

**DISTRICT OF COLUMBIA
DEPARTMENT OF CONSUMER AND REGULATORY AFFAIRS**

NOTICE OF FINAL RULEMAKING

ERRATA

The Director of the Department of Consumer and Regulatory Affairs (DCRA) published, in the D.C. Register at 51 DCR 292, January 9, 2004, a Notice of Final Rulemaking adopting Title 12 of the District of Columbia Municipal Regulations (DCMR), the Construction Codes Supplement of 2003; 2000 edition of the International Code Council (ICC) International Building Code; the 2000 edition of the ICC International Residential Code; the 2000 edition of the ICC International Fuel Gas Code; the 2000 edition of the ICC International Mechanical Code; the 2000 edition of the ICC International Plumbing Code; the 2000 edition of the ICC International Property Maintenance Code; the 2000 edition of the ICC International Fire Code; the 2000 edition of the ICC International Energy Conservation Code; the D.C. Existing Buildings Code Supplement of 2003 and; the 1996 edition of the NFPA National Electrical Code.

The notice failed to include the text of the D.C. Existing Buildings Code Supplement of 2003 (DCMR 12 J). The text of DCMR 12J was included in the proposed rulemaking and was approved by the Council of the District of Columbia on December 2, 2003.

On January 30, 2004 an ERRATA was published to correct the omission and publish the text of the D.C. Existing Buildings Code Supplement of 2003 (DCMR 12 J). The January 30th ERRATA failed to contain all of the chapters of DCMR 12J. The entire index and text are set forth below.

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**DISTRICT OF COLUMBIA
BUILDING CODE SUPPLEMENT OF 2003
DCMR 12J
EXISTING BUILDINGS CODE**

**CHAPTER 1
ADMINISTRATION AND ENFORCEMENT**

SECTION EX-101 GENERAL

Administration and enforcement of this Code shall be governed by Chapter 1 of Title 12A of the District of Columbia Municipal Regulations.

[RESERVED]

CHAPTER 2 DEFINITIONS

SECTION EX-201 GENERAL

EX-201.1 Scope. Unless otherwise expressly stated, the following words and terms shall, for the purposes of this code, have the meanings shown in this chapter.

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

EX-201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the other *Construction Codes*, such terms shall have the meanings ascribed to them as in those codes.

EX-201.4 Terms not defined. Where terms are not defined through the methods authorized by this chapter, such terms shall have ordinarily accepted meanings such as the context implies.

SECTION EX-202 GENERAL DEFINITIONS

Addition. An extension or increase in the building area, aggregate floor area, height, or number of stories of a building or structure.

Alteration. Any construction or renovation to an existing structure other than repair or addition, including: (1) reconfiguration of any space; (2) addition or elimination of any door or window; (3) reconfiguration or extension of any system; or (4) installation of any additional equipment. Alterations are classified as Level 1, Level 2 and Level 3.

Change of Occupancy. A change in the purpose or level of activity within a building or structure that involves a change in application of the requirements of this code.

Dangerous. Any building or structure or any individual **structural** member with any of the structural conditions or defects described below shall be deemed dangerous:

1. The stress in a member or portion thereof, due to all factored dead and live loads, is more than one and one third the nominal strength allowed in the *Building Code* for new buildings of similar structure, purpose or location;
2. Any portion, member or appurtenance thereof likely to fail, or to become detached or dislodged, or to collapse and thereby injure persons;

3. Any portion of a building, or any member, appurtenance or ornamentation on the exterior thereof is not of sufficient strength or stability, or is not so anchored, attached or fastened in place so as to be capable of resisting a wind pressure of two thirds of that specified in the *Building Code* for new buildings of similar structure, purpose or location without exceeding the nominal strength permitted in the *Building Code* for such buildings;
4. The building, or any portion thereof, is likely to partially or completely collapse because of (a) dilapidation, deterioration or decay; (b) construction in violation of the *Building Code*; (c) the removal, movement or instability of any portion of the ground necessary for the purpose of supporting such building; (d) the deterioration, decay or inadequacy of its foundation; (e) damage due to fire, earthquake, wind or flood; or (f) any other similar cause; or
5. The exterior walls or other vertical structural members list, lean or buckle to such an extent that a plumb line passing through the center of gravity does not fall inside the middle one third of the base.

Equipment or Fixture. Any plumbing, heating, electrical, ventilating, air conditioning, refrigerating and fire protection equipment, and elevators, dumb waiters, escalators, boilers, pressure vessels and other mechanical facilities or installations, which are related to building services. Equipment or fixture shall not include manufacturing, production or process equipment, but shall include connections from building service to process equipment.

Existing Building. A building or structure that was erected and occupied or issued a certificate of occupancy at least one year before a construction permit application for renovation of that building or structure was made to DCRA.

Fire Resistance Rating. The fire resistance ratings of building assemblies and structural elements shall be determined in accordance Section 703 of the *Building Code*. The fire resistance rating of existing building assemblies which have not been rated in accordance with Section 703 of the *Building Code* shall be determined in accordance with the procedures set forth in *HUD Guideline of Fire Ratings of Archaic Materials and Assemblies*, as listed in Chapter 14.

Flood Hazard Area. The greater of the following two areas:

1. The area within a flood plain subject to a 1 percent or greater chance of flooding in any year; or
2. The area designated as a flood hazard area on a community's flood hazard map, or otherwise legally designated.

Historic Building. Any building or structure that is (a) listed in the State or National Register of Historic Places, (b) designated as a historic property under local or state designation, law, or survey, (c) certified as a contributing resource within a National Register listed or locally designated historic district, or (d) with an opinion or certification that the property is eligible to be listed on the National

or State Registers of Historic Places either individually or as a contributing building to a historic district by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places.

Load Bearing Element. Any column, girder, beam, joist, truss, rafter, wall, floor or roof sheathing which supports any vertical load in addition to its own weight, and/or any lateral load.

Rehabilitation. Any construction work undertaken in an existing building that includes repair, renovation, modification, reconstruction, change of occupancy or addition.

Rehabilitation, Seismic. Work conducted to improve the seismic lateral force resistance of an existing building.

Renovation. The change, strengthening, or addition of load bearing elements; or the refinishing, replacing, bracing, strengthening, upgrading, or extensive repair of existing materials, elements, components, equipment, or fixtures. The term "renovation" shall not include reconfiguration of space or interior or exterior painting.

Repair The patching, restoration, or minor replacement of materials, elements, components, equipment, or fixtures for the purpose of maintaining these materials, elements, components, equipment, or fixtures in good or sound condition.

Seismic Loading. The assumed forces prescribed herein, related to the response of the structure to earthquake motions, to be used in the analysis and design of the structure and its components.

Substantial Damage. For the purpose of determining compliance with the flood provisions of this code, damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial Improvement. For the purpose of determining compliance with the flood provisions of this code, any repair, alteration, addition, or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a building required to correct existing health, sanitary or safety code violations identified by the code official and that are the minimum necessary to assure safe living conditions; or
2. Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

Substantial Structural Damage. A condition where:

1. In any story, the vertical elements of the lateral force resisting system, in any direction and taken as a whole, have suffered damage such that the lateral load-carrying capacity has been reduced by more than 20 percent from its pre-damaged condition; or
2. The vertical load carrying components supporting more than 30 percent of the structure's floor or roof area have suffered a reduction in vertical load carrying capacity to below 75% of the *Building Code* required strength levels calculated by either the strength or allowable stress method.

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 that are in full and strict compliance with the minimum requirements for new construction and which are necessary to provide accessibility.

Unsafe Buildings or Equipment. Buildings or existing equipment that are unsanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or which involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe condition.

Work Area. That portion or portions of a building consisting of all repaired, altered or reconfigured spaces as indicated on the construction documents. Work area excludes other portions of the building where incidental work entailed by the intended work must be performed, and portions of the building where work not initially intended by the owner is specifically required by this code.

CHAPTER 3 CLASSIFICATION OF WORK

SECTION EX-301 GENERAL

EX-301.1 Scope. The work performed on an existing building shall be classified in accordance with this chapter.

EX-301.2 Work area. The work area, as defined in Chapter 2, shall be identified on the construction documents.

EX-301.3 Compliance alternatives. The provisions of Chapters 4 through 10 are not applicable where the building complies with Chapter 12.

EX-301.4 Occupancy and Use. When determining the appropriate application of the referenced sections of this code, the occupancy and use of a building shall be determined in accordance with Chapter 3 of the *Building Code*.

SECTION EX-302 REPAIRS

EX-302.1 Scope. Repairs, as defined in Chapter 2, include the patching or restoration of materials, elements, equipment or fixtures for the purpose of maintaining such materials, elements, equipment or fixtures in good or sound condition.

EX-302.2 Application. Repairs shall comply with the provisions of Chapter 4.

SECTION EX-303 ALTERATION - LEVEL 1

EX-303.1 Scope. Level 1 alterations include the removal and replacement, or the covering of existing materials, elements, equipment or fixtures using new materials, elements, equipment or fixtures that serve the same purpose.

EX-303.2 Application. Level 1 alterations shall comply with the provisions of Chapter 5.

SECTION EX-304 ALTERATION - LEVEL 2

EX-304.1 Scope. Level 2 alterations include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.

EX-304.2 Application. Level 2 alterations shall comply with the provisions of Chapter 5 for Level 1 alterations as well as the provisions of Chapter 6.

SECTION EX-305 ALTERATION - LEVEL 3

EX-305.1 Scope. Level 3 alterations apply where the work area exceeds 50% of the aggregate area of the building

EX-305.2 Application. Level 3 alterations shall comply with the provisions of Chapters 5 and 6 for Level 1 and 2 alterations, respectively, as well as the provisions of Chapter 7.

SECTION EX-306 CHANGE OF OCCUPANCY

EX-306.1 Scope. Change of occupancy provisions apply where the activity is classified a change of occupancy as defined in Chapter 2.

EX-306.2 Application. Changes of occupancy shall comply with the provisions of Chapter 8.

SECTION EX-307 ADDITIONS

EX-307.1 Scope. Provisions for additions shall apply where work is classified an addition as defined in Chapter 2.

EX-307.2 Application. Additions to existing buildings shall comply with the provisions of Chapter 9.

SECTION EX-308 HISTORIC BUILDINGS

EX-308.1 Scope. Historic buildings provisions shall apply to buildings classified as historic as defined in Chapter 2.

EX-308.2 Application. Except as specifically provided for in Chapter 10, historic buildings shall comply with applicable provisions of this code for the type of work being performed

SECTION EX-309 RELOCATED BUILDINGS

EX-309.1 Scope. Relocated buildings provisions shall apply to relocated or moved buildings.

EX-309.2 Application. Relocated buildings shall comply with the provisions of Chapter 11.

CHAPTER 4 REPAIRS

SECTION EX-401 GENERAL

EX-401.1 Scope. Repairs, as described in Section EX-302, shall comply with the requirements of this Chapter. Repairs to historic buildings shall comply with this chapter, except as modified in Chapter 10.

EX-401.2 Permitted materials. Except as otherwise required herein, work shall be done using materials permitted by the applicable code for new construction or using like materials such that no hazard to life, health or property is created.

EX-401.3 Design values for existing materials and construction: The incorporation of existing materials, construction and detailing into the structural system shall be permitted when approved by the code official. Minimum quality levels and maximum strength values shall comply with the *Existing Buildings Code*.

EX-401.4 Conformance. The work shall not make the building less conforming with the building, plumbing, mechanical, fuel gas, electrical or fire codes of the District of Columbia, or with alternative materials, design and methods of construction or any previously approved plans, modifications, alternate methods or compliance alternatives, than it was before the repair was undertaken.

EX-401.5 Flood hazard areas. In flood hazard areas, repairs that constitute substantial improvement shall require that the building comply with *Building Code* Section 1612.

SECTION EX-402 SPECIAL USE AND OCCUPANCY

EX-402.1 General. Repair of buildings, classified as special use or occupancy as described in the *Building Code*, shall comply with the requirements of this chapter.

SECTION EX-403 BUILDING ELEMENTS AND MATERIALS

EX-403.1 Hazardous materials. Hazardous materials no longer permitted, such as asbestos and lead-based paint, shall not be used.

EX-403.2 Glazing in hazardous locations. Replacement glazing in hazardous locations shall comply with the Safety Glazing requirements of the *Building Code* or *Residential Code* as applicable.

Exception: Glass block walls, louvered windows and jalousies repaired with like materials.

SECTION EX-404 FIRE PROTECTION

EX-404.1 General. Repairs shall be done in a manner that maintains the level of fire protection provided.

SECTION EX-405 MEANS OF EGRESS

EX-405.1 General. Repairs shall be done in a manner that maintains the level of protection provided for the means of egress.

SECTION EX-406 ACCESSIBILITY

EX-406.1 General. Repairs shall be done in a manner that maintains the level of accessibility provided.

SECTION EX-407 STRUCTURAL

EX-407.1 General. Repairs of structural elements shall comply with this section.

EX-407.1.1 Seismic Design. Seismic evaluation and design of an existing building and its components shall be based upon the assumed forces related to the response of the structure to earthquake motions,

EX-407.1.1.1 Evaluation and design procedures. The seismic evaluation and design of an existing building shall be based upon the procedures specified in the *Building Code*, ASCE 31-XX, or FEMA 356.

EX-407.1.1.2 IBC level seismic forces. When seismic forces are required to meet the *Building Code* level, they shall be based upon 100% of the values in the *Building Code* or FEMA 356. Where FEMA 356 is used, the FEMA 356 Basic Safety Objective (BSO) shall be used for buildings in Seismic Use Group I. For Buildings in other Seismic Use Groups the applicable FEMA 356 performance levels shown in Table EX-407.1.1.2 for BSE-1 and BSE-2 Earthquake Hazard Levels shall be used.

EX-407.1.1.3 Reduced IBC level seismic forces. When seismic forces are allowed to meet reduced *Building Code* levels, they shall be based upon 75% of the assumed forces prescribed in the *Building Code*, the applicable performance level of ASCE 31-XX as shown in Table EX-407.1.1.2, or the applicable performance level for the BSE-1 Earthquake Hazard Level of FEMA 356 shown in Table EX-407.1.1.2.

**TABLE EX-407.1.1.2
IBC SEISMIC USE GROUP EQUIVALENTS TO FEMA 356
AND ASCE 31-XX PERFORMANCE LEVELS (NOTE 1)**

Seismic Use Group (Based on IBC Table 1604.5)	Performance Levels of ASCE 31-XX and FEMA 356 BSE-1 Earthquake Hazard Level	Performance Levels of FEMA 356 BSE-2 Earthquake Hazard Level
I	Life Safety (LS)	Collapse Prevention (CP)
II	Note 2	Note 2
III	Immediate Occupancy (IO)	Life Safety (LS)
IV	Life Safety (LS)	Collapse Prevention (CP)

Notes :

1. The charging provisions for Seismic Use Group equivalents to ASCE 31-XX and FEMA 356 BSE-1 for Reduced *Building Code* Level Seismic Forces are in Section EX-407.1.1.3.
2. Performance Levels for Seismic Use Group II shall be taken as half way between the Performance levels specified for Seismic Use Group I and III.

EX-407.1.2 Wind design. Wind design of existing buildings shall be based upon the procedures specified in the *Building Code* or the *Residential Code* as applicable.

EX-407.2 Reduction of strength. Repairs shall not reduce the structural strength or stability of the building, structure or any individual member thereof.

Exceptions:

1. Such reduction shall be allowed provided the capacity is not reduced to below the *Building Code* levels.

2. In the alteration of buildings erected before July 1, 1925, the code official is authorized to allow a maximum reduction of 30 percent of the specified minimum live loads in Table 1607.1, with a minimum live load for other than residential buildings of 40 psf (1.92 kN/m²), provided official live load placards are posted showing this reduced live load.

EX-407.3 Damaged buildings. Damaged buildings shall be repaired in accordance with this section.

EX-407.3.1 New structural frame members. New structural frame members, used in the repair of damaged buildings, including anchorage and connections, shall comply with the *Building Code*.

Exception: For the design of new structural frame members connected to existing structural frame members, the use of reduced *Building Code* level seismic forces as specified in Section EX-407.1.1.3 shall be permitted.

EX-407.3.2 Substantial structural damage. Buildings which have sustained substantial structural damage shall comply with this section.

EX-407.3.2.1 Engineering evaluation and analysis. An engineering evaluation and analysis which establishes the structural adequacy of the damaged building shall be prepared by a registered design professional and submitted to the code official. The evaluation and analysis may assume that all damaged structural elements and systems have their original strength and stiffness. The seismic analysis shall be based upon one of the procedures specified in Section EX-407.1.1

EX-407.3.2.1.1 Extent of repair. The evaluation and analysis shall demonstrate that the building once repaired complies with the wind and seismic provisions of the *Building Code*.

Exception: The seismic design level for the repair design shall be the higher of Building Code in effect at the time of original construction and reduced *Building Code* level seismic forces as specified in Section EX-407.1.1.3.

EX-407.3.3 Below substantial structural damage. Repairs to buildings damaged to a level below the substantial structural damage level as defined in Section EX-202 shall be allowed to be made with the materials, methods and strengths in existence prior to the damage unless such existing conditions are dangerous as defined in Chapter 2. New structural frame members, as defined in Chapter 2, shall comply with Section EX-407.3.1.

EX-407.3.4 Other uncovered structural elements. Where in the course of conducting repairs, other uncovered structural elements are found to be unsound or otherwise structurally deficient, such elements shall be made to conform to the requirements of Section EX-407.3.2.1.1.

EX-407.3.5 Flood hazard areas. In flood hazard areas, damaged buildings that sustain substantial damage shall be brought into compliance with *Building Code* Section 1612.

SECTION EX-408 ELECTRICAL

EX-408.1 Material. Existing electrical wiring and equipment undergoing repair shall be allowed to be repaired or replaced with like material.

Exceptions:

1. Replacement of electrical receptacles shall comply with the applicable requirements of Article 210-7-(d) of NFPA 70.
2. Plug fuses of the Edison-base type shall be used for replacements only where there is no evidence of over fusing or tampering per applicable requirements of Article 240-51-(b) of NFPA 70.
3. For replacement of non-grounding-type receptacles with grounding-type receptacles and for branch circuits that do not have an equipment grounding conductor in the branch circuitry, the grounding conductor of a grounding type receptacle outlet shall be permitted to be grounded to any accessible point on the grounding electrode system, or to any accessible point on the grounding electrode conductor in accordance with Article 250-130-(c) of NFPA 70.
4. Non-"hospital grade" receptacles in patient bed locations of Group 1-2 shall be replaced with "hospital grade" receptacles, as required by NFPA 99 and Art. 517 of NFPA 70.
5. Frames of electric ranges, wall-mounted ovens, counter-mounted cooking units, clothes dryers, and outlet or junction boxes that are part of the existing branch circuit for these appliances shall be permitted to be grounded to the grounded circuit conductor in accordance with Art. 250-140 of NFPA 70.

SECTION EX-409 MECHANICAL

EX-409.1 General. Existing mechanical systems undergoing repair shall comply with Section EX-401.1. and the scoping provisions of Chapter 1 where applicable.

EX-490.2 Drains in elevator pits: Drains installed in an elevator pit shall discharge by means of an indirect waste pipe, into an approved receptor such as a 55 gallon holding drum located outside of the elevator pit or hoistway in an accessible location. Provisions shall be made for maintenance of the trap of drains in elevator pits without having to gain access to the elevator pit or hoistway.

EX-409.2.1 Sumps in elevator pits: Sumps may be installed. Where drains are not provided to prevent the accumulation of water, sump pumps may be provided.

SECTION EX-410 PLUMBING

EX-410.1 Materials. The following plumbing materials and supplies shall not be used:

1. Sheet and tubular copper and brass trap and tailpiece fittings less than the minimum wall thickness of .027" (0.69 mm).
2. Solder having more than 0.2% lead in the repair of potable water systems.
3. Water closets having a concealed trap seal or an unventilated space or having walls that are not thoroughly washed at each discharge in accordance with ASME A112.19.2.
4. The following types of joints shall be prohibited:
 - (a) Cement or concrete joints.
 - (b) Mastic or hot-pour bituminous joints.
 - (c) Joints made with fittings not approved for the specific installation.
 - (d) Joints between different diameter pipes made with elasto-meric rolling O-rings.
 - (e) Solvent-cement joints between different types of plastic pipe.
 - (f) Saddle-type fittings.
5. The following type of traps are prohibited:
 - (a) Traps that depend on moving parts to maintain the seal.
 - (b) Bell traps
 - (c) Crown-vented traps
 - (d) Traps not integral with a fixture and that depend on interior partitions for the seal, except those traps constructed of an approved material that is resistant to corrosion and degradation.

EX-410.2 Water closet replacement. When any water closet is replaced, the replacement water closet shall comply with the *Plumbing Code*. The maximum water consumption flow rates and quantities for all replaced water closets shall be 1.6 gallons (6 L) per flushing cycle.

Exception: Blowout design water closets [3.5 gallons (13 L) per flushing cycle].

SECTION EX-411 FUEL GAS

EX-411.1 General. Repairs and replacement of parts shall be done in such a manner as to preserve the original approval or listing.

EX-411.2 Piping. Defects in pipe or tubing or fittings shall not be repaired. Defective pipe, tubing, and fittings shall be replaced. Pipe, fittings, valves, or other material shall not be reused unless they

are free of foreign materials and have been ascertained to be adequate for the service intended.

EX-411.2.1 Testing. Where a section of a piping system is repaired or replaced, the affected section shall be pressure tested in accordance with Section FG-406 of the *DC Fuel Gas Code*.

Exception: Minor repairs, requiring no more than 10 piping joints, shall not require a pressure test, provided the work is inspected and connections are tested with a non-corrosive leak-detecting fluid or other leak-detecting methods approved by the code official.

EX-411.3 Venting systems. Where repairs are made to a venting system or to an appliance connected to a venting system, the flue passageway shall be inspected to ascertain that it is clear and free of obstructions or debris, and shall be cleaned if necessary.

CHAPTER 5 ALTERATIONS - LEVEL 1

SECTION EX-501 GENERAL

EX-501.1 Scope. Level 1 alterations, as described in Section EX-303 shall comply with the requirements of this Chapter. Level 1 alterations to historic buildings shall comply with this chapter, except as modified in Chapter 10.

EX-501.2 Conformance. An existing building or portion thereof shall not be altered such that the building becomes less safe than its existing condition.

Exception: Where the current level of safety or sanitation is proposed to be reduced, the portion altered shall conform to the requirements of the *Building Code*.

EX-501.3 Flood hazard areas. In flood hazard areas, alterations that constitute substantial improvement shall require that the building comply with *Building Code* Section 1612.

SECTION EX-502 SPECIAL USE AND OCCUPANCY

EX-502.1 General. Alteration of buildings, classified as special use and occupancy as described in *Building Code*, shall comply with the requirements of Section EX-501.1 and the scoping provisions of Chapter 1 where applicable.

SECTION EX-503 BUILDING ELEMENTS AND MATERIALS

EX-503.1 Interior finishes. All newly installed interior finishes shall comply with the flame spread requirements of the *Building Code*.

EX-503.2 Carpeting. New carpeting used as an interior floor finish material shall comply with the radiant flux requirements of the *Building Code*.

EX-503.3 Materials and methods: All new work shall comply with materials and methods requirements in the *Building Code*, *Mechanical Code*, *Fuel Gas Code*, *Plumbing Code*, *Energy Code* and *Electrical Code* as applicable, that specify material standards, detail of installation and connection, joints, penetrations and continuity of any element, component or system in the building.

EX-503.3.1 Fuel gas piping systems. Existing fuel gas piping systems shall not be required to be resized where the alteration does not increase the load nor increase the longest length of the piping system.

EX-503.3.2 Pressure testing. Where an existing fuel gas piping system is extended or a new branch is installed, only the newly-installed piping shall be required to be pressure tested.

Connections between the new and existing piping shall be tested with a non-corrosive leak-detecting fluid or other leak-detecting methods approved by the code official.

SECTION EX-504 FIRE PROTECTION

(Not used)

SECTION EX-505 MEANS OF EGRESS

EX-505.1 General. Means of egress for buildings undergoing alteration shall comply with the requirements of Section EX-501.2 and the scoping provisions of Chapter 1 where applicable.

EX-505.2 Use of Exit and Exit Access Enclosures: Exits and exit access corridors shall comply with *Building Code* Section 1004.3.2.4.

Exception: Existing exit access corridors that serve areas undergoing Level 1 Alterations shall be allowed to be used as air return plenums where the following four conditions are verified:

1. The existing HVAC system already uses the corridor as a return plenum.
2. The HVAC system remains as existing, except for rearrangement of terminal branches, relocation of supply diffusers, or replacement in kind of equipment.
3. The transfers from the altered space, to the corridor, shall be equipped with an approved smoke damper arranged to close upon detection of smoke on either side of the transfer.
4. The corridor is not a grade passageway.

EX-505.3 Allowance for Fire Resistance Upgrading: When improving the fire resistance rating of the enclosure of stairways, exit access passageways or corridors complying with Sections EX-605.11.1 through EX-605.11.2, a tolerance of up to 1- 1/2-inch (38 mm) shall be allowed in the minimum width of those elements of egress. When improving the fire resistance rating of a wall assembly on one side of stairways, exit access passageways or corridors complying with Section EX-605.11, a tolerance of up to 3/4 inch (19 mm) shall be allowed in the minimum width of those elements of egress.

SECTION EX-506 ACCESSIBILITY

EX-506.1 Accessibility. A building, facility or element that is altered shall comply with the applicable provisions in Chapter 11 of the *Building Code*, Sections EX-506.1.1 thru EX-506.1.15 and ICC/ANSI 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 EX-506.2.
2. Accessible means of egress required by Chapter 10 of the *Building Code* are not required to be provided in existing buildings and facilities.
3. Type B dwelling units required by Section 1107.6.2 of the *Building Code* are not required to be provided in existing buildings and facilities.

EX-506.1.1 Elevators. Altered elements of existing elevators shall comply with ASME A17.1 and ICC/ANSI A117.1. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

EX-506.1.2 Platform lifts. Platform (wheelchair) lifts complying with ICC/ANSI A117.1 and installed in accordance with ASME A17.1 shall be permitted as a component of an accessible route.

EX-506.1.3 Ramps. Where steeper slopes than allowed by Section 1003.3.4.1 of the *Building Code* are necessitated by space limitations, the slope of ramps in or providing access to existing buildings or facilities shall comply with Table EX-506.1.4.

EX-506.1.4 Dining areas. An accessible route to raised or sunken dining areas, or to outdoor seating areas is not required provided that the same services and decor are provided in an accessible space usable by any occupant and not restricted to use by people with a disability.

EX-506.1.5 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.

EX-506.1.6 Assembly areas. Seating shall adjoin an accessible route that also serves as a means of egress. Where it is technically infeasible to disperse accessible seating throughout an altered assembly area, wheelchair spaces shall be dispersed, to the maximum extent feasible, in accordance with the priorities established in Section 1108.2.3 of the *Building Code*. In existing assembly seating areas with a mezzanine, where the main level provides three-fourths or more of the total seating capacity, wheelchair spaces are permitted to be dispersed on the main level. At least one seat for a companion shall be provided beside each wheelchair space.

EX-506.1.7 Sleeping rooms and accommodations. Where I-1 sleeping rooms, I-2 sleeping rooms or patient rooms, I-3 residential units, or R-1 and R-2 sleeping accommodations are being altered, the requirements of Section 1107 of the *Building Code* for accessible rooms and Chapter 9 for accessible alarms apply only to the quantity of spaces being altered or added.

EX-506.1.8 Toilet rooms. Where it is technically infeasible to alter existing toilet and bathing facilities to be accessible, an accessible unisex toilet or bathing facility is permitted. The unisex facility shall be located on the same floor and in the same area as the existing facilities.

Exception: Where the existing toilet facilities are located on a non-accessible floor, the accessible facilities shall be located on an accessible floor.

EX-506.1.9 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.

Exception: Where the existing toilet facilities are located on a non-accessible floor, the accessible facilities shall be located on an accessible floor.

EX-506.1.10 Check-out aisles. Where check-out aisles are altered in facilities having a selling space of 5,000 square feet (465 m²) or more, at least one check-out aisle serving each function shall be made accessible.

EX-506.1.11 Dispersion of seating at fixed or built-in tables, counters, or work surfaces. Accessible seating at fixed or built-in tables, counters or work surfaces shall be distributed throughout the space or facility as much as technically feasible.

EX-506.1.12 Sales and service counters. Where it is technically infeasible for existing counters for sales or distribution of goods or services to be made accessible, an accessible auxiliary counter shall be provided.

EX-506.1.13 Thresholds. The maximum height of thresholds at doorways shall be 3/4 inch (19.1 mm). Such threshold shall have beveled edges on each side.

EX-506.1.14 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.

EX-506.2 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. For the purposes of complying with Section EX-506.2, an area of primary function shall be defined by applicable provisions of 49 CFR Part 37.43(c) or 28 CFR Part 36.403.

Exceptions:

1. The costs of providing the accessible route is 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.

**TABLE EX-506.1.4
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

SECTION EX-507 STRUCTURAL

EX-507.1 General. Where alteration work includes replacement of equipment that is supported by the building, or where a re-roofing permit is required, the structural provisions of this section shall apply.

EX-507.2 Design criteria. Existing structural components supporting alteration work shall comply with this section.

EX-507.2.1 Replacement of roofing or equipment. Where replacement of roofing or equipment results in additional dead loads, structural components supporting such re-roofing or equipment shall comply with the vertical load requirements of the *Building Code*.

Exceptions:

1. Structural elements whose stress is not increased by more than 5 percent.
2. Buildings constructed in accordance with the *Residential Code* or the conventional construction methods of the *Building Code* and where the additional dead load from the equipment is not increased by more than 5 percent.

EX-507.2.2 Parapet bracing and wall anchors for reroof permits. Unreinforced masonry bearing wall buildings classified as Seismic Design Category D, E or F shall have parapet bracing and wall anchors installed at the roof line whenever a re-roofing permit is issued. Such parapet bracing and wall anchors shall be designed in accordance with the reduced *Building Code* level seismic forces as specified in Section 407.1.1.3 and design procedures of Section 407.1.1.1.

EX-507.3 Roof diaphragm. Where roofing materials are removed from more than 50% of the roof diaphragm of a building or section of a building where the roof diaphragm is a part of the main wind force resisting system the integrity of the roof diaphragm shall be evaluated and if found deficient due to insufficient or deteriorated connections such connections shall be provided or replaced.

CHAPTER 6 ALTERATIONS LEVEL 2

SECTION EX-601 GENERAL

EX-601.1 Scope. Level 2 alterations, as described in Section EX-304 shall comply with the requirements of this Chapter.

Exceptions:

1. Buildings in which the reconfiguration is exclusively the result of compliance with the accessibility requirements of Section EX-506.2 shall be permitted to comply with Chapter 5.
2. The Additional Restrictions listed in Sections EX-603.2.1, EX-603.6, EX-605.3, and EX-605.4 shall not be mandatory for alterations affecting areas of less than 500 square feet (46.5 m²) provided:
 - a. There is no change or occupancy as defined in Chapter 2 of the *Building Code*;
 - b. There is no increase in hazard; and
 - c. The repairs or alterations do not adversely affect the existing means of egress or any required fire resistance rating.

EX-601.2 Alteration level 1 compliance. In addition to the requirements of this chapter, all work shall comply with the requirements of Chapter 5.

EX-601.3 Compliance. All new construction elements, components and systems and spaces shall comply with the requirements of the *Building Code*.

Exceptions:

1. Windows may be added without requiring compliance with the light and ventilation requirements of the *Building Code*.
2. Newly installed electrical equipment shall comply with the requirements of Section EX-608.0.
3. The length of dead end corridors in newly constructed spaces need only comply with the provisions of Section EX-605.6.
4. The minimum ceiling height of the newly created habitable and occupiable spaces and corridors shall be 7 feet. A lower clearance than set forth in Exceptions to Section 1207.2 of the *Building Code* is permitted in special cases where the Code Official determines that a lower clearance will pose no undue health and safety hazard to the occupants.

SECTION EX-602 SPECIAL USE AND OCCUPANCY

EX-602.1 General. Alteration of buildings, classified as special use and occupancy as described in the *Building Code*, shall comply with the requirements of Section EX-601.1 and the scoping provisions of Chapter 1 where applicable.

SECTION EX-603 BUILDING ELEMENTS AND MATERIALS

EX-603.1 Scope. The requirements of this section are limited to work areas in which Level 2 alterations are being performed, and shall apply beyond the work area where specified.

EX-603.2 Vertical openings. Existing vertical openings shall comply with the provisions of Sections EX-603.2.1, EX-603.2.2 and EX-603.2.2.

EX-603.2.1 Existing Vertical Openings. All existing interior vertical openings connecting two or more floors shall be enclosed with approved assemblies having a fire resistance rating of not less than one hour with approved opening protectives.

Exceptions:

1. Where vertical opening enclosure is not required by the *Building Code* or the *Fire Code*.
2. Interior vertical openings other than stairways may be blocked at the floor and ceiling of the work area by installation of not less than two inches (50.08 mm) of solid wood or equivalent construction.
3. The enclosure shall not be required where:
 - 3.1. connecting the main floor and mezzanines; or
 - 3.2. all the following conditions are met:
 - (a) The communicating area has a low hazard occupancy, or has a moderate hazard occupancy which is protected throughout by an automatic sprinkler system, and
 - (b) The lowest or next to the lowest level is a street floor; and
 - (c) The entire area is open and unobstructed in a manner such that it may be assumed that a fire in any part of the interconnected spaces will be readily obvious to all of the occupants; and
 - (d) Exit capacity is sufficient to provide egress simultaneously for all the occupants of all levels by considering all areas to be a single floor area for the determination of required exit capacity; and
 - (e) Each floor level, considered separately, has at least one-half of its individual required exit capacity provided by an exit or exits leading

directly out of that level without having to traverse another communicating floor level or be exposed to the smoke or fire spreading from another communicating floor level.

4. In Group A Occupancies, a minimum 30 minute enclosure shall be provided to protect all vertical openings not exceeding three stories.

Exceptions:

1. In A-1 occupancies, the enclosure shall not be required for a main exit (where required in Section 1008.1 of the *Building Code*) where all of the following conditions are met:
 - a. A maximum of three stories are connected by the existing, unenclosed stair;
 - b. Fully enclosed exits, complying with Section 1105.32 of the *Building Code*, are provided with an egress capacity of at least 117% of the total occupant load;
 - c. Building is protected by an approved automatic fire alarm system with smoke detectors located in all corridors, lobbies and commons;
 - d. Building is equipped throughout by an approved automatic fire suppression system.
2. In A-3 and A-4 occupancies, an enclosure shall not be required for existing, unenclosed interior exits provided all of the following conditions are met:
 - (a) A maximum of two stories are connected by the existing, unenclosed stair;
 - (b) The area of the larger connecting story does not exceed 3500 square feet;
 - (c) Fully enclosed exits, complying with Section 1105.32 of the *Building Code*, are provided with an egress capacity of at least 50% of the total occupant load;
 - (d) Work area for Level 2 Alterations is protected by an approved automatic fire alarm system with smoke detectors located in all corridors, lobbies and commons
 - (e) Work Area for Level 2 Alterations is equipped throughout by an approved automatic fire suppression system.
5. In Group B Occupancies, a minimum 30 minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section EX-603.2.1 shall not be required:
 - (a) In a building not exceeding 3,000 square feet (279 m²) floor; or

- (b) When the building is protected throughout by an approved automatic fire sprinkler system.
6. In Group E Occupancies, the enclosure shall not be required for vertical openings not exceeding three stories when the building is protected throughout by an approved automatic fire sprinkler
7. In Group F Occupancies, the enclosure shall not be required under the following conditions:
- (a) For vertical openings not exceeding three stories; or
 - (b) In special purpose occupancies when necessary for manufacturing operations and direct access is provided to at least one protected stairway; or
 - (c) In buildings which are protected throughout by an approved automatic sprinkler system.
8. In Group H Occupancies, the enclosure shall not be required for vertical openings not exceeding three stories where necessary for manufacturing operations and where every floor level has direct access to at least two remote enclosed stairways or other approved exits.
9. In Group M Occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section EX-603.2.1, shall not be required under the following conditions:
- (a) Openings connect only two floor levels; or
 - (b) Occupancies are protected throughout by an approved automatic sprinkler system.
10. In Group R-1 Occupancies, the enclosure shall not be required for vertical openings not exceeding three stories where:
- (a) In buildings which are protected throughout by an approved automatic sprinkler system; or
 - (b) In buildings with less than 25 guest rooms where every sleeping room above the second floor is provided with direct access to a fire escape or other approved second exit by means of an approved exterior door or window having a sill height of not greater than 44 inches (1118 mm) and where:
 - (c) Any exit access corridor exceeding eight feet (2438 mm) in length which serves two means of egress, one of which is an unprotected vertical opening, shall have at least one of the means of egress separated from the vertical opening by a one hour fire barrier; and

- (d) The building is protected throughout by an automatic fire alarm system, installed and supervised in accordance with the *Building Code*.
11. In Group R-2 Occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section EX-603.2.1, shall not be required under the following conditions:
- (a) Vertical openings not exceeding two stories with not more than four dwelling units per floor; or
 - (b) In buildings which are protected throughout by an approved automatic sprinkler system; or
 - (c) In buildings with not more than four dwelling units per floor where every sleeping room above the second floor is provided with direct access to a fire escape or other approved second exit by means of an approved exterior door or window having a sill height of not greater than 44 inches (1118 mm) and the building is protected throughout by an automatic fire alarm system, complying with Section EX-604.4.
12. One-and two-family dwellings.
13. Group S Occupancies, where connecting more than two floor levels, or where connecting not more than three floor levels and the structure is equipped throughout with an approved automatic sprinkler system.
14. Group S Occupancies, vertical opening protection is not required for open parking garages and ramps.

EX-603.2.2 Supplemental shaft and floor opening enclosure requirements. Where the work area on any floor exceeds 50 percent of that floor area, the enclosure requirements of Section EX-603.2 shall apply to vertical openings other than stairways throughout the floor:

Exception: Vertical openings located in tenant spaces that are entirely outside the work area.

EX-603.2.3 Supplemental stairway enclosure requirements. Where the work area on any floor exceeds 50 percent of that floor area, stairways that are part of the means of egress serving the work area shall at a minimum be enclosed with smoke tight construction on the highest work area floor and all floors below.

Exception: Where stairway enclosure is not required by the *Building Code* or the *Fire Code*.

EX-603.3 Smoke barriers. Smoke barriers in Group I-2 shall be installed where required by Sections EX-603.3.1 and EX-603.3.2.

EX-603.3.1 Compartmentation. Where the work area is on a story used for sleeping rooms for more than 30 patients, the story shall be divided into not less than two compartments by smoke barrier walls complying with Section EX-603.3.2 such that each compartment does not exceed 22,500 square feet (2093 m²) and the travel distance from any point to reach a door in the required smoke barrier shall not exceed 200 feet (60 960 mm).

Exception: Where neither the length nor width of the smoke compartment exceeds 150 feet (45 720 mm), the travel distance to reach the smoke barrier door shall not be limited.

EX-603.3.2 Fire-resistance rating. The smoke barriers shall be fire resistance rated for 30 minutes and constructed in accordance with the *Building Code*.

EX-603.4 Interior finish. The interior finish of walls and ceilings in exits and corridors in any work area shall comply with the requirements of the *Building Code*.

Exception: Existing interior finish materials which do not comply with the interior finish requirements of the *Building Code* shall be permitted to be treated with an approved fire retardant coating in accordance with the manufacturer's instructions to achieve the required rating.

EX-603.4.1 Supplemental interior finish requirements. Where the work area on any floor exceeds 50 percent of the floor area, Section EX-603.4 shall also apply to the interior finish in exits and corridors serving the work area throughout the floor.

Exception: Interior finish within tenant spaces that are entirely outside the work area.

EX-603.5 Guards. The requirements of Sections EX-603.5.1 and EX-603.5.2 shall apply in all work areas.

EX-603.5.1 Minimum requirement. Every portion of a floor, such as a balcony or a loading dock that is more than 30 inches (762 mm) above the floor or grade below and not provided with guards, or those in which the existing guards are judged to be in danger of collapsing, shall be provided with guards.

EX-603.5.2 Design. Where there are no guards or existing guards must be replaced, the guards shall be designed and installed in accordance with the *Building Code*.

EX-603.6 Enclosure of Existing Corridors. All existing corridors which are part of a path of egress travel to an exit, when they serve a Level 2 Alteration Work area, shall comply with Section EX-604.2.2 or shall be enclosed with approved assemblies having a fire resistance rating of not less than ½ hour, subject to the exceptions and additional requirements in Sections EX-603.6.1 through

Exception: Existing corridor walls constructed of wood lath and plaster in good condition or ½-inch-thick (12.7 mm) gypsum wallboard shall be permitted.

EX – 603.6.1 Supplemental Requirements for Use Group B.

- 1. Corridors with required capacity between 30 and 50 persons.** The work area shall be equipped with an approved, automatic fire suppression system.
- 2. Corridors with required capacity greater than 50 persons.** Enclosure shall comply with the requirements of the *Building Code* for new construction.

SECTION EX-604 FIRE PROTECTION

EX-604.1 Scope. The requirements of this section shall be limited to work areas in which Level 2 alterations are being performed, and where specified they shall apply throughout the floor on which the work areas are located, or otherwise beyond the work area.

EX-604.2 Automatic sprinkler systems. Automatic sprinkler systems shall be provided in accordance with the requirements of Sections EX-604.2.1 through EX-604.2.5. Installation requirements shall be in accordance with the *Building Code*.

EX-604.2.1 High rise buildings. In high rise buildings, work areas that include exits or corridors shared by more than one tenant or serving an occupant load greater than 30 persons, or 50 percent of the floor area, whichever is less, shall be provided with automatic sprinkler protection. Automatic sprinkler protection shall be provided throughout the exit access corridors and common areas including toilet rooms, mechanical, electrical and telephone spaces, equipment rooms and similar spaces located on the same floor as the work area.

EX-604.2.1.1 Partially sprinklered floors. When automatic sprinkler protection has been installed on any part of a floor per Section EX-604.2.1, all subsequent Level 2 Alteration work on the floor shall be provided with automatic sprinkler protection.

EX-604.2.1.2 Supplemental automatic sprinkler system requirements. Where the work area on any floor exceeds 50 percent of that floor area, automatic sprinkler protection shall be provided throughout the floor on which the work area is located.

Exception: Automatic sprinkler protection shall not be required in tenant spaces that are entirely outside the work area and separated from the work area by a 1-hour fire partition.

EX-604.2.1.3 Alterations to 75% of floors. Where 75% of the building floors are partially sprinklered per Section EX-604.2.1.1, the building shall comply with the following additional requirements:

1. **Standby Power, Light and Emergency Systems.** Comply with Section 403.10 of the *Building Code*.
2. **Emergency voice/Alarm system.** Comply with Section 403.6 of the *Building Code*.

EX-604.2.1.4. Deferred Compliance. In cases of warranted hardship, compliance with applicable fire suppression related requirements in existing high-rise buildings can be temporarily deferred upon approval of an Alternative Fire Protection Compliance Plan by the code official. The submittal of the compliance plan for approval is the responsibility of the owner, who has the burden of proof of all invoked circumstances. The submittal requirements for the compliance plan will be established by the code official. The owner is responsible for the full and timely implementation of all conditions of the approved plan. When the code official deems that lack of implementation of the conditions of the approved compliance plan is having a significant impact on the safety of the public or of the occupants of the building, the code official is authorized to rescind the approval of the plan and the owner shall forfeit the right to the previously granted temporary deferral of compliance. Thereupon, the owner shall take immediate steps to bring the building into compliance with the deferred requirements, within a reasonable period. When the code official deems that delays in compliance adversely affect the general safety, health and welfare of the occupants and the public, the code official is authorized to revoke any certificate of occupancy issued in connection with the approval of the compliance plan.

EX-604.2.1.5 Required Covenants: A covenant complying with Section 106.6.5 shall be required, before an Alternative Fire Protection Compliance Plan submitted under Section EX-604.2.1.4 can be approved.

EX-604.2.2 Groups A, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2. In buildings with occupancies in Groups A, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2, work areas that include exits or corridors shared by more than one tenant or serving an occupant load greater than 30 shall be provided with automatic sprinkler protection where both of the following conditions occur:

1. The work area would be required to be provided with automatic sprinkler protection in accordance with the *Building Code* applicable to new construction; and
2. The work area exceeds 50% of the floor area.

Exception: Work areas in Group R Occupancies 3 stories or less in height.

EX-604.2.2.1 Mixed uses. In work areas containing mixed uses, one or more of which requires automatic sprinkler protection in accordance with Section EX-604.2.2, such protection shall not be required throughout the work area provided that the uses requiring such protection are separated from those not requiring protection by fire resistive construction having a minimum two-hour rating for Use Group H,

and a minimum one-hour rating for all other use groups.

EX-604.2.3 Windowless stories. Work located in a windowless story as determined in accordance with the *Building Code* shall be sprinklered where the work area would be required to be sprinklered under the provisions of the *Building Code* as a newly constructed building.

EX-604.2.4 Other required suppression systems In buildings and areas listed in Table 903.2.15 of the *Building Code*, work areas include exits or corridors shared by more than one tenant or serving an occupant load greater than 30 shall be provided with sprinkler protection where the work area would be required to be provided with automatic sprinkler protection in accordance with the *Building Code* applicable to new construction.

EX-604.2.5 Supervision. Fire sprinkler systems required by this Section shall be supervised by one of the following methods:

1. Approved central station system in accordance with NFPA 72;
2. Approved proprietary system in accordance with NFPA 72;
3. Approved remote station system of the jurisdiction in accordance with NFPA 72; or
4. Approved local alarm service which will cause the sounding of an alarm in accordance with NFPA 72.

Exceptions: Supervision is not required for the following:

1. Underground gate valve with roadway boxes;
2. Halogenated extinguishing systems;
3. Carbon dioxide extinguishing systems;
4. Dry and wet chemical extinguishing systems;
5. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic and automatic sprinkler systems and a separate shutoff valve for the automatic sprinkler system is not provided.

EX-604.3 Standpipes. Where the work area includes exits or corridors shared by more than one tenant and is located more than 50 feet (15240 mm) above or below the lowest level of fire department access, a standpipe system shall be provided. Standpipes shall have an approved fire department connection with hose connections at each floor level above or below the lowest level of fire department access. Standpipe systems shall be installed in accordance with the *Building Code*.

Exceptions:

1. No pump shall be required provided that the standpipes are capable of accepting delivery by fire department apparatus of a minimum of 250 gpm at 65 psi (946 L/m at 448KPa) to the topmost floor in buildings equipped throughout with an automatic sprinkler system or a

minimum of 500 gpm at 65 psi (1892 L/m at 448KPa) to the topmost floor in all other buildings. Where the standpipe terminates below the topmost floor, the standpipe shall be designed to meet (gpm/psi) (L/m/KPa) requirements of this exception for possible future extension of the standpipe.

2. The interconnection of multiple standpipe risers shall not be required.

EX-604.4 Fire alarm and detection. An approved fire alarm system shall be installed in accordance with Sections EX-604.4.1 through EX-604.4.1.9. Where automatic sprinkler protection is provided in accordance with Section EX-604.2 and connected to the building fire alarm system, automatic heat detection required by this section shall not be required. An approved automatic fire detection system shall be installed in accordance with the provisions of this code and NFPA 72. Devices, combinations of devices, appliances and equipment shall be approved. The automatic fire detectors shall be smoke detectors, except an approved alternate type of detector shall be installed in spaces such as boiler rooms where, during normal operation, products of combustion are present in sufficient quantity to actuate a smoke detector.

EX-604.4.1 Occupancy requirements. A fire alarm system shall be installed in accordance with Sections EX-604.4.1.1 through EX-604.4.1.7. 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 within the work area shall be provided and automatically activated.

Exceptions:

1. Occupancies with an existing, previously approved fire alarm system.
2. Where selective notification is permitted, alarm-notification appliances shall be automatically activated in the areas selected.

EX-604.4.1.1 Group E. A fire alarm system shall be installed in works areas in Group E occupancies as required by the *Fire Code* for existing Group E occupancies.

EX-604.4.1.2 Group I-1. A fire alarm system shall be installed in work areas in Group I-1 residential care/assisted living facilities as required by the *Fire Code* for existing Group I-1 occupancies.

EX-604.4.1.3 Group I-2. A fire alarm system shall be installed in work areas in Group I-2 occupancies as required by the *Fire Code* for existing Group I-2 occupancies.

EX-604.4.1.4 Group I-3. A fire alarm system shall be installed in work areas Group I-3 occupancies as required by the *Fire Code* for existing Group I-3 occupancies.

EX-604.4.1.5 Group R-1. A fire alarm system shall be installed in Group R-1 occupancies as required by the *Fire Code* for existing Group R-1 occupancies.

EX-604.4.1.6 Group R-2. A fire alarm system shall be installed in work areas of Group R-2 apartment buildings as required by the *Fire Code* for existing Group R-2 occupancies.

EX-604.4.1.7 Group R-4. A fire alarm system shall be installed in work areas of Group R-4 residential care/assisted living facilities as required by the *Fire Code* for existing Group R-4 occupancies.

EX-604.4.2 Supplemental fire alarm system requirements. Where the work area on any floor exceeds 50 percent of that floor area, Section EX-604.4.1 shall apply throughout the floor.

Exception: Alarm-initiating and notification appliances shall not be required to be installed in tenant spaces outside of the work area.

EX-604.4.3 Smoke Alarms. Individual guestrooms and individual dwelling units in any work area in Group R- 1, R-2, R-3, R-4 and I-1 shall be provided with smoke alarms in accordance with the *Fire Code*.

Exception: Interconnection of smoke alarms outside of the rehabilitation work area shall not be required.

SECTION EX-605 MEANS OF EGRESS

EX-605.1 Scope. The requirements of this section shall be limited to work areas that include exits or corridors shared by more than one tenant within the work area in which Level 2 alterations are being performed, and where specified, they shall apply throughout the floor on which the work areas are located, or otherwise beyond the work area.

EX-605.2 General. The means of egress shall comply with the requirements of this section.

Exceptions:

1. Means of egress conforming to the requirements of the *Building Code* under which the building was constructed shall be considered as complying means of egress if, in the opinion of the code official, they do not constitute a distinct hazard to life.
2. For Level 2 alterations in buildings existing before March 21, 1989, capacity of egress components for all exits serving the work area shall comply with Section EX-605.11.

EX-605.2.1 Use of Exit and Exit Access Enclosures: Use of exit and exit access corridors in compliance with Section 505.2 shall be allowed.

EX-605.3 Number of exits. The number of exits shall be in accordance with Sections EX-605.3.1 through EX-605.3.3.

EX-605.3.1 Minimum number. Every story utilized for human occupancy on which there is a work area that includes exits or corridors shared by more than one tenant within the work area shall be provided with the minimum number of exits based on the occupancy and the occupant load in accordance with the *Building Code*. In addition, the exits shall comply with Sections EX-605.3.1.1 and EX-605.3.1.2.

EX-605.3.1.1 Single exit buildings. Only one exit is required from buildings, stories and spaces with the following occupancies:

1. In Group A, B, E, F, M, U and S occupancies, a single exit is permitted in the story at the level of exit discharge when the occupant load of the story does not exceed 50 and the exit access travel distance does not exceed 75 feet (22 860 mm).

Exception: In Group A, B, E, F, M, U and S the exit access travel distance shall not exceed 100 feet provided the work area is equipped with an approved, automatic fire suppression system and automatic fire alarm system with smoke detectors located in all corridors, lobbies and common areas.

2. Group B, F-2, or S-2 occupancies not more than two stories in height, which are not greater than 3,000 square feet per floor (279 m²), when the exit access travel distance does not exceed 75 feet (22 860 mm). The minimum fire resistance rating of the exit enclosure and of the opening protection shall be one hour.

Exception: In Group B the exit access travel distance shall not exceed 100 feet provided the building is equipped with an approved, automatic fire suppression system and automatic fire alarm system with smoke detectors located in all corridors, lobbies and common areas.

3. Open parking structures where vehicles are mechanically parked.
4. Groups R-1 and R-2, not more than two stories in height, when there are not more than four dwelling units per floor and the exit access travel distance does not exceed 50 feet (15 240 mm). The minimum fire resistance rating of the exit enclosure and of the opening protection shall be one hour.
5. Groups R-1 and R-2, not more than three stories in height, when there are not more than four dwelling units per floor and the exit access travel distance does not exceed 50 feet (15 240 mm), provided the building is equipped with an approved, automatic fire suppression system and automatic fire alarm system with smoke detectors located in all corridors, lobbies and common areas. The minimum fire resistance rating of the exit enclosure and of the opening protection shall be one hour.
6. In multi-level dwelling units in buildings of Occupancy Classification R-1 or R-2, an

exit shall not be required from every level of the dwelling unit provided that one of the following conditions is met:

- (a) The travel distance within the dwelling unit does not exceed 75 feet (22 860 mm); or
 - (b) The building is not more than three stories in height and all third floor space is part of one or more dwelling units located in part on the second floor and no habitable room within any such dwelling unit shall have a travel distance that exceeds 50 feet (15 240 mm) from the outside of the habitable room entrance door to the inside of the entrance door to the dwelling unit.
7. In Group R-2, H-4, H-5 and I Occupancies and in rooming houses and child care centers, a single exit is permitted in a one story building with a maximum occupant load of 10 and the exit access travel distance does not exceed 75 feet (22 860 mm).
8. In buildings of Group R-2 Occupancy that are equipped throughout with an automatic fire sprinkler system, a single exit shall be permitted from a basement or story below grade if every dwelling unit on that floor is equipped with an approved window providing a clear opening of at least five square feet (0.47 m²) in area, a minimum net clear opening of 24 inches (610 mm) in height and 20 inches (508 mm) in width, and a sill height of not more than 44 inches (1118 mm) above the finished floor.
9. In buildings of Group R-2 Occupancy of any height with not more than four dwelling units per floor, with a smokeproof enclosure or outside stair as an exit, and with such exit within 20 feet (6096 mm) of travel to the entrance doors to all dwelling units served thereby.
10. In buildings of Group R-3 Occupancy equipped throughout with an automatic fire sprinkler system, only one exit shall be required from basements or stories below grade.
11. In Group E Occupancies of two or three stories, not exceeding 3000 square feet per story, provided the building is equipped with an automatic fire alarm system with smoke detectors located in all corridors, lobbies and common areas and either:
 - (a) the building is equipped with an approved, automatic fire suppression system,
or
 - (b) the exit is a smokeproof enclosure or pressurized stairway.
12. In Group A-3, A-4, B, E, and R occupancies located not more than one story below grade, provided the floor area of the story does not exceed 2500 square

feet and the work area is equipped with an approved, automatic fire suppression system and automatic fire alarm system with smoke detectors located in all corridors, lobbies and common areas.

Exception: In Group E an exit which serves only that story or which is a smokeproof enclosure or pressurized stairway shall be accepted in lieu of an automatic fire suppression system.

13. In Group A occupancies located not more than one story above grade, provided the floor area of the story does not exceed 2000 square feet and work area is equipped with an approved, automatic fire suppression system and automatic fire alarm system with smoke detectors located in all corridors, lobbies and common areas.

Exception: The allowable floor area may be increased to 3000 square feet provided the building is equipped with an approved, automatic fire suppression system.

14. In public garages of Group S-2, stories located below grade provided the building is equipped with an automatic fire alarm system with smoke detectors located in all corridors, lobbies and common areas and a car ramp is available for egress.

EX-605.3.1.2 Fire escapes required. When more than one exit is required, an existing or newly constructed fire escape complying with Section EX-605.3.1.2.1 shall be accepted as providing one of the required means of egress.

EX-605.3.1.2.1 Fire escape access and details. Fire escapes shall comply with all of the following requirements:

1. Occupants shall have unobstructed access to the fire escape without having to pass through a room subject to locking.
2. Access to a new fire escape shall be through a door, except that windows shall be permitted to provide access from single dwelling units or guest rooms in Groups R- 1, R-2 and I-I Occupancies or when providing access from spaces having a maximum occupant load of 10 in other occupancy classifications.
3. Newly constructed fire escapes 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.
4. Openings within 10 feet (3048 mm) of fireescape stairs shall be protected by fire assemblies having a minimum of $\frac{3}{4}$ -hour fire-

resistance ratings.

Exception: In buildings equipped throughout with an approved automatic sprinkler system, opening protection is not required.

5. In all buildings of Group E Occupancy, up to and including the 12th grade, buildings of Group I Occupancy, rooming houses and child care centers, ladders of any type are prohibited on fire escapes used as a required means of egress.

EX-605.3.1.2.2 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 Types 3 and 4 construction are permitted to be of wood not less than nominal 2 inches (51 mm) thick.

EX-605.3.1.2.3 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.

EX-605.3.2 Mezzanines. Mezzanines in the work area and with an occupant load of more than 50 or in which the travel distance to an exit exceeds 75 feet (22 860 mm) shall have access to at least two independent means of egress.

Exception: Two independent means of egress are not required where the travel distance to an exit does not exceed 100 feet (30 480 mm) and the building is protected throughout with an automatic sprinkler system.

EX-605.3.3 Main entrance - Group A. All buildings of Group A with an occupant load of 100 or more shall be provided with a main entrance capable of serving as the main exit with an egress capacity for at least one-half the total occupant load. The remaining exits shall be capable of providing one-half of the total required exit capacity.

Exception: Where there is no well-defined main exit or where multiple main exits are provided, exits shall be permitted to be distributed around the perimeter of the building provided that the total width of egress is not less than 100 percent of the required width.

EX-605.4 Egress doorways. Egress doorways in any work area shall comply with Sections EX-605.4.1 through EX-605.4.5.

EX-605.4.1 Two egress doorways required. Work areas shall be provided with two egress

doorways in accordance with the requirements of Sections EX-605.4.1.1 and EX-605.4.1.2.

EX-605.4.1.1 Occupant load and travel distance. In any work area, all rooms and spaces having an occupant load greater than 50 or in which the travel distance exceeds 75 feet (22 860 mm) shall have a minimum of two egress doorways.

Exceptions:

1. Storage rooms having a maximum occupant load of 10.
2. Where the work area is served by a single exit in accordance with Section EX-605.3.1.1.
3. In Group B occupancies only one egress door is required when all of the following conditions are met:
 - a) The space is confined (landlocked) by demising partitions of existing adjacent space or spaces, including permanent core construction, such that two egress doors complying with the separation distance required by Section 1004.2.1 of the *Building Code* cannot be provided, and
 - b) The path of travel within the space does not exceed 110 feet (33 518 mm), and, if applicable:
 - 1) In non-sprinklered, non-high rise buildings equipped throughout with an automatic fire alarm system, the work area is provided with smoke detectors at a rate of not less than one per 900 square feet (83.7 m²) in corridors, storage areas, mechanical and electrical rooms and outside the egress door, or
 - 2) In non-sprinklered, non-high rise buildings without an automatic fire alarm system, the work area is provided with multi-station, interconnected smoke alarms at a rate of not less than one per 900 square feet (83.7 m²) in corridors, storage areas, mechanical and electrical rooms and outside the egress door, or
 - 3) In high rise buildings, the space is sprinklered.

EX-605.4.1.2 Group I-2. In buildings of Group I-2 Occupancy, any patient sleeping room or suite of patient rooms greater than 1,000 square feet (93 m²) within the work area shall have a minimum of two egress doorways.

EX-605.4.2 Door swing. In the work area and in the egress path from any work area to the exit discharge, all egress doors serving an occupant load greater than 50 shall swing in the direction of exit travel.

Exception: Means of egress within or serving only a tenant space that is entirely outside the work area.

EX-605.4.2.1 Supplemental requirements for door swing. Where work area exceeds 50

percent of the floor area, door swing shall comply with Section EX-605.2 throughout the floor.

EX-605.4.3 Door closing. In any work area, all doors opening onto an exit passageway at grade or exit stair shall be self-closing or automatically closing by listed closing devices.

Exceptions:

1. Where exit enclosure is not required by the *Building Code*.
2. Means of egress within or serving only a tenant space that is entirely outside the work area.

EX-605.4.3.1 Supplemental requirements for door closing. Where the work area exceeds 50 percent of the floor area, doors shall comply with Section EX-605.4.3 throughout the exit stair from the work area to the level of exit discharge.

EX-605.4.4 Panic hardware. In any work area, and in the egress path from any work area to the exit discharge, in buildings or portions thereof of Group A assembly occupancies with an occupant load greater than 100, all required exit doors equipped with latching devices shall be equipped with approved panic hardware.

Exception: Means of egress within a tenant space that is entirely outside the work area.

EX-605.4.4.1 Supplemental requirements for panic hardware. Where the work area exceeds 50 percent of the floor area, panic hardware shall comply with Section EX-605.4.4 throughout the floor.

EX-605.4.5 Emergency power source in Group I-3. Work areas in buildings of Group I-3 Occupancy having remote power unlocking capability for more than 10 locks shall be provided with an emergency power source for such locks. Power shall be arranged to automatically operate upon failure of normal power within 10 seconds and for a duration of not less than one hour.

EX-605.5 Openings in corridor walls. Openings in corridor walls in any work area shall comply with Sections EX-605.5.1 through EX-605.5.4.

Exception: Openings in corridors where such corridors are not required to be rated in accordance with the *Building Code*.

EX-605.5.1 Corridor doors. Corridor doors in the work area shall not be constructed of hollow core wood and shall not contain louvers. All dwelling units, guest room or rooming unit corridor doors in work areas in buildings of Groups R-1, R-2, and I-1 shall be at least 13/8 inch (35 mm) solid core wood or approved equal and shall not have any glass panels, other than approved wired glass or other approved glazing material in metal frames. All dwelling unit, guest room or rooming unit corridor doors in work areas in buildings of Groups R-1, R-2 and I-1 doors shall be

equipped with approved door closers. All replacement doors shall be 1 3/4 inch (45 mm) solid bonded wood core or approved equal, unless the existing frame will accommodate only a 1 3/8 inch (35 mm) door.

Exceptions:

1. Corridor doors within a dwelling unit or guestroom.
2. Existing doors meeting the requirements of *HUD Guideline on Fire Ratings of Archaic Materials and Assemblies* for a rating of 15 minutes or better shall be accepted as meeting the provisions of this requirement.
3. Existing doors in buildings protected throughout with an approved automatic sprinkler system shall be required only to resist smoke, be reasonably tight fitting and shall not contain louvers.
4. In group homes with a maximum of 15 occupants, and which are protected with an approved automatic detection system, closing devices may be omitted.
5. Door assemblies having a fire protection rating of at least 20 minutes.

EX-605.5.2 Transoms. In all buildings of Group I- 1, R-1 and R-2 Occupancy all transoms in corridor walls in work areas shall be either glazed with 1/4-inch (6.4 mm) wired glass set in metal frames or other glazing assemblies having a fire protection rating as required for the door and permanently secured in the closed position or sealed with materials consistent with the corridor construction.

EX-605.5.3 Other corridor openings. In any work area, any other sash, grill or opening in a corridor, and any window in a corridor not opening to the outside air, shall be sealed with materials consistent with the corridor construction.

Exception: Means of egress within or serving only a tenant space that is entirely outside the work area.

EX-605.5.3.1 Where the work exceeds 50% of the floor area, this section shall be applicable to all corridor windows, grills, sash and other openings on the floor.

EX-605.5.4 Supplemental requirements for corridor openings. Where the work area on any floor exceeds 50 percent of the floor area, the requirements of Sections EX-605.5.1 through EX-605.5.3 shall apply throughout the floor.

EX-605.6 Dead end corridors. Dead end corridors in any work area shall not exceed 35 feet (10 670 mm).

Exceptions:

1. Where dead-end corridors of greater length are permitted by the *Building Code*.
2. In other than Group A and H Occupancies, the maximum length of an existing dead end corridor shall be 75 feet (22 860mm) in buildings equipped throughout with an automatic fire alarm system installed in accordance with the *Building Code* or 50 feet (15 240 mm) in buildings equipped with an approved fire alarm system on the floor of the work area and with smoke detectors in the corridors lobbies, common areas and storage areas.
3. In other than Group A and H Occupancies, the maximum length of an existing dead end corridor shall be 100feet (30 508 mm) in buildings equipped throughout with an automatic sprinkler system installed in accordance with the *Building Code* or 75 feet (22 860 mm) if an approved automatic sprinkler system is installed in the work area and the corridor leading to the exit or exits and an approved fire alarm system is installed with smoke detectors in the corridor, lobbies, common areas and storage areas.
4. In other than Group A and H Occupancies the maximum length of an existing, newly constructed or extended dead end corridor shall not exceed 75 feet (22 860 mm) on floors equipped with an automatic sprinkler system installed in accordance with the *Building Code* system in the work area and corridors serving the work area, provided the building is provided throughout with an automatic fire alarm system installed in accordance with the *Building Code*.

EX-605.7 Means of egress lighting. Means of egress lighting shall be in accordance with this section, as applicable.

EX-605.7.1 Artificial lighting required. Means of egress in all work areas shall be provided with artificial lighting in accordance with the requirements of the *Building Code*.

EX-605.7.2 Supplemental requirements for means of egress lighting. Where the work area on any floor exceeds 50 percent of that floor area, means of egress throughout the floor shall comply with Section EX-605.7.1.

Exception: Means of egress within or serving only a tenant space that is entirely outside the work area.

EX-605.8 Exit signs. Exit signs shall be in accordance with this section, as applicable.

EX-605.8.1 Work areas. Means of egress in all work areas shall be provided with exit signs in accordance with the requirements of the *Building Code*.

EX-605.8.2 Supplemental requirements for exit signs. Where the work area on any floor exceeds 50 percent of that floor area, means of egress throughout the floor shall comply with Section EX-605.8.1.

Exception: Means of egress within a tenant space that is entirely outside the work area.

EX-605.9 Handrails. The requirements of Sections EX-605.9.1 and EX-605.9.2 shall apply to handrails from work area floor to the level of exit discharge.

EX-605.9.1 Minimum requirement. Every required exit stairway that is part of the means of egress for any work area and that has three or more risers and is not provided with at least one handrail, or in which the existing handrails are judged to be in danger of collapsing, shall be provided with handrails for the full length of the run of steps on at least one side. All exit stairways with a required egress width of more than 66 inches shall have handrails on both sides.

EX-605.9.2 Design. Handrails required in accordance with Section EX-605.9.1, shall be designed and installed in accordance with the provisions of the *Building Code*.

EX-605.10 Guards. The requirements of Sections EX-605.10.1 and EX-605.10.2 shall apply to guards from work area floor to the level of exit discharge, but shall be confined to the egress path of any work area.

EX-605.10.1 Minimum requirement. Every open portion of a stair, landing, or balcony that is more than 30 inches (762 mm) above the floor or grade below and not provided with guards, or those in which the existing guards are judged to be in danger of collapsing, shall be provided with guards.

EX-605.10.2 Design. Guards required in accordance with Section EX-605.10.1 shall be designed and installed in accordance with the *Building Code*.

EX-605.11 Capacity of Egress Components: Existing elements of means of egress shall be permitted to continue to be used, in accordance with Sections EX-605.11.1 and EX-605.11.2.

EX-605.11.1 Stairway Width: Existing means of egress stairways which are not less than 36 inches (914mm) in width shall be permitted to continue to be used as a required exit in buildings with more than one exit, undergoing Level 2 alterations, when each of its exits can accommodate the whole occupant load of each floor served, calculated in accordance with Tables 1003.2.2.2 and 1003.2.3 of the *Building Code*, provided such stairways are upgraded to comply with Sections 1003.3.1, 1003.3.3.2 through 1003.3.3.10, 1005.3.2 and 1005.3.6 of the *Building Code*. Existing means of egress stairways which are not less than 30 inches (762 mm) in width shall be permitted to continue to be used as a required exit when serving and contained within a single residential dwelling unit in buildings of use Group R-2or R-3, provided such stairways are upgraded to comply with Sections 1003.3.1, 1003.3.3.2 through 1003.3.3.10, 1005.3.2 and 1005.3.6 of the *Building Code*.

EX-605.11.2 Corridor Width: An existing access passageway or corridor which is not less than 36 inches (914 mm) in width shall be permitted to continue to be used as exit access when its

capacity, calculated in accordance with Table 1003.2.3, is sufficient to accommodate three (3) times the occupant load served by the egress element, calculated in accordance with Table 1003.2.2.2, provided such passageway or corridor is upgraded to comply with Section EX-605.3.2.1.

EX-605.12 Exit access travel distance. The maximum length of exit access travel from the most remote point in the work area shall not exceed the requirements of Section 1004.2.4 of the *Building Code*.

Exceptions:

1. In Group B Occupancies, the maximum length of travel from the most remote point in the work area to an exit shall not exceed 300 feet (92 440 m) in buildings without a sprinkler system and 350 feet (106 680 m) in buildings with a sprinkler system.
2. In Public Garages (S-2) the maximum length to an exit or car ramp shall not exceed 150 feet (45 720 m) in non-sprinklered areas and 200 feet (60 960 m) in sprinklered areas.

SECTION EX-606 ACCESSIBILITY

EX-606.1 General. A building, facility or element that is altered shall comply with Section EX - 506.

EX-606.2 Stairs and escalators in existing buildings. In alterations where an escalator or stair is added where none existed previously an accessible route shall be provided in accordance with Section 1104 of the *Building Code*.

SECTION EX-607 STRUCTURAL

EX-607.1 General. Where alteration work includes installation of additional equipment that is structurally supported by the building or reconfiguration of space such that portions of the building become subjected to higher gravity loads as required by Tables 1607.1 and 1607.6 of the *Building Code*, the provisions of this section shall apply.

EX-607.2 Reduction of strength. Alterations shall not reduce the structural strength or stability of the building, structure or any individual member thereof.

Exception: Such reduction shall be allowed as long as the strength and the stability of the building are not reduced to below the *Building Code* levels

EX-607.3 New structural members. New structural members in alterations, including connections and anchorage, shall comply with the *Building Code*.

EX-607.4 Existing structural members. Existing structural components supporting additional

equipment or subjected to additional loads based on *Building Code* Tables 1607.1 and 1607.6 as a result of a reconfiguration of spaces shall comply with Sections EX-607.4.1 through EX-607.4.3.

EX-607.4.1 Gravity loads. Existing structural elements supporting any additional gravity loads as a result of additional equipment or space reconfiguration shall comply with the *Building Code*.

Exceptions:

1. Structural elements whose stress is not increased by more than 5 percent.
2. Buildings of Group R Occupancy with not more than 5 dwelling units or guest rooms used solely for residential purposes where the existing building and its alteration comply with the Conventional Light-Frame Construction methods of the *Building Code* or the provisions of the *Residential Code*.

EX-607.4.2 Lateral loads. Buildings in which Level 2 alterations increase the seismic base shear by more than 5 percent shall comply with the requirements in Chapter 7.

EX-607.4.3 Snow drift loads. Any structural element of an existing building subjected to additional loads from the effects of snow drift as a result of additional equipment shall comply with the *Building Code*.

Exceptions:

1. Structural elements whose stress is not increased by more than 5 percent.
2. Buildings of Group R Occupancy with no more than 5 dwelling units or guest rooms used solely for residential purposes where the existing building and its alteration comply with the Conventional Light-Frame Construction methods of the *Building Code* or the provisions of the *Residential Code*.

SECTION EX-608 ELECTRICAL

EX-608.1 New installations. All newly-installed electrical equipment and wiring relating to work done in any work area shall comply with the materials and methods requirements of Chapter 5.

Exception: Electrical equipment and wiring in newly installed partitions and ceilings shall comply with all applicable requirements of the *Electrical Code*.

EX-608.2 Existing installations. Existing wiring in all work areas in Use Groups A-1, A-2, A-5, H, and I shall be upgraded to meet the materials and methods requirements of Chapter 5.

EX-608.3 Residential occupancies. In Groups R-2, R-3, R-4 Occupancies and buildings regulated by the *Residential Code*, the requirements of Sections EX-608.3.1 through EX-608.3.7 shall be applicable only to work areas located within a dwelling unit.

EX-608.3.1 Enclosed areas. All enclosed areas, other than closets, kitchens, basements, garages,

hallways, laundry areas, utility areas, storage areas and bathrooms shall have a minimum of two duplex receptacle outlets or one duplex receptacle outlet and one ceiling or wall type lighting outlet.

EX-608.3.2 Kitchens. Kitchen areas shall have a minimum of two duplex receptacle outlets.

EX-608.3.3 Laundry areas. Laundry areas shall have a minimum of one duplex receptacle outlet located near the laundry equipment and installed on an independent circuit.

EX-608.3.4 Ground fault circuit interruption. Newly installed receptacle outlets shall be provided with ground fault circuit interruption as required by the *Electrical Code*.

EX-608.3.5 Minimum lighting outlets. At least one lighting outlet shall be provided in every bathroom, hallway, stairway, attached garage and detached garage with electric power, and to illuminate outdoor entrances and exits.

EX-608.3.6 Utility rooms and basements At least one lighting outlet shall be provided in utility rooms and basements where these spaces are used for storage or contain equipment requiring service.

EX-608.3.7 Clearance for equipment. Clearance for electrical service equipment shall be provided in accordance with the *Electrical Code*.

SECTION EX-609 MECHANICAL

EX-609.1 All mechanical systems in any work area under this chapter shall comply with the requirements of the *District of Columbia Mechanical Code*.

SECTION 610 PLUMBING

610.1 Minimum fixtures. Where the occupant load of the story is increased by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the *Plumbing Code* based on the increased occupant load.

SECTION 611 FUEL GAS

611.1 General. All newly installed fuel gas piping, equipment, appliances, and venting systems shall comply with the materials and methods requirements of Chapter 5.

CHAPTER 7 ALTERATIONS – LEVEL 3

SECTION EX -701 GENERAL

EX-701.1 Scope. Alterations classified as Level 3 alterations as described in Section EX-305 shall comply with the requirements of this Chapter.

EX-701.2 Compliance. In addition to the provisions of this chapter work shall comply with all the requirements of Chapters 5 and 6. The requirements of Sections EX-603, EX-604, and EX-605 shall apply within all work areas regardless of whether or not they include exits and corridors shared by more than one tenant and regardless of the occupant load.

Exception: Buildings in which the reconfiguration of space affecting exits or shared egress access is exclusively the result of compliance with the accessibility requirements of Section EX-506.2 shall not be required to comply with this Chapter.

SECTION EX-702 SPECIAL USE AND OCCUPANCY

EX-702.1 High rise buildings Any building having occupied floors more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access shall comply with the requirements of Sections EX-702.1.1 through EX-702.1.3.

Exception: Existing high-rise buildings that are stripped of all systems and interior walls in all areas other than those used as public garage, leaving not more than the bare structure, shaft walls and the exterior envelope assemblies, shall be rebuilt in full compliance with Section 403 of the *Building Code*.

EX-702.1.1 Re-circulating air or exhaust systems. When a floor is served by a re-circulating air or exhaust system with a capacity greater than 15,000 cfm (701 m³/s), that system shall be equipped with approved smoke and heat detection devices installed in accordance with the *Mechanical Code*.

EX-702.1.2 Elevators. Where there is an elevator or elevators for use by the public, at least one elevator serving the work area shall comply with emergency operations provisions of the *Building Code*.

EX-702.2 Boiler and Furnace equipment rooms Boiler and furnace equipment rooms adjacent to or within the following facilities shall be enclosed by one-hour fire rated construction: day nurseries, children's shelter facilities, residential child care facilities and similar facilities with children below the age of 2-½ years, or which are classified as Group I-2 Occupancy, shelter facilities, residences for the developmentally disabled, group homes, teaching family homes, transitional living homes,

rooming and boarding houses, hotels and multiple dwellings.

Exceptions:

1. Furnace and boiler equipment of low pressure type, operating at pressures of 15 psig (103.4 KPa) or less for steam equipment or 170 psig (1171 KPa) or less for hot water equipment, when installed in accordance with manufacturer recommendations.
2. Furnace and boiler equipment of residential R-3 type with 200,000 BTU (211,000 KJ) per hour input rating or less is not required to be enclosed.

EX-702.2.1 Emergency controls. Emergency controls for boilers and furnace equipment shall be provided in accordance with the *Mechanical Code* in all buildings classified as day nurseries, children's shelter facilities, residential child care facilities and similar facilities with children below the age of 2-½ years, or which are classified as Group I-2 Occupancy, and in group homes, teaching family homes, and supervised transitional living homes in accordance with the following:

1. Emergency shutoff switches for furnaces and boilers in basements shall be located at the top of the stairs leading to the basement; and
2. Emergency shutoff switches for furnaces and boilers in other enclosed rooms shall be located outside of such room.

SECTION EX-703 BUILDING ELEMENTS AND MATERIALS

EX-703.1 Existing shafts and vertical openings. Existing stairways that are part of the means of egress shall be enclosed in accordance with Section EX-603.2.1 between highest work area floor and the level of exit discharge and all floors below.

EX-703. 2 Fire partitions in Group R-3. Fire separation in Group R-3 Occupancies shall be in accordance with Section EX-703.2.1.

EX-703.2.1 Separation required. Where the work area is in any attached dwelling unit in Group R-3, or any multiple single family (Townhouse) constructed in accordance with the *Residential Code*, walls separating the dwelling units which are not continuous from the foundation to the underside of the roof sheathing shall be constructed to provide a continuous fire separation using construction materials consistent with the existing wall or complying with the requirements for new structures. All work shall be performed on the side of the wall of the dwelling unit that is part of the work area.

Exception: Where alterations or repairs do not result in the removal of wall or ceiling finishes exposing the structure, walls are not required to be continuous through concealed floor spaces.

EX-703.3 Interior finish. Interior finish in exits serving the work area shall comply with Section EX-603.4 between the highest floor on which there is a work area to the floor of exit discharge.

SECTION EX-704 FIRE PROTECTION

EX-704.1 Automatic sprinkler systems. Automatic sprinkler systems in accordance with Section EX-604.2 shall be provided in all work areas.

EX-704.1.1 High-rise buildings. In high-rise buildings, work areas shall comply with Section EX-604.2.1.

EX-704.1.1.1 Where Level 3 work areas include 75% or more of the building floors, automatic sprinkler protection shall be provided throughout the entire building in accordance with the *Building Code*, Section 403.2.

EX-704.1.1.2 Where a complete automatic sprinkler system with sprinkler control valves and water flow devices for each floor is provided throughout, modifications to the minimum type of construction and fire resistance rating requirements of this code are permitted as described in Section 403.3 of the *Building Code*.

EX-704.1.2 Rubbish and linen chutes. Rubbish and linen chutes located in the work area shall be provided with automatic sprinkler-protection where protection of the rubbish and linen chute would be required under the provisions of the *Building Code* for new construction.

EX-704.2 Fire alarm and detection. Fire alarm and detection systems complying with Sections EX-604.4.1 and EX-604.4.3 shall be provided throughout the building in accordance with the *Building Code*.

EX-704.2.1 Manual fire alarm systems. In Groups A, B, E, F, H, I, M, R-1 and R-2 Occupancies a manual fire alarm system shall be provided on all floors in the building where required by the *Building Code*. Alarm notification appliances shall be provided in accordance with Section 907 of the *Building Code* and shall be automatically activated as required by the *Building Code*.

Exceptions:

1. Where the *Building Code* does not require a manual fire alarm system.
2. Automatic alarm-initiating devices and notification appliances shall not be required to be installed in tenant spaces outside of the work area.
3. Visual alarm notification appliances are not required, except where an existing alarm system is upgraded or replaced, or a new fire alarm system is installed.

EX-704.3 Additional requirements for high rise buildings.

EX-704.3.1 Alterations to 75% of floors. Where 75% of the floors include Level 3 Alteration work areas, the building shall comply with Section EX-604.2.1.2.

EX-704.3.2 Alterations to 100% of floors. Where 100% of the floors include Level 3 Alteration work areas, the building shall comply with Section EX-704.3.2.1 and the following additional requirements:

1. **Fire Department Communication System.** Comply with Section 403.7 of the *Building Code*.
2. **Fire Command.** Comply with Section 403.8 of the *Building Code*, except that the command center may be located anywhere on the building periphery with direct access from a public way, or in an interior location as approved by the Fire Official.

SECTION EX-705 MEANS OF EGRESS

EX-705.1 General. The means of egress shall comply with the requirements of Section EX-605 except as specifically required in Sections EX-705.2 and EX-705.3.

EX-705.2 Means of egress lighting. Means of egress from the highest work area floor to the floor of exit discharge shall be provided with artificial lighting within the exit enclosure in accordance with the requirements of the *Building Code*.

EX-705.3 Exit signs. Means of egress from the highest work area floor to the floor of exit discharge shall be provided with exit signs in accordance with the requirements of the *Building Code*.

SECTION EX-706 ACCESSIBILITY

EX-706.1 General. A building, facility or element that is altered shall comply with Section EX-605.

SECTION EX-707 STRUCTURAL

EX-707.1 General. Where buildings are undergoing Level 3 Alterations including structural alterations, the provisions of this section shall apply.

EX-707.2 Reduction of strength. Alterations shall not reduce the structural strength or stability of the building, structure or any individual member thereof.

Exception: Such reduction shall be allowed provided that the structural strength and the stability of the building are not reduced to below the *Building Code* levels.

EX-707.3 New structural members. New structural members in alterations, including connections and anchorage, shall comply with the *Building Code*.

EX-707.4 Minimum design loads. The minimum design loads on existing elements of a structure that do not support additional loads as a result of an alteration shall be the loads applicable at the time the building was constructed.

EX-707.5 Structural alterations. Buildings and structures undergoing structural alterations shall comply with this section.

EX-707.5.1 Evaluation and analysis. An engineering evaluation and analysis which establishes the structural adequacy of the altered structure shall be prepared by a registered design professional and submitted to the code official where more than 30 percent, within a 12 months period, of the total floor and roof areas of the building or structure have been or are proposed to be involved in structural alteration. The evaluation and analysis shall demonstrate that the building or the buildings' structural system once altered complies with the *Building Code* for wind loading and with reduced *Building Code* level seismic forces as specified in Section 407.1.1.3 for seismic loading. For seismic considerations the analysis shall be based upon one of the procedures specified in Section 407.1.1.1. The areas to be counted towards the 30 percent shall be those areas tributary to the vertical load carrying components such as joists, beams, columns, walls and other structural components that have been or will be removed, added or altered, as well as areas such as mezzanines, penthouses, roof structures and infilled courts and shafts.

Exceptions:

1. Buildings of Group R Occupancy with no more than 5 dwelling units or guest rooms used solely for residential purposes altered based on the Conventional Light-Frame Construction methods of the *Building Code* or in compliance with the provisions of the *Residential Code*.
2. Where such alterations involve only the lowest story of a building and Change of Occupancy Provisions of Chapter 8 do not apply, only the lateral force resisting components in and below that story need comply with this Section.

EX-707.5.2 Limited Structural Alteration. Where not more than 30% of the total floor and roof areas of the building are involved in structural alteration within a 12-month period, the evaluation and analysis shall demonstrate that the altered building or structure complies with the loads applicable at the time the building was constructed.

EX-707.6 Additional vertical loads. Where gravity loading is increased on the roof or floor of a building or structure, all structural members affected by such increase in loading shall meet the gravity load requirements of *Building Code*.

Exceptions:

1. Structural elements whose stress is not increased by more than 5 percent.
2. Buildings of Group R Occupancy with no more than 5 dwelling units or guest rooms used solely for residential purposes altered based on the Conventional Light-Frame Construction methods of the *Building Code* or in compliance with the provisions of the *Residential Code*.

EX-707.7 Voluntary lateral force resisting system alterations. Alterations of existing structural elements that are initiated for the purpose of increasing the lateral force-resisting strength or stiffness of an existing structure, and are not required by other sections of this code, shall not be required to be designed for forces conforming to the *Building Code* provided that an engineering analysis is submitted to show that:

1. The capacity of existing structural elements required to resist forces is not reduced.
2. The lateral loading to existing structural elements is not increased beyond their capacity.
3. New structural elements are detailed and connected to the existing structural elements as required by the *Building Code*.
4. New or relocated non-structural elements are detailed and connected to existing or new structural elements as required by the *Building Code* and
5. A dangerous condition as defined in this code is not created.

Voluntary alterations to lateral force resisting systems conducted in accordance with Appendix A and the referenced standards of this code shall be permitted.

SECTION EX-708 MECHANICAL

EX-708.1 General. All mechanical systems in any work area under this chapter shall comply with the requirements of the *District of Columbia Mechanical Code*.

SECTION EX-709 PLUMBING

EX-709.1 General. All plumbing systems in any work area under this chapter shall comply with the requirements of the *Plumbing Code*.

Exception: Alterations and repairs of existing buildings in which the estimated cost equals or exceeds 50 percent of the assessed value of the property before the alterations and repairs are started, and which have downspouts connected to a sanitary or combined sewer, shall be required to disconnect the roof downspouts allowing storm water to be discharged to a separate storm sewer if available, or to vegetative areas such as lawns, gardens, grassy swales, or bioretention cells on the same record lot, provided it is feasible to conform with the storm water discharge provisions in Section P-1101.2.2 of the *Plumbing Code*.

SECTION 710 FUEL GAS

710.1 General. All newly installed fuel gas piping, equipment, appliances, and venting systems shall comply with the materials and methods requirements of the *Fuel Gas Code*.

CHAPTER 8 CHANGE OF OCCUPANCY

SECTION EX-801 GENERAL

EX-801.1 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 as described in the *Building Code* shall conform to the applicable requirements for the work as classified in Chapter 3 and the requirements of Sections EX-802 through EX-811.

Exceptions:

1. Compliance with all the provisions of Chapter 7 is not required where the change of occupancy classification complies with the requirements of Section EX-812.3.
2. As modified in Section 1004.0 for historic buildings.
3. As permitted in Chapter 12.

EX-801.2 Part change of occupancy group. Where a portion of an existing building is changed to a new occupancy group, Section EX-812 shall apply.

EX-801.3 Certificate of occupancy required. A certificate of occupancy shall be issued where a change of occupancy occurs which results in being classified in a different occupancy classification as determined by the *Building Code*.

SECTION EX-802 SPECIAL USE AND OCCUPANCY

EX-802.1 Compliance with the building code. Where the character of 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 Chapter 4 of the *Building Code*, the building shall comply with all the applicable requirements of the *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.

EX-802.2 Underground buildings. An underground building in which there is a change of use shall comply with the requirements of the *Building Code* applicable to underground structures.

SECTION EX-803 BUILDING ELEMENTS AND MATERIALS

EX-803.1 General. Building elements and materials in portions of buildings undergoing a change of occupancy classification shall comply with Section EX-812.

SECTION EX - EX-804 FIRE PROTECTION

EX-804.1 General. Fire protection requirements of Section EX-812 shall apply where a building or portions thereof undergoes a change of occupancy classification.

SECTION EX - EX-805 EGRESS

EX-805.1 General. Means of egress in portions of buildings undergoing a change of occupancy classification shall comply with Section EX-812.

SECTION EX-806 ACCESSIBILITY

EX-806.1 General. Accessibility in portions of buildings undergoing a change of occupancy classification shall comply with Section EX-812.

SECTION EX-807 STRUCTURAL

EX-807.1 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 *Building Code* Tables 1607.1 and 1607.6, shall comply with the gravity load provisions of the *Building Code*.

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

EX-807.2 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 importance factors based on

Building Code Table 1604.5, shall be analyzed and shall comply with the applicable wind or snow load provisions of the *Building Code*.

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

EX-807.3 Seismic loads. Existing buildings with a change of occupancy shall comply with the seismic provisions of Sections EX-807.3.1 and EX-807.3.2.

EX-807.3.1 Compliance with the *Building Code*. When a building or portion thereof is subject to change of occupancy where such a change in the nature of the occupancy results in a higher Seismic Factor based on Table 1604.5 of the *Building Code* or when a change of occupancy results in a building being reclassified to a higher Hazard Category as shown in Table EX-812.4.1, and for M occupancy being changed to A, E, I-1, R-1, R-2 or R-4 occupancies with two-thirds or more of the floors involved in Alteration-Level 3 type of work, the building shall conform to the seismic requirements of the *Building Code* for the new Seismic Use Group.

Exceptions:

1. Group M occupancies being changed to 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 and C.
2. Specific detailing provisions required for a new structure are not required to be met where it can be shown an acceptable level of performance and seismic safety is obtained for the applicable seismic use group using reduced *Building Code* level seismic forces as specified in Section 407.1.1.3. The rehabilitation procedures shall be approved by the code official and shall consider the regularity, over-strength, redundancy and ductility of the lateral load resisting system within the context of the existing detailing of the system.
3. Where the area of the new occupancy with higher Hazard Category is less than or equal to 10% of the total building floor area and the new occupancy is not classified as Seismic Use Group III. For the purposes of this exception where a structure is occupied for two or more occupancies not included in the same seismic use group, the structure shall be assigned the classification of the highest seismic use group corresponding to the various occupancies. Where structures have two or more portions that are structurally separated in accordance with the *Building Code* Section 1620, each portion shall be separately classified. Where a structurally separated portion of a structure provides required access to, required egress from, or shares life safety components with another portion having a higher seismic use group, both portions shall be assigned the higher seismic use group. The cumulative effect of the area of occupancy changes shall be considered for the purposes of this exception.
4. When the new occupancy with higher Hazard Category is within only one story of a building or structure, only the lateral force resisting elements in that story and all lateral

force resisting elements below that story shall be required to comply with Section EX-807.3.1 and exception 2. The lateral forces generated by masses of such upper floors shall be included in the analysis and design of the lateral force resisting systems for the strengthened floor. Such forces may be applied to the floor level immediately above the topmost strengthened floor and distributed in that floor in a manner consistent with the construction and layout of the exempted floor.

5. Unreinforced masonry bearing wall buildings in Seismic Use Group 1 and in Seismic Use Group 1 and when in Seismic Design Categories A, B and C shall be allowed to be strengthened to meet the requirements of Appendix A of the code (GSREB).

EX-807.3.2 Access of seismic use group III. Where the change of occupancy is such that compliance with Section EX-807.3.1 is required and the Seismic Use Group is a Category III, the operational access to such a Seismic Use Group III existing structure shall not be through an adjacent structure.

Exception: Where the adjacent structure conforms to the requirements for Seismic Use Group III structures. Where operational access is less than 10 feet (3048 mm) from an interior lot line or less than 10 feet (3048 mm) from another structure, access protection from potential falling debris shall be provided by the owner of the Seismic Use Group III structure.

SECTION EX-808 ELECTRICAL

EX-808.1 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 the *Electrical Code*, the electrical wiring and equipment of the building or portion thereof that contains the proposed occupancy shall comply with an applicable requirements of the *Electrical Code* regardless of whether 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, and
12. agricultural buildings.

EX-808.2 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 be brought up to the current edition of the *Electrical Code*.

EX-808.3 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 the *Electrical Code* for the new occupancy.

EX-808.4 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 the *Electrical Code* for the new occupancy.

SECTION EX-809 MECHANICAL AND FUEL GAS

EX-809.1 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 *Mechanical Code*, the intent of the respective *Mechanical Code* provisions shall be complied with.

EX-809.2 Fuel gas requirements. Where the occupancy of an existing building or part of an existing building is changed such that a provision of the *Fuel Gas Code* would be applied differently to the new occupancy, such provision shall be complied with.

SECTION EX-810 PLUMBING

EX-810.1 Increased demand. Where the occupancy of a 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 *Plumbing Code*, the intent of the respective *Plumbing Code* provisions shall be complied with.

EX-810.2 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 *Plumbing Code*.

EX-810.3 Interceptor required. If the new occupancy will produce grease or oil laden wastes, interceptors shall be provided as required in the *Plumbing Code*.

EX-810.4 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.

EX-810.5 Group I-2. If the occupancy group is changed to Group I-2, the plumbing system shall comply with the applicable requirements of the *Plumbing Code*.

SECTION EX-811 OTHER REQUIREMENTS

EX-811.1 Health and hygiene

EX-811.1.1 Light and ventilation. Light and ventilation shall comply with the requirements of the *Building Code* for the new occupancy

SECTION EX-812 CHANGE OF OCCUPANCY CLASSIFICATION

EX-812.1 Compliance with Chapter 7. The occupancy classification of an existing building may be changed, provided the building meets all the requirements of Chapter 7 applied throughout the building for the new occupancy group, and complies with the requirements of Sections EX-802 through EX-812.

EX-812.1.1 Change of occupancy group without separation. Where a portion of an existing building is changed to a new occupancy group, and that portion is not separated from the remainder of the building with fire barriers having a fire resistance rating as required in the *Building Code* for the separate occupancy, the entire building shall comply with all of the requirements of Chapter 7 applied throughout the building for the most restrictive Use Group in the building and with the requirements of this Chapter.

Exception: Compliance with all the provisions of Chapter 7 is not required when the change of occupancy group complies with the requirements of Section EX-812.3.

EX-812.1.2 Change of occupancy group with separation. A portion of an existing building that is changed to a new occupancy group, and is separated from the remainder of the building

with fire barriers having a fire resistance rating as required in the *Building Code* for the separate occupancy, shall comply with all the requirements of Chapter 7 for the new occupancy group, and with the requirements of this Chapter.

Exception: Compliance with all the provisions of Chapter 7 is not required when the change of use complies with the requirements of Section EX-812.3.

EX-812.2 Hazard category classifications. The relative degree of hazard between different occupancy groups shall be as set forth in the hazard category classifications, Tables EX-812.4.1, EX-812.4.3 and EX-812.4.4 of Sections EX-812.4.1 EX-812.4.3 and EX-812.4.4.

EX-812.2.1 Change of occupancy classification to an equal or lesser hazard. An existing building or portion thereof may have its use changed to a occupancy group within the same hazard classification category or to a occupancy group in a lesser hazard classification category (higher number) in all four hazard category classifications, provided it complies with the provisions of Chapter 7 for the new occupancy group, applied throughout the building, or portion thereof.

Exception: Compliance with all the provisions of Chapter 7 is not required where the change of occupancy group complies with the requirements of Section EX-812.3.

EX-812.2.2 Change of occupancy classification to a higher hazard. An existing building shall comply with all the applicable requirements of this Chapter when a change in occupancy group will place it in a higher hazard category or when the occupancy group is changed within Group H.

EX-812.2.3 Change of occupancy classification to a higher hazard in all three hazard classifications. An existing building may have its use changed to a higher hazard rating (lower number) in all three hazard category classifications designated in EX-812.4.1, EX-812.4.3 and EX-812.4.4 provided it complies with this Chapter or with Chapter 12.

EX-812.3 Change of occupancy classification to an equal or lesser hazard in all three hazard classifications. A change of use to an occupancy group within the same hazard classification category or to an occupancy group in a lesser hazard classification category (higher number) in the three hazard category classifications addressed by EX-812.4.1, EX-812.4.3 and EX-812.4.4 shall be permitted in an existing building or portion thereof provided the provisions of Sections EX-812.3.1 through EX-812.3.5 are met.

EX-812.3.1 Minimum requirements. Regardless of the occupancy group involved, the following requirements shall be met:

1. The capacity of the means of egress shall comply with *Building Code*.
2. The interior finish of walls and ceilings shall comply with the requirements of the

Building Code for the new occupancy group.

EX-812.3.2 Groups I-1, R-1, R-2, or R-4. Where the new use is classified as Group I-1, R-1 or R-2, or R-4 Occupancy the following requirements shall be met.

1. Corridor doors and transoms shall comply with the requirements of Sections EX-605.5.1 and EX-605.5.2.
2. Automatic sprinkler systems shall comply with the requirements of Section EX-604.2.
3. Fire alarm and detection systems shall comply with the requirements of Section EX-604.4.

EX-812.3.3 Group I-2. Where the new use is classified as Group I-2 Occupancy, the following requirements shall be met:

1. Egress doorways from patient sleeping rooms shall and suites of rooms shall comply with the requirements of Section EX-605.4.1.2.
2. Shaft enclosures shall comply with the requirements of Section EX-703.1.
3. Smoke barriers shall comply with the requirements of Section EX-603.3.
4. Automatic sprinkler systems shall comply with the requirements of Section EX-604.2.
5. Fire alarm and detection systems shall comply with the requirements of Section EX-604.4.

EX-812.3.4 Group I-3. Where the new use is classified as Group I-3 Occupancy, the following requirements shall be met:

1. Locking of egress doors shall comply with the requirements of Section EX-605.4.5.
2. Shaft enclosures shall comply with the requirements of Section EX-703.1.
3. Automatic sprinkler systems shall comply with the requirements of Section EX-604.2.
4. Fire alarm and detection systems shall comply with the requirements of Section EX-604.4.

EX-812.3.5 Group R-3. Where the new use is classified as Group R-3 Occupancy, the following requirements shall be met:

1. Dwelling unit separation shall comply with the requirements of Section EX-703.2.1.
2. The smoke alarm requirements of Section EX-604.4.3 shall be met.

EX-812.4 Fire and life safety

EX-812.4.1 Means of Egress, General. Hazard categories in regard to life safety and means of egress shall be in accordance with Table EX-812.4.1.

**TABLE EX-812.4.1
HAZARD CATEGORIES AND CLASSIFICATIONS:
LIFE SAFETY AND EXITS**

RELATIVE HAZARD	OCCUPANCY CLASSIFICATION
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

EX-812.4.1.1 Means of egress for change to higher hazard category. When a change of occupancy group is made to a higher hazard category (lower number) as shown in Table EX-812.4.1, the means of egress shall comply with the requirements of Chapter 10 of the *Building Code*.

Exceptions:

1. Stairways shall be enclosed in compliance with applicable provisions of Section EX-703.1.
2. Existing stairways including handrails and guards complying with the requirements of Chapter 7 shall be permitted for continued use subject to approval of the code official.
3. Any stairway replacing an existing stairway within a space where, because of existing construction, the pitch or slope cannot be reduced, 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.

5. Existing corridor doorways, transoms and other corridor openings shall comply with the requirements in Sections EX-605.5.1, EX-605.5.2 and EX-605.5.3.
6. Existing dead end corridors shall comply with the requirements in Section EX-605.6.
7. An existing operable window with clear opening area no less than 4 square feet (0.38 m²), and with 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.

EX-812.4.1.2 Means of egress when change of use to equal or lower hazard category. When a change of occupancy group is made to an equal or lesser hazard category as shown in Table EX-812.4.1, existing elements of the means of egress shall comply with the requirements of Section EX-705 for the new occupancy group. Newly constructed or configured means of egress shall comply with the requirements of Chapter 10 of the *Building Code*.

Exception:

1. Any stairway replacing an existing stairway within a space where, because of existing construction, the pitch or slope cannot be reduced, shall not be required to comply with the maximum riser height and minimum tread depth requirements.
2. Compliance with Section EX-705 is not required where the change of occupancy group complies with the requirements of Section EX-812.3.

EX-812.4.1.3 Egress capacity. Egress capacity shall meet or exceed the occupant load as specified in the *Building Code* if the change of Occupancy Classification is to an equal or lesser hazard category when evaluated in accordance with Table EX-812.4.1.

EX-812.4.1.4 Handrails. Existing stairways shall comply with the handrail requirements in Section EX-605.9 in the area of the change of occupancy classification.

EX-812.4.1.5 Guards. Existing guards shall comply with the guardrail requirements in Section EX-605.10 within the area of the change of occupancy classification.

EX-812.4.2 Enclosure of vertical shafts. Enclosure of vertical shafts shall be in accordance with Section EX-802.4.2.1 through EX-802.4.2.4.

EX-812.4.2.1 Minimum requirements. Vertical shafts shall be designed to meet the *Building Code* requirements for atriums or the requirements of this Section.

EX-812.4.2.2 Stairways. When a change of occupancy group is made to a higher hazard category as shown in Table EX-812.4.1, interior stairways shall be enclosed as required by the *Building Code*.

Exceptions:

1. In other than Group I Occupancy, an enclosure shall not be required for openings serving only one adjacent floor and 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 one-hour fire-resistive construction or approved wired glass set in steel frames and all exit corridors are sprinklered. The openings between the corridor and occupant space shall have at least one sprinkler head above the openings of 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 *Building Code*.

EX-812.4.2.3 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 *Building Code* when there is a change of use to a higher hazard category in Table EX-812.4.1.

Exceptions:

1. Existing one-hour interior shaft enclosures shall be accepted where a higher rating is required.
2. Vertical openings, other than stairways, in buildings other than Group I Occupancy and connecting less than 6 stories in height shall not be required to be enclosed if the entire building is provided with an approved automatic sprinkler system.

EX-812.4.2.4 Openings. All openings into existing vertical shaft enclosures shall be protected by fire assemblies having a fire-protection rating of not less than one hour and shall be 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).

EX-812.4.3 Heights and areas. Hazard categories in regard to height and area shall be in

accordance with Table EX-812.4.3.

**TABLE EX-812.4.3
HAZARD CATEGORIES AND CLASSIFICATIONS:
HEIGHTS AND AREAS**

RELATIVE HAZARD	OCCUPANCY CLASSIFICATION
1 (Highest Hazard)	H
2	A-1, A-2, A-3, A-4, 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

EX-812.4.3.1 Height and area for change to higher hazard category. When a change of occupancy group is made to a higher hazard category as shown in Table EX-812.4.3, heights and areas of buildings and structures shall comply with the requirements of Chapter 5 of the *Building Code* for the new occupancy group.

Exception: A 1-story building changed into Group E shall not be required to meet the area limitations of the *Building Code*.

EX-812.4.3.2 Height and area for change to equal or lesser hazard category. When a change of use is made to an equal or lesser hazard category as shown in Table EX-812.4.3, the height and area of the existing building shall be deemed to be acceptable.

EX-812.4.3.3 Fire barriers . When a change of occupancy group is made to a higher hazard category as shown in Table EX-812.4.3, fire barriers in separated mixed use buildings shall comply with the fire resistance requirements in the *Building Code*.

Exception: Where the fire barriers are required to have a one-hour fire resistance rating, existing wood lath and plaster in good condition or existing ½-inch-thick (12.7 mm) gypsum wallboard shall be permitted.

EX-812.4.4 Exterior wall fire resistance ratings. Hazard categories in regard to fire resistance ratings of exterior walls shall be in accordance with Table EX-812.4.4.

**TABLE EX-812.4.4
HAZARD CATEGORIES AND CLASSIFICATIONS:
EXPOSURE OF EXTERIOR WALLS**

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

EX-812.4.4.1 Exterior wall rating for change of occupancy classification to a higher hazard category. Where a change of occupancy group is made to a higher hazard category as shown in Table EX-812.4.4, exterior walls shall have fire resistance and exterior opening protectives as required by the *Building Code*. This provision shall not apply to walls at right angles to the property line.

Exception: A two 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.

EX-812.4.4.2 Exterior wall rating for change of occupancy classification to an equal or lesser hazard category. When a change of occupancy group is made to an equal or lesser hazard category as shown in Table EX-812.4.4, existing exterior walls, including openings, shall be accepted.

EX-812.4.4.3 Opening protectives. Openings in exterior walls shall be protected as required by the *Building Code*. When openings in the exterior walls are required to be protected due to 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 *Building Code* permits openings in excess of 50 percent.
2. Protected openings shall not be required in buildings of occupancy group R, which do not exceed three stories in height and which 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 EX-812.4.4.

EX-812.5 Accessibility. Existing buildings or portions thereof that undergo a change of occupancy classification 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 *Building Code*.
4. Accessible parking, where parking is being 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. Change of group or occupancy that incorporate any alterations or additions shall comply with this section and Sections EX-506.1 and EX-506.2 as applicable.

Exception: Type B dwelling units required by Section 1107.6.2 of the *Building Code* are not required to be provided in existing buildings and facilities.

EX-812. 6 Structural safety

EX-812.6.1 Seismic loads. Existing buildings with a change of Occupancy Classification shall comply with the seismic provisions of Section EX-807.

CHAPTER 9 ADDITIONS

SECTION EX-901 GENERAL

EX-901.1 Scope. An addition to a building or structure shall comply with the building, plumbing, electrical, fuel gas and mechanical codes, without requiring the existing building or structure to comply with any requirements of those codes or of these provisions.

Exception: In flood hazard areas, the existing building is subject to the requirements of Section EX-903.5 of this Chapter.

EX-901.2 Creation or extension of nonconformity. An addition shall not create or extend any non-conformity in the existing building to which the addition is constructed with regard to accessibility, structural strength, fire safety, means of egress, or the capacity of mechanical, plumbing or electrical systems.

EX-901.3 Other work. Any repair or alteration work within an existing building to which an addition is being made shall comply with the applicable requirements for the work as classified in Chapter 3.

SECTION EX-902 HEIGHTS AND AREAS

EX-902.1 Height limitations. No addition shall increase the height of an existing building beyond that permitted under the applicable provisions of Chapter 5 of the *Building Code* for new buildings.

EX-902.2 Area limitations. No addition shall increase the area of an existing building beyond that permitted under the applicable provisions of Chapter 5 of the *Building Code* for new buildings unless fire separation as required in the *Building Code* is provided.

Exceptions:

1. Existing one and two story buildings shall be permitted to be expanded beyond what is permitted by up to 25 percent of the existing floor area, not to exceed an area of 125 percent of that permitted by the *Building Code*, without providing fire separation.
2. Infilling of floor openings, non-occupiable appendages such as elevator and exit stair shafts, and the addition of mezzanines and equipment penthouses shall be permitted beyond that permitted by the *Building Code*.

EX-902.3 Fire protection systems. Existing fire areas increased by the addition shall comply with Chapter 9 of the *Building Code*.

SECTION EX-903 STRUCTURAL

EX-903.1 Compliance with *Building Code*. Additions to existing buildings or structures are new construction and shall comply with the *Building Code*.

EX-903.2 Additional gravity loads. Existing structural elements supporting any additional gravity loads as a result of additions shall comply with the *Building Code*.

Exceptions :

1. Structural elements whose stress is not increased by more than 5 percent.
2. Buildings of Group R Occupancy with no more than 5 dwelling units or guestrooms used solely for residential purposes where the existing building and the addition comply with the Conventional Light-Frame Construction methods of the *Building Code* or the provisions of the *Residential Code*.

EX-903.3 Lateral force resisting system. The lateral force resisting system of existing buildings to which additions are made shall comply with Sections EX-903.3.1, EX-903.3.2 and EX-903.3.3.

Exceptions:

1. In Type V construction, Group R Occupancies where the lateral force story shear in any story is not increased by more than 10 percent.
2. Buildings of Group R Occupancy with no more than 5 dwelling units or guestrooms used solely for residential purposes where the existing building and the addition comply with the Conventional Light-Frame Construction methods of the *Building Code* or the provisions of the *Residential Code*.
3. Additions where the lateral force story shear in any story is not increased by more than 5 percent.

EX-903.3.1 Vertical addition. Any element of the Lateral Force Resisting System of an existing building subjected to an increase in vertical or lateral loads from the vertical addition shall comply with the lateral load provisions of the *Building Code*.

EX-903.3.2 Horizontal addition. Where horizontal additions are structurally connected to an existing structure all lateral force resisting elements of the existing structure affected by such addition shall comply with the lateral load provisions of the *Building Code*. Lateral loads imposed on the elements of the existing structure and the addition shall be determined by a relative stiffness analysis of the combined structure including torsional effects.

EX-903.3.3 Voluntary addition of structural elements to improve lateral force resisting system. Voluntary addition of structural elements to improve the lateral force resisting system of a building shall comply with Section EX-707.7.

EX-903.4 Snow drift loads. Any structural element of an existing building subjected to additional loads from the effects of snow drift as a result of an addition shall comply with the *Building Code*.

Exceptions :

1. Structural elements whose stress is not increased by more than 5 percent.
2. Buildings of Group R Occupancy with no more than 5 dwelling units or guest rooms used solely for residential purposes where the existing building and the addition comply with the Conventional Light-Frame Construction methods of the *Building Code* or the provisions of the *Residential Code*.

EX-903.5 Flood hazard areas. In flood hazard areas:

1. For horizontal additions that are structurally interconnected to the existing building:
 - 1.1. If the addition and all other proposed work, when combined, constitute substantial improvement, the existing building and the addition shall comply with *Building Code* Section 1612.
 - 1.2. If the addition constitutes substantial improvement, the existing building and the addition shall comply with *Building Code* Section 1612.
2. For horizontal additions that are not structurally interconnected to the existing building:
 - 2.1. The addition shall comply with *Building Code* Section 1612.
 - 2.2. If the addition and all other proposed work, when combined, constitute substantial improvement, the existing building and the addition shall comply with *Building Code* Section 1612.
3. For vertical additions and all other proposed work, when combined, that constitute substantial improvement, the existing building shall comply with *Building Code* Section 1612.
4. For a new, replacement, raised or extended foundation, if the foundation work and all other proposed work, when combined, constitute substantial improvement, the existing building shall comply with *Building Code* Section 1612.

SECTION EX-904 SMOKE ALARMS IN USE GROUPS R-3 AND R-4

EX-904.1 Smoke alarms in addition. Whenever an addition is made to a building or structure of Use Group R-3 or R-4, hardwired, interconnected smoke alarms meeting the requirements of the *Building Code* or *Residential Code* as applicable shall be installed and maintained in the addition.

EX-904.2 Smoke alarms in existing portions of building. Whenever an addition is made to a building or structure of Use Group R-3 or R-4, the existing building shall be provided with smoke alarms as required by the *Building Code* or the *Residential Code* as applicable. In the existing

building the smoke alarms are not required to be interconnected with smoke alarms in the addition or with smoke detectors in other parts of the base building.

SECTION EX-905 ACCESSIBILITY

EX-905.1 Minimum requirements. Accessibility provisions for new construction shall apply to additions. An addition that affects the accessibility to, or contains an area of primary function, shall comply with the requirements in Section EX-506.2 for accessible routes.

SECTION EX-906 ENERGY CONSERVATION

EX-906.1 Minimum requirements. Additions to existing buildings or structures may be made to such buildings or structures without making the entire building or structure comply with the requirements of the *Energy Code*. The addition shall conform to the requirements of the *Energy Code* as they relate to new construction only.

SECTION EX-907 MEANS OF EGRESS

EX-907.1 Egress through existing building. Additions to an existing building shall be permitted to be served by existing exit access passageways or corridors which comply with Section EX-605 of this code for the combined occupant load of the existing building plus additions, when the combined footprint of all additions does not exceed 25% of the footprint of the existing building.

CHAPTER 10 HISTORIC BUILDINGS

SECTION EX-1001 GENERAL

EX-1001.1 Scope. It is the intent of this chapter to provide means for the preservation of historic buildings. Historic buildings shall comply with the provisions of this chapter relating to their repair, alteration, relocation and change of occupancy.

EX-1001.2 Report. A historic building undergoing repair, alteration, or change of occupancy shall be investigated and evaluated. If it is intended that the building meet the requirements of this chapter, a written report shall be prepared and filed with the code official by a registered design professional when in the opinion of the official such a report is necessary. Such report shall identify each required safety feature in compliance with this chapter and where compliance with other chapters of these provisions would be damaging to the contributing historic features. In high seismic zones, a structural evaluation, describing, as a minimum, a complete load path and other earthquake-resistant features shall be prepared. In addition, the report shall describe each feature not in compliance with these provisions and demonstrate how the intent of these provisions is complied with in providing an equivalent level of safety.

EX-1001.3 Special occupancy exceptions - museums. When a building that is in Use Group R-3 is also used for Group A, B or M purposes such as museum tours, exhibits and other public assembly activities, or for museums less than 3000 s.f. (279 m²) the code official may make a determination that the Use Group is B when life-safety conditions can be demonstrated in accordance with Section EX-1001.2. Adequate means of egress in such buildings, which may include a means of maintaining doors in an open position to permit egress, a limit on building occupancy to an occupant load permitted by the means of egress capacity, a limit on occupancy of certain areas or floors, and/or supervision by a person knowledgeable in the emergency exiting procedures, shall be provided.

EX-1001.4 Flood hazard areas. In flood hazard areas, if all proposed work, including repairs, work required due to a change of occupancy, and alterations, constitutes substantial improvement then the existing building shall comply with *Building Code* Section 1612.

Exception: If a historic building will continue to be a historic building after the proposed work is completed, then the proposed work is not considered to be a substantial improvement. For the purposes of this exception, a historic building is:

- a. Listed or preliminarily determined to be eligible for listing in the National Register of Historic Places.
- b. 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

- c. Designated as historic under a state or local historic preservation program that is approved by the Department of Interior.

SECTION EX-1002 REPAIRS

EX-1002.1 Requirements. Repairs to any portion of a historic building or structure shall be permitted with original or like materials and original methods of construction, subject to the provisions of this chapter.

EX-1002.2 Dangerous buildings. When a historic building is determined to be dangerous no work shall be required except as necessary to correct identified unsafe conditions.

EX-1002.3 Relocated buildings. Foundations of relocated historic buildings and structures shall comply with the *Building Code*. Relocated historic buildings shall otherwise be considered a historic building for the purposes of this code. Relocated historic buildings and structures shall be so sited that exterior wall and opening requirements comply with the *Building Code* or the compliance alternatives of this code.

EX-1002.4 Repairs, general. Historic buildings undergoing repairs shall comply with all of the applicable requirements of Chapter 4 except as specifically permitted in this chapter.

EX-1002.5 Replacement. Replacement of existing or missing features using original materials shall be permitted. Partial replacement for repairs that match the original in configuration, height and size shall be permitted. Such replacements shall not be required to meet the materials and methods requirements in Section EX-401.2.

Exception: Replacement glazing in hazardous locations shall comply with the safety glazing requirements of Chapter 24 of the *Building Code*.

SECTION EX-1003 FIRE SAFETY

EX-1003.1 Scope. Historic Buildings undergoing alterations, changes of occupancy, or that are moved shall comply with Section EX-1003.

EX-1003.2 General. Every historic building that does not conform to the construction requirements specified in this code for the occupancy or use and that constitutes a distinct fire hazard as defined herein shall be provided with an approved automatic fire-extinguishing system as determined appropriate by the code official. However, an automatic fire-extinguishing system shall not be used to substitute for, or act as an alternate to, the required number of exits from any facility.

EX-1003.3 Means of egress. Existing door openings and corridor and stairway widths of less than that specified elsewhere in this code may be approved, provided that in the opinion of the code official there is sufficient width and height for a person to pass through the opening or traverse the

means of egress. When approved by the code official, the front or main exit doors need not swing in the direction of the path of exit travel, provided other approved means of egress having sufficient capacity to serve the total occupant load are provided.

EX-1003.4 Transoms. In fully sprinklered buildings of Groups R-1, R-2 or R-3 Occupancy existing transoms in corridors and other fire-rated walls may be maintained if fixed in the closed position. A sprinkler shall be installed on each side of the transom.

EX-1003.5 Interior finishes. The existing finishes of walls and ceilings shall be accepted when it is demonstrated that they are the historic finishes.

EX-1003.6 Stairway enclosure. In buildings of three stories or less, exit enclosure construction shall limit the spread of smoke by the use of tight-fitting doors and solid elements. Such elements are not required to have a fire rating.

EX-1003.7 One-hour fire resistant assemblies. Where one-hour fire-resistive construction is required by these provisions, it need not be provided regardless of construction or occupancy when the existing wall and ceiling finish is wood or metal lath and plaster.

EX-1003.8 Glazing in fire-rated systems. Historic glazing materials in interior walls required to have one-hour fire rating may be permitted when provided with approved smoke seals and when the area affected is provided with an automatic sprinkler system.

EX-1003.9 Stairway railings. Grand stairways shall be accepted without complying with the handrail and guardrail requirements. Existing handrails and guards at all stairs shall be permitted to remain, provided they are not in danger of collapsing.

EX-1003.10 Guards. Guards shall comply with Sections EX-1003.9.1 and EX-1003.9.2.

EX-1003.10.1 Height. Existing guards shall comply with the requirements of Section EX-405.

EX-1003.10.2 Guard openings. The spacing between existing intermediate railings or openings in existing ornamental patterns shall be accepted. Missing elements or members of a guard may be replaced in a manner that will preserve the historic appearance of the building or structure.

EX-1003.11 Exit signs. Where exit sign or egress path marking location would damage the historic character of the building, alternate exit signs are permitted with approval of the code official. Alternative signs shall identify the exits and egress path.

EX-1003.12 Automatic fire-extinguishing systems.

EX-1003.12.1 Every historical building which cannot be made to conform to the construction requirements specified in the *Building Code* for the occupancy or use, and which constitutes a distinct fire hazard shall be deemed to be in compliance if provided with an approved automatic

fire extinguishing system.

Exception: When an alternative life-safety system is approved by the code official.

SECTION EX-1004 CHANGE OF OCCUPANCY

EX-1004.1 General. Historic buildings undergoing a change of occupancy shall comply with the applicable provisions of Chapter 3, except as specifically permitted in this chapter. When Chapter 3 requires compliance with specific requirements of Chapter 4, Chapter 5, or Chapter 6 and when those requirements are subject to the exceptions in Section EX-1002, the same exceptions shall apply in this section.

EX-1004.2 Building area. The allowable floor area for historic buildings undergoing a change of occupancy shall be permitted to exceed the allowable areas specified in Chapter 5 of the *Building Code* by 20 percent.

EX-1004.3 Location on property. Historic structures undergoing a change of use to a higher hazard category, in accordance with Section EX-812.4.4 may use alternative methods to comply with the fire-resistance and exterior opening protective requirements. Such alternatives shall comply with Section EX-1001.2.

EX-1004.4 Occupancy Separation. Required occupancy separations of one-hour may be omitted when the building is provided with an approved automatic sprinkler system throughout.

EX-1004.5 Roof covering. Regardless of occupancy or Use Group, roof-covering materials not less than Class C shall be permitted where a fire-retardant roof covering is required.

EX-1004.6 Means of egress. Existing door openings and corridor and stairway widths less than those that would be acceptable for non-historic buildings under these provisions shall be approved, provided that in the opinion of the code official, there is sufficient width and height for a person to pass through the opening or traverse the exit and that the capacity of the exit system is adequate for the occupant load, or where other operational controls to limit occupancy are approved by the code official.

EX-1004.7 Door swing. When approved by the code official, existing front doors need not swing in the direction of exit travel, provided other approved exits having sufficient capacity to serve the total occupant load are provided.

EX-1004.8 Transoms. In corridor walls required to be fire rated by these provisions, existing transoms may be maintained if fixed in the closed position and fixed wired glass set in a steel frame or other approved glazing shall be installed on one side of the transom.

Exception: Transoms conforming to Section EX-1003.4 shall be accepted.

EX-1004.9 Finishes. Where finish materials are required to have a flame-spread classification of Class III or better, existing nonconforming materials shall be surfaced with an approved fire-retardant paint or finish.

Exception: Existing nonconforming materials need not be surfaced with an approved fire-retardant paint or finish when the building is equipped throughout with an automatic fire-suppression system installed in accordance with the *Building Code* and the nonconforming materials can be substantiated as being historic in character.

EX-1004.10 One-hour fire resistant assemblies. Where one-hour fire resistant construction is required by these provisions, it need not be provided regardless of construction or occupancy where the existing wall and ceiling finish is wood lath and plaster.

EX-1004.11 Stairs and railing. Existing stairways shall comply with the requirements of these provisions. The code official shall grant alternatives for stairways and railings if alternative stairways are found to be acceptable or if judged as meeting the intent of these provisions. Existing stairways shall comply with Section EX-1003.

Exception: For buildings less than 3000 s.f. (279 m²), existing conditions are permitted to remain at all stairs and rails.

EX-1004.12 Exit signs. The code official may accept alternate exit sign locations where such signs would damage the historic character of the building or structure. Such signs shall identify the exits and exit path.

EX-1004.13 Exit stair live load. Existing historic stairways in buildings changed to Use Groups R-1 and R-2 shall be accepted where it can be shown that the stairway can support a 75 pounds per square foot (366 kg/m²) live load.

EX-1004.14 Natural light. When it is determined by the code official that compliance with the natural light requirements of Section EX-811.1.1 will lead to loss of historic character or historic materials in the building, the existing level of natural lighting shall be considered acceptable.

EX-1004.15 Accessibility requirements. The provisions of Section EX-812.5 shall apply to buildings and facilities designated as historic structures that undergo a change of occupancy, unless technically infeasible. Where compliance with the requirements for accessible routes, ramps, entrances, or toilet facilities would threaten or destroy the historic significance of the building or facility, as determined by the authority having jurisdiction, the alternative requirements of Sections 1005.1.1 through 1005.1.5 of the *Building Code* for that element shall be permitted.

SECTION EX-1005 ALTERATIONS

EX-1005.1 Accessibility requirements. The provisions of Section EX-506 shall apply to buildings and facilities designated as historic structures that undergo alterations, unless technically infeasible.

Where compliance with the requirements for accessible routes, ramps, entrances, or toilet facilities would threaten or destroy the historic significance of the building or facility, as determined by the code official, the alternative requirements of Sections EX-1005.1.1 through EX-1005.1.5 of this code for that element shall be permitted.

EX-1005.1.1 Site arrival points. At least one main entrance shall be accessible.

EX-1005.1.2 Multilevel buildings and facilities. An accessible route from an accessible entrance to public spaces on the level of the accessible entrance shall be provided.

EX-1005.1.3 Entrances. At least one main entrance shall be accessible.

Exceptions:

1. If a main entrance cannot be made accessible, an accessible non public 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.

EX-1005.1.4 Toilet and bathing facilities. Where toilet rooms are provided at least one accessible toilet room complying with Section 1108.2.1 of the *Building Code* shall be provided.

EX-1005.1.5 Ramps. The slope of a ramp run of 24 inches (610 mm) maximum shall not be steeper than one-unit vertical eight units horizontal (12-percent slope).

SECTION EX-1006 STRUCTURAL

EX-1006.1 General. Historic Buildings shall comply with the structural provisions of this code for the appropriate level of rehabilitation being undertaken.

Exception: The code official shall be authorized to accept existing floors and approve operational controls that limit the live load on any such floor.

EX-1006.2 Unsafe structural elements. Where determination is made by the code official that a component or a portion of a building or structure is dangerous, as defined in this code, and is in need of repair, strengthening or replacement by provisions of this code, only that specific component or portion shall be required to be repaired, strengthened or replaced.

CHAPTER 11 RELOCATED OR MOVED BUILDINGS

SECTION EX-1101 GENERAL

EX-1101.1 Scope. This chapter provides requirements for relocated or moved structures.

EX-1101.2 Conformance. The building shall be safe for human occupancy as determined by the *Fire Code* and the *Property Maintenance Code*. Any repair, alteration or change in occupancy undertaken within the moved structure shall comply with the requirements of this code applicable to the work being performed. Any field fabricated elements shall comply with the requirements of the *Building Code*.

SECTION EX-1102 REQUIREMENTS

EX-1102.1 Location on the lot. The building shall be located on the lot in accordance with the requirements of the *Building Code* or the *Residential Code* as applicable.

EX-1102.2 Foundation. The foundation system of relocated buildings shall comply with the *Building Code*.

EX-1102.2.1 Connection to the foundation. The connection of the relocated building to the foundation shall comply with the *Building Code*.

EX-1102.3 Wind Loads. Building shall comply with *Building Code* wind provisions.

Exceptions:

1. Detached one and two family dwellings and Group U Occupancies where wind loads at the new location are not higher than the previous location.
2. Structural elements whose stress is not increased by more than 5 percent.

EX-1102.4 Seismic loads. Building shall comply with *Building Code* seismic provisions at the new location.

Exceptions:

1. All structures in Seismic Design Categories A and B, and detached one and two family dwellings in Seismic Design Categories A, B and C where the seismic loads at the new location are not higher than the previous location.
2. Structural elements whose stress is not increased by more than 5 percent.

EX-1102.5 Snow loads. Structure shall comply with *Building Code* snow loads where snow loads at the new location are higher than the previous location.

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

EX-1102.6 Flood hazard areas. If relocated or moved into a flood hazard area, structures shall comply with *Building Code* Section 1612.

EX-1102.7 Required inspection and repairs. The code official shall be authorized to inspect, or require inspection by approved professionals at the expense of the owner, the various structural parts of a relocated building to verify that structural components and connections have not sustained structural damage. Any repairs required by the code official as a result of such inspection shall be made prior to the final approval.

EX-1102.7.1 Gas piping pressure test. The entire gas piping system in a moved or relocated building shall be subjected to the pressure test requirements of Section FG-406 of the *Fuel Gas Code* before being returned to service.

CHAPTER 12 COMPLIANCE ALTERNATIVES

Section EX-1201 GENERAL

EX-1201.1 Scope. The provisions of this chapter 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 4 through 10, except where compliance with other provisions of this code is specifically required in this Chapter.

EX-1201.2 Applicability. Structures existing prior to the effective date of the ICC International Code and the respective new D.C. Supplement, in which there is work involving additions, alterations or changes of occupancy shall be made to conform to the requirements of this chapter or the provisions of Chapters 4 through 10. The provisions in Sections EX-1201.2.1 through EX-1201.2.5 shall apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, M, R, and S. These provisions shall not apply to buildings with occupancies in Group H or I.

EX-1201.2.1 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.

EX-1201.2.2 Part 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 barrier walls assemblies having a fire resistance rating as required by Table 302.3.3 of the *Building Code* or Section R-321 of the *Residential Code* for the separate occupancies, or with approved compliance alternatives, the portion changed shall be made to conform to 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 separation assemblies having a fire resistance rating as required by Table 302.3.3 of the *Building Code* or Section R-321 of the *Residential Code* 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.

EX-1201.2.3 Additions. Additions to existing buildings shall comply with the requirements of the *Building Code*, *Residential Code* and 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 705 of the *Building Code* is provided between the addition and the existing building, the addition shall be considered a separate building.

EX-1201.2.4 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 of the *Building Code*.

EX-1201.2.5 Accessibility requirements. All portions of the buildings proposed for change of occupancy shall conform to the accessibility provisions of Chapter 11 of the *Building Code*.

EX-1201.3 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 code official.

EX-1201.3.1 Hazards. Where the code official determines that an unsafe condition exists, as provided for in Section EX-115, such unsafe condition shall be abated in accordance with Section EX-115.

EX-1201.3.2 Compliance with other codes. Buildings that are evaluated in accordance with this section shall comply with the *Fire Code* and *Property Maintenance Code*.

EX-1201.3.3 Compliance with flood hazard provisions. In flood hazard areas, buildings that are evaluated in accordance with this section shall comply with *Building Code* Section 1612 if the work covered by this section constitutes substantial improvement.

EX-1201.4 Investigation and evaluation. For proposed work covered by this chapter, the building owner shall cause the existing building to be investigated and evaluated in accordance with the provisions of Sections EX-1201.4 through EX-1201.9.

EX-1201.4.1 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 existing building shall be capable of supporting the minimum load requirements of Chapter 16 of the *Building Code*.

EX-1201.4.2 Submittal. The results of the investigation and evaluation as required in Section EX-1201.4, along with proposed compliance alternatives, shall be submitted to the code official.

EX-1201.4.3 Determination of compliance. The code 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 EX-1201.5 through EX-1201.9.

EX-1201.5 Evaluation. The evaluation shall be comprised of three categories: fire safety, means of egress and general safety, as described in Sections EX-1201.5.1 through EX-1201.5.3.

EX-1201.5.1 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.

EX-1201.5.2 Means of egress. Included within the means of egress category are the configuration, characteristics and support features for means of egress in the facility.

EX-1201.5.3 General safety. Included within the general safety category are the fire safety parameters and the means of egress parameters.

EX-1201.6 Evaluation process. The evaluation process specified herein shall be followed in its entirety to evaluate existing buildings. Table EX-1201.7 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 EX-1201.6.16, 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 the mixed occupancies qualifies for any category indicated in Section EX-1201.6.16, the score for each occupancy shall apply to each portion of the building based on the occupancy of the space.

EX-1201.6.1 Building height. The value for building height shall be the lesser value determined by the formula in Section EX-1201.6.1.1. Chapter 5 of the *Building Code* shall be used to determine the allowable height of the building, including allowable increases due to automatic sprinklers as provided for in Section EX-504.2. Subtract the actual building height from the allowable and divide by 12 ½ feet. Enter the height value and its sign positive or negative in Table EX-1201.7 under Safety Parameter EX-1201.6.1, Building Height, for fire safety, means of egress and general safety. The maximum score for a building shall be 10.

EX-1201.6.1.1 Height formula. The following formulas shall be used in computing the building height value.

EQUATION EX-12-1

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

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

where:

$AH = \text{Allowable height in feet from Table 503 of the } \textit{Building Code}.$

<i>EB</i>	= Existing building height in feet.
<i>H</i>	= Allowable height in stories from Table 503 of the <i>Building Code</i>.
<i>AS</i>	= Allowable height in stories from Table 503 of the <i>Building Code</i>.
<i>EBS</i>	= Existing building height in stories.
<i>CF</i>	1 if (<i>AH</i>) - (<i>EBH</i>) is positive.
<i>CF</i>	= Construction-type factor shown in Table EX-1201.6.6(2) if (<i>AH</i>) - (<i>EBH</i>) is negative.

Note. Where mixed occupancies are separated and individually evaluated as indicated in Section EX-1201.6, the values *AH*, *AS*, *EBH* and *EBS* shall be based on the height of the fire area of the occupancy being evaluated.

EX-1201.6.2 Building area. The value for building area shall be determined by the formula in Section EX-1201.6.2.2. Section 503 of the *Building Code* and the formula in Section EX-1201.6.2.1 shall be used to determine the allowable area of the building. The allowable area shall be the lesser value calculated by Equations EX-12-2 and EX-12-3. This shall include any allowable increases due to open perimeter and automatic sprinklers as provided for in Section 506 of the *Building Code*. Subtract the actual building area from the allowable area and divide by 1,200 square feet (112 m²). Enter the area value and its sign (positive or negative) in Table EX-1201.7 under Safety Parameter 201.6.2, 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 EX-1201.8, Mandatory Safety Scores

EX-1201.6.2.1 Allowable area formula. The following formula shall be used in computing allowable area:

EQUATION EX-12-2

$$\frac{(100 + I_f + I_s) x}{100} = A_a$$

EQUATION EX-12-3

$$A_{max.} = 3 \times A_a, \text{ as calculated in accordance with Section 503.3 of the } \textit{Building Code}.$$

$$A_{a,max.} = \frac{A_{max.}}{\text{Number of stories}}$$

where:

AA	=	Allowable area per floor
Is	=	Area increase due to sprinkler protection percent as calculated in accordance with Section 506.3 of the <i>Building Code</i> .
If	=	Area increase due to frontage, percent as calculated in accordance with Section 506.2 of the <i>Building Code</i> .
At	=	Tabular area per floor in accordance with Table 503 of the <i>Building Code</i> square feet.

Amax. = Total area of the entire building.

Aa,max. = Allowable area per floor based on the limitations of Section 503.3 of the *Building Code*.

EX-1201.6.2.2 Area formula. The following formula shall be used in computing the area value. Determine the Area Value for each occupancy fire 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.

EQUATION EX-12-4

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

where:

<i>I</i>	=	value for an individual separated occupancy on a floor.
<i>n</i>	=	number of separated occupancies on a floor.

EX-1201.6.3 Compartmentation. Evaluate the compartments created by fire barrier walls which comply with Sections EX-1201.6.3.1 and EX-1201.6.3.2 and which are exclusive of the wall elements considered under Sections EX-1201.6.4 and EX-1201.6.5. Conforming compartments shall be figured as the net area and do not include shafts, chases, stairways, walls or columns. Using Table EX-1201.6.3, determine the appropriate compartmentation value (CV) and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.3, Compartmentation, for fire safety, means of egress and general safety.

EX-1201.6.3.1 Wall construction. A wall used to create separate compartments shall be a fire barrier conforming to Section 706 of the *Building Code* 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 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 1005.3.5 of the *Building Code*. 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.

EX-1201.6.3.2 Floor/ceiling construction. A floor/ceiling assembly used to create compartments shall conform to Section 710 of the *Building Code* and shall have a fire resistance rating of not less than 2 hours.

**TABLE EX-1201.6.3
COMPARTMENTATION VALUES**

OCCUPANCY	Categories				
	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	4	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

EX-1201.6.4 Tenant and dwelling unit separations. Evaluate the fire resistance rating of floors and walls separating tenants, including dwelling units, and not evaluated under Sections EX-1201.6.3 and EX-1201.6.5. Under the categories and occupancies in Table EX-1201.6.4, determine the appropriate value and enter that value in Table EX-1201.7 under Safety Parameter EX-1201.6.4, Tenant and Dwelling Unit Separation, for fire safety, means of egress and general safety.

EX-1201.6.4.1 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 assembly less than 1-hour fire resistance rating or not constructed in accordance with Sections 708 or 710 of the *Building Code*, respectively.

3. Category c — Fire partitions with 1 hour or greater fire resistance rating constructed in accordance with Section 708 of the *Building Code* and floor assemblies with 1-hour but less than 2-hour fire resistance rating constructed in accordance with Section 710 of the *Building Code* or with only one tenant within the fire area.
4. Category d — Fire barriers with 1-hour but less than 2-hour fire resistance rating constructed in accordance with Section 706 of the *Building Code* and floor assemblies with 2-hour or greater fire resistance rating constructed in accordance with Section 710 of the *Building Code*.
5. Category e — Fire barriers and floor assemblies with 2-hour or greater fire resistance rating and constructed in accordance with Sections 706 and 710 of the *Building Code*, respectively.

**TABLE EX-1201.6.4
SEPARATION VALUES**

OCCUPANCY	Categories				
	A	B	C	D	E
A-1	0	0	0	0	1
A-2	-5	-3	0	1	3
R	-4	-2	0	2	4
A-3, A-4, B, E, F, M, S-1	-4	-3	0	2	4
S-2	-5	-2	0	2	4

EX-1201.6.5 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 1004 of the *Building Code*. This evaluation shall not include the wall elements considered under Sections EX-1201.6.3 and EX-1201.6.4. Under the categories and Groups in Table EX-1201.6.5, determine the appropriate value and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.5, Corridor Walls, for fire safety, means of egress and general safety.

EX-1201.6.5.1 Categories. The categories for corridor walls are:

1. Category a — No fire partitions; incomplete firepartitions; no doors; or doors not self-closing.
2. Category b — Less than 1-hour fire resistance rating or not constructed in accordance with Section 708.4 of the *Building Code*.

3. Category c — 1-hour to less than 2-hour fire resistance rating, with doors conforming to Section 714 of the *Building Code* or without corridors as permitted by Section 1004 of the *Building Code*.
4. Category d — 2-hour or greater fire resistance rating, with doors conforming to Section 714 of the *Building Code*.

**TABLE EX-1201.6.5
CORRIDOR WALL VALUES**

OCCUPANCY	Categories			
	A	B	C ^A	D ^A
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.

EX-1201.6.6 Vertical openings. Evaluate the fire resistance rating of vertical exit enclosures, hoistways, escalator openings and other shaft enclosures within the building, and openings between two or more floors. Table EX-1201.6.6(1) contains the appropriate protection values. Multiply that value by the construction-type factor found in Table EX-1201.6.6(2) Enter the vertical opening value and its sign, positive or negative, in Table EX-1201.7 under Safety Parameter EX-1201.6.6, Vertical Openings, for fire safety, means of egress and general safety. If the structure is a one-story building, enter a value of 2. Unenclosed vertical openings that conform to the requirements of Section 707 of the *Building Code* shall not be considered in the evaluation of vertical openings.

EX-1201.6.6.1 Vertical opening formula. The following formula shall be used in computing vertical opening value.

Equation EX-12-5

$$VO = PV \times CF$$

where:

<i>VO</i>	= Vertical opening value.
<i>PV</i>	= Protection value from Table EX-1201.6.6(1)
<i>CF</i>	= Construction type factor from Table EX-1201.6.6(2)

**TABLE EX-1201.6.6(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 EX-1201.6.6(2)
CONSTRUCTION-TYPE FACTOR**

<i>F</i> <i>A</i> <i>C</i> <i>T</i> <i>O</i> <i>R</i>	TYPE OF CONSTRUCTION								
	I-A	I-B	II-A	II-B	III-A	III-B	IV	V-A	V-B
	1.2	1.5	2.2	3.5	2.5	3.5	2.3	3.3	7

EX-1201.6.7 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 EX-1201.6.7.1, determine the appropriate value and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.7, HVAC Systems, for fire safety, means of egress and general safety.

EX-1201.6.7.1 Categories. The categories for HVAC systems are:

1. Category a — Plenums not in accordance with Section M-602 of the *Mechanical Code*. -10 points.
2. Category b — Air movement in egress elements not in accordance with Section 1004.3.2.4 of the *Building Code*. -5 points.

3. Category c — Both categories a and b are applicable. -15 points.
4. Category d — Compliance of the HVAC system with Section 1004.3.2.4 of the *Building Code* and Section M-602 of the *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.

EX-1201.6.8 Automatic fire detection. Evaluate the smoke detection capability based on the location and operation of automatic fire detectors in accordance with Section 907 of the *Building Code* and Section M-907 of the *Mechanical Code*. Under the categories and occupancies in Table EX-1201.6.8, determine the appropriate value and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.8, Automatic Fire Detection, for fire safety, means of egress and general safety.

EX-1201.6.8.1 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 *Fire Code*.
3. Category c — Smoke detectors in HVAC systems. The detectors are installed in accordance with the requirements for new buildings in the *Mechanical Code*.
4. Category d — Smoke detectors throughout all floor areas other than individual guest rooms, tenant spaces and dwelling units.
5. Category e — Smoke detectors installed throughout the fire area.

**TABLE EX-1201.6.8
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

EX-1201.6.9 Fire alarm systems. Evaluate the capability of the fire alarm system in accordance with Section 907. Under the categories and occupancies in Table EX-1201.6.9, determine the appropriate value and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.9, Fire Alarm, for fire safety, means of egress and general safety.

EX-1201.6.9.1 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 of the *Building Code* and alarm notification appliances in accordance with Section 907.9 of the *Building Code*.
3. Category c — Fire alarm system in accordance with Section 907 of the *Building Code*.
4. Category d — Category c plus a required emergency voice/alarm communications system and a fire command station that conforms to Section 403.8 of the *Building Code* and contains the emergency voice/alarm communications system controls, fire department communication system controls and any other controls specified in Section 911 of the *Building Code* where those systems are provided.

**TABLE EX-1201.6.9
FIRE ALARM SYSTEM VALUES**

<i>OCCUPANCY</i>	Categories			
	A	B ^A	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 water flow device.

EX-1201.6.10 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 EX-1201.6.10, determine the appropriate value and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.10, Smoke Control, for means of egress and general safety.

**TABLE EX-1201.6.10
SMOKE CONTROL VALUES**

	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 ^A	3 ^A	3 ^A	3 ^A	4 ^A
F, S	0	2 ^A	2 ^A	3 ^A	3 ^A	3 ^A

a. This value shall be 0 if compliance with Category d or e in Section EX-1201.6.8.1 has not been obtained.

EX-1201.6.10.1 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 m²) 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 operable 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 smoke-proof 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 fire 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 fire areas of the building under fire conditions. The system shall exhaust not less than six air changes per hour from the fire area. Supply air by mechanical means to the fire area is not required. Containment of smoke shall be considered as confining smoke to the fire area involved without

migration to other fire 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 smoke-proof enclosure in accordance with Section 1005.3.2.5 of the *Building Code*; pressurized in accordance with Section 909.20.5 of the *Building Code*; or shall have operable exterior windows.

EX-1201.6.11 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 Sections 1004 of the *Building Code* (with the exception of Section 1004.2.4), 1003 of the *Building Code* (except that the minimum width required by this section shall be determined solely by the width for the required capacity in accordance with Tables 1003.2.3 of the *Building Code*), 1005 and 1006 of the *Building Code*. The number of exits credited are the number that are 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 EX-605.3.1.2. Under the categories and occupancies in Table EX-1201.6.11, determine the appropriate value and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.11, Means of Egress Capacity, for means of egress and general safety.

EX-1201.6.11.1 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 EX-605.3.1.2
2. Category b — Capacity of the means of egress complies with Section 1003 of the *Building Code* and the number of exits complies with the minimum number required by Section 1005 of the *Building Code*.
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 1005 of the *Building Code*.
4. Category d — The number of exits provided exceeds the number of exits required by Section 1005 of the *Building Code*. Exits shall be located a distance apart from each other equal to not less than that specified in Section 1004.2.2 of the *Building Code*.
5. Category e — The area being evaluated meets both Categories c and d.

**TABLE EX-1201.6.11
MEANS OF EGRESS VALUES**

<i>OCCUPANCY</i>	Categories				
	A	B	C	D	E
A-1, A-2, A-3, A-4, E	-10	0	2	8	10
M	-3	0	1	2	4
B, F, S	-1	0	0	0	0
R	-3	0	0	0	0

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

EX-1201.6.12 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 EX-1201.6.12, determine the appropriate value and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.12, Dead Ends, for means of egress and general safety.

EX-1201.6.12.1 Categories. The categories for dead ends are:

1. Category a — Dead end of 35 feet (10 670 mm) in unsprinklered 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 1004.3.2.3, exception 2 of the *Building Code*.
3. Category c — No dead ends; or ratio of length to width (l/w) is less than 2.5:1.

**TABLE EX-1201.6.12
DEAD-END VALUES**

OCCUPANCY	Categories		
	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.

EX-1201.6.13 Maximum travel distance to an exit. Evaluate the length of exit access travel to an approved exit. Determine the appropriate points in accordance with the following equation and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.13, 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 1004.2.4 of the *Building Code*.

$$\text{Points} = \frac{20 \times \left(\frac{\text{Maximum actual travel distance} - \text{Maximum allowable travel distance}}{\text{Maximum allowable travel distance}} \right)}{x}$$

EX-1201.6.14 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 *Fire Code*. Under the categories and occupancies in Table EX-1201.6.14, determine the appropriate value and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.14, Elevator Control, for fire safety, means of egress and general safety. The values shall be zero for a single story building.

EX-1201.6.14.1 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 *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.

**TABLE EX-1201.6.14
ELEVATOR CONTROL VALUES**

<i>Elevator Travel</i>	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.

EX-1201.6.15 Means of egress emergency lighting. Evaluate the presence of and reliability of means of egress emergency lighting. Under the categories and occupancies in Table EX-1201.6.15, determine the appropriate value and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.15, Means of Egress Emergency Lighting, for means of egress and general safety.

EX-1201.6.15.1 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 Section 2702 of the *Building Code*.
2. Category b — Means of egress lighting and exit signs provided with emergency power in accordance with Section 2702 of the *Building Code*.
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.

**TABLE EX-1201.6.15
MEANS OF EGRESS EMERGENCY LIGHTING VALUES**

<i>NUMBER OF EXITS REQUIRED BY SECTION 1005.2 OF THE INTERNATIONAL BUILDING CODE</i>	Categories		
	A	B	C
Two or more exits	NP	0	4
Minimum or one exit	0	1	1

EX-1201.6.16 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 EX-1201.6.16.1, the building shall be evaluated as indicated in Section EX-1201.6 and the value for mixed occupancies shall be zero. Under the categories and occupancies in Table EX-1201.6.16, determine the appropriate value and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.16, Mixed Occupancies, for fire safety and general safety. For buildings without mixed occupancies, the value shall be zero.

EX-1201.6.16.1 Categories. The categories for mixed occupancies are:

1. Category a — Minimum 1-hour fire barriers between occupancies.
2. Category b — Fire barriers between occupancies in accordance with Section 302.3.3 of the *Building Code*.
3. Category c — Fire barriers between occupancies having a fire resistance rating of not less than twice that required by Section 302.3.3 of the *Building Code*.

**TABLE EX-1201.6.16
MIXED OCCUPANCY VALUES^A**

<i>OCCUPANCY</i>	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.

EX-1201.6.17 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 of the *Building Code*. “Required sprinklers” shall be based on the requirements of this code. Under the categories and occupancies in Table EX-1201.6.17, determine the appropriate value and enter that value into Table EX-1201.7 under Safety Parameter EX-1201.6.17, Automatic Sprinklers, for fire safety, means of egress divided by 2 and general safety. Hi-Rise buildings defined in Section 403.1 of the *Building Code* that undergo a change in occupancy to Use groups R, shall be equipped throughout with an automatic sprinkler system in accordance with Section 403.2 and Chapter 9 of the *Building Code*.

EX-1201.6.17.1 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 of the *Building Code*.
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 of the *Building Code*.
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 of the *Building Code*.

5. Category e — Sprinklers are required throughout; sprinklers are provided throughout in accordance with Chapter 9 of the *Building Code*.
6. Category f — Sprinklers are not required throughout; sprinklers are provided throughout in accordance with Chapter 9 of the *Building Code*.

**TABLE EX-1201.6.17
SPRINKLER SYSTEM VALUES**

	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

A & B These options cannot be taken if category a is obtained in Section EX-1201.6.18.

EX-1201.6.18 Standpipes: Evaluate the ability to initiate attack on a fire by making supply of water available readily through the installation of Standpipes in accordance with Section 905.0 of *Building Code*. "Required Standpipes" shall be based on the requirements of *Building Code*. Under the categories and occupancies in Table EX-1201.6.18, determine the appropriate value and enter that value into table EX-1201.7 under Safety Parameter EX-1201.6.18, Standpipes, for fire safety, means of egress and general safety.

EX-1201.6.18.1 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 Sections 905.3 of the *Building Code*.
2. Category b – Standpipes are not required; none are provided.
3. Category c – Standpipes are required; standpipes are provided in accordance with Section 905 of the *Building Code*.
4. Category d – Standpipes are not required; standpipes are provided in accordance with Section 905 of the *Building Code*.

**TABLE EX-1201.6.18
STANDPIPE SYSTEM VALUES**

<i>OCCUPANCY</i>	Categories			
	A	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 EX-1201.6.17 has been obtained.

EX-1201.6.19 Incidental use. Evaluate the protection of incidental use areas in accordance with Section 302.1.1 of the *Building Code*. Do not include those where this code requires suppression throughout the building including covered mall buildings, high-rise buildings, public garages and unlimited area buildings. Assign the lowest score for the building or fire area being evaluated. If there area no specific occupancy areas in the building or fire area being evaluated, the value shall be zero.

EX-1201.7 Building score. After determining the appropriate data from Section EX-1201.6, enter those data in Table EX-1201.7 and total the building score.

EX-1201.8 Safety scores. The values in Table EX-1201.8 are the required mandatory safety scores for the evaluation process listed in Section EX-1201.6.

EX-1201.9 Evaluation of building safety. The mandatory safety score in Table EX-1201.8 shall be subtracted from the building score in Table EX-1201.7 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.

EX-1201.9.1 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 EX-1201.6.16, the mandatory safety scores for the occupancy with the lowest general safety score in Table EX-1201.8 shall be utilized. (See Section EX-1201.6.)

2. Where the separation between mixed occupancies qualifies for any category indicated in Section EX-1201.6.16, the mandatory safety scores for each occupancy shall be placed against the evaluation scores for the appropriate occupancy.

**TABLE EX-1201.7
SUMMARY Sheet – Building Code**

Existing Occupancy _____		Proposed occupancy _____	
Year building was constructed _____		Number of stories _____	Height in _____
Type of construction _____		Area per f _____	
Percentage of Frontag Increase _____ %		Percentage of height reduction _____ %	
Completely suppressed: Ye _____ Nc _____		Corridor wal rating _____	
Compartmentation: Ye _____ Nc _____		Required door closers: Yes _____ Nc _____	
Fire resistance rating of vertical opening enclosures _____			
Type of HVAC system _____		Serving number o floors _____	
Automatic fire detection: Yes _____ No _____		Type and Location _____	
Fire alarm system: Yes _____ No _____		Type _____	
Smoke control: Yes _____ No _____		Type _____	
Adequate exit rou: Yes _____ No _____		Dead ends: Yes _____ Nc _____	
Maximum exit access tra distance _____		Elevator controls: Yes _____ Nc _____	
Means of egress emerge lighting: Yes _____ Nc _____		Mixed occupancies: Yes _____ Nc _____	
SAFETY PARAMETERS	FIRE SAFETY	MEANS OF EGRESS (ME)	GENERAL SAFETY (GS)
EX-1201.6.1 Building Height EX-1201.6.2 Building Area EX-1201.6.3 Compartmentation			

EX-1201.6.4 Tenant and Dwelling Unit Separations EX-1201.6.5 Corridor Walls EX-1201.6.6 Vertical Openings			
EX-1201.6.7 HVAC Systems EX-1201.6.8 Automatic Fire Detection EX-1201.6.9 Fire Alarm System			
EX-1201.6.10 Smoke control EX-1201.6.11 Means of egress EX-1201.6.12 Dead ends	**** **** ****		
EX-1201.6.13 Maximum Exit Access Travel Distance EX-1201.6.14 Elevator Control EX-1201.6.15 Means of Egress Emergency Lighting	**** ****		
EX-1201.6.16 Mixed Occupancies EX-1201.6.17 Sprinklers EX-1201.6.18 Standpipes EX-1201.6.19 Incidental Use Area Protection		**** divide by 2	
Building score – total value			

**** No applicable value to be inserted

TABLE EX-1201.8
mandatory safety scores^A

OCCUPANCY	FIRE SAFETY (MFS)	MEANS OF EGRESS (MME)	GENERAL SAFETY (MGS)
A-1	20	31	31
A-2	21	32	32
A-3	22	33	33
A-4, E	29	40	40
B	30	40	40
F	24	34	34
M	23	40	40
R	21	38	38
S-1	19	29	29
S-2	29	39	39

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

TABLE EX-1201.9
EVALUATION FORMULAS^A

FORMULA	TEX-1207.1	TEX-1201.7	Score	PASS	FAIL
FS - MFS ≥ 0	(F S)	(MF S)	=		
ME - MME ≥ 0	(M E)	(M ME)	=		
GS - MGS ≥ 0	(G S)	(MG S)	=		

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

CHAPTER 13 CONSTRUCTION SAFEGUARDS

SECTION EX – 1301 GENERAL

EX – 1301.1 Safeguards during construction: All construction work covered in the Existing Building Code, including any related demolition, shall comply with the requirements of Chapter 33 of the *Building Code*.

**CHAPTER 14
REFERENCED STANDARDS**

AISC American Institute of Steel Construction
One East Wacker Drive, Suite 3100
Chicago, IL 60601-2001

Standard reference number	Title	Referenced in code section number
AISC	Steel Design Guide Series 12-Modifications of Existing Welded Steel Moment Frame Connections	

ASCE American Society of Civil Engineers
1801 Alexander Bell Drive
Reston, VA 20191-4400

Standard reference number	Title	Referenced in code section number
ASCE 31-XX	Seismic Evaluation of existing Buildings (updated version of FEMA 310).....	407.1.1, 407.1.1.3, Table 407.1.1.2
SEI/ASCE 11-99	Guideline for Structural Condition Assessment Of Existing Buildings	

FEMA Federal Emergency Management Agency
Federal Center Plaza
500 C Street, S.W.
Washington, DC 20472

Standard reference number	Title	Referenced in code section number
FEMA 351	Recommended Seismic Evaluation and Upgrade Criteria for Existing Welded Steel	
FEMA 352	Recommended Post-Earthquake Evaluation and Repair Criteria for Welded Steel Moment-Frame Buildings	
FEMA 356	Pre-standard for the Seismic Rehabilitation of Buildings (updated version of FEMA 273).....	407.1.1.1, 407.1.1.2, 407.1.1.3, Table 407.1.1.2

ICC International Code Council
5203 Leesburg Pike, Suite 708

Falls Church, VA 22041

Standard reference number	Title	Referenced in code section number
ICC EC	ICC Electric Code.....	503.3, 608.1, 808.1, 808.2, 808.3, 808.4
IBC	International Building Code.....	202
	301.4, 401.4, 402.1, 403.2, 407.1.1.1, 407.1.1.2, 407.1.1.1.3, T407.1.1.2, 407.1.2, 407.2, 407.3.1, 407.2.3.1.1, 407.3.5, 501.2, 501.3, 503.1, 503.2, 503.3, 506.1, 507.2.1, 601.3, 602.1, 603.2.1, 603.3.2, 603.4, 603.5.2, 604.2, 604.2.2, 604.2.3, 604.2.4, 604.3, 605.3.1, 605.4.3, 605.5, 605.6, 605.7.1, 605.8.1, 605.9.2, 605.10.2, 607.1, 607.2, 607.4, 607.4.1, 607.4.3, 704.1.2, 704.2.1, 705.2, 705.3, 707.2, 707.3, 707.5.1, 707.6, 707.7, 801.1, 802.1, 807.1, 807.2, 807.3.1, 812.1.1, 812.1.2, 812.3.1, 812.4.1.1, 812.4.1.2, 812.4.1.3, 812.4.2.1, 812.4.2.2, 812.4.2.3, 812.4.3.1, 812.4.3.3, 812.4.4.1, 812.4.4.3, 812.5, 902.1, 902.2, 903.1, 903.2, 903.3, 903.3.1, 903.3.2, 903.4, 903.5, 904.1, 904.2, 1001.4, 1002.3, 1002.5, 1004.2, 1004.9, 100.16, 1005.1.4, 1101.2, 1102.1, 1102.2, 1102.2.1, 1102.3, 1102.4, 1102.5, 1102.6, 1201.2.2, 1201.2.3, 1201.2.4, 1201.2.5, 1201.3.3, 1201.4.1, 1201.6.1, 1201.6.1.1, 1201.6.2, 1201.6.2.1, 1201.6.3.1, 1201.6.3.2, 1201.6.4.1, 120.6.5, 1201.6.5.1, 1201.6.6, 1201.6.7.1, 1201.6.8, 1201.6.9.1, 1201.6.10.1, 1201.6.11, 1201.6.11.1, 1201.6.12.1, 1201.6.15.1, Table 1201.6.15, 1201.6.16.1, 1201.6.17, 1201.6.17.1, 1201.6.18, 1201.6.18.1,, 1201.6.19, B1301.6.4.1, B1201.6.7, B1306.3	
IECC	International Energy Conservation Code.....	503.3, 906.1
IFC	International Fire Code	603.2.1, 603.2.3, 604.4.1.1, 604.4.1.2, 604.4.1.3, 604.4.1.5, 604.4.3, 1201.3.2, 1201.6.8.1, 121.6.14, 1201.6.14.1, 1304.1, 1304.2,
IMC	International Mechanical Code.....	503.3, 609.1, 702.1.1, 702.2.1, 809.1, 1201.6.7.1, 1201.6.8, 1201.6.8.1,
IPC	International Plumbing Code	410.2, 503.3, 610.1, 810.1, 810.2, 810.3, 810.5, 1301.5
IPMC	International Property Maintenance Code	1101.2, 1201.3.2

IFGC International Fuel Gas Code411.2.1, 503.3, 503.3.1,
611.1, 710.1, 1102.7.1

IRC International Residential Code.....403.2, 407.1.2, 507.2.1, 607.4.3, 608.3,
707.5.1, 707.6, 903.2, 903.3, 904, 1102.1,
1201.2.2, 1201.2.3

HUD U.S. Department of Housing and Urban Development
Washington, D.C. 20410

Or
Superintendent of Documents
U.S. Government printing Office
Washington, D.C. 20402

Rehabilitation Guideline #8
Guidelines on Fire Ratings of archaic Materials and Assemblies

Referenced
in code
section number
605.5.1

DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

NOTICE OF FINAL RULEMAKING

DOCKET NUMBER 03-53-TS

The Director of the Department of Transportation, pursuant to the authority in sections 3, 5(3), and 6 of the Department of Transportation Establishment Act of 2002, effective May 21, 2002 (D.C. Law 14-137; D.C. Official Code §§ 50-921.02, 50-921.04(3) and 50-921.05), and sections 6(a)(1), 6(a)(6) and 6(b) of the District of Columbia Traffic Act, approved March 3, 1925 (43 Stat. 1121; D.C. Official Code § 50-2201.03(a)(1), (a)(6) and (b)), hereby gives notice of the adoption of the following rulemaking which amends the Vehicle and Traffic Regulations (18 DCMR). Final action to adopt this rulemaking was taken on February 5, 2004. No comments have been received and no changes have been made to the text of the proposal as published on August 15, 2003 at 50 DCR 6719. This final rulemaking will be effective when published in the D.C. Register.

Title 18 DCMR, Section 4030, PLAY STREETS, Subsection 4030.1, (a) Northwest Section, is amended by adding the following to the list of locations where streets are designated as Play Streets:

“On 10th Street, N.W., between U Street and V Street, between 11:30 am to 1:30 pm, on School Days”.