



Inspection Checklist: Residential Roof Sheathing & Shear Walls or Braced Wall Panels

July 1, 2016



This Inspection Checklist reflects code requirements of the 2015 International Residential Code (IRC) and the 2015 International Building Code (IBC).

Please verify the following before calling for a roof sheathing or shear wall inspection.

Permits and Plans

- Job address is posted in a visible location. (R319.1)
- Permit and approved plans are on site and accessible to the inspector. (R105.7, R106.1.2, and R106.3.1).
- Permit information is correct (address, permit number, description of work, etc.)
- Previous required building inspections are approved. (R104.4)
- All inspections as required by the jurisdiction shall have inspection approvals prior to cover and shall be requested by permit holder or agent. (R109.3 and R109.4)

Exterior Wall Sheathing / Braced Wall Panel

- Exterior wall sheathing inspection is required prior to papering or siding.
- Verify the sheathing is the grade and thickness specified on the approved plans and/or engineering.
- Verify the sheathing is nailed per the shear wall/braced wall panel schedule on the approved plan. As a general rule all nails for vertical or horizontal diaphragms are required to be common nail sizes instead of sinkers, See Tables R602.3 (1), R602.3 (2), and R602.3 (3).
- Sheathing edges and end joints must be blocked or occur over horizontal or vertical framing members. (R602.10.10)
- Plate dimensions are per shear wall schedule/approved plans
- Plates are fastened per shear wall schedule/approved plans.
- Check nailing/attachment requirements for required Double 2x's or 3x's as shown on approved plan and shear wall schedule. (R602) R602.3.1 For stud size, height, and spacing. Table R602.3(5).
- Fasteners for preservative-treated wood shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Coating types and weights for connectors in contact with preservative-treated wood shall be in accordance with the connector manufacturer's recommendations. In the absence of manufacturer's recommendations, a minimum of ASTM A 653 type G185 zinc-coated galvanized steel, or equivalent, shall be used.

Exceptions:

1. One-half-inch (12.7 mm) diameter or greater steel bolts.
2. Fasteners other than nails and timber rivets shall be permitted to be of mechanically deposited zinc coated steel with coating weights in accordance



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with ASTM B 695, Class 55 minimum.

3. Plain carbon steel fasteners in SBX/DOT and Zinc Borate preservative treated wood in an interior, dry environment shall be permitted.

- Fasteners at end joints are not spaced greater than 6" on center and are firmly driven into the framing. R602.3
- Fastener heads or crowns don't penetrate the outer veneer of plywood. APA
- Pressure-treated materials or impervious moisture barrier installed wherever concrete is being poured against wood construction. (R317)
- Check plans for lateral restraint or alternate braced panels per R602.10.6.2. And confirm that the construction meets the approved engineering or the prescriptive design.
- Verify roof eave rafter tails/sheathing does not project into fire separation distance @ property line per R302.1 of 5 feet.

Exterior Roof Sheathing

- Roof sheathing inspection is required prior to papering or roofing.
- Mid-span clips are installed as required by approved plan or the APA manufacturing and installation requirements.
- Fasteners at end joints are not spaced greater than 6" on center and are firmly driven into the framing members. R602.3, end joints are staggered R803.2.3
- Check plans for any specified blocking and/or nailing. Example: Shear wall connections to roof diaphragm.
- Check plans and schedules for fastener type and size.
- Thickness and grade of sheathing shall conform to approved plans or prescriptive requirements. R803.2.2
- Allowable spans for lumber sheathing shall conform to table R803.1. Spaced lumber sheathing for wood shingle and shake roofing shall conform to the requirements of sections R905.7 and R905.8. Spaced lumber sheathing is not allowed in Seismic Design Category D2. R803.1

Hold-downs and Hardware

- Confirm that all floor to floor, wall to floor and lateral straps and transfer connections are installed per the approved plans.
- Hold-downs not over-spalled beyond manufacturer's maximum allowance of 1". Spalling greater than 1" will cause a reduction in load capacities. See manufacturer's installation instructions and/or engineering.
- Hold-downs and straps are attached properly per approved plans and/or manufacturer's specifications.
- Full height studs required at strapping and hold-downs.
- Multiple studs are installed at strapping and hold-downs as required per approved plan or manufacturer's requirements.
- Check anchor bolting at garage walls as they typically aren't complete at the underfloor



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July 1, 2016



- inspection. (R403.1.6)
- Anchor bolt size and spacing is per schedule. (R403.1.6) and or approved plans.
 - R602.11.1 Wall anchorage for all buildings in Seismic Design Categories D0, D1 and D2 and townhouses in Seismic Design Category C.
 - Plate washers, a minimum of 0.229 inch by 3 inches by 3 inches (5.8 mm by 76 mm by 76 mm) in size, shall be provided between the foundation sill plate and the nut except where approved anchor straps are used. The hole in the plate washer is permitted to be diagonally slotted with a width of up to 3/16 inch (5 mm) larger than the bolt diameter and a slot length not to exceed 1-3/4 inches (44 mm), provided a standard cut washer is placed between the plate washer and the nut.

Framing

- Check framing member requirements for Double 2x's or 3x's as shown on approved plan and shear wall schedule. (R602) R602.3.1 For stud size, height, and spacing refer to Table R602.3(5) & R602.3.1
- Continuity per R302.2.1 (State Amendment) is maintained when exterior wall (1-hour-rated) is within 5-foot fire separation. Distance should also be verified at time of foundation and framing inspections.
- Cripple wall bracing, exterior and interior per requirements of R602.10.11 (State Amendment)