2021 Code Implementation: Philadelphia Residential Code

Department of
Licenses and Inspections
CITY OF PHILADELPHIA

Disclaimer

This listing of codes, standards or any other regulations within this presentation is for informational purposes only. They do no constitute the full scope of provisions that may be applicable to your project and cannot be relied upon as evidence of compliance or enforcement.

Any related code provision not mentioned in this presentation does not alleviate the person responsible for the design (owner, designer, etc.) from full compliance with necessary codes and standards nor does it diminish the importance of any specific accessible feature or element.

Code Adoption

- Applications filed on or after July 13, 2025, may apply the 2018 or 2021 I-Codes.
- Applications filed on or after January 13, 2026, MUST apply the 2021 I-Codes.

Implementation

- Regulation on Permit Filing Date.
- Initial Building Permit establishes code edition to be used for the building, including trades. A foundation (or excavation, where required) permit will constitute building permit issuance.
- Can’t mix code editions.
- Permit Application Extensions- will only authorize one extension for RFI. More stringent rules on pick-up.
- Master Approvals- individual permit applications must be filed by application date. If missed, will need to resubmit
- Preliminary plan reviews, including variances, will not carry over.
- Need to act on permits issued under the 2018 I-Codes within expiration period.

Pa Uniform Construction Code (UCC)

Date	Days	Running	Activity
1/31/2021			ICC Officially Publishes 2021 ICC Family of Codes
11/15/2021			Open Public Comment for Sections Not Changing from 2018 to 2021
2/13/2022	90		Close Public Comment for Sections Not Changing from 2018 to 2021
3/10/2022			RAC Meeting
5/12/2022			RAC Meeting
7/14/2022			RAC Meeting
9/8/2022	207		Publish list of additional sections to be considdered
10/13/2022	620	20.66667	RAC Initiate PA Review of 2021 ICC Family of Codes
11/12/2022	30		Rac Opens Public Comment on 2021 ICC Family of Codes
			TAC Committee Applications are Opened
12/12/2022	30		TAC Committee Applications are Closed
3/12/2023	120		Public Comment Closed
3/16/2023	4		RAC Receives Public Comment and Assigns Comments to TAC's
9/14/2023	182		RAC Meets With Update From TAC Committee's Being Presented
12/7/2023	84		TAC Review Completed with Final Reports to Dept L&I
1/4/2024	28		RAC Recieves Final Report From TAC Committee's
1/15/2024	11		TAC Final Reports are Posted for Public Review
2/1/2024	17		RAC First Public Hearing (EAST)
2/29/2024	28		RAC Second Public Hearing (Harrisburg)
3/28/2024	28		RAC Third Public Hearing (WEST)
4/18/2024	21		RAC Meeting to Deliberate
5/2/2024	14		RAC Meeting to Deliberate
5/16/2024	14		RAC Meeting to Deliberate
5/30/2024	14		RAC Meeting to Deliberate
6/13/2024	14		RAC Meeting to Deliberate
6/27/2024	14		RAC Meeting to Deliberate
7/25/2024	70		Draft Report Presented to the RAC
9/12/2024	49		Final Report Approved by RAC
10/1/2024	19		Final Report Submitted to Dept L&I
2/27/2025			RAC Meeting
5/8/2025			RAC Meeting
7/13/2025	285		Go Live

- Chapter 7 Fire and Smoke Protection Features, was adopted with the following modifications:
  - Section 704.2 Column protection, was not modified as part of the Pennsylvania 2018 IBC adoption, maintaining the 2015 IBC language. The national language was not modified in 2021 code, and as such, this language again was maintained in the current Pennsylvania 2021 IBC adoption as follows:

    704.2 Column protection. *Where columns are required to have protection to achieve a fire-resistance rating, the entire column shall be provided individual encasement protection by protecting it on all sides for the full column height, including connections to other structural members, with materials having the required fire-resistance rating. Where the column extends through a ceiling, the encasement protection shall be continuous from the top of the foundation or floor/ceiling assembly below through the ceiling space to the top of the column.*
  - Section 704.4.1 Light-frame construction, was not modified as part of the Pennsylvania 2018 IBC adoption, maintaining the 2015 IBC language. The national language was not modified in 2021 code, and as such, this language again was maintained in the current Pennsylvania 2021 IBC adoption as follows:

    704.4.1 Light-frame construction. *Studs and boundary elements that are integral elements in load-bearing walls of light-frame construction shall be permitted to have required fire-resistance ratings provided by the membrane protection provided for the load-bearing wall.*

Review & Advisory Council Site
includes complete info on regulatory process, including minutes of meetings.

Full Adoption Timeline
2024 adoption timeline will be posted here, with public comment period of unchanged sections in 2025.

Final Report
View full report of amendments to the 2021 I-Codes to be adopted through PA DLI regulation.

Guidance Documents & Form Updates

Assistance in Understanding Changes

- Publish list of changes, by Code, as they will be applied in Philadelphia.
- New forms will be available for 2021 Codes.
- Both 2018 and 2021 will be posted. Must select the correct form.
- All FAQs, bulletins, info sheets, EZ permits etc. will be updated as needed.
  - Most will be revised but not re-issued.

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Reference Code(s):
International Building Code

FAQ:
What are the significant changes between the 2018 and 2021 Building Code?

This document includes a summary of significant changes to the Building Code (IBC) and includes the PA Uniform Construction Advisory Council (RAC) Report Amendments. This document a information for the identified code changes

Disclaimer: This document shall be utilized as guidance professional is responsible for reviewing the provisions of the I associated reference Standards, and the directives of the PA D and Industry. The Department of Licenses and Inspections decision in response to a formal application for a const preliminary review.

Summary of changes between the 2018 and 2021 International
(Items marked with an asterisk (*) are identified as major code change

Administration

Chapter 2:

- Definition- Atrium
- Definition- Change of Occupancy *
- Definition- Impact Protective System
- Definition- Mass Timber *
- Definition- Nailable Substrate
- Definition- Penthouse
- Definition- Puzzle Room *
- Definition- Structural Members

Building Planning

Chapters 3 through 6:

- Section 306.2- Group F-1 Occupancy Classification

PB_020_FAQ

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Reference Code(s):
International Building Code

Summary of Changes between the 2018 and 2021 Building Code

Administration

Chapter 2 (Definitions)

- **Definition of "Atrium"** has been simplified by the elimination of some previous language to clearly define vertical enclosures and the number of stories connected by an atrium.

[BG] **ATRIUM.** A vertical space that is closed at the top, connecting two or more stories in Group I-2 and I-3 occupancies or three or more stories in all other occupancies.

- **Definition of "Change of Occupancy"** narrows the scope of a change of occupancy where no classification change takes place.

[A] **CHANGE OF OCCUPANCY.** Either of the following shall be considered as a change of occupancy where this code requires a greater degree of safety, accessibility, structural strength, fire protection, means of egress, ventilation or sanitation than is existing in the current building or structure:

1. Any change in the occupancy classification of a building or structure.
2. Any change in the purpose of, or a change in the level of activity within, a building or structure.

- **NEW Definition of "Impact Protective System"** has been added for assemblies that are designed to withstand windborne debris.

[BS] **IMPACT PROTECTIVE SYSTEM.** Construction that has been shown by testing to withstand the impact of test missiles and that is applied, attached or locked over exterior glazing.

- **Definition of "Mass Timber"** has been amended to specifically define mass timber as representative of both the large wood building elements historically recognized as Heavy Timber (now Type IV-HT) constructions and the three new construction types of IV-A, IV-B and IV-C.

[BG] **MASS TIMBER.** Structural elements of Type IV construction primarily of solid, built-up, panelized or engineered wood products that meet minimum cross-section dimensions of Type IV construction.

[BF] **NONCOMBUSTIBLE PROTECTION (FOR MASS TIMBER).** Noncombustible material, in accordance with Section 703.6, designed to increase the fire-resistance rating and delay the combustion of mass timber.

- **Definition of "Nailable Substrate"** has been amended to clarify what materials should be expected to provide withdrawal resistance for roof or wall cladding assemblies.

[BF] **NAILABLE SUBSTRATE.** A product or material such as framing, sheathing or furring, composed of wood, wood-based materials or other materials providing equivalent fastener withdrawal resistance.

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Future Information Sessions

2021 Code Questions

Answers to your questions

- Request that L&I issue an interpretation on a specific code section. This form, linked in our newsletter, can also be used for 2021 code issues/ concerns.

- Look out for future newsletters or trainings for public response.

Note: Continue to use www.phila.gov/get-help for direct responses to code questions.

Code Corner

2021 I-Code transition materials

Beginning in January 2026, all new permit applications must conform to the 2021 I-Codes. This page includes forms and documents to prepare for the transition.

Filter documents by title or description

Name	Description	Released	Format
2021 I-Code- Q&A	Questions and answers regarding the 2021 I-Code transition.	January 24, 2025	PDF
2021 ICC Code Adoption Final Report	This report is issued by the Pennsylvania Department of Labor and Industry Review and Advisory Council for modifications to the 2021 I-Codes, to be adopted throughout PA as part of the Uniform Construction Code.	September 20, 2024	PDF
2021 IPC Changed Sections	This document lists sections that were changed under the 2021 International Plumbing Code.	September 20, 2024	PDF
2018 Philadelphia Plumbing Code Changes	This document provides guidance that highlights the impacts of the 2021 changes and proposed local changes to the 2018 Philadelphia Plumbing Code.	September 20, 2024	PDF
Proposed Phila Changes to the 2021 IPC Provisions	This document provides recommendations by the Plumbing Advisory Board (PAB) to better accommodate local conditions. This document excludes those changes already adopted by ordinance.	September 20, 2024	PDF
2021 I-Code changes webinar slides	These slides provide an overview of the timeline, what to expect in the coming year, and examples of significant changes from the 2021 I-Code adoption.	December 18, 2024	PDF

2021 Residential Provisions

1. Fire Separation
2. Egress
3. Smoke & CO Alarm Requirements
4. Interior Environment
5. Weather Protection
6. Wind Load Considerations
7. Structural Requirements
8. Deck Requirements
9. Mechanical & Fuel Gas Requirements

Note: Plumbing, Energy Conservation, and Electrical Provisions of the Residential Code will **NOT** be covered under this presentation. (*These provisions will be covered under separate 2021 Code trainings*.)

Fire Separation

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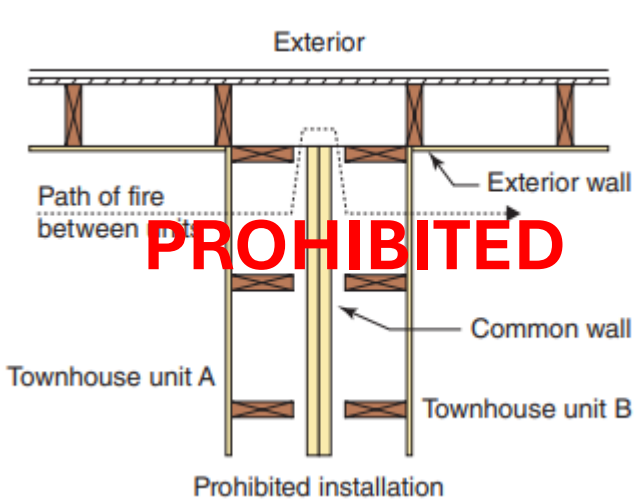
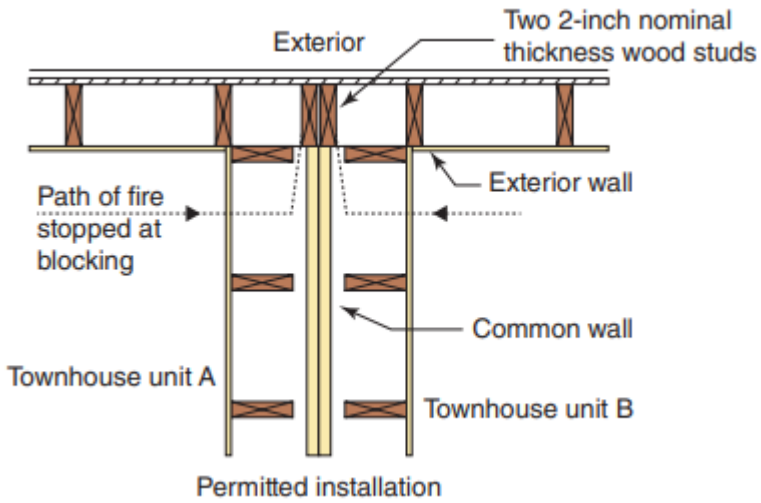
R302.2—Townhouse Separation Walls

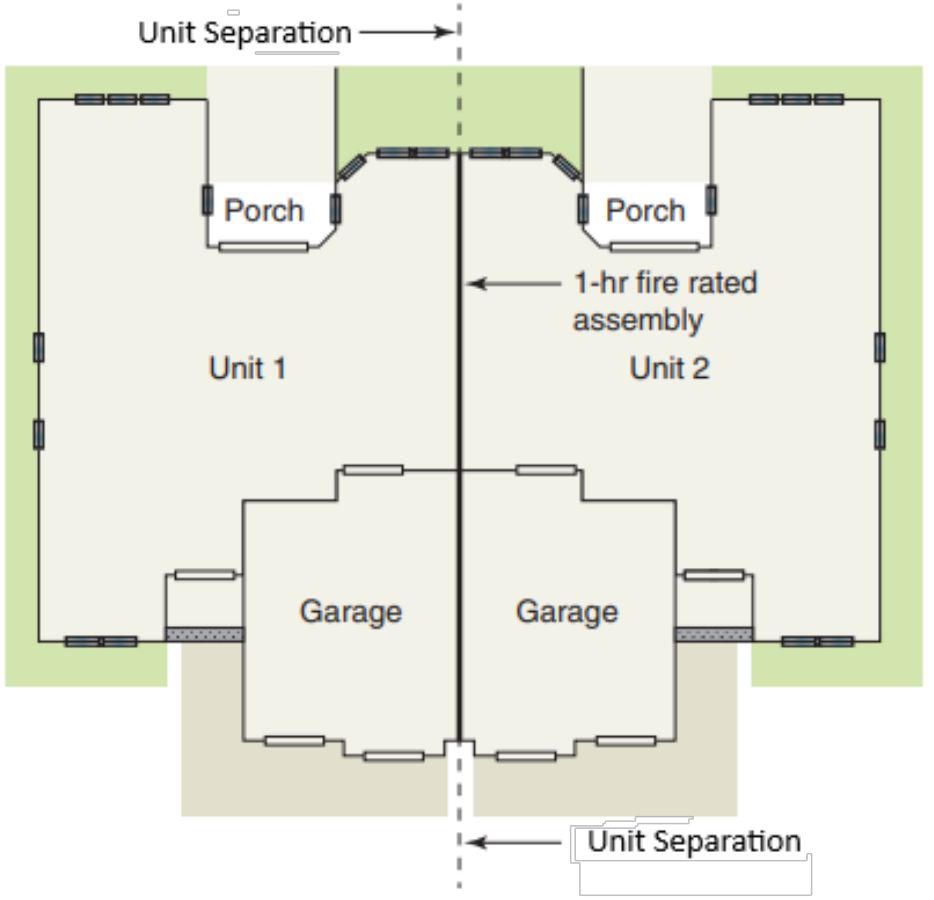
- New exceptions introduced to townhouse common wall separation tightness provisions
- Common walls now permitted to extend to and be tight against the inside of the exterior walls if:
  - Cavity at the end of the common wall and the exterior sheathing is filled with a minimum two 2-inch nominal thickness wood studs.





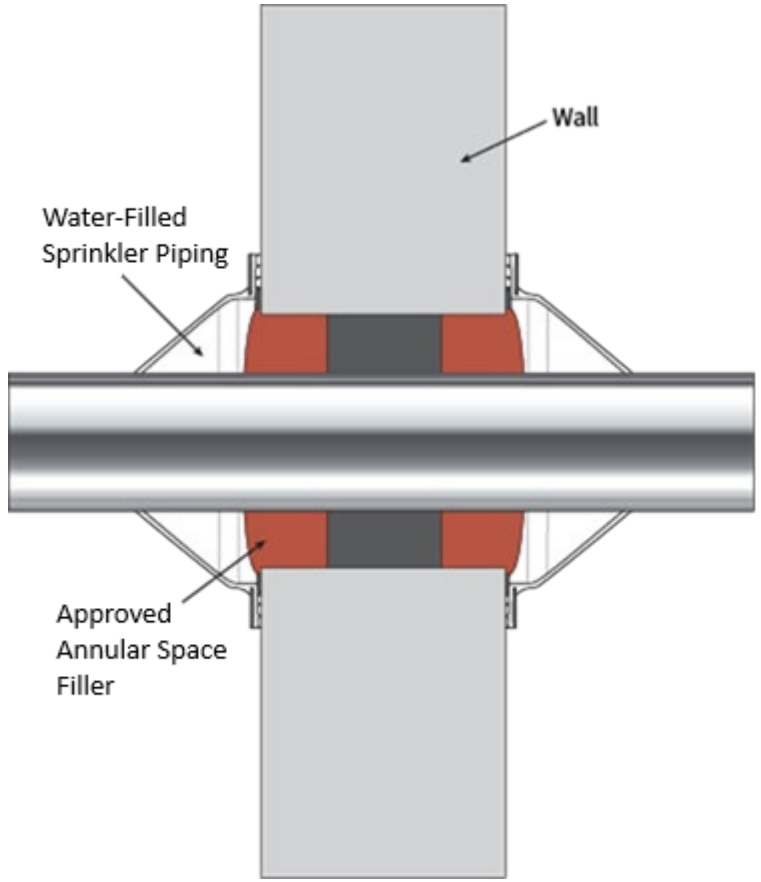
R302.3 –Two-Family Dwelling Separation

- Two-family dwellings provisions have been revised to require a one (1) hour fire separation between units in all cases
    - Separation will be required **regardless** if a lot line exists between the two units or not



R302.4—Dwelling Unit Rated Penetrations

- Provisions under the code now permits the penetration of fire-rated wall/floor assemblies by water-filled fire sprinkler piping without use of a fire-stop system if exception is met:
    - Annular area must be filled with an approved material that complies with fire and hot gases resistance testing conditions of Exception 1.2 based on ASTM E119 or UL 263.



R302.5—Dwelling Garage Opening Protection

- Where openings are provided between a private garage and the residence, the door opening shall be self latching and equipped with a self-closing or automatic-closing device
    - Note that door openings are still prohibited between the private garage and a sleeping unit.

Egress Requirements

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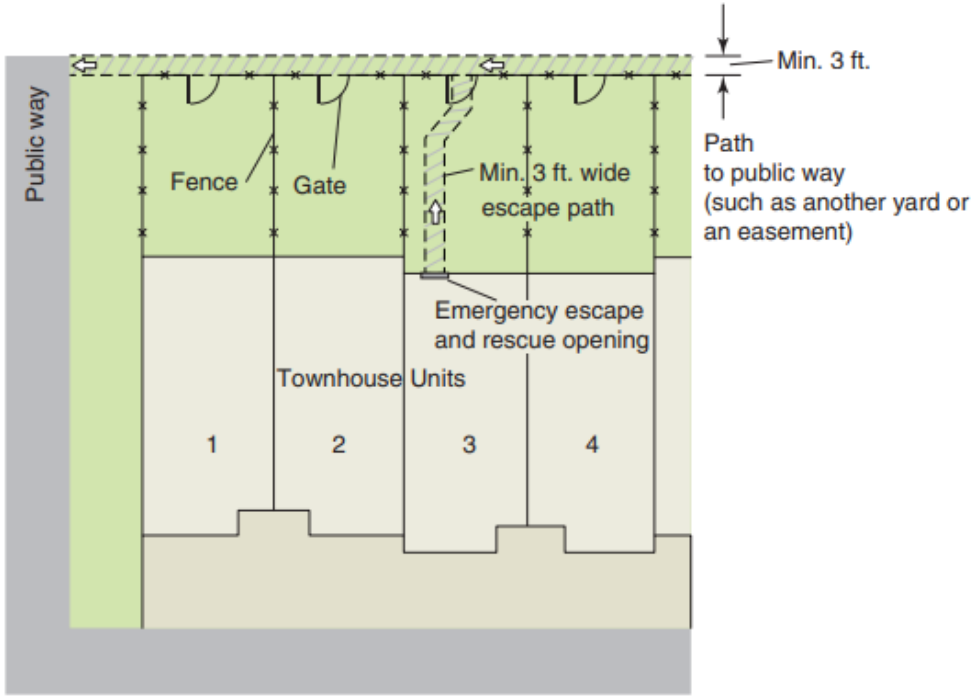
R202—Emergency Escape & Rescue Opening

- New definition added for grade floor emergency escape & rescue opening to identify minimum proximity of opening to ground level elevation
    - Clarified term establishes basis for certain exceptions for net clear opening size reductions under Section R310

[RB] **GRADE FLOOR EMERGENCY ESCAPE AND RESCUE OPENING.** An emergency escape and rescue opening located such that the bottom of the clear opening is not more than 44 inches (1118 mm) above or below the finished ground level adjacent to the opening. (See also "Emergency escape and rescue opening.")

R310.1—Emergency Escape & Rescue Opening: Width Req'mts

- Provisions for emergency escape & rescue openings revised to require openings to open directly to a minimum 3-ft path to the public way
    - PA UCC RAC modified provisions for exceptions allowing a reduced easement path width to the public way where an in-fill lot property is sprinklered with minimum clear yard size clearance



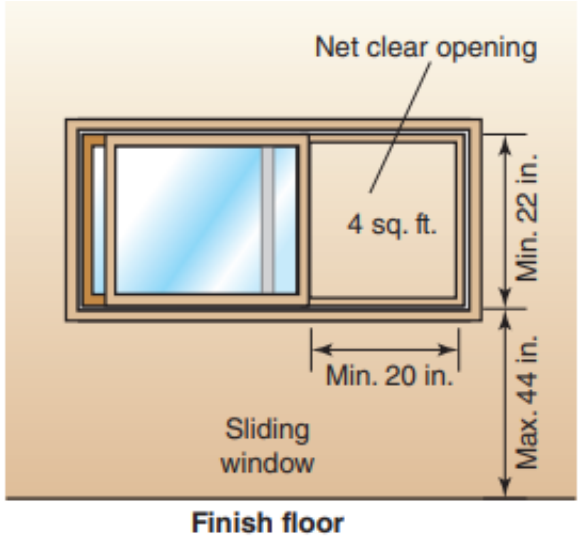
R310.1 Emergency escape and rescue opening required. *Basements, habitable attics and every sleeping room shall have not less than one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room. Emergency escape and rescue openings shall open directly into a public way, or to a yard or court having a minimum width of 36 inches (914 mm) that opens to a public way.*

Exceptions:

4. *Properties with in-fill lots that are sprinklered in accordance with Section 2904, and a minimum clear yard size of 80 sq ft (7.43 m^2)shall, be allowed to have access to the public way provided by a shared easement that is a minimum of 30 in (762 mm) wide.*

R310.5, 310.6 & 310.7—Emergency Escape & Rescue Opening: Existing Buildings

- Revised provisions to address emergency escape & rescue opening sizes for opening, basement alterations & additions, and work to existing basement openings
    - Basement alterations and repairs that **do not** result in new sleeping rooms will <u>not require</u> an emergency escape & rescue opening
    - Existing openings, and openings serving dwelling additions requiring emergency escape & rescue are permitted to utilize reduced opening sizes per R310.7.1, Exception.
        - Minimum opening size to be based on manufacturer's largest standard size window that will fit existing frame/rough opening.



Smoke & Carbon Monoxide Alarm Requirements

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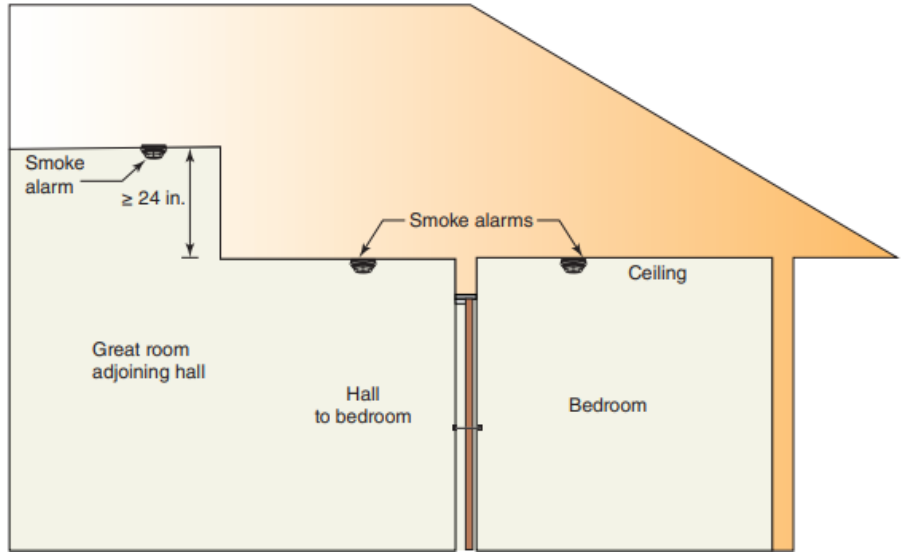
R314.3—Smoke Alarm: Locations

- Revised provisions includes new location for smoke alarm installations in IRC structures
    - Where rooms in a dwelling unit open to a hallway with a room ceiling height located more than 24 inches above the hallway ceiling elevation, smoke alarms shall be provided:
        - In the hallway, and
        - In the room opening to the hallway



R314.4—Smoke Alarm Interconnections

- PA UCC RAC modifications revise the smoke alarm interconnection requirements to maintain the 2015 IRC language to maintain exceptions associated with light alterations & repairs.

R314.4 Interconnection. *Where more than one smoke alarm is required to be installed within an individual dwelling unit in accordance with Section R314.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual dwelling unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.*

Exception: *Interconnection of smoke alarms in existing areas shall not be required where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available that could provide access for interconnection without the removal of interior finishes.*

R315.2.2 Carbon Monoxide Alarms—Existing Buildings

- Carbon Monoxide alarm requirements have revised an exception for mechanical system workscopes in existing buildings to trigger carbon monoxide alarm requirements when fuel fired appliance installations, alterations, or repairs are proposed.
    - Provisions would warrant CO alarm system to be consistent with new construction requirements.

R315.2.2 Alterations, repairs and additions.

Where *alterations*, *repairs* or *additions* requiring a *permit* occur, the individual *dwelling unit* shall be equipped with carbon monoxide alarms located as required for new *dwellings*.

Exceptions:

1. Work involving the exterior surfaces of *dwellings*, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck.
2. Installation, *alteration* or repairs of plumbing systems.
3. Installation, alteration or repairs of mechanical systems that are not fuel fired.

Interior Environment

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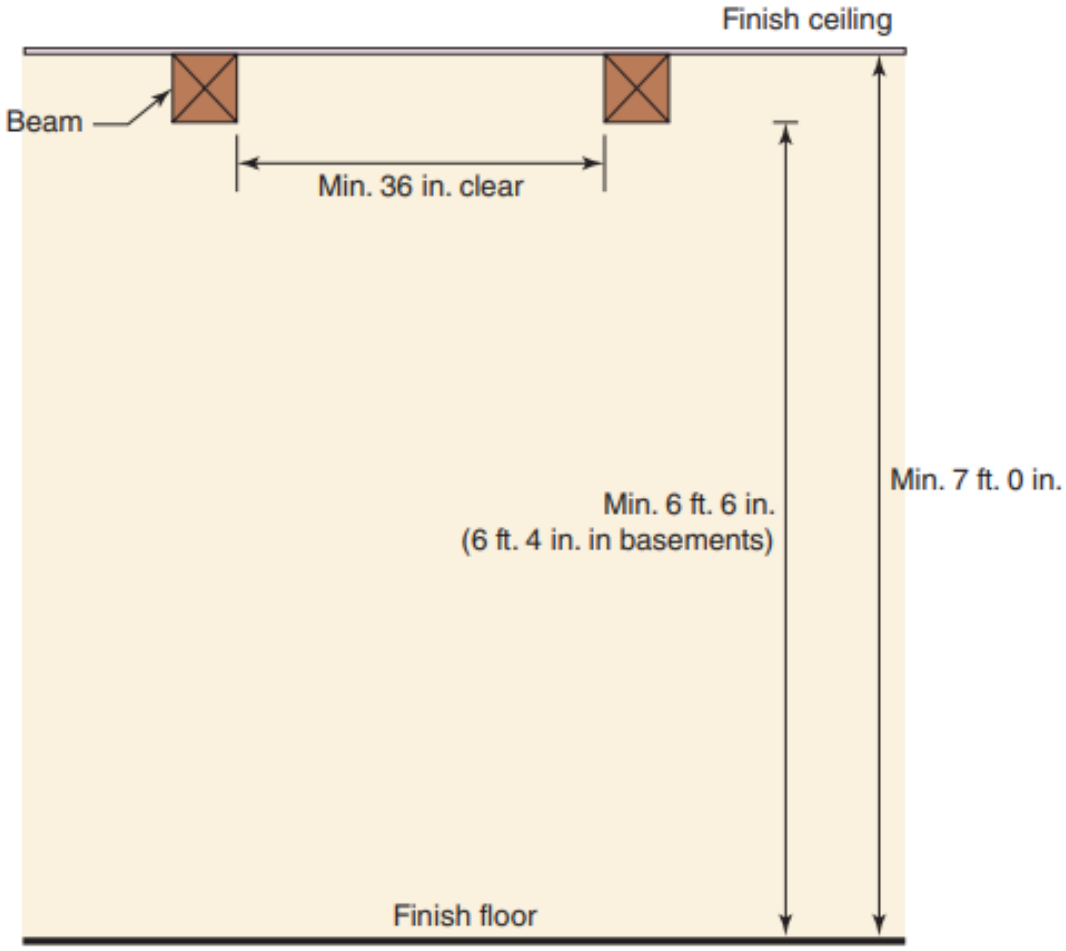
R303.1 Habitable Rooms—Mechanical Ventilation

- Exceptions introduced in 2021 IRC to exempt kitchens from requiring openable windows for ventilation where a local exhaust fan range hood is maintained in accordance with Section M1505
    - Design must take into account whole house ventilation balancing requirements
    - Exhaust system must be listed and labelled as providing airflow in accordance with ANSI/AMCA 210-ANSI/ASHRAE 51.

R305.1—Minimum Height: Ceilings

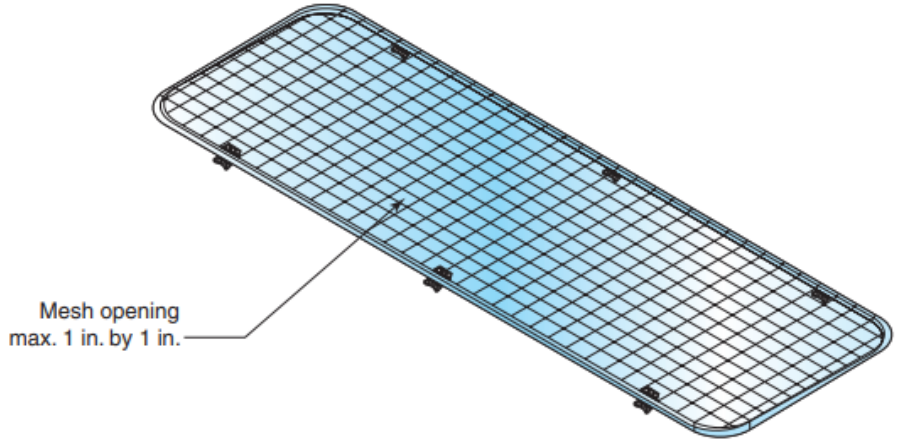
- Revised language under the 2021 IRC includes new exceptions for minimum height clearances between beam/girder elements, to include minimum separation distances of beam projections.
    - Note that PA UCC RAC modifications provide clarifications to provisions for minimum height clearances under beams/girders.



R308.4.5 & R308.6—Glazing Protection

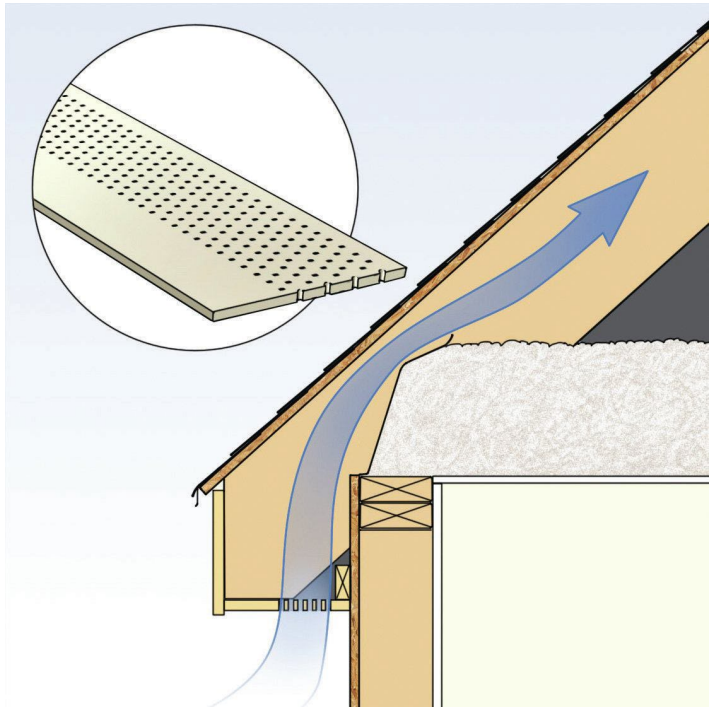
- R308.4.5—Requirements for glazing located near wet surfaces have been revised based on adjacency of glazing to wet surfaces and clarifies exception to be measured from water's edge for a respective fixture basin.

- R308.6—Provisions governing skylight glazing protection have been revised to clarify the specific conditions by which retention screens are required to be maintained if laminated or fully tempered glass is not used.



R806—Roof Ventilation Requirements

- R806.1—PA UCC RAC modifies language to maintain language from the 2018 PA adoption for Preventative Screening of Roof Ventilation Openings,
    - Removes provisions that would require preventative screening to prohibit entry of birds, rodents, snakes, and similar creatures.
- R806.2—PA UCC RAC maintains language from the 2015 PA adoption for Minimum Vent Area.
    - Requires eave or cornice vents to provide ventilation balancing below a ridge.
- R806.3—PA UCC RAC maintains language from the 2018 PA adoption for Vent Insulation Clearance,
    - Requires that nothing obstruct air flow for eave or cornice vents.



Weather Protection

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Foundation Waterproofing & Vapor Retarders

- R406.2—Foundation Waterproofing requirements have removed six-mil polyvinyl chloride and polyethylene fabrics from the list of approved waterproofing materials
    - Removed due to likelihood of materials to rip and tear against debris, frost, and sharp stones
- R506.2.3—PA UCC RAC decreases the minimum vapor retarder requirements to six-mil polyethylene where installed under concrete slabs

R702.7—Vapor Retarders

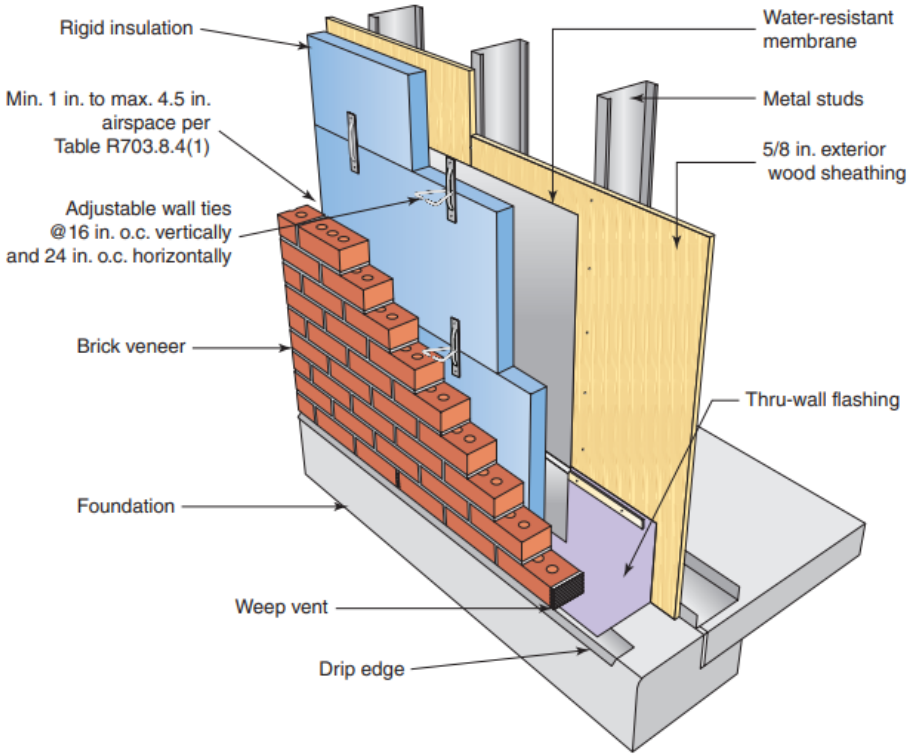
- The 2021 IRC reorganizes provisions for vapor retarder use in exterior walls to provide clarity of requirements and to ease use of the provisions.
- These revisions include new tables to clarify:
  - List of Vapor Retarder Materials and associated Class Rating
  - Vapor Retarder Class Requirements for respective Climate Zones
    - Class II or III Vapor Retarders permitted for Climate Zone 4 (Philadelphia)
  - Continuous Insulation Rating design based on Vapor Retarder Material Class
    - Continuous Insulation Rating ≥ 3 for 2x4 walls (≥ 5 for 2x6 walls) for Climate Zone 4 (Philadelphia)

R703.2 & 703.7 Water-Resistive Barriers & Exterior Plaster Stucco

- R703.2—PA UCC RAC modification to Water-Resistive Barrier requirements
  - Includes additional options for use of Foam Plastic Insulating Sheathing Water Resistive Barriers
  - Includes WR Barrier exemptions for unconditioned accessory structures
- R703.4.1—PA UCC RAC modification to include additional compliance provisions for flashing installations at exterior door openings and windows
  - Allows for installation per Water-Resistive Barrier Manufacturer's installation instructions
- R703.7—PA UCC RAC modification to maintain language under the 2018 Pennsylvania adoption for Exterior Plaster Stucco requirements
  - Stucco installation to comply with ASTM C926-218B and ASTM C1063-2018B

Table R703.8.4(1) –Tie Attachment & Airspace Requirements

- Tie attachment requirement tables for exterior masonry veneer installations are updated for larger air gaps to accommodate for thicker continuous insulation installations
    - Stiffer tie configurations (W2.8 ties) would be required where air gap spaces exceed 4 5/8 - inches



Wind Load Considerations

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Table R602.3(2)–Alternate Attachment Allowance for Wood Structural Paneling

- Alternate fastener attachment requirements have been revised to be permitted only where the ultimate design wind speed is less than or equal to 110 mph
    - This prohibits use of the alternate fastener attachment prescriptive design in the Philadelphia region. (Philadelphia Design wind speeds > 110 mph)
- Fastening installation requirements should instead conform to **Table R602.3(1)**

TABLE R602.3(2)ALTERNATE ATTACHMENTS TO TABLE R602.3(1)

NOMINAL MATERIAL THICKNESS (inches)	DESCRIPTION[a, b] OF FASTENER AND LENGTH (inches)	SPACING[c] OF FASTENERS	
		Edges (inches)	Intermediate supports (inches)
Wood structural panels subfloor, roof[g] and wall sheathing to framing and particleboard wall sheathing to framing[f]			

g. Alternate fastening is only permitted for roof sheathing where the ultimate design wind speed is less than or equal to 110 mph, and where fasteners are installed 3 inches on center at all supports.

R609.4.1—Garage Door Labelling

- Permanent labels are to be provided on garage doors to identify compliance with windload testing requirements.
- Labels must identify:
  - Door manufacturer
  - Door Model/Series Number
  - Positive and Negative Design Wind Pressure Ratings
  - Applicable Test Standard
  - Installation Instruction Drawing Reference Number

R704—Exterior Soffit Installations

- Soffit installation provisions have been modified under the 2021 IRC to reflect increased wind pressure requirements
  - Affects both conditions with wind pressures loads below or exceeding 30 psf
- PA UCC RAC modifications to requirements limit these provisions to exterior soffit applications only, to include:
  - Vinyl panels
  - Fiber-cement panels
  - Hardboard panels
  - Wood Structural Panels

Structural Requirements

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R301.1.4—Intermodal Shipping Containers

- New provisions governing use of shipping containers as a building structural element per IBC, Section 3115
- PA UCC RAC modified language to address:
    - Certification of container free from contaminants per Qualified 3rd Party Inspectors
    - Penetrations that exceed prescriptive limitations of the IBC to require certification by a registered design professional in the Commonwealth of PA

Table R403.1(1) –Concrete Footing Sizes for Light-Frame Construction

- Revised tabulated, prescriptive concrete footing sizes based on associated Roof Live Load design
  - Design assumptions clarified under Note b for loading and building sizes
  - Footing size adjustments permitted based on any deviations from assumed building width of 32’-0”.

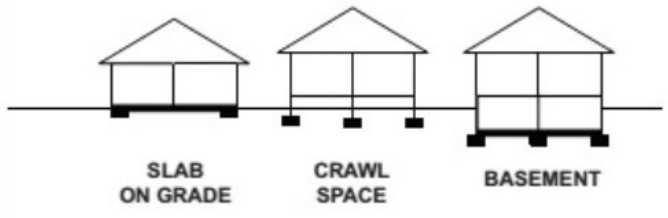


TABLE R403.1(1)

MINIMUM WIDTH AND THICKNESS FOR CONCRETE FOOTINGS FOR LIGHT-FRAME CONSTRUCTION (inches)[a, b, c, d]

GROUND SNOW LOAD OR ROOF LIVE LOAD	STORY AND TYPE OF STRUCTURE WITH LIGHT FRAME	LOAD-BEARING VALUE OF SOIL (psf)					
		1,500	2,000	2,500	3,000	3,500	4,000

b. The table is based on the following conditions and loads: building width, 32 feet; wall height, 9 feet; basement wall height, 8 feet; dead loads, 15 psf roof and ceiling assembly, 10 psf floor assembly, 12 psf wall assembly; live loads, roof and ground snow loads as listed, 40 psf first floor, 30 psf second and third floors. Footing sizes are calculated assuming a clear span roof/ceiling assembly and an interior bearing wall or beam at each floor.

c. Where the building width perpendicular to the wall footing is greater than 32 feet, the footing width shall be increased by 2 inches and footing depth shall be increased by 1 inch for every 4 feet of increase in building width.

d. Where the building width perpendicular to the wall footing is less than 32 feet, a 2-inch decrease in footing width and 1-inch decrease in footing depth is permitted for every 4 feet of decrease in building width provided that the minimum width is 12 inches and minimum depth is 6 inches.

R602.9—Cripple Wall - Sheathing

- Section clarified for bracing requirements at foundation cripple walls
    - Continuous sheathing to apply to exterior cripple wall installations only
        - Intended to address integrity of stud framing installation with respect to lateral load movements during seismic events
        - Integrity achieved through fastener attachment pattern of sheathing at top & bottom plates

R802—Roof Framing; Ridge Beams & Ceiling Joist Requirements

- Provisions revised for clarity on ridge beam and ceiling joist requirements
  - R802.3—Ridge Beams to be supported by wall or column per accepted engineering designs
  - R802.5—Ceiling joist installation location to determine if ridge structure should be treated as ridge beam per R802.3 to require wall/column support
    - Reduces redundancy of roof framing design where roof structure diaphragm is designed and installed to maintain rigidity and stability to resist rafter thrust at exterior bearing walls

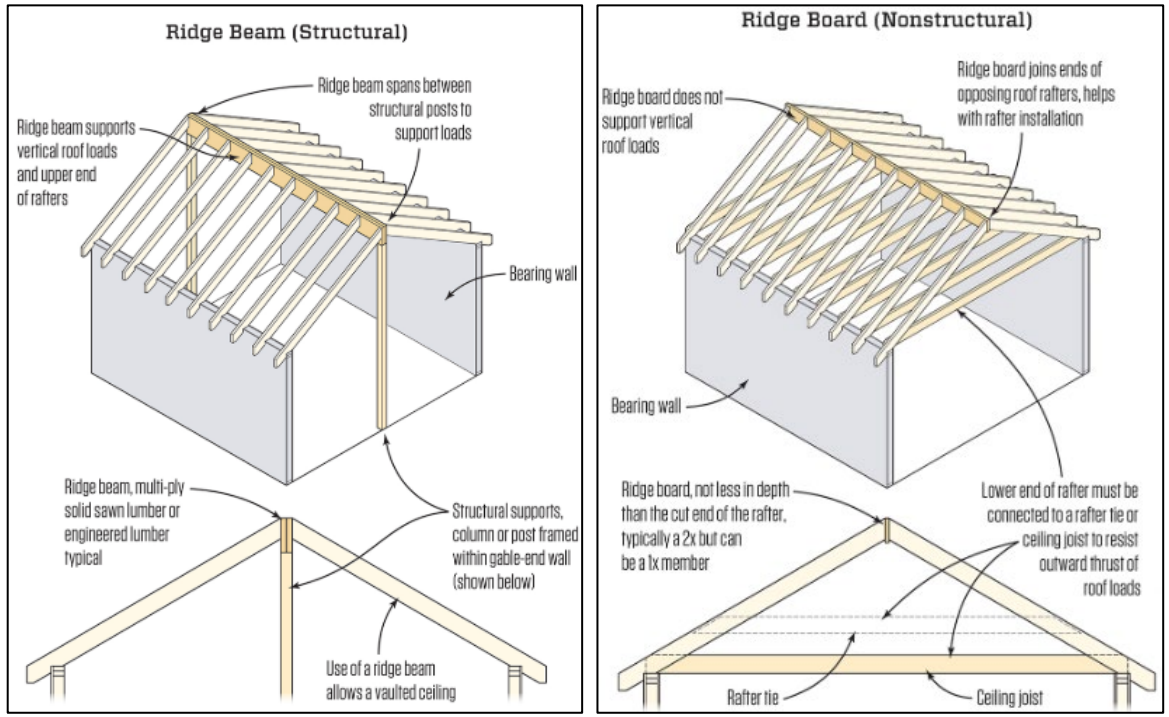
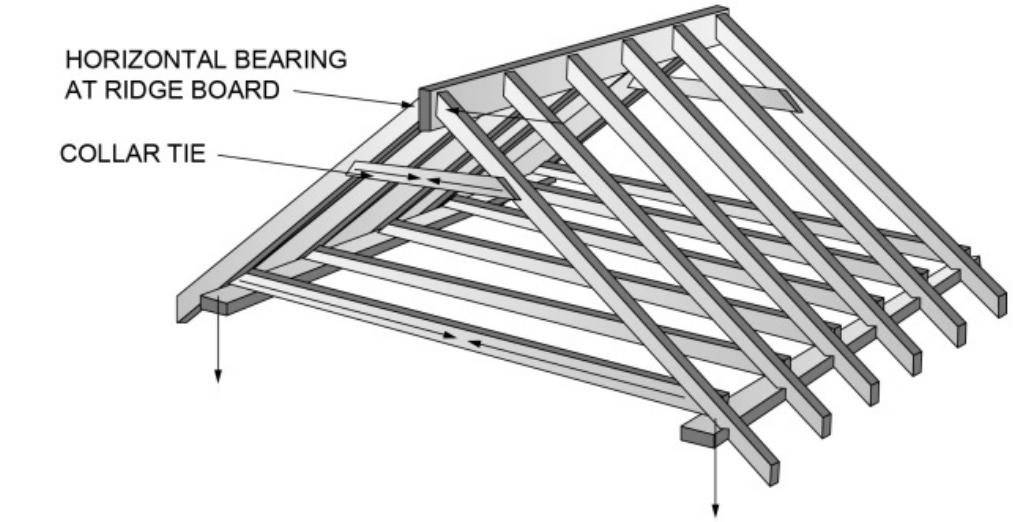


Image Credit: Journal of Light Construction

R802.6—Rafter & Ceiling Joist Bearing

- Bearing requirements for rafters & ceiling joists clarified regarding ridge board supports
  - Language added to identify acceptability of horizontal bearing of rafters to ridge board based on:
    - Roof pitch (min 25% slope)
    - Continuous tension ties (ceiling joist or rafter ties) installed per R802.5.2



Exterior Deck Requirements

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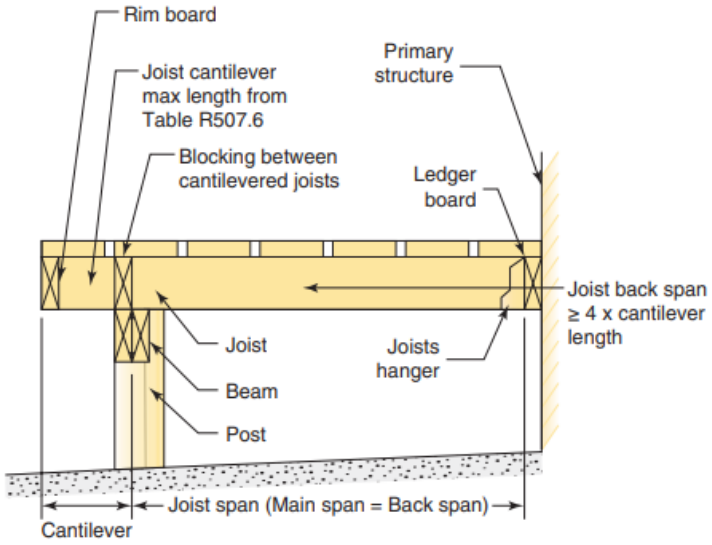
R507—Exterior Deck Requirements

- R507—Deck designs based on both design live & snow loads.
  - Live load governs for Philadelphia.
- R507.3—Deck footing requirements revised
  - Tributary area tabulation of 5 sf added to deck footing size tables.
  - Clarified footing exception requirements for freestanding decks
    - Exceptions are based on deck size limitations, joist bearing, and walking surfaces
- R507.4—Deck Post height limitations revised to include new tabular design parameters for:
  - Tributary area design
  - Wood species selection

R507—Exterior Deck Requirements (Cont'd)

- R507.5—Deck beam design tables
  - Span limits provided for given design live load or snow load
  - Cantilever deck joist span limits now provided for single & multi-ply span designs
- R507.6—Deck Joist design tables
  - Design tables revised for clarity with regard to maximum cantilever length based on joist back span lengths



R507—Exterior Deck Requirements (Cont'd)

- R507.7—Wood Decking design table
  - Single and multi-span configurations for wood decking designs are now provided
  - Maximum on-center joist spacing can be applied to multi-span joist deck installations
- R507.10—Exterior Deck Guard Rail Requirements
  - Guard rail load transfers shall maintain a continuous load path to the deck joists where guards are supported through deck framing.
  - Guards connected to the interior or exterior side of a deck joist or beam shall have the deck joists or beam connected to adjacent joists to prevent joist/beam rotation
    - Prohibits use of fasteners in end grain withdrawal for guard rail support

Mechanical & Fuel Gas Requirements

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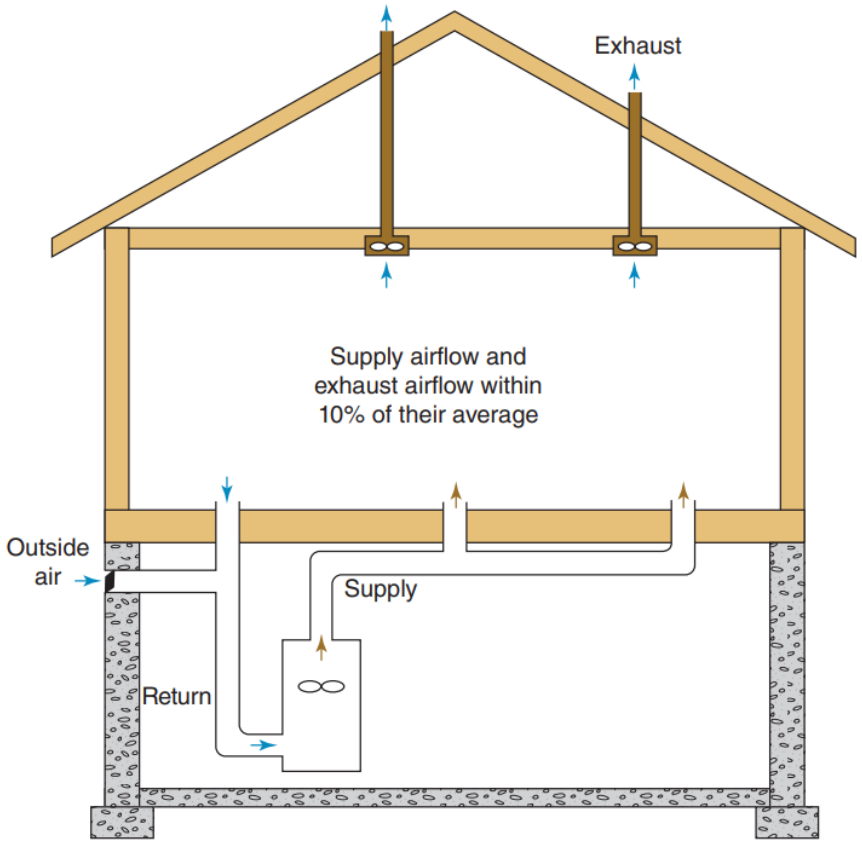
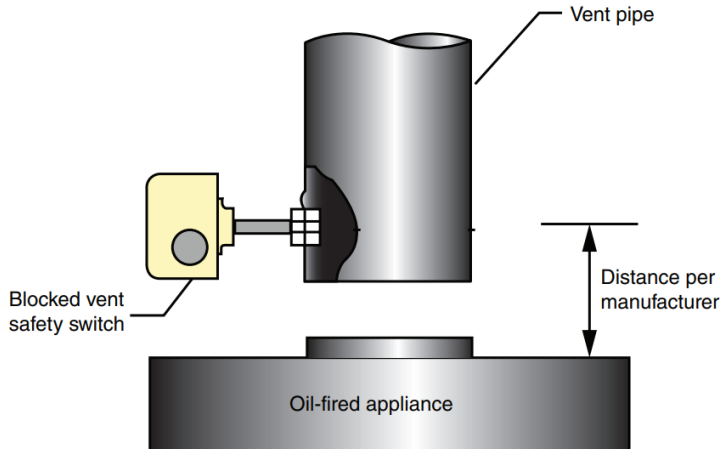
M1505—Balanced Ventilation Systems

- Added new exceptions to permit 30% reduction of ventilation rates where balanced ventilation system is demonstrated
  - New Term for Balanced Ventilation System, defined as:
    - System where the total supply airflow and total airflow are simultaneously within 10 percent of their average.



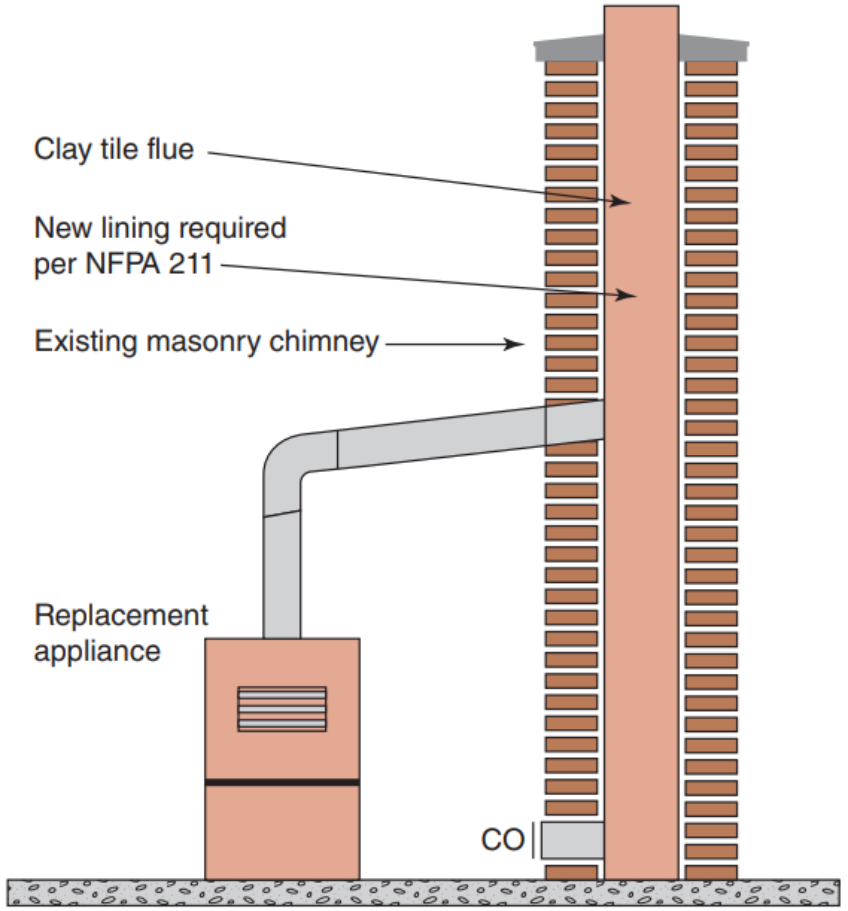
Chimney & Fireplace Requirements

- R1005.8—Chimney & Fireplace Insulation Shield requirements stricken from the code by PA UCC RAC.
  - Note that Insulation Shields will still be required for listed factory-built chimneys under G2427.5.10 per PA UCC RAC modifications.
- M1802.4—Revised provisions to require blocked (obstructed) vent switches to be provided to oil-fired appliances in order to address appliance shut-off for air quality safety.



Chimney & Fireplace Requirements (Cont'd)

- G2427.5.5.1—Chimney lining exception for existing appliance replacement removed from the code
    - All replacement of appliance REQUIRES lining to be provided in accordance with NFPA 211 for any existing unlined masonry chimneys



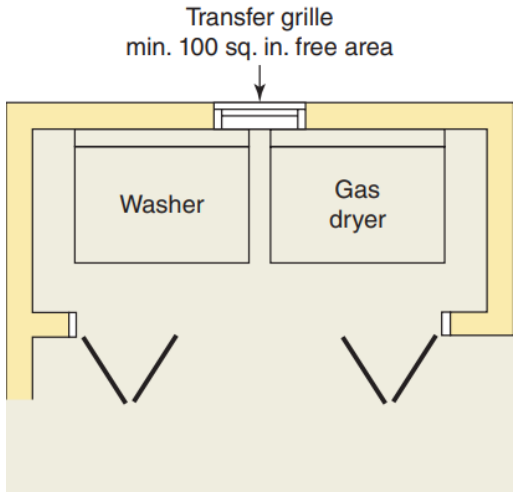
Venting Requirements

- G2427.2.2—PA UCC RAC modifications, for appliances served by integral vent systems
    - Corrected to ensure applicability of all vent system clearance requirements per G2427.8.
- G2427.5.4—PA UCC RAC modifications for chimney vent system sizing
    - Maintains 2018 IRC language where vent system is connected to two appliances with draft hoods.
- G2427.8—Revised provisions for through-the-wall vent terminals
    - Moves tabular venting requirements from Appendix C to this Section for ease of use.

Clothes Dryer Installation Provisions

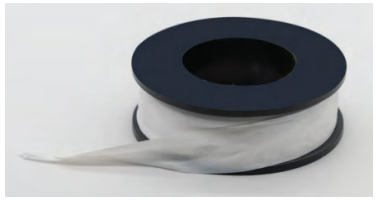
- M1502.3.1—PA UCC RAC Modifications removed all language associated with clothes dryer exhaust termination outlets and passageways.

- G2439.5—Make-up supply air transfer opening required for gas clothes dryers installed in closets (Min. 100 sq-in opening).



Mechanical & Fuel Gas—Miscellaneous Topics

- M2101—Provisions applicable under the ground source heat pump loop piping system requirements (M2105) now apply to all hydronic piping systems to include material rating, joints & connections, and fittings.
- G2414.8.3—Thread joint sealant now required for assembling threaded joints in gas piping.
- G2414.5—Threaded fittings for gas piping plugs and caps now permitted to be in concealed locations.
- G2447.2—Removed exceptions that previously allow for installation of commercial cooking appliances in Residential units under the 2018 IRC, now prohibited.



Questions?

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2021 Code Updates
Stay Informed and Up-To-Date

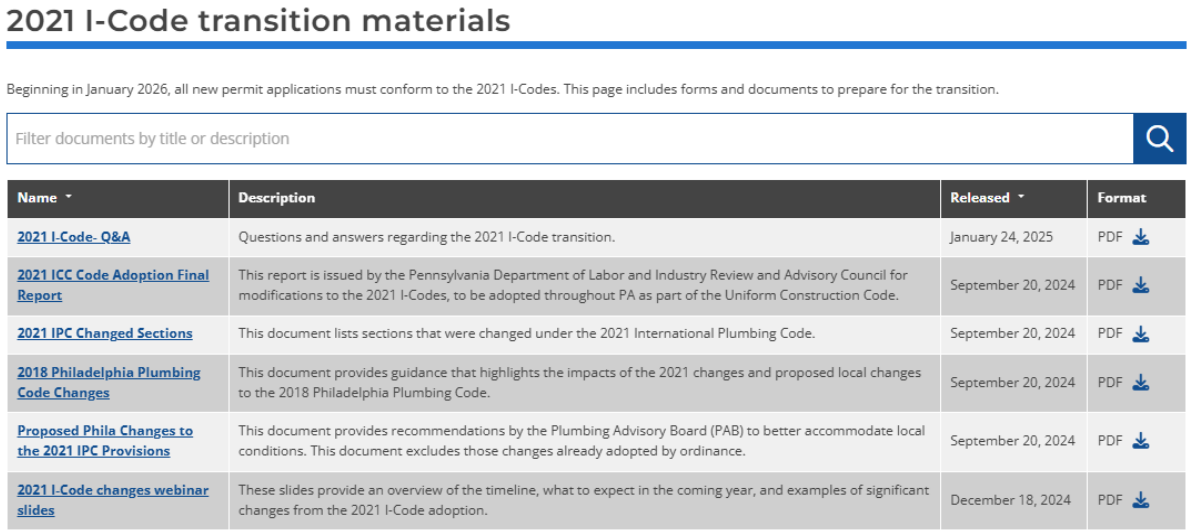
- **Submit any issues/concerns on a specific 2021 code sections**. This form, linked in our newsletter, can also be used for 2021 code issues/ concerns.
  - Recommendations Suggestion Link: https://form.jotform.com/PhillyLI/recommendations-form

- **Sign up for L&I newsletters or upcoming trainings** for public response and change tracking for 2021 Code adoption.

- **FAQ Page with 2021 Significant Code Changes**
  - Link: https://www.phila.gov/departments/department-of-licenses-and-inspections/resources/li-frequently-asked-questions/#/

Note: Continue to use www.phila.gov/get-help for direct responses to code questions.

Code Corner



2021 I-Code transition materials

Beginning in January 2026, all new permit applications must conform to the 2021 I-Codes. This page includes forms and documents to prepare for the transition.

Filter documents by title or description

Name	Description	Released	Format
2021 I-Code- Q&A	Questions and answers regarding the 2021 I-Code transition.	January 24, 2025	PDF
2021 ICC Code Adoption Final Report	This report is issued by the Pennsylvania Department of Labor and Industry Review and Advisory Council for modifications to the 2021 I-Codes, to be adopted throughout PA as part of the Uniform Construction Code.	September 20, 2024	PDF
2021 IPC Changed Sections	This document lists sections that were changed under the 2021 International Plumbing Code.	September 20, 2024	PDF
2018 Philadelphia Plumbing Code Changes	This document provides guidance that highlights the impacts of the 2021 changes and proposed local changes to the 2018 Philadelphia Plumbing Code.	September 20, 2024	PDF
Proposed Phila Changes to the 2021 IPC Provisions	This document provides recommendations by the Plumbing Advisory Board (PAB) to better accommodate local conditions. This document excludes those changes already adopted by ordinance.	September 20, 2024	PDF
2021 I-Code changes webinar slides	These slides provide an overview of the timeline, what to expect in the coming year, and examples of significant changes from the 2021 I-Code adoption.	December 18, 2024	PDF

2021 I-Code Transition Materials Link:
https://www.phila.gov/documents/2021-i-code-transition-materials/