

January 1st 2023



Discover.

***** Advisory Bulletin*****

This shall serve as official notice that the City of St Charles Missouri has approved by ordinance the adoption of the 2021 International Residential Code, 2021 I-code series, 2015 International Energy Conservation Code and the 2020 National Electrical Code. All building permit submittals received on or after January 1st of 2023 must be designed, constructed and inspected in compliance with the applicable codes listed above.

The following 4 pages outline some of the key changes and points of interest between the previously enforced 2015 IRC and the new 2021 IRC. The following pages do not list every 2021 IRC code change or regulation but merely aid those who are affected most by what we believe are some of the more significant IRC changes.

Please contact this office with any questions

Thanks,



Dale Nicolas, CBO,CFM
Building Commissioner

Community Development

City of Saint Charles
200 North Second Street
Saint Charles, MO 63301
636.949.3222
www.stcharlescitymo.gov

www.stcharlescitymo.gov

City of St. Charles - 2021 IRC significant changes & details

(IRC Code sections in Bold)

Building

- **Table R301.2(1) Climatic and Geographic Design Criteria**- the following values shall be entered into the table and footnotes b and h to the table are amended as follows:

Ultimate Wind Speed: 107 (48)

Ground Snow Load: 20 psf

Wind Design Speed: 90 mph

Wind Topographical Effect: No

Seismic Design Category : C (unless indicated otherwise in a soils evaluation report from an approved geotechnical agency)

Weathering: Severe

Frost Line Depth: 30 inches

Termite: Heavy to Severe

Winter Design Temp: 6

Ice Barrier Underlayment Required: No

Flood Hazards: (a) 4-9-1977, (b) 1-20-2016 & 3-9-2021

Air Freezing Index: 1000

Special Wind Region: No

Windborne Debris Zone: No

Building

- **Figure R301.2 (2) Wind design** – The ultimate design wind speed has been modified to 107mph.
- **R308.4.5 Safety Glazing** – Clarification of safety glazing requirements next to tubs and showers.
- **R311.3.2 Exterior landing** – An exterior landing for other than the required exit egress door is not required to have a landing with four or fewer total rises per adopted ordinances.
- **R311.7.3 Vertical rise** – The max vertical rise between floor levels/landings is 151 inches/ 12ft 7in

- **R314.3** Smoke alarm location - A smoke alarm location was added with there is a 24 inch vertical increase between a hall and adjacent room.
- **R326** Habitable attics – A new section for habitable attic requirements.
- **R328** Energy Storage System – New section for Solar battery storage requirements.
- **R506.2.3** Vapor Barrier – Under concrete slab is now a minimum of 10 mil. But has been revised to remain at 6 mil.
- **R507** Decks – This section has been revised with new tables for footing, deck post height, guard rail attachment and etc.
- **Table R602.3 (1)** Wall sheathing fastening – 3/8 – 1/2 WSP is now required to fasten at 6 and 6 on center.
- **Table R602.10.4 & R602.3 (3)** Fastening CS-WSP – Houses constructed using CS-WSP are required to meet table R602.3 (3). Nails are only permitted
- **R602.10.1.2** Brace Wall Line – The location of the BWL and the permitted offsets have been modified. No more than 2/3's of the required braced wall panel length is located to one side of the BWL.
- **Table R703.8.4 (1)** Veneer Attachment – Revised veneer attachment and air gap requirements.
- **R802** Wood roof framing – The ridge, ceiling joist and rater connections are clarified where they are required to be placed or by engineer design.

Energy

- Energy Efficiency – Chapter 11 from the 2021 IRC has been deleted and Chapter 11 from the 2015 has been adopted with all previous amendments.

Mechanical

- **M1502.4.5** Booster fans – Booster fans are now prohibited but UL Listed power ventilators are permitted.
- **M1802.4** Vent block switch - Oil fired appliances shall be equipped with a device to stop the operation when the vent is blocked.

Gas

- **G2427.5.5.1** Chimney Lining – Removed the exception for existing chimney when replacing appliances. Now the chimney lining has to meet NFPA 211.
- **G2447.2** Commercial cooking appliances – They are now prohibited in residential dwellings.

Plumbing

- **P2503.5.1** Pipe Testing – The water test is now required with a 10 foot head water test. A vacuum test for rough plastic plumbing test is permitted.
- **P2605.1** Pipe Support – Where a 4 inch and larger pipe changes direction greater than 45 degrees, it's now required to be braced.
- **P2708.4** Shower Control Valves – The shower valve shall be rated for the flow rate of the shower head and shall be field adjustable.
- **P2905.3** Hot water – A maximum of 100 feet for hot water piping from the source to the fixture.
- **P300313.4** Cement Joints - ABS to PVC cement joints are now permitted between building drainage pipe and the beginning of the building sewer pipe with cement meeting ASTM D3138.

Electrical

- **E3601.8 Emergency** disconnects – The emergency disconnect has been deleted.
- **E3606.5 – E3606.5.3** Surge Protection – The section for surge protection has been deleted.
- **E3703.4** Bathroom receptacle – Any additional bathroom receptacles other than the required countertop receptacles maybe on a separate 15/20 amp GFI circuit.
- **E3703.5** Garage receptacle – Any additional receptacles other than the required receptacle maybe on a 15/20 amp GFI circuit.
- **E3901.4.2** Kitchen Island – One receptacle for the 1st 9 sq.ft. And a receptacle outlet shall be provided for every additional 18 sq.ft. Or fraction thereof.
- **E3902** Arc-Fault Protection – Arc fault protection has been deleted from all GFI locations per adopted ordinances.
- **E3902** GFI Protection – GFI protection is not required for above 125 Volt branch circuits as listed in section E3902 per adopted ordinances.
- **E3902.5** [Basement](#) receptacles - Receptacles installed in all basements shall have ground-fault circuit-interrupter protection for [personnel](#).
- **E4002.11** Bathtub and shower space - [Receptacles](#) shall not be installed within [a zone measured 3 feet horizontally and 8 feet vertically from the top of the bathtub rim or shower stall threshold. The identified zone is all-encompassing and shall include the space directly over the tub or shower stall.](#)
- **E4002.14** Tamper-resistant receptacles – The section has been deleted.

** The code regulations listed above are by no means a complete list of every change or area of concern within the 2021 IRC. This list is merely a guide to list several of the most significant changes.