Readyward
Make up ground, intelligently.

2024 IRC / NATIONAL ICC B1
60 QUESTIONS • 2 HOURS • OPEN BOOK

Residential Building Inspector

2024 ICC B1 | LAST-MINUTE CODE & NUMBERS

EXAM BLUEPRINT · PRIORITIZE WALLS + LIFE SAFETY + FOUNDATIONS = 60%

27%	17%	16%	14%	14%	8%	4%
WALLS	SAFETY	FOOTINGS	FLOORS	ROOF	PLANNING	ADMIN

WALLS & COVERINGS | 27%

- **Stud notches (R602.6):** bearing/exterior ≤25% of stud depth; nonbearing ≤40%.
- **Stud holes:** diameter ≤60% depth; edge distance ≥5/8 in.; do not place a hole at a notch. Bearing/exterior holes >40% require doubled studs (max. 2 successive).
- **High-value tables:** R602.3(1) fastening; R602.3(5) stud sizes/spacing; R602.7 headers + jack studs; R602.10 braced walls.
- **Enclosure:** R703 weather barrier/flashing; R302.11 fireblocking; R702 interior coverings.

FOOTINGS & FOUNDATIONS | 16%

- **Concrete footing base:** at least 12 in. wide × 6 in. thick; R403.1 tables often require larger sizes based on bearing, loads and stories.
- **Typical sill anchors (R403.1.6):** min. 1/2-in. bolts, ≤6 ft o.c., ≥7 in. embed; ≥2 per plate section; 7 bolt diameters to 12 in. from each end. Seismic rules can tighten spacing.
- **Lookups:** R401.4 soil; R403 frost/depth; R404 walls; R405 drainage; R406 damp-/waterproofing.

FLOOR FRAMING | 14%

- **Sawn joist notches (R502.8.1):** ≤1/6 depth, none in middle third of span; end notches ≤1/4 depth.
- **Sawn joist holes:** diameter ≤1/3 depth; ≥2 in. from top/bottom and other openings.
- **Engineered joists/trusses:** cuts only as allowed by manufacturer or engineered design. Use R502 span tables, R503 decking, R506 slabs.

ROOFS & ATTICS | 14%

- **Structural navigation:** R802 rafters/ceiling joists/trusses; R803 roof sheathing; R905 coverings; R1001 chimneys.
- **Attic access (R807):** 22 × 30 in. opening where attic ≥30 in. high over ≥30 sq. ft.; verify 30 in. unobstructed headroom at access.
- **Ventilation (R806):** 1/150 net-free area baseline; 1/300 only if specified conditions are met.

STAIRS, GUARDS & DOORS

- **Conventional stairs (R318.7):** ≥36 in. width; ≤7¾-in. riser; ≥10-in. tread; ≥80-in. headroom.
- **Uniformity:** within a flight, riser or tread variation ≤3/8 in.; required stair handrails 34–38 in. (R320).
- **Guards (R321):** typically ≥36 in. tall; openings generally must reject a 4-in. sphere. Check stair-specific exceptions.
- **Required egress door (R318.2):** side-hinged; ≥32 in. clear width and ≥78 in. clear height. Hallway ≥36 in. wide (R318.6).

EMERGENCY ESCAPE & RESCUE

- **Net clear opening (R319):** ≥5.7 sq. ft.; grade-floor opening exception ≥5.0 sq. ft.
- **Also BOTH:** clear width ≥20 in. and clear height ≥24 in.; bottom of opening ≤44 in. above floor.
- **Trap:** 20 × 24 in. is only 3.33 sq. ft. The minimum width + height alone do **not** satisfy required area.
- **Distinction:** emergency rescue openings (R319) are not the same as the required egress door (R318).

FIRE / GLASS / ALARMS

- **Smoke alarms (R310):** inside each sleeping room; outside each separate sleeping area; on each story. Check power and interconnection provisions.
- **CO alarms (R311):** placement/trigger conditions differ from smoke alarms; verify sleeping-area and level rules.
- **Safety glazing (R324.4):** screen for doors and adjacent glazing, wet areas, stairs/landings, and hazardous low or large panes; exceptions matter.
- **Separation (R302):** know garage/dwelling and attached-unit fire-protection requirements; verify exact assembly and penetrations.

CODEBOOK SHORTCUTS & TRAPS

- **Room 70-7-7 (R312–313):** ≥70 sq. ft. of floor area, ≥7-ft horizontal dimension, and normally ≥7-ft ceiling (exceptions apply).
- **2024 Chapter 3:** R310 smoke · R311 CO · R318 exits/stairs · R319 rescue · R320 rails · R321 guards · R324 glazing.
- **Other chapters:** 1 permits · 4 footings · 5 floors · 6 walls · 7 coverings · 8 roof frame · 9 roof coverings · 10 chimneys. Spans/bracing depend on tables.

SOURCE FRAMEWORK: ICC B1 content outline + 2024 International Residential Code (IRC), especially Chapters 3–10.

Unofficial study aid; not affiliated with ICC. Check the ICC exam catalog, 2024 IRC, and applicable local amendments.