



# 2021 Code Implementation Accessibility, IBC, IEBC



# Agenda


- Implementation
- Accessibility
- Building Code
- Existing Building Code

SUBMIT YOUR QUESTIONS/ CONCERNS TO Q&A




# 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](#).
  - 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 res
  - 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)

- Building Code governing design, construction, alteration, and maintenance of buildings throughout Pennsylvania.
  - Established and amended under the Pa Construction Code Act (PCCA).
  - Current regulation requires adoption of triennial International Codes 4.5 years after publication.
    - Code is further modified by Pa laws and by Review & Advisory Council Review/ Recommendation Process.
    - Philadelphia was permitted early adoption of 2018 commercial codes and hasn't experienced full effect of 3-year adoption cycle in recent years.
    - Anticipate PA Bulletin adopting 2021 I-Codes to be issued in June 2025. Dictates Implementation Date.
  - Code may be further modified by local jurisdiction if changes meet or exceed PA UCC provisions.
    - Reviewed, approved and posted by Pa DLI
    - Requires City Ordinance
    - Certain sections cannot be changed through this municipal change process (i.e. Provision adopted through legislation, accessibility, elevator/boilers)
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# Pa Uniform Construction Code (UCC)

UNIFORM CONSTRUCTION CODE

## UCC Review & Advisory Council

The Uniform Construction Code (UCC) Review and Advisory Council were established by the Pennsylvania Construction Code Act (PCCA). The Council consists of 21 members, with appointments made by the Governor and the General Assembly.

[Letter from RAC Chair](#) → [2021 RAC Changed Sections](#) →

Department of Labor and Industry

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Mediation

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Pennsylvania Labor Relations Board

Industrial Board

Fee Schedules

Bureau of Occupational and Industrial Safety

Labor Law Compliance

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About the Council

The members represent industry sectors that participate in the various aspects relating to the building - including building component design, construction, building code enforcement, and local government representation.

The Council is charged with making recommendations to the Governor, the General Assembly, and Labor & Industry regarding proposed changes to the PCCA. The Council is also charged with reviewing the most recent triennial building code updates published by the International Code Council (ICC). The PCCA requires the Council to submit a report to Labor & Industry's Secretary within a prescribed timeline, specifying the updates to be adopted as part of Pennsylvania's UCC.

The council is required to review the applicable triennial code revisions to the following International Codes adopted as the UCC:

- International Building Code (IBC)
- International Energy Conservation Code (IECC)
- International Existing Building Code (IEBC)
- International Fire Code (IFC)
- International Fuel Gas Code (IFGC)
- International Mechanical Code (IMC)
- ICC Performance Code for Buildings and Facilities (ICCPC)
- International Plumbing Code (IPC)

Meeting Minutes

[RAC Meeting Minutes - May 2, 2024](#) →

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 considered
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
			TAC Committee Applications are Closed
12/12/2022	30		Public Comment Closed
3/12/2023	120		RAC Receives Public Comment and Assigns Comments to TAC's
3/16/2023	4		RAC Meets With Update From TAC Committee's Being Presented
9/14/2023	182		TAC Review Completed with Final Reports to Dept L&I
12/7/2023	84		RAC Recieves Final Report From TAC Committee's
1/4/2024	28		TAC Final Reports are Posted for Public Review
1/15/2024	11		RAC First Public Hearing (EAST)
2/1/2024	17		RAC Second Public Hearing (Harrisburg)
2/29/2024	28		RAC Third Public Hearing (WEST)
3/28/2024	28		RAC Meeting to Deliberate
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		Draft Report Presented to the RAC
7/25/2024	70		Final Report Approved by RAC
9/12/2024	49		Final Report Submitted to Dept L&I
10/1/2024	19		RAC Meeting
2/27/2025			RAC Meeting
5/8/2025			Go Live
7/13/2025	285		

- 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.



# Adopting Ordinances

CODE	SCOPE (in addition to 2021 adoption)	ANTICIPATED INTRODUCTION
Plumbing	Past local amendments +new local changes	May
Energy	Pa modifications + local retention of select provisions	May
Residential	Pa modifications + past local amendments + potential new local changes (cool roof, refrigerants)	Sept/Oct
Building	Pa modifications + past local amendments + potential new local changes (cool roof, refrigerants)	Sept/Oct
Mechanical/ Fuel Gas	Potential local amendment (refrigerants if not permissible through Pa Act 123 of 2022)	Sept/ Oct
Fire	Past local amendments + potential new local changes (maintenance provisions fall outside of UCC)	Nov/ Dec
Property Maintenance	Past local amendments	Nov/ Dec

- Admin Code- minor adjustments (Sept/Oct)
  - Electrical- referenced standard. Potential CB addressing incompatibility of GFCI/ HVAC equipment
- 

# Adopting Ordinances

- Understand the ordinance format and read carefully. Adopts the full text of the 2021 I-Code and only lists changes to the Code.
- ‘Pursuant to UCC’ means that it is mandated by the Pa Uniform Construction Code.

*Plumbing- 80 page ordinance but bulk was adopted through past ordinances*

Section	Topic	Change
<a href="#">Chapter 2</a>	Definitions	<b>Retain 2018</b> definitions for private and public. Add Mech Code definition for plenum.
<a href="#">314.2.1.1</a>	Condensate discharge	<b>Retain 2018 language.</b> Omit section on condensate discharge. 2023 amendments address allowable disposal outlets.
<a href="#">403.1/403.2</a>	All-gender facilities	<b>Retain 2018 language.</b> Omit reference to urinal. The 2023 amendments adopting provisions for all-gender facilities include a prohibition on urinals with these facilities.
<a href="#">403.3.1/403.5</a>	Accessible route	<b>Retain 2018 language</b> explicitly referencing accessibility requirements of the Bldg Code.
<a href="#">404.3</a>	Exposed pipes under accessible lav	<b>Retain 2018 language.</b> Do not adopt ASTM C1822 (geopolymer concrete) for covering exposed pipes.
<a href="#">412.3/412.4</a>	Shower valves	Clarify that stated flow rate is a minimum value.
<a href="#">606.7</a>	Labeling of water distribution pipes	<b>Retain 2018 language</b> for labeling of bundled water distribution pipe.
<a href="#">609.2</a>	Water Service for 1-2	Add reference to water distribution to reflect Phila definitions
<a href="#">610.1</a>	Disinfection and testing	Include exception for disinfection/ analysis for one and two family dwellings regulated by the Residential Code. Consistent with current practice.
<a href="#">705.2.4 and 705.10.4</a>	Push-fit fittings	<b>Retain 2018 language.</b> Omit push-fit fitting allowance for DWV due to production issues. and revisit product status during next code cycle change.
<a href="#">718/719</a>	Building sewer repair	Incorporates two new methods for building sewer repair, relining and rehab, but limits to one and two family dwellings. Requirements are taken from IPC but relisted as a change due to section changes.
<a href="#">915.1</a>	Combination waste and vent system	<b>Retain 2018 language</b> that restricts use for food waste disposers.
<a href="#">919.2.10/919.4</a>	High Rise vertical soil/ waste stack	Clarification to base sizing/ velocity break on the height of the stack and not the overall building
<a href="#">919.3.5</a>	Vent stack sizing	Language is clarified to support intent and resolve conflict. Stack must be same diameter as building sewer w/ min 4" size.
<a href="#">1002.3</a>	Partition Traps	Clarify the prohibition on internal partition traps (incl bottle traps) due to maintenance concerns. Revisit product development next code cycle.
<a href="#">1002.4.1.5</a>	Trap seal protection	<b>Retain 2018 language</b> to omit fixture drain method and allow only certified trap seal devices.
<a href="#">1102.6</a>	Roof Drain	<b>Retain 2018 language</b> to cross reference materials section and omit references for testing.

*Energy- the local change is in retention of 2021 provisions; therefore they are not explicitly listed out.*

IECC- Residential Code Section (IRC section in parentheses, where applicable)	Code Provision
R401.2.5, R408.1, R408.2 (N1101.13.5, N1108.1, N1108.2)	Require an additional energy package to improve efficiency. The developer/ builder can select from 5 options, allowing for the most economical solution for the project.
R403.3.5, R403.3.6 (N1003.3.5, N1103.3.6)	Require air leakage testing for ducts within the building thermal envelope.
R404.1 (N1104.1.)	Increase required percentage of high efficacy lamps from 90% to 100%.
R404.1.1	Sets limits for exterior lighting loads serving multi-family buildings.
R404.2 (N1104.2)	Require rooms with permanently installed lights to be controlled by dimmers or occupancy sensors.
R404.3 (N1104.3)	Require automatic shut-off or light-sensing controls for exterior lighting exceeding 30 watts.



# Form Updates

## Updated Forms

- 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.

\*\*\*DO NOT MAIL THIS FORM\*\*\*

Department of  
**Licenses and Inspections**  
CITY OF PHILADELPHIA

INTERNAL USE ONLY  
Date Received \_\_\_\_\_  
Application Number \_\_\_\_\_

**Structural Design Criteria Form**  
All calculations shall comply with the requirements of ASCE 7-16, ASCE 24-14, and the 2018 Philadelphia Building Code.

Complete all sections applicable

<b>Property Address</b> Enter the location of work.	<b>1</b>	Address _____
<b>Risk Category (1604.5)</b> Check the corresponding risk category.	<b>2</b>	<input type="checkbox"/> Category I: Building <input type="checkbox"/> Category II: Building <input type="checkbox"/> Category III: Building <input type="checkbox"/> Category IV: Building
<b>Floor Live Loads (1607)</b> Use this section to provide Floor Live Load values.	<b>3</b>	a) Basement b) First Floor c) Second Floor d) Third Floor e) Additional Floors
<b>Roof Live Loads (1607.13)</b> Use this section to provide values about the Roof Live Loads and the Roof Live Load Reduction Factor (if any).	<b>4</b>	Roof Live Loads Roof Live Load Reduction Factor
<b>Snow Loads (1608)</b> Use this section to provide Snow Load values.	<b>5</b>	a) Ground Snow Load b) Flat-roof Snow Load i) Exposure Factor, ii) Thermal Factor, iii) Importance Factor iv) Minimum Snow Load $P_s$ (ASCE 7, 7.3.2)

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**RESIDENTIAL DUCT & ENVELOPE TESTING (DET) FORM**

House Address: \_\_\_\_\_ Permit #: \_\_\_\_\_ Date: \_\_\_\_\_  
Permit holder: \_\_\_\_\_ Phone: \_\_\_\_\_

**I. Building Envelope Air Leakage (mandatory):**

**Blower door test (Mandatory)**

**Test Result:**  
Fan Flow at 50 Pascals = \_\_\_\_\_ CFM50      Total Conditioned Volume = \_\_\_\_\_ ft<sup>3</sup>  
ACH50 = CFM50 x 60 / Volume = \_\_\_\_\_ ACH50

**Visual Inspection (Mandatory)**  
☐ Air Barrier and Insulation Installation Final Inspection Checklist (on reverse) has been completed and signed

Testing company: \_\_\_\_\_ Phone: \_\_\_\_\_  
Tester Name (print): \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
BPI or HERS certification number: BPI no: \_\_\_\_\_ HERS Rater no: \_\_\_\_\_ HERS RFI no: \_\_\_\_\_


**II. Heating and Cooling System Duct Leakage**  
☐ I certify that all portions of the ducts are located entirely within the building thermal envelope. Testing is not required.  
Owner or approved third party signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Total duct leakage test**  
Energy code compliance path: ☐ Prescriptive (including REScheck) ☐ Performance or Energy Rating Index

# Guidance Documents

## Assistance in Understanding Changes

- Publish list of changes, by Code, as they will be applied in Philadelphia.



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 cons 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



Return Home  
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.

**[Bq] 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.

**[Bq] 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.

**[Bj] 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.

PB\_020\_FAQ

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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](http://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

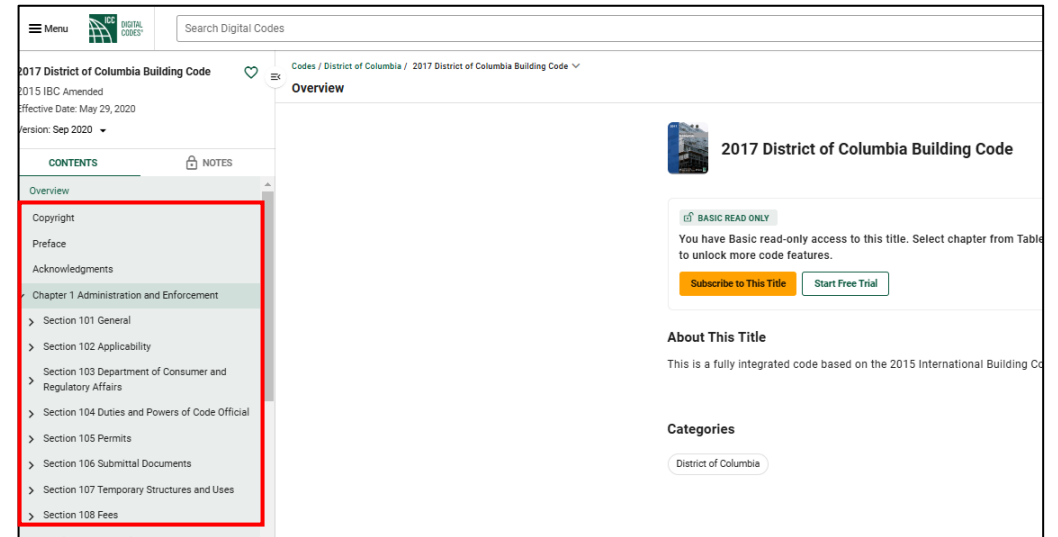


Name	Description	Released	Format
<a href="#">2021 I-Code- Q&amp;A</a>	Questions and answers regarding the 2021 I-Code transition.	January 24, 2025	PDF <a href="#">↓</a>
<a href="#">2021 ICC Code Adoption Final Report</a>	This report is issued by the Pennsylvania Department of Labor and Industry Review 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 <a href="#">↓</a>
<a href="#">2021 IPC Changed Sections</a>	This document lists sections that were changed under the 2021 International Plumbing Code.	September 20, 2024	PDF <a href="#">↓</a>
<a href="#">2018 Philadelphia Plumbing Code Changes</a>	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 <a href="#">↓</a>
<a href="#">Proposed Phila Changes to the 2021 IPC Provisions</a>	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 <a href="#">↓</a>
<a href="#">2021 I-Code changes webinar slides</a>	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 <a href="#">↓</a>

# Published Consolidated Code

## Electronic Access to Consolidated Codes

- All Building Construction and Occupancy Sub-Codes, except Admin Code, will be published to ICC's website.
- Free access to read-only version. Paid subscription provides additional functionality.
- An integrated PDF of each code will be available on L&I website.
- Integrated codes will be published as completed by ICC. Very limited pool will be available by July 13.
- Public can continue to access free versions of I-Codes and the Philadelphia Code, which identifies all local and state changes to I-Codes.



## DC Construction Codes

### Integrated Codes

To assist the public, three of the District of Columbia Construction Codes may also be viewed in an ICC, which consolidates the respective ICC codes, ANSI/ASHRAE/IES 90.1-2013 and the District of Columbia Energy Conservation Code. The integrated codes are available through the links below:


- [2017 District of Columbia Building Code - Part 1](#)
- [2017 District of Columbia Building Code - Part 2](#)
- [2017 District of Columbia Building Code - Part 3](#)
- [2017 District of Columbia Energy Conservation Code](#)
- [2017 District of Columbia Green Construction Code](#)



# 2021 Accessibility Provisions




# Pa Uniform Construction Code (UCC) Accessibility Provisions

- The PCCA requires that the accessibility provisions of the most recently published edition of the ICC codes must be adopted by December 31 of the year of issuance. Accordingly, 2021 Accessibility provisions were adopted on January 1, 2022.
  - In October 2022, the Commonwealth Court ruled that the adoption process violated the Pa Constitution by delegating legislative authority to a 3<sup>rd</sup> party (ICC). The 2018 accessibility provisions were reinstated and will remain in effect until new regulations are adopted.
  - Can't adopt or modify at the local level.
  - New laws will not be adopted by July 13, 2025; therefore, we will continue to enforce the 2018 accessibility provisions (IBC: Ch 10, 11, Appendix E, ICC-A117.1-09) until such laws are enacted. Designers should be prepared for sudden change.
  - Impact on Existing Building, Plumbing, and Swimming Pool Codes
  - Will incorporate 2018 accessibility provisions in Phila Building Code if change is no movement by the Fall.
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# Building Code- Accessibility

Significant changes are published to L&I website.



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Reference Code(s):  
International Building Code  
ICC A117.1 Accessibility Standard

**FAQ:**  
**What are the significant changes to the accessibility provisions of the 2021 International Codes?**

The Pa Uniform Construction Code requires enforcement of accessibility provisions established under the latest edition of the triennial codes. The PA Department of Labor and Industry is required to promulgate regulations to update accessibility by December 31 of the year of issuance of a new code.

This document includes a summary of significant changes to the 2021 International Building Code (IBC) and referenced 2017 ICC- A117.1 standard. This document also provides further information for the identified code changes.

**Disclaimer:** This document shall be utilized as guidance only. The design professional is responsible to review the provisions of the International Codes, associated referenced Standards, and the directives of the PA Department of Labor and Industry. The Department of Licenses and Inspections may only render a decision in response to a formal application for a construction permit or preliminary review.

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

**Section 1009 (Accessible Means of Egress)**

- IBC Section 1009.2.1 – Elevators required\*
- IBC Section 1009.6.2 – Stairway or elevator access

**Chapter 11 (Accessibility)**

- IBC Section 1104.4 – Accessible route in multistory buildings and facilities\*
- IBC Section 1105.1.1 – Automatic doors\*
- Section 1107 – Motor vehicle related facilities
- IBC Section 1108.5.2 and 1108.5.4 – Exceptions to Nursing Homes and Rehab. Facilities
- IBC Section 1108.7.5 – Flood hazard areas
- IBC Section 1110.2.2 – Water closets designed for assisted toileting
- IBC Section 1110.6 – Bottle-filling stations

**Chapter 12 (Interior Environment)**  
*NOTE: Provisions of this chapter only apply if PA UCC adopts these as "accessibility" provisions as they are not within Chapter 11*

- IBC Section 1207 – Enhanced classroom acoustics

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# IBC Ch 10 & Ch 11 Accessibility

- Revised requirements for accessible means of egress:
  - Must provide elevator to any accessible floor or occupied roof located four or more stories above or below a level of exit discharge (1009.2.1)
  - Exceptions to accessible route requirements for multistory structures (not more than 3,000 SF) no longer applicable to structures with four or more dwelling units, and MUST be provided (1104.4, Exception 1.5)

- Automatic door for accessible public entrances (1105.1.1)

**TABLE 1105.1.1** Public Entrance with Power-Operated Door<sup>a</sup>

<u>Occupancy</u>	<u>Building Occupant Load Greater Than</u>
<u>A-1, A-2, A-3, A-4</u>	<u>300</u>
<u>B, M, R-1</u>	<u>500</u>

a. In mixed-use facilities where the total sum of the building occupant load is greater than those listed, the most restrictive building occupant load shall apply.

- Where EVCs are provided, at least 5% must be accessible spaces (excluding R2,R3,R4) – (1107)
- Change in accessible units for Group I-1 (1108.5)
- Alternative design for assisted toilet and bathing rooms (1110.2)

# Building Code- Accessibility

Updated ICC A117.1-09 to ICC A117.1-17

- Major change is increase in turning and clearance spaces in new buildings to accommodate power mobility devices.



FIGURE 304.3.1.1 CIRCULAR TURNING SPACE - NEW BUILDINGS SIZE AND OVERLAP

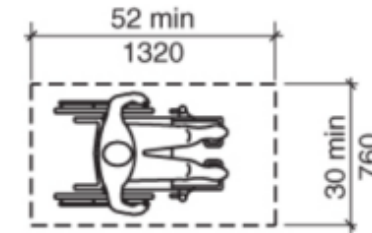


FIGURE 305.3.1 SIZE OF CLEAR FLOOR SPACE - NEW BUILDINGS

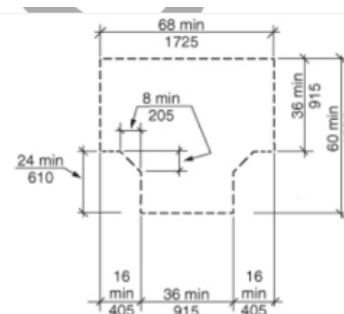


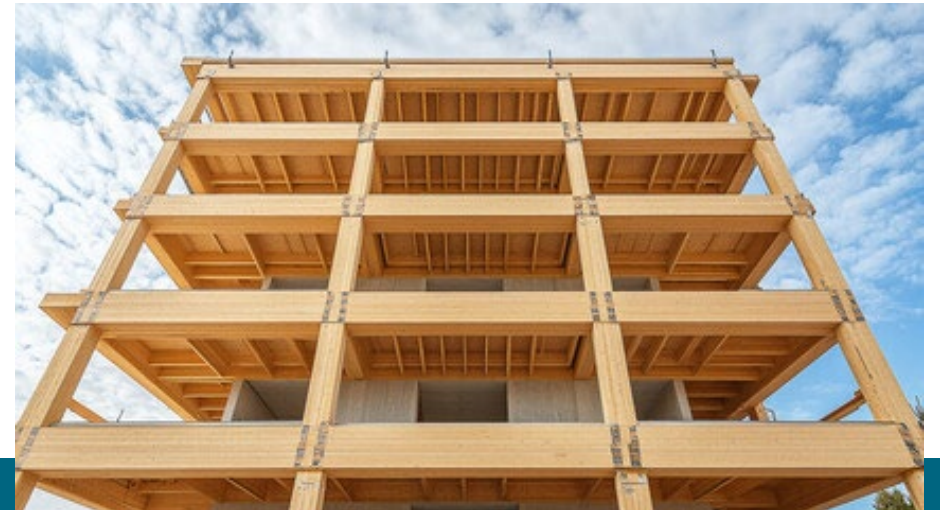
FIGURE 304.3.2.1(A) T-SHAPED TURNING SPACE NEW BUILDINGS - OPTION 1



# 2021 Building Code

# Mass Timber

- Definition: 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.
  - Introduce 3 new construction types: IV-A (18 stories, 270'), IV-B(12 stories, 180'), and IV-C (9 stories, 85')
- Fire pumps must be supplied by two water mains in Type IVA and IVB Structures exceeding 120' in building height (403.3.2)
- Specific fire resistance and encapsulation requirements (602.4)
- New Special Inspections to be required for Mass Timber:
  - Anchorage, Fastener, and Connection Inspections (1705.5.3)
  - Sealing of Mass Timber Bldg Elements at Intersections (1705.20)



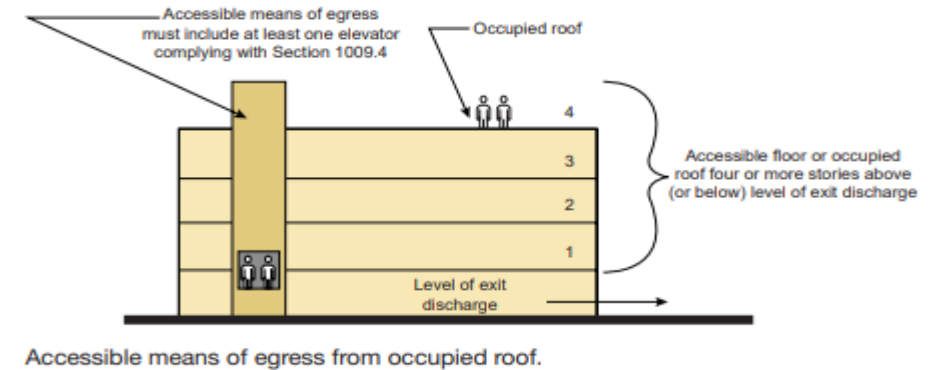
# Occupied Roof

- 503.14. Occupied Roof shall not be included in the building height or no of stories, provided penthouse and rooftop structures comply with 1511.

-Requires fire alarm extend to roof if utilizing exception for occupancy.

- 1006.3 Clarifies that only the occupant load of the roof is to be considered in establishing exit requirements

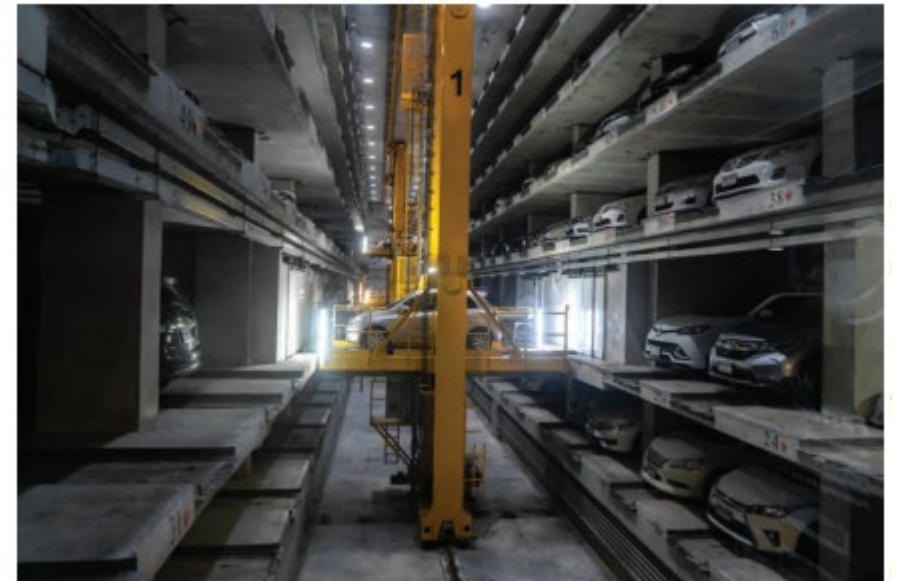
- 1009.2.1 Clarifies that an elevator is required if four or more stories. *Note: This 2021 accessibility provisions is not adopted but is consistent with 2018 B-1104.4.*



These clarifications are consistent with L&I's current treatment of occupied roofs. Does not change FAQ relating to inclusion in high-rise calculation.

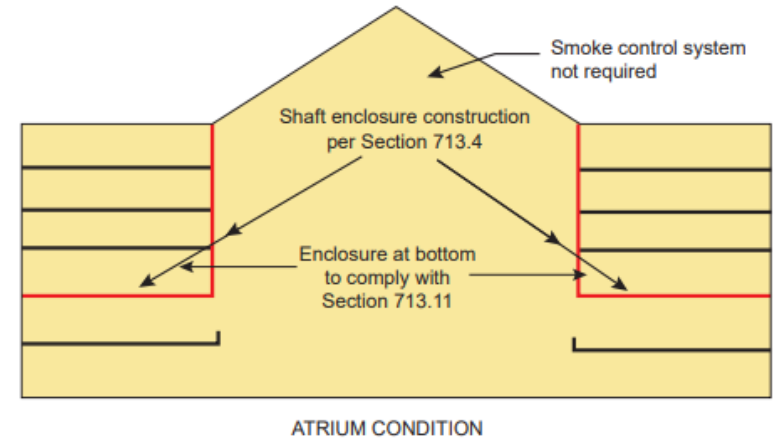
# Parking Garages

- Reinstated requirement that parking garages must have sloping floors to allow for gravity drainage of liquids. (406.2.4)
- Expanded sprinkler requirements for open parking garages. Required in:
  - High-Rise Buildings (403.3)
  - Garages exceeding 48,000 square feet (903.2.10)
  - Buildings 55' or more in height (903.2.11.3)
- Streamlined standpipe provisions to defer to 905.8 for use of dry standpipe. (905.3.1)
- Mechanical access enclosed parking garages:
  - Require engineered sprinkler system for rack system (903.2.10.2)
  - Requirements for fire separation, smoke control, and fire control equipment. (406.6.4)



# Atrium

- Simplified definition: **Atrium** is defined as a vertical space , closed at top, connecting 3 stories for all occupancies other than I-2/I-3 (remains connection of 2 stories).
- Smoke control not required if only bottom two floors are open and other floors are separated by rated fire barriers and shaft enclosures.(404.5)
- New exceptions to horizontal assembly requirements for floor openings associated with escalators, and exit access stairways and ramps, when protected by draft curtains and supplemental sprinklers. (404.6)
- Path of egress travel may pass through more than one adjacent story, when connected by an atrium. (1006.3.2)



# Intermodal Shipping Containers

Section 3115 added to identify regulations specific to shipping containers repurposed for use as a building or structure, including:

- Structural Integrity
- Data plate containing info as required by ISO 6346 and verification by approve agency (*Note: need to establish agency*)
- Foundations
- Alterations
- Fire Safety
- Subject to egress, accessibility, MEP provisions, etc..

Shipping Containers that are installed for less than 180 days in one year:

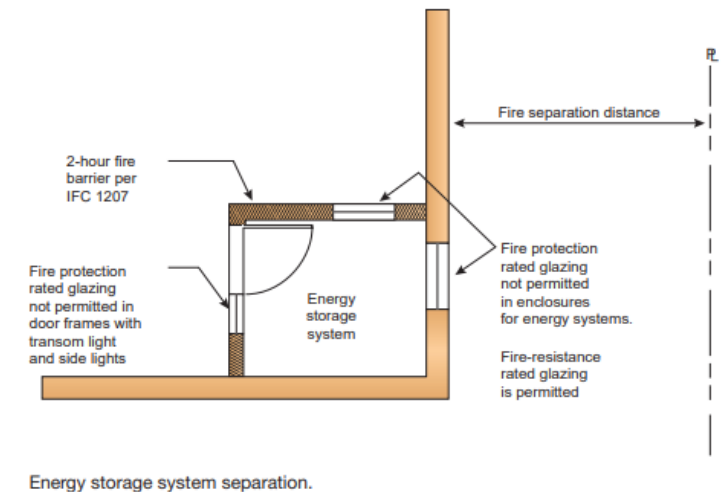
- Must be requirements for temp construction if occupied by the public
- No building permit required if not occupied by the public.





# Energy Storage Systems

- Energy Storage Systems in dedicated use buildings are classified as F-1 Moderate Hazard. (306.2)
- Section 1207 of the Fire Code includes extensive requirements on ESS, including detection, suppression, fire separation and explosion control, along with large scale testing to document the effectiveness of chosen protection levels.
- Fire protection-rated glazing is prohibited in fire barriers enclosing ESS- must be fire-resistance rated. (707/ 716)





# Distilling, brewing and the storage of alcohol beverages

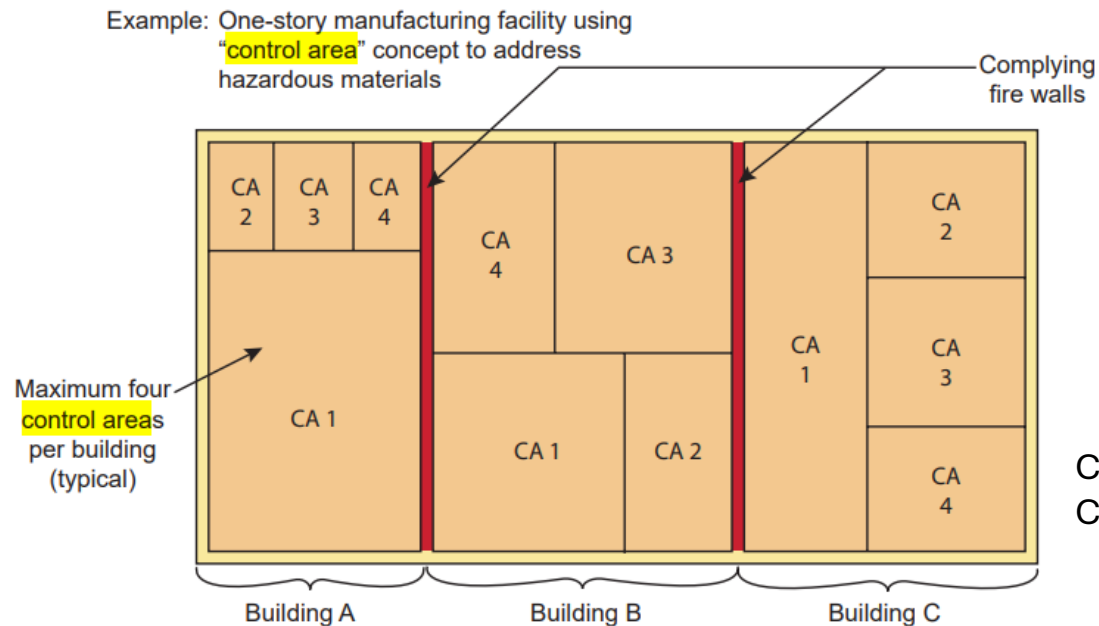
- New section added to the Fire Code to identify requirements for storage (Ch 40).
- Not classified as H, regardless of alcohol content or volume. (307.1.1)
- Use and Occupancy Classification (306, 311)

	Greater than 16% ABV	16% ABV and less
Manufacture	F1	F2
Storage	S1	S2

- F1 and S1 fire areas must be sprinklered. (903.2)
- 

# Control Areas for Hazardous Materials

- Provisions are introduced to expand scoping limitations on Hazardous Materials handling through use of Fire Walls to create separate buildings (414.2.3)
  - Maximum number of control areas within a building to be in accordance with Table 414.2.2
  - Each portion of a building separated by one or more fire walls are now considered separate buildings for control area design



Credit: ICC, 2021 Significant Changes to the IBC

# Other Occupancies

## Puzzle Rooms

- New definition
- Classified as A-3 or B, depending on occupant load.
- Three options for exiting (411.5)



## Play Structures


- Allowable area (without special analysis) increased from 300 to 600 sq ft.
- Many fall under the jurisdiction of the Pa Dept of Agriculture, Amusement Rides and Attractions Division.





# Chapter 5

## General Building Heights and Areas

- 506.3.2 - Allowable areas: Simplified calculations for increases based on open yards
  - Table 508.4 - Required separation of occupancies :Required separation in hourly rating is simplified in this table
  - 510.2 - Podium buildings : Now allows combustible stair construction to below the 3-hour horizontal separation
  - 603.1 - Combustible materials in Types I & II construction: Fire retardant treated wood may be allowed in walls rated 2 hours or less, except in shaft enclosures for I-2 and ambulatory care facilities.
- 



# Chapter 6

## Types of Construction

In addition to Mass Timber:


- 603.1 - Combustible materials in Types I & II construction Fire retardant treated wood may be allowed in walls rated 2 hours or less, except in shaft enclosures for I-2 and ambulatory care facilities. It is allowed in I-2 roof construction with Class A roof covering.





# Chapter 7

## Fire and Smoke Protection

- 704.6.1 - Structural fire Protection: Now requires any attachments to fire rated steel members to be rated for at least 12" away from structural member.
  - 707.5 - Enclosure of exit passageways: Walls enclosing exit passageways don't necessarily have to extend to the roof; they can terminate at a ceiling with the same rating.
  - 716.4 - Fire Curtains: New listing and labeling requirements for fire curtains, if used.
  - 717.2 - Static fire dampers & ceiling dampers are now allowed if HVAC has automatic shut down during fires.
  - 717.4 – Damper access requirements- min 12" and labeled.
- 

## Chapter 8

# Interior Finishes

806.9 - Combustible lockers: Lockers that are wooden, plastic, etc., are now required to meet the same interior finish ratings as for walls & ceilings.







# Chapter 9

## Fire Protection and Life Safety Systems

- 903.3.1.2 - Modified by Pa UCC: Use of NFPA 13R is now limited by the height of highest floor from level of Fire Department access (30') except R-2 (measured to roof assembly)


*[F] 903.3.1.2 NFPA 13R sprinkler systems. Automatic sprinkler systems in Group R occupancies shall be permitted to be installed throughout in accordance with NFPA 13R where the Group R occupancy meets all of the following conditions:*

- 1. Four stories or fewer above grade plane.*
- 2. For other than R-2 occupancies, the floor level of the highest story is 30 feet (9144 mm) or less above the lowest level of fire department vehicle access.*

*For R-2 occupancies, the roof assembly is less than 45 feet (13716 mm) above the lowest level of fire department vehicle access. The height of the roof assembly shall be determined by measuring the distance from the lowest required fire vehicle access road surface adjacent to the building to the eave of the highest pitched roof, the intersection of the highest roof to the exterior wall, or the top of the highest parapet, whichever yields the greatest distance.*

- 3. The floor level of the lowest story is 30 feet (9144 mm) or less below the lowest level of fire department vehicle access*


*The number of stories of Group R occupancies constructed in accordance with Sections 510.2 and 510.4 shall be measured from grade plane.*

- 907.5.2.1.3 Clarified requirements for low-frequency signal be used in the sleeping rooms to improve the waking effectiveness of the occupant notification devices where a fire alarm system is required in Group R-1 and R-2 occupancies.
  - 911. Fire command center requirement added for F1 and S1 occupancies with footprint exceeding 500,000 sq ft.
- 



# Chapter 10

## Means of Egress

- 1006.3.4 - Single exit from stories. Instead of using Common Path of Travel, total travel to an exit is now used to determine when 2 exits are required from a story. Total travel is still limited to 75'-100' for most occupancies.
  - 1008.2.1 - Egress illumination : Increases amount of lighting for stairs & landings from 1 foot-candle to 10 f-c while stairs are in use.
  - 1020.5 - Dead end corridors Dead ends increased for hospitals from 20 ft. to 30 ft. if not serving patient areas.
  - 1031. Emergency egress well restructured to better align with IRC, including provisions for steps and drainage.
- 



# Chapter 12-16

## Chapter 12: Interior Environment

- 1208.4 reduced the minimum required floor area of an efficiency dwelling unit to 190 square feet, and added a definition for efficiency dwelling unit.


## Chapter 14: Exterior Walls

- 1404.3 Vapor retarder provisions have been reorganized and thresholds clarified for when a vapor retarder is required and which retarder is required as well as location and climate zone requirements

## Chapter 15 Roof Assemblies

- 1503.3 Parapets require positive drainage and are split into fire-resistance rated and other.


## Chapter 16: Structural Design

- Mixed occupancy buildings with assembly spaces are now designated as Risk Category III when the total public assembly occupant load is greater than 2,500 people.
  - Loading better aligned with ASCE 7.
- 



# Chapter 17

## Special Inspections and Tests

- **Structural Observations** now required to be performed for Risk Category III structures (1704.6)
  - New **Precast Concrete** Inspection requirements (1705.3) introduced, associated with:
    - Diaphragm connections or reinforcement at joints for Moderate or High Deformability Elements {MDE or HDE}
    - Installation Tolerance Inspections for diaphragm connections
  - **Structural Integrity of Deep Foundation Elements** introduced to require testing of any defects in deep foundation installations where reasonable doubt of structural integrity is raised. (1705.10)
  - **Fire Resistant Penetration & Joint inspections** are now required for any high-rise buildings with fire areas containing Group R occupancies with an occupant load > 250 people. (1705.18)
  - New **Preconstruction Load Testing** requirements for building opening elements requiring resistance from wind-debris:
    - Exterior Window & Door Assemblies (1709.5)
    - Garage Doors & Rolling Doors (1709.5.2.1)
    - Exterior Glazing Openings (1709.5.3)
- 




# Chapter 18 and On Soils and Foundations

## Chapter 18: Soils and Foundations

- 1809.5.1 Frost protection at required exits. Frost protection shall be provided at exterior landings for all required exits with outward-swinging doors to ensure unobstructed access.

## Chapter 25: Gypsum


- Section 2510.6 now divides water-resistive barrier requirements for stucco into two categories based on whether the building is in a dry or moist climate. (*Note: Similar to requirements introduced in the Philadelphia Residential Code, local development is governed by moist/marine climate provisions.*)
- 



# 2021 Existing Building Code




# Code Changes - IEBC

- 503.4 now permits the addition of equipment to the roof without a full structural analysis when both the proposed roof top equipment weighs less than 400 pounds and is less than 10 percent of the total roof dead load.
  - 506.4 / 1011.5.1 / 1011.5.6 add allowances during a change of occupancy to use modified replacement window requirements for the installation of emergency escape and rescue openings.
  - 309. When significant portions of a building's exterior wall coverings or exterior wall envelopes are added or replaced, they must comply with the requirements of Chapters 14 and 26 of the IBC. Applies when work involves two or more contiguous stories and comprises more than 15% of the total wall area on any side of the building.
  - 803.2 Sprinkler requirements for Level 2
    - New requirements for I-2 and additional areas listed in Table B-903.2.11. 6 (high rise, atrium, live work units, etc.). The latter provision around special use was unintentionally deleted from the 2018 IEBC.
- 



# Code Changes - IEBC

- 904.1.4 / 904.1.5 / 904.1.6 / 904.1.7 Sprinkler requirements for Level 3. Clarify required systems based on the specific occupancy and location of the work area by adding sprinkler requirements for Level 3 alterations, to include windowless stories, Group I-2 occupancies, and special uses. The exemptions (i.e. more than one tenant, inadequate water supply, etc) that apply to Level 2 do not apply to Level 3
  - 1002.1 / 1002.2 / 1002.3 Change in occupancy provisions have been revised to provide a general reference to IBC Chapter 4 for special uses, to require compliance with incidental uses in accordance with Section 509 of the IBC, and to provide specific requirements for Group I-2 and I-1 occupancies undergoing a change of occupancy.
  - 1009.1 1009.1 Increased plumbing demand. If the occupant load of the story is increased by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load. Moved from Level 2.
  - CHANGE OF OCCUPANCY DEFINITION. IBC was updated but IEBC was not. Neither definition is very clear but we believe that L&I meets the intent.
- 





# Code Changes - IEBC

- Some accessibility changes but adoption is unresolved. Do not need to exceed the requirements of the Bldg Code.
- Certain provisions moved for clarification.
- No UCC changes relevant to Philadelphia.





# Resources

## L&I:

Submit topics of concern through our [recommendations form](#).

Submit questions on current codes/ processes through [www.phila.gov/li/get-help](http://www.phila.gov/li/get-help).

Track legislative changes and content updates through our newsletter.

Attend future info sessions.

## ICC

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