

City of St. Clair

Proposed Changes in the 2009 International Residential Code

- R-101.1** *Title* : These regulations shall be known as the Residential Code of One-and Two ó Family Dwellings Code of the City of St. Clair, Missouri, hereinafter referred to as “this code” .
- R-105.2** *Work exempt from permit.* Delete the following: Building #1, #2, and #10.
- R-105.5** *Expiration.* Change first sentence: Every permit issued shall be valid for 365 days after its issuance.
- R- 106.2** *Site Plan:* The construction documents submitted with the application for permit shall be accompanied by a site plan, drawn to some scale, showing the size and location of new construction and existing structures on the site and distances from lot lines. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot.
- R106.3.1** **Approval of construction documents.** When the building official issues a permit, the construction documents shall be approved in writing or by a stamp which states “APPROVED”. One set of Construction documents so reviewed shall be retained by the building official. The other set shall be returned to the applicant, shall be kept at the site of work and shall be open to inspection by the building official or his or her authorized representative.
- R- 108.6** *Work commencing before Permit Issuance:* Any person who commences any work covered by this code before obtaining the necessary permits shall be subject to fifty percent (50%) of the usual permit fee in addition to the required permit fee.

R- 113.4 **Violation Penalties** : Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, construct, alter or repair of a building or structure in violation of the approved construction documents or directive of the Code Official, or of a permit or certificate issued under the provisions of the code, shall be guilty of an ordinance violation, punishable as provided in Chapter 1 Sec. 1-8. of the Code of Ordinance of the City of St. Clair.

R- 114.2 **Unlawful Continuance** : Any person who continue any work in or about the structure after having been served a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be guilty of an ordinance violation punishable by a fine of not to exceed five hundred dollars (\$500.00) . Each day that a violation continues after due notice has been served shall be deemed a separate offence.

R-202 **Definitions.** *Add the following :*

Balcony, Exterior. ó An exterior floor projecting from and supported by a structure without additional independent supports.

Decks – An exterior floor system supported on at least two opposing sides by adjoining structure and/ or posts, piers, or other independent supports.

Confined Space - A room or space having a volume less than 50 cubic feet per 1000 Btu/h (4.83 L/W) of aggregate input rating of all fuel-burning appliances installed in that space.

Unconfined Space ó A space having a volume less than 50 cubic feet per 1000 Btu/h (4.83 L/W) of aggregate input rating of all fuel ó burning appliances installed in that space. Rooms Communicating directly with the space in which the appliance are installed, through openings not furnished with doors, are considered a part of the unconfined space.

Unusually Tight Construction ó Construction meeting the following requirements :

1. Walls comprising the building thermal envelope have a continuous water vapor retarder with a rating of 1 perm [57.4ng/(s.m².Pa)] or less with openings therein gasketed or sealed.
2. Doors and openable windows meet the air leakage requirements of IECC Section 502.1.4.1 ; and
3. Caulking or sealants are applied to areas such as joints around windows and door frames between sole plates and floors, between wall- ceiling joints, between wall panels, at penetrations for plumbing, electrical and gas lines, and at other openings.

R- Table 301.2 (1) Climatic and Geographic Design Criteria

Ground Snow Load	20 psf
Wind Speed	90 mph (3 sec. gust) 76 mph (fastest mile)
Seismic Design	Category C
Weathering	Severe
Frost Depth	30 inches
Termite	Moderate to Severe
Winter Design Temp.	0 to 10 degrees F
Ice Barrier Underlayment	No
Flood Hazards	June 21, 2004 ó Ordinance #1311

R- Table 301.5 Minimum Uniformly Distributed Live Loads - Delete the following words from footnote G- 1 - pull-down stairway or.

R- Table 302.6 Dwelling/ Garage Separation - Change ½ inch gypsum board to 5/8 inch Type X gypsum board.

R-302.7 **Under-stair protection.** Enclosed accessible space under stairs shall have walls, under- stair surface and any soffits protected on the enclosed side with 5/8 inch Type X gypsum board.

R- 302.11 **Fireblocking** - *Add the following #7* Fireblocking is required in common wall between the living space and garage at midpoint.

R- 303.3 **Bathrooms** ó Exception : *Add to the last sentence*
. Outside will be considered as ridge vent, gable vent, and soffit vent.

R- 309.2 **Carport** ó Delete the Exception .

R- 311.3.2 **Floor elevation for other exterior doors.** - Delete the word "not" in the Exception .

R-311.7.7 **Handrails** – Change to read as followed : Handrails shall be provided on at least one (1) side of each continuous run of treads or flight with three (3) or more risers.

R-312.3 **Guards opening limitations** ó Delete Exception #2 .

R-313 **Automatic Fire Sprinkler Systems**

R- 315. 3.1 **Type of Alarm : Add New Section** : The carbon monoxide detector(s) required for all new construction, shall be wired directly into the structure AC power with battery back-up, or an AC power plug-in unit with battery-back-up . All existing structures that require carbon monoxide detector(s) can install detector(s) as required for new construction, but a minimum of a battery operated unit.

R- 315.4 **Responsibility – Add New Section** : It is the responsibility of the owner of the dwelling unit to supply and install all required carbon monoxide detector(s) to the manufacturer's specifications. It is the responsibility of the occupant of the dwelling unit to test and provide general maintenance for the detector(s) and to notify the owner or authorized agent of the owner in writing of any

deficiencies that the occupant cannot correct. The occupant shall provide the owner or the owner authorized agent with access to the dwelling unit to correct any deficiencies in the carbon monoxide detector(s) that has been reported.

R- 318.2 **Chemical Soil Treatment** ó *Add to last sentence* : When treating soil with chemicals a certification will be required from a licensed exterminator.

R- 401.1 **Application.** Remove the last sentence and add: Wood foundations shall not be permitted.

Remove the Exception: The provisions of this chapter shall be permitted to be used for wood foundations only in the following situations:

1. In buildings that have no more than two floors and a roof.
2. When interior basement and foundation walls are constructed at intervals not exceeding 50 feet (15 240mm).

Wood foundation in Seismic Design Category D0, D1, or D2 shall be designed in accordance with accepted engineering practice.

R- 402.1 **Wood Foundation** - Delete in its Entirety .

R- 403.1 **General** – Delete the words ò Wood Foundation ò

Table R- 403.1 **Delete in its entirety.** *Add the following table .*

Minimum Width and Thickness of Concrete or Masonry Footings Load- Bearing Value of Soil (psf) 1,500 to 4,000

1-story

8ö thick x 20ö wide

2-story 8" thick x 20" wide
3-story 10" thick x 24" wide
Reinforcement ó Two (2) No.#4 rebar continuous and tied in place.

Figure R- 403.1 (2) Permanent wood Foundation Wall Section - Delete in its entirety.

Figure R- 403.1 (3) Permanent Wood foundation Crawl Space Section - Delete in its entirety.

R- 403.1.4.1 Frost Protection - Exceptions ó Change #1 to 200 square feet, and delete #2 and #3.

R- 403. 1.4.3 Cold Weather Requirement ó Add the following sub-section:
No concrete shall be poured or installed below a temperature of twenty ó five degrees Fahrenheit (25 F).

R- 403.1.4.4 Hot Weather Requirements – Add the following sub-section:
During hot weather, proper attention shall be given to ingredients, production methods, handling placing, protection during curing to prevent excessive concrete temperatures or water evaporation that could impair the required strength or serviceability of the member or structure. No concrete shall be poured or installed when the temperature is above one hundred five degrees Fahrenheit (105F)

R- 403.2 Footing for Wood Foundation - Delete in its entirety.

R- 403.3.3.3 Drainage – Delete Last Sentence : ó or into an approved sewer system ó .

Table – 404.1.1 (1) Plain Concrete and Plain Masonry Foundation Walls
Delete in its entirety . Add the following table.

Table – 404.1.1 (1) Reinforced Concrete and Masonry Foundation Walls

Maximum Wall Minimum Vertical/Horizontal Reinforcement Size and

Spacing for 8" - 10" & 12" Walls All Soil Classes

Height

4FT.	Vert. - #4 @ 2FT. O.C. Horiz.- #4 @ 2FT. O.C.
8FT.	Vert. - #4 @ 2FT. O.C. Horiz.-#4 @ 2FT. O.C.
9FT.	Vert. - #5 @ 2FT. O.C. Horiz. #5 @ 2FT. O.C.
Over 10 FT.	Design Required

Note:

- a) Mortar shall be type M and S masonry shall be laid in running bond.
- b) Vertical/ horizontal reinforcement shall be a grade (40) minimum. The distance from the face of the soil side of the center of the vertical reinforcement shall be at least five (5) inches for eight (8) inch walls, six and seventy-six hundredths (6.76) inches for ten (10) inch walls, and eight and seventh-five Hundredths (8.75) inches for twelve (12) inch walls.
- c) Vertical rebar shall extend to within six (6) inches from the top of the foundation wall.

R- 404.2 *Wood Foundation Walls* - Delete in its entirety. Add the following :They are Prohibited.

Table R- 404.2.3 *Plywood Grade and Thickness for Wood Foundation Construction* - Delete in its entirety.

R- 405.2 *Wood Foundations* – Delete in its entirety

R- 406.3 *Dampproofing for Wood Foundations* - Delete in its entirety.

R- 408.4 *Access* - Change to the following : All access opening in this section shall be a minimum eighteen (18) inches

by twenty-four (24) inches whether through the floor or through a perimeter wall. Through wall access openings shall not be located under a door of the residence. See Section M1305.1.4 for access requirements where mechanical equipment is located under floors

R- 504.0 **Pressure Preservatively Treated- Wood Floors (On -Ground)** : Delete in its entirety.

R-702.3.8 **Water Resistant Gypsum Board** – Add the following Sentence : Water resistance gypsum board shall be extended at least twenty-four (24) inches past any tub or shower enclosure or area.

M- 1507.4 **Duct Material - New Section** - All Single wall ventilation ducts serving toilets rooms and bathrooms shall be constructed of an approved rigid or flexible metal material. Vinyl duct in not allowed.

G- 2412.5 **Identification** - Delete last sentence.

G- 2420.5.1.1 **Gas Fireplace Service Valve – New Section** - Each gas fireplace shall be provided with a shutoff valve separate from the appliance, and shall be placed in a location from being damaged, and access for operation of the valve.

G- 2420.5.3 **Located at Manifold** - Delete in its entirety.

P- 2804.0 **Water Heater Sizing - (NEW)**

Table 2804.1 **Water heater sizing Chart**

FUEL	GA	ELEC	OIL	GA	ELEC	OIL	GA	ELEC	OIL		ELEC	OIL
	S	T		S	T		S	T			T	

Number of Bedrooms		1			2			3					
1 to 1½ Bath s	Storage (gal)	20	20	30	30	30	30	30	40	30			
	Input (Btu/h or kw)	27K	2.5	70 K	36K	3.5	70 K	36K	4.5	70 K			
	Draw (gph)	43	30	89	60	44	89	60	58	89			
	Recovery (gph)	23	10	59	30	14	59	30	18	59			
Number of Bedrooms		2			3			4			5		
2 to 2½ Bath s	Storage (gal)	30	40	30	40	50	30	40	50	30	50	66	30
	Input (Btu/h or kw)	36K	4.5	70 K	36K	5.5	70 K	38K	5.5	70 K	47 K	5.5	70 K
	Draw (gph)	60	58	89	70	72	89	72	72	89	90	88	89
	Recovery (gph)	30	18	59	30	22	59	32	22	59	40	22	59
Number of Bedrooms		3			4			5			6		
3 to 3½ Bath s	Storage (gal)	40	50	30	50	66	30	50	66	30	50	80	40
	Input (Btu/h or kw)	38K	5.5	70 K	38K	5.5	70 K	47K	5.5	70 K	50 K	5.5	70 K
	Draw (gph)	72	72	89	82	88	89	90	88	89	92	102	99
	Recovery (gph)	32	22	59	32	22	59	40	22	59	42	22	59

For SI: 1 gallon = 3.785 L, 1 gallon per hour = 1.05 mL/s, 1 Btu/h = 0.2931 W. °F. = 1.8°C + 32.

NOTE: Storage capacity, input and the recovery requirements indicated in the table are typical and may vary with each individual manufacturer. Any combinations of these

requirements to produce 1-hour draw stated will be satisfactory. Recovery is based on 100°F. Water temperature rise.

P-2902.5.3

Lawn Irrigation Systems - Change to read as followed : The potable water supply to lawn irrigation systems shall be protected against backflow by a reduced pressure principle backflow preventer. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

P-2904

Dwelling Unit Fire Sprinkler Systems: Delete in entirety?

P-2905 .4

Water service pipe : Table 2905.4 - Delete the following: (ABS) plastic pipe, asbestos-cement pipe, (CPVC) plastic pipe (PE) plastic pipe and tubing, (PE-AL-PE) pipe, (PP) pipe and tubing, (PVC) plastic pipe.

P2905.4.2

Change to read: Water service installation. Trenching, pipe installation and backfilling shall be in accordance with Section P2604. Water-service pipe is permitted to be located in the same trench with a building sewer provided the water-service pipe shall be separated from the building sewer by a minimum of 5 feet (1524 mm), measured horizontally, of undisturbed or compacted earth or placed on a solid ledge at least 12 inches (305 mm) above and to one side of the highest point in the sewer line.

Exception: The required separation distance shall not apply where a water service pipe crosses a sewer pipe,

provided that the water service pipe is sleeved to at least 5 feet (1524 mm), horizontally from the sewer pipe centerline, on both sides of the crossing with pipe materials listed in Tables P2905.4, P3002.1(1), P3002.1(2) or P3002.2.

P-2905.5

Water Distribution Systems : Table 2905.5 - Delete the following: (ABS) Plastic Pipe, (CPVC) plastic pipe and tubing, (PE-AL-PE) composite pipe, (PP) plastic pipe and tubing.

P-3005.4.1

Branch and Stack Sizing : - Change the following : Below grade drain pipe shall not be less than two (2) inches in diameter.

P- 3102.1

Required Vent Extension : Add the following: Every building shall have a main stack a minimum of three (3) inches in diameter that is either a vent stack or a stack vent. Such shall run undiminished in size and as directly as possible from the building drain through to open air above the roof. All other vents to be no less than two (2) inches in diameters.

P- 3103.1

Roof Extension ó Change the following ó Six (6) inches above the roof, to twelve (12) inches above the roof.

P- 3102.4

Vent Termination – New Section ó Every vent stack or stack vent shall terminate to the open air outside.

P- 3114.1

General ó Add the following sentence ó Where approved by the Code Official.

P-3303.1.5

Discharge piping Location - (New Section) All sump pump piping shall be discharged to the outside only. Discharge to sanitary sewer is prohibited.

- E- 3601.6.2** ***Service Disconnect Location*** : Delete in its entirety. And add the following : The service disconnecting means shall be readily accessible located outside the building. Each occupant shall have access to the disconnect serving the dwelling unit in which they reside.
- E- 3603.1** ***Service Conductor and Grounding Electrode Conductor Sizing*** : Table 3603.1 Delete the following Service or feeder ratings, 250, 300, 350 Amps. Change the following sizing for 400 amp service rating to Copper 400 kcmil or two (2) sets of 2/0, aluminum and copper- clad aluminum 600 kcmil or two (2) sets of 4/0.
- E- 3703.2** ***Kitchen and Dining area receptacles*** ó Delete the following : including receptacle outlet for refrigeration appliances. Delete the exception.
- E- 3703.2.1** ***Microwave and refrigeration appliance circuit***: (New Section) ó A receptacle outlet for built-in microwave or refrigeration appliance shall be required to be supplied from an individual branch circuit rated 15 amps or greater.
- E- 3705.4.4** ***Conductors of NM cable*** : Delete in its entirety. Add the following : Conductors in NM cable shall be rated at 90øC. Type NM cable identified by markings NM -B, NMC-B, NMS-B, meets this requirements. All NM cables ran through a wood framing member shall have only one cable per hole or opening. And that hole or opening shall be fire-or-drafted stopped using thermal insulation, fire caulk, or sealing foam , or any other approved method that is approved by the Code Official.
- E- 3901.3** ***Small appliance receptacles*** : Delete Exception #2.

E-3901.3.1 ***Other outlets prohibited:*** Delete Exceptions #1 and 2.

E- 3901.3.2 ***Limitations:*** Delete in its entirety.

E- 3902.11 ***Arc-fault circuit- interrupter protection:*** Delete in its entirety. Add the following : All branch circuits that supply 120 volt, single-phase, 15 ó 20 amperes receptacles located in bedrooms, shall be protected by a combination type arc-fault interrupter installed to provide protection of the branch circuit.

E- 3903.3 ***Additional locations:*** Add to last sentence ó All wall switches used on interior stairways shall be illuminated type switch.

E- 4002.14 ***Tamper-resistant receptacles:*** Delete in its entirety.

E-4003.11 ***Bathtub and shower areas :*** Add to last sentence ó And shall be ground-fault interrupter protected.

The following Appendices are adopted: A, B, C, D, E, G, H, J, and M.