

**TITLE 12**

**BUILDING, UTILITY, ETC. CODES**

**CHAPTER**

1. APPLICABLE CODES
- 2.--17. [DELETED].
18. INTERNATIONAL CODE COUNCIL.

**CHAPTER 1**

**APPLICABLE CODES**

**SECTION**

- 12-101. Shelby County codes effective within city.
- 12-102. Fees for services.
- 12-103. Fees for curb cuts and sidewalks.
- 12-104. Deleted.

**12-101. Shelby County codes effective within city.** The building, plumbing, electrical, gas and housing codes in effect in Shelby County shall also be effective within the corporate limits and shall be enforced by Shelby County and/or City of Millington personnel. (1981 Code, § 4-101, as amended by Ord. #1996-1, March 1996, and Ord. #2001-17, Dec. 2001, replaced by Ord. #2005-4, May 2005, amended by Ord. #2007-9, Aug. 2007, replaced by Ord. #2009-8, June 2009, amended by Ord. #2014-14, Oct. 2014, and replaced by Ord. #2015-8, June 2015)

**12-102. Fees for services.** The city's fee will be the fees established from time to time by the Memphis and Shelby County Office of Construction Code Enforcement times a factor of 1.33 in order to cover the costs incurred by both the city and the Memphis and Shelby County Office of Construction Code Enforcement. (1981 Code, § 4-102, as replaced by Ord. #2005-4, May 2005, Ord. #2009-8, June 2009, and Ord. #2015-8, June 2015)

**12-103. Fees for curb cuts and sidewalks.** The city's fee for review and approval of installation, removal or replacement of a curb cut or sidewalk shall be thirty dollars (\$30.00) for each curb cut and each sidewalk. (1981 Code, § 4-103, modified, as deleted by Ord. #2015-8, June 2015, and replaced by Ord. #2015-21, Dec. 2015)

**12-104. Deleted.** (as deleted by Ord. #2015-08, June 2015)

**CHAPTER 2-17**

(These chapters were deleted by Ord. #2015-08, June 2015)

## CHAPTER 18

### INTERNATIONAL BUILDING CODES

#### SECTION

12-1801. International Code Council codes adopted.

12-1802. Modifications to adopted codes.

#### Exhibit A

**12-1801. International Code Council codes adopted.**<sup>1</sup> (1) The 2012 International Building Code.

- Amend SECTION 903 AUTOMATIC SPRINKLER SYSTEMS; to include all new commercial buildings that exceed 5000 square feet gross floor area will require an automatic Sprinkler System as mandated in the Millington Municipal Code, Title 7, Fire Protection and Fireworks, Chapter 5.

(2) The 2012 International Residential Code for One- and Two- Family Dwellings.

- Exclude Chapter 29, Section P2904 Dwelling Unit Fire Sprinkler Systems

(3) The 2012 International Plumbing Code.

(4) The 2012 International Mechanical Code.

(5) The 2012 International Property Maintenance Code.

(6) The 2012 International Existing Building Code.

(7) The 2012 International Energy Conservation Code.

(8) The 2012 International Fuel Gas Code.

(9) The 2012 International Fire Code<sup>2</sup> and The 2012 Edition of the NFPA 101 Life Safety Code.

(10) 2011 NEC NFPA 70: National Electrical Code; International Electrical Code Series.

(11) 2009 International Code Council ICC/ANSI A117.7 Accessible and Usable Buildings and Facilities.

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<sup>1</sup>These codes are incorporated by reference as the building codes of the City of Millington, Tennessee, and the same are adopted by the City of Millington, Tennessee.

<sup>2</sup>The fire code is set out at length in title 6, chapter 4.

Exhibit B

**12-1802. Modifications to adopted codes.** Modifications to the City of Millington 2012 International Residential Building Code relating to seismic design and construction elements of one- and two-family dwellings:

**Modifying Section R301.2.2 number 2 by adding the phrase "however, such detached one and two family dwellings constructed using wood framing in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> 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." at the end of this item, so that when amended the entire section shall read as follows:**

**R301.2.2 Seismic provisions.** The seismic provisions of this code shall apply as follows:

1. Townhouse in Seismic Design Categories C, D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub>.
2. Detached one and two family dwellings in D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub>, however, such detached one and two family dwellings constructed using wood framing in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> 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.

**(2013 Amendment) Added a new Section R301.2.2.3.8 and new Subsections R301.2.2.3.8.1 through R301.2.2.3.8.12 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, an 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 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 (305mm) 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 2x4 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 in 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 (11 mm) exterior rated OSB or equivalent or 7/16 inch (11 mm) plywood minimum. Sheathing is to be fastened every 6 inches (152 mm) on the edges and 12 inches (305 mm) at intermediate supports.

**R301.1.2.2.3.8.4.2 Interior structural wall sheathing.** Interior sheathing shall be a minimum of 1/2 inch (12.7 mm) 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 walls and stacked interior structural walls. Strapping shall run vertical along edge of studs and 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 to 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 holddowns.**

1. Exterior walls: A single holddown shall be installed at each end of each wall over 8 feet (2438 mm) in length (2 holddowns per wall length). Holddown 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 holddown 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 king 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 (204 mm) on center staggered full height.

**R301.2.2.3.8.11 Brick veneer.**

1. Exterior brick veneer shall not exceed 25 feet (7620 mm) in height above noncombustible foundation. Brick at gable peaks shall not exceed 40 feet (12 192 mm) in height above non-combustible foundation.
2. Exterior brick veneer shall comply with all other applicable Chapter 7 IRC requirements.
3. Interior brick veneer and masonry chimneys shall comply with Chapter 7 IRC requirements.

**R301.2.2.3.8.12 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.