm) on center or *approved* anchors or anchor straps spaced as required to provide equivalent anchorage to $\frac{1}{2}$ -inch-diameter (12.7 mm) anchor bolts. Bolts shall extend not less than 7 inches (178 mm) into concrete or grouted cells of concrete masonry units. The bolts shall be located in the middle third of the width of the plate. A nut and washer shall be tightened on each anchor bolt. There shall be not fewer than two bolts per plate section with one bolt located not more than 12 inches (305 mm) or less than seven bolt diameters from each end of the plate section. Interior bearing wall sole plates on monolithic slab foundation that are not part of a *braced wall panel* shall be positively anchored with *approved* fasteners. Sill plates and sole plates shall be protected against decay and termites where required by Sections R317 and R318.

Exceptions:

1. Walls 24 inches (610 mm) total length or shorter connecting offset braced wall panels shall be anchored to the foundation with not fewer than one anchor bolt located in the center third of the plate section and shall be attached to adjacent braced wall panels at corners as shown in Item 9 of Table R602.3(1).
2. Connection of walls 12 inches (305 mm) total length or shorter connecting offset *braced wall panels* to the foundation without anchor bolts shall be permitted. The wall shall be attached to adjacent braced wall panels at corners as shown in Item 9 of Table R602.3(1).

CHAPTER 4

FOUNDATIONS



R404.4 **Retaining** **Walls**

2015 IRC

Retaining walls, freestanding walls not supported at the top, with more than 48 inches of unbalanced backfill must be designed by an engineer. Retaining wall resisting additional lateral loads and with more than 24 inches of unbalanced backfill must also be designed in accordance with accepted engineering practice

2018 IRC

No changed to section

R408.3 **Unvented** **Crawl Space**

2018 IRC

Ventilation of the under-floor space is not required when an adequately-sized dehumidifier is provided.



Table R403.4 Crushed Stone Footings

2018



2018 IRC Transition from the 2012 IRC

center

R404.4 Retaining Walls

2015

- Retaining walls > 24 48 in. of unbalanced backfill designed in accordance with accepted engineering practice (consistent with R404.1.3)
- > 24 in. if resisting additional lateral loads
- Freestanding walls not supported at top
- Not supporting buildings



2018 IRC Transition from the 2012 IRC

center

R408.3 Unvented Crawl Space

2018



2018 IRC Transition from the 2012 IRC

center



CHAPTER 5

FLOORS



CHAPTER 5

FLOORS

R502 WOOD FLOOR FRAMING

R502.6 Bearing

2018 IRC

R502.6 Bearing. The ends of each joist, beam or girder shall have not less than 1 ½ inches of bearing on wood or metal, have not less than 3 inches of bearing on masonry or concrete or be supported by approved hangers. Alternatively, the ends of joist shall be supported on a 1 inch by 4 inch ribbon strip and shall be nailed to the adjacent stud. The bearing on masonry or concrete shall be direct, or a sill plate of 2 inch minimum nominal thickness shall be provided under the joist, beam or girder. The sill plate shall provide a minimum nominal bearing area of 48 square inches.

2018 IRC – Georgia Amendment

R502.6 Bearing. The ends of each joist, beam or girder shall have not less than 1 ½ inches of bearing on wood or metal, have not less than 3 inches of bearing on masonry or concrete or be supported by approved hangers. Alternatively, the ends of joist shall be supported on a 1 inch by 4 inch ribbon strip and shall be nailed to the adjacent stud. The bearing on masonry or concrete shall be direct, or a sill plate of 2 inch minimum nominal thickness shall be provided under the joist, beam or girder.

(Effective January 01, 2020)



CHAPTER 5

FLOORS

R507 EXTERIOR DECKS

R507.3 Deck Footings

2018 IRC

A new section on footing minimum size is added to help describe minimum prescriptive (non-engineered) requirements for an exterior deck footing based on snow load, soil quality, and footing shape and size.

R507.4 Deck Post

2015 IRC

(R507.8) the code establishes minimum sizes of wood post supporting wood decks and describes the requirements for connection of deck post to footing.

2018 IRC

Information on deck post moves to the middle of Section R507 as topics flow in the order of construction sequence. The section has been clarified adding additional prescriptive or non-engineered options.

R507.5 Deck Beams

2015 IRC

(R507.6, R507.7) The code establishes minimum deck beam spans in a new table. Prescriptive beam to post connection details are provided.

2018 IRC

The table on maximum beam span now includes single-ply beams. Beam bearing and connection post are clarified.

R507.6 Deck Joist

2015 IRC

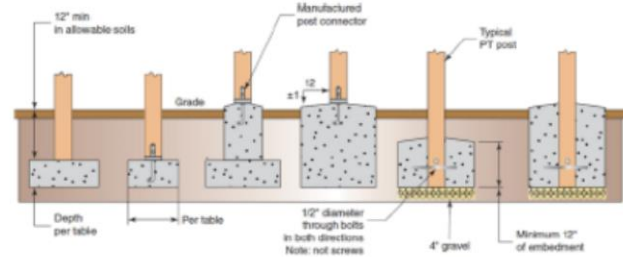
(R507.5) the code establishes maximum deck joist spans in a new table that includes materials common to deck construction.

2018 IRC

Maximum deck joist spacing and total length have been clarified in Table R507.6, maximum span length is listed followed by maximum cantilever length.

R507.3 Deck Footings

2018



Note: Posts must be centered on or in footings.



2018 IRC Transition from the 2012 IRC

center

R507.4 Deck Posts

2015 & 2018

Deck post size	Beam plies	Maximum height (ft. – in.)
4 x 4	3 or more	6-9
4 x 4	1 or 2	8
4 x 6		8
6 x 6		14
8 x 8		14

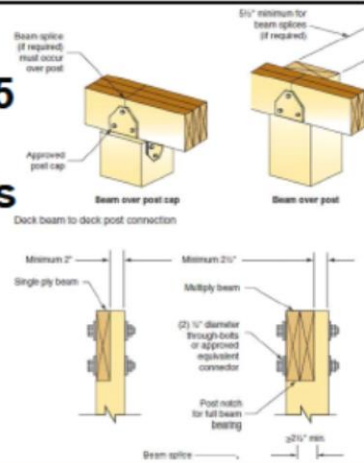


2018 IRC Transition from the 2012 IRC

center

R507.5 Deck Beams

2015 & 2018

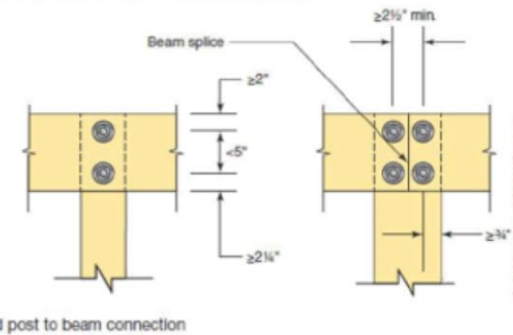


2018 IRC Transition from the 2012 IRC

center

R507.5 Deck Beams

2018



Notched post to beam connection



2018 IRC Transition from the 2012 IRC

center

© International Code Council

R507.6 Deck Joists

2015 & 2018

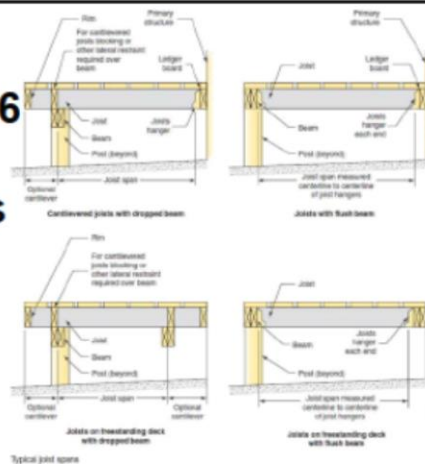


2018 IRC Transition from the 2012 IRC

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R507.6 Deck Joists

2018



2018 IRC Transition from the 2012 IRC

center

R507.7-R507.9 Decking, Vertical and Lateral Supports

2015 & 2018



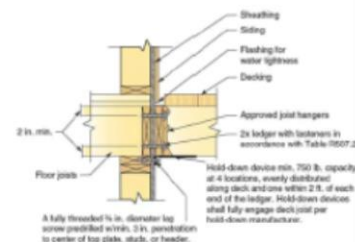
2018 IRC Transition from the 2012 IRC

R507.9.2 Alternative Deck Lateral Load Connection

2015

Optional Connections

- Figure 507.2.3(1):
 - Two hold-down devices ≤ 2 ft of the ends of the deck
- Figure 507.2.3(1):
 - Four hold-downs installed below the deck structure



2018 IRC Transition from the 2012 IRC

center



CHAPTER 5

FLOORS

R507

EXTERIOR

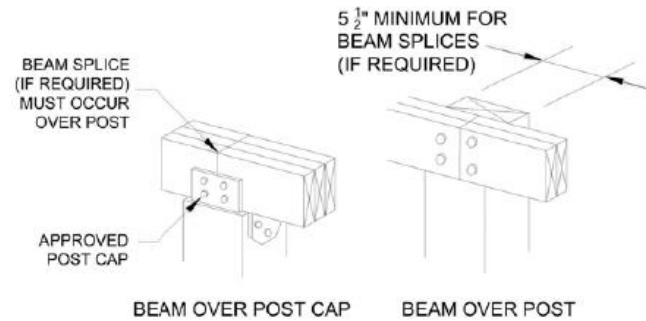
DECKS



CHAPTER 5

SECTION R507 – EXTERIOR DECKS

GEORGIA AMENDMENTS

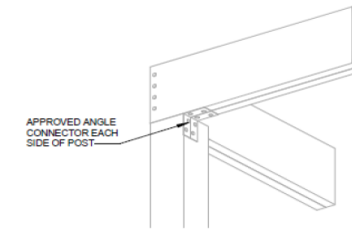


For SI: 1 inch = 25.4 mm.

FIGURE R507.5.1(1)
DECK BEAM TO DECK POST

SECTION R507 EXTERIOR DECKS

* Revise Figure R507.5.1(1) 'DECK BEAM TO DECK POST' to include a new illustration for "Corner Beam Over Post" as follows:



CORNER BEAM OVER POST

(Effective January 1, 2020)

CHAPTER 5

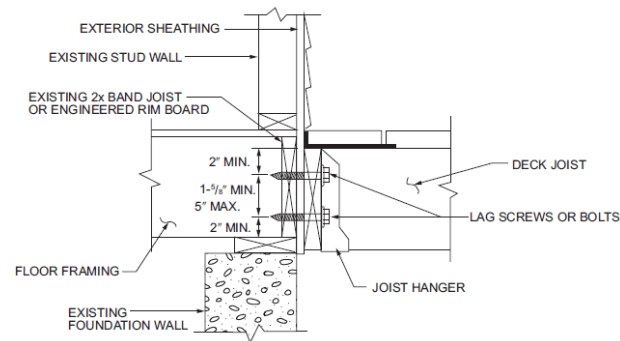
SECTION R507 – EXTERIOR DECKS

GEORGIA AMENDMENTS



R507.9.1.3 Ledger to band joist details. Fasteners used in deck ledger connections in accordance with Table R507.9.1.3(1) shall be hot-dipped galvanized or stainless steel and shall be installed in accordance with Table R507.9.1.3(2) and Figures R507.9.1.3(1) and R507.9.1.3(2).

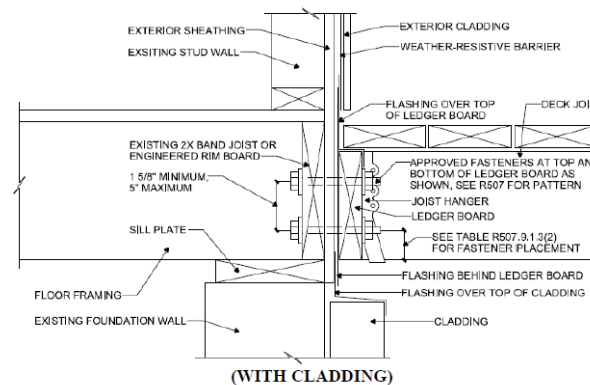
R507.9.1.3 Ledger to band joist details. Fasteners used in deck ledger connections in accordance with Table R507.9.1.3(1) shall be hot-dipped galvanized, stainless steel, or other approved fasteners and shall be installed in accordance with Table R507.9.1.3(2) and Figures R507.9.1.3(1) and R507.9.1.3(2).
(Effective January 1, 2020)



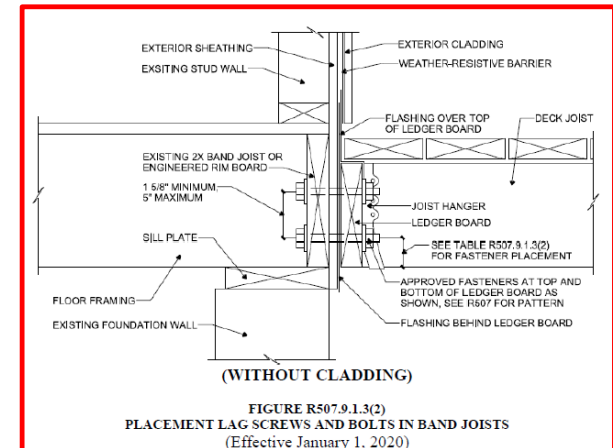
For SI: 1 inch = 25.4 mm.

FIGURE R507.9.1.3(2)
PLACEMENT OF LAG SCREWS AND BOLTS IN BAND JOISTS

*Revise Figure R507.9.1.3 (2) 'Placement of Lag Screws and Bolts in Band Joists' as follows:



(WITH CLADDING)



(WITHOUT CLADDING)

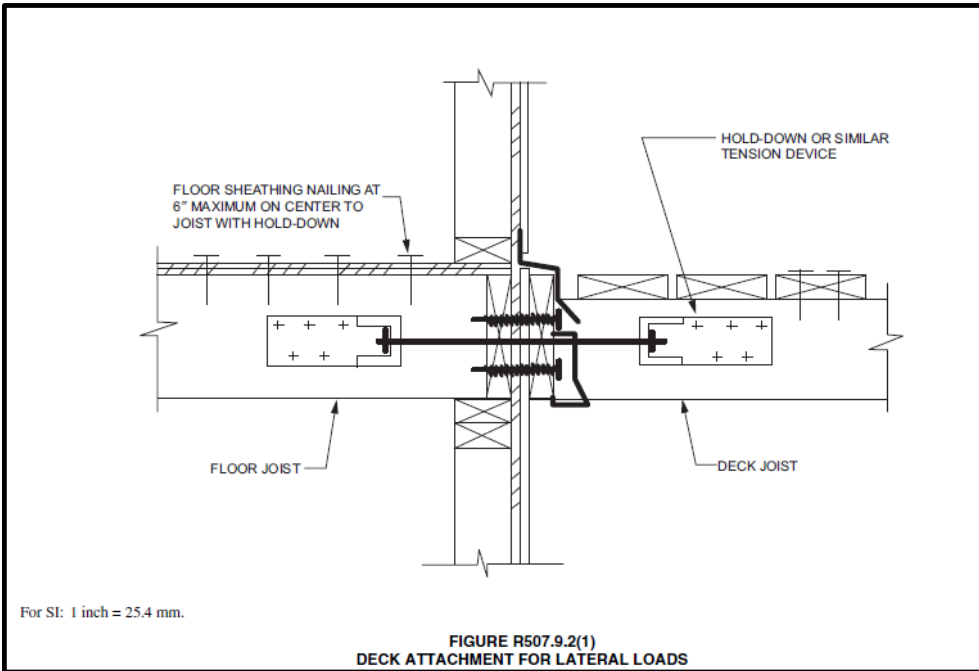
FIGURE R507.9.1.3(2)
PLACEMENT LAG SCREWS AND BOLTS IN BAND JOISTS
(Effective January 1, 2020)



CHAPTER 5

SECTION R507 – EXTERIOR DECKS

GEORGIA AMENDMENTS



* Revise Figure R507.9.2(1) 'Deck Attachment for Lateral Loads' as follows:

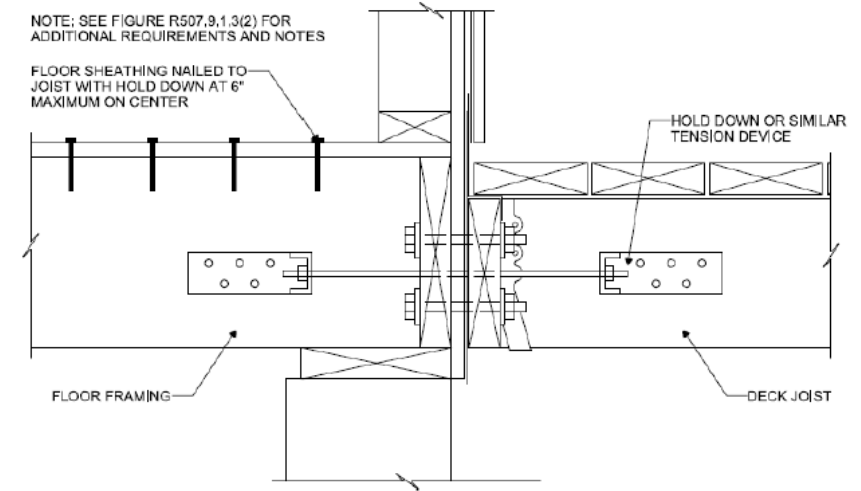


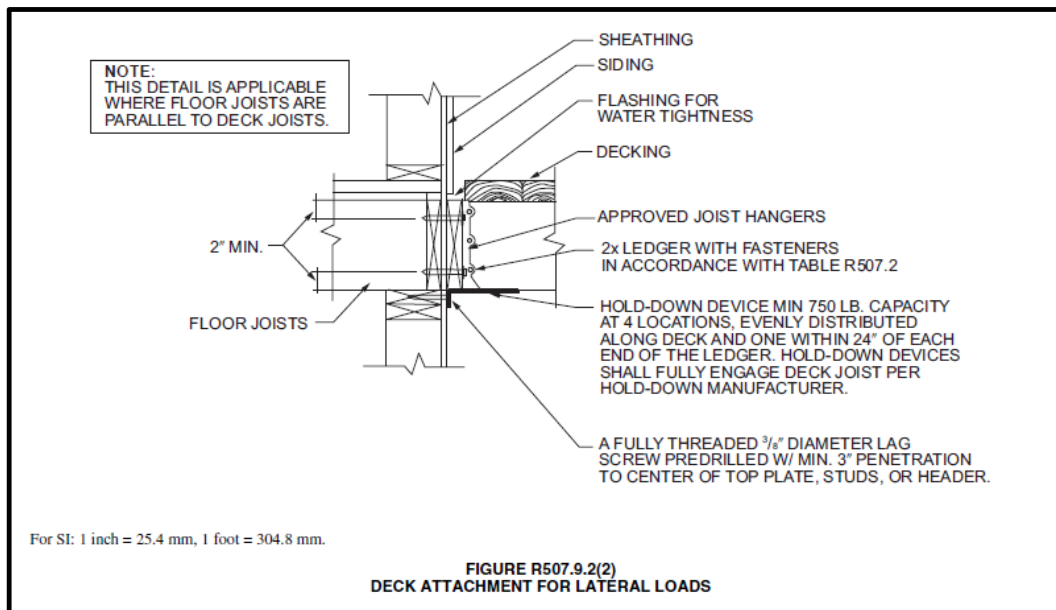
FIGURE R507.9.2(1)
DECK ATTACHMENT FOR LATERAL LOADS
(Effective January 1, 2020)



CHAPTER 5

SECTION R507 – EXTERIOR DECKS

GEORGIA AMENDMENTS



*Revise Figure R507.9.2(2) 'Deck Attachment for Lateral Loads' and as follows:

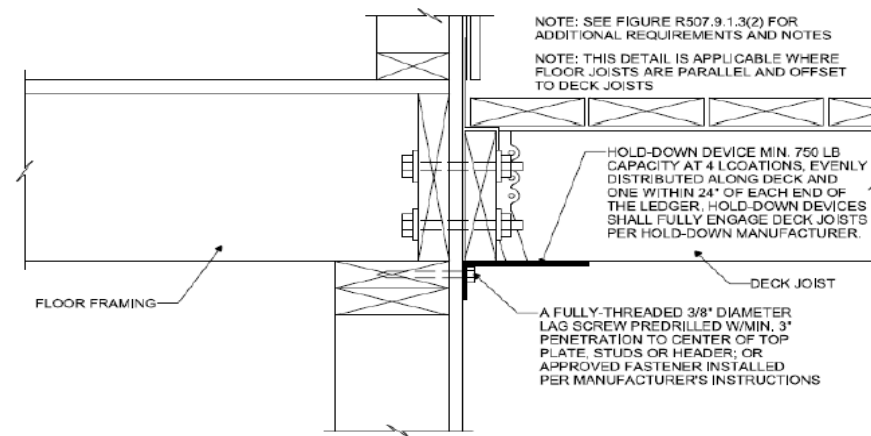


FIGURE R507.9.2(2)
DECK ATTACHMENT FOR LATERAL LOADS
(Effective January 1, 2020)



CHAPTER 6

WALL

CONSTRUCTION



CHAPTER 6

WALL CONSTRUCTION

R602.7.1 Tables R602.7(1), R602.7(2) Girder and Header Spans

2015 IRC

The girder and header span tables of Chapter 5 [Tables R502.5(1), R502.5(2)] have been moved to Chapter 6, to the header section. Multi-ply and single header tables are combined. A new section describing rim board headers and a section for headers of open porches have been added.

2018 IRC

Girder and header spans are updated assuming No. 2 Southern Pine rather than No. 1 Southern Pine as used in the 2015 IRC. A footnote has been added to clarify that headers and girders are assumed to be braced; for headers with pony walls above, a further reduction in span is taken for 2x8 and larger headers.

Table R602.7.5 Support for Headers

2015 IRC

New Table R602.7.5 specifies the minimum number of full-height studs at the end of each header based on header span and stud spacing.

2018 IRC

The 2015 IRC full height stud table is significantly altered. The minimum number of full-height studs at the end of each header is based on the header span, wind speed and wind exposure category. The table increases the number of king studs in higher wind regions and requires only one or two king studs at each end of a header in regions with 115 mph wind speeds and wind exposure category B.

Tables R602.7(1), R602.7(2) 2018 Girder and Header Spans

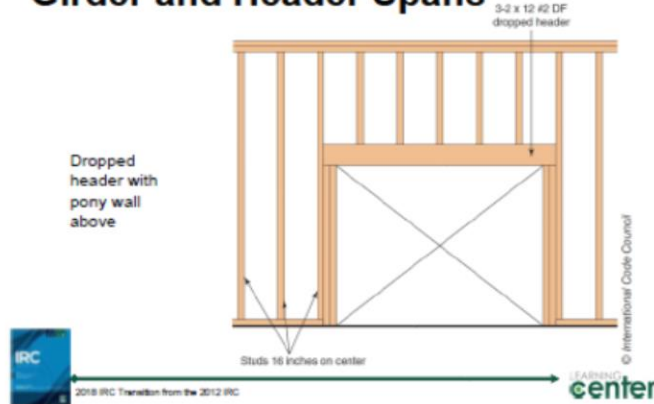
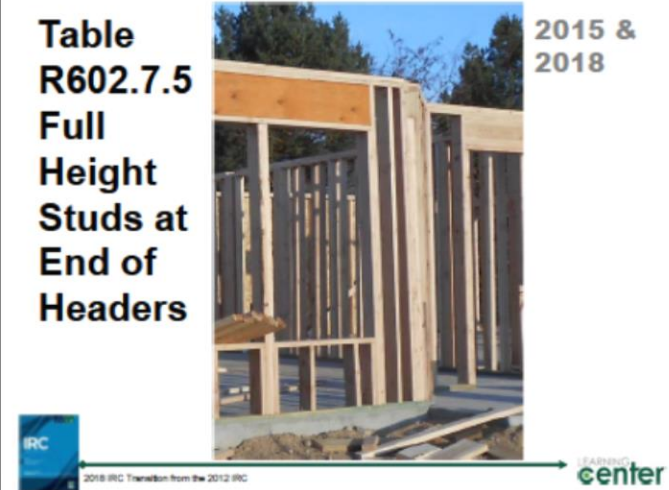


Table R602.7.5 Full Height Studs at End of Headers



Wall Bracing

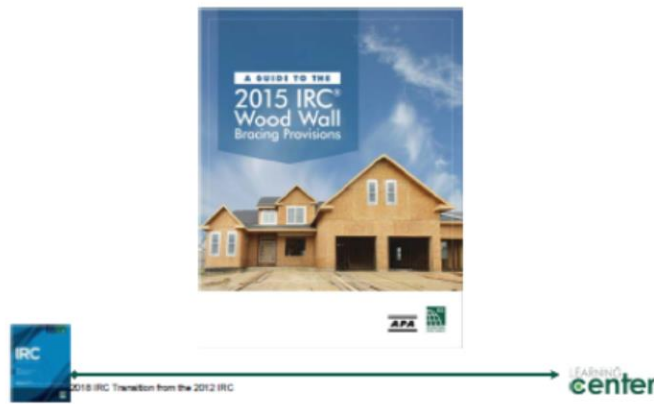


Table R602.10.3 (4) Seismic Adjustment Factors



CHAPTER 6

WALL CONSTRUCTION

GEORGIA AMENDMENT



R602.10 Wall bracing. Buildings shall be braced in accordance with this section or, when applicable, Section R602.12. Where a building, or portion thereof, does not comply with one or more of the bracing requirements in this section, those portions shall be designed and constructed in accordance with Section R301.1.

*Add new exception to R602.10 'Wall bracing' to read as follows:

R602.10 Wall bracing. Buildings shall be braced in accordance with this section or, when applicable, Section R602.12. Where a building, or portion thereof, does not comply with one or more of the bracing requirements in this section, those portions shall be designed and constructed in accordance with Section R301.1.

Exception: APA Simplified Wall Bracing Method, SR-102 may be used as an alternate method of wall bracing subject to limitations in document.
(Effective January 1, 2020)



CHAPTER 7

WALL

COVERING



CHAPTER 7

WALL COVERING

R703.2 **Water** **Resistive** **Barrier**

2018 IRC

Water-resistive barrier materials other than No. 15 asphalt must be installed following the manufacture's installation instructions. The exemption for detached accessory building is deleted.

R703.3.1 **Soffit** **Installations**

2018 IRC

Requirements for wood structural panel soffits are added to section R703.3.1 and vinyl soffit requirement are clarified.

R703.11 **Vinyl** **Siding**

2015 IRC

Nailing penetrations and spacing requirements are clarified for horizontal and vertical vinyl siding.

2018 IRC

Testing has been done on vinyl siding over insulation in an attempt to determine fastener requirements for vinyl siding attachment in high wind regions. New Table R703.11.2 gives design wind pressure for vinyl siding resisting all wind loads without reliance on wood structural panel sheathing.

MANUFACTURES INSTALLATION INSTRUCTIONS

Note: This illustration is for information purposes only.
The County does not recommend any specific brand of house wrap

DuPont™ Tyvek® WRB Installation

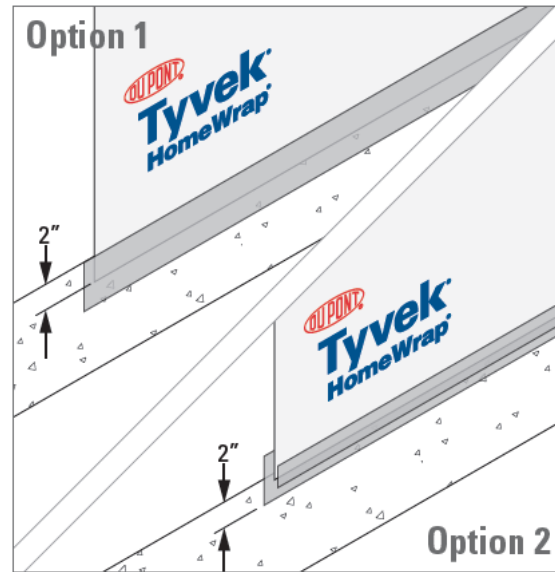
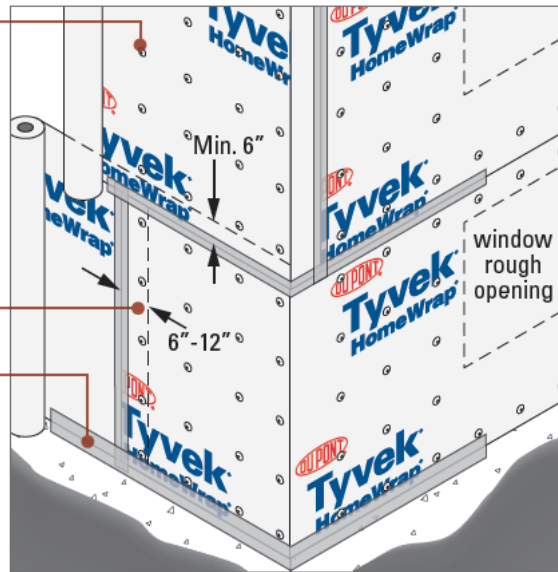
Fasteners installed directly to studs and spaced 6-18" per schedule.

- DuPont™ Tyvek® Wrap Cap nails, screws, or staples
- Other cap staples for Stinger™ Cap Stapler
- Other manufacturers' equivalent fasteners
- No fasteners within 6" of window sill and jambs and 9" of window head.

Vertical overlaps 6"-12" and horizontal overlaps min. 6".
All vertical seams taped with DuPont™ Tyvek® Tape.

DuPont™ Tyvek® WRB at bottom of wall

- Extends over sill plate interface by 2", or
- Extends to bottom of sill plate for slab on grade foundations, or
- Integrates with metal flashing or weep screed when present, or
- Extends over sill plate interface by min. 1" when sealed or skip-sealed with DuPont™ Tyvek® Tape, DuPont™ Self-Adhered Flashing Systems products, or DuPont™ Residential Sealant



Bottom of Wall Examples

Option 1: Seal DuPont™ Tyvek® WRB onto foundation with DuPont™ Self-Adhered Flashing product

Option 2: Seal DuPont™ Tyvek® WRB onto DuPont™ Self-Adhered Flashing product using DuPont™ Tyvek® Tape

For Air Barrier installations:

All horizontal seams taped

- 3" Tape for DuPont™ Tyvek® StuccoWrap®, DrainWrap™, CommercialWrap® and CommercialWrap® D
- 2" Tape for DuPont™ Tyvek® HomeWrap®

Seal all terminations at top and bottom of wall.

- Install ¼" bead of DuPont™ Residential Sealant 2-3" from edges, or
- Terminate with DuPont™ Tyvek® Tape, DuPont™ StraightFlash™, or DuPont™ Flashing Tape (DuPont™ Residential Sealant, DuPont™ StraightFlash™ or DuPont™ Flashing Tape with DuPont™ Adhesive/Primer for concrete and wood, or other rough surfaces)



CHAPTER 8 ROOF-CEILING CONSTRUCTION



CHAPTER 8

ROOF-CEILING CONSTRUCTION

R802 Roof Framing

R802.1.5.4 Labeling

Tables R802.4, R802.5 Ceiling Joist and Rafters

R806 Attic Ventilation

2018 IRC

Section R802. Design and construction of roof framing have been clarified by dividing the content into three separate sections on roof ridges, rafters and ceiling joist.

2018 IRC

Each stick of fire-retardant-treated lumber and individual wood structural panel will be labeled with eight specific items on information.

2015 IRC

Changes to Southern Pine, Douglas Fir-Larch and Hemlock-Fir capacities have changed the maximum spans for lumber in ceiling joist and rafter span tables of the 2015 International Residential Code.

2015 IRC

The exception allowing the building official to waive ventilation requirements due to atmospheric or climate conditions has been deleted.

2018 IRC

The minimum vent area exception is clarified, stating that net free ventilation may be less than 1/150 only if two required conditions are met. Lower vents must be located in the bottom third of the attic space.

CHAPTER 8

ROOF-CEILING CONSTRUCTION

GEORGIA AMENDMENTS



R806.5 Unvented attic and unvented enclosed rafter assemblies. Unvented *attics* and unvented enclosed roof framing assemblies created by ceilings that are applied directly to the underside of the roof framing members and structural roof sheathing applied directly to the top of the roof framing members/rafters, shall be permitted where all the following conditions are met:

1. The unvented *attic* space is completely within the *building thermal envelope*.
2. Interior Class I vapor retarders are not installed on the ceiling side (*attic* floor) of the unvented *attic* assembly or on the ceiling side of the unvented enclosed roof framing assembly.
3. Where wood shingles or shakes are used, a minimum $\frac{1}{4}$ -inch (6.4 mm) vented airspace separates the shingles or shakes and the roofing underlayment above the structural sheathing.
4. In Climate Zones 5, 6, 7 and 8, any *air-impermeable insulation* shall be a Class II vapor retarder, or shall have a Class II vapor retarder coating or covering in direct contact with the underside of the insulation.
5. Insulation shall comply with Item 5.3 and either Item 5.1 or 5.2:

5.2. In Climate Zones 1, 2 and 3, air-permeable insulation installed in unvented *attics* shall meet the following requirements:

- 5.2.1. An approved *vapor diffusion port* shall be installed not more than 12 inches (305 mm) from the highest point of the roof, measured vertically from the highest point of the roof to the lower edge of the port.
- 5.2.2. The port area shall be greater than or equal to 1:600 of the ceiling area. Where there are multiple ports in the attic, the sum of the port areas shall be greater than or equal to the area requirement.
- 5.2.3. The vapor-permeable membrane in the *vapor diffusion port* shall have a vapor permeance rating of greater than or equal to 20 perms when tested in

accordance with Procedure A of ASTM E96.

- 5.2.4. The *vapor diffusion port* shall serve as an air barrier between the *attic* and the exterior of the building.
- 5.2.5. The *vapor diffusion port* shall protect the *attic* against the entrance of rain and snow.
- 5.2.6. Framing members and blocking shall not block the free flow of water vapor to the port. Not less than a 2-inch (51 mm) space shall be provided between any blocking and the roof sheathing. Air-permeable insulation shall be permitted within that space.
- 5.2.7. The roof slope shall be greater than or equal to 3:12 (vertical/horizontal).
- 5.2.8. Where only air-permeable insulation is used, it shall be installed directly below the structural roof sheathing.
- 5.2.9. *Air-impermeable insulation*, if any, shall be directly above or below the structural roof sheathing and is not required to meet the *R*-value in Table 806.5. Where directly below the structural roof sheathing, there shall be no space between the *air-impermeable insulation* and air-permeable insulation.
- 5.2.10. The air shall be supplied at a flow rate greater than or equal to 50 CFM (23.6 L/s) per 1,000 square feet (93 m²) of ceiling. The air shall be supplied from ductwork providing supply air to the occupiable space when the conditioning system is operating. Alternatively, the air shall be supplied by a supply fan when the conditioning system is operating.

SECTION R806

ROOF VENTILATION

*Delete R806.5 'Unvented attic and unvented enclosed rafter assemblies' Item 5.2 without substitution.
(Effective January 1, 2020)



CHAPTER 8

ROOF-CEILING CONSTRUCTION

GEORGIA AMENDMENTS

SECTION R807 ATTIC ACCESS

R807.1 Attic access. Buildings with combustible ceiling or roof construction shall have an *attic* access opening to *attic* areas that have a vertical height of 30 inches (762 mm) or greater over an area of not less than 30 square feet (2.8 m²). The vertical height shall be measured from the top of the ceiling framing members to the underside of the roof framing members.

The rough-framed opening shall be not less than 22 inches by 30 inches (559 mm by 762 mm) and shall be located in a hallway or other location with *ready access*. Where located in a wall, the opening shall be not less than 22 inches wide by 30 inches high (559 mm wide by 762 mm high). Where the access is located in a ceiling, minimum unobstructed headroom in the *attic* space shall be 30 inches (762 mm) at some point above the access measured vertically from the bottom of ceiling framing members. See Section M1305.1.3 for access requirements where mechanical *equipment* is located in *attics*.

SECTION R807 ATTIC ACCESS

Add new Section R807.1.1 'Attic service access' to read as follows:

R807.1.1 Attic service access. Attics containing appliances or mechanical equipment service shall be accessible by pull down stairs or other permanent steps and at a minimum be sized to allow the removal of the largest appliance.
(Effective January 1, 2020)



CHAPTER 10 CHIMNEYS AND FIREPLACES



CHAPTER 10

CHIMNEYS AND FIREPLACES

R1005.8
Chimney
Insulation
Shield

2018 IRC

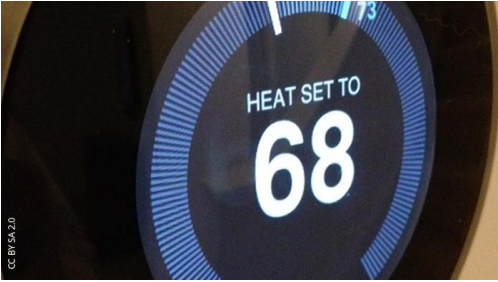
Factory-built chimneys, which have been required to maintain a minimum clearance to insulation are now required to have an insulation shield to provide the clearance to the insulation.



CHAPTER 11

ENERGY

EFFICIENCY



CHAPTER 11

ENERGY EFFICIENCY

N1101.6
Definitions:
Air Barrier
Building
Thermal
Envelope
Fenestration

N1101.14
Permanent
Energy
Certificate

Tables
N1102.1.2,
N1102.1.4
Insulation and
Fenestration
Requirements

2015 IRC

The code now requires the energy certificate to be placed on a wall in proximity to the furnace, in a utility room or in another approved location inside the building.

2018 IRC

The definition for air barrier has been revised to clarify that it is always continuous. The revised definition for building thermal envelope clarifies that it is an assembly of materials creating a boundary between conditioned and unconditioned space. The definitions for skylights and vertical fenestration have been moved under the definition for fenestration, and a definition for opaque door has been added.

2018 IRC

The prescriptive U-factors for fenestration have been lowered in Climate Zone 3 through 8 to improve the energy efficiency of dwellings and townhomes.

CHAPTER 11

ENERGY EFFICIENCY

CONTINUED



N1102.1.3 R-Value Computation Insulated Siding

2015 IRC

Insulated siding is allowed in the calculation for satisfying the wall insulation R-value. The labeled R-value for the siding must be reduced by 0.6 for calculation purposes.

N1102.2.4 Access Hatches and Doors

2015 IRC

Vertical Doors that access unconditioned attics and crawl spaces do not require a R-value to match the required wall insulation. Such doors must comply with the fenestration U-factor requirements of Table N1102.1.2

N1103.3.6 Testing for Air Leakage

2018 IRC

A new standard for air-leakage testing, RESNET/ICC 380, is now referenced in the IRC to provide flexibility for the testing industry.



CHAPTER 11

ENERGY EFFICIENCY

CONTINUED

**N1103.3.6
and
N1103.3.7
Ducts Buried
within Ceiling
Insulation**

2018 IRC

New provisions address the methods, minimum coverage requirements and thermal benefits for ducts buried within ceiling insulation, and when those ducts are considered inside the building thermal envelope.

**N1104.1
Lighting**

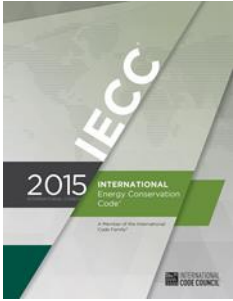
2018 IRC

The required percentage of permanent lighting fixtures having high-efficacy lamps has increased from 75 to 90 percent.

**N1106.3,
N1106.4
Maximum
Energy
Rating Index**

2018 IRC

The maximum rating index values based on climate zone have increased slightly to make the ERI provisions less restrictive and improve the flexibility of the energy provisions.



2015 INTERNATIONAL ENERGY CONSERVATION CODE



Southface

Building Envelope – Residential Training

https://4553qr1wvuj43kndml31ma60-wpengine.netdna-ssl.com/wp-content/uploads/2019/04/Southface-Presentation-Slides_GA-2020-Residential-Energy-Code.pdf



**CHAPTERS
12 THROUGH
23
MECHANICAL**



CHAPTERS 12 THROUGH 23

MECHANICAL

M1301.2 Identification. Each length of pipe and tubing and each pipe fitting utilized in a mechanical system shall bear the identification of the manufacturer.

*Revise Section M1301.2 'Identification' to read as follows:

M1301.2 Identification. Each length of pipe and tubing and each pipe fitting utilized in a mechanical system shall bear the identification of the manufacturer. If not provided on the packaging or crating or by other approved documentation, each pipe fitting, utilized in a gas fuel system, shall bear the identification of the manufacturer.
(Effective January 1, 2020)

CHAPTERS 12 THROUGH 23

MECHANICAL



M1502.3.1 Dryer Exhaust Duct Termination

2018 IRC

A minimum of 12.5 square inches has been established for the terminal outlet of dryer duct exhaust.

M1502.4.2 Concealed Dryer Exhaust Ducts

2018 IRC

Wall and ceiling cavities enclosing dryer duct must provide sufficient space that the 4-inch duct is not squeezed out of its round shape.

M1502.4.4, M1502.4.5 Dryer Exhaust Duct Power Ventilators

2015 IRC

The code now recognizes the use of dryer exhaust duct power ventilators (DEDPVs) to increase the allowable exhaust duct length for clothes dryers.

M1502.4.6 Dryer Duct Length Identification

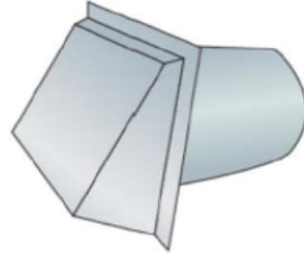
2015 IRC

A permanent label identifying the length of the dryer exhaust duct is only required where the equivalent duct length exceeds 35 feet. The label is required whether the duct is concealed or not.

M1502.3.1 Dryer Exhaust Duct Termination

2018

- 12.5 sq. in.



2018 IRC Transition from the 2012 IRC

Learning center

M1502.4.2 Concealed Dryer Exhaust Ducts

2018



2018 IRC Transition from the 2012 IRC

Learning center

M1502.4.4, M1502.4.5 Dryer Exhaust Duct Power Ventilators

2015

- Dryer exhaust duct power ventilators (DEDPVs)
- Listed and labeled UL 705
- Max. length per manufacturer



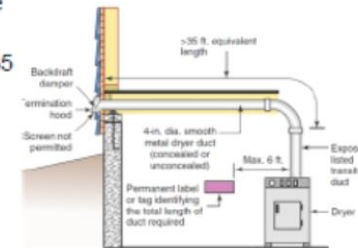
2018 IRC Transition from the 2012 IRC

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M1502.4.6 Dryer Duct Length Identification

2015

- Permanent label where >35 feet
- Not required where ≤ 35 feet
- Whether the duct is concealed or not



2018 IRC Transition from the 2012 IRC

Learning center



CHAPTERS 12 THROUGH 23

MECHANICAL, CONTINUED

M1503.6 Makeup Air for Kitchen Exhaust Systems

2015 IRC

(M1503.4) Automatic operation of a mechanical damper is no longer required for supplying makeup air for kitchen exhaust systems exceeding a rating of 400 cubic feet per minute (cfm). Transfer openings are permitted to obtain makeup air for rooms other than the kitchen

2018 IRC

Makeup air for domestic cooking exhaust systems is no longer required if all fuel-burning appliances in the dwelling unit have a direct vent or mechanical draft vent system.

M1506.2 Exhaust Duct Length

2015 IRC

The code establishes maximum exhaust duct lengths based on duct diameter, type of duct and the exhaust fan air flow rating.

M1601.4 Duct Installation

2015 IRC

Tapes and mastics used to seal sheet metal products must be listed to UL 181 B as has been required for sealing flexible ducts. Snap-lock and button seams are no longer exempt from the sealing requirements.

M1601.4

2015

Duct Installation

- Tapes and mastics for sheet metal ducts listed to UL 181 B
- Snap-lock and button-lock seams no longer exempt from the sealing

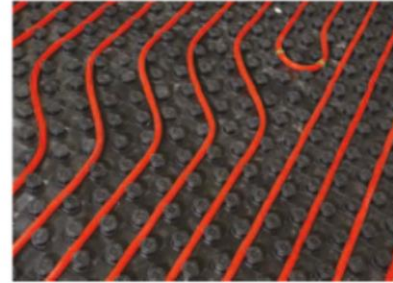


2018 IRC Transition from the 2012 IRC

LEARNING center

M2101.10 Pressure Tests for Hydronic Piping

2018

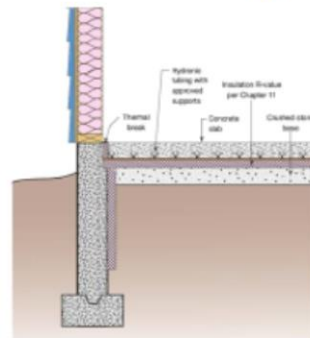


2018 IRC Transition from the 2012 IRC

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M2103.2 Thermal Barrier for Radiant Floor Heating Systems

2018



2018 IRC Transition from the 2012 IRC

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Chapter 24

Fuel Gas



CHAPTER 24

FUEL GAS



CHAPTER 24

FUEL GAS

G2414.4.2
G2414.10.1
Schedule 10
Steele Gas Piping

G2414.6
Plastic Pipe,
Tubing & Fittings

G2415.7
Protection of
Concealed Piping
Against Physical
Damage

G2420.5.1
Shutoff Valve
Location

2015 IRC

PVC and CPVC pipe are expressly prohibited materials for supplying fuel gas.

2015 IRC

Piping parallel to framing members and piping within framing members are now addressed. Protection is required to extend well beyond the edge of members that are bored or notched.

2018 IRC

The code now allows Schedule 10 steel pipe to be used for fuel gas piping.

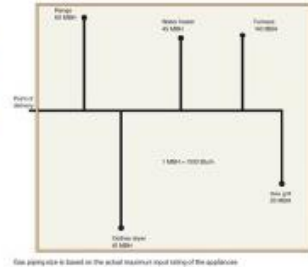
2018 IRC

Shutoff valves located behind movable appliances are considered as meeting the requirements for access.

G2413.2 Maximum Gas Demand

2015

- Table G2413.2 Approximate Input and the reference to it were deleted
- The code requires the actual maximum input rating of the appliances to be known and used for gas pipe sizing purposes.

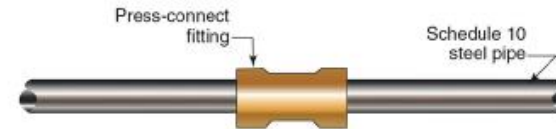


2018 IRC Transition from the 2012 IRC

LEARNING center

G2414.4.2, G2414.10.1 Schedule 10 Steel Gas Piping

2018



Press-connect fittings use gaskets and special equipment to join steel gas piping



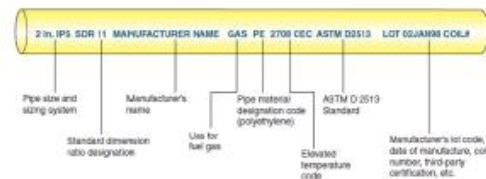
2018 IRC Transition from the 2012 IRC

LEARNING center

G2414.6 Plastic Pipe, Tubing and Fitting

2015

- PVC and CPVC pipe are expressly prohibited materials for supplying fuel gas.



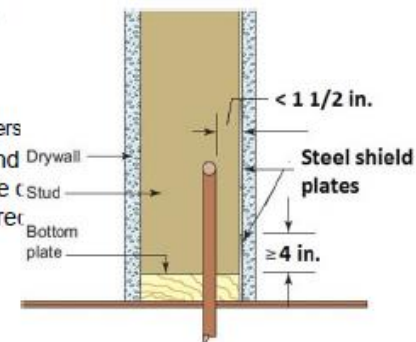
2018 IRC Transition from the 2012 IRC

LEARNING center

G2415.7 Protection of Concealed Piping Against Physical Damage

2015

- Rewritten to address concealed piping:
 - Parallel to framing members
 - Within framing members
- Protection must extend 4 inches beyond edge of framing members that are bored or notched



2018 IRC Transition from the 2012 IRC

LEARNING center



CHAPTER 24

FUEL GAS

CONTINUED

G2439.4, G2439.7 Clothes Dryer Exhaust Ducts

2015 IRC

Dryer exhaust duct power ventilators (DEDPVs) are approved to increase the allowable exhaust duct length for clothes dryers. A permanent label identifying the concealed length of dryer exhaust duct is no longer required where the equivalent duct length does not exceed 35 feet. For dryer exhaust ducts exceeding 35 feet, a label or tag is required whether the duct is concealed or not. The code allows duct fasteners but limits the penetration distance.

G2447.2 Commercial Cooking Appliances

2015 IRC

The code does not prohibit the installation of cooking appliances that are listed as both commercial and domestic appliances.

2018 IRC

Commercial cooking appliances are now permitted in dwelling units when installed in accordance with an engineered design and the manufacturer's instructions.

CHAPTER 24

FUEL GAS

GEORGIA AMENDMENTS



G2415.6 (404.6) Underground penetrations prohibited. Gas *pipng* shall not penetrate building foundation walls at any point below grade. Gas *pipng* shall enter and exit a building at a point above grade and the annular space between the *pipe* and the wall shall be sealed.

G2415.7.1 (404.7.1) Piping through bored holes or notches. Where *pipng* is installed through holes or notches in framing members and the *pipng* is located less than 1½ inches (38 mm) from the framing member face to which wall, ceiling or floor membranes will be attached, the pipe shall be protected by shield plates that cover the width of the pipe and the framing member and that extend not less than 4 inches (102 mm) to each side of the framing member. Where the framing member that the *pipng* passes through is a bottom plate, bottom track, top plate or top track, the shield plates shall cover the framing member and extend not less than 4 inches (102 mm) above the bottom framing member and not less than 4 inches (102 mm) below the top framing member.

*Delete Section G2415.6 (404.6) 'Underground penetrations prohibited' and substitute to read as follows:

G2415.6 (404.6) Piping through foundation wall. Underground piping where installed below grade through the foundation or basement wall of a building, shall be encased in a protective pipe sleeve. The annular space between the gas piping and the sleeve shall be sealed.
(Effective January 1, 2020)

*Revise Section G2415.7.1 (404.7.1) 'Piping through bored holes or notches' to read as follows:

G2415.7.1 (404.7.1) Piping through bored holes or notches. Where *pipng* is installed through holes or notches in framing members and the *pipng* is located less than 1½ inches (38 mm) from the framing member face to which wall, ceiling or floor membranes will be attached, the pipe shall be protected by shield plates that cover the width of the pipe and the framing member. Where the framing member that the *pipng* passes through is a bottom plate, bottom track, top plate or top track, the shield plates shall cover the framing member and extend not less than 4 inches (102 mm) above the bottom framing member and not less than 4 inches (102 mm) below the top framing member.
(Effective January 1, 2020)



CHAPTER 24

FUEL GAS

GEORGIA AMENDMENTS

G2415.7.2 (404.7.2) Piping installed in other locations. Where the *piping* is located within a framing member and is less than $1\frac{1}{2}$ inches (38 mm) from the framing member face to which wall, ceiling or floor membranes will be attached, the *piping* shall be protected by shield plates that cover the width and length of the *piping*. Where the *piping* is located outside of a framing member and is located less than $1\frac{1}{2}$ inches (38 mm) from the nearest edge of the face of the framing member to which the membrane will be attached, the *piping* shall be protected by shield plates that cover the width and length of the *piping*.

G2415.11.1 (404.11.1) Galvanizing. Zinc coating shall not be deemed adequate protection for underground gas piping.

G2415.18 (404.18) Pipe cleaning. The use of a flammable or combustible gas to clean or remove debris from a *piping system* shall be prohibited.

*Delete Section G2415.7.2 (404.7.2) 'Piping installed in other locations' without substitution.
(Effective January 1, 2020)

*Delete Section G2415.11.1 (404.11.1) 'Galvanizing' without substitution:
(Effective January 1, 2020)

*Revise Section G2415.18 (404.18) 'Pipe Cleaning' to read as follows:

G2415.18 (404.18) Pipe debris removal. The interior of piping shall be clear of debris. The use of a flammable or combustible gas to clean or remove debris from a *piping system* shall be prohibited.
(Effective January 1, 2020)

CHAPTER 24

FUEL GAS

GEORGIA AMENDMENTS



G2420.2 (409.2) Meter valve. Every *meter* shall be equipped with a shutoff valve located on the supply side of the *meter*.

*Add new Section G2420.2.1 (409.2.1) 'System shutoff valve' to read as follows:

G2420.2.1 (409.2.1) System Shutoff Valve. Where the point of delivery is the outlet of the service meter assembly, or the outlet of the service regulator, a system shutoff valve shall be installed. Such valve is considered to be part of the customer piping system.
(Effective January 1, 2020)

G2423.1 (413.1) General. Motor fuel-dispensing facilities for CNG fuel shall be in accordance with Section 413 of the *International Fuel Gas Code*.

*Delete Section G2423.1 (413.1) 'General' and substitute to read as follows:

G2423.1 (413.1) General. Under Georgia law, the Rules and Regulations of the Georgia Safety Fire Commissioner govern the storage, delivery and dispensing of compressed natural gas. Refer to the Rules and Regulations of the Georgia Safety Fire Commissioner and NFPA 52 for all requirements concerning compressed natural gas motor vehicle fuel-dispensing stations.
(Effective January 1, 2020)



CHAPTERS 25 THROUGH 33 PLUMBING



CHAPTERS 25 THROUGH 33

PLUMBING

P2503.5 Drain, Waste and Venting System Test

2015 IRC

The head pressure for a water test on drain, waste and vent (DWV) systems has been reduced from 10 feet to 5 feet.

Note: Building sewer shall be tested with 10 feet of head pressure (P2503.4 Building sewer testing)

P2704 Slip Joint Connections

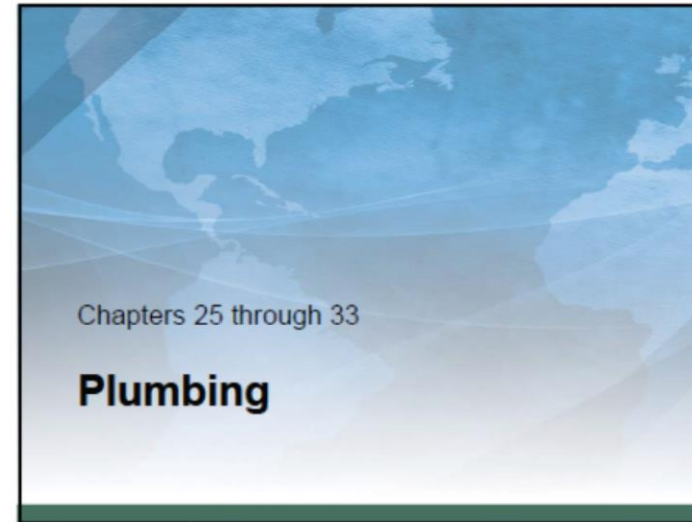
2018 IRC

Slip joint connections are permitted anywhere between the fixture outlet and the drainage piping, and are no longer limited to the trap inlet, outlet and trap seal locations.

P2713.1 Bathtub Overflow

2018 IRC

Bathtub overflow outlets are no longer required



P2502.1, P2503.4 Inspection and Tests for Building Sewers 2015

- When the entire sanitary drainage system is replaced:
 - Internal examination of underground and under slab piping is required to verify:
 - Size
 - Slope
 - Condition

2018 IRC Transition from the 2012 IRC

LEARNING center

P2503.5 Drain, Waste, and Vent Systems Testing 2015

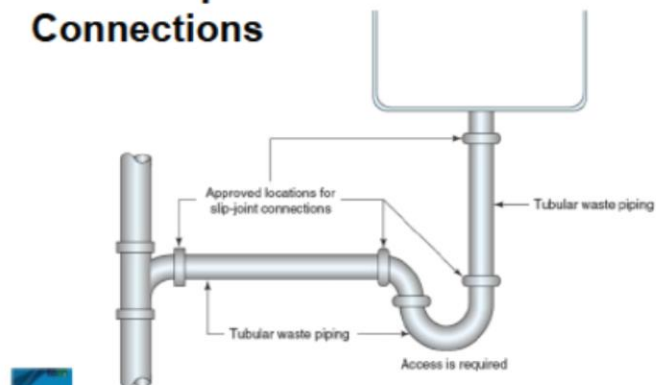
- The head pressure for a water test on DWV systems has been reduced from 10 feet to 5 feet.

2018 IRC Transition from the 2012 IRC

LEARNING center

P2704 Slip Joint Connections

2018

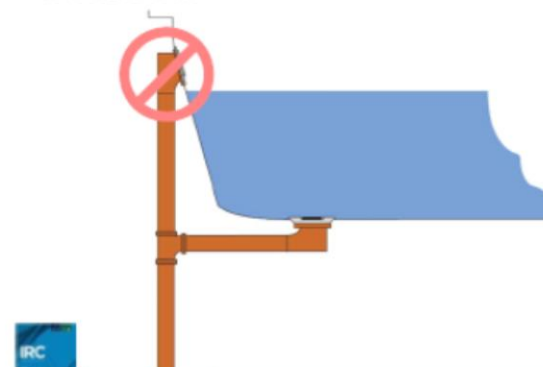


2018 IRC Transition from the 2012 IRC

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P2713.1 Bathtub Overflow

2018



2018 IRC Transition from the 2012 IRC

LEARNING center

P2717 Dishwashing Machines

2015

- References applicable standards for integral air gaps
- "food waste disposer" replaces "food waste grinder."
- One or two compartment sink
- Sections P2717.2 and P2717.3 regarding dishwasher discharge to the sink tailpiece or the food waste disposer combined into a single Section P2717.2.
- Discharge loop to underside of counter "fastened" or "held in place."



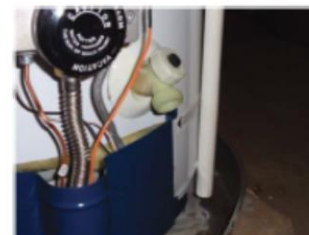
2018 IRC Transition from the 2012 IRC

LEARNING center

P2801 Water Heater Drain Valves and Pans

2015

- Requires drain valves with a threaded outlet
- Aluminum and plastic pans of the prescribed thickness acceptable.
- Pan drain is not required when a water heater is replaced and there is no existing drain.



2018 IRC Transition from the 2012 IRC

LEARNING center

CHAPTERS 25 THROUGH 33

PLUMBING

CONTINUED



P2801 Water Heater Drain Valves and Pans

2015 IRC

Drain valves are required to have a threaded outlet for water heaters. The water heater pan requirements have been expanded to accept aluminum and plastic pan of prescribed thickness. A pan drain is not required when a water heater is replaced and there is no existing drain.

2018 IRC

Plastic safety pans are now allowed under gas water heaters provided the material falls within the prescribed flame spread and smoke developed indices.

P2804.6.1 Water Heater Relief Valve Discharge

2015 IRC

The temperature and pressure (T&P) relief valve discharge pipe termination must have an air gap. PEX and PE-RT tubing used for relief valve discharge piping must be one size larger than the T&P valve discharge outlet, and the outlet end of the tubing must be fastened in place.

P29.02.5.4 P2904.1 Backflow Protection for Fire Sprinkler Systems

2018 IRC

The code clarifies that stand-alone and multipurpose fire sprinkler systems complying with P2904 or NFPA 13D do not require backflow protection under most circumstances.

P2801.6 Plastic Pan for Gas- Fired Water Heaters

2018



Photo courtesy of Lowe's



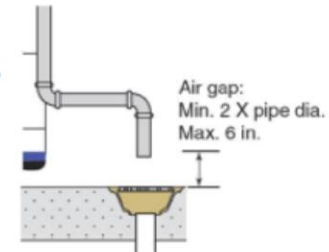
2018 IRC Transition from the 2012 IRC

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P2804.6.1 Water Heater Relief Valve Discharge Piping

2015

- The T&P relief valve discharge pipe termination requires an air gap
- PEX and PE-RT tubing:
 - One size larger than the T&P valve discharge outlet
 - Outlet end fastened in place



2018 IRC Transition from the 2012 IRC

LEARNING
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P2901, P2910 through P2913 Nonpotable Water Systems

2015

- Nonpotable water outlets identified
- Purple identifies distribution piping for nonpotable water
- New Sections P2910 through P2913:
 - Collection
 - Storage
 - Distribution



Nonpotable water is utilized for _____
CAUTION: NONPOTABLE WATER. DO NOT DRINK
Nonpotable water outlets such as hose connections require warning signs with a pictograph.

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2018 IRC Transition from the 2012 IRC

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P2902.5.4, P2904 Backflow Protection for Fire Sprinkler Systems

2018



2018 IRC Transition from the 2012 IRC

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CHAPTERS 25 THROUGH 33

PLUMBING

CONTINUED

P2903.5
Water Hammer
Arrestors

2018 IRC

A water hammer arrestor is now required where quick-closing valves are used in the water distribution system.

P2906.6.1
Saddle Tap
fittings on
Water
Distribution
Piping

2018 IRC

Saddle tap fittings are no longer permitted on water distribution system piping.

P3003.9
Solvent
Cementing of
PVC Joints

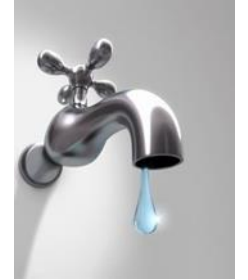
2015 IRC

The application of a primer to drain, waste. And vent PVC pipe and fittings prior to solvent cementing is not required for 4-Inch pipe size and smaller, provided that the piping is for a non-pressure application.

CHAPTERS 25 THROUGH 33

PLUMBING

CONTINUED



P3111
Combination
Waste and
Vent System

P3114.8
Prohibited
Installations
for Air
Admittance
Valves

2018 IRC

Food waste disposers and drinking fountains are now permitted to connect to a combination waste and vent system.

2018 IRC

An air admittance valve cannot be used to resolve the problem of an open vent terminal that is too close to a building air intake.



**CHAPTERS 34
THROUGH 43
ELECTRICAL**



CHAPTERS 34 THROUGH 43

ELECTRICAL

E3703.5 Garage Branch Circuits

2015 IRC

[E3901.9] Garage receptacle outlets must be served by a separate branch circuit that does not supply other outlets.

2018 IRC

A separate 20-ampere branch circuit is now required to serve receptacle outlets of attached garages and detached garages with electric power.

E3901.2 Wall Space Receptacles Distribution

2018 IRC

Cabinets with countertops are now considered wall space in determining required locations for general purpose receptacle outlets.

E3901.3 Appliances on 15 Amp Circuits

2018 IRC

An individual 15-ampere branch circuit is permitted to serve any specific kitchen appliance.

E390.1.9 Receptacle Outlets for Garages

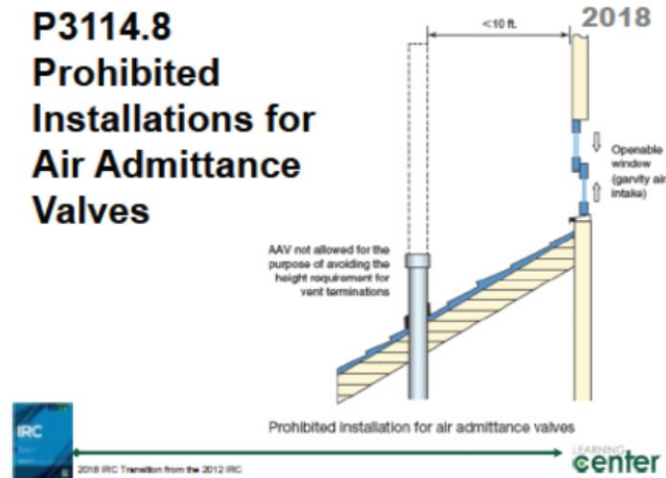
2015 IRC

At least one receptacle outlet is required for each car space in a garage.

2018 IRC

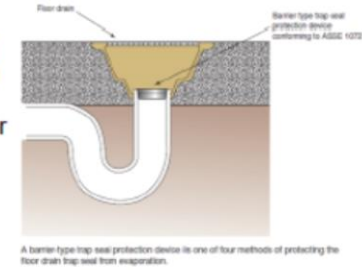
A receptacle outlet must be located in each vehicle bay in a garage.

P3114.8 Prohibited Installations for Air Admittance Valves



P3201.2 Trap Seal Protection 2015 Against Evaporation

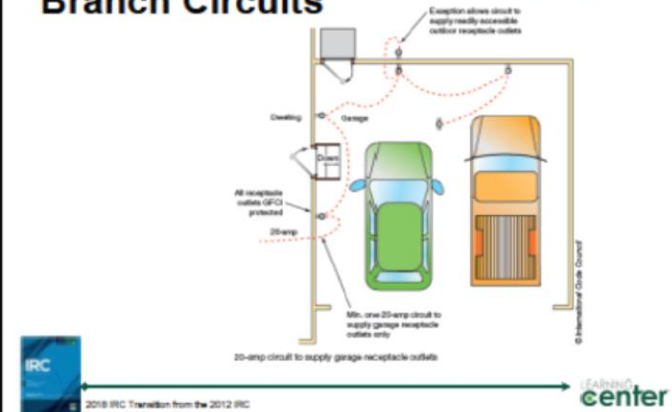
- Trap seal protection against evaporation can now be accomplished in a variety of ways, including trap seal primer valves supplied with nonpotable water and barrier-type trap seal protection devices



Chapters 34 through 43

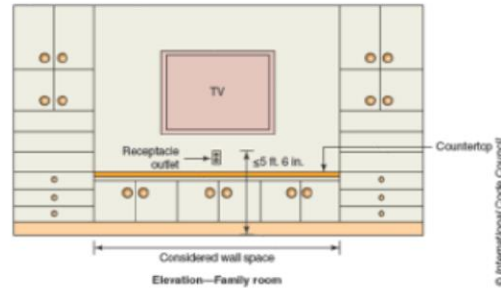
Electrical

E3703.5 Garage Branch Circuits 2015 & 2018



E3901.2 Wall Space for Receptacle Distribution

2018



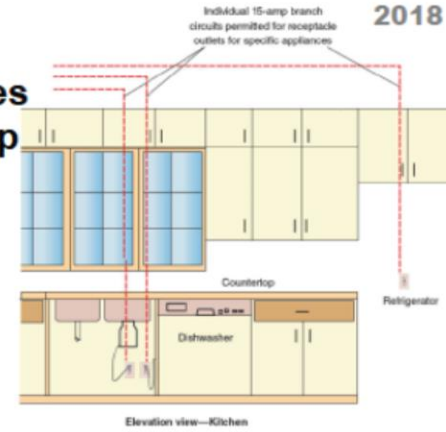
Cabinets with countertops or work surfaces are counted as wall space.

2018 IRC Transition from the 2012 IRC

center

E3901.3 Appliances on 15 Amp Circuits

2018

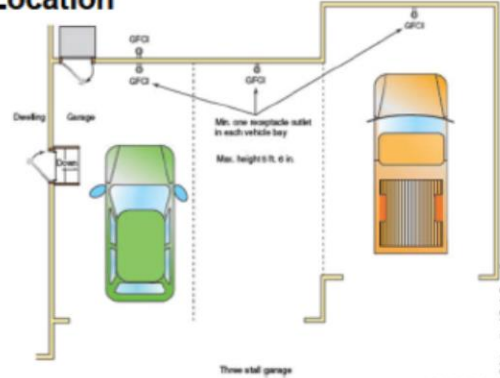


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center

E3901.9 Garage Receptacle Outlet Location

2015 & 2018

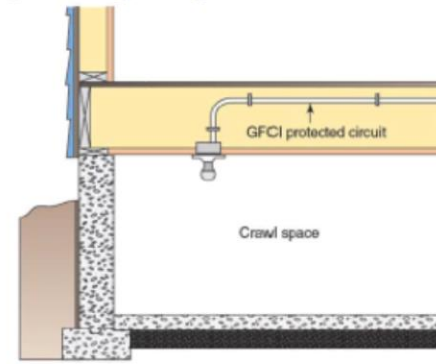


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E3902.4 GFCI Protection for Crawl Space Lighting Outlets

2018



2018 IRC Transition from the 2012 IRC

center

CHAPTERS 34 THROUGH 43

ELECTRICAL

CONTINUED



E3902
Ground-
fault Circuit
Interrupter
Protection

2015 IRC

Laundry areas have been added to the list of locations requiring ground-fault circuit interrupter (GFCI) protection. Receptacles within 6 feet of bathtubs and showers, and receptacles for dishwashers also require GFCI protection.

2018 IRC

Ground-fault circuit interrupter (GFCI) protection is now required for lighting outlets of crawl spaces.

E3906.3
Nonmetallic
Sheathed
Cable and
Metal Boxes

2018 IRC

Where entering a metal box, nonmetallic-sheathed cable must extend into the box at least ¼ inch and extend past the clamp.

E4101.3
Cord-and-
Plug-
Connected
Appliances

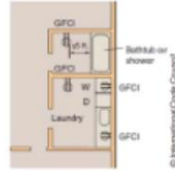
2018 IRC

The maximum cord length for range hoods and built-in dishwashers have increased and the code clarifies that the receptacle outlet for the dishwasher has to be in the space adjacent to the appliance.

E3902.8, E3902.9, E3902.10 Ground-Fault Circuit Interrupter Protection

2015

- Laundry areas
- Receptacles within 6 feet of bathtubs and showers
- Receptacles for dishwashers



GFCI protection required for 125-volt, 15- and 20-amp receptacle outlets in laundry areas and near showers or bathtubs

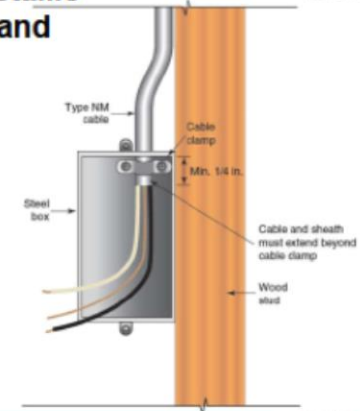


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E3905.2.1 Nonmetallic- Sheathed Cable and Metal Boxes

2018

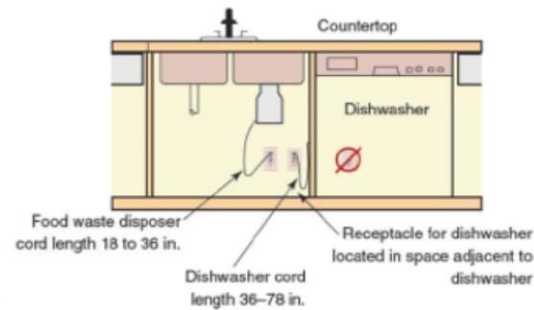


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E4101.3 Cord- and-Plug- Connected Appliances

2018



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Table E4101.3

2018

TABLE E4101.3 Flexible Cord Length

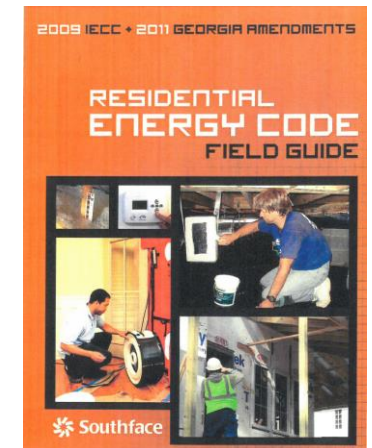
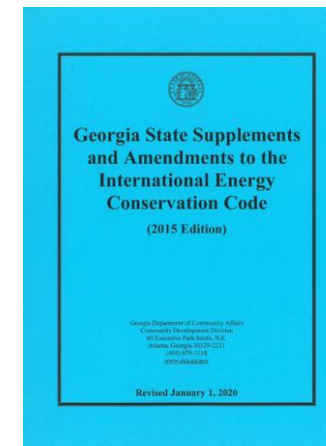
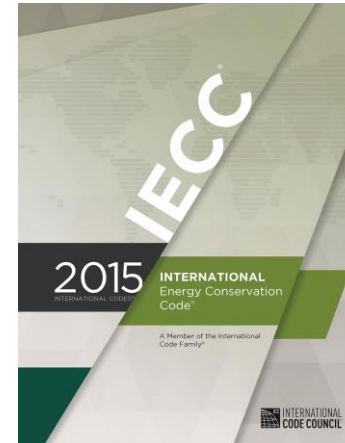
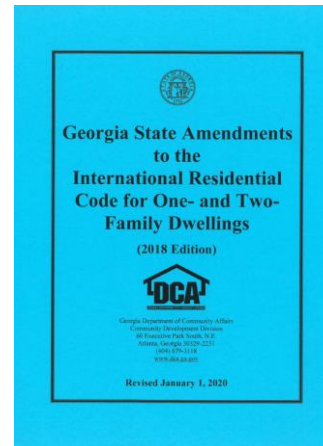
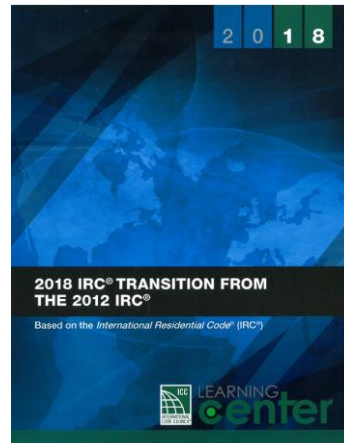
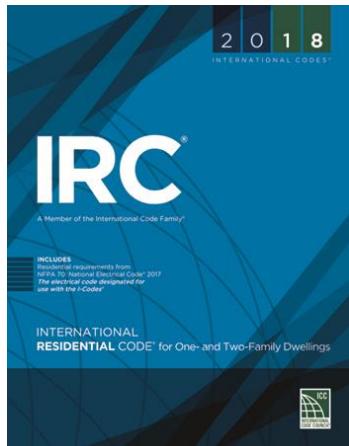
Appliance	Minimum Cord Length (inches)	Maximum Cord Length (inches)
Electrically operated in-sink waste disposal	18	36
Built-in dishwasher	36	48 78
Trash compactor	36	48
Range hoods	18	36 48



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SUGGESTED RESOURCES



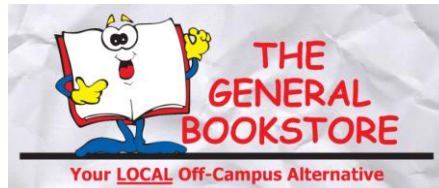
SUGGESTED RESOURCES



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