

**CUSTOMER ASSISTANCE GUIDE**  
**PERMIT APPLICATION SUBMITTAL REQUIREMENTS**

**CHANGE OF OCCUPANCY OR USE**

The Pennsylvania Uniform Construction Code Act, Section 403.42, requires that a permit be issued anytime there is a change of occupancy in a commercial building, even when no alterations are being made to the building or space. In all buildings, each space is classified by an occupancy category as referenced in the International Building Code. Buildings are then provided with structural and life-safety elements for that particular use or uses. When the occupancy of a space changes, the building design must be evaluated for that new use. A change of occupancy is defined as a change in the purpose or level of activity within a structure that involves a change in the application of the requirements of the code. A change in the level of activity may include increased occupant loads, increased path of travel to the means of egress, or additional equipment or systems that will raise the level of hazard based on the life or fire risk.

The occupancy classifications listed in the International Building Code are summarized as follows:

Assembly Group A

- A-1: Movie theaters, concert halls
- A-2: Restaurants, taverns
- A-3: Churches, lecture halls
- A-4: Indoor sports arenas with spectator seating
- A-5: Outdoor sports arenas with spectator seating

Business Group B

- Financial institutions, professional services, animal hospitals

Education Group E

- Places of learning with more than five students from 2.5 years of age through 12<sup>th</sup> grade, but does not include classrooms located in churches

Factory Group F

- F-1: Moderate hazard industrial / production facilities
- F-2: Low hazard industrial / production facilities

High Hazard Group H

- The use of a building or structure for the processing or storing of materials that are considered hazardous in nature

Institutional Group I

- I-1: Assisted living facilities with less than 16 occupants, alcohol and drug centers
- I-2: Hospitals, nursing homes
- I-3: Prisons, detention centers
- I-4: Child daycare facilities, adult daycare facilities

Mercantile Group M

- Retail stores, markets

### Residential Group R

- R-1: Hotels and motels
- R-2: Apartments
- R-3: One and two family dwellings
- R-4: Assisted living facilities with 5 to 16 occupants

### Storage Group S

- S-1: Storage of moderate hazard materials
- S-2: Storage of non-combustible materials

### Miscellaneous Group U

- Structures not classified in any specific occupancy such as barns and carports

In order to obtain a permit for a change of use, an applicant must submit an application to the building code official, attach three sets of construction documents, and submit a copy of the most recent certificate of occupancy issued by the municipality or by the Department of Labor and Industry for the building or space, if it is available. An application to obtain a duplicate certificate of occupancy from the Department of Labor and Industry has been attached to this assistance guide should it be needed.

A licensed architect or engineer, registered in the Commonwealth of Pennsylvania, must prepare and seal the construction documents, which illustrate compliance with applicable codes for the proposed occupancy. An unlicensed person may prepare the construction documents when the change of occupancy does not include any alterations and no changes to the building's structure or means of egress is proposed. If alterations or additions are proposed, it is necessary that the construction documents be prepared by a registered design professional.

The construction documents may show compliance with applicable codes by using one of two compliance methods; the International Building Code Chapter 34 or the International Existing Building Code Chapter 9. Both chapters are attached to this document as a reference in completing a change of occupancy application.

The three basic components of a change of occupancy include a structural evaluation, life safety evaluation, and accessibility evaluation. The construction documents must demonstrate that the existing structure has adequate structural systems to support the proposed change of occupancy and that the building is capable of supporting the minimum load requirements of the proposed use. The construction documents must illustrate that the general safety, means of egress, and life safety elements in the building are adequate and further determine any upgrades that are required. Finally, all existing buildings, or portions thereof, that undergo a change of occupancy must provide for the following accessible features:

- At least one accessible building entrance.
- At least one accessible route from an accessible building entrance to primary function areas.
- Accessible signage complying with Section 1110 (attached).
- Accessible parking, where parking is provided.
- At least one accessible passenger loading zone, when loading zones are provided.
- At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.

For existing buildings without proposed alterations, the construction documents shall show, at a minimum, the existing and proposed use group designations, construction type, existing floor plan with

new room names, occupant loads, required means of egress components, existing electrical system and load information for the new use group, existing mechanical system and equipment, existing plumbing fixtures, existing fire protection system, and accessible features. For buildings with proposed alterations, the construction documents must also show detail for each scope of work within the building.

Buildings undergoing a change of use frequently require upgrades to accessible features, sanitary facilities, exit facilities, and fire resistive elements.

To meet compliance with the required accessible features, common upgrades include the construction of ramps, wider doors, restroom upgrades, parking areas, and signage.

The minimum number of sanitary facilities in a building is determined on the occupant load. Commonly, additional restroom facilities must be constructed to meet the occupant load of the proposed use.

Depending on the location of the building on the site, exterior walls and openings in the exterior walls may require fire protection that was not previously required. Additionally, a fire suppression system may be required for the proposed use.

Exit facilities may also require upgrading to meet life safety requirements. Submitted construction documents shall clearly detail the exiting system.

Additional common changes needed for a change of use to a specific occupancy classification are summarized below. Be advised that this information is not comprehensive and additional renovations may be required.

#### Change to as Assembly Group A Occupancy

- Parking requirements
- Accessible route to building
- Entry accessibility
- Accessible restroom
- Accessible fixtures and hardware

#### Change to an Education Group E Occupancy

- Parking requirements
- Accessible route to building
- Entry accessibility
- Proper number of exits
- Fire alarm and detection systems

#### Change to a Business Group B Occupancy

- Parking requirements
- Accessible route to building
- Entry accessibility
- Accessible hardware and fixtures

#### Change to a Mercantile Group M Occupancy

- Parking requirements
- Accessible route to building
- Entry accessibility

- Accessible hardware and fixtures

Once a permit for a change of occupancy has been issued, an inspection of the building or space will be necessary prior to the issuance of a new certificate of use and occupancy.

The information provided in this assistance guide is not exhaustive as each proposed change of use is unique. Working closely with a registered design professional familiar with Commonwealth building codes is advised.

**INSPECTION PROCEDURES  
CHANGE OF OCCUPANCY OR USE**

- Permit must be posted on the site of the work and clearly visible from the road until completion of the project.
- Your approved plans must be available at all times for inspection. These are the plans that were submitted with your application and were marked “Approved” by the building code official.
- DO NOT schedule an inspection if the work is not ready.
- When scheduling an inspection, you must supply a permit number to the inspector.
- Please provide a minimum of 24 hours notice when requesting an inspection.

The following inspections, as applicable, are required:

1. Footing inspection – To be done after forming and prior to placing of concrete.  
**John Balser** **Phone, 1-800-662-6342**
  2. Foundation inspection – French drain and waterproofing.  
**John Balser** **Phone, 1-800-662-6342**
  3. Plumbing under slab – Rough-in done prior to placing concrete.  
Water test must be witnessed by inspector.  
**John Balser** **Phone, 1-800-662-6342**
  4. Electrical inspection – Rough-in to be done prior to insulating.  
**John Balser** **Phone, 1-800-662-6342**  
**Bob Gouldsbarry - Rochester Borough Only** **Phone, 1-800-608-6342**
  5. Plumbing inspection – Rough-in to be done prior to insulating.  
Water test must be witnessed by inspector.  
**John Balser** **Phone, 1-800-662-6342**
  6. Mechanical inspection – Rough-in to be done prior to insulating.  
**John Balser** **Phone, 1-800-662-6342**
  7. Framing inspection – Done prior to insulating, but after heating, plumbing and wiring are roughed-in and approved.  
**John Balser** **Phone, 1-800-662-6342**
- Combine Inspections 4,5,6, and 7 if Possible
8. Energy efficiency inspection – To be done after insulating but before drywall.  
**John Balser** **Phone, 1-800-662-6342**
  9. Wallboard inspection – To be done after fastening all wallboard is but before taping, mudding, etc.  
**John Balser** **Phone, 1-800-662-6342**
  10. Final inspection – When job is completely finished, prior to occupancy permit and after final plumbing and electrical inspection.  
**John Balser** **Phone, 1-800-662-6342**  
**Bob Gouldsbarry (Electrical) - Rochester Borough Only** **Phone, 1-800-608-6342**

## CONSTRUCTION DOCUMENTS REQUIRED

\_\_\_\_\_ Sub-division and land development approval, if required.

### Plan Review options:

\_\_\_\_\_ Plans may be submitted electronically at: <https://dropbox.yousendit.com/wexfordoffice1>  
(NO CD's)

If using the electronic method, once the plans are approved, they will be returned to the design professional and it will be their responsibility to make as many hard copies as needed and provide them to the BCO and the municipality so the permit can be issued. No permits will be issued and construction **can not** start until all applicable fees are paid. It is then required that a completed set of stamped plans be on the jobsite and made available to the field inspector during the construction.

OR

\_\_\_\_\_ Three (3) complete sets of sealed drawings including specification books from a registered design professional that show in detail code compliance for all of the work proposed to include but not limited to the following information, as applicable:

- Site plan showing to scale the size and location of all new construction and all existing structures on the site. Distances from lot lines, established street grades and proposed finished grades. All parking including accessible spaces with signage. Accessible paths to entrances.
- Architectural
- Structural
- Electrical
- Mechanical
- Plumbing
- Accessibility (details and elevations of restrooms, checkout counters, etc. and routes with elevations for all accessibility)
- Energy calculations with HVAC and lighting (CommCheck or IECC)
- All signage (tactile exit, restroom, etc.)
- Use group(s) for each area or room (IBC Chapter 3)
- Building limitation; height and area (IBC Chapter 5)
- Type of construction (IBC Chapter 6)
- Fire resistant materials and construction (IBC Chapter 7)
- Fire protection system(s) (IBC Chapter 9)
- Occupant load for each area or room (IBC Section 1004)
- Accessibility advisory board approval for public pools prior to submission.
- Department of health approval for health care facilities prior to submission.
- Special inspections per IBC Section 1704 & 1710

## Obtaining Duplicate or Revised Occupancy Permits/Certificates

Under the Fire and Panic Act and the Pennsylvania Construction Code Act (Uniform Construction Code), the Department of Labor & Industry has issued occupancy permits and certificates of occupancy that allow for the legal occupancy of buildings. Over time, these permits/certificates may be lost. Likewise, building ownership, the building name or the address of an approved building may change.

Assuming that no changes have been made to the previously approved building **and** no change has been made in the approved use of the building, the Department will issue duplicates or revisions of these previously issued permits/certificates.

### **REQUEST FOR DUPLICATE OR REVISED OCCUPANCY PERMIT/CERTIFICATE**

On this form, please supply L&I File or MA Numbers assigned to this building. If you do not have these numbers, fax a request for this information to 717-783-5002. The request should indicate the building name and address, and the county and political subdivision in which it is located.

Please note that if a change in ownership has occurred and the request is for a revised **Fire and Panic Act Occupancy Permit**, the new owner must supply information about the current use(s) of the building (in Part D of the request form). A Department Building Code Official will evaluate the specified use(s). If a change in the approved building use has not occurred, the revised Fire and Panic Permit will be issued. If a change in use has occurred, the owner will be directed to obtain a UCC Certificate of Occupancy from either a municipality or the Department, depending on who has UCC jurisdiction).

Typically, payment in amount of **\$5.00** (via check or money order made payable to **Commonwealth of Pennsylvania**) must be provided. However, if an address change is involved, you must purchase copies of all permits (if more than one was issued). Upon receiving your request, we will notify you if multiple permits must be obtained and if additional funds must be paid, before we can issue the requested documentation.

In the case where the address of a building has been changed, the Department requires that the applicant also submit documentation from either the United States Postal Service (USPS) or the local "911" emergency call center, indicating that the new address is officially recognized.

It is imperative that applicants include their daytime phone number (on the request form), so that we may contact you concerning your request, if necessary.

Mail the completed request form, your payment and (if applicable) the USPS or "911" center documentation to:

Buildings Section  
Department of Labor and Industry  
651 Boas Street, Room 1606  
Harrisburg, Pennsylvania 17121-0750

Please note that the issuance of a duplicate or revised permit/certificate in no way indicates that the building is currently in compliance with the Fire and Panic Act or UCC requirements. Rather, it indicates that the building was in compliance at the time that it passed its final inspection (which allowed the issuance of the original permit/certificate).

File #:	_____
Date:	_____
<b>BG1</b>	

## REQUEST FOR DUPLICATE OR REVISED OCCUPANCY PERMIT/CERTIFICATE

This form should be used to request duplicates or revised copies of previously issued occupancy permits or certificates (as long as no changes have been made in the building or its approved use).

All applicants should check one of the boxes in Part A and fill in all of the information requested in Parts B and C. Part D on page 2 of this form only needs to be filled out if you are a new owner or lessee and are seeking a revised Fire and Panic Occupancy Permit. When filling in Part D, please be as specific as possible in describing the use of the building.

<b>Part A:</b>	<b>Fire and Panic Occupancy Permit</b>	<b>UCC Certificate of Occupancy</b>
<b>Type of Request</b>	<input type="checkbox"/> Duplicate  <input type="checkbox"/> Revision: Change in owner name, building name or address	<input type="checkbox"/> Duplicate  <input type="checkbox"/> Revision: Change in owner name, building name or address
<p><b>A request for a <u>change of address</u> must be accompanied by an address form supplied by the U.S. Postal Service or the local "911" Call Center.</b></p>		

<b>Part B:</b>	<p><b>Please be certain that the building name and address information is correct, since it will appear on the revised permit/certificate exactly as written here.</b></p>
<b>Building Information</b>	Facility Name (name of company, mall, institution, university, etc.): _____ Building and/or Tenant Name (or Building Number): _____ Street Number and Name: _____ City: _____ Zip Code: _____ Political Subdivision: _____ County: _____ Previous L&I File or MA Number(s): _____
<b>Political Subdivision and County names are required.</b>	

<b>Part C:</b>	<p><b>Applicant Name:</b> _____</p> <p><b>Street Number and Name:</b> _____</p> <p><b>City:</b> _____ <b>Zip Code:</b> _____</p> <p><b>Daytime Phone Number:</b> ( ) _____</p>
<b>Applicant Information</b>	

<i>FOR L&amp;I USE ONLY</i>	Check # _____ Amount _____ Bates # _____
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<b>Part C: (continued)</b>	<p><b>Check applicable box and sign.</b></p> <p><input type="checkbox"/> I am the owner of record. (My name appears on the occupancy permit(s) or certificate(s) of occupancy previously issued by the department.)</p> <p style="text-align: center;"><b>Signature</b> _____</p> <p><input type="checkbox"/> I am the new owner. By signing this form, I certify that ownership of this building has been legally transferred to me.</p> <p style="text-align: center;"><b>Signature</b> _____</p> <p><input type="checkbox"/> I am the lessee of this building. (Signature of owner <u>must</u> also be included.)</p> <p style="text-align: center;"><b>Signature of Lessee</b> _____</p> <p style="text-align: center;"><b>Signature of Owner</b> _____</p>
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<b>Part D: Building Use Certification</b>	<p>As the owner or lessee, I certify that the building for which I am requesting a revised Fire and Panic Occupancy Permit will only be used for the following purpose and that I am making no changes which would require a building permit under the Uniform Construction Code:</p> <p><b>Purpose:</b> _____</p> <p style="text-align: center;"><b>Signature</b> _____</p>
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<i>FOR L&amp;I USE ONLY</i>	<p>The building named on page 1 was approved for occupancy under the Fire and Panic Act in the following occupancy group for the specified use:</p> <p><input type="checkbox"/> A-1 _____</p> <p><input type="checkbox"/> A-2 _____</p> <p><input type="checkbox"/> A-3 _____</p> <p><input type="checkbox"/> B _____</p> <p><input type="checkbox"/> C-1 _____</p> <p><input type="checkbox"/> C-2 _____</p> <p><input type="checkbox"/> C-3 _____</p> <p><input type="checkbox"/> C-4 _____</p> <p><input type="checkbox"/> C-5 _____</p> <p><input type="checkbox"/> DO _____</p> <p><input type="checkbox"/> DH _____</p> <p>The building use(s) listed above by the new owner:</p> <p><input type="checkbox"/> Does/do not represent a change of building use, and a revised Fire and Panic Act Occupancy Permit <b>may</b> be issued to the applicant.</p> <p><input type="checkbox"/> Does/do represent a change in building use, and a revised Fire and Panic Act Occupancy Permit <b>may not</b> be issued to the applicant.</p> <p>BCO/PE signature: _____ Date of approval/denial: _____</p>
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## CHAPTER 34

# EXISTING STRUCTURES

### SECTION 3401 GENERAL

**3401.1 Scope.** The provisions of this chapter shall control the *alteration*, repair, *addition* and change of occupancy of existing structures.

**Exception:** Existing *bleachers*, grandstands and folding and telescopic seating shall comply with ICC 300-02.

**3401.2 Maintenance.** Buildings and structures, and parts thereof, shall be maintained in a safe and sanitary condition. Devices or safeguards which are required by this code shall be maintained in conformance with the code edition under which installed. The owner or the owner's designated agent shall be responsible for the maintenance of buildings and structures. To determine compliance with this subsection, the *building official* shall have the authority to require a building or structure to be reinspected. The requirements of this chapter shall not provide the basis for removal or abrogation of fire protection and safety systems and devices in existing structures.

**3401.3 Compliance.** Alterations, repairs, additions and changes of occupancy to existing structures shall comply with the provisions for alterations, repairs, additions and changes of occupancy in the *International Fire Code*, *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code*, *International Property Maintenance Code*, *International Private Sewage Disposal Code*, *International Residential Code* and NFPA 70.

**3401.4 Building materials.** Building materials shall comply with the requirements of this section.

**3401.4.1 Existing materials.** Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the building code official to be dangerous to life, health or safety. Where such conditions are determined to be dangerous to life, health or safety, they shall be mitigated or made safe.

**3401.4.2 New and replacement materials.** Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs and alterations, provided no hazard to life, health or property is created. Hazardous materials shall not be used where the code for new construction would not *permit* their use in buildings of similar occupancy, purpose and location.

**3401.5 Alternative compliance.** Work performed in accordance with the *International Existing Building Code* shall be deemed to comply with the provisions of this chapter.

### SECTION 3402 DEFINITIONS

**3402.1 Definitions.** The following words and terms shall, for the purposes of this chapter and as used elsewhere in the code, have the meanings shown herein.

**DANGEROUS.** Any building or structure or portion thereof that meets any of the conditions described below shall be deemed dangerous:

1. The building or structure has collapsed, partially collapsed, moved off its foundation or lacks the support of ground necessary to support it.
2. There exists a significant risk of collapse, detachment or dislodgment of any portion, member, appurtenance or ornamentation of the building or structure under service loads.

**EXISTING STRUCTURE.** A structure erected prior to the date of adoption of the appropriate code, or one for which a legal building *permit* has been issued.

**PRIMARY FUNCTION.** A *primary function* is a major activity for which the facility is intended. Areas that contain a *primary function* include, but are not limited to, the customer service lobby of a bank, the dining area of a cafeteria, the meeting rooms in a conference center, as well as offices and other work areas in which the activities of the public accommodation or other private entity using the facility are carried out. Mechanical rooms, boiler rooms, supply storage rooms, employee lounges or locker rooms, janitorial closets, entrances, corridors and restrooms are not areas containing a *primary function*.

**SUBSTANTIAL STRUCTURAL DAMAGE.** A condition where:

1. In any *story*, the vertical elements of the lateral force-resisting system have suffered damage such that the lateral load-carrying capacity of the structure in any horizontal direction has been reduced by more than 20 percent from its pre-damage condition; or
2. The capacity of any vertical gravity load-carrying component, or any group of such components, that supports more than 30 percent of the total area of the structure's floor(s) and roof(s) has been reduced more than 20 percent from its pre-damage condition and the remaining capacity of such affected elements, with respect to all dead and live loads, is less than 75 percent of that required by this code for new buildings of similar structure, purpose and location.

**TECHNICALLY INFEASIBLE.** An *alteration* of a building or a facility that has little likelihood of being accomplished because the existing structural conditions require the removal or *alteration* of a load-bearing member that is an essential part of the structural frame, or because other existing physical or site constraints prohibit modification or addition of elements, spaces or features which are in full and strict compliance with the minimum requirements for new construction and which are necessary to provide accessibility.

### SECTION 3403 ADDITIONS

**3403.1 General.** Additions to any building or structure shall comply with the requirements of this code for new construction. Alterations to the existing building or structure shall be made to ensure that the existing building or structure together with the *addition* are no less conforming with the provisions of this code than the existing building or structure was prior to the *addition*. An existing building together with its additions shall comply with the height and area provisions of Chapter 5.

**3403.2 Flood hazard areas.** For buildings and structures in flood hazard areas established in Section 1612.3, any *addition* that constitutes substantial improvement of the *existing structure*, as defined in Section 1612.2, shall comply with the flood design requirements for new construction, and all aspects of the *existing structure* shall be brought into compliance with the requirements for new construction for flood design.

For buildings and structures in flood hazard areas established in Section 1612.3, any additions that do not constitute substantial improvement or substantial damage of the *existing structure*, as defined in Section 1612.2, are not required to comply with the flood design requirements for new construction.

**3403.3 Existing structural elements carrying gravity load.** Any existing gravity load-carrying structural element for which an *addition* and its related alterations cause an increase in design gravity load of more than 5 percent shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased load required by this code for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased shall be considered an altered element subject to the requirements of Section 3404.3. Any existing element that will form part of the lateral load path for any part of the *addition* shall be considered an existing lateral load-carrying structural element subject to the requirements of Section 3403.4.

**3403.3.1 Design live load.** Where the *addition* does not result in increased design live load, existing gravity load-carrying structural elements shall be permitted to be evaluated and designed for live loads *approved* prior to the *addition*. If the *approved* live load is less than that required by Section 1607, the area designed for the nonconforming live load shall be posted with placards of *approved* design indicating the *approved* live load. Where the *addition* does result in increased design live load, the live load required by Section 1607 shall be used.

**3403.4 Existing structural elements carrying lateral load.** Where the *addition* is structurally independent of the *existing structure*, existing lateral load-carrying structural elements shall be permitted to remain unaltered. Where the *addition* is not structurally independent of the *existing structure*, the *existing structure* and its *addition* acting together as a single structure shall be shown to meet the requirements of Sections 1609 and 1613.

**Exception:** Any existing lateral load-carrying structural element whose demand-capacity ratio with the *addition* considered is no more than 10 percent greater than its demand-capacity ratio with the *addition* ignored shall be

permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Sections 1609 and 1613. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of additions and alterations since original construction.

**3403.4.1 Seismic.** Seismic requirements for alterations shall be in accordance with this section. Where the existing seismic force-resisting system is a type that can be designated ordinary, values of  $R$ ,  $\Omega_0$  and  $C_d$  for the existing seismic force-resisting system shall be those specified by this code for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of a detailed intermediate or special system.

### SECTION 3404 ALTERATIONS

**3404.1 General.** Except as provided by Section 3401.4 or this section, alterations to any building or structure shall comply with the requirements of the code for new construction. Alterations shall be such that the existing building or structure is no less complying with the provisions of this code than the existing building or structure was prior to the *alteration*.

#### Exceptions:

1. An existing *stairway* shall not be required to comply with the requirements of Section 1009 where the existing space and construction does not allow a reduction in pitch or slope.
2. Handrails otherwise required to comply with Section 1009.12 shall not be required to comply with the requirements of Section 1012.6 regarding full extension of the handrails where such extensions would be hazardous due to plan configuration.

**3404.2 Flood hazard areas.** For buildings and structures in flood hazard areas established in Section 1612.3, any *alteration* that constitutes substantial improvement of the existing structure, as defined in Section 1612.2, shall comply with the flood design requirements for new construction, and all aspects of the *existing structure* shall be brought into compliance with the requirements for new construction for flood design.

For buildings and structures in flood hazard areas established in Section 1612.3, any alterations that do not constitute substantial improvement or substantial damage of the existing structure, as defined in Section 1612.2, are not required to comply with the flood design requirements for new construction.

**3404.3 Existing structural elements carrying gravity load.** Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design gravity load of more than 5 percent shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load required by this code for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration*

shall be shown to have the capacity to resist the applicable design gravity loads required by this code for new structures.

**3404.3.1 Design live load.** Where the *alteration* does not result in increased design live load, existing gravity load-carrying structural elements shall be permitted to be evaluated and designed for live loads *approved* prior to the *alteration*. If the *approved* live load is less than that required by Section 1607, the area designed for the nonconforming live load shall be posted with placards of *approved* design indicating the *approved* live load. Where the *alteration* does result in increased design live load, the live load required by Section 1607 shall be used.

**3404.4 Existing structural elements carrying lateral load.** Except as permitted by Section 3404.5, where the *alteration* increases design lateral loads in accordance with Section 1609 or 1613, or where the *alteration* results in a structural irregularity as defined in ASCE 7, or where the *alteration* decreases the capacity of any existing lateral load-carrying structural element, the structure of the altered building or structure shall be shown to meet the requirements of Sections 1609 and 1613.

**Exception:** Any existing lateral load-carrying structural element whose demand-capacity ratio with the *alteration* considered is no more than 10 percent greater than its demand-capacity ratio with the *alteration* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces per Sections 1609 and 1613. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces, and capacities shall account for the cumulative effects of additions and alterations since original construction.

**3404.4.1 Seismic.** Seismic requirements for alterations shall be in accordance with this section. Where the existing seismic force-resisting system is a type that can be designated ordinary, values of  $R$ ,  $\Omega_0$  and  $C_d$  for the existing seismic force-resisting system shall be those specified by this code for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of a detailed intermediate or special system.

**3404.5 Voluntary seismic improvements.** Alterations to existing structural elements or additions of new structural elements that are not otherwise required by this chapter and are initiated for the purpose of improving the performance of the seismic force-resisting system of an *existing structure* or the performance of seismic bracing or anchorage of existing nonstructural elements shall be permitted, provided that an engineering analysis is submitted demonstrating the following:

1. The altered structure and the altered nonstructural elements are no less in compliance with the provisions of this code with respect to earthquake design than they were prior to the *alteration*.
2. New structural elements are detailed and connected to the existing structural elements as required by Chapter 16.

3. New or relocated nonstructural elements are detailed and connected to existing or new structural elements as required by Chapter 16.
4. The alterations do not create a structural irregularity as defined in ASCE 7 or make an existing structural irregularity more severe.

**3404.6 Means of egress capacity factors.** Alterations to any existing building or structure shall not be affected by the egress width factors in Section 1005.1 for new construction in determining the minimum egress widths or the minimum number of exits in an existing building or structure. The minimum egress widths for the components of the *means of egress* shall be based on the *means of egress* width factors in the building code under which the building was constructed, and shall be considered as complying *means of egress* for any *alteration* if, in the opinion of the building code official, they do not constitute a distinct hazard to life.

## SECTION 3405 REPAIRS

**3405.1 General.** Buildings and structures, and parts thereof, shall be repaired in compliance with Section 3401.2. Work on nondamaged components that is necessary for the required repair of damaged components shall be considered part of the repair and shall not be subject to the requirements for alterations in this chapter. Routine maintenance required by Section 3401.2, ordinary repairs exempt from *permit* in accordance with Section 105.2, and abatement of wear due to normal service conditions shall not be subject to the requirements for repairs in this section.

**3405.1.1 Dangerous conditions.** Regardless of the extent of structural or nonstructural damage, the building code official shall have the authority to require the elimination of conditions deemed dangerous.

**3405.2 Substantial structural damage to vertical elements of the lateral force-resisting system.** A building that has sustained substantial structural damage to the vertical elements of its lateral force-resisting system shall be evaluated and repaired in accordance with the applicable provisions of Sections 3405.2.1 through 3405.2.3.

**3405.2.1 Evaluation.** The building shall be evaluated by a *registered design professional*, and the evaluation findings shall be submitted to the code official. The evaluation shall establish whether the damaged building, if repaired to its predamage state, would comply with the provisions of this code for wind and earthquake loads. Evaluation for earthquake loads shall be required if the substantial structural damage was caused by or related to earthquake effects or if the building is in Seismic Design Category C, D, E or F.

Wind loads for this evaluation shall be those prescribed in Section 1609. Earthquake loads for this evaluation, if required, shall be permitted to be 75 percent of those prescribed in Section 1613. Values of  $R$ ,  $W_0$  and  $C_d$  for the existing seismic force-resisting system shall be those specified by this code for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of an intermediate or special system.

**3405.2.2 Extent of repair for compliant buildings.** If the evaluation establishes compliance of the predamage building in accordance with Section 3405.2.1, then repairs shall be permitted that restore the building to its predamage state using materials and strengths that existed prior to the damage.

**3405.2.3 Extent of repair for noncompliant buildings.** If the evaluation does not establish compliance of the predamage building in accordance with Section 3405.2.1, then the building shall be rehabilitated to comply with applicable provisions of this code for load combinations, including wind or seismic loads. The wind loads for the repair shall be as required by the building code in effect at the time of original construction, unless the damage was caused by wind, in which case the wind loads shall be as required by the code in effect at the time of original construction or as required by this code, whichever are greater. Earthquake loads for this rehabilitation design shall be those required for the design of the predamage building, but not less than 75 percent of those prescribed in Section 1613. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.

**3405.3 Substantial structural damage to gravity load-carrying components.** Gravity load-carrying components that have sustained substantial structural damage shall be rehabilitated to comply with the applicable provisions of this code for dead and live loads. Snow loads shall be considered if the substantial structural damage was caused by or related to snow load effects. Existing gravity load-carrying structural elements shall be permitted to be designed for live loads *approved* prior to the damage. Nondamaged gravity load-carrying components that receive dead, live or snow loads from rehabilitated components shall also be rehabilitated or shown to have the capacity to carry the design loads of the rehabilitation design. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.

**3405.3.1 Lateral force-resisting elements.** Regardless of the level of damage to vertical elements of the lateral force-resisting system, if substantial structural damage to gravity load-carrying components was caused primarily by wind or earthquake effects, then the building shall be evaluated in accordance with Section 3405.2.1 and, if noncompliant, rehabilitated in accordance with Section 3405.2.3.

**3405.4 Less than substantial structural damage.** For damage less than substantial structural damage, repairs shall be allowed that restore the building to its predamage state using materials and strengths that existed prior to the damage. New structural members and connections used for this repair shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.

**3405.5 Flood hazard areas.** For buildings and structures in flood hazard areas established in Section 1612.3, any repair that constitutes substantial improvement of the *existing structure*, as defined in Section 1612.2, shall comply with the flood design requirements for new construction, and all aspects of

the *existing structure* shall be brought into compliance with the requirements for new construction for flood design.

For buildings and structures in flood hazard areas established in Section 1612.3, any repairs that do not constitute substantial improvement or substantial damage of the *existing structure*, as defined in Section 1612.2, are not required to comply with the flood design requirements for new construction.

## SECTION 3406 FIRE ESCAPES

**3406.1 Where permitted.** Fire escapes shall be permitted only as provided for in Sections 3406.1.1 through 3406.1.4.

**3406.1.1 New buildings.** Fire escapes shall not constitute any part of the required *means of egress* in new buildings.

**3406.1.2 Existing fire escapes.** Existing fire escapes shall be continued to be accepted as a component in the *means of egress* in existing buildings only.

**3406.1.3 New fire escapes.** New fire escapes for existing buildings shall be permitted only where exterior *stairs* cannot be utilized due to lot lines limiting *stair* size or due to the sidewalks, alleys or roads at grade level. New fire escapes shall not incorporate ladders or access by windows.

**3406.1.4 Limitations.** Fire escapes shall comply with this section and shall not constitute more than 50 percent of the required number of exits nor more than 50 percent of the required *exit* capacity.

**3406.2 Location.** Where located on the front of the building and where projecting beyond the building line, the lowest landing shall not be less than 7 feet (2134 mm) or more than 12 feet (3658 mm) above grade, and shall be equipped with a counterbalanced stairway to the street. In alleyways and thoroughfares less than 30 feet (9144 mm) wide, the clearance under the lowest landing shall not be less than 12 feet (3658 mm).

**3406.3 Construction.** The fire escape shall be designed to support a live load of 100 pounds per square foot (4788 Pa) and shall be constructed of steel or other *approved* noncombustible materials. Fire escapes constructed of wood not less than nominal 2 inches (51 mm) thick are permitted on buildings of Type 5 construction. Walkways and railings located over or supported by combustible roofs in buildings of Type 3 and 4 construction are permitted to be of wood not less than nominal 2 inches (51 mm) thick.

**3406.4 Dimensions.** Stairs shall be at least 22 inches (559 mm) wide with risers not more than, and treads not less than, 8 inches (203 mm) and landings at the foot of stairs not less than 40 inches (1016 mm) wide by 36 inches (914 mm) long, located not more than 8 inches (203 mm) below the door.

**3406.5 Opening protectives.** Doors and windows along the fire escape shall be protected with  $\frac{3}{4}$ -hour opening protectives.

### SECTION 3407 GLASS REPLACEMENT

**3407.1 Conformance.** The installation or replacement of glass shall be as required for new installations.

### SECTION 3408 CHANGE OF OCCUPANCY

**3408.1 Conformance.** No change shall be made in the use or occupancy of any building that would place the building in a different division of the same group of occupancies or in a different group of occupancies, unless such building is made to comply with the requirements of this code for such division or group of occupancies. Subject to the approval of the *building official*, the use or occupancy of existing buildings shall be permitted to be changed and the building is allowed to be occupied for purposes in other groups without conforming to all the requirements of this code for those groups, provided the new or proposed use is less hazardous, based on life and fire risk, than the existing use.

**3408.2 Certificate of occupancy.** A certificate of occupancy shall be issued where it has been determined that the requirements for the new occupancy classification have been met.

**3408.3 Stairways.** Existing stairways in an *existing structure* shall not be required to comply with the requirements of a new *stairway* as outlined in Section 1009 where the existing space and construction will not allow a reduction in pitch or slope.

**3408.4 Change of occupancy.** When a change of occupancy results in a structure being reclassified to a higher occupancy category, the structure shall conform to the seismic requirements for a new structure of the higher occupancy category. Where the existing seismic force-resisting system is a type that can be designated ordinary, values of  $R$ ,  $\Omega_o$  and  $C_d$  for the existing seismic force-resisting system shall be those specified by this code for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of a detailed, intermediate or special system.

#### Exceptions:

1. Specific seismic detailing requirements of this code or Section 1613 for a new structure shall not be required to be met where it can be shown that the level of performance and seismic safety is equivalent to that of a new structure. Such analysis shall consider the regularity, over strength, redundancy and ductility of the structure within the context of the existing and retrofit (if any) detailing provided.
2. When a change of use results in a structure being reclassified from Occupancy Category I or II to Occupancy Category III and the structure is located in a seismic map area where  $S_{DS} < 0.33$ , compliance with the seismic requirements of this code and Section 1613 are not required.

### SECTION 3409 HISTORIC BUILDINGS

**3409.1 Historic buildings.** The provisions of this code relating to the construction, repair, *alteration*, *addition*, restoration and movement of structures, and change of occupancy shall not be mandatory for *historic buildings* where such buildings are judged by the *building official* to not constitute a distinct life safety hazard.

**3409.2 Flood hazard areas.** Within flood hazard areas established in accordance with Section 1612.3, where the work proposed constitutes substantial improvement as defined in Section 1612.2, the building shall be brought into compliance with Section 1612.

**Exception:** *Historic buildings* that are:

1. *Listed* or preliminarily determined to be eligible for listing in the National Register of Historic Places;
2. Determined by the Secretary of the U.S. Department of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined to qualify as an historic district; or
3. Designated as historic under a state or local historic preservation program that is *approved* by the Department of Interior.

### SECTION 3410 MOVED STRUCTURES

**3410.1 Conformance.** Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

### SECTION 3411 ACCESSIBILITY FOR EXISTING BUILDINGS

**3411.1 Scope.** The provisions of Sections 3411.1 through 3411.9 apply to maintenance, change of occupancy, additions and alterations to existing buildings, including those identified as *historic buildings*.

**Exception:** Type B *dwelling* or sleeping units required by Section 1107 of this code are not required to be provided in existing buildings and facilities being altered or undergoing a change of occupancy.

**3411.2 Maintenance of facilities.** A building, facility or element that is constructed or altered to be *accessible* shall be maintained *accessible* during occupancy.

**3411.3 Extent of application.** An *alteration* of an existing element, space or area of a building or facility shall not impose a requirement for greater accessibility than that which would be required for new construction.

Alterations shall not reduce or have the effect of reducing accessibility of a building, portion of a building or facility.

**3411.4 Change of occupancy.** Existing buildings that undergo a change of group or occupancy shall comply with this section.

**3411.4.1 Partial change in occupancy.** Where a portion of the building is changed to a new occupancy classification, any alterations shall comply with Sections 3411.6, 3411.7 and 3411.8.

**3411.4.2 Complete change of occupancy.** Where an entire building undergoes a change of occupancy, it shall comply with Section 3411.4.1 and shall have all of the following *accessible* features:

1. At least one *accessible* building entrance.
2. At least one *accessible* route from an *accessible* building entrance to *primary function* areas.
3. Signage complying with Section 1110.
4. Accessible parking, where parking is being provided.
5. At least one *accessible* passenger loading zone, when loading zones are provided.
6. At least one *accessible* route connecting *accessible* parking and *accessible* passenger loading zones to an *accessible* entrance.

Where it is *technically infeasible* to comply with the new construction standards for any of these requirements for a change of group or occupancy, the above items shall conform to the requirements to the maximum extent technically feasible.

**3411.5 Additions.** Provisions for new construction shall apply to additions. An *addition* that affects the accessibility to, or contains an area of, a *primary function* shall comply with the requirements in Section 3411.7.

**3411.6 Alterations.** A building, facility or element that is altered shall comply with the applicable provisions in Chapter 11 of this code and ICC A117.1, unless *technically infeasible*. Where compliance with this section is *technically infeasible*, the *alteration* shall provide access to the maximum extent technically feasible.

**Exceptions:**

1. The altered element or space is not required to be on an *accessible* route, unless required by Section 3411.7.
2. *Accessible means of egress* required by Chapter 10 are not required to be provided in existing buildings and facilities.
3. The *alteration* to Type A individually owned *dwelling* units within a Group R-2 occupancy shall meet the provision for a Type B *dwelling* unit and shall comply with the applicable provisions in Chapter 11 and ICC A117.1.

**3411.7 Alterations affecting an area containing a primary function.** Where an *alteration* affects the accessibility to, or contains an area of *primary function*, the route to the *primary function* area shall be *accessible*. The *accessible* route to the

*primary function* area shall include toilet facilities or drinking fountains serving the area of *primary function*.

**Exceptions:**

1. The costs of providing the *accessible* route are not required to exceed 20 percent of the costs of the *alterations* affecting the area of *primary function*.
2. This provision does not apply to *alterations* limited solely to windows, hardware, operating controls, electrical outlets and signs.
3. This provision does not apply to *alterations* limited solely to mechanical systems, electrical systems, installation or *alteration* of fire protection systems and abatement of hazardous materials.
4. This provision does not apply to *alterations* undertaken for the primary purpose of increasing the accessibility of an existing building, facility or element.

**3411.8 Scoping for alterations.** The provisions of Sections 3411.8.1 through 3411.8.14 shall apply to *alterations* to existing buildings and facilities.

**3411.8.1 Entrances.** *Accessible* entrances shall be provided in accordance with Section 1105.

**Exception:** Where an *alteration* includes alterations to an entrance, and the building or facility has an *accessible* entrance, the altered entrance is not required to be *accessible*, unless required by Section 3411.7. Signs complying with Section 1110 shall be provided.

**3411.8.2 Elevators.** Altered elements of existing elevators shall comply with ASME A17.1 and ICC A117.1. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

**3411.8.3 Platform lifts.** Platform (wheelchair) lifts complying with ICC A117.1 and installed in accordance with ASME A18.1 shall be permitted as a component of an *accessible* route.

**3411.8.4 Stairs and escalators in existing buildings.** In *alterations*, change of occupancy or *additions* where an escalator or *stair* is added where none existed previously and major structural modifications are necessary for installation, an *accessible* route shall be provided between the levels served by the escalator or *stairs* in accordance with Sections 1104.4 and 1104.5.

**3411.8.5 Ramps.** Where slopes steeper than allowed by Section 1010.2 are necessitated by space limitations, the slope of ramps in or providing access to existing buildings or facilities shall comply with Table 3411.8.5.

**TABLE 3411.8.5  
RAMPS**

SLOPE	MAXIMUM RISE
Steeper than 1:10 but not steeper than 1:8	3 inches
Steeper than 1:12 but not steeper than 1:10	6 inches

For SI: 1 inch = 25.4 mm.

**3411.8.6 Performance areas.** Where it is *technically infeasible* to alter performance areas to be on an *accessible* route, at least one of each type of performance area shall be made *accessible*.

**3411.8.7 Accessible dwelling or sleeping units.** Where Group I-1, I-2, I-3, R-1, R-2 or R-4 *dwelling* or *sleeping units* are being altered or added, the requirements of Section 1107 for *Accessible* units apply only to the quantity of spaces being altered or added.

**3411.8.8 Type A dwelling or sleeping units.** Where more than 20 Group R-2 *dwelling* or *sleeping units* are being added, the requirements of Section 1107 for *Type A* units apply only to the quantity of the spaces being added.

**3411.8.9 Type B dwelling or sleeping units.** Where four or more Group I-1, I-2, R-1, R-2, R-3 or R-4 *dwelling* or *sleeping units* are being added, the requirements of Section 1107 for *Type B* units apply only to the quantity of the spaces being added.

**3411.8.10 Jury boxes and witness stands.** In *alterations*, *accessible* wheelchair spaces are not required to be located within the defined area of raised jury boxes or witness stands and shall be permitted to be located outside these spaces where the ramp or lift access restricts or projects into the *means of egress*.

**3411.8.11 Toilet rooms.** Where it is *technically infeasible* to alter existing toilet and bathing facilities to be *accessible*, an *accessible* family or assisted-use toilet or bathing facility constructed in accordance with Section 1109.2.1 is permitted. The family or assisted-use facility shall be located on the same floor and in the same area as the existing facilities.

**3411.8.12 Dressing, fitting and locker rooms.** Where it is *technically infeasible* to provide *accessible* dressing, fitting or locker rooms at the same location as similar types of rooms, one *accessible* room on the same level shall be provided. Where separate-sex facilities are provided, *accessible* rooms for each sex shall be provided. Separate-sex facilities are not required where only unisex rooms are provided.

**3411.8.13 Fuel dispensers.** Operable parts of replacement fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on existing curbs.

**3411.8.14 Thresholds.** The maximum height of thresholds at doorways shall be  $\frac{3}{4}$  inch (19.1 mm). Such thresholds shall have beveled edges on each side.

**3411.9 Historic buildings.** These provisions shall apply to buildings and facilities designated as historic structures that undergo alterations or a change of occupancy, unless *technically infeasible*. Where compliance with the requirements for *accessible* routes, entrances or toilet facilities would threaten or destroy the historic significance of the building or facility, as determined by the applicable governing authority, the alternative requirements of Sections 3411.9.1 through 3411.9.4 for that element shall be permitted.

**3411.9.1 Site arrival points.** At least one *accessible* route from a site arrival point to an *accessible* entrance shall be provided.

**3411.9.2 Multilevel buildings and facilities.** An *accessible* route from an *accessible* entrance to public spaces on the level of the *accessible* entrance shall be provided.

**3411.9.3 Entrances.** At least one main entrance shall be *accessible*.

**Exceptions:**

1. If a main entrance cannot be made *accessible*, an *accessible* nonpublic entrance that is unlocked while the building is occupied shall be provided; or
2. If a main entrance cannot be made *accessible*, a locked *accessible* entrance with a notification system or remote monitoring shall be provided.

Signs complying with Section 1110 shall be provided at the primary entrance and the *accessible* entrance.

**3411.9.4 Toilet and bathing facilities.** Where toilet rooms are provided, at least one *accessible* family or assisted-use toilet room complying with Section 1109.2.1 shall be provided.

## SECTION 3412 COMPLIANCE ALTERNATIVES

**3412.1 Compliance.** The provisions of this section are intended to maintain or increase the current degree of public safety, health and general welfare in existing buildings while permitting repair, *alteration*, *addition* and change of occupancy without requiring full compliance with Chapters 2 through 33, or Sections 3401.3, and 3403 through 3409, except where compliance with other provisions of this code is specifically required in this section.

**3412.2 Applicability.** Structures existing prior to [DATE TO BE INSERTED BY THE JURISDICTION. NOTE: IT IS RECOMMENDED THAT THIS DATE COINCIDE WITH THE EFFECTIVE DATE OF BUILDING CODES WITHIN THE JURISDICTION], in which there is work involving additions, alterations or changes of occupancy shall be made to comply with the requirements of this section or the provisions of Sections 3403 through 3409. The provisions in Sections 3412.2.1 through 3412.2.5 shall apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, M, R, S and U. These provisions shall not apply to buildings with occupancies in Group H or I.

**3412.2.1 Change in occupancy.** Where an existing building is changed to a new occupancy classification and this section is applicable, the provisions of this section for the new occupancy shall be used to determine compliance with this code.

**3412.2.2 Partial change in occupancy.** Where a portion of the building is changed to a new occupancy classification, and that portion is separated from the remainder of the building with fire barriers or horizontal assemblies having a *fire-resistance rating* as required by Table 508.4 for the separate occupancies, or with *approved* compliance alterna-



tives, the portion changed shall be made to comply with the provisions of this section.

Where a portion of the building is changed to a new occupancy classification, and that portion is not separated from the remainder of the building with *fire barriers* or *horizontal assemblies* having a *fire-resistance rating* as required by Table 508.4 for the separate occupancies, or with *approved* compliance alternatives, the provisions of this section which apply to each occupancy shall apply to the entire building. Where there are conflicting provisions, those requirements which secure the greater public safety shall apply to the entire building or structure.

**3412.2.3 Additions.** *Additions* to existing buildings shall comply with the requirements of this code for new construction. The combined height and area of the existing building and the new *addition* shall not exceed the height and area allowed by Chapter 5. Where a *fire wall* that complies with Section 706 is provided between the *addition* and the existing building, the *addition* shall be considered a separate building.

**3412.2.4 Alterations and repairs.** An existing building or portion thereof, which does not comply with the requirements of this code for new construction, shall not be altered or repaired in such a manner that results in the building being less safe or sanitary than such building is currently. If, in the *alteration* or repair, the current level of safety or sanitation is to be reduced, the portion altered or repaired shall conform to the requirements of Chapters 2 through 12 and Chapters 14 through 33.

**3412.2.4.1 Flood hazard areas.** For existing buildings located in flood hazard areas established in Section 1612.3, if the *alterations* and repairs constitute substantial improvement of the existing building, the existing building shall be brought into compliance with the requirements for new construction for flood design.

**3412.2.5 Accessibility requirements.** All portions of the buildings proposed for change of occupancy shall conform to the accessibility provisions of Section 3411.

**3412.3 Acceptance.** For repairs, alterations, additions and changes of occupancy to existing buildings that are evaluated in accordance with this section, compliance with this section shall be accepted by the *building official*.

**3412.3.1 Hazards.** Where the *building official* determines that an unsafe condition exists, as provided for in Section 116, such unsafe condition shall be abated in accordance with Section 116.

**3412.3.2 Compliance with other codes.** Buildings that are evaluated in accordance with this section shall comply with the *International Fire Code* and the *International Property Maintenance Code*.

**3412.4 Investigation and evaluation.** For proposed work covered by this section, the building owner shall cause the existing building to be investigated and evaluated in accordance with the provisions of this section.

**3412.4.1 Structural analysis.** The owner shall have a structural analysis of the existing building made to determine

adequacy of structural systems for the proposed *alteration, addition* or change of occupancy. The analysis shall demonstrate that the building with the work completed is capable of resisting the loads specified in Chapter 16.

**3412.4.2 Submittal.** The results of the investigation and evaluation as required in Section 3412.4, along with proposed compliance alternatives, shall be submitted to the *building official*.

**3412.4.3 Determination of compliance.** The *building official* shall determine whether the existing building, with the proposed *addition, alteration* or change of occupancy, complies with the provisions of this section in accordance with the evaluation process in Sections 3412.5 through 3412.9.

**3412.5 Evaluation.** The evaluation shall be comprised of three categories: fire safety, means of egress and general safety, as defined in Sections 3412.5.1 through 3412.5.3.

**3412.5.1 Fire safety.** Included within the fire safety category are the structural *fire resistance*, automatic fire detection, fire alarm and fire suppression system features of the facility.

**3412.5.2 Means of egress.** Included within the means of egress category are the configuration, characteristics and support features for *means of egress* in the facility.

**3412.5.3 General safety.** Included within the general safety category are the fire safety parameters and the means of egress parameters.

**3412.6 Evaluation process.** The evaluation process specified herein shall be followed in its entirety to evaluate existing buildings. Table 3412.7 shall be utilized for tabulating the results of the evaluation. References to other sections of this code indicate that compliance with those sections is required in order to gain credit in the evaluation herein outlined. In applying this section to a building with mixed occupancies, where the separation between the mixed occupancies does not qualify for any category indicated in Section 3412.6.16, the score for each occupancy shall be determined and the lower score determined for each section of the evaluation process shall apply to the entire building.

Where the separation between mixed occupancies qualifies for any category indicated in Section 3412.6.16, the score for each occupancy shall apply to each portion of the building based on the occupancy of the space.

**3412.6.1 Building height.** The value for building height shall be the lesser value determined by the formula in Section 3412.6.1.1. Chapter 5 shall be used to determine the allowable height of the building, including allowable increases due to automatic sprinklers as provided for in Section 504.2. Subtract the actual *building height* in feet from the allowable and divide by 12 1/2 feet. Enter the height value and its sign (positive or negative) in Table 3412.7 under Safety Parameter 3412.6.1, Building Height, for fire safety, means of egress and general safety. The maximum score for a building shall be 10.

**3412.6.1.1 Height formula.** The following formulas shall be used in computing the building height value.

$$\text{Height value, feet} = \frac{(AH) - (EBH)}{12.5} \times CF$$

$$\text{Height value, stories} = (AS - EBS) \times CF \quad \text{(Equation 34-1)}$$

where:

*AH* = Allowable height in feet from Table 503.

*EBH* = Existing building height in feet.

*AS* = Allowable height in stories from Table 503.

*EBS* = Existing building height in stories.

*CF* = 1 if  $(AH) - (EBH)$  is positive.

*CF* = Construction-type factor shown in Table 3412.6.6(2) if  $(AH) - (EBH)$  is negative.

**Note:** Where mixed occupancies are separated and individually evaluated as indicated in Section 3412.6, the values *AH*, *AS*, *EBH* and *EBS* shall be based on the height of the occupancy being evaluated.

**3412.6.2 Building area.** The value for building area shall be determined by the formula in Section 3412.6.2.2. Section 503 and the formula in Section 3412.6.2.1 shall be used to determine the allowable area of the building. This shall include any allowable increases due to frontage and automatic sprinklers as provided for in Section 506. Subtract the actual building area in square feet from the allowable area and divide by 1,200 square feet. Enter the area value and its sign (positive or negative) in Table 3412.7 under Safety Parameter 3412.6.2, Building Area, for fire safety, means of egress and general safety. In determining the area value, the maximum permitted positive value for area is 50 percent of the fire safety score as listed in Table 3412.8, Mandatory Safety Scores.

**3412.6.2.1 Allowable area formula.** The following formula shall be used in computing allowable area:

$$A_a = (1 + i_f + i_s) \times A_t \quad \text{(Equation 34-2)}$$

where:

*A<sub>a</sub>* = Allowable area.

*A<sub>t</sub>* = Tabular area per story in accordance with Table 503 (square feet)

*i<sub>s</sub>* = Area increase factor for sprinklers (Section 506.3).

*i<sub>f</sub>* = Area increase factor for frontage (Section 506.2).

**3412.6.2.2 Area formula.** The following formula shall be used in computing the area value. Determine the area value for each occupancy floor area on a floor-by-floor basis. For each occupancy, choose the minimum area value of the set of values obtained for the particular occupancy.

$$\text{Area value } i = \frac{\text{Allowable area } i}{1,200 \text{ square feet}} \left[ 1 - \left( \frac{\text{Actual area } i}{\text{Allowable area } i} + \dots + \frac{\text{Actual area } n}{\text{Allowable area } n} \right) \right]$$

(Equation 34-3)

where:

*i* = Value for an individual separated occupancy on a floor.

*n* = Number of separated occupancies on a floor.

**3412.6.3 Compartmentation.** Evaluate the compartments created by fire barriers or horizontal assemblies which comply with Sections 3412.6.3.1 and 3412.6.3.2 and which are exclusive of the wall elements considered under Sections 3412.6.4 and 3412.6.5. Conforming compartments shall be figured as the net area and do not include shafts, chases, stairways, walls or columns. Using Table 3412.6.3, determine the appropriate compartmentation value (*CV*) and enter that value into Table 3412.7 under Safety Parameter 3412.6.3, Compartmentation, for fire safety, means of egress and general safety.

**3412.6.3.1 Wall construction.** A wall used to create separate compartments shall be a fire barrier conforming to Section 707 with a fire-resistance rating of not less than 2 hours. Where the building is not divided into more than one compartment, the compartment size shall be taken as

TABLE 3412.6.3  
COMPARTMENTATION VALUES

OCCUPANCY	CATEGORIES <sup>a</sup>				
	a Compartment size equal to or greater than 15,000 square feet	b Compartment size of 10,000 square feet	c Compartment size of 7,500 square feet	d Compartment size of 5,000 square feet	e Compartment size of 2,500 square feet or less
A-1, A-3	0	6	10	14	18
A-2	0	4	10	14	18
A-4, B, E, S-2	0	5	10	15	20
F, M, R, S-1	0	4	10	16	22

For SI: 1 square foot = 0.093 m<sup>2</sup>.

a. For areas between categories, the compartmentation value shall be obtained by linear interpolation.

## EXISTING STRUCTURES

the total floor area on all floors. Where there is more than one compartment within a *story*, each compartmented area on such *story* shall be provided with a horizontal *exit* conforming to Section 1025. The *fire door* serving as the horizontal *exit* between compartments shall be so installed, fitted and gasketed that such *fire door* will provide a substantial barrier to the passage of smoke.

**3412.6.3.2 Floor/ceiling construction.** A floor/ceiling assembly used to create compartments shall conform to Section 712 and shall have a *fire-resistance rating* of not less than 2 hours.

**3412.6.4 Tenant and dwelling unit separations.** Evaluate the *fire-resistance rating* of floors and walls separating tenants, including *dwelling* units, and not evaluated under Sections 3412.6.3 and 3412.6.5. Under the categories and occupancies in Table 3412.6.4, determine the appropriate value and enter that value in Table 3412.7 under Safety Parameter 3412.6.4, Tenant and Dwelling Unit Separations, for fire safety, means of egress and general safety.

**TABLE 3412.6.4  
SEPARATION VALUES**

OCCUPANCY	CATEGORIES				
	a	b	c	d	e
A-1	0	0	0	0	1
A-2	-5	-3	0	1	3
A-3, A-4, B, E, F, M, S-1	-4	-3	0	2	4
R	-4	-2	0	2	4
S-2	-5	-2	0	2	4

**3412.6.4.1 Categories.** The categories for tenant and *dwelling* unit separations are:

1. Category a—No *fire partitions*; incomplete *fire partitions*; no doors; doors not self-closing or automatic-closing.
2. Category b—*Fire partitions* or floor assemblies with less than a 1-hour *fire-resistance rating* or not constructed in accordance with Sections 709 or 712, respectively.
3. Category c—*Fire partitions* with a 1-hour or greater *fire-resistance rating* constructed in accordance with Section 709 and floor assemblies with a 1-hour but less than 2-hour *fire-resistance rating* constructed in accordance with Section 712, or with only one tenant within the floor area.
4. Category d—*Fire barriers* with a 1-hour but less than 2-hour *fire-resistance rating* constructed in accordance with Section 707 and floor assemblies with a 2-hour or greater *fire-resistance rating* constructed in accordance with Section 712.
5. Category e—*Fire barriers* and floor assemblies with a 2-hour or greater *fire-resistance rating* and constructed in accordance with Sections 707 and 712, respectively.

**3412.6.5 Corridor walls.** Evaluate the *fire-resistance rating* and degree of completeness of walls which create corridors serving the floor, and constructed in accordance with Section 1018. This evaluation shall not include the wall elements considered under Sections 3412.6.3 and 3412.6.4. Under the categories and groups in Table 3412.6.5, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.5, Corridor Walls, for fire safety, means of egress and general safety.

**TABLE 3412.6.5  
CORRIDOR WALL VALUES**

OCCUPANCY	CATEGORIES			
	a	b	c <sup>a</sup>	d <sup>a</sup>
A-1	-10	-4	0	2
A-2	-30	-12	0	2
A-3, F, M, R, S-1	-7	-3	0	2
A-4, B, E, S-2	-5	-2	0	5

a. Corridors not providing at least one-half the travel distance for all occupants on a floor shall use Category b.

**3412.6.5.1 Categories.** The categories for Corridor Walls are:

1. Category a—No *fire partitions*; incomplete *fire partitions*; no doors; or doors not self-closing.
2. Category b—Less than 1-hour *fire-resistance rating* or not constructed in accordance with Section 709.4.
3. Category c—1-hour to less than 2-hour *fire-resistance rating*, with doors conforming to Section 715 or without corridors as permitted by Section 1018.
4. Category d—2-hour or greater *fire-resistance rating*, with doors conforming to Section 715.

**3412.6.6 Vertical openings.** Evaluate the *fire-resistance rating* of *exit* enclosures, hoistways, escalator openings and other shaft enclosures within the building, and openings between two or more floors. Table 3412.6.6(1) contains the appropriate protection values. Multiply that value by the construction type factor found in Table 3412.6.6(2). Enter the vertical opening value and its sign (positive or negative) in Table 3412.7 under Safety Parameter 3412.6.6, Vertical Openings, for fire safety, means of egress, and general safety. If the structure is a one-story building or if all the unenclosed vertical openings within the building conform to the requirements of Section 708, enter a value of 2. The maximum positive value for this requirement shall be 2.

**3412.6.6.1 Vertical opening formula.** The following formula shall be used in computing vertical opening value.

$$VO = PV \times CF \quad \text{(Equation 34-4)}$$

VO = Vertical opening value.

PV = Protection value [Table 3412.6.6(1)].

CF = Construction type factor [Table 3412.6.6(2)].

**TABLE 3412.6.6(1)  
VERTICAL OPENING PROTECTION VALUE**

PROTECTION	VALUE
None (unprotected opening)	-2 times number floors connected
Less than 1 hour	-1 times number floors connected
1 to less than 2 hours	1
2 hours or more	2

**TABLE 3412.6.6(2)  
CONSTRUCTION-TYPE FACTOR**

FACTOR	TYPE OF CONSTRUCTION								
	IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
	1.2	1.5	2.2	3.5	2.5	3.5	2.3	3.3	7

**3412.6.7 HVAC systems.** Evaluate the ability of the HVAC system to resist the movement of smoke and fire beyond the point of origin. Under the categories in Section 3412.6.7.1, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.7, HVAC Systems, for fire safety, means of egress and general safety.

**3412.6.7.1 Categories.** The categories for HVAC systems are:

1. Category a—Plenums not in accordance with Section 602 of the *International Mechanical Code*. -10 points.
2. Category b—Air movement in egress elements not in accordance with Section 1018.5. -5 points.
3. Category c—Both categories a and b are applicable. -15 points.
4. Category d—Compliance of the HVAC system with Section 1018.5 and Section 602 of the *International Mechanical Code*. 0 points.
5. Category e—Systems serving one story; or a central boiler/chiller system without ductwork connecting two or more stories. 5 points.

**3412.6.8 Automatic fire detection.** Evaluate the smoke detection capability based on the location and operation of automatic fire detectors in accordance with Section 907 and the *International Mechanical Code*. Under the categories and occupancies in Table 3412.6.8, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.8, Automatic Fire Detection, for fire safety, means of egress and general safety.

**TABLE 3412.6.8  
AUTOMATIC FIRE DETECTION VALUES**

OCCUPANCY	CATEGORIES				
	a	b	c	d	e
A-1, A-3, F, M, R, S-1	-10	-5	0	2	6
A-2	-25	-5	0	5	9
A-4, B, E, S-2	-4	-2	0	4	8

**3412.6.8.1 Categories.** The categories for automatic fire detection are:

1. Category a—None.
2. Category b—Existing smoke detectors in HVAC systems and maintained in accordance with the *International Fire Code*.
3. Category c—Smoke detectors in HVAC systems. The detectors are installed in accordance with the requirements for new buildings in the *International Mechanical Code*.
4. Category d—Smoke detectors throughout all floor areas other than individual sleeping units, tenant spaces and dwelling units.
5. Category e—Smoke detectors installed throughout the floor area.

**3412.6.9 Fire alarm systems.** Evaluate the capability of the fire alarm system in accordance with Section 907. Under the categories and occupancies in Table 3412.6.9, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.9, Fire Alarm Systems, for fire safety, means of egress and general safety.

**TABLE 3412.6.9  
FIRE ALARM SYSTEM VALUES**

OCCUPANCY	CATEGORIES			
	a	b <sup>a</sup>	c	d
A-1, A-2, A-3, A-4, B, E, R	-10	-5	0	5
F, M, S	0	5	10	15

a. For buildings equipped throughout with an automatic sprinkler system, add 2 points for activation by a sprinkler waterflow device.

**3412.6.9.1 Categories.** The categories for fire alarm systems are:

1. Category a—None.
2. Category b—Fire alarm system with manual fire alarm boxes in accordance with Section 907.3 and alarm notification appliances in accordance with Section 907.5.2.
3. Category c—Fire alarm system in accordance with Section 907.
4. Category d—Category c plus a required emergency voice/alarm communications system and a fire command center that conforms to Section 403.4.5 and contains the emergency voice/alarm communications system controls, fire department communication system controls and any other controls specified in Section 911 where those systems are provided.

**3412.6.10 Smoke control.** Evaluate the ability of a natural or mechanical venting, exhaust or pressurization system to control the movement of smoke from a fire. Under the categories and occupancies in Table 3412.6.10, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.10, Smoke Control, for means of egress and general safety.

EXISTING STRUCTURES

**TABLE 3412.6.10  
SMOKE CONTROL VALUES**

OCCUPANCY	CATEGORIES					
	a	b	c	d	e	f
A-1, A-2, A-3	0	1	2	3	6	6
A-4, E	0	0	0	1	3	5
B, M, R	0	2 <sup>a</sup>	3 <sup>a</sup>	3 <sup>a</sup>	3 <sup>a</sup>	4 <sup>a</sup>
F, S	0	2 <sup>a</sup>	2 <sup>a</sup>	3 <sup>a</sup>	3 <sup>a</sup>	3 <sup>a</sup>

a. This value shall be 0 if compliance with Category d or e in Section 3412.6.8.1 has not been obtained.

**3412.6.10.1 Categories.** The categories for smoke control are:

1. Category a—None.
2. Category b—The building is equipped throughout with an *automatic sprinkler system*. Openings are provided in exterior walls at the rate of 20 square feet (1.86 m<sup>2</sup>) per 50 linear feet (15 240 mm) of *exterior wall* in each *story* and distributed around the building perimeter at intervals not exceeding 50 feet (15 240 mm). Such openings shall be readily openable from the inside without a key or separate tool and shall be provided with ready access thereto. In lieu of operable openings, clearly and permanently marked tempered glass panels shall be used.
3. Category c—One enclosed *exit stairway*, with ready access thereto, from each occupied floor of the building. The *stairway* has operable exterior windows and the building has openings in accordance with Category b.
4. Category d—One smokeproof enclosure and the building has openings in accordance with Category b.
5. Category e—The building is equipped throughout with an *automatic sprinkler system*. Each floor area is provided with a mechanical air-handling system designed to accomplish smoke containment. Return and exhaust air shall be moved directly to the outside without recirculation to other floor areas of the building under fire conditions. The system shall exhaust not less than six air

changes per hour from the floor area. Supply air by mechanical means to the floor area is not required. Containment of smoke shall be considered as confining smoke to the *fire area* involved without migration to other floor areas. Any other tested and *approved design* which will adequately accomplish smoke containment is permitted.

6. Category f—Each *stairway* shall be one of the following: a smokeproof enclosure in accordance with Section 1022.9; pressurized in accordance with Section 909.20.5 or shall have operable exterior windows.

**3412.6.11 Means of egress capacity and number.** Evaluate the *means of egress* capacity and the number of exits available to the building occupants. In applying this section, the *means of egress* are required to conform to the following sections of this code: 1003.7, 1004, 1005.1, 1014.2, 1014.3, 1015.2, 1021, 1025.1, 1027.2, 1027.6, 1028.2, 1028.3, 1028.4 and 1029 [except that the minimum width required by this section shall be determined solely by the width for the required capacity in accordance with Table 3412.6.11(1)]. The number of exits credited is the number that is available to each occupant of the area being evaluated. Existing fire escapes shall be accepted as a component in the *means of egress* when conforming to Section 3406. Under the categories and occupancies in Table 3412.6.11(2), determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.11, Means of Egress Capacity, for means of egress and general safety.

**TABLE 3412.6.11(2)  
MEANS OF EGRESS VALUES**

OCCUPANCY	CATEGORIES				
	a <sup>a</sup>	b	c	d	e
A-1, A-2, A-3, A-4, E	-10	0	2	8	10
B, F, S	-1	0	0	0	0
M	-3	0	1	2	4
R	-3	0	0	0	0

a. The values indicated are for buildings six stories or less in height. For buildings over six stories above grade plane, add an additional -10 points.

**TABLE 3412.6.11(1)  
EGRESS WIDTH PER OCCUPANT SERVED**

OCCUPANCY	WITHOUT SPRINKLER SYSTEM		WITH SPRINKLER SYSTEM <sup>a</sup>	
	Stairways (inches per occupant)	Other egress components (inches per occupant)	Stairways (inches per occupant)	Other egress components (inches per occupant)
Occupancies other than those listed below	0.3	0.2	0.2	0.15
Hazardous: H-1, H-2, H-3 and H-4	Not Permitted	Not Permitted	0.3	0.2
Institutional: I-2	Not Permitted	Not Permitted	0.3	0.2

For SI: 1 inch = 25.4 mm.

a. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

**3412.6.11.1 Categories.** The categories for Means of Egress Capacity and number of exits are:

1. Category a—Compliance with the minimum required *means of egress* capacity or number of exits is achieved through the use of a fire escape in accordance with Section 3406.
2. Category b—Capacity of the *means of egress* complies with Section 1004 and the number of exits complies with the minimum number required by Section 1021.
3. Category c—Capacity of the *means of egress* is equal to or exceeds 125 percent of the required *means of egress* capacity, the *means of egress* complies with the minimum required width dimensions specified in the code and the number of exits complies with the minimum number required by Section 1021.
4. Category d—The number of exits provided exceeds the number of exits required by Section 1021. Exits shall be located a distance apart from each other equal to not less than that specified in Section 1015.2.
5. Category e—The area being evaluated meets both Categories c and d.

**3412.6.12 Dead ends.** In spaces required to be served by more than one *means of egress*, evaluate the length of the *exit* access travel path in which the building occupants are confined to a single path of travel. Under the categories and occupancies in Table 3412.6.12, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.12, Dead Ends, for means of egress and general safety.

**TABLE 3412.6.12  
DEAD-END VALUES**

OCCUPANCY	CATEGORIES <sup>a</sup>		
	a	b	c
A-1, A-3, A-4, B, E, F, M, R, S	-2	0	2
A-2, E	-2	0	2

a. For dead-end distances between categories, the dead-end value shall be obtained by linear interpolation.

**3412.6.12.1 Categories.** The categories for dead ends are:

1. Category a—Dead end of 35 feet (10 670 mm) in nonsprinklered buildings or 70 feet (21 340 mm) in sprinklered buildings.
2. Category b—Dead end of 20 feet (6096 mm); or 50 feet (15 240 mm) in Group B in accordance with Section 1018.4, exception 2.
3. Category c — No dead ends; or ratio of length to width (l/w) is less than 2.5:1.

**3412.6.13 Maximum exit access travel distance.** Evaluate the length of *exit* access travel to an *approved exit*. Deter-

mine the appropriate points in accordance with the following equation and enter that value into Table 3412.7 under Safety Parameter 3412.6.13, Maximum *Exit* Access Travel Distance, for means of egress and general safety. The maximum allowable *exit* access travel distance shall be determined in accordance with Section 1016.1.

$$\text{Points} = 20 \times \frac{\text{Maximum allowable travel distance} - \text{Maximum actual travel distance}}{\text{Max. allowable travel distance}}$$

**3412.6.14 Elevator control.** Evaluate the passenger elevator equipment and controls that are available to the fire department to reach all occupied floors. Elevator recall controls shall be provided in accordance with the *International Fire Code*. Under the categories and occupancies in Table 3412.6.14, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.14, Elevator Control, for fire safety, means of egress and general safety. The values shall be zero for a single-story building.

**TABLE 3412.6.14  
ELEVATOR CONTROL VALUES**

ELEVATOR TRAVEL	CATEGORIES			
	a	b	c	d
Less than 25 feet of travel above or below the primary level of elevator access for emergency fire-fighting or rescue personnel	-2	0	0	+2
Travel of 25 feet or more above or below the primary level of elevator access for emergency fire-fighting or rescue personnel	-4	NP	0	+4

For SI: 1 foot = 304.8 mm.

**3412.6.14.1 Categories.** The categories for elevator controls are:

1. Category a—No elevator.
2. Category b—Any elevator without Phase I and II recall.
3. Category c—All elevators with Phase I and II recall as required by the *International Fire Code*.
4. Category d—All meet Category c; or Category b where permitted to be without recall; and at least one elevator that complies with new construction requirements serves all occupied floors.

**3412.6.15 Means of egress emergency lighting.** Evaluate the presence of and reliability of *means of egress* emergency lighting. Under the categories and occupancies in Table 3412.6.15, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.15, Means of Egress Emergency Lighting, for means of egress and general safety.

**TABLE 3412.6.15  
MEANS OF EGRESS EMERGENCY LIGHTING VALUES**

NUMBER OF EXITS REQUIRED BY SECTION 1015	CATEGORIES		
	a	b	c
Two or more exits	NP	0	4
Minimum of one exit	0	1	1

**3412.6.15.1 Categories.** The categories for means of egress emergency lighting are:

1. Category a—*Means of egress* lighting and *exit* signs not provided with emergency power in accordance with Chapter 27.
2. Category b—*Means of egress* lighting and *exit* signs provided with emergency power in accordance with Chapter 27.
3. Category c—Emergency power provided to *means of egress* lighting and *exit* signs which provides protection in the event of power failure to the site or building.

**3412.6.16 Mixed occupancies.** Where a building has two or more occupancies that are not in the same occupancy classification, the separation between the mixed occupancies shall be evaluated in accordance with this section. Where there is no separation between the mixed occupancies or the separation between mixed occupancies does not qualify for any of the categories indicated in Section 3412.6.16.1, the building shall be evaluated as indicated in Section 3412.6 and the value for mixed occupancies shall be zero. Under the categories and occupancies in Table 3412.6.16, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.16, Mixed Occupancies, for fire safety and general safety. For buildings without mixed occupancies, the value shall be zero.

**TABLE 3412.6.16  
MIXED OCCUPANCY VALUES<sup>a</sup>**

OCCUPANCY	CATEGORIES		
	a	b	c
A-1, A-2, R	-10	0	10
A-3, A-4, B, E, F, M, S	-5	0	5

a. For fire-resistance ratings between categories, the value shall be obtained by linear interpolation.

**3412.6.16.1 Categories.** The categories for mixed occupancies are:

1. Category a—Occupancies separated by minimum 1-hour fire barriers or minimum 1-hour horizontal assemblies, or both.
2. Category b—Separations between occupancies in accordance with Section 508.4.

3. Category c—Separations between occupancies having a *fire-resistance rating* of not less than twice that required by Section 508.3.3.

**3412.6.17 Automatic sprinklers.** Evaluate the ability to suppress a fire based on the installation of an *automatic sprinkler system* in accordance with Section 903.3.1.1. “Required sprinklers” shall be based on the requirements of this code. Under the categories and occupancies in Table 3412.6.17, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.17, Automatic Sprinklers, for fire safety, *means of egress* divided by 2 and general safety.

**TABLE 3412.6.17  
SPRINKLER SYSTEM VALUES**

OCCUPANCY	CATEGORIES					
	a	b	c	d	e	f
A-1, A-3, F, M, R, S-1	-6	-3	0	2	4	6
A-2	-4	-2	0	1	2	4
A-4, B, E, S-2	-12	-6	0	3	6	12

**3412.6.17.1 Categories.** The categories for automatic sprinkler system protection are:

1. Category a—Sprinklers are required throughout; sprinkler protection is not provided or the sprinkler system design is not adequate for the hazard protected in accordance with Section 903.
2. Category b—Sprinklers are required in a portion of the building; sprinkler protection is not provided or the sprinkler system design is not adequate for the hazard protected in accordance with Section 903.
3. Category c—Sprinklers are not required; none are provided.
4. Category d—Sprinklers are required in a portion of the building; sprinklers are provided in such portion; the system is one which complied with the code at the time of installation and is maintained and supervised in accordance with Section 903.
5. Category e—Sprinklers are required throughout; sprinklers are provided throughout in accordance with Chapter 9.
6. Category f—Sprinklers are not required throughout; sprinklers are provided throughout in accordance with Chapter 9.

**3412.6.18 Standpipes.** Evaluate the ability to initiate attack on a fire by making a supply of water available readily through the installation of standpipes in accordance with Section 905. Required standpipes shall be based on the requirements of this code. Under the categories and occupancies in Table 3412.6.18, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.18, Standpipes, for fire safety, *means of egress* and general safety.

**3412.6.18  
STANDPIPE SYSTEM VALUES**

OCCUPANCY	CATEGORIES			
	a <sup>a</sup>	b	c	d
A-1, A-3, F, M, R, S-1	-6	0	4	6
A-2	-4	0	2	4
A-4, B, E, S-2	-12	0	6	12

a. This option cannot be taken if Category a or b in Section 3412.6.17 is used.

**3412.6.18.1 Standpipe.** The categories for standpipe systems are:

1. Category a—Standpipes are required; standpipe is not provided or the standpipe system design is not in compliance with Section 905.3.
2. Category b—Standpipes are not required; none are provided.
3. Category c—Standpipes are required; standpipes are provided in accordance with Section 905.
4. Category d—Standpipes are not required; standpipes are provided in accordance with Section 905.

**3412.6.19 Incidental accessory occupancy.** Evaluate the protection of incidental accessory occupancies in accordance with Section 508.2.5. Do not include those where this code requires suppression throughout the buildings, including covered mall buildings, high-rise buildings, public garages and unlimited area buildings. Assign the lowest score from Table 3412.6.19 for the building or floor area being evaluated and enter that value into Table 3412.7 under Safety Parameter 3412.6.19, Incidental Accessory Occupancy, for fire safety, *means of egress* and general safety. If there are no specific occupancy areas in the building or floor area being evaluated, the value shall be zero.

**3412.7 Building score.** After determining the appropriate data from Section 3412.6, enter those data in Table 3412.7 and total the building score.

**3412.8 Safety scores.** The values in Table 3412.8 are the required mandatory safety scores for the evaluation process listed in Section 3412.6.

**3412.9 Evaluation of building safety.** The mandatory safety score in Table 3412.8 shall be subtracted from the building score in Table 3412.7 for each category. Where the final score for any category equals zero or more, the building is in compliance with the requirements of this section for that category. Where the final

score for any category is less than zero, the building is not in compliance with the requirements of this section.

**TABLE 3412.6.19  
INCIDENTAL ACCESSORY OCCUPANCY AREA VALUES<sup>a</sup>**

PROTECTION REQUIRED BY TABLE 508.2.5	PROTECTION PROVIDED						
	None	1 Hour	AFSS	AFSS with SP	1 Hour and AFSS	2 Hours	2 Hours and AFSS
2 Hours and AFSS	-4	-3	-2	-2	-1	-2	0
2 Hours, or 1 Hour and AFSS	-3	-2	-1	-1	0	0	0
1 Hour and AFSS	-3	-2	-1	-1	0	-1	0
1 Hour	-1	0	-1	0	0	0	0
1 Hour, or AFSS with SP	-1	0	-1	0	0	0	0
AFSS with SP	-1	-1	-1	0	0	-1	0
1 Hour or AFSS	-1	0	0	0	0	0	0

a. AFSS = Automatic fire suppression system; SP = Smoke partitions (See Section 508.2.5).

**Note:** For Table 3412.7, see next page.

**TABLE 3412.8  
MANDATORY SAFETY SCORES<sup>a</sup>**

OCCUPANCY	FIRE SAFETY (MFS)	MEANS OF EGRESS (MME)	GENERAL SAFETY (MGS)
A-1	16	27	27
A-2	19	30	30
A-3	18	29	29
A-4, E	23	34	34
B	24	34	34
F	20	30	30
M	19	36	36
R	17	34	34
S-1	15	25	25
S-2	23	33	33

a. MFS = Mandatory Fire Safety;  
MME = Mandatory Means of Egress;  
MGS = Mandatory General Safety.

**TABLE 3412.9  
EVALUATION FORMULAS<sup>a</sup>**

FORMULA	T.3410.7	T.3410.8	SCORE	PASS	FAIL
FS-MFS ≥ 0	_____ (FS)	– _____ (MFS)	= _____	_____	_____
ME-MME ≥ 0	_____ (ME)	– _____ (MME)	= _____	_____	_____
GS-MGS ≥ 0	_____ (GS)	– _____ (MGS)	= _____	_____	_____

a. FS = Fire Safety  
ME = Means of Egress  
GS = General Safety  
MFS = Mandatory Fire Safety  
MME = Mandatory Means of Egress  
MGS = Mandatory General Safety



**EXISTING STRUCTURES**

**3412.9.1 Mixed occupancies.** For mixed occupancies, the following provisions shall apply:

1. Where the separation between mixed occupancies does not qualify for any category indicated in Section 3412.6.16, the mandatory safety scores for the occupancy with the lowest general safety score in Table 3412.8 shall be utilized (see Section 3412.6.)

2. Where the separation between mixed occupancies qualifies for any category indicated in Section 3412.6.16, the mandatory safety scores for each occupancy shall be placed against the evaluation scores for the appropriate occupancy.

**TABLE 3412.7  
SUMMARY SHEET — BUILDING CODE**

Existing occupancy: _____		Proposed occupancy: _____	
Year building was constructed: _____		Number of stories: _____ Height in feet: _____	
Type of construction: _____		Area per floor: _____	
Percentage of open perimeter increase: _____%			
Completely suppressed: Yes _____ No _____		Corridor wall rating: _____	
Compartmentation: Yes _____ No _____		Required door closers: Yes _____ No _____	
Fire-resistance rating of vertical opening enclosures: _____			
Type of HVAC system: _____, serving number of floors: _____			
Automatic fire detection: Yes _____ No _____		Type and location: _____	
Fire alarm system: Yes _____ No _____		Type: _____	
Smoke control: Yes _____ No _____		Type: _____	
Adequate exit routes: Yes _____ No _____		Dead ends: _____ Yes _____ No _____	
Maximum exit access travel distance: _____		Elevator controls: Yes _____ No _____	
Means of egress emergency lighting: Yes _____ No _____		Mixed occupancies: Yes _____ No _____	

  

SAFETY PARAMETERS	FIRE SAFETY (FS)	MEANS OF EGRESS (ME)	GENERAL SAFETY (GS)
3412.6.1 Building Height 3412.6.2 Building Area 3412.6.3 Compartmentation			
3412.6.4 Tenant and Dwelling Unit Separations 3412.6.5 Corridor Walls 3412.6.6 Vertical Openings			
3412.6.7 HVAC Systems 3412.6.8 Automatic Fire Detection 3412.6.9 Fire Alarm Systems			
3412.6.10 Smoke Control 3412.6.11 Means of Egress Capacity 3412.6.12 Dead Ends	****		
3412.6.13 Maximum Exit Access Travel Distance 3412.6.14 Elevator Control 3412.6.15 Means of Egress Emergency Lighting	****		
3412.6.16 Mixed Occupancies 3412.6.17 Automatic Sprinklers 3412.6.18 Standpipes 3412.6.19 Incidental Accessory Occupancy		**** ÷ 2 =	
<b>Building score — total value</b>			

\*\*\*No applicable value to be inserted.

## CHAPTER 9

# CHANGE OF OCCUPANCY

### SECTION 901 GENERAL

**901.1 Scope.** The provisions of this chapter shall apply where a *change of occupancy* occurs, as defined in Section 202, including:

1. Where the occupancy classification is not changed, or
2. Where there is a change in occupancy classification or the occupancy group designation changes.

**901.2 Change in occupancy with no change of occupancy classification.** A change in occupancy, as defined in Section 202, with no *change of occupancy* classification shall not be made to any structure that will subject the structure to any special provisions of the applicable *International Codes*, including the provisions of Sections 902 through 911, without the approval of the *code official*. A certificate of occupancy shall be issued where it has been determined that the requirements for the change in occupancy have been met.

**901.2.1 Repair and alteration with no change of occupancy classification.** Any *repair* or *alteration* work undertaken in connection with a *change of occupancy* that does not involve a *change of occupancy* classification shall conform to the applicable requirements for the work as classified in Chapter 4 and to the requirements of Sections 902 through 911.

**Exception:** As modified in Section 1105 for historic buildings.

**901.3 Change of occupancy classification.** Where the occupancy classification of a building changes, the provisions of Sections 902 through 912 shall apply. This includes a *change of occupancy* classification within a group as well as a *change of occupancy* classification from one group to a different group.

**901.3.1 Partial change of occupancy classification.** Where a portion of an *existing building* is changed to a new occupancy classification, Section 912 shall apply.

**901.4 Certificate of occupancy required.** A certificate of occupancy shall be issued where a *change of occupancy* occurs that results in a different occupancy classification as determined by the *International Building Code*.

### SECTION 902 SPECIAL USE AND OCCUPANCY

**902.1 Compliance with the building code.** Where the character or use of an *existing building* or part of an *existing building* is changed to one of the following special use or occupancy categories as defined in the *International Building Code*, the building shall comply with all of the applicable requirements of the *International Building Code*:

1. Covered mall buildings.

2. Atriums.
3. Motor vehicle-related occupancies.
4. Aircraft-related occupancies.
5. Motion picture projection rooms.
6. Stages and platforms.
7. Special amusement buildings.
8. Incidental use areas.
9. Hazardous materials.

**902.2 Underground buildings.** An underground building in which there is a change of use shall comply with the requirements of the *International Building Code* applicable to underground structures.

### SECTION 903 BUILDING ELEMENTS AND MATERIALS

**903.1 General.** Building elements and materials in portions of buildings undergoing a *change of occupancy* classification shall comply with Section 912.

### SECTION 904 FIRE PROTECTION

**904.1 General.** Fire protection requirements of Section 912 shall apply where a building or portions thereof undergo a *change of occupancy* classification.

### SECTION 905 MEANS OF EGRESS

**905.1 General.** Means of egress in portions of buildings undergoing a *change of occupancy* classification shall comply with Section 912.

### SECTION 906 ACCESSIBILITY

**906.1 General.** Accessibility in portions of buildings undergoing a *change of occupancy* classification shall comply with Section 912.8.

### SECTION 907 STRUCTURAL

**907.1 Gravity loads.** Buildings or portions thereof subject to a *change of occupancy* where such change in the nature of occupancy results in higher uniform or concentrated loads based on Tables 1607.1 and 1607.6 of the *International Building Code*

## CHANGE OF OCCUPANCY

shall comply with the gravity load provisions of the *International Building Code*.

**Exception:** Structural elements whose stress is not increased by more than 5 percent.

**907.2 Snow and wind loads.** Buildings and structures subject to a *change of occupancy* where such change in the nature of occupancy results in higher wind or snow occupancy categories based on Table 1604.5 of the *International Building Code* shall be analyzed and shall comply with the applicable wind or snow load provisions of the *International Building Code*.

**Exception:** Where the new occupancy with a higher importance factor is less than or equal to 10 percent of the total building floor area. The cumulative effect of the area of occupancy changes shall be considered for the purposes of this exception.

**907.3 Seismic loads.** Existing buildings with a *change of occupancy* shall comply with the seismic provisions of Sections 907.3.1 and 907.3.2.

**907.3.1 Compliance with the International Building Code level seismic forces.** Where a building or portion thereof is subject to a *change of occupancy* that results in the building being assigned to a higher occupancy category based on Table 1604.5 of the *International Building Code*; or where such *change of occupancy* results in a reclassification of a building to a higher hazard category as shown in Table 912.4; or where a change of a Group M occupancy to a Group A, E, I-1, R-1, R-2 or R-4 occupancy with two-thirds or more of the floors involved in Level 3 *alteration* work, the building shall comply with the requirements for *International Building Code* level seismic forces as specified in Section 101.5.4.1 for the new occupancy category.

### Exceptions:

1. Group M occupancies being changed to Group A, E, I-1, R-1, R-2 or R-4 occupancies for buildings less than six stories in height and in Seismic Design Category A, B or C.
2. Where approved by the *code official*, specific detailing provisions required for a new structure are not required to be met where it can be shown that an equivalent level of performance and seismic safety is obtained for the applicable occupancy category based on the provision for reduced *International Building Code* level seismic forces as specified in Section 101.5.4.2.
3. Where the area of the new occupancy with a higher hazard category is less than or equal to 10 percent of the total building floor area and the new occupancy is not classified as Occupancy Category IV. For the purposes of this exception, buildings occupied by two or more occupancies not included in the same occupancy category, shall be subject to the provisions of Section 1604.5.1 of the *International Building Code*. The cumulative effect of the area of occupancy changes shall be considered for the purposes of this exception.

4. Unreinforced masonry bearing wall buildings in Occupancy Category III when assigned to Seismic Design Category A or B shall be allowed to be strengthened to meet the requirements of Appendix Chapter A1 of this code [Guidelines for the Seismic Retrofit of Existing Buildings (GSREB)].

**907.3.2 Access to Occupancy Category IV.** Where a *change of occupancy* is such that compliance with Section 907.3.1 is required and the building is assigned to Occupancy Category IV, the operational access to the building shall not be through an adjacent structure, unless that structure conforms to the requirements for Occupancy Category IV structures. Where operational access is less than 10 feet (3048 mm) from either an interior lot line or from another structure, access protection from potential falling debris shall be provided by the owner of the Occupancy Category IV structure.

## SECTION 908 ELECTRICAL

**908.1 Special occupancies.** Where the occupancy of an *existing building* or part of an *existing building* is changed to one of the following special occupancies as described in NFPA 70, the electrical wiring and equipment of the building or portion thereof that contains the proposed occupancy shall comply with the applicable requirements of NFPA 70 whether or not a *change of occupancy* group is involved:

1. Hazardous locations.
2. Commercial garages, *repair*, and storage.
3. Aircraft hangars.
4. Gasoline dispensing and service stations.
5. Bulk storage plants.
6. Spray application, dipping, and coating processes.
7. Health care facilities.
8. Places of assembly.
9. Theaters, audience areas of motion picture and television studios, and similar locations.
10. Motion picture and television studios and similar locations.
11. Motion picture projectors.
12. Agricultural buildings.

**908.2 Unsafe conditions.** Where the occupancy of an *existing building* or part of an *existing building* is changed, all unsafe conditions shall be corrected without requiring that all parts of the electrical system comply with NFPA 70.

**908.3 Service upgrade.** Where the occupancy of an *existing building* or part of an *existing building* is changed, electrical service shall be upgraded to meet the requirements of NFPA 70 for the new occupancy.

**908.4 Number of electrical outlets.** Where the occupancy of an *existing building* or part of an *existing building* is changed,

the number of electrical outlets shall comply with NFPA 70 for the new occupancy.

### SECTION 909 MECHANICAL

**909.1 Mechanical requirements.** Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new occupancy is subject to different kitchen exhaust requirements or to increased mechanical ventilation requirements in accordance with the *International Mechanical Code*, the new occupancy shall comply with the intent of the respective *International Mechanical Code* provisions.

### SECTION 910 PLUMBING

**910.1 Increased demand.** Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the *International Plumbing Code*, the new occupancy shall comply with the intent of the respective *International Plumbing Code* provisions.

**910.2 Food-handling occupancies.** If the new occupancy is a food-handling establishment, all existing sanitary waste lines above the food or drink preparation or storage areas shall be panned or otherwise protected to prevent leaking pipes or condensation on pipes from contaminating food or drink. New drainage lines shall not be installed above such areas and shall be protected in accordance with the *International Plumbing Code*.

**910.3 Interceptor required.** If the new occupancy will produce grease or oil-laden wastes, interceptors shall be provided as required in the *International Plumbing Code*.

**910.4 Chemical wastes.** If the new occupancy will produce chemical wastes, the following shall apply:

1. If the existing piping is not compatible with the chemical waste, the waste shall be neutralized prior to entering the drainage system, or the piping shall be changed to a compatible material.
2. No chemical waste shall discharge to a public sewer system without the approval of the sewage authority.

**910.5 Group I-2.** If the occupancy group is changed to Group I-2, the plumbing system shall comply with the applicable requirements of the *International Plumbing Code*.

### SECTION 911 OTHER REQUIREMENTS

**911.1 Light and ventilation.** Light and ventilation shall comply with the requirements of the *International Building Code* for the new occupancy.

### SECTION 912 CHANGE OF OCCUPANCY CLASSIFICATION

**912.1 General.** The provisions of this section shall apply to buildings or portions thereof undergoing a change of occupancy classification. This includes a change of occupancy classification within a group as well as a change of occupancy classification from one group to a different group. Such buildings shall also comply with Sections 902 through 911. The application of requirements for the change of occupancy shall be as set forth in Sections 912.1.1 through 912.1.4. A change of occupancy, as defined in Section 202, without a corresponding change of occupancy classification shall comply with Section 901.2.

**912.1.1 Compliance with Chapter 8.** The requirements of Chapter 8 shall be applicable throughout the building for the new occupancy classification based on the separation conditions set forth in Sections 912.1.1.1 and 912.1.1.2.

**912.1.1.1 Change of occupancy classification without separation.** Where a portion of an *existing building* is changed to a new occupancy classification and that portion is not separated from the remainder of the building with fire barriers having a fire-resistance rating as required in the *International Building Code* for the separate occupancy, the entire building shall comply with all of the requirements of Chapter 8 applied throughout the building for the most restrictive occupancy classification in the building and with the requirements of this chapter.

**912.1.1.2 Change of occupancy classification with separation.** Where a portion of an *existing building* that is changed to a new occupancy classification and that portion is separated from the remainder of the building with fire barriers having a fire-resistance rating as required in the *International Building Code* for the separate occupancy, that portion shall comply with all the requirements of Chapter 8 for the new occupancy classification and with the requirements of this chapter.

**912.1.2 Fire protection and interior finish.** The provisions of Sections 912.2 and 912.3 for fire protection and interior finish, respectively, shall apply to all buildings undergoing a change of occupancy classification.

**912.1.3 Change of occupancy classification based on hazard category.** The relative degree of hazard between different occupancy classifications shall be determined in accordance with the category specified in Tables 912.4, 912.5 and 912.6. Such a determination shall be the basis for the application of Sections 912.4 through 912.7.

**912.1.4 Accessibility.** All buildings undergoing a *change of occupancy* classification shall comply with Section 912.8.

**912.2 Fire protection systems.** Fire protection systems shall be provided in accordance with Sections 912.2.1 and 912.2.2.

**912.2.1 Fire sprinkler system.** Where a change in occupancy classification occurs that requires an automatic fire sprinkler system to be provided based on the new occupancy in accordance with Chapter 9 of the *International Building Code*, such system shall be provided throughout the area where the *change of occupancy* occurs.

**912.2.2 Fire alarm and detection system.** Where a change in occupancy classification occurs that requires a fire alarm and detection system to be provided based on the new occupancy in accordance with Chapter 9 of the *International Building Code*, such system shall be provided throughout the area where the *change of occupancy* occurs. Existing alarm notification appliances shall be automatically activated throughout the building. Where the building is not equipped with a fire alarm system, alarm notification appliances shall be provided throughout the area where the *change of occupancy* occurs and shall be automatically activated.

**912.3 Interior finish.** In areas of the building undergoing the change of occupancy classification, the interior finish of walls and ceilings shall comply with the requirements of the *International Building Code* for the new occupancy classification.

**912.4 Means of egress, general.** Hazard categories in regard to life safety and means of egress shall be in accordance with Table 912.4.

**TABLE 912.4  
MEANS OF EGRESS HAZARD CATEGORIES**

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	I-2, I-3, I-4
3	A, E, I-1, M, R-1, R-2, R-4
4	B, F-1, R-3, S-1
5 (Lowest Hazard)	F-2, S-2, U

**912.4.1 Means of egress for change to higher hazard category.** When a change of occupancy classification is made to a higher hazard category (lower number) as shown in Table 912.4, the means of egress shall comply with the requirements of Chapter 10 of the *International Building Code*.

**Exceptions:**

1. Stairways shall be enclosed in compliance with the applicable provisions of Section 803.1.
2. Existing stairways including handrails and guards complying with the requirements of Chapter 8 shall be permitted for continued use subject to approval of the *code official*.
3. Any stairway replacing an existing stairway within a space where the pitch or slope cannot be reduced because of existing construction shall not be required to comply with the maximum riser height and minimum tread depth requirements.
4. Existing corridor walls constructed of wood lath and plaster in good condition or 1/2-inch-thick (12.7 mm) gypsum wallboard shall be permitted. Such walls shall either terminate at the underside of a ceiling of equivalent construction or extend to the underside of the floor or roof next above.
5. Existing corridor doorways, transoms and other corridor openings shall comply with the requirements in Sections 705.5.1, 705.5.2 and 705.5.3.

6. Existing dead-end corridors shall comply with the requirements in Section 705.6.
7. An existing operable window with clear opening area no less than 4 square feet (0.38 m<sup>2</sup>) and minimum opening height and width of 22 inches (559 mm) and 20 inches (508 mm), respectively, shall be accepted as an emergency escape and rescue opening.

**912.4.2 Means of egress for change of use to equal or lower hazard category.** When a change of occupancy classification is made to an equal or lesser hazard category (higher number) as shown in Table 912.4, existing elements of the means of egress shall comply with the requirements of Section 805 for the new occupancy classification. Newly constructed or configured means of egress shall comply with the requirements of Chapter 10 of the *International Building Code*.

**Exception:** Any stairway replacing an existing stairway within a space where the pitch or slope cannot be reduced because of existing construction shall not be required to comply with the maximum riser height and minimum tread depth requirements.

**912.4.3 Egress capacity.** Egress capacity shall meet or exceed the occupant load as specified in the *International Building Code* for the new occupancy.

**912.4.4 Handrails.** Existing stairways shall comply with the handrail requirements of Section 705.9 in the area of the change of occupancy classification.

**912.4.5 Guards.** Existing guards shall comply with the requirements in Section 705.10 in the area of the change of occupancy classification.

**912.5 Heights and areas.** Hazard categories in regard to height and area shall be in accordance with Table 912.5.

**TABLE 912.5  
HEIGHTS AND AREAS HAZARD CATEGORIES**

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	A-1, A-2, A-3, A-4, I, R-1, R-2, R-4
3	E, F-1, S-1, M
4 (Lowest Hazard)	B, F-2, S-2, A-5, R-3, U

**912.5.1 Height and area for change to higher hazard category.** When a change of occupancy classification is made to a higher hazard category as shown in Table 912.5, heights and areas of buildings and structures shall comply with the requirements of Chapter 5 of the *International Building Code* for the new occupancy classification.

**Exception:** In other than Groups H, F-1 and S-1, in lieu of fire walls, use of fire barriers having a fire-resistance rating of not less than that specified in Table 706.4 of the *International Building Code*, constructed in accordance with Section 707 of the *International Building Code*, shall be permitted to meet area limitations required for the new occupancy in buildings protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the *International Fire Code*.

**912.5.2 Height and area for change to equal or lesser hazard category.** When a change of occupancy classification is made to an equal or lesser hazard category as shown in Table 912.5, the height and area of the *existing building* shall be deemed acceptable.

**912.5.3 Fire barriers.** When a change of occupancy classification is made to a higher hazard category as shown in Table 912.5, fire barriers in separated mixed-use buildings shall comply with the fire resistance requirements of the *International Building Code*.

**Exception:** Where the fire barriers are required to have a 1-hour fire-resistance rating, existing wood lath and plaster in good condition or existing 1/2-inch-thick (12.7 mm) gypsum wallboard shall be permitted.

**912.6 Exterior wall fire-resistance ratings.** Hazard categories in regard to fire-resistance ratings of exterior walls shall be in accordance with Table 912.6.

TABLE 912.6  
EXPOSURE OF EXTERIOR WALLS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATION
1 (Highest Hazard)	H
2	F-1, M, S-1
3	A, B, E, I, R
4 (Lowest Hazard)	F-2, S-2, U

**912.6.1 Exterior wall rating for change of occupancy classification to a higher hazard category.** When a change of occupancy classification is made to a higher hazard category as shown in Table 912.6, exterior walls shall have fire resistance and exterior opening protectives as required by the *International Building Code*.

**Exception:** A 2-hour fire-resistance rating shall be allowed where the building does not exceed three stories in height and is classified as one of the following groups: A-2 and A-3 with an occupant load of less than 300, B, F, M or S.

**912.6.2 Exterior wall rating for change of occupancy classification to an equal or lesser hazard category.** When a change of occupancy classification is made to an equal or lesser hazard category as shown in Table 912.6, existing exterior walls, including openings, shall be accepted.

**912.6.3 Opening protectives.** Openings in exterior walls shall be protected as required by the *International Building Code*. Where openings in the exterior walls are required to be protected because of their distance from the property line, the sum of the area of such openings shall not exceed 50 percent of the total area of the wall in each story.

**Exceptions:**

1. Where the *International Building Code* permits openings in excess of 50 percent.
2. Protected openings shall not be required in buildings of Group R occupancy that do not exceed three stories in height and that are located not less than 3 feet (914 mm) from the property line.

3. Where exterior opening protectives are required, an automatic sprinkler system throughout may be substituted for opening protection.
4. Exterior opening protectives are not required when the change of occupancy group is to an equal or lower hazard classification in accordance with Table 912.6

**912.7 Enclosure of vertical shafts.** Enclosure of vertical shafts shall be in accordance with Sections 912.7.1 through 912.7.4.

**912.7.1 Minimum requirements.** Vertical shafts shall be designed to meet the *International Building Code* requirements for atriums or the requirements of this section.

**912.7.2 Stairways.** When a change of occupancy classification is made to a higher hazard category as shown in Table 912.4, interior stairways shall be enclosed as required by the *International Building Code*.

**Exceptions:**

1. In other than Group I occupancies, an enclosure shall not be required for openings serving only one adjacent floor and that are not connected with corridors or stairways serving other floors.
2. Unenclosed existing stairways need not be enclosed in a continuous vertical shaft if each story is separated from other stories by 1-hour fire-resistance-rated construction or approved wired glass set in steel frames and all exit corridors are sprinklered. The openings between the corridor and the occupant space shall have at least one sprinkler head above the openings on the tenant side. The sprinkler system shall be permitted to be supplied from the domestic water-supply systems, provided the system is of adequate pressure, capacity, and sizing for the combined domestic and sprinkler requirements.
3. Existing penetrations of stairway enclosures shall be accepted if they are protected in accordance with the *International Building Code*.

**912.7.3 Other vertical shafts.** Interior vertical shafts other than stairways, including but not limited to elevator hoistways and service and utility shafts, shall be enclosed as required by the *International Building Code* when there is a change of use to a higher hazard category as specified in Table 912.4.

**Exceptions:**

1. Existing 1-hour interior shaft enclosures shall be accepted where a higher rating is required.
2. Vertical openings, other than stairways, in buildings of other than Group I occupancy and connecting less than six stories shall not be required to be enclosed if the entire building is provided with an approved automatic sprinkler system.

**912.7.4 Openings.** All openings into existing vertical shaft enclosures shall be protected by fire assemblies having a fire-protection rating of not less than 1 hour and shall be

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maintained self-closing or shall be automatic closing by actuation of a smoke detector. All other openings shall be fire protected in an approved manner. Existing fusible link-type automatic door-closing devices shall be permitted in all shafts except stairways if the fusible link rating does not exceed 135°F (57°C).

**912.8 Accessibility.** Existing buildings that undergo a change of group or occupancy classification shall comply with this section.

**912.8.1 Partial change in occupancy.** Where a portion of the building is changed to a new occupancy classification, any alterations shall comply with Sections 605 and 706, as applicable.

**912.8.2 Complete change of occupancy.** Where an entire building undergoes a *change of occupancy*, it shall comply with Section 912.8.1 and shall have all of the following accessible features:

1. At least one accessible building entrance.
2. At least one accessible route from an accessible building entrance to *primary function* areas.
3. Signage complying with Section 1110 of the *International Building Code*.
4. Accessible parking, where parking is provided.
5. At least one accessible passenger loading zone, where loading zones are provided.
6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.

Where it is *technically infeasible* to comply with the new construction standards for any of these requirements for a change of group or occupancy, the above items shall conform to the requirements to the maximum extent technically feasible.

2. Electrical or communication receptacles serving a dedicated use shall not be required to be *accessible*.
3. Where two or more outlets are provided in a kitchen above a length of counter top that is uninterrupted by a sink or appliance, one outlet shall not be required to be *accessible*.
4. Floor electrical receptacles shall not be required to be *accessible*.
5. HVAC diffusers shall not be required to be *accessible*.
6. Except for light switches, where redundant controls are provided for a single element, one control in each space shall not be required to be *accessible*.
7. Access doors or gates in barrier walls and fences protecting pools, spas and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches (1370 mm) maximum and 48 inches minimum above the finished floor or ground, provided the self-latching devices are not also self-locking devices, operated by means of a key, electronic opener, or integral combination lock.

**1109.12.1 Operable window.** Where operable windows are provided in rooms that are required to be *accessible* in accordance with Sections 1107.5.1.1, 1107.5.2.1, 1107.5.3.1, 1107.5.4, 1107.6.1.1, 1107.6.2.1.1, 1107.6.2.2.1 and 1107.6.4.1, at least one window in each room shall be *accessible* and each required operable window shall be *accessible*.

**Exception:** *Accessible* windows are not required in bathrooms and kitchens.

**1109.13 Fuel-dispensing systems.** Fuel-dispensing systems shall comply with ICC A117.1.

**1109.14 Recreational and sports facilities.** Recreational and sports facilities shall be provided with *accessible* features in accordance with Sections 1109.14.1 through 1109.14.4.

**1109.14.1 Facilities serving a single building.** In Group R-2 and R-3 occupancies where recreational facilities are provided serving a single building containing *Type A units* or *Type B units*, 25 percent, but not less than one, of each type of recreational facility shall be *accessible*. Every recreational facility of each type on a site shall be considered to determine the total number of each type that is required to be *accessible*.

**1109.14.2 Facilities serving multiple buildings.** In Group R-2 and R-3 occupancies on a single *site* where multiple buildings containing *Type A units* or *Type B units* are served by recreational facilities, 25 percent, but not less than one, of each type of recreational facility serving each building shall be *accessible*. The total number of each type of recreational facility that is required to be *accessible* shall be determined by considering every recreational facility of each type serving each building on the site.

**1109.14.3 Other occupancies.** All recreational and sports facilities not falling within the purview of Section 1109.14.1 or 1109.14.2 shall be *accessible*.

**1109.14.4 Recreational and sports facilities exceptions.** Recreational and sports facilities required to be *accessible* shall be exempt from this chapter to the extent specified in this section.

**1109.14.4.1 Bowling lanes.** An *accessible route* shall be provided to at least 5 percent, but no less than one, of each type of bowling lane.

**1109.14.4.2 Court sports.** In court sports, at least one *accessible route* shall directly connect both sides of the court.

**1109.14.4.3 Raised boxing or wrestling rings.** Raised boxing or wrestling rings are not required to be *accessible*.

**1109.14.4.4 Raised refereeing, judging and scoring areas.** Raised structures used solely for refereeing, judging or scoring a sport are not required to be *accessible*.

**1109.14.4.5 Raised diving boards and diving platforms.** Raised diving boards and diving platforms are not required to be *accessible*.

## SECTION 1110 SIGNAGE

**1110.1 Signs.** Required *accessible* elements shall be identified by the International Symbol of Accessibility at the following locations:

1. *Accessible* parking spaces required by Section 1106.1 except where the total number of parking spaces provided is four or less.
2. *Accessible* passenger loading zones.
3. *Accessible* rooms where multiple single-user toilet or bathing rooms are clustered at a single location.
4. *Accessible* entrances where not all entrances are accessible.
5. *Accessible* check-out aisles where not all aisles are accessible. The sign, where provided, shall be above the check-out aisle in the same location as the check-out aisle number or type of check-out identification.
6. Unisex toilet and bathing rooms.
7. *Accessible* dressing, fitting and locker rooms where not all such rooms are *accessible*.
8. *Accessible areas of refuge* in accordance with Section 1007.9.
9. Exterior areas for assisted rescue in accordance with Section 1007.9.

**1110.2 Directional signage.** Directional signage indicating the route to the nearest like *accessible* element shall be provided at the following locations. These directional signs shall include the International Symbol of Accessibility:

1. Inaccessible building entrances.
2. Inaccessible public toilets and bathing facilities.
3. Elevators not serving an *accessible route*.



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4. At each separate-sex toilet and bathing room indicating the location of the nearest family or assisted-use toilet or bathing room where provided in accordance with Section 1109.2.1.
5. At *exits* and *exit stairways* serving a required *accessible* space, but not providing an *approved accessible means of egress*, signage shall be provided in accordance with Section 1007.10.

**1110.3 Other signs.** Signage indicating special accessibility provisions shall be provided as shown:

1. Each assembly area required to comply with Section 1108.2.7 shall provide a sign notifying patrons of the availability of assistive listening systems.

**Exception:** Where ticket offices or windows are provided, signs are not required at each assembly area provided that signs are displayed at each ticket office or window informing patrons of the availability of assistive listening systems.

2. At each door to an *area of refuge*, an exterior area for assisted rescue, an egress *stairway*, *exit passageway* and *exit discharge*, signage shall be provided in accordance with Section 1011.3.
3. At *areas of refuge*, signage shall be provided in accordance with Section 1007.11.
4. At exterior areas for assisted rescue, signage shall be provided in accordance with Section 1007.11.
5. At two-way communication systems, signage shall be provided in accordance with Section 1007.8.2.
6. Within *exit enclosures*, signage shall be provided in accordance with Section 1022.8.