

2007 NORTHERN NEVADA

AMENDMENTS

2006 INTERNATIONAL BUILDING CODE

2006 INTERNATIONAL RESIDENTIAL CODE

2006 UNIFORM MECHANICAL CODE

2006 UNIFORM PLUMBING CODE

2006 INTERNATIONAL ENERGY CONSERVATION CODE

2005 NATIONAL ELECTRICAL CODE

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PREFACE

This document comprises the Northern Nevada Amendments to the following codes:

2006 International Building Code as published by the International Code Council.

2006 International Residential Code as published by the International Code Council.

2006 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials.

2006 Uniform Mechanical Code as published by the International Association of Plumbing and Mechanical Officials.

2005 National Electrical Code as published by the National Fire Protection Association.

2006 International Energy Conservation Code as published by the International Code Council.

It was created by the organizations listed on the cover page with the support of the Northern Nevada Chapter of the International Code Council as a document to be adopted by reference. These provisions are not code unless adopted and codified by governmental jurisdictions. This document is available to be adopted as code by any jurisdiction without permission or approval from the organizations listed.

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**Note: Deleted language has been ~~stricken through~~.
Added language has been underlined.**

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2006 International Building Code

Section 202 Definitions.

Amend Section 202 to include the following definitions:

International Electrical Code. The Electrical Code, whether the National Electrical Code or the International Electrical Code, as amended and adopted by the local jurisdiction.

International Mechanical Code. The Mechanical Code, whether the Uniform Mechanical Code or the International Mechanical Code as amended and adopted by the local jurisdiction.

International Plumbing Code. The Plumbing Code, whether the Uniform Plumbing Code or the International Plumbing Code, as amended and adopted by the local jurisdiction.

International Fire Code. The Fire Code, whether the Uniform Fire Code or the International Fire Code as amended and adopted by the local jurisdiction.

International Fuel Gas Code. The Fuel Gas Code, whether NFPA 54 or the International Fuel Gas Code, as amended and adopted by the local jurisdiction.

Section 303.1 Assembly Group A.

Amend section 303.1 Subsection A-2 to read as follows:

A-2 Assembly uses intended for food and/or drink consumption including, but not limited to:

Banquet halls
Casinos
Night clubs
Restaurants
Taverns and bars

Section 305.2 Day care.

Amend section 305.2 Subsection A-2 to read as follows:

Day care. The use of a building or structure, or portion thereof, for educational, supervision or personal care services for more than ~~five~~ six children older than 2 ½ years of age, shall be classified as a Group E occupancy.

Section 311.2 Moderate-hazard storage.

Amend section 311.2 to read as follows:

311.2 Moderate-hazard storage, Group S-1. Buildings occupied for storage uses that are not classified as Group S-2, including, but not limited to, storage of the following:

Aerosols, Levels 2 and 3
Aircraft repair hangar
Bags: cloth, burlap and paper
Bamboos and rattan
Baskets
Belting: canvas and leather
Books and paper in rolls or packs
Boots and shoes
Buttons, including cloth covered, pearl or bone
Cardboard and cardboard boxes
Clothing, woolen wearing apparel
Cordage
Dry boat storage (indoor)
Furniture
Furs
Glues, mucilage, pastes and size
Grains
Horns and combs, other than celluloid
Leather
Linoleum
Lumber
Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials listed in Table 307.1(1) (see Section 406.6)
Photo engravings
Resilient flooring
Self-serve storage (mini-storage)
Silks
Soaps
Sugar
Tires, bulk storage of
Tobacco, cigars, cigarettes and snuff
Upholstery and mattresses
Wax candles

Section 403.1 Applicability.

Amend section 403.1 to read as follows:

403.1 Applicability. The provisions of this section shall apply to buildings with an occupied floor located more than ~~75~~ 55 feet (~~22 860~~ 16 764 mm) above the lowest level of fire department vehicle access.

Section 907.2.12 High-rise buildings.

Amend section 907.2.12 to read as follows:

907.2.12 High-rise buildings. Buildings with a floor used for human occupancy located more than ~~75~~ 55 feet (~~22 860~~ 16 764 mm) above the lowest level of fire department vehicle access shall be provided with an automatic fire alarm system and an emergency voice/alarm communication system in accordance with Section 907.2.12.2.

Exceptions:

1. Airport traffic control towers in accordance with Sections 412 and 907.2.22.
2. Open parking garages in accordance with Section 406.3.
3. Buildings with an occupancy in Group A-5.
4. Low-hazard special occupancies in accordance with Section 503.1.1.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415.

Section 907.8.2 High-rise buildings.

Amend section 907.8.2 to read as follows:

907.8.2 High-rise buildings. In buildings with a floor used for human occupancy that is located more than ~~75~~ 55 feet (~~22 860~~ 16 764 mm) above the lowest level of fire department vehicle access, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:

1. Smoke detectors.
2. Sprinkler water-flow devices.
3. Manual fire alarm boxes.
4. Other approved types of automatic fire detection devices or suppression systems.

Section 1017.4 Air movement in corridors.

Amend section 1017.4 to read as follows, deleting exceptions 1,2 and 3:

1017.4 Air movement in corridors. Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts. Corridors shall not be used to convey air to or from rooms if the corridor is required to be of fire-resistive construction.

Exceptions:

1. Use of a corridor as a source of makeup air for exhaust systems in rooms that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted, provided that each such corridor is directly supplied with outdoor air at a rate greater than the rate of makeup air taken from the corridor.
2. Where located within a dwelling unit, the use of corridors for conveying return air shall not be prohibited.
3. Where located within tenant spaces of 1,000 square feet (93 m²) or less in area, utilization of corridors for conveying return air is permitted.

Table 1607.1

Amend Table 1607.1 subsection 28 to read as follows:

28. Residential		
One- and two-family dwellings		
Uninhabitable attics without storage(i)	10	
Uninhabitable attics with limited Storage(i, j, k)	20	
Habitable attics and sleeping areas	30	—
All other areas except balconies and decks	40	
Hotels and multiple-family dwellings		
Private rooms and corridors serving them	40	
Public rooms and corridors serving them	100	

Section 1608.2 Ground snow loads.

Amend section 1608.2 to read as follows:

1608.2 Ground snow loads. The ground snow loads to be used in determining the design snow loads for roofs shall be determined in accordance with Table-1608.2.1 ASCE 7 or Figure 1608.2 for the contiguous United States and Table 1608.2 for Alaska. Site-specific case studies shall be made in areas designated “CS” in Figure 1608.2. Ground snow loads for sites at elevations above the limits indicated in Figure 1608.2 and for all sites within the CS areas shall be approved. Ground snow load determination for such sites shall be based on an extreme value statistical analysis of data available in the vicinity of the site using a value with a 2-percent annual probability of being exceeded (50-year mean recurrence interval). Snow loads are zero for Hawaii, except in mountainous regions as approved by the building official.

Table 1608.2.1 Ground Snow Loads p_g , For Northern Nevada Locations.

Add Table 1608.2.1 to section 1608.2.

Table 1608.2.1

GROUND SNOW LOADS p_g , FOR NORTHERN NEVADA LOCATIONS.

Elevation In Feet	WEST of U.S. Hwy 395 Sierra slope	EAST of U.S. Hwy 395	Lyon & Storey Counties	All Nevada Counties LakeTahoe Basin
	Carson, Douglas, Washoe, Reno	Carson, Douglas, Washoe Counties, Reno & Sparks		
	p_g (Pounds Per Square Foot)	p_g (Pounds Per Square foot)	p_g (Pounds Per Square foot)	p_g (Pounds Per Square foot)
4500	30	30	10	
5000	30	30	30	
5100	41	31	31	
5200	52	33	33	
5300	64	34	34	
5400	75	35	35	
5500	86	37	37	
6000	142	43	43	220
6500	171	43	43	235
7000	200	57	57	250
7500	215	57	57	265
8000	229	86	86	280
8500	243	86	86	295
9000	271	114	114	330
9500	300	142	142	390
10000	357	142	142	420

1. Drift load design in the 30-psf zones may utilize ASCE 7 -05 table C7-1 ground snow values.
2. The final roof design loads shall not be less than 20 psf after all reductions are factored, except for Lyon & Storey Counties.
3. Intermediate values may be interpolated by proportion.

Section 1609.3 Basic wind speed.

Amend section 1609.3 to read as follows:

1609.3 Basic wind speed. The basic wind speed, in mph, for the determination of the wind loads shall be determined by Figure 1609. Basic wind speed for the special wind regions indicated, near mountainous terrain and near gorges shall be in accordance with local jurisdiction requirements. Basic wind speeds determined by the local jurisdiction shall be in accordance with Section 6.5.4 of ASCE 7.

In nonhurricane prone regions, when the basic wind speed is estimated from regional climatic data, the basic wind speed shall be not less than the wind speed associated with an annual probability of 0.02 (50-year mean recurrence interval), and the estimate shall be adjusted for equivalence to a 3-second gust wind speed at 33 feet (10 m) above ground in Exposure Category C. The data analysis shall be performed in accordance with Section 6.5.4.2 of ASCE 7.

Minimum basic wind speed shall be 100 mph (3-sec gust) for the Cities of Reno and Sparks and for the Counties of Carson, Douglas and Washoe. Minimum basic wind speed shall be 90 mph (3-sec gust) for Lyon and Storey Counties. No altitude density reduction shall be taken.

Section 1805.2.1 Frost protection Note 1

Amend section 1805.2.1 Note 1 to read as follows:

1. Extending below the frost line of the locality; Frost depth for Carson, Douglas & Washoe Counties and The Cities of Reno and Sparks shall be twenty-four inch (24") deep. Frost depth for Lyon and Storey Counties shall be eighteen inch (18") deep.

Section 1805.8.1 Foundations.

Amend section 1805.2.1 to read as follows:

1805.8.1 Foundations. Footings or foundations placed on or within the active zone of expansive soils shall be designed to resist differential volume changes and to prevent structural damage to the supported structure. Deflection and racking of the supported structure shall be limited to that which will not interfere with the usability and serviceability of the structure.

Post-tensioned slabs shall not be utilized in place of frost depth footing design unless super structure deflection and differential movement calculations are provided. The deflection calculations shall demonstrate that the maximum combined frost and expansive soil heaving, as localized at slab edges, with resultant non-uniformly distributed deflections, as well as whole slab deflections would not result in super structure distress or excessive truss, roof or wall frame movement.

Foundations placed below where volume change occurs or below expansive soil shall comply with the following provisions:

1. Foundations extending into or penetrating expansive soils shall be designed to prevent uplift of the supported structure.
2. Foundations penetrating expansive soils shall be designed to resist forces exerted on the foundation due to soil volume changes or shall be isolated from the expansive soil.

Section 1806.1 General.

Amend section 1806.1 to read as follows:

1806.1 General. Retaining walls shall be designed to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. Retaining walls shall be designed for a safety factor of 1.5 against lateral sliding and overturning. Rockery walls shall be designed for soil stabilization, excluding seismic considerations.

Rockery retaining walls or rockery soil stabilization walls shall not be subject to surcharges, such as building foundations, adjacent retaining structures, slopes or vehicle surcharge (except parking lots and private driveways). Rockery walls over four (4) feet in (exposed) height shall be engineered and shall have structural observation. Wall height is determined by differential height of adjacent grades. Structures adjacent to rockery wall shall be set back a minimum distance equal to the (total of the exposed) height of the wall (and the embedded depth of the wall). Gravel drainage shall be provided behind all engineered rockery walls. Structures adjacent to the low side of the rockery wall shall be set back a minimum distance equal to the exposed height of the wall. On the high side, structures shall be set back a distance equal to the exposed height plus the embedded depth of the wall (see attached diagram). A global (slope) stability analysis (review) shall be performed for all rockery walls that are terraced, or greater than eight feet in height. Construction documents shall specify the following special inspection requirements.

1. Type of rock and competency (minimum specifications:
 - Absorption - ASTM C-127 (or AASHTO T-85) not more than 2.0% for igneous and metamorphic rock types and 3.0% for sedimentary rock types
 - Soundness – ASTM C-88 (or CRD-C-137) not greater than 5% loss
 - Bulk Specific Gravity – ASTM C-127 (or AASHTO-85) greater than 2.48)
2. Unit weight if design exceeds (shall be at least) 155 pcf
3. Rock size in approximate diameter
4. Rock placement
5. Voids greater than 3” shall be filled (chinked) with similar rock).
6. Gravel blanket drainage swale and system
7. Embedment
8. Wall face slope (batter (6V: 1H maximum)
9. Mechanically stabilized earth, if specified

10. Where rockery walls are required by the civil engineering plans, the rockery wall plans, details, and specifications shall be prepared and stamped by a qualified engineer and submitted as part of the project civil engineering plans.

Section 2902.1 Minimum number of plumbing fixtures.

Amend section 2902.1 to read as follows:

2902.1 Minimum number of fixtures. Plumbing fixtures shall be provided for the type of occupancy and in the minimum number shown in Table 2902.1. Types of occupancies not shown in Table 2902.1 shall be considered individually by the building official. The number of occupants shall be determined by this code. Occupancy classification shall be determined in accordance with Chapter 3. Suitable toilet facilities shall be provided and maintained in a sanitary condition for the use of workers during construction.

Table 2902.1

Amend Table 2902.1 Minimum Number of Required Plumbing Fixtures to read as follows:

**[P] TABLE 2902.1
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (a)
(See Sections 2902.2 and 2902.3)**

No.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (e) (URINALS SEE SECTION 419.2 OF THE INTERNATIONAL PLUMBING CODE)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAINS (SEE SECTION 410.1 OF THE INTERNATIONAL PLUMBING CODE) (f) (g) (h)	OTHER
				MALE	FEMALE	MALE	FEMALE			
1	Assembly (see Sections 2902.2, 2902.4 and 2902.4.1)	A-1 (d)	Theaters and other buildings for the performing arts and motion pictures	1 per 125	1 per 65	1 per 200		—	1 per 500	+ service sink
		A-2 (d)	Nightclubs, bars, taverns, dance halls and buildings for similar purposes	1 per 40	1 per 40	1 per 75		—	1 per 500	+ service sink
			Restaurants, banquet halls and food courts	1 per 75	1 per 75	1 per 200		—	1 per 500	+ service sink
		A-3 (d)	Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums	1 per 125	1 per 65	1 per 200		—	1 per 500	+ service sink
			Passenger terminals and transportation facilities	1 per 500	1 per 500	1 per 750		—	1 per 1,000	+ service sink

1	Assembly (see Sections 2902.2, 2902.4 and 2902.4.1)		Places of worship and other religious services	1 per 150	1 per 75	1 per 200		—	1 per 1,000	+ service sink	
		A-4	Coliseums, arenas, skating rinks, pools and tennis courts for indoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,500 and 1 per 60 for the remainder exceeding 1,500	<u>1 per 200</u>	1 per 150		—	1 per 1,000	+ service sink
		A-5	Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,500 and 1 per 60 for the remainder exceeding 1,500	1 per 200	1 per 150		—	1 per 1,000	+ service sink

(continued)

**[P] TABLE 2902.1—continued
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (a)**

No.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (e) (URINALS SEE SECTION 419.2 OF THE INTERNATIONAL PLUMBING CODE)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAINS (SEE SECTION 410.1 OF THE INTERNATIONAL PLUMBING CODE) (f) (g) (h)	OTHER
				MALE	FEMALE	MALE	FEMALE			
2	Business (see Sections 2902.2, 2902.4 and 2902.4.1)	B	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50		1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80		—	1 per 100	+ service sink
3	Educational	E	Educational facilities	1 per 50		1 per 50		—	1 per 100	+ service sink
4	Factory and industrial	F-1 and F-2	Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials	1 per 100		1 per 100		See Section 411 of the <i>International Plumbing Code</i>	1 per 400	+ service sink
5	Institutional	I-1	Residential care	1 per 10		1 per 10		1 per 8	1 per 100	+ service sink
		I-2	Hospitals, ambulatory nursing home patients (b)	1 per room(c)		1 per room(c)		1 per 15	1 per 100	+ service sink
			Employees, other than residential care (b)	1 per 25		1 per 35		—	1 per 100	—
			Visitors, other than residential care	1 per 75		1 per 100		—	1 per 500	—
		I-3	Prisons (b)	1 per cell		1 per cell		1 per 15	1 per 100	+ service sink

		I-3	Reformatories, detention centers and correctional centers (b)	1 per 15	1 per 15	1 per 15	1 per 100	+ service sink
		I-4	Adult day care and child care	1 per 15	1 per 15	—	1 per 100	+ service sink
6	Mercantile (see Section 2902.2, 2902.4, 2902.4.1 and 2902.4.2)	M	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500	1 per 750	—	1 per 1,000	+ service sink
7	Residential	R-1	Hotels, motels, boarding houses (transient)	1 per sleeping unit	1 per sleeping unit	1 per sleeping unit	—	+ service sink
		R-2	Dormitories, fraternities, sororities and boarding house (not transient)	1 per 10	1 per 10	1 per 8	1 per 100	+ service sink
		R-2	Apartment house	1 per dwelling unit	1 per dwelling unit	1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 20 dwelling units

(continued)

[P] TABLE 2902.1—continued
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (a)

No.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (e) (URINALS SEE SECTION 419.2 OF THE INTERNATIONAL PLUMBING CODE)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAINS (SEE SECTION 410.4 OF THE INTERNATIONAL PLUMBING CODE) (f) (g) (h)	OTHER
				MALE	FEMALE	MALE	FEMALE			
7	Residential	R-3	One- and two-family dwellings	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit	1 per 500	+ service sink
		R-4	Residential care/assisted living facilities	1 per 10		1 per 10		—	1 per 500	+ service sink
8	Storage (see Sections 2902.2, 2902.4 and 2902.4.1)	S-1 S-2	Structures for the storage of goods, warehouses, storehouses and freight depots, low and moderate hazard	1 per 100		1 per 100		See Section 411 of the International Plumbing Code	1 per 1,000	+ service sink

- a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by this code.
- b. Toilet facilities for employees shall be separate from facilities for inmates or patients.
- c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient rooms shall be permitted where such room is provided with direct access from each patient room and with provisions for privacy.
- d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
- e. In each bathroom or toilet room, urinals shall not be substituted for more than 67 percent of the required water closets in assembly and educational occupancies. Urinals shall not be substituted for more than 50 percent of the required water closets in all other occupancies.
- f. Drinking fountains shall not be installed in toilet rooms.
- g. Where food is consumed indoors, water stations may be substituted for drinking fountains. Offices, or public building for use by more than six (6) persons shall have one (1) drinking fountain for the first one hundred fifty (150) persons and one (1) additional fountain for each three hundred (300) persons thereafter.
- h. A drinking fountain shall not be required in occupancies of thirty (30) or less. When a drinking fountain is not required, then footnotes f and g are not applicable.

Section I104.2

Amend section I104.2 Footings to read as follows:

I104.2 Footings. ~~In areas with a frost depth of zero, a~~ An unenclosed patio cover that projects 14 feet or less from the main structure shall be permitted to be supported on a concrete slab on grade without footings, provided the slab conforms to the provisions of Chapter 19 of this code, is not less than 3 1/2 inches (89 mm) thick and further provided that the columns do not support loads in excess of 750 pounds (3.36 kN) per column.

International Residential Code

Section R202 Definitions.

Amend Section R202 to include the following definitions:

International Electrical Code. The Electrical Code, whether the National Electrical Code or the International Electrical Code, as amended and adopted by the local jurisdiction.

International Mechanical Code. The Mechanical Code, whether the Uniform Mechanical Code or the International Mechanical Code as amended and adopted by the local jurisdiction.

International Plumbing Code. The Plumbing Code, whether the Uniform Plumbing Code or the International Plumbing Code, as amended and adopted by the local jurisdiction.

International Fire Code. The Fire Code, whether the Uniform Fire Code or the International Fire Code as amended and adopted by the local jurisdiction.

International Fuel Gas Code. The Fuel Gas Code, whether NFPA 54 or the International Fuel Gas Code, as amended and adopted by the local jurisdiction.

Section 405.1 Concrete or masonry foundations.

Amend Section R405.1 to read as follows:

R405.1 Concrete or masonry foundations. ~~Drains shall be provided around all concrete or masonry foundations that retain earth and enclose habitable or usable spaces located below grade. Drainage tiles, gravel or crushed stone drains, perforated pipe or other approved systems or materials shall be installed at or below the area to be protected and shall discharge by gravity or mechanical means into an approved drainage system. Gravel or crushed stone drains shall extend at least 1 foot (305 mm) beyond the outside edge of the footing and 6 inches (152 mm) above the top of the footing and be covered with an approved filter membrane material. The top of open joints of drain tiles shall be protected with strips of building paper, and the drainage tiles or perforated pipe shall be placed on a minimum of 2 inches (51 mm) of washed gravel or crushed rock at least one sieve size larger than the tile joint opening or perforation and covered with not less than 6 inches (152 mm) of the same material. When required by the soils engineer or Building Official~~ subsoil drains shall be provided around the perimeter of buildings having basements, cellars, crawl spaces or floors below grade. Subsoil drains shall be installed in accordance with the soils engineer's design or in the absence of such design, such sub soil drains may be positioned inside or outside of the footing, shall be perforated or open-jointed

approved drain tile or pipe not less than 3 inches (80 mm) in diameter and shall be laid in gravel, slag, crushed rock, approved ¾ inch (19.1 mm) crushed recycle glass or other approved porous material with a minimum of 4 inches (102 mm) surrounding the pipe on all sides. Filter media shall be provided for subsoil piping.

~~**Exception:** A drainage system is not required when the foundation is installed on well-drained ground or sand-gravel mixture soils according to the Unified Soil Classification System, Group I Soils, as detailed in Table R405.1.~~

Section 408.1 Ventilation

Add the following exceptions to Section R408.1:

R408.1 Ventilation. The under-floor space between the bottom of the floor joists and the earth under any building (except space occupied by a basement) shall have ventilation openings through foundation walls or exterior walls. The minimum net area of ventilation openings shall not be less than 1 square foot (0.0929 m²) for each 150 square feet (14m²) of under-floor space area. One such ventilating opening shall be within 3 feet (914 mm) of each corner of the building.

Exceptions:

1. The gross area of ventilation openings may be reduced to 84 square inches of vent for each 25 lineal feet of exterior wall where the ground surface is treated with a compliant vapor retarder material and the required openings are so placed as to provide cross-ventilation of the crawl space. Vents may be either fixed open or operable.
2. The ventilation openings to the outdoors are not required if ventilation openings to the interior are provided in accordance with section R408.3.

Section R408.2 Openings for under-floor ventilation.

Add the following exception to Section R408.2:

R408.2 Openings for under-floor ventilation. The minimum net area of ventilation openings shall not be less than 1 square foot (0.0929 m²) for each 150 square feet (14 m²) of under-floor area. One ventilating opening shall be within 3 feet (914 mm) of each corner of the building. Ventilation openings shall be covered for their height and width with any of the following materials provided that the least dimension of the covering shall not exceed ¼ inch (6.4 mm):

1. Perforated sheet metal plates not less than 0.070 inch (1.8 mm) thick.
2. Expanded sheet metal plates not less than 0.047 inch (1.2 mm) thick.
3. Cast-iron grill or grating.
4. Extruded load-bearing brick vents.

5. Hardware cloth of 0.035 inch (0.89 mm) wire or heavier.
6. Corrosion-resistant wire mesh, with the least dimension being 1/8 inch (3.2 mm).

Exception: The gross area of ventilation openings may be reduced to 84 square inches of vent for each 25 lineal feet of exterior wall where the ground surface is treated with a compliant vapor retarder material and the required openings are so placed as to provide cross ventilation of the crawl space. Vents may be either fixed open or operable.

Section R408.3 Unvented crawl space.

Add the following subsection to Section R408.3:

R408.3 Unvented crawl space. Ventilation openings in under-floor spaces specified in Sections R408.1 and R408.2 shall not be required where:

1. Exposed earth is covered with a continuous vapor retarder. Joints of the vapor retarder shall overlap by 6 inches (152 mm) and shall be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches (152 mm) up the stem wall and shall be attached and sealed to the stem wall; and
2. One of the following is provided for the under-floor space:
 - 2.1. Continuously operated mechanical exhaust ventilation at a rate equal to 1 cfm (0.47 L/s) for each 50 ft² (4.7 m²) of crawlspace floor area, including an air pathway to the common area (such as a duct or transfer grille), and perimeter walls insulated in accordance with Section N1102.2.8;
 - 2.2. Conditioned air supply sized to deliver at a rate equal to 1 cfm (0.47 L/s) for each 50 ft² (4.7 m²) of under-floor area, including a return air pathway to the common area (such as a duct or transfer grille), and perimeter walls insulated in accordance with Section N1102.2.8;
 - 2.3. Plenum complying with Section M1601.4, if under-floor space is used as a plenum.
 - 2.4. Thermostatically operated vents which close completely at a temperature no lower than 38 degrees Fahrenheit and open completely at a temperature no lower than 65 degrees Fahrenheit. The ventilation openings shall be a minimum of 84 square inches of gross area for each 25 lineal feet of exterior wall and so placed as to provide cross ventilation of the crawl space.

Section N1102.2.8 Crawl space walls.

Amend Section N1102.2.8 to read as follows:

N1102.2.8 Crawl space walls. As an alternative to insulating floors over crawl spaces, insulation of crawl space walls when the crawl space is not vented to the outside is permitted. The crawl space shall be considered unvented during the heated season when thermostatically operated vents have been installed in accordance with R408.2 Crawl space wall insulation shall be permanently fastened to the wall and extend downward from the floor to the finished grade level and then vertically and/or horizontally for at least an additional 24 inches (610 mm). Exposed earth in unvented crawl space foundations shall be covered with a continuous vapor retarder. All joints of the vapor retarder shall overlap by 6 inches (152 mm) and be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches (152 mm) up the stem wall and shall be attached to the stem wall.

Section N1103.2.1 Insulation.

Amend Section N1103.2.1 to read as follows:

N1103.2.1 Insulation. Supply and return ducts shall be insulated to a minimum of ~~R-8~~ R-6. Ducts in floor trusses shall be insulated to a minimum of R-6.

Exception: Ducts or portions thereof located completely inside the building thermal envelope.

Section G2417.4.1 Test pressure.

Amend Section G2417.4.1 to read as follows:

G2417.4.1 (406.4.1) Test pressure. ~~The test pressure to be used shall be not less than one and one-half times the proposed maximum working pressure, but not less than 3 psig (20 kPa gauge), irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.~~ High pressure gas test. This test shall be made before any fixtures, appliances or shut-off valves have been attached and before being concealed. This test shall include an air, CO₂ or nitrogen pressure test at which time the gas piping shall stand at a pressure of not less than twenty-five (25) PSI (68.9kPa) gauge pressure for no less than thirty (30) minutes.

Section G2417.4.2 Test duration.

Amend Section G2417.4.2 to read as follows:

G2417.4.2 (406.4.2) Test duration. The test duration shall be not less than ~~40~~ 30 minutes.

Section G2417.6. Piping system, appliance and equipment leakage check.

Amend Section G2417.6 to read as follows:

G2417.6 (406.6) Piping system, appliance and equipment leakage check. Leakage checking of systems and equipment shall be in accordance with Sections G2417.6.1 through G2417.6.4.

~~**G2417.6.1 (406.6.1) Test gases.** Fuel gas shall be permitted to be used for leak checks in piping systems that have been tested in accordance with Section G2417.~~

~~**G2417.6.2 1 (406.6.2) Before turning gas on.** Before gas is introduced into a system of new gas piping, the entire system shall be inspected to determine that there are no open fittings or ends and that all valves at unused outlets are closed and plugged or capped. A pressure test shall be made with the use of a manometer gauge measuring inches of water column. With all valves including gas cock and gas control valves in the open position a pressure of at least eleven (11) to fifteen (15) inches of water column shall be measured for at least fifteen (15) minutes, with no perceptible drop in pressure.~~

Manometer testing shall be performed by a person holding a valid Washoe County or City of Fernley manometer tester card for which the number is to be provided at the time of request for inspection. A visual manometer test to be witnessed by the authority having jurisdiction may be allowed by the Building Official. A manometer test does not need to be reported when the serving gas utility performs a manometer test prior to providing service.

~~**G2417.6.3 2 (406.6.3) Leak check.** Immediately after the gas is turned on into a new system or into a system that has been initially restored after an interruption of service, the piping system shall be checked for leakage. Where leakage is indicated, the gas supply shall be shut off until the necessary repairs have been made.~~

~~**G2417.6.4 3 (406.6.4) Placing appliances and equipment in operation.** Appliances and equipment shall be permitted to be placed in operation after the piping system has been checked for leakage and determined to be free of leakage and purged in accordance with Section G2417.7.2.~~

Section P2601 General.

Add the following subsection to Section P2601:

P2601. 4 Alternate Standards. In addition to the standards listed in Chapter 26, the following standards listed below shall be labeled as recognized Plumbing Code Standards.

1. The California-Nevada American Water Works Association (CA-NV Section) standards governing the certification of backflow prevention testers and cross-connection control program.
2. The University of Southern California's Foundation for Cross-Connection Control and Hydraulic Research Current edition Manual of Cross-Connection Control.

Section 2902.3 Backflow protection

Add the following subsection to Section P2902.3:

P2902.3.7 Testing of backflow

The premise owner or responsible person shall have the backflow prevention assembly tested by a certified backflow assembly tester at the time of installation, repair, or relocation and at least on an annual schedule thereafter or more often when required by the water purveyor, utility, or the Health Department District. The periodic testing shall be performed in accordance with the procedures referenced in the University of Southern California Manual Cross-Connection Control current edition by a tester qualified in accordance with those standards and the CA-NV Section of AWWA backflow prevention assembly testers and cross-connection control program specialist.

Section P3004.1 DWV system load.

Amend Section P3004.1 to read as follows:

P3004.1 DWV system load. The load on DWV-system piping shall be computed in terms of drainage fixture unit (d.f.u.) values in accordance with Table P3004.1. Minimum sewer size shall be four (4) inches in diameter.

Section E3501.6.2 Service disconnect location.

Amend Section E3501.6.2 to read as follows:

E3501.6.2 Service disconnect location. The service disconnecting means shall be installed at a readily accessible location ~~either~~ outside of a building or structure ~~inside~~ nearest the point of entrance of the service conductors. ~~Service disconnecting means shall not be installed in bathrooms. Each occupant shall have access to the disconnect serving the dwelling unit in which they reside.~~ The disconnecting means may be located

independent of the building or structure served, in direct line of sight, but not to exceed thirty (30) feet.

Exception: The service disconnecting means may be installed within a building when an external remote shunt trip switch is provided. All shunt trip switches shall be located at seven feet (7') above finish grade at a location approved by the fire department. All shunt trip switches shall be located within a twelve inch (12") equilateral triangle, red in color.

Section E3604 Feeder requirements.

Add new Section E3604.6 to read as follows:

3604.6 Location of disconnecting means. The service disconnecting means shall be installed outside of the building or other structure at a readily accessible location either outside of a building or inside nearest the point of entrance of the service conductors. Service disconnecting means shall not be installed in bathrooms. Each occupant shall have access to the disconnect serving the dwelling unit in which they reside nearest the point of entrance of the service conductors. The disconnecting means may be located independent of the building or structure served, in direct line of sight, but not to exceed thirty (30) feet.

Exception: The service disconnecting means may be installed within a building when an external remote shunt trip switch is provided. All shunt trip switches shall be located at seven feet (7') above finish grade at a location approved by the fire department. All shunt trip switches shall be located within a twelve inch (12") equilateral triangle, red in color.

Section E3605.6 Fuses and fixed trip circuit breakers.

Add new subsection E3605.6.1 to 3605.6:

E3605.6 Fuses and fixed trip circuit breakers. The standard ampere ratings for fuses and inverse time circuit breakers shall be considered 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250, 300, 350 and 400 amperes.

Plug fuses of the Edison-based type shall be used only for replacement in existing installations where there is no evidence of overfusing or tampering. In any existing building where alterations or additions are made to any of the premises wiring, all fuse holders shall be made to comply with the requirements for a Type S fuse holder through the installation of a tamper proof (rejection type) base.

Section E3808.18 Bonding other enclosures.

Amend Section E3808.18 to read as follows:

E3808.18 Bonding other enclosures. Metal raceways, cable armor, cable sheath, enclosures, frames, fittings and other metal noncurrent-carrying parts that serve as grounding conductors, with or without the use of supplementary equipment grounding conductors, shall be effectively bonded where necessary to ensure electrical continuity and the capacity to conduct safely any fault current likely to be imposed on them. Any nonconductive paint, enamel and similar coating shall be removed at threads, contact points and contact surfaces, or connections shall be made by means of fittings designed so as to make such removal unnecessary. The Authority Having Jurisdiction shall require a supplementary grounding conductor where a metallic raceway is subject to damage or is likely to be disturbed.

FPN: An example of ‘subject to damage’ might be a surface mounted conduit along a traffic path in a warehouse. An example of ‘likely to be disturbed’ might be conduit across a rooftop, where re-roofing operations will require the conduit to be removed.

Section AH106.1 General.

Amend Section AH106.1 to read as follows:

AH106.1 General. ~~In areas with a frostline depth of zero as specified in Table R301.2 (1),~~ a unenclosed patio cover that projects 14 feet or less from the main structure shall be permitted to be supported on a slab on grade without footings, provided the slab conforms to the provisions of Section R506 of this code, is not less than 3.5 inches (89 mm) thick and the columns do not support live and dead loads in excess of 750 pounds (3.34 kN) per column.

2006 Uniform Mechanical Code

Section 405.0 Evaporative Cooling Systems.

Amend Section 405.0 to read as follows:

405.0 Evaporative Cooling Systems.

Evaporative cooling systems will comply with this chapter. Evaporative coolers shall not be used for make-up air units on commercial kitchen hoods and kitchen ventilation systems

Exception: Evaporative cooling systems that are a listed assembly with tempered air for kitchen make-up air systems.

Section 504.3.2.2 Length Limitation.

Amend Section 504.3.2.2 to read as follows:

504.3.2.2 Length Limitation. ~~Unless otherwise permitted or required by the dryer manufacturer's installation instructions and approved by the Authority Having Jurisdiction, domestic dryer moisture exhaust ducts shall not exceed a total combined horizontal and vertical length of fourteen (14) feet (4,263 mm) including two (2) 90 degree (1.57 rad) elbows. Two (2) feet (610 mm) shall be deducted for each 90 degree (1.57 rad) elbow in excess of two. The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620 mm) from the dryer location to the wall or roof termination. The maximum length of the duct shall be Reduced 2.5 feet (762 mm) for each 45-degree (0.8 rad) bend and 5 feet (1524 mm) for each 90-degree (1.6 rad) bend. The maximum length of the exhaust duct does not include the transition duct.~~

Exceptions:

1. Where the make and model of the clothes dryer to be installed is known and the manufacturer's installation instructions for the dryer are provided to the building official, the maximum length of the exhaust duct, including any transition duct, shall be permitted to be in accordance with the dryer manufacturer's installation instructions.

2. Where large-radius 45-degree (0.8 rad) and 90-degree (1.6 rad) bends are installed, determination of the equivalent length of clothes dryer exhaust duct for each bend by engineering calculation in accordance with the ASHRAE Fundamentals Handbook shall be permitted.

Section 508.5 Exhaust Hood Assemblies with Integrated Supply-Air Plenums.

Add the following subsection to 508.5.

508.5.3 Any non-listed hood shall not be of a “Short Circuit” design where a hood supply air plenum discharges replacement or make-up air directly into the hood exhaust chamber.

Section 511.3 Replacement Air.

Amend Section 5011.3 to read as follows:

511.3 Replacement Air. Replacement air quantity shall be adequate to prevent negative pressures in the commercial cooking area(s) from exceeding 0.02 in. water column (4.98 kPa).

Exceptions:

- (1) When its fire-extinguishing system discharges, makeup air supplied ~~internally~~ to a hood shall be shut off.
- (2) Compensating hoods shall meet the airflow requirements specified in Sections 508.4.1.3 through 508.4.1.5. Compensating hoods shall extract at least twenty percent (20%) of their required exhaust airflow from the kitchen area.

Section 605.0 Insulation of Ducts

Amend Section 605.0 to read as follows:

605.0 Insulation of Ducts.

Supply- and return-air ducts and plenums of a heating or cooling system shall be insulated to achieve the minimum thermal (R) value as set forth in ~~Tables 6-6 A and B~~ the 2006 IECC sections 403.2 for residential construction and 503.2.7 for commercial applications.

Exceptions:

- ~~(A) Factory installed plenums, casings, or ductwork furnished as a part of HVAC equipment tested and rated in accordance with approved energy efficiency standards.~~
- ~~(B) Ducts or plenums located in conditioned spaces.~~
- ~~(C) For runouts less than 10 feet (3 m) in length to air terminals or air outlets, the rated R value of insulation need not exceed R-3.5 (R-0.6).~~
- ~~(D) Backs of air outlets and outlet plenums exposed to unconditioned or indirectly conditioned spaces with face areas exceeding 5 sq. ft. (0.5 m²) need not exceed R-2 (R-0.4); those 5 sq. ft. (0.5 m²) or smaller need not be insulated.~~
- ~~(E) Ducts and plenums used exclusively for evaporative cooling systems.~~

Approved materials shall be installed within ducts and plenums for insulating, sound deadening or other purposes. Materials shall have a mold, humidity, and erosion-resistant surface that meets the requirements of the referenced standard for air ducts in Chapter 17, Part II. Duct liners in systems operating with air velocities exceeding 2000 feet per minute (10.16 m/s) shall be fastened with both adhesive and mechanical fasteners, and exposed edges shall have adequate treatment to withstand the operating velocity.

Insulation applied to the surface of ducts, including duct coverings and linings, tapes and adhesives located in buildings shall have flame-spread index of 25 and a maximum smoke-developed index of 50, when tested in accordance with NFPA 255-2000, Standard Method of Test of Surface Burning Characteristics of Building Materials, or in accordance with ASTM E 84-2000a, Standard Test Method for Surface Burning Characteristics of Building Materials, or in accordance with the provisions of UL 723-96, Standard for Test of Surface Burning Characteristics of Building Materials. The specimen preparation and mounting procedures of ASTM E 2231, Specimen Preparation and Mounting of Pipe and Duct Insulation Materials to Assess surface Burning Characteristics shall be used. Air duct coverings and linings shall not flame, glow, smolder, or smoke when tested in accordance with ASTM C 411-97, Standard Test Method for Hot-Surface Performance of High-Temperature Thermal Insulation, at the temperature to which they are exposed in service. In no case shall the test temperature be below 250°F (121°C). Factory-made air ducts and faced insulations intended for installation on the exterior of ducts shall be legibly printed with the name of the manufacturer, the thermal resistance (R) value at installed thickness, and the flame-spread index and smoke-developed index of the composite material.

Table 6-6 A

Delete entire table and footnotes.

Table 6-6-B

Delete entire table and footnotes.

Section 1019.0 Fuel piping, Tanks and Valves.

Amend Section 1019.0 to read as follows:

1019.0 Fuel Piping, Tanks, and Valves. Tanks, piping and valves for oil-burning appliances shall be installed in accordance with NFPA 31, Standard for the Installation of Oil-Burning Equipment, and the International Fire Code. Where a requirement may differ between documents, the more restrictive requirements shall apply. That portion of the oil-burning system supplied on boilers and covered within the scope of NFPA 85 shall be installed in accordance with NFPA 85.

Section 1123.2 Field Tests.

Amend section 1123.2 to read as follows:

1123.2 Field Tests. Refrigerant-containing parts of a system that is field erected shall be tested and proved tight to the satisfaction of the Authority Having Jurisdiction after complete installation and before operation. The high and low sides of each system shall be tested and proved tight at not less than the lower of the pressure in Table 11-4 or the setting of the pressure-relief device.

Exceptions:

- (1) Compressors, condensers, evaporators, coded pressure vessels, safety devices, pressure gauges, control mechanisms, and systems that are factory tested.
- (2) Refrigeration systems containing Group R-22 and R410a, not exceeding five (5) tons of refrigeration capacity (17.58 kW), and field piped using approved, factory-charged line sets may be proved tight by observing retention of pressure on a set of charging gauges and soaping connections while the system is operating.

2006 Uniform Plumbing Code

Section 301.1.3 Standards.

Add sub section 301.1.3.1 to section 301.1.3:

301.3.1 In addition to the standards listed in Chapter 14, the following standards listed below shall be labeled as recognized Plumbing Code Standard:

1. The California-Nevada American Water Works Association (CA-NV Section) standards governing the certification of backflow prevention testers and cross-connection control program.
2. The University of Southern California's Foundation for Cross-Connection Control and Hydraulic Research current edition Manual of Cross-Connection Control.

The primary product and performance standard for the design, installation, and testing of the backflow assembly shall be the University of Southern California's Manual of Cross-Connection Control and Hydraulic Research current edition. When conflicts arise between the provisions of the Uniform Plumbing Code and the U. S. C. Manual of Cross-Connection Control, the most restrictive shall govern.

Section 412.0 Minimum Plumbing Facilities.

Delete entire section.

Table 4.1 Minimum Plumbing Facilities.

Delete entire table and footnotes.

Table A Occupant Load Factor.

Delete entire table and footnotes.

Section 411.2 Location of Floor Drains.

Add subsection 411.2.4

411.2.4 Floor drains shall be provided in public boiler rooms, in commercial boiler rooms, boiler room areas of multi-family buildings and adjacent to areas where meat or poultry processing is conducted.

Section 603.3.3 General requirements.

Amend Section 603.3.3 to read as follows:

603.3.3 General Requirements.

603.3.3 The premise owner or responsible person shall have the backflow prevention assembly tested by a certified backflow assembly tester at the time of installation, repair, or relocation and at least on an annual schedule thereafter or more often when required by the ~~Authority Having Jurisdiction~~ water purveyor, utility, or the District Health Department. The periodic testing shall be performed in accordance with procedures referenced in ~~Table 14-1 by a tester qualified in accordance with those standards~~ the University of Southern California Manual of Cross-Connection Control current edition by a tester qualified in accordance with those standards and the CA-NV section of AWWA backflow prevention assembly testers and cross-connection control program specialist.

Section 604.0 Materials

Add the following subsection to 604.8.

604.8.1 Plastic materials shall not be used in Type I or Type II construction.

Exception: Type II-B construction three stories or less.

Section 701.0 Materials.

Add the following subsection to 701.0.

701.1.6 Plastic materials shall not be used in Type I, Type II-A or structures more than three stories in height of Type II-B construction.

Add the following subsection to 701.2

701.2.3 Plastic materials shall not be used in Type I, Type II-A or structures more than three stories in height of Type II-B construction.

Section 717.0 Size of Building Sewers.

Amend Section 717.0 to read as follows:

717.0 Size of Building Sewers.

The minimum size of any building sewer shall be determined on the basis of the total number of fixture units drained by such sewer, in accordance with Table 7-8, but in no event less than four (4) inches in diameter. No building sewer shall be smaller than the building drain.

Section 1101.5 Subsoil Drains

Amend Section 1101.5 to read as follows:

1101.5 Subsoil Drains.

~~1101.5.1 Subsoil drains shall be provided around the perimeter of buildings having basements, cellars, or crawl spaces or floors below grade. Such subsoil drains may be positioned inside or outside the footing, shall be perforated or open jointed approved drain tile or pipe not less than three (3) inches (80 mm) in diameter, and shall be laid in gravel, slag, crushed rock, approved three quarter (3/4) inch (19.1 mm) crushed recycled glass aggregate, or other approved porous material with a minimum of four (4) inches surrounding the pipe on all sides. Filter media shall be provided for exterior subsoil piping.~~

When required by the soils engineer or Building Official subsoil drains shall be provided around the perimeter of buildings having basements, cellars, crawl spaces or floors below grade. Subsoil drains shall be installed in accordance with the soils engineer's design or in the absence of such design, such sub soil drains may be positioned inside or outside of the footing, shall be perforated or open-jointed approved drain tile or pipe not less than 3 inches (80 mm) in diameter and shall be laid in gravel, slag, crushed rock, approved ¾ inch (19.1 mm) crushed recycle glass or other approved porous material with a minimum of 4 inches (102 mm) surrounding the pipe on all sides. Filter media shall be provided for subsoil piping.

Section 1214.3 Test Pressure.

Amend Section 1214.3 to read as follows:

1214.3 Test Pressure.

~~1214.3.1 Test pressure shall be measured with a manometer or with a pressure measuring device designed and calibrated to read, record, or indicate a pressure loss due to leakage~~

~~during the pressure test period. The source of pressure shall be isolated before the pressure tests are made. Mechanical gauges used to measure test pressures shall have a range such that the highest end of the scale is not greater than five times the test pressure. High pressure gas test. This test shall be made before any fixtures, appliances or shut-off valves have been attached and before being concealed. This test shall include an air, CO₂ or nitrogen pressure test at which time the gas piping shall stand at a pressure of not less than twenty-five (25) PSI (68.9kPa) gauge pressure for no less than thirty (30) minutes.~~

~~1214.3.2 The test pressure to be used shall be no less than 1-1/2 times the proposed maximum working pressure, but not less than 3 psi (20 kPa), irrespective of design pressure. A manometer test shall be made after all valves, unions, connectors and piping to the appliances are complete. A pressure test shall be made with the use of a manometer gauge measuring inches of water column. With all valves including gas cock and gas control valves in the open position a pressure of at least eleven (11) to fifteen (15) inches of water column shall be measured for at least fifteen (15) minutes, with no perceptible drop in pressure.~~

~~Manometer testing shall be performed by a person holding a valid Washoe County or City of Fernley manometer tester card for which the number is to be provided at the time of request for inspection. A visual manometer test to be witnessed by the authority having jurisdiction may be allowed by the Building Official. A manometer test does not need to be reported when the serving gas utility performs a manometer test prior to providing service.~~

~~1214.3.3 Test duration shall be not less than ½ h for each 500 cu. ft. (14 m³) of pipe volume or fraction thereof. When testing a system having a volume less than 10 cu.ft. (0.28 m³) or a system in a single family dwelling, the test duration shall be a minimum of 10 minutes. The duration of the test shall be a minimum of 10 minutes. The duration of the test shall not be required to exceed 24 hours. Where gas piping is to be welded, a pressure test shall be conducted. The test pressure shall not be less than sixty (60) PSI (413.4kPa) gauge pressure and shall be continued for one (1) hour with no perceptible drop in pressure.~~

2005 National Electrical Code

Article 225.32 Location.

Amend Article 225.32 to read as follows:

225.32 Location.

The disconnection shall be installed ~~either inside or~~ attached to the outside of the building or structure served or where the conductors pass through the building or structure. The disconnecting means shall be at a readily accessible location nearest the point of entrance of the conductors. For the purpose of this section, the requirements in 230.6 shall be permitted to be utilized.

Exception No. 1: For installations under single management, where documented safe switching procedures are established and maintained for disconnection and where the installation is monitored by qualified individuals, the disconnected means shall be permitted to be located elsewhere on the premises.

Exception No. 2: For buildings or other structures qualified under the provisions of Article 685, the disconnecting means shall be permitted to be located elsewhere on the premises.

Exception No. 3: For towers or poles used as lighting standards, the disconnecting means shall be permitted to be located elsewhere on the premises.

Exception No. 4: For poles or similar structure used only for support of signs installed in accordance with Article 600, the disconnecting means shall be permitted to be located elsewhere on the premises.

Exception No. 5: The disconnecting means may be located independent of the building or structure served, in direct line of sight, but not to exceed thirty feet (30').

Exception No. 6: The service disconnecting means may be installed within a building when an external remote shunt trip switch is provided. All shunt trip switches shall be located at seven feet (7') above finish grade at a location approved by the fire department. All shunt trip switches shall be located within a twelve inch (12") equilateral triangle, red in color.

Article 230.70(A)(1).

Amend Article 230.70(A)(1) to read as follows:

230.70(A)(1) Readily Accessible Location

The service disconnection means shall be installed outside of a building or other structure at a readily accessible location nearest the point of entrance of the service conductors. The disconnecting means may be located independent of the building or structure served in direct line of sight, but not to exceed thirty feet (30'). ~~at a readily accessible location either outside of a building or structure or inside nearest the point of entrance of the service conductors.~~

Exception: The service disconnecting means may be installed within a building when an external remote shunt trip switch is provided. All shunt trip switches shall be located at seven feet (7') above finish grade at a location approved by the fire department. All shunt trip switches shall be located within a twelve inch (12") equilateral triangle, red in color.

Article 240.51(B).

Amend Article 240. (B) to read as follows:

240.51(B) Replacement Only.

Plug fuses of the Edison-based shall be used only for replacement in existing installations where there is no evidence of overfusing or tampering. In any existing building where alterations or additions are made to any of the premises wiring, all fuse holders shall comply with Section 240.54.

Article 250.96(A) General.

Amend Article 250. (A) to read as follows:

250.96(A) General

Metal raceways, cable trays, cable armor, cable sheath, enclosures, frames, fittings, and other metal non-current-carrying parts that are to serve as ground conductors, with or without the use of supplementary equipment grounding conductors, shall be effectively bonded where necessary to ensure electrical continuity and the capacity to conduct safely any fault current likely to be imposed on them. Any nonconductive paint, enamel, or similar coating shall be removed at threads, contact points, and contact surfaces or be connected by means of fittings designed so as to make such removal unnecessary. The Authority Having Jurisdiction shall require a supplementary grounding conductor where a metallic raceway is subject to damage or likely to be disturbed.

FPN: An example of 'subject to damage' might be a surface mounted conduit along a traffic path in a warehouse. An example of 'likely to be disturbed' might be conduit across a rooftop, where re-roofing operations will require the conduit to be removed.

Article 314.17(C) Non Metallic Boxes and Conduit Bodies.

Amend Article 314.17(C) to read as follows:

314.17(C) Nonmetallic Boxes and Conduit Bodies.

Nonmetallic boxes and conduit bodies shall be suitable for the lowest temperature-rated conductor entering the box. Where nonmetallic boxes and conduit bodies are used with messenger support wiring, open wiring on insulators, or concealed knob-and-tube wiring, the conductors shall enter the boxes through individual holes. Where flexible tubing is used to enclose the conductors, the tubing shall extend from the last insulated support to not less than 6 mm (1/4 in.) inside the box and beyond any cable clamp. Where nonmetallic-sheathed cable or multiconductor Type UF cable is used, the sheath shall extend not less than 6 mm (1/4 in.) inside the box and beyond any cable clamp. In all instances, all permitted wiring methods shall be secure to the boxes.

EXCEPTION: Where nonmetallic-sheathed cable or multiconductor Type UF cable is used with ~~single gang~~ boxes ~~not larger than a nominal size 57mm x 100 mm (2 1/4 in. x 4 in.)~~ mounted in walls or ceilings, and where the cable is fastened within 200 mm (8 in.) of the box measured along the sheath and the sheath extends through a cable knockout not less than 6 mm. (1/4 in.) securing the cable to the box shall not be required. Multiple cables entries shall be permitted in a single cable knockout opening.

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Section 101.4.3 additions, alterations, renovations or repairs.

Amend Section 101.4.3 to read as follows:

101.4.3 Additions, alterations, renovations or repairs. Additions, alterations, renovations or repairs to an existing building, building system or portion thereof shall conform to the provisions of this code as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. Additions, alterations, renovations, or repairs shall not create an unsafe or hazardous condition or overload existing building systems.

Exception: The following need not comply provided the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Glass only replacements in an existing sash and frame.
3. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation.
4. Construction where the existing roof, wall or floor cavity is not exposed.
5. Relocations of existing luminaires within an existing space.

Section 202 General Definitions.

Amend Section 202 to include the following definitions:

Casino-Front of House. Areas of the casino that are physically accessible or visible to the general public and guests, such as the exterior facades, landscaping, entries, lobbies, guestroom corridors, porte cocheres, retail shops restaurants, theaters, gaming areas, guest conference rooms and meeting rooms and other areas of entertainment as determined by the code official.

International Electrical Code. The Electrical Code, whether the National Electrical Code or the International Electrical Code, as amended and adopted by the local jurisdiction.

International Mechanical Code. The Mechanical Code, whether the Uniform Mechanical Code or the International Mechanical Code as amended and adopted by the local jurisdiction.

International Plumbing Code. The Plumbing Code, whether the Uniform Plumbing Code or the International Plumbing Code, as amended and adopted by the local jurisdiction.

International Fire Code. The Fire Code, whether the Uniform Fire Code or the International Fire Code as amended and adopted by the local jurisdiction.

International Fuel Gas Code. The Fuel Gas Code, whether NFPA 54 or the International Fuel Gas Code, as amended and adopted by the local jurisdiction.

Section 401.3 Certificate.

Amend Section 401.3 to read as follows:

401.3 Certificate. A permanent certificate shall be posted ~~on or in the electrical distribution panel.~~ under the kitchen sink. The certificate shall be completed by the builder or registered design professional. The certificate shall list the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation (slab, basement wall, crawlspace wall and /or floor) and ducts outside conditioned spaces; U-factors for fenestration; and the solar heat gain coefficient (SHGC) of fenestration. Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the type and efficiency of heating, cooling and service water heating equipment.

Section 403.2.1 Insulation.

Amend Section 403.2.1 to read as follows:

403.2.1 Insulation. Supply and return ducts shall be insulated to a minimum of ~~R-8~~ R-6. Ducts in floor trusses shall be insulated to a minimum of R-6.

Exception: Ducts or portions thereof located completely inside the building thermal envelope.

Section 502.4.6 Vestibules.

Add the following subsection to Section 502.4.6:

502.4.6 Vestibules. A door that separates conditioned space from the exterior shall be protected with an enclosed vestibule, with all doors opening into and out of the vestibule equipped with self-closing devices. Vestibules shall be designed so that in passing through the vestibule it is not necessary for the interior and exterior doors to open at the same time.

Exceptions:

1. Buildings in Climate Zones 1 and 2 as indicated in Figure 301.1 and Table 301.1.
2. Doors not intended to be used as a building entrance door, such as doors to mechanical or electrical equipment rooms.
3. Doors opening directly from a sleeping unit or dwelling unit.
4. Doors that open directly from a space less than 3,000 square feet (298m²) in area.
5. Revolving doors.
6. Doors used primarily to facilitate vehicular movement or material handling and adjacent personnel doors.
7. Buildings four stories or less.

Section 503.2.6 Energy recovery ventilation systems.

Add the following exception to Section 503.2.6:

503.2.6 Energy recovery ventilation systems.

Individual fan systems that have both a design supply air capacity of 5,000 cfm (2.36 m³/s) or greater and a minimum outside air supply of 70 percent or greater of the design supply air quantity shall have an energy recovery system that provides a change in the enthalpy of the outdoor air supply of 50 percent or more of the difference between the outdoor air and return air at design conditions. Provision shall be made to bypass or control the energy recovery system to permit cooling with outdoor air where cooling with outdoor air is required.

Exception: An energy recovery ventilation system shall not be required in any of the following conditions:

1. Where energy recovery systems are prohibited by the *International Mechanical Code*.
2. Laboratory fume hood systems with a total exhaust rate of 15,000 cfm (7.08 m³/s) or less.
3. Laboratory fume hood systems with a total exhaust rate greater than 15,000 cfm (7.08 m³/s) that include at least one of the following features:
 - 3.1. Variable-air-volume hood exhaust and room supply systems capable of reducing exhaust and makeup air volume to 50 percent or less of design values.
 - 3.2. Direct makeup (auxiliary) air supply equal to at least 75 percent of the exhaust rate, heated no warmer than 2° F (1.1° C) below room set point, cooled to no cooler than 3° F (1.7° C) above room set point, no humidification added, and no simultaneous heating and cooling used for dehumidification control.
4. Systems serving spaces that are not cooled and are heated to less than 60° F (15.5° C).

5. Where more than 60 percent of the outdoor heating energy is provided from site-recovered or site solar energy.
6. Heating systems in climates with less than 3600 HDD.
7. Cooling systems in climates with a 1 percent cooling design wet-bulb temperature less than 64° F (17.7° C).
8. Systems requiring dehumidification that employ series-style energy recovery coils wrapped around the cooling coil.
9. Evaporative cooling systems.

Section 505.2.2.2 Automatic lighting shutoff.

Add the following exception to Section 505.2.2.2:

505.2.2.2 Automatic lighting shutoff. Buildings larger than 5,000 square feet (465m²) shall be equipped with an automatic control device to shut off lighting in those areas.

This automatic control device shall function on either:

1. A scheduled basis, using time-of-day, with an independent program schedule that controls the interior lighting in areas that do not exceed 25,000 square feet (2323m²) and are not more than one floor; or
2. An occupant sensor that shall turn lighting off within 30 minutes of an occupant leaving a space; or
3. A signal from another control or alarm system that indicates the area is unoccupied.

Exception: The following shall not require an automatic control device:

1. Sleeping unit (see Section 505.2.3).
2. Lighting in spaces where patient care is directly provided.
3. Spaces where an automatic shutoff would endanger occupant safety or security.
4. Buildings where the nature of the business activity operates 24 hours per day, as approved by the code official.

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Section 505.5.1 Total connected interior lighting power.

Add the following exception to Section 505.5.1.

505.5.1 Total connected interior lighting power. The total connected interior lighting power (watts) shall be the sum of the watts of all interior lighting equipment as determined in accordance with Sections 505.5.1.1 through 505.5.1.4.

Exceptions: The connected power associated with the following lighting equipment is not included in calculating total connected lighting power.

1. Specialized medical, dental and research lighting.
2. Professional sports arena playing field lighting.
3. Display lighting for exhibits in galleries, museums and monuments.
4. Sleeting unit lighting in hotels, motels, boarding houses or similar buildings.
5. Emergency lighting automatically off during normal building operation.
6. Casino-Front of House areas on properties classified by local jurisdictions as a qualified casino.