



# City of Florissant

## RESIDENTIAL ROOFING GUIDE

*According to the 2021 International Residential Code (IRC) as adopted.*

*This document is meant to provide a general residential permitting guide and does NOT include all requirements.*

### GENERAL

1. A Building Permit is required for all residential and commercial roofing and re-roofing. Apply using the online [Portal: https://my.florissantmo.com](https://my.florissantmo.com).
2. All building permits are valid for 180 days. Extensions can be requested in writing with a fee starting at \$40.
3. All plans and work must comply with the [2021 International Residential Code](#), [Building Code](#), [Energy Conservation Code](#), [Property Maintenance Code](#), [as adopted by the City](#), and be done in a [workmanlike manner](#). **Note this on the plans.**
4. Homeowner can apply for building permits and perform the work.
5. The cost of permits is determined by cost of construction: [City Code Section 505.010](#).
6. Plan review may be required at the discretion of the City.
7. All applicants acknowledge and agree the following:
  - a. **All work will comply with City Codes and regulations.**
  - b. **To submit sufficient photos of the work or get in-person inspections.**
8. Construction documents must be uploaded on the [Portal: https://my.florissantmo.com](https://my.florissantmo.com):
  - a. Contract and detailed **scope of work**.
  - b. **Roof plan** showing all components such as: ridges, valleys, penetrations, flashing, drip edge, gutters, chimney, cricket, rooftop equipment, ventilation details, skylights, etc.
  - c. **Materials specifications:** covering (shingles, etc), wood sheathing (plywood) thickness and span rating, underlayment, drip edge, flashing, boots, rain caps, ventilation/insulation, ventilation baffles, guttering/downspouts, sheathing fasteners, covering fasteners, etc.

### INSPECTIONS

#### GENERAL

1. **Three (3) inspections are REQUIRED:**
  - a. An **in-person, tear-off inspection of exposed decking** in order to reuse existing wood.
  - b. **Take photos** for the **rough inspection** just before shingles are installed.
  - c. **Take photos** for the **final inspection** when the project is complete.

2. Email [publicworks@florissantmo.com](mailto:publicworks@florissantmo.com) an **online link** with all the photos listed and a request for rough / final inspection to or deliver printed photos to City Hall for an inspector to be scheduled. Include: name of applicant / company, address of project, cell number and email address.
3. An inspector will be scheduled to examine the photos and email the results.
4. **All violations must be corrected prior to final approval, even if work was already completed.**

## **BEFORE / AFTER PHOTOS REQUIRED:**

- ✓ To reuse wood plywood sheathing / decking, after shingles and felt paper have been removed, we **MUST HAVE AN IN-PERSON INSPECTION.**
- ✓ Front of house with roof and address numbers showing work in progress in the background.
- ✓ Existing **shingles to be covered** in 3 separate locations.
- ✓ **New plywood sheathing** trademark stamp, span rating, thickness with tape measure
- ✓ New **sheathing nailing pattern** (every 6" inches) and **edge support** ("H-Clips" if  $\frac{3}{8}$ " inch thick). "H" clips (if on 24" o/c joists), fasteners 8d common nails - 6" on seams/edges and 12" in field, maximum 1 layer decking.
- ✓ New **underlayment and ice/water shield** with tape measure showing distance from wall line (from the eave to 24 inches inside of the exterior wall)
- ✓ New valley linings, drip edge, ventilation, baffles, flashings, boots, curbs, crickets, skylights, etc.

## **SHARING PHOTOS**

(Must be done one of the following ways. Do NOT email photos.)

1. Online **internet link** sent in an email. No photos may be attached to the email.
2. Printed **hard copies** brought into City Hall.

# **CONSTRUCTION**

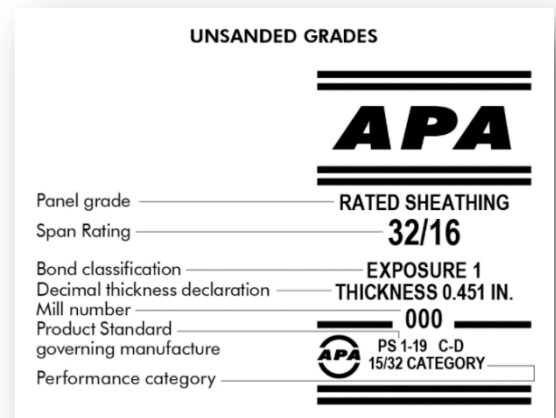
*This section does **NOT** contain all roofing regulations. Based on the 2021 International Residential Code Chap. 9. Commercial must comply with the IBC. Manufacturer's installation instructions must be followed.*

## **WOOD SHEATHING / DECKING**

1. Roof covers shall **ONLY** be fastened to **SOLIDLY SHEATHED DECKS.**
2. **EXISTING WOOD SHEATHING** may remain after tear off **ONLY** if: NOT DETERIORATED, NOT WARPED, NOT CRACKED AND NOT DELAMINATED. Otherwise it is deemed "non-nailable" and must be replaced.
3. Wood sheathing thickness of  $\frac{3}{8}$ " inch is **ONLY** permitted if:

- a. **RATED FOR THE SPAN** (24/0 minimum for 24" inch truss/joist centers)
  - b. Each panel spans **AT LEAST THREE (3)** supports (trusses or roof joists) and
  - c. Edges are blocked or edge support is provided ("H"-clips, tongue & groove, etc.).
  - d. Ice and water sheathing (from the eave to 24 inches inside of the exterior wall)
4. The maximum number of layers of wood sheathing is one (1) unless an engineering report for the load is approved.
  5. Sheathing nailing pattern is every 6" (See Fastening below)
  6. The sheathing stamp must be legible. Example:

[APA Plywood Trademark Explained \(link\)](#)



## ASPHALT SHINGLES

1. Matching is required of all roof coverings according to **City Code Section 500.330 (18)**. Matches must be approved by the Building Commissioner by submitting samples of existing and new materials for examination.
2. Asphalt shingles may only be used on roof slopes of two units vertical in 12 units horizontal (2:12) or greater. Consult code section for lower slopes.
3. **RECOVERING** without tear off is **ONLY** allowed if sheathing and covering is still an adequate base for additional roofing (see **IRC R908-Reroofing**), one (1) layer only. Existing must be flat, no cupping/curling, plywood decking not wet or damaged.

## MINERAL SURFACE ROLLED ROOFING

1. Not allowed on slopes under 1:12 (8% slope).
2. Requires underlayment and ice barrier.
3. Installed according to manufacturer instructions.

## VALLEYS

1. Open Valleys Lined with Metal: 24" inches wide, only metals listed in IRC Table R905.2.8.2.
2. Open valleys lined with 2 plies of mineral surfaced roll roofing: bottom layer 18" inches minimum and top layer 36" inches wide minimum.
3. Closed valleys covered with shingles: one ply of smooth roll roofing 36" inches wide or valley lining above.

## **UNDERLAYMENT**

1. For roof slopes 2:12 up to 4:12, apply a 19" inch strip of felt underlayment parallel to and starting at the eaves. Starting at the eave, apply 36" inch wide sheets, overlapping lower sheets 19" inches. End vertical seams shall lap 4" inches and offset every 6' feet.
2. For roof slopes of 4:12 or greater, underlayment shall be a minimum of one layer of #15 lb. applied parallel to and starting at the eave lapping previous sheets 2" inches and lapping 4" inches at the end vertical seams.

## **FLASHING / DRIP EDGE / CHIMNEYS**

1. Flashing is required at any intersection of roof and vertical plane surface.
2. A cricket is required at a wall or chimney greater than 30 inches wide. The dimensions of the cricket are based on the slope of the roof.
3. Sidewall flashing (aka "kickout flashing") required, 4" inches high, 4" inches wide
4. Spark arrestors are required on chimneys.
5. Metal drip edge is required at the eaves of shingle roofs. Ends of the drip edge shall be lapped 2" inches minimum. The vertical leg of drip edges shall be a minimum of 1 ½ inches in width and shall extend a minimum of ¼ inch below the sheathing. The drip edge shall extend back on the roof a minimum of 2 inches. Drip edge shall be mechanically fastened not more than every 12" inches. Drip edge installation must also meet the shingle manufacturer's requirements.

## **VENTILATION / INSULATION**

6. Proper ventilation is required and calculated at a rate of 1 square foot of net free ventilation vent area for every 150 square feet of the vented space. There must be 2 cross ventilating gable vents or a soffit and ridge vent combination.
7. A minimum 1" inch air gap is required between insulation and wood sheathing/ roof decking.
8. Exhaust vents through the attic must terminate to the exterior (clothes dryers exhaust vents, bathroom exhaust vents, kitchen exhaust vents, etc.).
9. Replacement insulation must comply with '21 IRC Chapter 11, R-60 in attic spaces or R-30 if no attic space but must be full depth over the top plate of the exterior wall.

## **FASTENING**

1. Materials: galvanized steel, stainless steel, aluminum or copper.
2. Fastening Shingles: 12-gage nail, ⅜" inch diameter head.
3. Length: Must penetrate through sheathing.
4. Number: Asphalt shingles require 4 fasteners per strip or 2 per individual shingle tab.

5. (Nails) Sheathing to Truss/Rafter: 8d common nail, 2 ½" inches long, spaced 6" inches on all support members.

## HELPFUL LINKS

1. [Online Permitting Portal: https://my.florissantmo.com](https://my.florissantmo.com)
2. [Matching Materials Letter 2021 \(PDF\)](#)
3. [Matching Materials Required \(City Code \*\*Section 500.330 \(18\)\*\*\) -](#)
4. [Florissant Modifications to the Model Building Codes: https://ecode360.com/28085073](https://ecode360.com/28085073)
5. [Free Online View of the Model Building Codes: https://codes.iccsafe.org/codes/i-codes](https://codes.iccsafe.org/codes/i-codes)
6. [2021 International Residential Code, Chapter 9 - Roof Assemblies](#)
7. [2021 International Residential Code, Chapter 9 - Roof Assemblies \(PDF\)](#)
8. [2021 IRC Section R602.3 Fastening Schedule](#)
9. [2021 IRC Section R602.3 Fastening Schedule \(PDF\)](#)
10. [2021 IRC Section R503.2.1\(1\) Sheathing Table](#)
11. [2021 IRC Section R503.2.1\(1\) Sheathing Table \(PDF\)](#)
12. [2021 IRC Section R806 – Roof Ventilation](#)
13. [2021 IRC Section R806 – Roof Ventilation \(PDF\)](#)
14. [APA Trademark Grade Stamp for Wood Sheathing \(PDF\)](#)
15. [Florissant City Website: https://www.florissantmo.com/](https://www.florissantmo.com/)

For further assistance call: (314) 839-7648, email: [publicworks@florissantmo.com](mailto:publicworks@florissantmo.com)

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