

TITLE 12

BUILDING, UTILITY, ETC. CODES

CHAPTER

- 1. CODES ADOPTED.
- 2-10. DELETED.

CHAPTER 1

CODES ADOPTED¹

SECTION

- 12-101. Codes adopted.
- 12-102. Property code review.
- 12-103. Prohibition and interference.
- 12-104. Codes available.

12-101. Codes adopted. The board of mayor and commissioners of the City of Piperton, Tennessee, for the purposes of regulating the construction, alterations, repair, use, occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenance connected or attached to the building or structure, hereby adopts the 2012 International Building Code, 2012 International Residential Code, 2012 Mechanical Code, 2012 International Plumbing Code, 2012 International Fire Code, 2012 International Fuel Gas Code, 2012 International Energy Conservation Code, 2012 International Existing Building Code, 2012 ICC Performance Code for Buildings and Facilities, 2012 International Property Maintenance Code, 2012 International Green Construction Code, and 2012 International Swimming Pool and Spa Code, together with the amendments and exceptions set out below.

City of Piperton's Amendments: Exceptions to 2012 IRC Code
(Alternate Compliance Method)

Modifying Section R301.2.2 number by 2 adding the phrase "however, such detached one and two family dwellings constructed using wood framing in Seismic Design Categories D0, D1 and D2 shall be allowed, as an alternative compliance method for meeting the structural requirements of this code's

¹Municipal code references

- Fire protection, fireworks, and explosives: title 7.
- Planning and zoning: title 14.
- Streets and other public ways and places: title 16.
- Utilities and services: title 18.

seismic provisions, to comply with the requirement in Section R301.2.2.3.8." At the end of this item, so that when amended the entire section shall read as follows:

R301.2.2 Seismic provision

The seismic provisions of this code shall apply as follows:

1. Townhouse in Seismic Design Categories C, D0, D1 and D2.
2. Detached one and two family dwellings in D0, D1, and D2, however, such detached one and two family dwellings constructed using wood framing in Seismic Design Categories D0, D1, and D2 shall be allowed, as an alternative compliance method for meeting the structural requirements of this code's seismic provisions, to comply with the requirement in Section R301.2.2.3.8.

Adding new Section R301.2.2.3.8 and new Subsections R301.2.2.3.8.1 through R301.2.2.3.8.11 so that when amended, the entire new section and its subsections shall read as follows:

R301.2.2.3.8 Alternative compliance method for structural requirements

In addition to meeting all the structural requirements for Seismic Design Category C and sections R301.2.2.3.1, R301.2.2.3.6 and R301.2.2.3.7, and alternative compliance method for meeting structural requirements when wood framing is used shall include compliance with the following items. In the event any requirement in this section differs from wind code structural requirements, the more stringent will apply. The alternative compliance method is allowable only when the total wall opening area does not exceed 30 percent of wall area along each of the four main exterior walls, not including exterior walls containing a garage door opening.

1. A minimum of two 24" prefabricated shear panels may be installed in any one exterior wall with openings that exceed the 30 percent requirement and still be considered in compliance with the amendment conditions.

R301.2.2.3.8.1 Anchorage exterior walls (Sole Plates)

Exterior wall sole plates shall be secured to the foundation or framing below by one of the following methods:

1. Foundation: 1/2 inch (12.7 mm) anchor bolts, with 3 inch by 3 inch (76 mm by 76 mm) washers, embedded in the foundation a minimum of 7 inches (178 mm) in depth. Such anchor bolts are to be placed 4 feet on center maximum and within 12 inches (305 mm) of the end of each plate section. A minimum of 2 anchors per plate section is required.
2. Foundation: MASA anchors or equivalent embedded in the foundation and placed at 4 feet (1219 mm) on center maximum and

within 12 inches (305 mm) of the end of each plate section. A minimum of 2 anchors per plate section is required.

3. Elevated Floors: 10d nails placed at 8 inches on center and embedded in a continuous rim board. Rim board depth to match depth of floor framing. Rim board shall be nailed to the end of each floor framing member with three 10d nails. Where floor framing parallels exterior wall, 2 rim boards shall be provided parallels exterior wall, 2 rim boards shall be provided and nailed per Table R602.3(1). The Rim Board shall be fastened to wall top plate with metal plates at 6 feet (1829 mm) on center; installed plate capacity shall equal or exceed 440 pounds.

R301.2.2.3.8.2 Anchorage all structural interior walls (Sole Plates)

Interior wall framing shall be secured by one of the following methods:

1. Foundation: 1/2 inch (12.7mm) anchor bolts, with 3 inch by 3 inch (76 mm by 76 mm) washers, embedded a minimum of 7 inches (178 mm) in depth in the concrete foundation (Thickened slab) at 4 feet (1219 mm) on center maximum and within 12 inches (305 mm) of the end of each plate section.
2. Foundation: By power actuated fasteners that provide 210 pounds per linear foot shear capacity, placed 2 feet (610 mm) on center maximum and within 12 inches (305 mm) of each plate section or equivalent means of anchorage. A minimum of 2 anchors are required per plate section.
3. Elevated Floors: 10d nails placed at 8 inches (204 mm) on center and embedded in one of the following :
 - a.) Structural wall top plate flush with bottom of floor sheathing, or
 - b.) Floor joist parallel with and directly below plate, or
 - c.) Blocking, depth to match, placed between floor joists and running the full length of the plate. Blocking to be nailed per Table R602.3 (1).

R301.2.2.3.8.3 Stud spacing - Exterior walls

All 2 x 4 exterior walls shall be a maximum of 16 inch (406 mm) stud spacing up to 3 stories. Gypcrete flooring or similar cementitious leveling products shall not be used on elevated floors.

Exception: Thin-set or other base material required for installation of flooring products isolated confined spaces such as bathrooms.

R301.2.2.3.8.4 Wall Sheathing

R301.2.2.3.8.4.1 Exterior wall sheathing

Exterior wall sheathing shall be 7/16 inch (11mm) exterior rated OSB or equivalent or 7/16 inch (11mm) plywood minimum. Sheathing is to be fastened every 6 inches (152 mm) on the edges and 12 inches (305 mm) at intermediate supports.

R301.1.2.2.83.8.4.2 Interior structural wall sheathing

Interior sheathing shall be a minimum of 1/2 inch (12.7mm) gypsum fastened every 7 inches (178 mm) on edges and every 7 inches (178 mm) at intermediate supports.

R301.2.2.3.8.5 Garage door openings

Brace wall panels are required for garage openings as per Section R602.10.6 of this Code.

Exception - An engineered pre-manufactured wall panel is allowed to be used at garage openings.

R301.2.2.3.8.6 APA Narrow Wall systems are not permitted

Use of APA narrow wall systems is not permitted for establishing compliance with these requirements.

R301.2.2.3.8.7 Connections across floor joist space

18 gauge galvanized steel coil strapping (ex. CS 18) installed at 48 inch (1219 mm) on center across floor joist space or equivalent is required on all exterior wall and stacked interior structural walls. Strapping shall run vertical along edge of studs shall be centered on floor joist space. Studs shall be vertically aligned.

R301.2.2.3.8.8 Roof framing connections

Roof framing members shall be fastened to wall top plate with 18 gauge galvanized steel clips (ex. H2.5A) or equivalent, not to exceed 48 inches (1219 mm) on center maximum. Provide clips in addition fastening requirements in Table R602.3 (1). This requirement applies to all contact points with load bearing walls. In the event wind fastening requirements differ, the more stringent shall apply.

R301.2.2.3.8.9 Shearwall hold downs

1. Exterior walls: A single hold down shall be installed at each end of each wall over 8 feet (2438 mm) in length (2 hold downs per wall length). Hold down capacity (p), in pounds, shall be equal to 210 lbs/ft times wall height. ($P = 210 * H$)
2. Wall height (H): distance from wall bottom plate to wall top plate.
3. A cut sheet of the hold down type(s) used shall be provided to code enforcement when requested by the Building Official. Cut sheet

shall show tested product load rating and manufacturer information.

R301.2.2.3.8.10 Opening straps/clips

This section applies only to window and door openings and only to openings located in exterior walls and interior structural walls. Louver, pipe penetrations, dryer vents, and all other wall openings are not required to meet this section unless they exceed 4 sq. ft. in area.

1. Studs above and below headers and window sill plates: Provide 18 gauge galvanized steel clips (ex. H2.5A) or equivalent at 32 inches (813 mm), top and bottom of studs, minimum 2 clips per opening width at headers and sills.
2. Headers: Headers shall bear on minimum 1 ply jack post and be fastened to post with 18 gauge galvanized steel clips (ex. H2.5A), or continuous sheathing from king post to header or sill or equivalent.
3. Window Sill plate: Sill plate shall be end nailed with three 10d nails each end through minimum 1 ply of king/jack posts, or continuous sheathing from kin post to header or sill, or equivalent.
4. King/Jack posts: Provide 20 gauge galvanized steel stud plate connector (ex.SP1) or equivalent from post to wall plate, top and bottom. Post plys shall be nailed together with 10d nails at 8 inches (201 mm) on center staggered full height.

R301.2.2.3.8.11 Floor openings

When floor openings in the second or third floors exceed 15 percent of the ground floor square footage, garage space excluded, they shall be considered as large floor openings.

1. The gross floor area shall be the area bounded by exterior walls.
2. Openings for stairs and egress are excluded from the net floor opening area.
3. Perimeter interior walls bounding a large floor opening shall be considered structural and shall be subject to all requirements as such. If perimeter walls are not present below opening perimeter (i.e. beam and column system is used), the supporting structure shall be engineered.

Amend Table N1102.1.1 (R402.1.1)

Note: First value is cavity insulation, second is continuous insulation or insulated siding, so "13+5" means R-13 cavity insulation plus R-5 continuous insulation or insulated siding. If structural sheathing covers 40 percent or less of the exterior, continuous insulation R-value shall be permitted to be reduced by no more than R-3 in the locations where structural sheathing is used -to maintain a consistent total sheathing thickness, however, 13+2 for a total of

R-15 shall be acceptable in a 3.5 inch wall. (Ord. #1-93, April 1993, as replaced by Ord. #159-09, Feb. 2009, and amended by Ord. #180-10, June 2010, and Ord. #188-10, Jan. 2011, and replaced by Ord. #237-14, June 2014)

12-102. Priority code review. In the event of incompatible or conflicting regulations between any of the codes adopted by this chapter and other city codes and/or ordinances, the more stringent and restrictive requirements shall prevail. (Ord. #1-93, April 1993, as replaced by Ord. #159-09, Feb. 2009, and Ord. #237-14, June 2014)

12-103. Prohibition and interference. Any person interfering with the building official or such official's assistants in the performance of their duties shall be guilty of a misdemeanor. (as added by Ord. #159-09, Feb. 2009, and replaced by Ord. #237-14, June 2014)

12-104. Codes available. The codes adopted by this chapter shall be available for use and inspection by the public at Piperton City Hall during regular business hours. (as added by Ord. #159-09, Feb. 2009, and replaced by Ord. #237-14, June 2014)

CHAPTER 2

(as deleted by Ord. #159-09, Feb. 2009)

CHAPTER 3

(as deleted by Ord. #159-9, Feb. 2009)

CHAPTER 4

(as deleted by Ord. #159-09, Feb. 2009)

Change 2, February 24, 2009

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CHAPTER 5

(as deleted by Ord. #159-09, Feb. 2009)

Change 2, February 24, 2009

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CHAPTER 6

(as deleted by Ord. #159-09, Feb. 2009)

Change 2, February 24, 2009

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CHAPTER 7

(as deleted by Ord. #159-09, Feb. 2009)

Change 2, February 24, 2009

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CHAPTER 8

(as deleted by Ord. #159-09, Feb. 2009)

Change 2, February 24, 2009

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CHAPTER 9

(as deleted by Ord. #159-09, Feb. 2009)

Change 2, February 24, 2009

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CHAPTER 10

(as deleted by Ord. #159-09, Feb. 2009)