

2015 International Property Maintenance Code An Overview



Presented By: Roy L. Fyffe
CBO, CHCO, CCEO, CCEA

1

2015 Property Maintenance Code Review Goals & Objectives

- Acquire sufficient knowledge in preparation to take the AACE IPMC exam.
- Introduce the participant to terminology, concepts and principles of property maintenance inspection/code enforcement that affect all of us in the performance of our duties.
- Understand your role as a property maintenance inspector.

2

Disclaimer

- The American Association of Code Enforcement (AACE) and the instructor is presenting this training and information to assist the participant in understanding the property maintenance concepts related to the administration of the property maintenance code associated with the code enforcement profession.
- AACE is not a law firm, the instructor is not an attorney and the information presented today is to be used for educational purposes only.
- All participants should review any and all information presented with their local jurisdictions policies prior to adoption and implementation to ensure compliance with local ordinances and/or resolutions.

3

Instructor's Notes

- Some of the information you will receive is totally different than what you do in your home jurisdiction. This information is commonly accepted policy/practice across the nation and is supported by case law.
- Always keep in mind that you must work closely with your jurisdiction's legal council in establishing how you are to perform some of your duties.
- The information that we are covering is from the 2015 IPMC, a cited reference for the exam. All questions on the exam are based on the references, not on your home jurisdictions procedures or policies.

4

2015 Property Maintenance Code

Training session designed to prepare the attendee for the AACE Certified Property Maintenance Inspector exam.

Exam Code #64

5

Administration

Chapter 1

- Section 101.3
 - Intent: This code **shall be construed** to secure its expressed intent, which is to ensure public health, safety and welfare insofar as they are affected by the continued occupancy and maintenance of structures and premises. Existing structures and premises that do not comply with these provisions shall be altered or repaired **to provide a minimum level** of health and safety as required herein.

6

Section 102 – Applicability

102.2 Maintenance - Equipment, systems, devices and safeguards required by this code or a previous regulation or code under which the structure or premises was constructed, altered or repaired shall be maintained in good working order.

The owner or the owner's designated agent shall be responsible for the maintenance of buildings, structures and premises.

7

- Section 102.4 Existing Remedies

- The provisions in the IPMC shall not be construed to abolish or impair existing remedies of the jurisdiction or its officers or agencies relating to the removal or demolition of any structure which is dangerous, unsafe and unsanitary.

- Section 102.6 Historic Buildings

- The provisions of the IPMC are not mandatory for existing buildings or structures designated as historic buildings when such structures or buildings are judged by the code official to be safe and in the public interest of health, safety and welfare.

8

- **Section 103 – Department of Property Maintenance Inspection**

- 103.2 Appointment. The code official shall be appointed by the chief appointing authority of the jurisdiction.
- 103.3 Deputies. With agreement of the appointing authority, the code official shall have the authority to appoint deputy(s).

9

- 103.4 Liability. The code official, member of the Board of Appeals or employee charged with the enforcement of this code, while acting for the jurisdiction, in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered civilly or criminally liable personally, and is hereby relieved from all personal liability for any damage accruing to persons or property as a result of an act or by reason of an act or omission in the discharge of official duties.

10

- 103.4.1 Legal defense.
 - ✓ Any suit or criminal complaint instituted against any officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representative of the jurisdiction until the final termination of the proceedings. The code official or any subordinate shall not be liable for costs in an action, suit or proceeding that is instituted in pursuance of the provisions of this code.

11

- Section 104 – Duties & Powers of the Code Official
 - 104.1 The code official is hereby authorized and directed to enforce the provisions of this code. The code official shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies and procedures shall be in compliance with the intent and purpose of this code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this code.

12

- 104.2 Inspections. The code official **shall** make all of the required inspections, or shall accept reports of inspection by approved agencies or individuals.
 - » All reports must be in writing.
 - » All reports must be certified by a responsible officer.

- The code official is authorized to engage such expert opinion as deemed necessary to report upon unusual technical issues that arise, subject to the approval of the appointing authority.

13

- 104.3 Right of Entry. Where it is necessary to make an inspection to enforce the provisions of this code, or whenever the code official has reasonable cause to believe that there exists in a structure or upon a premises a condition in violation of this code, the code official is authorized to enter the structure or premises at reasonable times to inspect or perform the duties imposed by this code, provided that if such structure or premises is occupied the code official shall present credentials to the occupant and request entry. If such structure or premises is unoccupied, the code official shall first make a reasonable effort to locate the owner, the owner's authorized agent or other person having charge or control of the structure or premises and request entry. If entry is refused, the code official shall have recourse to the remedies provided by law to secure entry.
- ***Ensure you read the entire paragraph. This is an area that tends to be misleading to field officers across the country.***

14

- Section 104.4 Identification. The code official shall carry proper identification when inspecting structures or premises in the performance of duties under this code.
- 104.5 Notices and orders. The code official shall issue all necessary notices or orders to ensure compliance with this code.
- 104.6 Department records. The code official shall keep official records of all business and activities of the department specified in the provisions of this code. Such records shall be retained in the official records for the period required for retention of public records.

15

- Section 105 – Approval

- 105.1 Modifications. Where there are practical difficulties involved in carrying out the provisions of this code, the code official shall have the authority to grant modifications for individual cases upon application of the owner or owner's representative, provided:
 - The code official shall first find that special individual reason makes the strict letter of this code impractical.
 - The modification is in compliance with the intent and purpose of this code.
 - That such modification does not lessen health, life and fire safety requirements.

16

- 105.2 Alternative materials, methods and equipment.
 - » Code official may approve alternative materials or construction techniques when he/she finds:
 - a. The proposed design is satisfactory and complies with the intent of the provisions of the code.
 - b. The material, method or work offered is at least the equivalent of that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safety.
 - c. Where the alternative material, design or method of construction is not approved, the code official shall respond in writing, stating the reasons the alternative was not approved.

17

- 105.3 Required testing. The code official shall have the authority to require tests to be made as evidence of compliance at no expense to the jurisdiction.
 - » 105.3.1 Test Methods. Shall be as specified in the code or by other recognized test standards. The code official shall be permitted to approve appropriate testing procedures performed by an approved agency in the absence of recognized and accepted test methods.
 - » 105.3.2 Test reports. Reports of tests shall be retained by the code official for the period required for retention of public records.

18

- 105.4 Used Material and equipment. The use of used materials which meet the requirements of this code for new materials is permitted. Materials, equipment and devices shall not be reused unless such elements are in good repair or have been reconditioned and tested when necessary, placed in good and proper working condition and approved by the code official.

19

Section 106 – Violations

- 106.1 Unlawful acts. It shall be unlawful for a person, firm or corporation to be in conflict with or in violation of any of the provision of this code.
- 106.2 Notice of violation. The code official shall serve notice of violation or order in accordance with Section 107.

20

- 106.3 Prosecution of violation.

- Any person failing to comply with a notice of violation or order served IAW Section 107 shall be deemed guilty of a misdemeanor or civil infraction as determined by the local municipality and the violation shall be deemed a strict liability offense.
- If the notice of violation is not complied with, the code official shall institute the appropriate proceeding at law or in equity to restrain, correct or abate such violation, or to require the removal or termination of the unlawful occupancy of the structure in violation of the provisions of this code or of the order or direction made pursuant thereto.
- Any action taken by the authority having jurisdiction on such premises shall be charged against the real estate upon which the structure is located and shall be a lien upon such real estate.

21

- 106.4. Violation penalties. Any person who shall violate a provision of this code, or fail to comply therewith, or with any of the requirements thereof, shall be prosecuted within the limits provided by state or local laws. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

- 106.5. Abatement of violation. Imposed penalties does not preclude the legal officer of the jurisdiction from instituting appropriate action to restrain, correct or abate a violation, or to prevent illegal occupancy of a building, structure or premises, or to stop an illegal act, conduct, business or utilization of the building, structure or premises.

22

Section 107 – Notices and Orders

- 107.2. Form. Notices shall be in accordance with all of the following:
 1. Be in writing.
 2. Include a description of the real estate sufficient for identification.
 3. Include a statement of the violation(s) and why the notice is being issued.
 4. Include a correction order allowing a reasonable time to make the repairs and improvements required to bring the dwelling unit or structure into compliance with the provisions of the code.
 5. Inform the property owner or owner's authorized agent of the right to appeal.
 6. Include a statement of the right to file a lien in accordance with Section 106.3

23

- 107.3. Method of service. Notices shall be deemed to be properly served if a copy is:
 1. Delivered personally;
 2. Sent by certified or first-class mail addressed to the last known address; or
 3. If the notice is returned showing that the letter was not delivered, a copy thereof shall be posted in a conspicuous place in or about the structure affected by such notice.
- 107.4. Unauthorized tampering. Signs, tags or seals posted or affixed by the code official shall not be mutilated, destroyed or tampered with, or removed without authorization from the code official.
- 107.5 Penalties. Penalties for noncompliance with orders and notices shall be as set forth in Section 106.4.

24

- 107.6. Transfer of ownership

- It shall be unlawful for the owner of any dwelling unit or structure who has received a compliance order or upon whom a notice of violation has been served to sell, transfer, mortgage, lease or otherwise dispose of such until the provisions of the compliance order or notice have been complied with; or

- Owner or owner's authorized agent shall first furnish the grantee, transferee, mortgagee or lessee a true copy of any compliance order or notice issued by the code official a signed and notarized statement acknowledging the receipt of such compliance order or notice and fully accepting the responsibility without condition for making the corrections or repairs required by such compliance order or notice.

25

Section 108 – Unsafe Structures and Equipment

- 108.1. General. When a structure or equipment is found by the code official to be unsafe, or when found to be unfit for human occupancy, or is found unlawful, such structure shall be condemned pursuant to the provisions of this code.

26

- 108.1.1. **Unsafe structures.** One that is found to be dangerous to the life, health, property or safety of the public or the occupants of the structure;
 - a. Not providing minimum safeguards to protect or warn occupants in the event of fire;
 - b. Such structure contains unsafe equipment;
 - c. Is so damaged, decayed, dilapidated, structurally unsafe.
 - d. Of such faulty construction or unstable foundation that partial or complete collapse is possible.

27

- 108.1.2. **Unsafe equipment.** Unsafe equipment includes any boiler, heating equipment, elevator, moving stairway, electrical wiring or device, flammable liquid containers or other equipment on the premises or within the structure which is in such disrepair or condition that such equipment is a hazard to life, health, property or safety of the public or occupants of the premises or structure.
- 108.1.3. **Structure unfit for human occupancy.** When the code official finds that such structure is unsafe, unlawful or, because of the degree to which the structure is in disrepair or lacks maintenance, is unsanitary, vermin infested, contains filth and contamination, or lacks ventilation, illumination, sanitary or heating facilities or other essential equipment required by the code, or because the location of the structure constitutes a hazard to the occupants of the structure or to the public.

28

- 108.1.4. **Unlawful structure.** One found in whole or in part to be occupied by more persons than permitted under this code, or was erected, altered or occupied contrary to law.
- 108.1.5. **Dangerous structure or premises.** For the purposed of this code, any structure that has any or all of the conditions or defects described below shall be considered dangerous:
 1. Any door, aisle, passageway, stairway, exit or other means of egress that does not conform to the approved building or fire code of the jurisdiction as related to the requirements for existing buildings.
 2. The walking surface of any aisle, passageway, stairway, exit or other means of egress is so warped, worn loose, torn or otherwise unsafe as to not provide safe and adequate means of egress.

29

3. Any portion of a building, structure or appurtenance that has been damaged by fire, earthquake, wind, flood, deterioration, neglect, abandonment, vandalism or by any other cause to such extent that it is likely to partially or completely collapse, or to become detached or dislodged.
4. Any portion of a building, or any member, appurtenance or ornamentation on the exterior thereof that is not of sufficient strength or stability, or is not so anchored, attached or fastened in place so as to be capable of resisting natural or artificial loads of one and one-half the original designed value.
5. The building or structure, or part of the building or structure, because of dilapidation, deterioration, decay, faulty construction, the removal or movement of some portion of the ground necessary for the support, or for any reason, is likely to partially or completely collapse, or some portion of the foundation or underpinning of the building or structure is likely to fail or give way.

30

6. The building or structure, or any portion thereof, is clearly unsafe for its use and occupancy.

7. The building or structure is neglected, damaged, dilapidated, unsecured or abandoned so as to become an attractive nuisance to children who might play in the building or structure to their danger, becomes a harbor for vagrants, criminals, or immoral persons, or enables persons to resort to the building or structure for committing a nuisance or an unlawful act.

8. Any building or structure has been constructed, exists or is maintained in violation of any specific requirement or prohibition applicable to such building or structure provided by the approved building or fire code of the jurisdiction, or of any law or ordinance to such an extent as to present either a substantial risk of fire, building collapse or any other threat to life and safety.

31

9. A building or structure, used or intended to be used for dwelling purposes, because of inadequate maintenance, dilapidation, decay, damage, faulty construction or arrangement, inadequate light, ventilation, mechanical or plumbing system, or otherwise, is determined by the code official to be unsanitary, unfit for human habitation or in such a condition that is likely to cause sickness or disease.

10. Any building or structure, because of a lack of sufficient or proper fire-resistance-rated construction, fire protection systems, electrical system, fuel connections, mechanical system, plumbing system or other cause, is determined by the code official to be a threat to life or health.

11. Any portion of a building remains on a site after the demolition or destruction of the building or structure or whenever any building or structure is abandoned so as to constitute such building or portion thereof as an attractive nuisance or hazard to the public.

32

- **108.2. Closing of vacant structures.**

- A structure that is vacant or unfit for human habitation and occupancy and not in danger of structural collapse, the code official is authorized to post a placard of condemnation on the premises and order the structure closed up so as not to be an attractive nuisance.
- If noncompliance, the code official shall cause the premises to be closed and secured by public agency, contract or other means and the cost shall be charged against the real estate as a lien.

108.2.1 Authority to disconnect service utilities. The code official shall have the authority to authorize disconnection of utility service to the building, structure or system regulated by this code and the referenced codes and standards set forth in Section 102.7 in case of emergency where necessary to eliminate an immediate hazard to life or property or when such utility connection has been made without approval. The code official shall notify the serving utility and, whenever possible, the owner and occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnection the owner or occupant of the building structure or service system shall be notified in writing as soon as practical thereafter.

33

- **108.5 Prohibited Occupancy**

- Any occupied structure condemned and placarded by the code official shall be vacated as ordered by the code official. Any person who shall occupy a placarded premises or shall operate placarded equipment, and any owner or any person responsible for the premises who shall let anyone occupy a placarded premises or operate placarded equipment shall be liable for the penalties provided by this code.

34

Section 109 – Emergency Measures

- 109.1 Imminent danger
 - Failure or collapse of a building or structure which endangers life;
 - A structure or part of a structure has fallen and life is endangered by the occupation of the structure;
 - There is actual or potential danger to the building occupants or those in the proximity of any structure because of explosives, explosive fumes or vapors;
 - Presence of toxic fumes, gases or materials;
 - Operation of defective or dangerous equipment.

35

- 109.2 Temporary Safeguards
 - Code official may order necessary work to be done, including boarding up to render structure temporarily safe.
- 109.3 Closing Streets
 - When necessary for public safety may close or prohibit the use of sidewalks, streets, public ways and areas adjacent to unsafe structures.
- 109.4 Emergency Repairs
 - Employ necessary labor and materials to perform the required work.
- 109.5 Costs of Emergency Repairs
 - Initially paid by the jurisdiction – may attempt to recover costs from owner.
- 109.6 Hearing
 - Any person ordered to take emergency measures shall comply, but may petition to the appeals board for a hearing.

36

Section 110 – Demolition

- 110.1 Code Official shall order the owner or owner's authorized agent of any premises upon which is located any structure, which in the code official judgment after review is so deteriorated or dilapidated or has become so out of repair as to be dangerous, unsafe, insanitary or otherwise unfit for human habitation or occupancy, and such that it is unreasonable to repair the structure, to demolish and remove such structure; or if such structure is capable of being made safe by repairs, to repair and make safe and sanitary, or to board up and hold for future repair or to demolish and remove at the owner's option; or where there has been a cessation of normal construction of any structure for a period of more than two years, the code official shall order the owner to demolish and remove such structure, or board up until future repair. Boarding the building up for future repair shall not extend beyond one year, unless approved by the building official.

37

- **110.3 Failure to Comply**

- If owner or owner's authorized agent fails to comply within the time prescribed:
 - Structure demolished and removed
 - Cost of demolition and removal charged against the real estate (Lien) upon which the structure was located.

- **110.4 Salvage Materials**

- Governing body has the right to sell the salvage and valuable materials at the highest price obtainable.
- Net proceeds after deducting expenses are remitted to the person entitled subject to any court order

38

Section 111 – Means of Appeal

- 111.1 Application for appeal
 - Written application filed within 20 days after the day the decision, notice or order was served.
 - Based on:
 - A claim that the true intent of the codes have been incorrectly interpreted;
 - The provisions of the code do not fully apply;
 - The requirements of the code are adequately satisfied by other means.
- 111.2 Membership of board
 - Code official is an ex-officio member w/o vote.
 - 3 members (not employees of jurisdiction and qualified by experience and training on property maintenance matters).

39

- 111.3 Notice of meeting – board must meet within 20 days of the filing of an appeal or at stated periodic meetings.
- 111.4 Open hearing – open to the public. Any person whose interests are affected shall be given the opportunity to be heard. Quorum shall consist of at least 2/3 of the board membership.
- 111.5 Postponed hearing – When full board not present a postponement may be requested.
- 111.6 Board decision – modify or reverse the code official's decision by majority vote.
- 11.7 Court review – Any person has the right to apply to the appropriate court for a **writ of certiorari** to correct errors of the law.
- 111.8 Stays of enforcement – Appeals shall stay any enforcement action until it has been heard by board; except for Imminent Danger notices or orders.

40

Section 112 – Stop Work Order

- 112.1 Authority. Whenever the code official finds any work regulated by this code being performed in a manner contrary to the provisions of this code or in a dangerous or unsafe manner, the code official is authorized to issue a stop work order.
- 112.2 Issuance. A stop work order shall be in writing and shall be given to the owner of the property, to the owner's authorized agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work is authorized to resume.
- 112.3 Emergencies. Where an emergency exists, the code official shall not be required to give a written notice prior to stopping the work.
- 112.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than **(amount)** dollars or more than **(amount)** dollars.

41

Definitions

Chapter 2

- Section 201 – General
 - 201.3 Terms defined in other codes. Not defined in the IPMC, terms shall have the meanings ascribed to them as stated in the IBC, IFC, IZC, IPC, IMC or ICC Electrical Code.
 - 201.5 Parts. Whenever the words “dwelling unit,” “dwelling,” “premises,” “building,” “rooming house,” “rooming unit,” “housekeeping unit,” or “story” they shall be construed as though they were followed by the words “or any part thereof.”

42

General Requirements

Chapter 3

- 301.3 Vacant structures and land. All vacant structures and premises or vacant land shall be maintained in a clean, safe, secure and sanitary condition so as not to cause a blighting problem or adversely affect the public health or safety.

43

Section 302 – Exterior Property Areas

- 302.1 Sanitation – Maintained in a clean, safe and sanitary condition.
- 302.2 Grading & drainage – maintained to prevent the erosion of soil or the accumulation of stagnant water.
- 302.3 Sidewalks and driveways – Kept in a proper state of repair and free from hazardous conditions.
- 302.4 Weeds – Maintained free from weeds and plant growth in excess of _____ inches in height.

44

- 302.5 Rodents – Kept free from rodent harborage and infestations.
- 302.6 Exhaust vents – Not discharge directly upon abutting or adjacent public or private property or than of another tenant.
- 302.7 Accessory structures – Maintained structurally sound and in good repair.
- 302.8 Motor vehicles – No inoperative or unlicensed MV shall be parked, kept or stored on any premises. No major disassembly, disrepair or being stripped. No painting unless in an approved spray booth.

45

- 302.9 Defacement of property – No one shall willfully or wantonly damage, mutilate or deface any exterior surface of any structure or building by placing any marking, carving or graffiti.

46

Section 303 – Swimming Pools, Spas and Hot Tubs

- 303.1 Swimming pools – Maintained in a clean and sanitary condition and in good repair.
- 303.2 Enclosures
 - Water more than 24" in depth
 - Surrounded by a fence or barrier at least 48" in height above finished grade measured on away side of fence.
 - Gates/doors must be self closing and self latching.
 - If self latching device less than 54" above bottom of gate, release mechanism must be on pool side.
 - Gates must positively close and latch when released from an open position of 6" from the gatepost.
 - No existing pool enclosure may be removed if it reduces its effectiveness as a safety barrier.

47

Section 304 – Exterior Structure

- 304.1 General – Maintained in good repair, structurally sound and sanitary so as not to pose a threat to the public health, safety or welfare.
- 304.1.1 Unsafe conditions. The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the International Building Code or the International Existing Building Code as required for existing buildings:
 - 1. The nominal strength of any structural member is exceeded by nominal loads, the load effects or the required strength;
 - 2. The anchorage of the floor or roof to walls or columns and of walls and columns is not capable of resisting all nominal loads or load effects;
 - 3. Structures or components thereof that have reached their limit state;
 - 4. Siding and masonry joints including joints between the building envelope and the perimeter of windows, doors and skylights are not maintained, weather resistant or water tight;
 - 5. Structure members that have evidence of deterioration or that are not capable of safely supporting all nominal loads and load effects;
 - 6. Foundations systems that are not firmly supported by footings, are not plumb and free from open cracks and breaks, are not properly anchored or are not capable of supporting all nominal loads and resisting all load effects;

48

- 7. Exterior walls that are not anchored to supporting and supported elements or are not plumb and free of holes, cracks or breaks and loose or rotting materials, are not properly anchored or are not capable of supporting all nominal loads and resisting all load effects;
- 8. Roofing or roofing components that have defects that admit rain, roof surfaces with inadequate drainage, or any portion of the roof framing that is not in good repair with signs of deterioration, fatigue or without proper anchorage and incapable of supporting all nominal loads and resisting all load effects;
- 9. Flooring and flooring components with defects that affect serviceability or flooring components that show signs of deterioration or fatigue, are not properly anchored or are incapable of supporting all nominal loads and resisting all load effects;
- 10. Veneer, cornices, belt courses, corbels, trim, wall facings and similar decorative features not properly anchored or that are anchored with connections not capable of supporting all nominal loads and resisting all load effects;
- 11. Overhang extensions or projections including, but not limited to, trash, chutes, canopies, marquees, signs, awnings, fire escapes, standpipes and exhaust ducts not properly anchored or that are anchored with connections not capable of supporting all nominal loads and resisting all load effects;

49

- 12. Exterior stairs, decks, porches, balconies and all similar appurtenances attached thereto, including guards and handrails, are not structurally sound, not properly anchored or that are anchored with connections not capable of supporting all nominal loads and resisting all load effects; or
- 13. Chimneys, cooling towers, smokestacks and similar appurtenances not structurally sound or not properly anchored, or that are anchored with connections not capable of supporting all nominal loads and resisting all load effects:
 - Exceptions:
 - 1. When substantiated otherwise by an approved method.
 - 2. Demolition of unsafe conditions shall be permitted when approved by the code official.

50

- 304.2 Protective treatment – Protected from the elements and decay by painting or other protective covering or treatment.
- 304.3 Premises identification – Must be plainly legible and visible from the street or road fronting the property. Arabic numbers a minimum of 4" high and a minimum width of ½".
- 304.4 Structural members – Maintained free from deterioration and capable of safety supporting the imposed dead and live loads.
 - Dead load – weight of construction materials in building.
 - Live load (roof) – weight produced during maintenance by workers, equipment and materials or by movable objects such as planters and people.
- 304.5 Foundation walls – Maintained plumb and free of open cracks and breaks and kept so as to prevent the entry of rodents and other pests.
- 304.6 Exterior walls – Free of holes, breaks and loose or rotting materials; maintained weatherproof and properly surface coated where required.
- 304.7 Roofs and drainage – Roof and flashing kept tight, sound and not have defects that admit rain. Drainage adequate to prevent dampness or deterioration in the walls or interior portion. Maintained in good repair and free from obstructions. Roof water not discharged in a manner that creates a public nuisance.

51

- 304.8 Decorative features – Maintained in good repair with proper anchorage and in a safe condition.
- 304.9 Overhang extensions – Maintained in good repair and be properly anchored so as to be kept in a sound condition.
- 304.10 Stairways, decks, porches and balconies – Maintained structurally sound, in good repair with proper anchorage and capable of supporting the imposed loads.
- 304.11 Chimneys and towers – Maintained structurally safe and sound in good repair.
- 304.12 Handrails and guards – Firmly fastened and capable of supporting normally imposed loads and maintained in good condition.
- 304.13 Window, skylight and door frames – Kept in sound condition, good repair and weather tight.
 - 304.13.1 Glazing – Maintained free from cracks and holes.
 - 304.13.2 Openable windows – Kept easily openable and capable of being held in position by window hardware.
- 304.14 Insect screens – Supplied with approved tightly fitting screens of not less than 16 mesh per inch and every screen door must have a self-closing device in good working condition.

52

- 304.15 Doors – Maintained in good condition; locks shall tightly secure the door. Means of egress doors IAW Section 702.3.
- 304.16 Basement hatchways – Maintained to prevent the entrance of rodents, rain and surface drainage water.
- 304.17 Guards for basement windows – If openable shall be supplied with rodent shields, storm windows or other approved protection against the entry of rodents.
- 304.18 Building security – Provided with devices designed to provide security for the occupants and property within.
 - 304.18.1 Doors – Deadbolt locks on rental, leased or sublet dwelling units.
 - Openable from side from which egress is to be made without the need for keys, special knowledge or effort.
 - Lock throw of not less than 1”.
 - Maintained in good working condition.
 - 304.18.2 Windows – If within 6’ above ground or a walking surface below must be equipped with a window sash locking device.
 - 304.18.3 Basement hatchways – Shall be equipped with devices that secure the units from unauthorized entry if for rent, lease or sublet.

53

Section 305 – Interior Structure

- 305.1 General – Maintained in good repair, structurally sound and in a sanitary condition.
- 305.1.1 Unsafe conditions. The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the International Building Code or the International Existing Building Code as required for existing buildings;
 1. The nominal strength of any structural member is exceeded by nominal loads, the load effects or the required strength;
 2. The anchorage of the floor or roof to walls or columns, and of walls and columns to foundations is not capable of resisting all nominal loads or load effects;
 3. Structures or components thereof that have reached their limit state;
 4. Structural members are incapable of supporting nominal loads and load effects;
 5. Stairs, landings, balconies and all similar walking surfaces, including guards and handrails, are not structurally sound, not properly anchored or are anchored with connections not capable of supporting all nominal loads and resisting all load effects.

54

6. Foundation systems that are not firmly supported by footings are not plumb and free from open cracks and breaks, are not properly anchored or are not capable of supporting all nominal loads and resisting all load effects.

Exceptions:

1. When substantiated otherwise by an approved method.
 2. Demolition of unsafe conditions shall be permitted when approved by the code official.
- 305.2 Structural members – Maintained sound and capable of supporting the imposed loads.
 - 305.3 Interior surfaces – Maintained in good, clean and sanitary condition. No peeling, chipping, flaking or abraded paint or cracked/loose plaster, decayed wood or other defective surface conditions.

55

- 305.4 Stairs and walking surfaces – Maintained in sound condition and good repair.
- 305.5 Handrails and guards – Firmly fastened and capable of supporting normally imposed loads and maintained in good condition.
- 305.6 Interior doors – Shall fit reasonably well within its frame and be capable of being opened/closed by being properly and securely attached to jambs, headers or tracks as intended.

56

Section 306 – Component Serviceability

- 306.1 General. The components of a structure and equipment therein shall be maintained in good repair, structurally sound and in a sanitary condition.
 - 306.1.1 Unsafe conditions. Where any of the following conditions cause the component or system to be beyond its limit state, the component or system shall be determined as unsafe and shall be repaired or replaced to comply with the International Building Code as required for existing buildings:
 1. Soils that have been subjected to any of the following conditions:
 - 1.1. Collapse of footing or foundation system;
 - 1.2. Damage to footing, foundation, concrete or other structural element due to soil expansion;

57

- 1.3. Adverse effects to the design strength of footing, foundation, concrete or other structural element due to a chemical reaction from the soil;
- 1.4. Inadequate soil as determined by a geotechnical investigation.
- 1.5. Where the allowable bearing capacity of the soil is in doubt; or
- 1.6. Adverse effects to the footing, foundation, concrete or other structural element due to the ground water table.
2. Concrete that has been subjected to any of the following conditions:
 - 2.1. Deterioration;
 - 2.2. Ultimate deformation;
 - 2.3. Fractures;
 - 2.4. Fissures;
 - 2.5. Spalling;
 - 2.6. Exposed reinforcement; or
 - 2.7. Detached, dislodged or failing connections.

58

3. Aluminum that has been subjected to any of the following conditions:

- 3.1. Deterioration;
- 3.2. Corrosion;
- 3.3. Elastic deformation;
- 3.4. Ultimate deformation;
- 3.5. Stress or strain cracks;
- 3.6. Joint fatigue; or
- 3.7. Detached, dislodged or failing connections.

4. Masonry that has been subjected to any of the following conditions:

- 4.1. Deterioration;
- 4.2. Ultimate Deformation;
- 4.3. Fractures in masonry or mortar joints;
- 4.4. Fissures in masonry or mortar joints;
- 4.5. Spalling;
- 4.6. Exposed reinforcement; or
- 4.7. Detached, dislodged or failing connections.

59

5. Steel that has been subjected to any of the following conditions:

- 5.1. Deterioration;
- 5.2. Elastic deformation;
- 5.3. Ultimate deformation;
- 5.4. Metal fatigue; or
- 5.5. Detached, dislodged or failing connections.

6. Wood that has been subjected to any of the following conditions:

- 6.1. Ultimate deformation;
- 6.2. Deterioration;
- 6.3. Damage from insects, rodents and other vermin;
- 6.4. Fire damage beyond charring;
- 6.5. Significant splits and checks;
- 6.6. Horizontal shear cracks;
- 6.7. Vertical shear cracks;
- 6.8. Inadequate support;
- 6.9. Detached, dislodged or failing connections; or
- 6.10. Excessive cutting and notching.

60

Exceptions:

1. When substantiated otherwise by an approved method.
2. Demolition of unsafe conditions shall be permitted when approved by the code official.

Section 307 – Handrails & Guardrails

- 307.1 General
 - Flights of stairs, inside and out, having 4 or more risers shall have a handrail on one side.
 - Every open portion which is more than 30" above the floor below must have guards.
 - Handrails no higher than 42" and no lower than 30". **IRC states no less than 34" nor higher than 38" (Section 311.7.7.1, page 60 in 2009 IRC).**
 - Guards shall not be less than 30" high above the floor of the landing or other walking surface.

61

Section 308 – Rubbish & Garbage

- 308.1 Accumulation of rubbish or garbage – Free from any accumulation inside or out.
- 308.2 Disposal of rubbish – Occupants dispose of rubbish in a clean and sanitary manner by placing in an approved container.
 - 307.2.1 Rubbish storage facilities – Owner/occupant shall supply approved covered containers. Owner responsible for the removal of rubbish.
 - 307.2.2 Refrigerators – This and other similar appliances must have the doors removed.
- 308.3 Disposal of garbage – Occupants dispose of garbage in a clean and sanitary manner.....by placing in an approved garbage disposal facility or approved garbage container.
 - 308.3.1 Garbage facilities – Owner will supply an approved mechanical food waste grinder in the d.u.; or an approved incinerator unit in the structure available to the occupants; or an approved leak proof, covered, outside garbage container.
 - 308.3.2 Containers – Owner/occupant shall provide approved leak proof containers provided with close-fitting covers for storage until removed from the premises for disposal.

62

Section 309 – Pest Elimination

- 309.1 Infestation – Kept free from insect and rodent infestation. If found, must be promptly exterminated by approved processes.
- 309.2 Owner – Responsible for extermination within the structure prior to renting or leasing.
- 309.3 Single occupant – Responsible for extermination on the premises while occupied.
- 309.4 Multiple occupancy – The owner of a structure containing two or more dwelling units, a multiple occupancy, a rooming house or a nonresidential structure shall be responsible for extermination in the public or shared areas of the structure and exterior property. If infestation is caused by failure of an occupant to prevent such infestation in the area occupied, the occupant and owner shall be responsible for extermination.
- 309.5 Occupant – Responsible for the continued rodent and pest-free condition of the structure. Any defects in the structure moves the responsibility to the owner for extermination.

63

Light, Ventilation and Occupancy Limitations

Chapter 4

- Section 401 General
 - 401.2 Responsibility – Owner must provide and maintain light, ventilation and space conditions in compliance.
 - » Person may not occupy any premises that do not comply with the requirements.
 - 401.3 Alternative devices – Artificial light or mechanical ventilation permitted when it complies with IBC.

64

Section 402 – Light

- 402.1 Habitable spaces – Every space must have at least 1 window of approved size facing directly to the outdoors or to a courtyard. Minimum glazed area is 8% of floor area of the room.
- 402.2 Common halls and stairways
 - Multifamily occupancies require at least 60 watt standard incandescent bulb for each 200 sf of floor area with spacing between lights not greater than 30'.
 - Means of egress stairways require a minimum of 1 foot-candle of illumination at floors, landings and treads.
- 402.3 Other spaces – Light sufficient to permit the maintenance of sanitary conditions, safe occupancy and utilization of appliances, equipment and fixtures.

65

Section 403 – Ventilation

- 403.1 Habitable spaces – Must have at least 1 operable window with an open area = to at least 45% of the minimum glazed area required.
- 403.2 Bathrooms and toilet rooms – No window required in spaces equipped with a mechanical ventilation system. Must discharge to the outside and not be recirculated.
- 403.3 Cooking facilities – No cooking in rooming units and dormitory units. Cooking facilities or appliance not permitted to be present.
- 403.4 Process ventilation – Local exhaust ventilation system required to remove contaminating agents at the source. Must exhaust to the outside and not be recirculated to any space.
- 403.5 Clothes dryer exhaust – Clothes dryer exhaust systems shall be independent of all other systems and shall be exhausted outside the structure in accordance with the manufacturer's instructions.

Exception: Listed and labeled condensing (ductless) clothes dryers.

66

Section 404 – Occupancy Limitations

- 404.1 Privacy – D.U., hotel, housekeeping, rooming and dormitory units arranged to provide privacy and be separate from other adjoining spaces.
- 404.2 Minimum room widths – Habitable (other than kitchen) not less than 7' in any plan dimension. Kitchens must have clear passageway of 3' between counter fronts and appliances or counter fronts and walls.
- 404.3 Minimum ceiling heights – Clear ceiling height of not less than 7' for habitable, hallways, corridors, laundry areas, bathrooms, toilet rooms and habitable basement areas.

67

- 404.4 Bedroom and living room requirements – Must comply with the following:
 1. Room area – Living room must have at least 120 sf and bedroom at least 70 sf.
 2. Access from bedrooms – Can not be the only means of access to other bedrooms or habitable spaces. Not serve as only means of egress from other habitable spaces.
 3. Water closet accessibility – Every bedroom have access to at least 1 water closet and 1 lavatory w/o passing through another bedroom. Every bedroom have access to at least 1 water closet and lavatory located on the same story at the bedroom or an adjacent story.
 4. Prohibited occupancy – Kitchens and non-habitable spaces shall not be used for sleeping purposes.
 5. Other requirements – Must comply with light, ventilation, room area, ceiling height and room width requirements and other codes.

68

404.5 Overcrowding

Dwelling units shall not be occupied by more occupants than permitted by the minimum area requirements of Table 404.5.

69

Table 404-5 Minimum Area Requirements			
SPACE	MINIMUM AREA IN SQUARE FEET		
	1 – 2 Occupants	3 – 5 Occupants	6 or more Occupants
Living Room*	120	120	150
Dining Room*	No requirement	80	100
Bedrooms	Shall comply with Section 404.4.1		

For S1: 1 square foot = 0.029 m²

* See Section 404.5.2 for combined living room/dining room spaces.

* See Section 404.5.1 for limitations on determining the minimum occupancy area for sleeping purposes.

70

- 404.6 Efficiency unit – Must meet the following requirements:
 - Occupied by more than 2 shall have a clear floor area of not less than 220 sf. Occupied by 3 shall have a clear floor area of not less than 320 sf. These are exclusive of the other 2 requirements.
 - Unit provided with a kitchen sink, cooking appliance and refrigeration facilities, each having clear working space of not less than 30" in front. Light and ventilation IAW this code.
 - Unit provided with a separate bathroom containing water closet, lavatory and bathtub/shower.
 - Maximum number of occupants shall be 3.

71

- Food preparation – Spaces occupied for food preparation must contain suitable space and equipment to store, prepare and serve foods in a sanitary manner. Adequate facilities and services for the sanitary disposal of food wastes and refuse, including facilities for temporary storage.

72

Plumbing Facilities & Fixture Requirements

Chapter 5

- **Section 501 – General**
 - 501.2 Responsibility – Owner shall provide and maintain such plumbing facilities and fixtures in compliance with code. No person may occupy premises that do not comply.
- **Section 502 – Required Facilities**
 - 502.1 Dwelling units – Must contain own bathtub/shower, lavatory, water closet and kitchen sink and they must be maintained sanitary, safe working condition. Lavatory in same room as water closet or close proximity to entry door. Kitchen sink not used as substitute for lavatory.
 - 502.2 Rooming houses – At least 1 water closet, lavatory and bathtub/shower for each 4 rooming units.

73

- 502.3 Hotels – When private WC, lavatory and bath not provided, must provide them having access from a public hallway for each 10 occupants.
- 502.4 Employee facilities – Minimum of 1 WC, lavatory and drinking facility available.
 - Drinking facilities not located in toilet rooms or bathrooms.
- 502.5 Public toilet facilities. Public toilet facilities shall be maintained in a safe sanitary and working condition in accordance with the IPC. Except for periodic maintenance or cleaning, public access and use shall be provided to the toilet facilities at all times during occupancy of the premises.
- **Section 503 Toilet Rooms**
 - 503.1 Privacy – Provide privacy and not constitute only passageway to a hall or other space or to the exterior. Door and interior locking device provided for all common or shared facilities in a multiple dwelling.
 - 503.2 Location – May not traverse more than 1 flight of stairs and have access from a common hall or passageway if a hotel, rooming, dormitory or housekeeping unit.

74

- **503.3 Location of employee toilet facilities**
 - Have access from within the employees working area. Not more than 1 story above or below the working area and travel distance not more than 500'. May either be separate facilities or combined employee/public facilities.
- **503.4 Floor surface – Must be a hard, smooth, nonabsorbent surface so as to be easily kept in a clean and sanitary condition.**

75

Section 504 – Plumbing Systems & Fixtures

- **504.1 General – Requirements**
 - Fixtures properly installed
 - Maintained in working order
 - Kept free from obstructions, leaks and defects
 - Capable of performing the function of design
 - Maintained in a safe, sanitary and functional condition.
- **504.2 Fixture clearances – Have adequate clearances for usage and cleaning.**
- **504.3 Plumbing system hazards – Code official shall require defects to be corrected to eliminate a hazard.**
 - Inadequate service or venting
 - Deterioration or damage
 - Backsiphonage
 - Improper installation

76

Section 505 – Water System

- 505.1 General
 - Properly connected to either a public water system or an approved private water system (sink, lavatory, bathtub/shower, drinking fountain, WC or other plumbing fixture).
 - Supplied with hot or tempered and cold running water IAW IPC (kitchen sinks, lavatories, laundry facilities, bathtub/showers).
- 505.2 Contamination
 - Maintained free from contamination
 - All water inlets for fixtures located above the flood-level rim.
 - Must be protected by approved atmospheric-type vacuum breaker or approved permanently attached hose connection vacuum breaker:
 - » Shampoo basin faucets
 - » Janitor sink faucets
 - » Other hose bibs or faucets

77

- 505.3 Supply – Water supply installed and maintained to provide water to fixtures, devices and appurtenances:
 - In sufficient volume and at pressures adequate to enable them to function properly, safely and free from defects and leaks.
- 505.4 Water heating facilities – Shall be properly installed, maintained and capable of providing adequate amount of water at every sink, lavatory, bathtub/shower and laundry facility at a temp of not less than 110 degrees F.
 - Gas-burning fixture not located in any bathroom, toilet room, bedroom or other occupied room normally kept closed unless adequate combustion air is provided.
 - Approved combination temp and pressure-relief valve and relief valve discharge pipe shall be properly installed and maintained on water heaters.

78

- **Section 506 – Sanitary Drainage System**

- 506.1 General – Fixtures shall be properly connected to either a public sewer system or to an approved private sewage disposal system.
- 506.2 Maintenance – Every stack, vent, waste and sewer line shall function properly and be kept free from obstruction, leaks and defects.
- 506.3 Grease interceptors. Grease interceptors and automatic grease removal devices shall be maintained IAW this code and the manufacturer's installation instructions. Grease interceptors and automatic grease removal devices shall be regularly serviced and cleaned to prevent the discharge of oil, grease, and other substances harmful or hazardous to the building drainage system, the public sewer, the private sewage disposal system or the sewage treatment plant or processes. Records of maintenance, cleaning and repairs shall be available for inspection by the code official.
- Section 507 – Storm Drainage
- 507.1 General – Drainage off roofs and paved areas, yards and courts, and other open areas on the premises shall not be discharged in a manner that creates a public nuisance.

79

Mechanical & Electrical Requirements

Chapter 6

- **Section 601 – General**
 - 601.2 Responsibility – Owner shall provide and maintain mechanical and electrical facilities and equipment in compliance with code. No person shall occupy unless premises complies with chapter requirements.
- **Section 602 – Heating Facilities**
 - 602.1 Facilities required – Heating facilities as required by this section.
 - 602.2 Residential occupancies – Provided with heating facilities that will maintain a room temperature of 68 degrees F in all habitable rooms, bathrooms and toilet rooms. Cooking appliances not to be used to provide space heating to meet requirements.

80

- 602.3 Heat supply – Owner or operator who leases, rents or lets a D.U. on terms to furnish heat shall supply it during the period from (date) to (date) to maintain temperature of not less than 68 degrees F in all habitable, bath, and toilet rooms.
- 602.4 Occupiable work space – Indoor occupiable work space supplied with heat during specified period that will maintain a temperature of not less than 65 degrees F during the period the spaces are occupied.
- 602.5 Room temperature measurement
 - » 3' above the floor surface
 - » Near center of room
 - » 2' inward from center of each exterior wall.

81

Section 603 – Mechanical Equipment

- 603.1 Mechanical appliances – Shall be property installed and maintained in safe working condition and capable of performing the intended function.
 - All mechanical appliances
 - Fireplaces
 - Solid fuel-burning appliances
 - Cooking appliances
 - Water heating appliances

82

- 603.2 Removal of combustion products
 - All fuel-burning equipment and appliances connected to an approved chimney or vent.
- 603.3 Clearances – All required clearances to combustible materials shall be maintained.
- 603.4 Safety controls – All safety controls for fuel-burning equipment maintained in effective operation.
- 603.5 Combustion air – A supply of air for complete combustion and for ventilation of the space containing the equipment must be provided.
- 603.6 Energy conservation devices – Shall not be installed unless labeled for such purpose and the installation is specifically approved.

83

Section 604 – Electrical Facilities

- 604.1 Facilities required – Every occupied building provided with an electrical system in compliance with code.
- 604.2 Service – Size and usage of appliances and equipment shall be the basis for determining the need for additional facilities IAW code.
 - D.U. served by a 3-wire, 120/240 volt, single-phase electrical service rated at not less than 60 amps.
- 604.3 Electrical system hazards – Code official shall require defects to be corrected or eliminated:
 - Inadequate service
 - Improper fusing
 - Insufficient receptacle and lighting outlets
 - Improper wiring or installation
 - Deterioration or damage
 - Any other similar reasons

84

- 604.3.1 Abatement of electrical hazards associated with water exposure. The provisions of this section shall govern the repair and replacement of electrical systems and equipment that have been exposed to water.
 - 604.3.1.1 Electrical equipment. Electrical distribution equipment, motor circuits, power equipment, transformers, wire, cable, flexible cords, wiring devices, ground fault circuit interrupters, surge protectors, molded case circuit breakers, low-voltage fuses, luminaires, ballasts, motors and electronic control, signaling and communication equipment that have been exposed to water shall be replaced in accordance with the provisions of the IBC.

Exception: The following equipment shall be allowed to be repaired where an inspection report from the equipment manufacturer or approved manufacturer's representative indicates that the equipment has not sustained damage that requires replacement:

1. Enclosed switches, rated 600 volts or less;
2. Busway, rated 600 volts or less;
3. Panelboards, rated 600 volts or less;
4. Switchboards, rated 600 volts or less;
5. Fire pump controllers, rated 600 volts or less;

85

6. Manual and magnetic motor controllers;
7. Motor control centers;
8. Alternating current high-voltage circuit breakers;
9. Low-voltage power circuit breakers;
10. Protective relays, meters and current transformers;
11. Low- and medium-voltage switchgear;
12. Liquid-filled transformers;
13. Cast-resin transformers;
14. Wire or cable that is suitable for wet locations and whose ends have not been exposed to water;
15. Wire or cable, not containing fillers, that is suitable for wet locations and whose ends have not been exposed to water;
16. Luminaires that are listed as submersible;
17. Motors;
18. Electronic control, signaling and communication equipment.

86

- 604.3.2 Abatement of electrical hazards associated with fire exposure.

The provisions of this section shall govern the repair and replacement of electrical systems and equipment that have been exposed to fire.

- 604.3.2.1 Electrical equipment. Electrical switches, receptacles and fixtures, including furnace, water heating, security system and power distribution circuits, that have been exposed to fire, shall be replaced in accordance with the provisions of the IBC.

Exception: Electrical switches, receptacles and fixtures that shall be allowed to be repaired where an inspection report from the equipment manufacturer or approved manufacturer's representative indicates that the equipment has not sustained damage that requires replacement.

87

Section 605 – Electrical Equipment

- 605.1 Installation – Be properly installed and maintained in a safe and approved manner.
- 605.2 Receptacles – Every habitable space in a d.u. will have at least 2 separate and remote receptacle outlets. Laundry area will have at least 1 grounded-type receptacle or one with a GFCI. Bathroom will have at least 1 receptacle and new bathrooms will be GFCI protected.
- 605.3 Luminaires – At least 1 electric luminaire:
 - Every public hall, interior stairway, toilet room, kitchen, bathroom, laundry room, boiler room and furnace room.

88

Section 606 – Elevators, Escalators and Dumbwaiters

- 606.1 General
 - Maintained in compliance with ASME A17.1
 - Most current certification on display at all times within the elevator or attached to others (or be available for public inspection in the office), or be posted in a publicly conspicuous location approved by the code official.
 - Inspections and tests shall be performed at not less than the periodic intervals listed in ASME A17.1, Appendix N, except where otherwise specified.
- 606.2 Elevators. In buildings equipment with passenger elevators, at least one elevator shall be maintained in operation at all times when the building is occupied.
 - Exception: Buildings equipped with only one elevator shall be permitted to have the elevator temporarily out of service for testing or servicing.

89

Section 607 – Duct Systems

- 607.1 General – Duct systems shall be maintained free of obstructions and shall be capable of performing the required function.

90

Fire Safety Requirements

Chapter 7

- Section 701 – General
 - 701.2 Responsibility – Owner provide and maintain fire safety facilities and equipment in compliance with code.
- Section 702 – Means of Egress
 - 702.1 General – A safe, continuous and unobstructed path of travel shall be provided from any point in a building to the public way and shall comply with IFC.
 - 702.2 Aisles – Unobstructed aisles to width required by IFC.

91

- 702.3 Locked doors – Means of egress doors shall be readily openable from the side which egress is made without aid of keys, special knowledge or effort. Except as permitted by IBC.
- 702.4 Emergency escape openings – Maintained IAW code in effect at time of construction and the following:
 - » Operational from the inside of the room without use of keys or tools.
 - » Bars, grilles, etc. permitted provided the minimum net clear opening size complies with code in effect when constructed and such devices are releasable or removable from the inside without the use of keys, tools or force greater than that which is required for normal operation.

92

Section 703 – Fire-Resistance Ratings

- 703.1 Fire-resistance-rated assemblies – Rating of walls, fire stops, shaft enclosures, partitions and floors shall be maintained.
- 703.2 Opening protectives – Required protectives shall be maintained in an operable condition. Fire and smoke stop doors maintained the same. Fire doors and smoke barrier doors shall not be blocked or obstructed or otherwise made inoperable.

93

Section 704 – Fire Protection Systems

- 704.1 General – All systems, devices and equipment to detect fire, actuate an alarm or suppress or control a fire or any combination shall be maintained operable at all times IAW IFC.
- 704.1.1 Automatic sprinkler systems. Inspection, testing and maintenance of automatic sprinkler systems shall be in accordance with NFPA 25.
- 704.1.2 Fire Department connection. Where the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an approved sign mounted on the street front or on the side of the building. Such sign shall have the letters “FDC” not less than 6” high and words in letters not less than 2” high or an arrow to indicate the location. Such signs shall be subject to the approval of the fire code official.
- 704.2 Single- and multiple-station smoke alarms. Single- and multiple-station smoke alarms shall be installed in existing Group I-1 and R occupancies in accordance with Sections 704.2.1 through 704.2.3.

94

704.2.2 Interconnection – When more than 1 smoke alarm required, it shall be interconnected in such a manner that the activation of one alarm will activate all alarms. Alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

704.2.3 Power source – Group R and in dwellings not regulated as Group R occupancies primary power from the building wiring provided from a commercial source and equipped with a battery backup. Smoke alarms shall emit a signal when batteries get low. Permanent wiring without a disconnecting switch other than as required for over current protection.

95

APPENDIX A BOARDING STANDARD

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

- A101.1 General: All windows and doors shall be boarded in an approved manner to prevent entry by unauthorized persons and shall be painted to correspond to the color of the existing structure.
- A102.1 Boarding sheet material. Boarding sheet material shall be minimum ½-inch thick wood structural panels complying with the IBC.
- A102.2 Boarding frame material. Boarding framing material shall be minimum nominal 2-inch by 4-inch solid sawn lumber complying with the IBC.
- A102.3 Boarding fasteners. Boarding fasteners shall be minimum 3/8-inch diameter carriage bolts of such a length as required to penetrate the assembly and as required to adequately attach the washers and nuts. Washers and nuts shall comply with the IBC.

96

- A103.1 Boarding installation. The boarding installation shall be in accordance with Figures A103.1(1) and A103.1(2) and Sections A103.2 through A103.5
- A103.2 Boarding sheet material. The boarding sheet material shall be cut to fit the door or window opening neatly or shall be cut to provide overlap at the perimeter of the door or window.
- A103.3 Windows. The window shall be opened to allow the carriage bolt to pass through or the window sash shall be removed and stored. The 2" X 4" strong back framing material shall be cut minimum 2" wider than the window opening and shall be placed on the inside of the window opening 6" minimum above the bottom and below the top of the window opening. The framing and boarding shall be predrilled. The assembly shall be aligned and the bolts, washers and nuts shall be installed and secured.
- A103.4 Door walls. The door opening shall be framed with minimum 2" X 4" framing material secured at the entire perimeter and vertical members at not more than 24" on center. Blocking shall also be secured at not more than 48" on center vertically. Boarding sheet material shall be secured with screws and nails alternating every 6" on center.
- A103.5 Doors. Doors shall be secured by the same method as for windows or door openings. One door to the structure shall be available for authorized entry and shall be secured and locked in an approved manner.

97

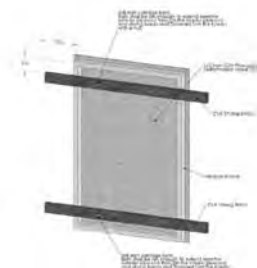


FIGURE A103.1(1)
BOARDING OF DOOR OR WINDOW

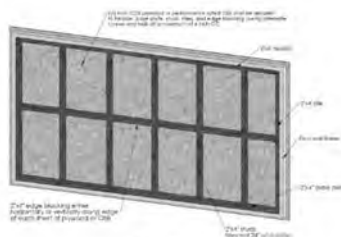


FIGURE A103.1(2)
BOARDING OF DOOR WALL

98

Referenced Standards

Chapter 8

- ASME – American Society of Mechanical Engineers
- ASTM – American Society for Testing and Materials
- ICC – International Code Council
- NFPA – National Fire Protection Association

99

2015 IPMC Exam References

- 2015 International Property Maintenance Code
- 2015 International Residential Code
- 2002 Legal Aspects of Code Administration
- 2014 Inspector Skills Handbook

100