DEVELOPMENT SERVICES – BUILDING INSPECTION

INSPECTION GUIDELINES:
FIREPLACE CHIMNEY TRANSITION FRAME

INSPECTION CODE: 240
SCOPE: RESIDENTIAL

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.

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

CONTRACTOR REQUIREMENTS
☐ Contractor shall be licensed and certified for this type of work.

☐ Contractor to provide a ladder for the CPA inspector and access to the building for inspection of the fireplace.

☐ Contractor to ensure that all CPA-approved plans, permit card, and all manufacturer’s installation instructions are on site at all times.

PRIOR TO INSPECTION
NOT ALLOWED
☐ Unreinforced chimneys are not allowed to be extended. Chimney flue liners are not allowed; the chimney shall be removed to the shoulders.

REQUIRED SUBMITTALS
☐ Engineered detail of the framing and bracing method including the allowable maximum height of chimney from the starting point/shoulders of the fireplace (see Figure CPA 070). Engineered details must be CPA-approved/stamped and available for the inspector.

☐ Factory-built chimneys installed in dwelling units with solid-fuel-burning appliances shall comply with the Type HT requirements of UL 103 and shall be marked “Type HT” and “Residential Type and Building Heating Appliance Chimney.” Buildings other than dwelling units shall comply with the requirements of UL 103 and shall be marked “Building Heating Appliance Chimney” or “Residential Type and Building Heating Appliance Chimney.” (CMC 802.5.1.2, CRC R1005.3)
  ○ Exception: Chimneys for use with open combustion chamber fireplaces shall comply with the requirements of UL 103 and shall be marked “Residential Type and Building Heating Appliance Chimney.”
Decorative shrouds shall not be installed at the termination of factory-built chimneys except where the shrouds are listed and labeled for use with the specific factory-built chimney system and installed in accordance with the manufacturer’s instructions. (CRC R1005.2, CMC 802.5.4.3)

- Decorative shrouds addressed in Section 802.5.4.3 shall be listed or labeled in accordance with UL 103 for factory-built residential chimneys, UL 127 for factory-built fireplaces, or UL 1482 for solid-fuel room heaters. (CMC 802.5.1.1)

Decorative shrouds shall not be installed at the termination of gas vents except where such shrouds are listed for use with the specific gas venting system and are installed in accordance with the manufacturer's installation instructions. (CMC 802.6.2.4)

**INSPECTION**

**FIRST INSPECTION**

- Verify that a chimney for a residential-type or low-heat appliance shall extend not less than 3’ above the highest point where it passes through a roof of a building and not less than 2’ higher than a portion of a building within a horizontal distance of 10’ (see Figure 802.5.4). (CMC 802.5.4)

- Verify that factory-built chimneys are listed and labeled and are installed and terminated in accordance with the manufacturer’s instructions. (CRC R1005.1)

- For firebox/throat chamber:
  - Tear down the chimney to the fireplace’s shoulders prior to inspection
  - Use high heat mortar to smooth and level the surface on which to attach the transition plate or pour a new 4” thick concrete slab. Parge smooth the sides and throat with high heat mortar as needed, making the interior of the throat free of voids, cracks, and protrusions. Note: Save high heat mortar bag as verification of proper materials
  - Anchors bolts shall be set in “pour stone”-type materials when installing in existing masonry. Epoxy and wedge anchor bolts are not allowed

**SECOND INSPECTION**

- For transition plate:
  - Verify transition plate is listed as part of the chimney assembly
  - Transition plate shall have a minimum 1” clearance to combustibles
  - Install transition plate on a leveled smooth surface with refractory high-temperature sealant per manufacturer’s instructions
For chimney pipe:
  o Verify that chimney is listed and marked “Type HT” and “Residential Type and Building Heating Appliance Chimney” for closed combustion chamber appliances and listed and marked “Residential Type and Building Heating Appliance Chimney” for open combustion chamber fireplace (CMC 802.5.1.2, CRC R1005.3)
  o Verify chimney pipe diameter and height, measure fireplace opening and refer to manufacturer’s sizing table for correct size and height
    ▪ Provide access to the house and manufacturer’s manual for sizing tables
  o Verify chimney pipe is secured and fire-blocked per manufacturer’s specifications
  o Verify chimney pipe clearance to combustibles is a minimum 2”

For wood-framed exterior enclosure/chase
  o Verify that radiant heat barrier, such as 1/2” thick Micore, is installed under sole plate.
  o Sole plate shall be pressure treated with minimum two-anchor bolts per plate.
    ▪ Note: Anchor bolts shall be sized per plans.
  o Verify that framing, bracing, and sheathing are constructed per CPA-approved plans.

THIRD INSPECTION
  □ Refer to the “Exterior Lath” inspection checklist for all requirements.

FOURTH INSPECTION
  □ For Final Inspection (all work must be complete prior to scheduling the Final Inspection):
    o Verify the refractory sealant around gas pipe penetration
    o Verify that the chimney is installed so that safe access is provided for inspection and cleaning
    o A spark arrester shall be listed; the size shall be four times the net free area of the flue opening, heat and corrosion resistant screen minimum 3/8” mesh, maximum 1/2”, and shall be accessible and removable for cleaning (CRC R1003.9.2)
    o Storm collar installed with a minimum 1” air gap between storm collar and chase top flashing
    o Chase top flashing shall be installed with 3/4” air space established by spacers attached to bottom of flashing, sides shall have 1/4” air space, or per manufacturer’s installation instructions
    o Flashing at bottom transition as required
    o Penetrations sealed, job site clean of debris, and all exterior wood painted or at least primed
Figure 802.5.4 – Typical termination locations for chimneys and single-wall metal pipes serving residential-type and low-heat appliances.
Figure CPA 070 – Fireplace Chimney Transition Frame