CCC

2024 GROUP A PROPOSED CHANGES TO THE I-CODES

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CCCIPC1-24

IPC: APPENDIX E, SECTION E103, TABLE E103.3(1)

Proponents: Andrew Bevis, Chair, Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org)

2024 International Plumbing Code

APPENDIX E SIZING OF WATER PIPING SYSTEM

SECTION E103
SELECTION OF PIPE SIZE

Revise as follows:

TABLE E103.3(1) RECOMMENDED TABULAR ARRANGEMENT FOR USE IN SOLVING PIPE SIZING PROBLEMS

COLUMN	1			2	3	4	5	6	7	8	9	10
Line	Description			Lb per square inch (psi)	Gal. per min through section	Length of section (feet)	Trial pipe size (inches)	Equivalent length of fittings and valves (feet)	Total equivalent length col. 4 and col. 6 (100 feet)	Friction loss per 100 feet of trial size pipe (psi)	Friction loss in equivalent length col. 8 × col. 7 (psi)	Excess pressure over friction losses (psi)
A	Service and cold water distribution piping[a]	Minimum pressure available at main		55.00	—	—	—	—	—	—	—	—
B		Highest pressure required at a fixture (Table 604.3)		15.00	—	—	—	—	—	—	—	—
C		Meter loss 2″ meter		11.00	—	—	—	—	—	—	—	—
D		Tap in main loss 2″ tap [Table E103.3(4)]		1.61	—	—	—	—	—	—	—	—
E		Static head loss 21 ft × 0.43 psi		9.03	—	—	—	—	—	—	—	—
F		Special fixture loss backflow preventer		9.00	—	—	—	—	—	—	—	—
G		Special fixture loss—Filter		0.00	—	—	—	—	—	—	—	—
H		Special fixture loss—Other		0.00	—	—	—	—	—	—	—	—
I		Total overall losses and requirements (Sum of Lines B through H)		45.64	—	—	—	—	—	—	—	—
J		Pressure available to overcome pipe friction (Line A minus Lines B to H)		9.36	—	—	—	—	—	—	—	—
Pipe section (from diagram)	FU		264	—	—	—	—	—	—	—	—	
	AB		288	108.0	54	2 1/2	15.00	0.69	3.2	2.21	—	
	BC		264	104.5	8	2 1/2	0.5	~~0.20~~ 0.085	~~1.9~~ 3.1	0.26	—	
Cold water distribution piping	CD		132	77.0	13	2 1/2	7.00	0.20	1.9	0.38	—	
	CF[b]		132	77.0	150	2 1/2	12.00	1.62	1.9	3.08	—	
	DE[b]		132	77.0	150	2 1/2	12.00	1.62	1.9	3.08	—	
K	Total pipe friction losses (cold)				—	—	—	—	—	—	5.93	—
L	Difference (Line J minus Line K)				—	—	—	—	—	—	—	3.43
Pipe section (from diagram)	A′B′		288	108.0	54	2 1/2	12.00	0.69	3.3	2.21	—	
	B′C′		24	38.0	8	2	7.5	0.16	1.4	0.22	—	
	C′D′		12	28.6	13	1 1/2	4.0	0.17	3.2	0.54	—	
Hot water distribution piping	C′F′[b]		12	28.6	150	1 1/2	7.00	1.57	3.2	5.02	—	
	D′E′[b]		12	28.6	150	1 1/2	7.00	1.57	3.2	5.02	—	
K	Total pipe friction losses (hot)				—	—	—	—	—	—	7.99	—
L	Difference (Line J minus Line K)				—	—	—	—	—	—	—	1.37

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 psi = 6.895 kPa, 1 gpm = 3.785 L/m.

a. To be considered as pressure gain for fixtures below main (to consider separately, omit from “I” and add to “J”).

b. To consider separately, in K use C-F only if greater loss than above.

Reason: This is an editorial proposal. The corrections are on intermediate values that do not affect the outcome of the final answer. The corresponding table in the IRC is correct.

This proposal is submitted by the ICC Plumbing Mechanical Gas Code Action Committee (PMGCAC)

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 PMGCAC has held 26 virtual meetings open to any interested party. In addition, there were several virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the PMGCAC website at PMGCAC.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a simple cleanup of incorrect values in a table.

CCCIPC1-24

CCCIWUIC1-24

IWUIC: 503.2, 503.2.1, 503.2.2, 503.2.3, 503.2.4

Proponents: Robert Marshall, FCAC, FCAC (fcac@iccsafe.org)

2024 International Wildland Urban Interface Code

503.2 Ignition-resistant building material.
Ignition-resistant building materials shall comply with any one of the requirements in Section 503.2.1 through 503.2.4.

503.2.1 Noncombustible material.
Material shall comply with the definition of *noncombustible* materials in Section 202.

503.2.2 Fire-retardant-treated wood.
Fire-retardant-treated wood shall be identified for exterior use and shall meet the requirements of Section 2303.2 of the *International Building Code*.

503.2.3 Fire-retardant-treated wood roof coverings.
Roof assemblies containing fire-retardant-treated wood shingles and shakes shall comply with the requirements of Section 1505.6 of the *International Building Code* and shall be classified as Class A roof assemblies as required in Section 1505.2 of the *International Building Code*.

Revise as follows:

503.2.4 Other Ignition-resistant building material.
Material shall be tested on the front and back faces in accordance with the extended ASTM E84 or UL 723 test, for a total test period of 30 minutes, or with the ASTM E2768 test. The materials shall bear identification showing the fire test results. Panel products shall be tested with a ripped or cut longitudinal gap of $^{1}/_{8}$ inch (3.2 mm). The materials, when tested in accordance with the test procedures set forth in ASTM E84 or UL 723 for a test period of 30 minutes, or with ASTM E2768, shall comply with Sections 503.2.4.1 through 503.2.4.3.

> **Exception:** Materials composed of a combustible core and a noncombustible exterior covering made from either aluminum at a minimum 0.019 inch (0.48 mm) thickness or corrosion-resistant steel at a minimum 0.0149 inch (0.38 mm) thickness shall not be required to be tested with a ripped or cut longitudinal gap.

Reason: Editorial cleanup. No change in technical requirements.Section 503.2 has the title of “Ignition-resistant building material” and a subsection has the same title.

This proposal adds the word “Other” in front of “ignition-resistant building material”, to differentiate it from the overall title.

FCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and early 2024 the FCAC has held several virtual meetings and one in-person meeting open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the **FCAC Website**

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

CCCIFC1-24

IFC: CHAPTER 33, SECTION 3301, 3301.1, 3301.2

Proponents: Robert Marshall, FCAC, FCAC (fcac@iccsafe.org)

2024 International Fire Code

Revise as follows:

CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION, ALTERATION, AND DEMOLITION

SECTION 3301
GENERAL

3301.1 Scope.
This chapter shall apply to structures in the course of construction, *alteration* or demolition, including those in underground locations. Compliance with NFPA 241 is required for items not specifically addressed herein.

3301.2 Purpose. This chapter prescribes minimum safeguards for construction, *alteration* and demolition operations to provide reasonable safety to life and property from fire during such operations.

Reason: The purpose of this code change is to add the term "alteration" to the title of Chapter 33, as the term used throughout the chapter in conjunction with construction and demolition. Some will make the argument that by definition alteration is a form of construction, which is true. However, if the use of the term is necessary in both the scope and purpose sections of this chapter and where the chapter includes different safety provision for buildings undergoing an alteration, it should be specifically included in the title.

FCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and early 2024 the FCAC has held several virtual meetings and one in-person meeting open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the **FCAC Website**

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

Chapter 33 already includes several provisions for alterations to comply with the construction safety requirements. This proposal is purely editorial, as it adds the term Alteration to the title. There are no new technical requirements included in this proposal, therefore there is no change in the cost of construction.

CCCIMC1-24

IMC®: 1108.5

Proponents: Emily Toto, ASHRAE, ASHRAE (etoto@ashrae.org)

2024 International Mechanical Code

Revise as follows:

1108.5 Copper <u>or copper-alloy</u> pipe. Joints between copper or copper-alloy pipe or fittings shall be brazed, mechanical, press-connect, soldered, threaded or welded joints conforming to Section 1108.3.

Reason: With the change during the last cycle to combine brass pipe and copper pipe, the title was not modified. To avoid confusion, the reference to copper-alloy is added to the title of the section.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The change is editorial in nature.

CCCIBC1-24

IBC: [F] 907.5.2.3.1, 909.21.1, 2406.4.3; IFC: 907.5.2.3.1, [BF] 909.21.1

Proponents: Stephen Kerr, Josephson Werdowatz Inc, self, Self (skerr@jwa-se.com)

2024 International Building Code

Revise as follows:

[F] 907.5.2.3.1 Public use areas and common use areas.
Visible alarm notification appliances shall be provided in *public use areas* and *common use areas*.

Exception: Where *employee work areas* have audible alarm coverage, the notification appliance circuits serving the *employee work areas* shall be initially designed with not less than 20-percent spare capacity to account for the potential of adding visible notification appliances in the future to accommodate hearing-impaired employee~~(s)~~.

909.21.1 Pressurization requirements.
Elevator hoistways shall be pressurized to maintain a minimum positive pressure of 0.10 inch of water (25 Pa) and a maximum positive pressure of 0.25 inch of water (67 Pa) with respect to adjacent occupied space on all floors. This pressure shall be measured at the midpoint of each hoistway door, with all elevator cars at the floor of recall and all hoistway doors on the floor of recall open and all other hoistway doors closed. The pressure differentials shall be measured between the hoistway and the adjacent elevator landing. The opening and closing of hoistway doors at each level must be demonstrated during this test. The supply air intake shall be from an outside, uncontaminated source located a minimum distance of 20 feet (6096 mm) from any air exhaust system or outlet.

Exceptions:

1. On floors containing only Group R occupancies, the pressure differential is permitted to be measured between the hoistway and a *dwelling unit* or *sleeping unit*.
2. Where an elevator opens into a lobby enclosed in accordance with Section 3007.6 or 3008.6, the pressure differential is permitted to be measured between the hoistway and the space immediately outside the door~~(s)~~ from the floor to the enclosed lobby.
3. The pressure differential is permitted to be measured relative to the outdoor atmosphere on floors other than the following:
   3.1. The fire floor.
   3.2. The two floors immediately below the fire floor.
   3.3. The floor immediately above the fire floor.
4. The minimum positive pressure of 0.10 inch of water (25 Pa) and a maximum positive pressure of 0.25 inch of water (67 Pa) with respect to occupied floors are not required at the floor of recall with the doors open.

2406.4.3 Glazing in windows. Glazing in an individual fixed or operable panel that meets all of the following conditions shall be considered to be a hazardous location:

1. The exposed area of an individual pane is greater than 9 square feet (0.84 m^2).
2. The bottom edge of the glazing is less than 18 inches (457 mm) above the floor or adjacent walking surface.
3. The top edge of the glazing is greater than 36 inches (914 mm) above the floor or adjacent walking surface.
4. One or more walking surface~~(s)~~ are within 36 inches (914 mm), measured horizontally and in a straight line, of the plane of the glazing.

Exceptions:

1. *Decorative glazing*.

2. Where a horizontal rail is installed on the accessible side~~(s)~~ of the glazing 34 to 38 inches (864 to 965 mm) above the walking surface. The rail shall be capable of withstanding a horizontal *load* of 50 pounds per linear foot (730 N/m) without contacting the glass and be not less than $1\,^{1}/_{2}$ inches (38 mm) in cross-sectional height.
3. Outboard panes in insulating glass units or multiple glazing where the bottom exposed edge of the glass is 8 feet (2438 mm) or more above any grade or walking surface adjacent to the glass exterior.

2024 International Fire Code

Revise as follows:

907.5.2.3.1 Public use areas and common use areas. Visible alarm notification appliances shall be provided in *public use areas* and *common use areas*.

Exception: Where employee work areas have audible alarm coverage, the notification appliance circuits serving the employee work areas shall be initially designed with not less than 20-percent spare capacity to account for the potential of adding visible notification appliances in the future to accommodate hearing-impaired employee~~(s)~~.

[BF] 909.21.1 Pressurization requirements.
Elevator hoistways shall be pressurized to maintain a minimum positive pressure of 0.10 inch of water (25 Pa) and a maximum positive pressure of 0.25 inch of water (67 Pa) with respect to adjacent occupied space on all floors. This pressure shall be measured at the midpoint of each hoistway door, with all elevator cars at the floor of recall and all hoistway doors on the floor of recall open and all other hoistway doors closed. The pressure differentials shall be measured between the hoistway and the adjacent elevator landing. The opening and closing of hoistway doors at each level must be demonstrated during this test. The supply air intake shall be from an outside, uncontaminated source located a minimum distance of 20 feet (6096 mm) from any air exhaust system or outlet.

Exceptions:

1. On floors containing only Group R occupancies, the pressure differential is permitted to be measured between the hoistway and a *dwelling unit* or *sleeping unit*.
2. Where an elevator opens into a lobby enclosed in accordance with Section 3007.6 or 3008.6 of the International Building Code, the pressure differential is permitted to be measured between the hoistway and the space immediately outside the door ~~(s)~~ from the floor to the enclosed lobby.
3. The pressure differential is permitted to be measured relative to the outdoor atmosphere on floors other than the following:
   3.1. The fire floor.
   3.2. The two floors immediately below the fire floor.
   3.3. The floor immediately above the fire floor.
4. The minimum positive pressure of 0.10 inch of water (25 Pa) and a maximum positive pressure of 0.25 inch of water (67 Pa) with respect to occupied floors is not required at the floor of recall with the doors open.

Staff Analysis: The ICC Code Correlation Committee (CCC) determined that removing the parentheses and maintaining the "s" (plural form of the word) was appropriate formatting. The CCC approved this item As Modified reflecting this formatting.

Reason: In discussion with ICC staff it was pointed out that in IBC Section 201 (201.2 Interchangeability) words used in the singular number includes the plural and the plural, the singular. To remove redundant language this proposal simply intends to eliminate where both the singular and plural are used together with the "(s)" text.

Bibliography: IBC Section 201.2:

201.2 Interchangeability. Words used in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The proposal is purely editorial and does not intend to change any requirements of the building code.

CCCIBC1-24

CCCIPC2-24

IPC: 918.2

Proponents: Ken Smithart Jr, IPS Corporation, Studor (ken.smithart@ipscorp.com); Ronald George, Plumb-Tech Design & Consulting Services LLC, Self (ron@plumb-techllc.com)

2024 International Plumbing Code

Revise as follows:

918.2 Installation.
~~The~~ Air admittance valves shall be installed in accordance with the requirements of this section and the manufacturer's instructions. Air admittance valves shall be installed after the DWV testing required by Section 312.2 or 312.3 has been performed.

Reason: This proposed change is clerical in nature and clarifies that this section is referencing air admittance valves.

Bibliography: Studor Engineered Products Manual - 10th Edition

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

- **Studor Engineered Products Manual - 10th Edition.pdf**
  https://www.cdpaccess.com/proposal/9351/30430/documentation/145736/attachments/download/4295/

Justification for no cost impact:

This is a clerical update to the wording and should not affect the cost.

CCCIFC2-24

IFC: 3206.7.5

Proponents: Sandie Hastings, Self (sandiehastings@gmail.com)

2024 International Fire Code

Revise as follows:

3206.7.5 Number of doors required. The required fire department access doors shall be distributed such that the ~~lineal~~ linear distance between adjacent fire department access doors does not exceed 125 feet (38 100 mm) measured center to center.

Exception: The linear distance between adjacent access doors shall not exceed 200 feet (60 960 mm) in existing buildings where change in occupancy is not proposed.

Staff Analysis: The ICC Code Correlation Committee (CCC) determined that the appropriate term, by definition, is "linear" rather than "lineal". The CCC approved this item As Modified to replace the term "lineal" with "linear".

Reason: Editorial. The exception should use the same word (lineal) as the body of the code section.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The change proposal is editorial in nature and has no cost impact on the cost of construction.