2121 IRC Inspection Checklist

RE- ROOF

This checklist is intended for use to prepare for an inspection. This is only a general list and is not intended to address all possible conditions. References are to the 2021 International Residential Code (IRC). Note: references to the (AHJ) means the Authority Having Jurisdiction.

NOTE: A permit for re-roof is not required for a 1-layer shingle overlay with no more than 128sqft. of sheathing replacement.

Inspections

Pre-inspection

- ❑ Prior to the installation of an additional layer of roofing material over an existing layer(s).
- ❑ After the removal of all existing roofing material and underlayment & prior to re-covering.
- ❑ Prior to installing roof coverings on all roofs having a slope of 2:12 or less.

Nailing or Progress Inspection

- ❑ Where the existing roofing material is being completely removed and replaced, and the underlying sheathing is being replaced or added over skip sheathing, a nailing inspection is required prior to any roofing materials being placed.
- ❑ Where an additional layer of roofing material is placed over an existing layer, a progress inspection is required. (Exception: Bellevue doesn't require progress inspection for overlays.)

Final

- ❑ Final inspection when all work is complete.

Permits and Plans

- ❑ No permits required for residential re-roof overlays not to exceed two layers. (Overlays occur when new roofing is installed over existing roofing.)
- ❑ Permits and approved plans required for residential re-roof involving structural elements including but not limited to, additions or modifications, roof sheathing, skylights, change of roof pitch, addition or relocation of mechanical units or installation of heavier materials than were previously installed.
- ❑ Job address is posted in a visible location. (R319)

- ❑ Permit and approved plans (when required) are on site and accessible to the inspector. (R105.7 & R106.3.1)
- ❑ Permit information is correct (address, permit number, description of work, etc.).

General Re-Roof Requirements

- ❑ New roof coverings shall not be installed without first removing all existing layers of roof coverings when any of the following conditions exist: 1) The existing roofing is water soaked or is degraded to such a point that it cannot provide an acceptable base to the additional roofing. 2) Where the existing roof covering is wood shake, slate, clay, or cement tile. 3) Where the existing roof has 2 or more applications.
- ❑ When the application of new roof covering over wood shingle or shake roofs creates a combustible concealed space, the entire existing surface is to be covered with gypsum board, mineral fiber, glass fiber or other approved material and securely fastened in place.
- ❑ Flashings must be reconstructed in accordance with approved manufacturer's installation instructions. (R908.6)
- ❑ Structural framework must be capable of supporting additional dead loads. (Pre-inspection required for structural rafter/truss dimensions and spans.) (R908.2)
- ❑ Contact the jurisdiction having authority for any other types of roof overlays.

Roof Slope

- ❑ Minimum 2 in 12 for asphalt shingles. Roof slopes between 2 in 12 and up to 4 in 12 require double underlayment as detailing in section R905.2.7. See special installation requirements of manufacturer and IRC. (R905.2)
- ❑ Minimum 2 ½ in 12 for clay and concrete tiles. Roof slopes between 2 ½ and 12 and up to 4 in 12 require double underlayment as detailing in section 905.3.3. See special installation requirements of manufacturer and IRC. (R905.3)
- ❑ Minimum 3 in 12 for metal roof shingles see special installation requirements of manufacturer and IRC. (R905.4)
- ❑ Minimum 1 in 12 for mineral surfaced rolled roofing. See special installation requirements of manufacturer and IRC. (R905.5)
- ❑ Minimum 4 in 12 for slate and slate-type shingles. See special installation requirements of manufacturer and IRC. (R905.6)
- ❑ Minimum 3 in 12 for wood shingles. See special installation requirements of manufacturer and IRC. (R905.7)
- ❑ Minimum 3 in 12 for wood shakes. See special installation requirements of manufacturer and IRC. (R905.8)
- ❑ Minimum ¼ in 12 for built up roofing. See special installation requirements of manufacturer and IRC. (R905.9)
- ❑ Minimum 3 in 12 for lapped no soldered, non-sealed metal roof panels. See special installation requirements of manufacturer and IRC. (R905.10)
- ❑ Minimum ¼ in 12 for standing-seam roof systems. See special installation requirements of manufacturer and IRC. (R905.10)
- ❑ Minimum ¼ in 12 for modified bitumen roofing. See special installation requirements of manufacturer and IRC. (R905.11)
- ❑ See sections R905.12 - R905.15 for other types of roofing applications.

Roof Drainage

- ❑ Unless sloped to drain over roof edges, roof drains are installed at each low point of the roof. Roof drains size and discharged per the Plumbing Code. (R903.4)
- ❑ Overflow drains sized the same as the roof drains and installed with the inlet line 2" above the low point of the roof, or overflow scuppers having three times the size of the roof drains and having minimum opening height of 4" installed in the adjacent parapet walls with the inlet line 2" above the low point of the adjacent roof. (R903.4.1 as adopted by the State of Washington)
- ❑ Overflow drains discharge to an approved location and not connected to the roof drain lines. (R903.4.1)

Plywood or Oriented Strand Board Sheathing

- ❑ Check for rot or delamination of existing sheathing or framing.
- ❑ Correct span rating based on spacing of rafters or trusses. (R803.2.2)
- ❑ Sheathing less than ½" thickness placed over rafters which are spaced more than 20" on center require plywood clips or blocked edges. Typically, 7/16" OSB with a span rating of 24/16 is used and will not require clips. (Table R503.2.1(1))
- ❑ Sheathing exposed to weather (underside of eaves) must have exterior grade glue (marked as "Exterior" or "Exposure 1"). (R803.2.1.1)
- ❑ Minimum prescriptive nailing is 8d common nails at 6" on center at supported edges and 12" on center in the field. Edge nail pattern also applies over gable ends and diaphragm boundaries. (Table R602.3(1) for nails, Table R602.3(2) for staples.)
- ❑ Sheathing cut into widths less than 24" require solid blocking at all panel edges. (Per APA - The Engineered Wood Association)
- ❑ Fastener's heads or crowns must not penetrate the outer veneer of plywood. (Per APA - The Engineered Wood Association)
- ❑ Sheathing gapped 1/8" at edges. (Per APA - The Engineered Wood Association)

Ventilation of Attic or Rafter Bays

- ❑ Cross ventilation provided in all attics. (R806)
- ❑ Aggregate area of openings shall total 1/150 of the area of the attic. (R806.2 with exceptions)
- ❑ When 40% and not more than 50% of openings are in the upper portion at least 3' or greater above level of eave vents, the above ratios can be reduced to 1/300. (R806.2)
- ❑ When a vapor barrier having a transmission rate not exceeding 1 perm is installed on the warm side of the ceiling the ratio may be reduced to 1/300. (R806.2)
- ❑ Each enclosed vented rafter or truss bay to have a minimum 1" air space between insulation and underside of roof sheathing, with openings to provide air flow based on the ratio of 1/150 (total area of openings: total area of venting space). (R806.3)
- ❑ Insulation cannot block the air flow at vents. (R806.3)

Final Inspection

- ❑ Proper installation of roof covering. Fasteners installed as required for the type of roofing material and per manufacturer's instructions. (R905)
- ❑ Flashings to cover all exposed sheathing edges. Proper flashings & counter flashings at chimneys, skylights, roof-to-wall transitions, as required for the type of roofing material and manufacturer's installation instructions. (R905)