



MASTERBUILD CONSULTING | FREE SAMPLE

IMC 2024 Chapter 8

Chimneys and Vents Field Guide

Sample — one full section and one working tool

USE BOUNDARY

This sample contains the complete existing-chimney acceptance section and one complete working tool from the client edition. It is educational decision support, not sealed engineering and not the adopted code for your project.

Positioning

“Existing chimney to remain” is the most expensive four words on a renovation mechanical set. This is the section of the full guide that retires them, reproduced here in full so you can judge the package by the part you would actually use first.

Guide feature	Buyer outcome
In this sample	Section 5 — existing chimneys and vents, the four gates — complete, plus Working tool 3, the acceptance record it produces.
In the client edition	Thirteen risk-cluster sections covering routing, size basis, pressure regime, masonry chimneys, existing systems, abandoned openings, shared-flue limits, listed vents, connectors, mechanical draft, factory-built chimneys, termination geometry and document control — with eleven printable working tools and a fillable companion workbook.
Boundary, in both	No numeric code criteria are restated. The guide names the governing parameter, the document that carries it, and the failure mode. Values come from your adopted code text and your actual product data.

Before the sample: which document governs

Chapter 8 is a routing chapter before it is a technical chapter. It sets the general venting rule, then hands whole appliance categories to other documents — gas-fired venting to the adopted fuel gas code, oil-fired to the referenced oil-burning equipment standard, solid-fuel to the listed manufacturer instructions, metal chimneys to the referenced chimney standard. A submittal that cites the mechanical code for a requirement that lives somewhere else tells the reviewer the set was not checked.

DECISION RULE

Do not start with a vent size. Start with the appliance, its fuel, its listing and its draft category, and the document that governs it. The correct size belongs to that confirmed path, and a size carried over from a different path is an error that survives all the way to the roof.

5. Existing chimneys and vents — the four gates

This is the highest-value section in the chapter for renovation, tenant improvement and equipment-replacement work, and it is the one most often replaced by a note that says the existing chimney is to remain. Existing does not mean accepted. When an appliance is permanently disconnected from an existing chimney or vent, or a new appliance is connected to one, the existing system is evaluated as part of the design.

The acceptance decision has four gates. Passing one does not make the system reusable, and there is no partial credit. Record every gate in Working tool 3, including the ones you could not evaluate.

Gate	What is being decided	Evidence that closes it	If it cannot be closed
1. Size	Whether the existing chimney or vent has to be resized for the appliance now being connected — to control flue-gas condensation and to deliver the required draft.	Measured internal dimensions by area, liner identity, appliance category and flue collar, and the size basis applied.	Resize, reline, or change the venting approach. Do not proceed on the assumption that an existing flue that served a previous appliance suits a new one.
2. Passageway	Whether the flue-gas passageway is unobstructed, clean where required, continuous, and free of damage that could release combustion products.	Internal inspection with a record — what was seen, how, and what could not be reached.	Clean, repair or reline. An uninspected passageway is an open item, not a pass.
3. Cleanout	Whether the required cleanout is present, accessible and usable for the maintenance the code contemplates.	Field verification with location, access route and photograph.	Provide or restore access. A cleanout behind finished construction is not accessible.
4. Clearance	Whether the required airspace separation from combustible construction exists along the whole concealed route, and whether the fireblocking is actually in place.	Verified openings at concealed locations, or documented limits on what could be confirmed.	Open, verify, and correct — or change the venting approach. This is the gate that hides inside finished construction and the one with the worst consequence.

Survey discipline

- Record the building's operating mode during the survey, including every exhaust system that was running, and whether that was the normal condition.
- Separate what was observed from what was reported. A previous contractor's statement about a liner is not evidence of a liner.
- Photograph with a reference for scale and location. A photograph nobody can place is not documentation.
- Record access limitations explicitly. The route you could not reach is the route the reviewer will ask about, and it is where the clearance gate usually fails.
- Carry unresolved gates onto the drawings as a field-verification hold point with an owner, not as a general note.

ESCALATION TRIGGER

Any gate you cannot close from available evidence, any concealed route you cannot verify, or any appliance category change on an existing flue is a responsible-professional decision. Document the limit, name the owner, and stop — do not close the gate with an assumption.

Working tool 3: Existing chimney / vent four-gate acceptance record

One record per existing chimney or vent. Every gate gets an answer, including “could not be evaluated.”

Gate	Evidence relied on	How it was obtained	Limitations	Accept / repair / reject
1. Size	_____	_____	_____	_____
2. Passageway	_____	_____	_____	_____
3. Cleanout	_____	_____	_____	_____
4. Clearance + fireblocking	_____	_____	_____	_____

Survey conditions

Item	Entry
Date, surveyor, and access method	_____
Building operating mode during the survey — every exhaust, hood, dryer and relief system running, and whether that is the normal condition	_____
Appliances found: removed, remaining, added	_____
Chimney or vent dimensions, height, material, liner, route, termination	_____
Observed vs reported — what is second-hand and from whom	_____
Routes that could not be accessed or traced	_____
Photograph references and where they were taken	_____

Resulting scope

Required work	Owner	Shown on	Field-verification hold point
Cleaning / repair / relining	_____	_____	_____
Resizing	_____	_____	_____
Cleanout provision or restoration	_____	_____	_____
Clearance correction / fireblocking	_____	_____	_____
Abandoned-opening closure	_____	_____	_____

What the client edition adds

Section	What it resolves
1. Which document governs this venting system	The routing map, per appliance, with what each route changes on your set.
2. Positive flow, design basis and minimum size	Prescriptive versus engineered basis, minimum size by area, the upper limit that surprises people, and every shape transition.
3. The pressure regime decides the system	Natural, forced, induced, exhaustor and direct vent — and why positive pressure reverses the consequence of every joint.
4. Masonry chimneys are a building element first	The coordination points that belong to the architect and structural engineer, and the annular space that is not a second flue.
6. Abandoned openings and decommissioning	The line item that disappears between two scopes of work.
7. What cannot share a flue	The prohibitions that have to be resolved at chase layout, not at rough-in.
8. Vents as listed systems	Eight review questions, including the two different height checks and the shield that gets defeated by insulation installed later.
9. Connectors — route, build, clear	Route, geometry, construction, pass-through, and clearance in three dimensions along the whole path.
10. Direct vent, integral vent and mechanical draft	The controls sequence that crosses four disciplines and therefore has no owner.
11. Factory-built chimneys as listed assemblies	Listing and classification, route limits, structural support, shrouds and shields.
12. Termination geometry is a site problem	Seven things the termination is checked against, and where each check is documented.
13. Drawing, submittal, inspection and closeout control	A sheet map and six named hold points.
Working tools 1–11	Basis register, size basis, four-gate acceptance, connector and clearance, termination geometry, pressure regime, shared-flue screen, factory-built assembly, draft-failure test, decommissioning, and the release record — printable, and fillable in the companion workbook.

Boundary

This sample and the client edition are educational decision support and a documentation workflow built on the 2024 International Mechanical Code as model code. Neither is sealed engineering, a venting calculation, a fuel-gas determination, a permit, or a representation about what any authority having jurisdiction will accept. Confirm the adopted edition, local amendments, the fuel-specific governing document, the appliance and vent listings, and the manufacturer installation instructions for your project.

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Free sample | Issued 2026-09-12 | MasterBuild Consulting