



Washtenaw County Building Inspection

705 N. Zeeb Rd., P.O. Box 8645, Ann Arbor, MI 48107-8645

Phone: 734-222-3900 Fax: 734-222-3930 Email: zebcss@washtenaw.org

Inspections: 866-458-7358 (IVR) automated system 24 hours/day

Online permit information: <http://permits.ewashtenaw.org> Website: www.washtenaw.org/building

2015 MICHIGAN RESIDENTIAL CODE INFORMATION

The following represents frequently asked questions and/or violations of the Michigan Residential Code. This list is a summary and is not intended to be all-inclusive. Building, Electrical, Mechanical, and Plumbing work must comply with this code.

R109.1.4 Masonry Inspection: A masonry inspection is required prior to installation of masonry veneer, after installation of base course of flashing, as specified in R703.3.5, and installation of weather resistant sheathing paper, per R703.2.

R302.6 Garage: Garage is required to be separated from the residence and its attic area with no less than 1/2" gypsum board applied to the garage side, 5/8" Type X on ceiling of garage with living space above. Doors between house and garage are required to be a minimum of 1 3/8" thick solid wood or honeycomb steel, or a 20-minute fire-rated door.

R302.7 Under Stair Protection: Under stair protection is required in enclosed accessible space under stairs with walls and under stair surface protected with a minimum 1/2" drywall.

R302.11 Fire Blocking: Fire blocking (1/2" drywall, 3/4" plywood, 2" nominal lumber, or other approved material) is required in: wall cavities at the ceiling and floor levels and horizontally not exceeding 10'; at all concealed vertical to horizontal connections; at pipe, duct, and wire penetrations at floor and ceiling levels.

R302.13 Combustible Insulation: Combustible insulation shall be separated a minimum of 3" from recessed lights, fan motors, and other heat-producing devices.

R303.7 & R303.8 Stairway Illumination: Interior and exterior stairways shall be illuminated including stairs, landings, and treads.

R308.4 Safety Glazing: Safety glazing is required in the following: all doors; glazing within 24" of door; glazing enclosing/in building walls enclosing tub/showers; glass over 9 square feet of area with bottom edge within 18" of floor and top edge greater than 36" above floor and walking surface within 36"; glazing within 60" of stairway.

R310 Emergency Escape and Rescue Openings: Emergency escape and rescue openings are required in all basements, habitable attics, and every sleeping room. Requirements are minimum opening of 5.7 square feet (operational from inside without use of keys or tools, maximum sill height of 44" from finished floor, minimum 20" opening width and minimum 24" opening height). Windows below grade must have a minimum 36" window well (44" below grade requires a ladder).

R311.3 Landings: Landings are required on each side of exterior doors, minimum of 36" (except for stairways of 2 or fewer risers where door does not swing out over stairs, at doors other than required egress doors), at the top and bottom of all stairways and ramps, and where ramps change direction. Exception: top of interior stairs where door does not swing over stairs.

R311.7 Stairways: Stairways have a minimum width of 36". Maximum riser height 8 1/4", minimum run 9" with 3/4" to 1 1/4" nosing. Riser to riser and tread variance cannot exceed 3/8". Open risers are permitted providing the opening does not permit the passage of a 4" diameter sphere. Minimum 6'8" head room, measured vertically from a sloped plane from nosing to nosing is required. Stairs with winders are permitted provided the tread on the narrowest side 12" out is not less than 10" in depth, and the minimum depth of any tread is not less than 6", per R311.7.4.2.

R311.7.8 Handrails: Continuous handrails are required on all stairs with four or more risers and must be placed 34" to 38" in height, measured vertically from nosing. Ends shall be returned to wall or terminate in newel post or safety terminal. Clear space between wall and handrail shall be not less than 1 1/2". Handrail cross-section: 1 1/4" minimum to 2" maximum or other equivalent grasping surface. Edges shall have a radius of not less than 0.01 inch.

R312.1.1 Guards: Where required, guards shall be located along open-sided walking surfaces, including stairs, ramps, and landings, that are located more than 30" measured vertically to the floor or grade below at any point within 36" horizontally to the edge of the open side. Insect screening shall not be considered as a guard.

R312.1.2 & R312.1.3 Guard Height and Openings: Required guards at open-sided walking surfaces, including stairs, porches, balconies, or landings, shall be not less than 36" in height as measured vertically above the adjacent walking surface or the line connecting the leading edges of the treads. Openings in required guards cannot allow passage of a 4" diameter sphere.

R312.2 Window Openings: Where the lowest part of a window opening is less than 24" above the floor and the finish grade or surface below is more than 72", window openings cannot allow passage of a 4" sphere or windows must be provided with fall prevention devices that are compliant with ASTM F2090.

R314.3 Smoke Alarms: Smoke alarms are required in the following locations: 1. In each sleeping room. 2. Outside each separate sleeping area in the immediate vicinity of the bedrooms. 3. On each additional story of the dwelling, including basements and habitable attics. All alarms shall be interconnected with battery backup. Interior alterations, additions, etc. requires the dwelling unit comply with this section.

R315 Carbon Monoxide Alarms: An approved carbon monoxide alarm shall be installed outside of each sleeping area in any new home and in existing homes where work requiring a building permit occurs.

R316 Foam Plastic: Foam plastic shall be separated from the interior of a building by an approved thermal barrier of 1/2" gypsum board, 3/4" plywood, or equivalent.

R317.3.1 Fasteners for Preservative-Treated Wood: Fasteners, including nuts and washers, for preservative treated wood shall be of hot-dipped, zinc-coated galvanized steel, stainless steel, silicon bronze, or copper.

R319.1 Address Identification: Buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Numbers shall not be spelled out. Each character shall be not less than 4".

R401.3 Drainage: Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection that does not create a hazard. Grade shall fall a minimum 6" within the first 10' from foundation.

R403.1.1 Footings 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).

R403.1.4 Footings Minimum Depth. All exterior footings and foundation systems shall extend 42" below actual grade.

R403.1.6 Foundation Anchorage: Foundation anchorage must include minimum 1/2" diameter bolts spaced maximum 6' on center and located within 12" from ends, embedded minimum 7" into masonry. Anchor straps spaced as required to provide equivalent anchorage to 1/2" diameter bolts.

R404 Foundation Reinforcement: Foundation reinforcement shall be installed in accordance with this section.

R405.1 Foundation Perimeter Drainage: Perimeter drains, consisting of drain tile installed on 2" minimum washed gravel or crushed rock, with an approved filter membrane and covered with minimum of 6" stone, is required around basement foundations.

R406.1 Foundation Dampproofing: Concrete and masonry walls shall be dampproofed in accordance with this section.

R406.2 Foundation Waterproofing: Foundation waterproofing complying with this section is required in areas with a high water table.

R408 Under Floor Space: Crawl spaces, access, vapor barrier, vented or unvented, shall be in accordance with this section.

R502.3.3 Floor Cantilevers: Cantilever maximum shall not exceed nominal depth of joist. Back span ratio 3:1.

R502.6 Bearing: The ends of joists or beams shall have not less than 1 1/2" bearing on wood or metal and not less than 3" bearing on masonry or concrete.

R502.8.2 Engineered Wood Products: Engineered wood products (trusses, LVL's I-joists, etc.) shall not have cuts, notches, or holes drilled without documentation of the effects of the design.

R502.11 Wood Trusses: Wood trusses shall be installed to manufacturer's instructions/design drawings. Truss design drawings are required on job site and available for inspection.

R506.2.3 Vapor Retarder: Concrete floors require minimum 6-mil vapor retarder with joints lapped not less than 6" between the base course and concrete. Vapor retarder is required in all basements, attached garages, and any detached heated accessory structures.

R507 Decks: Exterior decks shall be constructed in accordance with this section.

R602.3.1 Studs: Stud size, height and spacing shall be in accordance with table R602.3(5).

R602.6 Drilling/Notching Stud: Wall studs may not have bored/drilled holes exceeding 60% of width or located closer than 5/8" of edge.

R602.6.1 Drilling/Notching Top Plate: Drilling or notching top plate exceeding 50% requires a galvanized metal tie 0.054" thick and 1.5" wide fastened to each side of opening with not less than 10d nails and must extend at least 6" past opening.

R602.10 Wall Bracing: Lateral wall bracing shall be provided in accordance with this section. Braced wall lines shall be identified on the construction plans if required by building official.

R703 Weather Resistive Sheathing Paper: Weather resistive sheathing paper is required to be installed horizontally lapped over the lower course a minimum of 2" and joints lapped a minimum of 6" under all siding materials.

R703.8 Anchored Stone and Masonry Veneer: Brick and stone veneer shall be installed in accordance with this section.

R802.11 Roof Tie-down: Truss and rafters shall have uplift resistance in accordance with this section.

R905.2.7.1 Ice Barriers: Ice barrier is required on all eave edges to a point at least 24" inside the exterior wall line of the building. Ice barrier must consist of two layers of underlayment cemented together or self-adhering polymer-modified bitumen sheet.

N1102.4.1.1 (R402.4.1.1) Showers and Tubs: Showers and tubs adjacent to exterior walls shall be insulated, and air barrier installed separating them from the exterior walls.

E3901.7 Outdoor Outlets: At least one receptacle outlet that is accessible and not located more than 6' 6" above grade shall be installed outdoors at the front and rear of each dwelling.

Appendix E: HUD approved manufactured homes placed on private sites are required to comply with Appendix E of 2015 Michigan Residential Code.

Appendix F: Washtenaw County has been identified as a high radon potential area, requiring radon-resistant construction in accordance with Appendix F of the 2015 Michigan Residential Code.

AG101 Swimming Pools, Spas and Hot Tubs: Swimming pools, spas, and hot tubs shall be provided with a minimum barrier of 48" high, with gates/access latches/alarms, except for spas/hot tubs with a safety cover which complies with ASTM F 1346.