



INSPECTION REQUIREMENTS: ROOFING (NEW AND REROOFS)

INSPECTION CODE: 802, 805, 808

SCOPE: RESIDENTIAL AND COMMERCIAL

APPLICABLE CODES: 2016 CBC, CRC, CPC, CMC, CEC, CALGreen, CEnC, and PAMC

The information provided in this document is general and intended as a guide only. Each project is unique and additional requirements may be enforced as deemed appropriate.

WARNING

Failure to complete items below prior to inspection may result in a re-inspection fee.

GREEN BUILDING TIPS

- ☐ Your roof or reroof can qualify for energy efficiency tax credits. You can find them here: [Energy Star](#).
- ☐ Installing radiant barrier sheathing reduces summer heat gain and winter heat loss. It also reflects 97% of heat back towards its source and can cut your annual energy cost by approximately 20% to 30%.
- ☐ Try to install:
 - ☐ Solar reflective asphalt shingles
 - ☐ Solar powered roof fan
 - ☐ Energy star skylights or light tubes
- ☐ Look into attic/roof insulation rebates, such as [Smart Energy](#).
- ☐ Remember to dispose of old roofs at an approved local recycling center to achieve C&D requirements.

PERMIT

- ☐ A permit is required for repairs that exceed 100 square feet/1 square. Permit card shall be at all scheduled inspections. (PAMC)
- ☐ Rooftop equipment such as photovoltaic (PV), solar heating, HVAC, and signage require a separate permit (and inspections for connections of the supports prior to covering the roof). (PAMC)
- ☐ Proposed skylights and/or structural changes require appropriate permits; including all building, electrical, plumbing, and mechanical, as required. Structural plans shall be included as required. (PAMC)
- ☐ Roof overlay installations on an existing roof requires a permit and must have prior approval. A pre-roof inspection is required (inspection type 801). (PAMC)

- ☐ Approved roof assemblies covered under CBC Chapter 15:
 - ☐ Asphalt shingles
 - ☐ Clay and concrete tile
 - ☐ Metal roof panels/shingles
 - ☐ Mineral-surfaced roll roofing
 - ☐ Wood shingles/shakes
 - ☐ Built-up roofs
 - ☐ Modified bitumen roofing
 - ☐ All other roof assemblies are considered an alternative method (see section below) and shall be pre-approved prior to installation.
- ☐ All approved roofing systems, including alternative methods (see section below), shall be installed per manufacturer's instructions and ICC/ES reports. Provide inspector with manufacturer's installation instructions or provide ICC/ES report. You can find the ICC/ES reports [here](#).

ALTERNATIVE METHODS

- ☐ Roofing systems not covered in the CBC Chapter 15, such as fluid-applied or applied non-asphaltic sheets, shall be pre-approved and installed with materials and procedures approved by the building official, including ICC/ES report submittals. (CBC 1506.3)

PRE-INSPECTION REQUIREMENTS

ACCESS TO ROOF

- ☐ Provide an extended ladder that is secured to the building and extended a minimum of 30" above roof level. Also, provide a ladder at all roof levels. Ladders need to be rated for a minimum of 350lbs-load capacity. (OSHA)
- ☐ Ladders shall be placed so as not to damage roof and gutters. (CBC 108.4.4)

INSPECTIONS

TEAR-OFF (802)

- ☐ Contractor to replace damaged wood prior to inspection. (CBC 1507.1)
- ☐ Replacement wood to be primed, including cut edges prior to installation.
- ☐ The structure must be adequate for the roofing system load and that the roofing materials have not changed, creating added loads. (See "Roof Overlay Inspection" inspection checklist if doing a roof overlay inspection). (CBC 1507.1)
- ☐ If necessary, an engineer's assessment will be required when it cannot be determined if the structural roof components can support the roof-covering system and equipment loads that will be encountered during installation of the system. (CBC 1510.2)
- ☐ When inspection reveals that an existing fireplace chimney is not safe for the intended application, it shall be repaired, rebuilt, or replaced with an approved factory-built chimney (see the "Fireplace

Transition Frame" checklist). (CBC 115.1, CMC 802.5.4.4)

SHEATHING/ROOF NAILING (803)

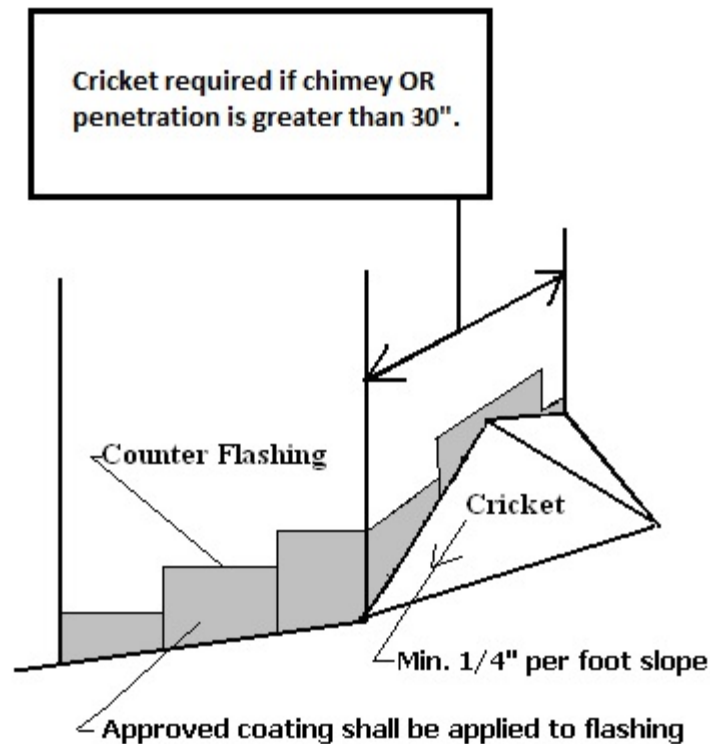
- ☐ If applicable, sheathing must be completed prior to inspection.
- ☐ Tear-off and roof nailing may be combined, except in repaired areas, which must be left accessible for inspection.
- ☐ Sheathing cut into widths less than 24" require solid blocking at all panel edges. (CBC 2305.2.4)
- ☐ Plywood and OSB roof sheathing shall be exterior grade (Exposure 1) including the underside of eaves. (CBC 2304.7.2)
- ☐ Minimum sheathing thickness shall not be less than 7/16" for plywood and 11/32" for OSB. (CBC Table 2304.7)
- ☐ Sheathing shall be gapped 1/8" at edges.
- ☐ Fasteners: Minimum 6" on center at the edge and 12" on center at the field with minimum 8d commons nails.

IN-PROGRESS (805)

- ☐ Dry cutting of tile/stone/concrete is not allowed. A wet saw must be used. (PAMC 9.56.030(A)(21))
- ☐ Complete a representative sample (i.e. 40% - 60%) of roof underlayment, starter course, nailing, flashing, attachments, clearances, and drainage provisions.

SKYLIGHTS AND PENETRATIONS

- ☐ Skylights in roofs that have a slope less than 3:12 must be installed on curbs that are 4" minimum. (CBC 2405.4)
- ☐ Penetrations in the roof (i.e. chimneys or skylights) that are 30" or more require a cricket (see CPA Figure 012. (CBC 1503.6)

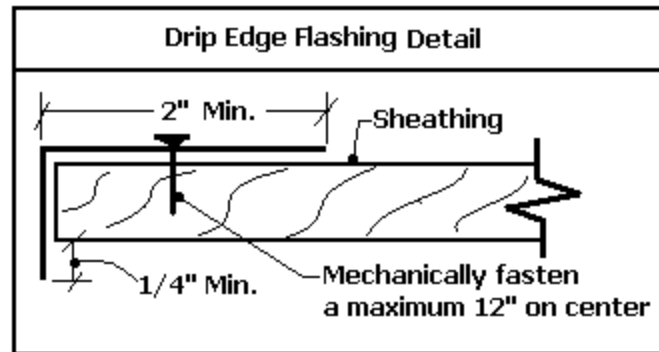


CPA Figure 012 - Minimum Requirements for Penetrations 30" or Greater

FLASHING (COASTAL ZONE REQUIREMENTS)

- ☐ Metal flashing shall be min. corrosion resistant 26 gage galvanized sheet and shall be primed and painted. (CBC 1503.2.1, PAMC)
- ☐ Counter flashing is required at all vertical surfaces (walls and chimneys). Flashing shall be installed at wall and roof intersections, at gutters, change in roof slope or direction, around openings, and drip edge flashing at eaves and gable edges. (CBC 1503.2.1, CBC 1507.2.9.3)
- ☐ Missing, rusted or damaged flashing and counter flashing vent caps and metal edging shall be replaced with new materials. All metal allowed to be reinstalled shall be primed prior to re-roofing and painted prior to final installation. (CBC 1510.6)
- ☐ Valley flashing shall extend a min. 8" from centerline each way, total 16", and shall have a minimum 4" end lap. (CBC 1507.5.6)
- ☐ Valley flashing for wood shakes and shingles shall extend a minimum 11" from centerline each way, total of 22", and shall have a minimum 4" end lap. (CBC 1507.9.7, CBC 1507.9.8)
- ☐ All flashing shall be sloped 1/4" per foot. (CBC 1507.2.9.4)

- ☐ Provide drip edge at eaves and gables of asphalt and wood shingle roofs. Drip edge shall extend a minimum 1/4" below sheathing and extend back on roof a minimum 2" and mechanically fastened a maximum of 12" on center. (CBC 1507.2.9.3)
 - ☐ Note: Rain gutters shall not be used in place of drip edge unless the flange is a minimum 2" (see CPA Figure 013).



CPA Figure 013 - Drip Edge Flashing Detail

ROOF COVERINGS

- ☐ Roof coverings shall be installed per approved manufacturer's installation instructions and applicable provisions. (CBC 1506.1)
- ☐ Roof-covering material packages shall bear manufacture's identification marks and approved testing agency labels. (CBC 1506.3)
- ☐ Roof-coverings shall be compatible with each other and with the building to which the materials are applied. (CBC 1506.2)

FIRE CLASSIFICATION

- ☐ Roof assemblies shall be divided into classes defined below. The minimum roof coverings installed on buildings shall comply with CBC Table 1505.1 based on the type of construction of the building.
- ☐ Roofing covering shall be minimum Class C. (CBC 1504.4)
- ☐ Wildland Urban Interface fire areas shall have a minimum Class A. (CBC 1505.1.4, CBC 1505.2)

CBC Table 1505.1 – Minimum Roof Covering Classification for Types of Construction*

Type	Type	Type	Type	Type	Type	Type	Type	Type
IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
Class	Class	Class	Class	Class	Class	Class	Class	Class
B	B	B	C	B	C	B	B	C

* Unless otherwise required, in accordance with CBC Chapter 7A (Exterior Wildland Exposure).

FASTENERS

- ☐ All roofing systems shall use corrosion-resistant, 12 gage fasteners/nails, clay or tile minimum 11 gage. Fasteners shall have a sufficient length to penetrate into deck a min. of 3/4". (CBC 1507.2.6, CBC 1507.3.6)

VENTILATION AND VENT FLASHING/CAPS

- ☐ The minimum net free ventilation shall be 1/150 square feet of area, with 50% at the upper portion, a minimum of 3' above the eave or cornices vents and the balance ventilation provided by eave or cornice vents. (CBC 1203.2, CBC 1203.2.1)
 - o Openings to attics shall be covered with corrosion-resistant wire mesh.
 - o Mesh openings: Minimum of 1/8" not to exceed 1/4".
- ☐ Roof top vent flashing minimum requirements: See CPA Tables 006 - 008.
- ☐ Vent caps shall be primed and painted prior to final inspection. (PAMC)

Table CPA 006 - Regular Rooftop Vent Flashing Minimum Size Requirements

Vent Pipe Size (inches)	Base Size (inches)
1 – 2.5	10 x 15
3 – 4	15 x 18

Table CPA 007 - Wood Shingles Rooftop Vent Flashing Minimum Size Requirements

Vent Pipe Size (inches)	Base Size (inches)
1 – 2.5	17 x 17
3 – 4	20 x 26

Table CPA 008 - Wood Shakes Rooftop Vent Flashing Minimum Size Requirements

Vent Pipe Size (inches)	Base Size (inches)
1 – 2.5	17 x 23
3 – 4	20 x 26

FINAL (808)

- ☐ All work must be complete; the roof and jobsite must clean of debris. If gutters and rain leaders existed prior to the installation of the roofing, they must be installed at the time of the inspection with splash blocks in place. (CPC 1101.6.3)

SPARK ARRESTER

- ☐ Replacement alteration or repair to roof requires a spark arrester to be installed. (PAMC)
 - o All chimneys attached to any appliance or fireplace that burns solid fuel/wood burning shall be equipped with an approved spark arrester.
 - o Spark arrester shall be properly sized, screened, accessible and removable for cleaning.

ARCHITECTURAL SHROUDS

- ☐ Architectural shroud(s) are not allowed unless listed as part of the fireplace. (CBC 2113A.9.1, CBC 2802.1, PAMC 16.04.200)

NOT ALLOWED

- ☐ Copper rain gutters and/or downspouts are not allowed. (PAMC 16.09.160(B)2)
- ☐ Buildings with eave overhangs cannot collect or direct water over adjacent properties (must install gutters). (PAMC)

MECHANICAL

- ☐ Remove abandoned equipment above rooftops. (PAMC)
- ☐ Existing mechanical equipment at roof shall be seismically secured. (See the "Roof Top Equipment" inspection checklist for additional requirements.) (CMC 304.4)
- ☐ Equipment deck and cap flashing drainage: All equipment sheet metal deck/caps/lids and cap flashing shall have a minimum 1/4" per foot slope.
 - o Fix: Apply a two-part epoxy system roof coating or snow roof system. (CMC 904.10.2.2, CMC 904.10.2.4)

ELECTRICAL

- ☐ Electrical wiring systems under roofing materials shall have physical protection from nails, such as angle iron or rigid metal conduit.
 - o MC, AC, Romex cable or flex are not suitable unless protected. (CEC)

PLUMBING

- ☐ All existing piping systems disturbed by re-roofing shall be reinstalled to comply with applicable codes. (CPC)
- ☐ Provide a gas test as applicable when the gas pipe is altered/changed. See the "Whole House Gas Test" inspection checklist for test requirements. (CPC 1211.3)
- ☐ When gas piping is required to be concealed/encapsulated in roof assembly (not recommended) provide base vent flashing at all gas connections i.e. elbows, tees etc. (CPC 1211.3)

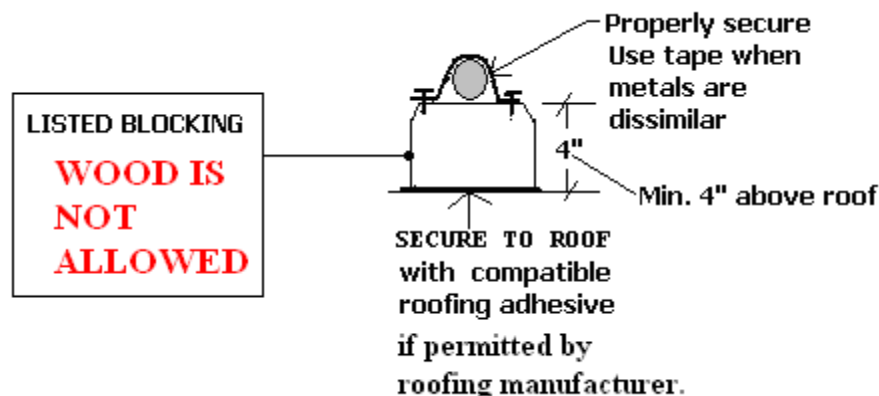


Figure CPA 014 - Attachment Requirements for Piping

ROOF DRAINS

- ☐ Existing flat roof decks shall have positive slope to move surface water to roof drains (preventing water ponding). (CBC 1510.1)
- ☐ Minimum 1/4" per foot slope to drain. (CBC 1506.1)
- ☐ Roof drains that run through the interior of the building shall be in plumbing pipe.
- ☐ Primary drain(s) shall be properly sized. (CPC Table 11-1)
- ☐ Secondary drain(s) shall be the same size as the primary drain with the inlet flow line 2" above the low point of the roof and shall be an independent system or overflow scupper(s) shall be installed with the inlet flow line located 2" above the low point of the roof and the scupper opening a minimum of 4" high and have a width equal to the circumference of the primary drain. Overflow drains shall not be connected to the primary drain. (CPC 1101.11.2.1, CPC 1101.11.2.2)
- ☐ Strainer(s) for flat deck primary drain(s) shall be level with the deck with the inlet area not less than 2 times the area of the drain pipe. (CPC 1105.3)
- ☐ Strainer(s) for all flat roof secondary drain(s) shall be a minimum of 4" above with the inlet area not less than 1-1/2 times the size of the inlet pipe. (CPC 1105.3)