SOUTHERN NEVADA
PROPOSED AMENDMENTS

TO THE

2012 INTERNATIONAL BUILDING CODE

(Chapters 1-6, 10-13, 24, 25, 27-35, Appendices A-F, I, K)

GENERAL CODE COMMITTEE
SEPTEMBER 25, 2012

PREFACE

This document was developed by the Southern Nevada Building Officials' General Committee and presents recommended amendments to the 2012 *International Building Code* (IBC) as published by the International Code Council (ICC).

Participation in the 2012 General Committee was open to all interested parties. However, voting on amendment proposals was limited to one vote each for the seven Southern Nevada municipalities (Clark County, Henderson, Las Vegas, North Las Vegas, Boulder City, Pahrump, and Mesquite), the Clark County School District, and three industry representatives. All General Committee proceedings were conducted in accordance with Robert's Rules of Order.

The recommended amendments contained herein are not code unless adopted and codified by governmental jurisdictions. These amendments are not intended to prevent the use of any material or method of construction not specifically prescribed herein, provided any alternates have been approved and their use authorized by the Building Official. This document may be copied and used in whole or in part without permission or approval from the organizations listed on the cover page.

Proposal Number	Code Section	Title	Result
GC12-001	Chapter 1	Administration and Enforcement	AP
GC12-002	202	Definition of High Rise Buildings	AP
GC12-003	202	Definition of Codes	AP
GC12-005(R1)	305 et al	Child Care Facilities	AP
GC12-006	310.4	Condominiums as R-2 Occupancy	AP
GC12-008	402.4.1	Areas and Types of Construction	AM
GC12-009	403.1	Applicability (High Rise Buildings)	AP
GC12-011	403.3	Automatic Sprinkler Systems	AP
GC12-012(R2)	403.5.2 & 403.5.2.1	Additional Exit Stairway (Access & Multiple Towers)	AM
GC12-013	403.5.4	Smokeproof Enclosures	AP
GC12-014	404.3	Automatic Sprinkler Systems	AP
GC12-015 (R1)	404.6	Enclosure of Atriums	AP
GC12-016	405.8.1	Standby Power Loads	AP
GC12-017	405.9.1	Emergency Power Loads	AP
GC12-018	406.3.2 & 406.3.4	Area Increases/Separation	AP
GC12-019	406.4.5.1	Floor Drains	AP
GC12-020	406.6.2	Ventilation	AP
GC12-021	406.8.2	Ventilation (Repair Garages)	AP
GC12-022	406.8.3.1	Floor Drains (Repair Garages)	AP
GC12-027	410.3.4	Proscenium Wall	AM
GC12-028	410.3.5.1	Activation	AP
GC12-030	410.7	Automatic Sprinkler Systems	AM
GC12-031	412.4.6	Fire Suppression	AP
GC12-032	202	Fire Code Official	AP
GC12-033	403 etal	Smoke Removal	AP
GC12-035	420.6	Visual Access	AP
GC12-036	421.5	Ventilation (Hydrogen Cut Off Rooms)	AP
GC12-037	403.5.3	Stairway Door Operation	AP
GC12-038	507.2.1	1-Story F-2 or S-2 Unlimited Area	AP
GC12-040(R1)	507.3	Unlimited Area	AP
GC12-043(R1)	603.1.2	Piping	AP
GC12-045	1006.3	Emergency Power for Illumination	AM
GC12-047	1008.1.5	Floor Elevation	AP
GC12-048	1008.1.8	Door Arrangement	AP
GC12-050(R2)	403.4.7	Smoke Removal	AP
GC12-051	419.5	Fire Protection	AP
GC12-052	1016.4	Corridor Increases	AP
GC12-054(R1)	1015.2.2	Three of More Exits	AP
GC12-055(R1)	1022.4	Normally Unoccupied Spaces	AM
GC12-057	1028.6.2.3	Smoke Protected Seating	AP
GC12-058	1203.1	Ventilation (General)	AM
GC12-060	1203.4.1	Ventilation Area Required	AP
GC12-061	1203.4.2.1	Bathroom Ventilation	AP
GC12-062(R1)	1203.6	Mechanical Ventilation	AP
GC12-063(R1)	1006.3	Emergency Power for Illumination	AM

Proposal Number	Code Section	Title	Result
GC12-064(R1)	Table 2902.1	Plumbing Fixture Count	AP
GC12-065	Table 2902.1	Plumbing Fixture Count	AP
GC12-066	2902.2	Separate Facilities	AM
GC12-068(R1)	1008.1.9.11	Stairway Doors	AM
GC12-070(R1)	1011.2	Floor Level Exit Signs	AM
GC12-072(R2)	1015.1	Exit or Exit Access Doorways	AP
GC12-074	3112	Cabanas	AP
GC12-075(R2)	3113	Shade Structures	AP
GC12-076	Appendix Chapters	Appendix Chapters	AP
GC12-077	403.6.1 exc	Fire Service Access Elevators	AP
GC12-078	1014.3	Common Path of Egress Travel	AP
GC12-079(R1)	1109.15	Gaming Machines and Tables	AP
GC12-080	3002.4	Elevator Cars	AP
GC12-081	3003.1.3	Two or More Elevators	AP
GC12-082	3306.2	Walkways	AP
GC12-083	3401.7	Partial Sprinklers in Existing Buildings	AM
GC12-084	3401.8	Fire Alarm Systems in Existing Buildings	AM
GC12-085(R1)	3405.1	Vertical Element of the Lateral Force-Resisting System	AP
GC12-086(R1)	3405.3.1	Lateral Force-Resisting System	AP
GC12-087(R1)	3114	Playground Shade Structures	AM

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-001

COMMITTEE: General

CODE SECTION: Chapter 1

PROPONENT: Jim Gerren, Clark County

PROPOSAL:

Delete Part 2 from Chapter 1 of the IBC.

REVISE AS FOLLOWS:

Delete Part 2 ("Administration and Enforcement"), including Sections 103 through 116 in their entirety, from Chapter 1.

JUSTIFICATION:

Chapter 1 of the 2012 International Building Code (IBC) addresses "Scope and Administration". Part 1 of Chapter 1, which includes Sections 101 (General) and 102 (Applicability) only, covers scope and application requirements. The provisions of Part 1 are applicable to all Southern Nevada jurisdictions. However, Part 2 of Chapter 1 addresses "Administration and Enforcement" and includes the following sections:

Section 103 – Department of Building Safety
Section 104 – Duties and Powers of Building Official
Section 105 – Permits
Section 106 – Floor and Roof Design Loads
Section 107 – Submittal Documents
Section 108 – Temporary Structures and Uses
Section 109 – Fees
Section 110 – Inspections
Section 111 – Certificate of Occupancy
Section 112 – Service Utilities
Section 113 – Board of Appeals
Section 114 – Violations
Section 115 – Stop Work Order
Section 116 – Unsafe Structures and Equipment

Each jurisdiction in Southern Nevada typically addresses administration and enforcement requirements, such as those topics addressed by IBC Sections 103 through 116, through their own local ordinances (i.e., local Building Administrative Codes). Therefore, this proposal recommends that Part 2 of Chapter 1 be deleted in its entirety so as to eliminate potential inconsistencies and conflicts between Part 2 of IBC Chapter 1 and the local ordinances that cover administration and enforcement requirements.

There may be some concern with leaving Section 101.4 (“Referenced codes”) in Chapter 1 since it addresses several codes that may not be adopted by all of the Southern Nevada jurisdictions. However, this potential issue can be resolved with Proposal GC12-003, which defines all of the various International Codes as “the code as adopted and amended by the local jurisdiction”.

COST IMPACT:

This amendment will not affect the cost of construction.

COMMITTEE ACTION: Motion to approve and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP	N/A	AP	AP	AP	AP	AP	AP

RESULT: Approved.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-002

COMMITTEE: General

CODE SECTION: Section 202

PROPONENT: Jim Gerren, Clark County

PROPOSAL:

Revise the definition of "High-Rise Building" in Section 202.

REVISE AS FOLLOWS:

HIGH-RISE BUILDING. A building with an occupied floor located more than 55 feet (16 764 mm) ~~75 feet (22 860 mm)~~ above the lowest level of fire department vehicle access.

JUSTIFICATION:

In accordance with NAC 477.283.2(b), the Nevada State Fire Marshal requires the high-rise building provisions of Section 403 to apply to all buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access. The proposed amendment revises the definition of "high-rise building" for consistency with NAC 477.283.2(b). The proposed amendment is consistent with Nevada Revised Statutes and past Southern Nevada building code amendments.

COST IMPACT:

This will increase the cost of construction; no impact relative to previous Southern NV amendments.

COMMITTEE ACTION: Motion to approve and seconded

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP	N/A	AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-003

COMMITTEE: General

CODE SECTION: Section 202

PROPONENT: Jim Gerren, Clark County

PROPOSAL:

Amend Section 202 to include the following new definitions.

REVISE AS FOLLOWS:

INTERNATIONAL ENERGY CONSERVATION CODE. The Energy Conservation Code as amended and adopted by the local jurisdiction.

INTERNATIONAL EXISTING BUILDING CODE. The Existing Building Code as amended and adopted by the local jurisdiction.

INTERNATIONAL FIRE CODE. The Fire Code as amended and adopted by the local jurisdiction.

INTERNATIONAL FUEL GAS CODE. The Fuel Gas Code as amended and adopted by the local jurisdiction.

INTERNATIONAL MECHANICAL CODE. The Mechanical Code as amended and adopted by the local jurisdiction.

INTERNATIONAL PLUMBING CODE. The Plumbing Code as amended and adopted by the local jurisdiction.

INTERNATIONAL PRIVATE SEWAGE DISPOSAL CODE. The Private Sewage Disposal Code as amended and adopted by the local jurisdiction.

INTERNATIONAL PROPERTY MAINTENANCE CODE. The Property Maintenance Code as amended and adopted by the local jurisdiction.

INTERNATIONAL RESIDENTIAL CODE. The Residential Code as amended and adopted by the local jurisdiction.

INTERNATIONAL WILDLAND-URBAN INTERFACE CODE. The Wildland-Urban Interface Code as amended and adopted by the local jurisdiction.

JUSTIFICATION:

The IBC contains numerous references to the above-listed International Codes. However, such references to these International Codes in the IBC create potential conflicts with the codes actually adopted by Southern Nevada jurisdictions because (a) the jurisdictions may not adopt the same editions of these codes, and (b) the jurisdictions may adopt codes other than those published by the ICC (e.g., the Uniform Plumbing Code and Uniform Mechanical Code as published by IAPMO). The proposed definitions would direct the user to the applicable adopted code without requiring changes to be made throughout the IBC. This approach is consistent with the method used to address this issue in the adopted and amended 2000, 2006, and 2009 editions of the IBC. All of the codes identified in this amendment are referenced within the 2012 IBC, as noted in IBC Chapter 35.

COST IMPACT: None.

COMMITTEE ACTION: Motion to approve and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP	N/A	AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-005(R1)

COMMITTEE: General

CODE SECTION: Sections 305.2.3, 308.6, 308.6.3, 308.6.4, 310.5 & 310.5.1

PROPONENT: Jim Gerren, Clark County

PROPOSAL: Amend Sections 305.2.3, 308.6, 308.6.1, 308.6.3, 308.6.4, 310.5 and 310.5.1.

REVISE AS FOLLOWS:

Amend Section 305.2.3 to read as follows:

305.2.3 Six ~~Five~~ or fewer children in a dwelling unit. A facility such as the above within a *dwelling unit* and having six ~~five~~ or fewer children receiving such day care shall be classified as a Group R-3 occupancy or shall comply with the *International Residential Code*.

Amend Section 308.6 to read as follows:

308.6 Institutional Group I-4, day care facilities. This group shall include buildings and structures occupied by more than six ~~five~~ persons of any age who receive *custodial care* for fewer than 24 hours per day by persons other than parents or guardians, relatives by blood, marriage or adoption, and in a place other than the home of the person cared for. This group shall include, but not be limited to, the following:

Adult day care
Child day care

Amend Section 308.6.1 to read as follows:

308.6.1 Classification as Group E. A child day care facility that provides care for more than six ~~five~~ but no more than 100 children 2½ years or less of age, where the rooms in which the children are cared for are located on a *level of exit discharge* serving such rooms and each of these child care rooms has an *exit* door directly to the exterior, shall be classified as Group E.

Amend Section 308.6.3 to read as follows:

308.6.3 Six ~~Five~~ or fewer persons receiving care. A facility having six ~~five~~ or fewer persons receiving *custodial care* shall be classified as part of the primary occupancy.

Amend Section 308.6.4 to read as follows:

308.6.4 Six ~~Five~~ or fewer persons receiving care in a dwelling unit. A facility such as the above within a *dwelling unit* and having six ~~five~~ or fewer persons receiving *custodial care* shall be classified as a Group R-3 occupancy or shall comply with the *International Residential Code*.

Amend Section 310.5 to read as follows:

310.5 Residential Group R-3. Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two *dwelling units*
Boarding houses (nontransient) with 16 or fewer occupants
Boarding houses (*transient*) with 10 or fewer occupants
Care facilities that provide accommodations for six ~~five~~ or fewer persons receiving care
Congregate living facilities (nontransient) with 16 or fewer occupants
Congregate living facilities (*transient*) with 10 or fewer occupants

Amend Section 310.5.1 to read as follows:

310.5.1 Care facilities within a dwelling. Care facilities for six ~~five~~ or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or with Section P2904 of the *International Residential Code*.

JUSTIFICATION:

This amendment is proposed to provide correlation between the 2012 IBC and the requirements of the Nevada Bureau of Services for Child Care, which are codified in NAC/NRS 432A.

In accordance with NAC 432A, the Nevada Bureau of Services for Child Care licenses home day cares as either “family homes” or “group homes”. As defined in NAC 432A, a “family home” is a child care facility in which “the licensee regularly provides care without the presence of parents, for at least five and **not more than six children**,” while a “group home” is a child care facility in which “the licensee regularly provides care for no less than seven and no more than twelve children.”

Sections 305.2.3, 308.6.3/308.6.4, and 310.5.1 of the 2012 IBC require that a home day care facility with **five or fewer** children be permitted to either (a) be classified as a Group R-3 occupancy and built in compliance with the IBC, or (b) classified as a Group R-3 occupancy and built in compliance with the *International Residential Code* (IRC). If built in accordance with the IBC, the home containing the home day care operation would be required to be sprinklered throughout in accordance with NFPA 13 and meet all the IBC

means of egress, accessibility, and plumbing fixture count requirements, which would require a substantial amount of expensive improvements for most home day cares.

This proposal would change the language in 2012 IBC Sections 305.2.3, 308.5, 308.6.1, 308.6.3, 308.6.4, 310.5 and 310.5.1 to increase the cut-off for R-3 home day cares from a maximum of five (5) children to a maximum of six (6) children. These changes would make the 2012 SNBC consistent with NAC/NRS 432A as far as home day cares or "family homes" are concerned. The result of the proposed changes would be that a home day care that is legally licensed by the Nevada Bureau of Services for Child Care for up to six (6) children would be allowed under the amended IBC to be treated as either (a) a Group R-3 occupancy per the IBC and sprinklered in accordance with NFPA 13D, or (b) a Group R-3 occupancy that is permitted to comply with the IRC instead of the IBC.

Without the proposed changes, a home day care operator could be licensed by the Nevada Bureau of Services for Child Care as a "family home" for the care of six (6) children, but the 2012 IBC would require the home containing such an operation to be classified as a Group E or Group I-4 occupancy. As stated previously, the impact of a Group I-4 occupancy classification is substantial since it would require the home containing the "family home" child care facility to be fully sprinklered and fully compliant with the means of egress, accessibility, and plumbing fixture count requirements of the IBC instead of the IRC.

The following summarizes how the various Southern Nevada jurisdictions license home day cares:

Clark County

In accordance with NRS 432A.131, when a city or county does not establish its own agency for the licensing of child care facilities, then licensing of all such facilities in that city or county is the jurisdiction of the Nevada Bureau of Services for Child Care. Due to the downturn in the local economy, Clark County repealed Title 6, Chapter 6.16, Section 20 of the Clark County Code on 9/21/10. In accordance with Clark County Code Title 6, Chapter 6.16, Section 20, the Clark County Department of Business License used to categorize home-based child care facilities for business licensing and regulatory purposes into one of two categories:

> (1) A "family child care home" is any family dwelling in which the licensee regularly provides care, without the presence of parents, for one but not more than six children.
>
> (2) A "group child care home" is a facility in which the licensee regularly provides care for at least seven but not more than twelve children. The increase number of children allowed in a group child care home is contingent upon a minimum of two caretakers working at all times.

These definitions were similar to the definitions used in NAC/NRS 432A. As such, Clark County historically was consistent with the Nevada Bureau of Services for Child Care in that a "family home" (State term) or "family child care home" (County term) was licensed for a maximum of six (6) children. Since 9/21/10, however, all home day care facilities in Clark County are now licensed by the Nevada Bureau of Services for Child Care and are

subject to the requirements of NAC/NRS 432A, which means home day cares in Clark County are licensed for up to six (6) children.

Henderson

According to the Business License Division of the City of Henderson's Finance Department, the City of Henderson has elected to not license child care facilities. In accordance with NRS 432A.131, when a city or county does not establish its own agency for the licensing of child care facilities, then licensing of all such facilities in that city or county is the jurisdiction of the Nevada Bureau of Services for Child Care. Therefore, all home day care facilities in Henderson are licensed by the Nevada Bureau of Services for Child Care and are subject to the requirements of NAC/NRS 432A, which means home day cares in Henderson are licensed for up to six (6) children.

Las Vegas

According to Title 6, Chapter 6.24.005 of the City of Las Vegas Code, the City of Las Vegas has not licensed or regulated child care facilities since May 9, 2009. Therefore, as of May 9, 2009, all child care facilities in the City of Las Vegas have been licensed and regulated directly by the Nevada Bureau of Services for Child Care in accordance with NAC/NRS 432A. Therefore, all home day cares in the City of Las Vegas are licensed by the State for a maximum of six (6) children.

North Las Vegas

According to Title 5, Chapter 5.14.010 of the City of North Las Vegas' Code, the City limits "family day care homes" to a maximum of four (4) children twelve (12) years of age or younger, and limits "day nurseries" to the care of at least five (5) but not more than ten (10) children under the age of sixteen (16). As such, the City of North Las Vegas has more restrictive limitations on home day cares than the IBC or the Nevada Bureau of Services for Child Care.

Mesquite

According to the City of Mesquite Code, the City will license a childcare facility only after it has obtained the required license from the Nevada Bureau of Services for Child Care. Therefore, all home day cares in the City of Mesquite are licensed for up to six (6) children in accordance with NAC/NRS 432A.

Boulder City

According to the Boulder City Business Licensing Department, the City of Boulder City does not currently have the regulatory or inspection staff to support oversight of licensing for child care facilities. Therefore, the City of Boulder City has elected to not license child care facilities. In accordance with NRS 432A.131, when a city or county does not establish its own agency for the licensing of child care facilities, then licensing of all such facilities in that city or county is the jurisdiction of the Nevada Bureau of Services for Child Care. Therefore, all home day care facilities in Boulder City are licensed by the Nevada Bureau of Services for Child Care and are subject to the requirements of NAC/NRS 432A, which means home day cares in Boulder City are licensed for up to six (6) children in accordance with NAC/NRS 432A.

Pahrump

According to the City of Pahrump's web-site, the City will license a childcare facility only after it has obtained the required license from the Nevada Bureau of Services for Child Care. Therefore, all home day cares in the City of Pahrump are licensed for up to six (6) children in accordance with NAC/NRS 432A.

Summary

This proposal will benefit the jurisdictions in Southern Nevada by eliminating a conflict between the NAC/NRS and the 2012 IBC. If approved, this proposal would allow home day cares that provide care for a maximum of six (6) children to have a business license issued by the State (and/or the local jurisdiction in the case of North Las Vegas) without requiring the caretaker's home to comply with the 2012 IBC, whether as a Group E, I-4 or R-3 occupancy. Instead, the caretaker's home would be permitted to comply with the 2012 IRC.

Please note that this proposal only addresses home day cares that provide service for a maximum of six (6) children. Those home day cares that provide care for more than six children would still be required to comply with the IBC requirements for a Group I-4 occupancy.

COST IMPACT: None.

COMMITTEE ACTION: City of Henderson noted that adult care maybe allowed in a residence up to 10 persons in accordance with the NRS. This may require additional changes to sections 310.5 and 310.5.1. The committee tabled this proposal at the 4/24/12 meeting to allow the committee to perform additional research. After further research, it was determined that the state law allows 10 occupants in an R-4 occupancy which is not addressed in this amendment. Motion to Approve and Seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-006

COMMITTEE: General

CODE SECTION: Section 310.4

PROPONENT: Jim Gerren, Clark County

PROPOSAL:

Amend Section 310.4 to include "Condominiums" in Residential Group R-2.

REVISE AS FOLLOWS:

310.4 Residential Group R-2. Residential occupancies containing *sleeping units* or more than two *dwelling units* where the occupants are primarily permanent in nature, including:

Apartment houses
Boarding houses (nontransient) with more than 16 occupants
Condominiums (nontransient)
Congregate living facilities (nontransient) with more than 16 occupants
Convents
Dormitories
Fraternities and sororities
Hotels (nontransient)
Live/work units
Monasteries
Motels (nontransient)
Vacation timeshare properties

JUSTIFICATION:

Condominiums are not defined and could be interpreted as R-1 or R-2 occupancies depending on the use by the Owner as either a rental unit on a short term basis (less than 30 days) or as a longer term rental or permanent residence. However, in terms of actual use, Condominiums (nontransient) most closely resemble Vacation timeshare properties, Hotels (nontransient), and Motels (nontransient), which are all classified as Group R-2. Further, condominium units always provide complete, independent living facilities, including permanent provisions for living, sleeping, eating, cooking and sanitation. As such, condominiums contain dwelling units and not just sleeping units. Since Group R-1 occupancies are limited to residential occupancies containing sleeping

units where the occupants are primarily transient in nature, it is not appropriate to classify condominiums as Group R-1 occupancies. This proposal eliminates any misinterpretation by mandating that condominiums be classified as Group R-2.

COST IMPACT: No cost impact. The proposed amendment is consistent with past Southern Nevada building code amendments.

COMMITTEE ACTION: The committee noted that this amendment has no adverse effect on the code. The committee discussed the need for the amendment including the transient vs. non-transient use of a Condominium; including adding a definition to R-1 occupancy as non-transient condominiums. It was noted that this amendment meets three SNBO criteria: consistency w/ state statues; clarify intent; and provides consistency in regional interpretation.

Motion to approve and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP	N/A	AP	AP	AP	DA	AP	AP

RESULT: Approved.

STEERING COMMITTEE RECOMMENDATION: Concurs.
The committee did not consider an amendment to add transient Condominiums to the R-1 group.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-008

COMMITTEE: IBC General

CODE SECTION: 402.4.1

PROPONENT: Raoul Brown, Steelman Partners

PROPOSAL:

Amend Section 402.4.1

REVISE AS FOLLOWS:

402.4.1 Area and types of construction. The *building area* of any *covered mall* or *open mall building*, including *anchor buildings*, of Types I, II, III, and IV construction shall not be limited provided the *anchor buildings* do not exceed three *stories above grade plane*.

The construction type of *open parking garages* and enclosed parking garages shall comply with Sections 406.5 and 406.6, respectively.

Exception: The type of construction allowable *building height* and *building area* of *anchor buildings* greater than three *stories above grade plane* shall comply with Section 503, as modified by Sections 504 and 506.

JUSTIFICATION:

The addition of the word "mall" is to clarify the intent of the code. "*Open building"* is not a defined term in Section 202. In addition it seems prudent to assume that the provisions are intended to govern an *open mall building*.

This proposal satisfies the SNBO Criteria for Code Amendments because it addresses errata to the codes.

COST IMPACT:

No cost impact is anticipated.

COMMITTEE ACTION: The committee discussed the original language in the code proposal that would delete the exemption and move that language to the body of the code. This change also included adding mall building(s) to the structures that could comply with 503, 504, and 506. This would allow the mall building to exceed 3 stories;

changing the code intent. The proponent agreed to remove this portion of the code amendment proposal. The committee agreed with addition of the word “mall” in the first paragraph, which the committee believed could be errata. Motion to approve as modified and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved as Modified.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-009

COMMITTEE: General

CODE SECTION: 403.1

PROPONENT: Jim Gerren, CCBD

PROPOSAL:

Amend Section 403.1

REVISE AS FOLLOWS:

403.1 Applicability. *High-rise buildings* shall comply with Sections 403.2 through 403.6.

Exception: The provisions of Sections 403.2 through 403.6 shall not apply to the following buildings and structures:

1. Airport traffic control towers in accordance with Section 412.3.
2. *Open parking garages* in accordance with Section 406.5.
3. ~~Buildings with a Group A-5 occupancy in accordance with Section 303.6.~~
4. Special industrial occupancies in accordance with Section 503.1.1.
5. ~~Buildings with a Group H-1, H-2 or H-3 occupancy in accordance with Section 415.~~

JUSTIFICATION:

Both A-5 occupancies and Group H-1, H-2 or H-3 occupancies are typically considered high-risk occupancies, and the corresponding exceptions to the high-rise requirements for these occupancies are currently deleted in the Southern Nevada amendments to the 2009 IFC, Section 907.2.13.

As they are written in the base code, another issue with Exception Nos. 3 and 5 is that they would provide an unintended loophole to the high-rise provisions. Specifically, as they are written, Exception Nos. 3 and 5 would provide an “escape clause” to the high-rise provisions for any high-rise building that simply contained a Group A-5, H-1, H-2, or H-3 occupancy. For example, a clever designer could incorporate a Group H-2 occupancy into the design of a high-rise building just to take advantage of Exception No. 5 and get out of the high-rise requirements of Sections 403.2 through 403.6. Such an approach would increase the hazard in the building while at the same time reduce the overall level of protection, which is not what the code intends. This proposal eliminates the possibility of such an unintended design approach.

This amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (with the anticipated 2012 IFC amendments) and it is required to clarify the intent of the code.

COST IMPACT:

This proposal will increase the cost of construction when compared to the base code since it will require the high-rise provisions to be applied to high-rise Group A-5, H-1, H-2, and H-3 occupancies.

COMMITTEE ACTION: The committee discussed the potential for this code language, unmodified, to limiting the high rise provisions. It was noted that adding bleachers to the top of a high-rise or a hazardous occupancy within a tower could be used as an attempt to delete the high rise provisions. These were noted as extreme examples. However, strictly written, this point could be argued. It was also noted that A-5 occupancies include open stadium seating (example given was the Las Vegas Motor Speedway) and amusement ride devices (example given was a large roller coaster). With this exception 3 deleted, the committee did not intend that all unenclosed buildings of only A-5 occupancies meet the high rise provisions. These specific cases should be reviewed on a case-by-case basis and certain A-5 occupancies could be exempt from the high-rise provisions based on the project's technical merit and reasonableness of the hazard. The motion was approval as submitted and seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	DA	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-011

COMMITTEE: General

CODE SECTION: Section 403.3

PROPONENT: Jim Gerren, Clark County

PROPOSAL:

Amend Section 403.3

REVISE AS FOLLOWS:

[F] 403.3 Automatic sprinkler system. Buildings and structures shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 and a secondary water supply where required by Section 903.3.5.2.

Exception: An *automatic sprinkler system* shall not be required in ~~spaces or areas of:~~

1. ~~*O*~~*open parking garages* in accordance with Section 406.5.
2. ~~Telecommunications equipment buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided that those spaces or areas are equipped throughout with an automatic fire detection system in accordance with Section 907.2 and are separated from the remainder of the building by fire barriers consisting of not less than 1-hour *fire barriers* constructed in accordance with Section 707 or not less than 2-hour *horizontal assemblies* constructed in accordance with Section 711, or both.~~

JUSTIFICATION:

An automatic fire detection system, 1-hour fire barriers, and 2-hour horizontal assemblies are not a sufficient justification for the blanket omission of sprinkler protection in telecommunications equipment rooms or areas in otherwise fully sprinklered high-rise buildings. Further, the blanket omission allowed by Exception No. 2 does not require approval of the Code Official in order to omit sprinklers in the telecommunications equipment areas.

NFPA 13 does not permit the omission of sprinklers in telecommunications areas of high-rise buildings. The closest allowance for such an omission in NFPA 13 (2010) is in Section 8.15.10.3, which permits the omission of sprinklers in dedicated electrical equipment rooms that contain only dry-type electrical equipment, that contain no combustible storage, and that are separated by 2-hour fire-rated enclosures. Please note that NFPA 13, Section 8.15.10.3 is currently deleted in its entirety in the Southern Nevada amendments to the 2009 *International Fire Code*.

There are several options available for alternate means of providing sprinkler or suppression that may make the telecommunications systems rooms safe for the equipment. These alternate means can still be requested and agreed to on a case-by-case basis. Entirely removing suppression from any room should be carefully considered prior to having a blanket allowance such as is provided in Exception No. 2.

The proposed amendment is consistent with the Southern Nevada amendments to the 2000, 2006, and 2009 editions of the IBC, as well as the 2009 edition of the IFC.

This amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (with 2009 IFC amendments and anticipated 2012 IFC amendments).

COST IMPACT: This amendment will increase the cost of construction.

COMMITTEE ACTION: Motion to approve as submitted and seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-012(R2)

COMMITTEE: General

CODE SECTION: Sections 403.5.2 & 403.5.2.1 (new)

PROPONENT: Jeff Grove, RJA

PROPOSAL:

Amend Section 403.5.2 and add new Section 403.5.2.1

REVISE AS FOLLOWS:

403.5.2 Additional exit stairway. For buildings other than Group R-2 that are more than 420 feet (128 000 mm) in *building height*, one additional *exit stairway* meeting the requirements of Sections 1009 and 1022 shall be provided in addition to the minimum number of *exits* required by Section 1021.1. The total width of any combination of remaining *exit stairways* with one *exit stairway* removed shall be not less than the total width required by Section 1005.1. *Scissor stairs* shall not be considered the additional *exit stairway* required by this section.

Exceptions:

1. An additional *exit stairway* shall not be required to be installed in buildings having elevators used for occupant self-evacuation in accordance with Section 3008.

2. The additional *exit stairway* shall not be required for redundancy to stairs serving only those portions of the building less than 420 feet (128 m) in building height.

403.5.2.1 Multiple towers. For buildings containing multiple towers, the additional exit stairway shall only be required for those towers exceeding 420 feet (128 m) in building height.

JUSTIFICATION:

The additional exit stairway requirement was one of the outcomes from the investigations of the World Trade Center attacks in September 2001. The intent of these recommendations was to provide additional means of egress for the super high-rise structures (i.e., over 420-feet tall). It was not the intent of the code to establish the additional exit stairway provisions for connected podiums or other towers that are less than 420 feet in building height. The code language as written could be interpreted to

require the additional exit stairway for these other building areas. This amendment is similar to that for the 2009 IBC.

In Southern Nevada, project designs have included multiple towers connected to a podium, while considered a single building in building height and area. By adding new Exception No. 2 to Section 403.5.2 and new sub-section 403.5.2.1, the interpretation to require the additional exit stairway for other building areas or towers with building heights less than 420 feet becomes more uniform for enforcement.

Much like smokeproof enclosure provisions, which are only required for stairs serving floors 55-feet or higher from the lowest level of fire department access, the additional exit stairway requirement would be treated similarly. So if a facility contains multiple stairs, but only part of them are above the 55-feet restriction, only those stairs are required to be smokeproof enclosures.

COST IMPACT:

The cost of construction will be reduced by this amendment

COMMITTEE ACTION: The committee noted the language in this code change proposal was awkward and could use improvement; although this language is exactly as approved in the 2009 amendments. This proposed amendment was tabled to attempt to re-write the amended language. The amendment was motioned for approval as modified and seconded.

At the July 31st meeting, the committee reviewed the amendment since the finalized version of the amendment was not maintained. The committee recalled the language approved previously and accepted the current as the approved language from the May 15th meeting.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP			AP	AP	AP

RESULT: Tabled on 5/1/12; Tabled on 5/8/12; Approved by vote 8-0 on 5/15; Confirmed Approval by vote of 10-0 on 7/31/12.

STEERING COMMITTEE RECOMMENDATION: Concurs.
The Exception #2 may be less restrictive than the code provisions.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-013

COMMITTEE: General

CODE SECTION: Section 403.5.4

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Amend Section 403.5.4*

REVISE AS FOLLOWS:

403.5.4 Smokeproof enclosures. Every required *exit stairway* serving floors more than 55 feet (16 764 mm) ~~75 feet (22 860 mm)~~ above the lowest level of fire department vehicle access shall be a *smokeproof enclosure* in accordance with Sections 909.20 and 1022.10.

JUSTIFICATION:
In accordance with NAC 477.283.2(b), the Nevada State Fire Marshal has amended 2006 IBC Section 403.1 to require the high-rise building provisions of Section 403 to apply to all buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access. The proposed amendment provides consistency with NAC 477.283.2(b) by changing the referenced high-rise floor level from 75 feet to 55 feet.
This amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (NAC 477.283.2(b)).

COST IMPACT: This proposal increases the cost of construction compared to the base 2012 IBC. However, this proposal results in no cost impact compared to previous Southern Nevada amendments to the IBC or the current requirements of NAC 477.283.2(b).

COMMITTEE ACTION: Motion to approve as submitted, seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-014

COMMITTEE: General

CODE SECTION: Section 404.3

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Amend Section 404.3 deleting Exception Nos. 1 and 2.*

REVISE AS FOLLOWS:

[F] 404.3 Automatic sprinkler protection. An *approved automatic sprinkler system* shall be installed throughout the entire building.

~~**Exceptions:**~~

1. ~~That area of a building adjacent to or above the *atrium* need not be sprinklered provided that portion of the building is separated from the *atrium* portion by not less than 2-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.~~
2. ~~Where the ceiling of the *atrium* is more than 55 feet (16 764 mm) above the floor, sprinkler protection at the ceiling of the *atrium* is not required.~~

JUSTIFICATION:

Fire sprinkler systems should be required throughout buildings. Areas adjacent to the atrium may be the contributor to the smoke that is rising in the atrium. It is essential to limit the smoke being introduced into the atrium. Although the fire barrier allows for protection, the most effective protection from fire and fire products is a fire sprinkler system. With Exception No. 2, there is substantial evidence that fire sprinkler systems, in the correct configuration, are effective at heights exceeding 55 feet. Where the configuration of a building prohibits traditional fire sprinklers, other systems can be employed to provide suppression for any fire within the atrium.

NFPA 13 (2010), Section 8.1.1(1) requires sprinklers throughout the premises. Under certain conditions, NFPA 13 permits the omission of sprinklers in specific areas and spaces within a building (see Section 8.15 “Special Situations”). However, NFPA 13 does not permit the omission of sprinklers at the ceiling of an atrium when the atrium ceiling is more than 55 feet above the floor. If the building is required to be sprinklered throughout, and NFPA 13 does not permit the omission of sprinkler at the atrium ceiling, then Exception No. 2 should be deleted for consistency.

For special circumstances where sprinkler ineffectiveness can be sufficiently demonstrated, the designers can still propose the omission of sprinklers at the ceiling of

a tall (> 55 feet) atrium under the Alternate Method process. However, by deleting Exception No. 2, the designers will be required to address each atrium on a case-by-case basis, which is not unreasonable.

This amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (with NFPA 13, as referenced by the 2012 IFC).

COST IMPACT: This amendment may increase the cost of construction, but that is debatable since NFPA 13 would likely override the exceptions and require sprinkler protection anyway.

COMMITTEE ACTION: Motion to approve as submitted

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-015(R1)

COMMITTEE: IBC General

CODE SECTION: 404.6

PROPONENT: Raoul Brown, Steelman Partners & Jim Gerren, CCBD

PROPOSAL: *Revise Section 404.6*

REVISE AS FOLLOWS:

404.6 Enclosure of atriums. *Atrium* spaces shall be separated from adjacent spaces by a 1-hour *fire barrier* constructed in accordance with Section 707 or a *horizontal assembly* constructed in accordance with Section 711, or both.

Exceptions:

1. A *fire barrier* is not required where a glass wall forming a smoke partition is provided. The glass wall shall comply with all of the following:

   1.1 A separately zoned system of ~~A~~ automatic sprinklers ~~are~~ is provided along both sides of the separation wall and doors, or on the room side only if there is not a walkway on the *atrium* side. The sprinklers shall be located between 4 inches and 12 inches (102 mm and 305 mm) away from the glass and at intervals along the glass not greater than 6 feet (1829 mm). The sprinkler system shall be designed so that the entire surface of the glass is wet upon activation of the sprinkler system without obstruction;

   1.2 The glass wall shall be installed in a ~~gasketed~~ frame in a manner that the framing system deflects without breaking (loading) the glass before the sprinkler system operates; and

   1.3 Where glass doors are provided in the glass wall, they shall be either *self-closing* or automatic-closing.

2. A *fire barrier* is not required where a glass-block wall assembly complying with Section 2110 and having a ¾-hour *fire protection rating* is provided.

3. A *fire barrier* is not required between the *atrium* and the adjoining spaces of any three floors of the *atrium* provided such spaces are accounted for in the design of the smoke control system.

JUSTIFICATION:

This amendment proposal addresses both format and technical changes to Section 404.6. First, the 2012 IBC version of Section 404.6 has an error in its format. Instead of a single exception with multiple sub-sections, the intent of Section 404.6 is clearly to have three (3) separate exceptions with three (3) separate sub-sections to Exception No. 1. This is clear from the previous editions of the IBC. Therefore, this proposed amendment re-formats the Exceptions to make sense and clarify the intent of the code. This part of the proposed amendment satisfies the SNBO Criteria for Code Amendments because it is required to address errata in the code.

The proposed amendment includes two technical changes. First, the amendment proposes to require a separately zoned system of sprinklers when the design approach described in Exception No. 1 is used. This part of the amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (NFPA 13) and to provide for consistency in regional interpretation and application of the codes. Second, the amendment proposes to delete the word “gasketed” from sub-section 1.2 to Exception No. 1. The word gasketed does not allow for structural or wet-set glazed systems to be used. There are tested assemblies even for rated glass that do not have gaskets. For example, PLO/WA90-01 uses PVC tape, sealant, and angle stops. The frame is still being loaded but no gaskets are used. The current language is too restrictive on designers when there are proven technologies available that produce the same results but would address unique designs or systems not anticipated in the code. This part of the amendment satisfies the SNBO Criteria for Code Amendments because it is required to address unique designs or systems not anticipated by the code.

COST IMPACT:

This amendment will increase the cost of construction slightly compared to base code since it will require the sprinklers at an atrium glass wall separation to be separately zoned. However, this amendment will not increase the cost of construction compared to previous local code requirements.

COMMITTEE ACTION: Motion to Approve and Seconded

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
	AP		AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-016

COMMITTEE: General

CODE SECTION: Section 405.8.1

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Amend Section 405.8.1*

REVISE AS FOLLOWS:

[F] 405.8.1 Standby power loads. The following loads are classified as standby power loads:

1. Smoke control system.
2. *Ventilation* and automatic fire detection equipment for *smokeproof enclosures*.
3. ~~Fire pumps.~~

Standby power shall be provided for elevators in accordance with Section 3003.

JUSTIFICATION:

Section 9.6.2.1 of NFPA 20 (2010), *Standard for the Installation of Stationary Pumps for Fire Protection*, requires on-site generators that are used to supply alternate power to electric motor-driven fire pumps to meet the requirements of Level 1, Type 10, Class X emergency power supply systems (EPSSs) of NFPA 110, *Standard for Emergency and Standby Power Systems*. NFPA 110 (2010), Table 4.1(b) requires Type 10 EPSSs to restore power within 10 seconds. Since standby power is required to be available within 60 seconds, it is not appropriate to include electrically powered fire pumps in the list of standby power loads. Please note that "Electrically powered fire pumps" are listed as emergency power loads for high-rise buildings in IBC Section 403.4.9.1, which is consistent with NFPA 20 and NFPA 110. I have submitted a separate proposal to add "Electrically powered fire pumps" to the list of emergency power loads for underground buildings in Section 405.9.1.

This amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (with NFPA 20 and NFPA 110) and it is required to address special use and occupancy (underground buildings).

COST IMPACT: None.

COMMITTEE ACTION: The proponent noted that electrically powered fire pumps are required on emergency power for high rise construction. It was also noted that should this amendment pass, GC12-017 should also pass; otherwise fire pump will not be on emergency or standby power. Motion to approve as submitted:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: G12-017

COMMITTEE: General

CODE SECTION: Section 405.9.1

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Amend Section 405.9.1*

REVISE AS FOLLOWS:

[F] 405.9.1 Emergency power loads. The following loads are classified as emergency power loads:

1. *Emergency voice/alarm communication systems*.
2. *Fire alarm systems*.
3. Automatic fire detection systems.
4. Elevator car lighting.
5. *Means of egress* and exit sign illumination required by Chapter 10.
6. Electrically powered fire pumps.

JUSTIFICATION:

Section 9.6.2.1 of NFPA 20 (2010), *Standard for the Installation of Stationary Pumps for Fire Protection*, requires on-site generators that are used to supply alternate power to electric motor-driven fire pumps to meet the requirements of Level 1, Type 10, Class X emergency power supply systems (EPSSs) of NFPA 110, *Standard for Emergency and Standby Power Systems*. NFPA 110 (2010), Table 4.1(b) requires Type 10 EPSSs to restore power within 10 seconds. Therefore, since emergency power is required to be available within 10 seconds, I propose to add "Electrically powered fire pumps" to the list of emergency power loads in Section 405.9.1. Please note that "Electrically powered fire pumps" are listed as emergency power loads for high-rise buildings in IBC Section 403.4.9.1, which is consistent with NFPA 20 and NFPA 110.

Please note that I have submitted a separate proposal to amend Section 405.8.1 by deleting "Fire pumps" from the list of standby power loads since standby power is required to be available within 60 seconds.

This amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (with NFPA 20 and NFPA 110) and it is required to address special use and occupancy (underground buildings).

COST IMPACT: None.

COMMITTEE ACTION: Motion to approved and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-018

COMMITTEE: General

CODE SECTION: Sections 406.3.2 and 406.3.4

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Amend Sections 406.3.2 and 406.3.4*

REVISE AS FOLLOWS:

406.3.2 Area increase. Group U occupancies used for the storage of private or pleasure-type motor vehicles where no repair work is completed or fuel is dispensed are permitted to be 3,000 square feet (279 m^2) where the following provisions are met:

1. For a mixed occupancy building, the *exterior wall* and opening protection for the Group U portion of the building shall be as required for the major occupancy of the building. For such a mixed occupancy building, the allowable floor area of the building shall be as permitted for the major occupancy contained therein.

2. For a building containing only a Group U occupancy, the *exterior wall* shall not be required to have a *fire-resistance rating* and the area of openings shall not be limited where the *fire separation distance* is 5 feet (1524 mm) or more.

More than one 3,000-square-foot (279 m^2) Group U occupancy shall be permitted to be in the same structure, provided each 3,000-square-foot (279 m^2) area is separated by *fire walls* complying with Section 706.

Exception: Noncombustible carports may be of unlimited area when they are open on all sides, not over twelve feet (3658 mm) in height, and located a minimum of 5 feet (1524 mm) from any property line or assumed property line, measured from the roof edge.

(Section 406.3.3 remains unchanged.)

406.3.4 Separation. Separations shall comply with the following:

1. Unchanged.
2. Unchanged.
3. Unchanged.
4. Noncombustible carports do not require exterior wall and opening protection when they are open on all sides, not over twelve feet (3658 mm) in height,

and located a minimum of 5 feet (1524 mm) from any property line or assumed property line, as measured from the roof edge.

5. When a Group B, F, M, R, or S occupancy structure and a noncombustible carport are located on the same property with a minimum separation of ten feet (3048 mm) between the structure and the carport, as measured from the roof edges, exterior wall and opening protection is not required for either structure.

JUSTIFICATION:
Due to the climate in Southern Nevada, carports are used extensively to provide weather protection for private motor vehicles at many facilities. For example, carports are used at most apartment, townhome, and condominium complexes in Southern Nevada, as well as at many office buildings. IBC Section 312.1 includes carports in the list of Group U occupancies ("Utility and Miscellaneous Group U"), and Section 406.3 provides special detailed requirements for carports (and private garages). In accordance with Sections 406.3.1 and 406.3.2, a carport that exceeds 3,000 square feet in area is required to be classified as a Group S-2 occupancy. As a Group S-2 occupancy, a noncombustible carport would be required to have a fire separation distance of 10 feet in order to be exempt from rated exterior walls and protected openings (i.e., in order to be open on all sides).

The 2012 IBC limitations on carports do not adequately address the conditions of Southern Nevada. A 3,000 square foot carport covers approximately 20 vehicles, assuming a typical parking space is approximately 8-ft. or 9-ft. wide by 18-ft. or 19-ft. deep. However, noncombustible carports that are open on all sides and limited to a height of twelve feet do not pose a significant hazard to other structures since they are naturally ventilated on all sides and house limited combustibles. The hazard associated with the car(s) parked under the carport would exist regardless of the noncombustible roof provided by the carport. Therefore, the inherent (approximate) 20-car limitation on carports is an unnecessary limitation on the Southern Nevada community since the hazard does not substantially change if the length of the carport is increased.

This amendment proposes to add a new Exception to Section 406.3.2 to allow unlimited area for noncombustible carports that are open on all sides, not over 12-ft. in height, and located a minimum of 5 feet from any real or assumed property line, as measured from the roof edge of the carport. The proposed exception would allow such carports to continue to be treated as Group U carports that are greater than 3,000 square feet in area. The separation of 5-feet to a property line is consistent with Section 406.3.2, Provision #2, which is one of the requirements to go from a maximum carport area of 1,000 square feet to 3,000 square feet. In addition, the separation of 5-feet is consistent with the Southern Nevada amendments to Section 507.9 of the 2000 IBC and to Section 406.1.2 of the 2006 and 2009 editions of the IBC.

This amendment also proposes to add new Item No. 4 to Section 406.3.4 to allow the omission of exterior walls and opening protection for noncombustible carports that are open on all sides, not over 12-ft. in height, and located at least 5 feet from any real or assumed property line. This proposed allowance is consistent with Section 406.3.2, Provision #2, as well as the Southern Nevada amendments to Section 507.9 of the 2000 IBC and to Section 406.1.2 of the 2006 and 2009 editions of the IBC.

This amendment also proposes to add new Item No. 5 to Section 406.3.4 to address the situation when a Group B, F, M, R, or S occupancy is located on the same property as a carport and the two structures are located at least 10 feet apart. For this type of arrangement, which is common in Southern Nevada, this amendment proposes to allow the omission of exterior wall and opening protection on both the Group B, F, M, R, or S occupancy and the carport that serves the structure provided that the carport is noncombustible, open on all sides, not over 12-ft. in height, and located at least 10 feet from the building it serves, as measured between the roof edges of both structures. This proposed allowance is consistent with the Southern Nevada amendments to Section 507.9 (Exception) of the 2000 IBC and to Section 406.1.4 of the 2006 and 2009 editions of the IBC.

Please note that the proponent considered several other locations in the Code to add the proposed unlimited area and exterior wall and opening protection allowances. However, the proponent determined that the best location for the proposed amendments was in Sections 406.3.2 and 406.3.4 for three main reasons:

- Table 602 addresses exterior wall rating requirements based on fire separation distances. Footnote b to Table 602 addresses Group U occupancies and references Section 406.3. By locating part of the proposed amendment in Section 406.3.2, footnote b to Table 602 is unaffected and the intent of the base IBC and the amendment are maintained.
- Footnote c to Table 508.4 addresses Group U occupancies and references Section 406.3.4. By locating part of the proposed amendment in Section 406.3.4, footnote c to Table 508.4 is unaffected and the intent of the base IBC and the amendment are maintained.

The community benefits from this amendment because carports will be addressed consistently throughout the valley.
This amendment satisfies the SNBO Criteria for Code Amendments because it is required for local climatic conditions (desert sun/heat) and it is required to address a special occupancy (Group U carports).

COST IMPACT: This proposal will reduce the cost of construction.

COMMITTEE ACTION: The committee agreed this is a reasonable and relevant code change proposal; the committee also considered this amendment relative to the SNBO criteria. Motion to approve as submitted and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-019

COMMITTEE: General

CODE SECTION: Section 406.4.5.1 (new)

PROPONENT: Jim Gerren, Clark County

PROPOSAL: Add new Section 406.4.5.1

REVISE AS FOLLOWS:

406.4.5.1 Floor drains. Where provided, floor drains installed in enclosed parking garages shall drain to an *approved* sand/oil separator in accordance with the *International Plumbing Code*.

JUSTIFICATION:

This amendment is proposed for coordination with the anticipated Southern Nevada amendments to Section 1010.1 of the 2012 Uniform Plumbing Code (UPC). This proposal merely carries over the current Southern Nevada amendment to 2009 IBC Section 406.2.6.1, as requested by the Mechanical and Plumbing Code Committee.

This amendment does not mandate the installation of floor drains. Instead, this amendment simply requires the provision of a sand/oil separator when floor drains are installed in enclosed parking garages. This amendment has been part of the Southern Nevada code requirements since before the switch to the IBC, as the Uniform Building Code included this requirement (e.g., 1997 UBC Section 311.2.3.1).

This amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (with the 2012 UPC).

COST IMPACT:

This amendment will not increase the cost of construction.

COMMITTEE ACTION: The committee discussed the term “International Plumbing Code” as written in the amendment. It was noted by the proponent that all references to a plumbing code are to the IPC. GC12-003 was approved to modify every definition of

the IPC to be the Uniform Plumbing Code. The amendment was motioned for approval and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-020

COMMITTEE: General

CODE SECTION: Section 406.6.2

PROPONENT: Jim Gerren, Clark County

PROPOSAL: Amend Section 406.6.2

REVISE AS FOLLOWS:

406.6.2 Ventilation. A mechanical *ventilation* system shall be provided in accordance with the *International Mechanical Code.*

Exceptions:

1. A mechanical ventilation system shall not be required in an enclosed parking garage when openings complying with Section 406.5.2 are provided.

2. A mechanical ventilation system shall not be required in an enclosed parking garage having a floor area of 1,000 ft^2 or less and used for the storage of five (5) or less private motor vehicles.

406.6.2.1 Minimum ventilation. The mechanical ventilation system shall be capable of producing a ventilation rate of 0.75 cfm per square foot (0.0038 $m^3/s \cdot m^2$) of floor area.

Exception: When approved by the Building Official, the mechanical ventilation system may be designed to exhaust a minimum of 14,000 cfm (6.61 m^3/s) for each operating vehicle. Such system shall be based on the anticipated instantaneous movement rate of vehicles, but not less than 2.5 percent of the garage capacity, or one vehicle, whichever is greater.

406.6.2.2 Intermittent operation. The mechanical ventilation system shall not be required to operate continuously where approved automatic carbon monoxide sensing devices are provided to operate the system automatically to maintain a maximum average concentration of carbon monoxide of 50 parts per million during any eight-hour period, with a maximum concentration not greater than 200 parts per million for a period not exceeding one hour.

406.6.2.3 Occupied spaces accessory to public garages. Connecting offices, waiting rooms, ticket booths and similar uses that are accessory to a public garage shall be supplied with conditioned air and maintained at a positive pressure.

JUSTIFICATION:

This amendment is proposed at the request of, and in coordination with, the Plumbing and Mechanical Committee. Jordan Krahenbuhl, the Chairman of the Plumbing and Mechanical Committee, confirmed that his committee would like the minimum exhaust rate required for parking garages in UMC Table 403.7 to be restated in the IBC amendments along with the other changes proposed in this amendment. Mr. Krahenbuhl also confirmed that the Plumbing and Mechanical Committee does not intend to amend Chapter 4 of the UMC. Mr. Krahenbuhl stated that it has been the experience of most members of the Plumbing and Mechanical Committee that building designers typically do not review mechanical code requirements for ventilation, so having the requirements directly in the building code helps to ensure that the required ventilation is not missed/overlooked.

Exception No. 1 to Section 406.6.2 is proposed because there are numerous enclosed parking garages that actually achieve the natural ventilation opening requirements for open parking garages. In such cases, the natural ventilation achieves the intent of the code and it would not make sense to require mechanical ventilation in such instances. Please note that this Exception is consistent with the Exception to 1997 UBC Section 1202.2.7, and this Exception has been incorporated into the Southern Nevada amendments to the 2000, 2006 and 2009 editions of the IBC.

Exception No. 2 to Section 406.6.2 is proposed for consistency with 2012 UMC Table 403.7, Footnote 7, which states “Exhaust rate is not required for enclosed parking garages having a floor area of 1000 square feet (92.9 m^2) or less and used for the storage of five or less motorized vehicles.”

The proposed new Section 406.6.2.1 identifies a minimum mechanical ventilation rate of 0.75 cfm/ft^2 for enclosed parking garages, which is consistent with Table 4-4 from the 2012 UMC. The Exception to Section 406.6.2.1 is proposed per the request of the Plumbing & Mechanical Committee. This Exception has been incorporated into the Southern Nevada amendments to the 2000, 2006 and 2009 editions of the IBC, and it is taken almost verbatim from Section 1202.2.7 of the 1997 UBC.

New Section 406.6.2.2 is proposed to allow intermittent operation of the ventilation system since continuous operation wastes a significant amount of energy, is costly, and is not necessary to achieve the design intent. The proposed performance requirements based on concentrations of carbon monoxide are taken from 1997 UBC Section 1202.2.7.

New Section 406.6.2.3 is proposed for consistency with Section 404.3 of the 2012 IMC. This requirement was also incorporated into the Southern Nevada amendments to the 2006 and 2009 editions of the IBC. It ensures a minimum level of comfort for the areas listed, and it also helps to ensure that carbon monoxide from the associated parking garage is kept out of the spaces by requiring the spaces to be maintained at a positive pressure relative to the garage.

This amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (with 2012 UMC) and it is required to address special use and occupancy (enclosed parking garages).

COST IMPACT: None.

COMMITTEE ACTION: The committee discussed the necessity of this code change since the proponent's justification noted that the amendment is a restatement of the mechanical code requirements. Motion to approve as submitted and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-021

COMMITTEE: General

CODE SECTION: Section 406.8.2

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Amend Section 406.8.2*

REVISE AS FOLLOWS:

406.8.2 Ventilation. Repair garages shall be mechanically ventilated in accordance with the *International Mechanical Code*. The *ventilation* system shall be controlled at the entrance to the garage.

406.8.2.1 Minimum ventilation. The mechanical ventilation system shall be capable of producing a ventilation rate of 1.5 cfm per square foot (0.0076 $m^3/s \cdot m^2$) of floor area. Each engine repair stall shall be equipped with an exhaust pipe extension duct, extending to the outside of the building, which, if over 10 feet (3048 mm) in length, shall mechanically exhaust 300 cfm (0.142 m^3/s).

406.8.2.2 Occupied spaces accessory to repair garages. Connecting offices, waiting rooms and similar uses that are accessory to a repair garage shall be supplied with conditioned air and maintained at a positive pressure.

JUSTIFICATION:

This amendment is proposed at the request of, and in coordination with, the Plumbing and Mechanical Committee. Jordan Krahenbuhl, the Chairman of the Plumbing and Mechanical Committee, confirmed that his committee would like the minimum exhaust rate required for repair garages ("auto repair rooms") in UMC Table 403.7 to be restated in the IBC amendments along with the other changes proposed in this amendment. Mr. Krahenbuhl also confirmed that the Plumbing and Mechanical Committee does not intend to amend Chapter 4 of the UMC. Mr. Krahenbuhl stated that it has been the experience of most members of the Plumbing and Mechanical Committee that building designers typically do not review mechanical code requirements for ventilation, so having the requirements directly in the building code helps to ensure that the required ventilation is not missed/overlooked.

The first part of proposed new Section 406.8.2.1 simply restates the minimum ventilation requirement for repair garages from 2012 UMC Table 403.7 (called "auto repair rooms"

in the UMC). The second part of proposed new Section 406.8.2.1 is intended to provide consistency with 2012 UMC Table 403.7, Footnote 1, which states "Stands where engines are run shall have exhaust systems that directly connect to the engine exhaust and prevent escape of fumes." The prescriptive requirement for 300 cfm of mechanical exhaust when the exhaust pipe extension duct exceeds 10 feet has been incorporated into the Southern Nevada amendments to the 2000, 2006 and 2009 editions of the IBC, and it is taken verbatim from 1997 UBC Section 1202.2.4.

Proposed new Section 406.8.2.2 has been incorporated into the Southern Nevada amendments to the 2000, 2006 and 2009 editions of the IBC. It ensures a minimum level of comfort for the areas listed, and it also helps to ensure that carbon monoxide from the associated repair garage is kept out of the spaces by requiring the spaces to be maintained at a positive pressure relative to the repair garage. The language proposed is essentially taken verbatim from 1997 UBC Section 1202.2.7, and is similar to the requirement in 2012 IMC Section 404.3 for occupied spaces accessory to public garages.

This amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (with 2012 UMC) and it is required to address special use and occupancy (repair garages).

COST IMPACT: None.

COMMITTEE ACTION: The committee discussed the necessity of this amendment similar to GC12-20. Motion to approve as submitted and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	DA	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-022

COMMITTEE: General

CODE SECTION: Section 406.8.3.1 (new)

PROPONENT: Jim Gerren, Clark County

PROPOSAL: Add new Section 406.8.3.1

REVISE AS FOLLOWS:

406.8.3.1 Floor drains. Where provided, floor drains installed in repair garages shall drain to an *approved* sand/oil separator in accordance with the *International Plumbing Code*.

JUSTIFICATION:
This amendment is proposed for coordination with the anticipated Southern Nevada amendments to Section 1010.1 of the 2012 Uniform Plumbing Code (UPC). This proposal merely carries over the current Southern Nevada amendment to 2009 IBC Section 406.2.6.1, as requested by the Mechanical and Plumbing Code Committee. This amendment does not mandate the installation of floor drains. Instead, this amendment simply requires the provision of a sand/oil separator when floor drains are installed in repair garages. This amendment has been part of the Southern Nevada code requirements since before the switch to the IBC, as the Uniform Building Code included this requirement (e.g., 1997 UBC Section 311.2.3.1).
This amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (with the 2012 UPC).

COST IMPACT: This amendment will not increase the cost of construction.

COMMITTEE ACTION: Motion to approve as submitted and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-027

COMMITTEE: General

CODE SECTION: Section 410.3.4

PROPONENT: Jim Gerren, Clark County

PROPOSAL: Amend Section 410.3.4

REVISE AS FOLLOWS:

410.3.4 ~~Proscenium wall~~ *Proscenium Wall*. Where the *stage* height is greater than 50 feet (15 240 mm), all portions of the *stage* shall be completely separated from the seating area by a ~~proscenium wall~~ *proscenium wall* with not less than a 2-hour *fire-resistance rating* extending continuously from the foundation to the roof.

Exception: Where a *stage* is located in a building of Type I construction, the *proscenium wall* is permitted to extend continuously from a minimum 2-hour *fire-resistance-rated* floor slab of the space containing the *stage* to the roof or a minimum 2-hour *fire-resistance-rated* floor deck above. This exception shall not apply to buildings of Type IB construction in which the minimum *fire-resistance ratings* of the building elements in Table 601 have been reduced in accordance with Section 403.2.1.1.

JUSTIFICATION:

In numerous facilities in Southern Nevada, stages are not located in a space in which the floor is also the foundation of the building. In fact, the majority of the large show productions in Southern Nevada have one or more occupied floor levels beneath the showrooms, such that the current language of Section 410.3.4 would require the proscenium wall for these stages to dissect the entire height of the building even though the stage is only located on a single floor level. The proposed amendment would allow the proscenium to terminate at the 2-hour fire-resistance-rated floor assembly of the space containing the stage. The proposed amendment is consistent with the Southern Nevada amendment to Section 410.3.4 of the 2006 and 2009 editions of the IBC.

This amendment is necessary to address unique designs or systems that are not anticipated in the code, specifically unique stage productions within large mixed-use facilities that are common in the hotel/casino resorts in Southern Nevada.

COST IMPACT: This proposal will reduce the cost of construction.

COMMITTEE ACTION: The committee discussed including a portion of GC12-026 into this amendment which included the term “proscenium wall” in the main section of the code in italicized text. It was decided, as a formality, to strikeout the underscore the text and repeating the italicized text underlined. That way, the building officials will not see as the amendment adding a requirement to the code. It was also agreed to add the term “minimum” in front of both locations of the 2 hour fire resistive floor deck. If a greater rating was used, the code section would not de-rate (lower the level of fire resistance) or potentially eliminate the use of this design application. It was discussed that the second sentence, as an exception to the exception, could be removed. The proponent of this point argued that this portion was unnecessary. The requirement could be reworded to apply to only Type IA construction. The committee generally agreed to maintain the exception in the exception. A committee member asked Chairman Gerren if this amendment was proposed to the model code organization. He stated it was discussed at the code hearings; the model code committee thought the amendment was too specialized to the local Las Vegas community for inclusion to the model code and it should be handled by the local amendments.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
	AP		AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-028

COMMITTEE: General

CODE SECTION: Section 410.3.5.1 (new)

PROPONENT: Jim Gerren, Clark County

PROPOSAL: Add new Section 410.3.5.1

REVISE AS FOLLOWS:

410.3.5.1 Activation. When provided, a fire curtain shall be activated by manual emergency operation, fusible link, rate-of-rise heat detection installed in accordance with Section 907.3 operating at a rate of temperature rise of 15 to 20ºF per minute (8 to 11ºC per minute), or signal of water flow from any *automatic sprinkler system* covering the *stage* as required by Section 410.7.

JUSTIFICATION:

In contrast to the 2006 and earlier editions of the IBC, Section 410.3.5 was changed starting in the 2009 edition to directly reference NFPA 80 for all requirements regarding a proscenium fire curtain. NFPA 80 (2010 edition), Section 20.7.3.1 states "The fire safety curtain assembly shall be activated by manual emergency operation, fusible link, and rate-of-rise heat detection located above the stage." Typically, rate-of-rise heat detectors are limited by listing to a maximum ceiling height of 30 feet. This listing limitation makes it difficult to install such devices in accordance with NFPA 72, which is referenced in IBC Section 907.3. Further, there is no guidance as to the design requirements for rate-of-rise detection in the IBC, NFPA 72, or NFPA 80 (e.g., full coverage on stage or just a line of detectors?).

The proposed amendment seeks to augment the requirements of NFPA 80, Section 20.7.3.1, as referenced in IBC Section 410.3.5, in two ways. First, the proposed amendment adds language to indicate that the rate-of-rise heat detection must be installed in accordance with Section 907.3 and that the rate-of-rise detection must operate at a rate of temperature rise of 15 to 20°F. The reference to Section 907.3 ensures that the heat detection will be connected to the building's fire alarm system. Second, to address the concern regarding the listed maximum ceiling height of typical heat detectors, the proposed amendment supplements the heat detection system with a water flow signal from a stage-side sprinkler system. The sprinkler system is already required by Section 410.7. NFPA 13 and sprinkler manufacturers do not have a limitation on height of the sprinkler system, resolving the conflicts encountered with stage heights. Further, the design for coverage of the stage-side sprinkler systems

comes from significant guidance in both the IBC and NFPA 13, and there is no doubt that the sprinkler systems will provide full area coverage over the entire stage.

The amendment satisfies the SNBO Criteria for Code Amendments because it is necessary to clarify the intent of the codes (i.e., address the lack of guidance regarding prescriptive activation devices). Further, this amendment provides a suitable supplement (sprinkler waterflow) to the minimum code-required activation using a system (sprinklers) that is clearly described and provides protection commensurate to that prescribed by the code.

COST IMPACT:

None. This proposal will not increase the cost of construction since the sprinkler systems over the stage are already required by Section 410.6 and they are already required to be supervised by the building's fire alarm system. Therefore, the only additional work required by this proposal is to program the fire alarm system to signal the fire curtain to close upon any waterflow alarm from a sprinkler system over the stage. The cost associated with the minimum additional fire alarm programming and/or additional relay/control modules is insignificant.

COMMITTEE ACTION: The committee considered this amendment similar to GC12-023 (disapproved). The fire curtain is a building element was the justification to approve this amendment as a pointer from the fire code. Motion to Approve and Seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
	AP		DA	AP	AP	AP	AP	AP	AP	AP

RESULT: Approved as submitted by 8-1 vote. The only vote in opposition to approval was cast by Duane Feuerhammer of the City of Las Vegas, who indicated that he felt the proposed amendment would be more appropriately located in the Fire Code. In response to a comment from Mike Bouse of the City of Las Vegas, the justification was revised to more clearly identify how the amendment satisfies the SNBO Criteria for Code Amendments and to eliminate vague terminology (e.g., the use of the term "arguably").

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-030

COMMITTEE: General

CODE SECTION: Section 410.7

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Amend Section 410.7 deleting Exception No. 1 and modifying Exception No. 2:*

REVISE AS FOLLOWS:

[F] 410.7 Automatic sprinkler system. *Stages* shall be equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1. Sprinklers shall be installed under the roof and gridiron and under all catwalks and galleries over the *stage*. Sprinklers shall be installed in dressing rooms, performer lounges, shops and storerooms accessory to such *stages*.

Exceptions:

1. ~~Sprinklers are not required under *stage* areas less than 4 feet (1219 mm) in clear height that are utilized exclusively for storage of tables and chairs, provided the concealed space is separated from the adjacent spaces by not Type X gypsum board not less than $^5/_8$-inch (15.9 mm) in thickness.~~
1. 2. In buildings where an *automatic sprinkler system* is not otherwise required by other sections of this code, s~~S~~prinklers are not required for *stages* 1,000 square feet (93 m^2) or less in area and 50 feet (15 240 mm) or less in height where curtains, scenery or other combustible hangings are not retractable vertically. Combustible hangings shall be limited to a single main curtain, borders, legs and a single backdrop.
2. 3. ~~3.~~ Sprinklers are not required within portable orchestra enclosures on *stages*.

JUSTIFICATION:

Exception No. 1 to Section 410.6 is not necessary and would result in partially sprinklered buildings, which is not consistent with the high level of protection that Southern Nevada has traditionally prescribed for buildings or portions of buildings containing stages, which typically have large corresponding occupant loads. Further, NFPA 13, as currently adopted and enforced in Southern Nevada, does not permit the omission of sprinklers identified in Exception No. 1. Please note that it is the General Committee's understanding that the Fire Code Committee intends to delete Exception

No. 1 to Section 914.6.1 of the 2012 *International Fire Code* (IFC), which is identical to IBC Section 410.7.

For an otherwise fully sprinklered building, Exception No. 2 to Section 410.6 would also potentially result in partially sprinklered buildings and be in conflict with NFPA 13. However, for a building that is not otherwise required to be sprinklered, Exception No. 2 is a valid allowance. Therefore, the proposed amendment simply modifies Exception No. 2 to add a qualifying requirement that the building not otherwise be required to have an automatic sprinkler system.

This amendment is required for code correlation (NFPA 13 and the anticipated Southern Nevada amendments to the 2012 IFC) and to provide for consistency in regional interpretation and application of the codes.

COST IMPACT:

Deletion of Exception No. 1 will increase the cost of construction compared to the base IBC, but in reality it will not increase the cost of construction because the exception is in direct conflict with NFPA 13. Further, this sprinkler exception has consistently been deleted in the Southern Nevada amendments to the 2000, 2006 and 2009 editions of the IBC. The proposed modification to Exception No. 2 will have no impact on the cost of construction. Therefore, this proposal will not increase the cost of construction compared to past practices in Southern Nevada and to NFPA 13 requirements.

COMMITTEE ACTION: Originally, the proponent's amendment included deleting exception #2 (the 1000 SF stage provision). The committee considered a 1000 square foot stage and the entire building could be less than 5000 square feet where sprinklers would not be required. As submitted, the amendment would require sprinklers in any building with any stage, regardless of the size. The committee noted the model code has a trigger when stage areas become a hazard requiring sprinklers. The committee suggested to the proponent to re-add the second exemption with caveat "In buildings where an *automatic sprinkler system* is not otherwise required by other sections of this code". The exemptions where renumbered. It was noted that amendment GC12-029 was similar and tabled since the proponent was unavailable. The committee has opportunity to consider a fire department issue relative to the stage area requirement at a later date. Motion to Approve as Modified and Seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
	AP		AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-031

COMMITTEE: IBC General

CODE SECTION: 412.4.6

PROPONENT: Stephen DiGiovanni, Fire Code Committee

PROPOSAL: *Amend Section 412.4.6 deleting the Exception.*

REVISE AS FOLLOWS:

[F] 412.4.6 Fire suppression. Aircraft hangars shall be provided with a fire suppression system designed in accordance with NFPA 409, based upon the classification for the hangar given in Table 412.4.6.

~~**Exception:** Where a *fixed base operator* has separate repair facilities on site, Group II hangars operated by a *fixed base operator* used for storage of *transient aircraft* only shall have a fire suppression system, but the system is exempt from foam requirements.~~

JUSTIFICATION:

The purpose of this amendment is to require hangars to be protected in accordance with NFPA 409 without exception. The Exception to IBC Section 412.4.6 would require policing of the hangar, which is not practical for the jurisdictions in Southern Nevada. Further, the Exception to IBC Section 412.4.6 does not comply with the adopted NFPA 409 code, which does not allow an exemption from the foam requirements like that specifically allowed in the Exception.

This amendment satisfies the SNBO Criteria for Code Amendment because it is required code correlation (IBC to IFC & NFPA 409) and it provides for consistency in regional interpretation and application of the codes.

COST IMPACT:

None, foam already required per NFPA 409.

COMMITTEE ACTION: The committee discussed the issue of "policing" and if the code should be modified for potential misuse of buildings. The committee cited occupancy as an area that could be misused and requires policing. As aircraft hangers are a very specialized use, the committee decided to table this amendment until the proponent has

the opportunity to provide further testimony. The proponent discussed the necessity for code correlation and the need for consistency between the building and fire code. Greg Shino reviewed NFPA 409 and confirmed the inconsistency between the codes. Motion to Approve and Seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	DA	AP	AP		DA	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-032

COMMITTEE: General

CODE SECTION: Section 202

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Amend Section 202 to include the definition of Fire Code Official.*

REVISE AS FOLLOWS:

> **[F] FIRE CODE OFFICIAL.** The fire chief or other designated authority charged with the administration and enforcement of the *International Fire Code*, or a duly authorized representative.

JUSTIFICATION:
The term "Fire Code Official" is used in the following 26 locations in the 2012 IBC: 501.2; 903.1.1; 903.3.1.1.1; 903.3.6; 903.4.1; 904.2; 905.4; 905.5.3; 906.1; 906.5; 907.1.1; 907.2; 907.2.6 (Exception 2); 907.4.2.5; 907.5.1; 909.5.1; 909.7; 909.8; 909.9; 909.10; 909.15; 909.18.8.3.1; 909.19; 910.4; 912.2.2; and 912.3.1. However, this term is not defined in the 2012 IBC.
The proposed definition of "Fire Code Official" was taken verbatim from Section 202 of the 2012 *International Fire Code*, except that the phrase "the code" was replaced with the phrase "the International Fire Code". This clarification is required since the phrase "the code" would otherwise signify the building code.

This amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (with the 2012 IFC) and to clarify the intent of the code.

COST IMPACT: None.

COMMITTEE ACTION: Motion to Approve and Seconded

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP			AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-033

COMMITTEE: General

CODE SECTION: 403.4.7.1 to 403.4.7.3 (new)

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Add new Sections 403.4.7.1 through 403.4.7.3*

REVISE AS FOLLOWS:

403.4.7.1 Design requirements. Smoke removal systems shall be capable of manual activation and shall be designed in accordance with Sections 403.4.7.1.1 through 403.4.7.1.4.

403.4.7.1.1 Fans. Fans shall be selected for stable performance based on normal temperature. Calculations and manufacturer's fan curves shall be part of the documentation procedures. Fans shall be supported and restrained by noncombustible devices in accordance with the requirements of Chapter 16.

403.4.7.1.1.1 Fan belts. Belt-driven fans shall have 1.5 times the number of belts required for the design duty, with the minimum number of belts being two.

403.4.7.1.1.2 Fan motors. Motors driving fans shall not be operated beyond their nameplate horsepower (kilowatts), as determined from measurement of actual current draw, and shall have a minimum service factor of 1.15.

403.4.7.1.2 Ducts. Ducts shall be constructed and supported in accordance with the *International Mechanical Code*. Exhaust ducts shall be leak tested to 1.5 times the maximum design pressure in accordance with nationally accepted practices. Measured leakage shall not exceed 5 percent of design flow. Results of such testing shall be a part of the special inspections report in accordance with Section 403.4.7.3.3.

Exception: Leakage testing shall not be required where the exhaust ducts are contained completely within the smoke removal zone they serve.

403.4.7.1.3 Power. The smoke removal system shall be supplied with two sources of power. Primary power shall be from the normal building power systems. Secondary power shall be from an *approved* standby source complying with Chapter 27 of this code.

Exception: Secondary power for the smoke removal system is not required where normal power can be automatically restored from the fire command center following a normal power shunt.

403.4.7.1.3.1 Standby power source enclosure. The standby power source and its transfer switches shall be in a room separate from the normal power transformers and switch gears and ventilated directly to and from the exterior. The room shall be enclosed with not less than 1-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.

403.4.7.1.3.2 Power sources and power surges. Elements of the smoke removal system relying on volatile memories shall be supplied with uninterruptable power sources of sufficient duration to span a 15-minute primary power interruption. Elements of the smoke removal system susceptible to power surges shall be suitably protected by conditioners, suppressors or other *approved* means.

403.4.7.1.3.3 Secondary power supply. The secondary power supply shall be sized to accommodate the electrical requirements of the two largest adjacent smoke removal zones simultaneously.

403.4.7.1.4 Status indicators and controls. Status indicators and controls for the smoke removal system shall be provided on a graphic control panel in the *fire command center*. The graphic control panel shall be designed in accordance with the *International Fire Code* and shall provide status of smoke removal fans and controls for the smoke removal systems. The control panel for the smoke removal system shall be permitted to operate through the building HVAC management system or the fire alarm system. The control panel for the smoke removal system shall not be required to be listed as smoke control equipment.

403.4.7.2 Control diagrams. The *construction documents* shall provide sufficient information and detail to adequately describe the elements of the design necessary for the proper implementation of the smoke removal systems. The construction documents shall include smoke removal system control diagrams that show all devices in the system and identify their location and function. The smoke removal system drawings shall be permitted to be combined with smoke control system drawings, where applicable. Approved copies of the smoke removal system control diagrams shall be maintained current and kept on file with the Authority Having Jurisdiction and in the *fire command center* in an *approved* format and manner.

403.4.7.3 *Special inspections* for smoke removal. Smoke removal systems shall be tested by a *special inspector*.

Exception: *Special inspections* shall not be required where smoke removal is achieved by natural ventilation in accordance with Section 403.4.7, Item 1.

403.4.7.3.1 Scope of testing. *Special inspections* shall be conducted in accordance with the following:

1. During erection of ductwork and prior to concealment for the purposes of leakage testing and recording device location.

2. Prior to occupancy and after sufficient completion for the purposes of exhaust air change rate measurements and control verification.

403.4.7.3.2 Qualifications. *Special inspection* agencies for smoke removal shall have expertise in fire protection engineering, mechanical engineering and certification as air balancers.

403.4.7.3.3 Reports. A complete report of testing shall be prepared by the *special inspector* or *special inspection* agency. The report shall include identification of all devices by manufacturer, nameplate data, design values, measured values and identification tag or *mark*. The report shall be reviewed by the responsible *registered design professional* and, when satisfied that the design intent has been achieved, the responsible *registered design professional* shall seal, sign and date the report with a statement as follows:

"I have reviewed this report and by personal knowledge and on-site observation certify that the smoke removal system is in substantial compliance with the design intent, and to the best of my understanding complies with the requirements of the code."

403.4.7.3.3.1 Report filing. A copy of the final report shall be filed with the Authority Having Jurisdiction and an identical copy shall be maintained in the *fire command center*.

JUSTIFICATION:

Section 403.4.7 requires that high-rise buildings of any occupancy be provided with natural or mechanical ventilation for smoke removal during post-fire salvage and overhaul operations. However, although Section 403.4.7 provides minimum performance criteria for the smoke removal systems when the mechanical ventilation option is used (e.g., 4 air changes per hour), it does not provide any specific design and testing requirements for the mechanical smoke removal systems. Therefore, the purpose of this proposal is to add sub-sections to Section 403.4.7 to include specific design and testing requirements for smoke removal systems. Each of the proposed sub-sections to Section 403.4.7 is described below.

403.4.7.1: This new section is proposed to identify specific design requirements for smoke removal systems. This section is necessary because the new base code language in Section 403.4.7 provides no guidance on these aspects of the design. Without the proposed design requirements, the design of the smoke removal systems would be subject to the local AHJ's interpretation, which could result in widely varying smoke removal system designs throughout the different jurisdictions in Southern Nevada. The design requirements listed in the sub-sections of Section 403.4.7.1 are based on requirements derived from Section 909, but modified to be specific for smoke removal (not smoke control). During the development of the Southern Nevada amendments to the 2009 IBC, the SNBO Smoke Control Sub-Committee felt that stating these requirements explicitly in sub-sections to Section 403.4.7 was preferable to simply

referencing specific code sections in Section 909 in order to avoid confusion between smoke removal systems and smoke control systems. Each of the proposed design requirements is addressed individually below:

Section 403.4.7.1.1: This provision requires the smoke removal system to be designed with fans that have additional (redundant) fan belts and a safety factor on fan motor horsepower. These features increase the reliability of the smoke removal system, which helps to ensure that the smoke removal system will be available in a post-fire scenario. These requirements are consistent with the IBC Section 909.10.5 requirements for fans used in smoke control systems.

Section 403.4.7.1.2: This provision requires the ducts that serve the smoke removal system to be designed in accordance with the International Mechanical Code (IMC). In addition, this section specifies that the exhaust ducts be leakage testing at 1.5 times the maximum design pressure to confirm that the duct leakage does not exceed 5 percent of the design flow. This requirement is consistent with the IBC Section 909.10.2 requirement for duct leakage testing of smoke control systems. However, please note that this provision does not intend for supply ducts serving smoke removal systems to be required to be leakage tested. Duct leakage could have a significant impact on the performance of the smoke removal system if the air flow rates are measured at any location other than the exhaust inlets. Specifically, if the air flow is measured somewhere else in the system (e.g., an intermediate point between the exhaust fan and the exhaust inlet or at the exhaust fan discharge), then there would be no way to confirm that the actual exhaust is coming from the space being exhausted unless the tightness of the ducts was confirmed through leakage testing. An Exception to this requirement is included to allow leakage testing to be omitted for exhaust ducts that are not routed outside of the smoke removal zone that they serve. The logic behind this exception is similar to the logic behind the base code Exception to IBC Section 716.5.5, which allows smoke dampers to be omitted where openings in ducts are limited to a single smoke compartment.

Section 403.4.7.1.3: This provision requires that the smoke removal systems be supplied by both the building's primary power supply and standby power. The requirement for standby power to the smoke removal systems is important since the fire department may shunt normal power prior to operations. Once the primary power supply has been shunted, it may be difficult to return to normal power without special, complex control logic. Indeed, shunts at many large mixed-use facilities cannot be easily reset by pushing a button in the fire command center. As such, placing the smoke removal equipment on standby power will help to ensure that the equipment is available for smoke removal at all times. However, for smaller properties it may be more appropriate to use motorized breakers to automatically restore normal power from a reset switch in the fire command center. Therefore, an Exception to this provision is included to allow secondary power for the smoke removal system to be omitted when normal power can be automatically restored from the fire command center. Effectively, this Exception allows the design team to determine the proper way to allow the smoke removal fans to work following a normal power shunt. In general, these power requirements are consistent with the IBC Section 909.11 requirements for power systems serving smoke control systems. The only difference is that the proposed new Section 403.4.7.1.3.3 specifies that the secondary power supply for the smoke removal systems only needs to be sized to accommodate the electrical requirements of the two largest adjacent smoke zones

simultaneously. The requirement that the standby power be sized for the two largest adjacent smoke removal zones operating simultaneously limits the impact of the smoke removal systems on the size of the secondary power supplies but still accounts for the scenario where a fire occurs near a boundary between smoke removal zones (i.e., for the case where smoke from a fire would be expected to affect two adjacent smoke removal zones).

Section 403.4.7.1.4: This provision requires that status indicators and controls for smoke removal systems be provided as required for all HVAC equipment per IBC Section 911.1.5, Feature No. 5 (i.e., on a graphic control panel in the fire command center). This section requires that the graphic control panel design comply with the *International Fire Code* (IFC). In lieu of providing detailed requirements on the graphic control panel design in Section 403.4.7.1, the reference to the IFC allows each jurisdiction to develop their own guidelines for graphic control panel requirements if no consensus agreement is reached between the Southern Nevada jurisdictions regarding amendments to IFC Section 909.16. At a minimum, Section 403.4.7.1.4 only requires status for the smoke removal fans and controls for the smoke removal systems. The specific reference to smoke removal fans only was done deliberately, as the intent of this section is not to require monitoring of all dampers used in the smoke removal system. Also, this section specifically states that the control panel for the smoke removal systems is not required to be listed as smoke control equipment. The intent of this section is to allow the smoke removal panel to operate through the building's HVAC management (BMS) system or fire alarm system.

403.4.7.2: This new section requires control diagrams for the smoke removal system to be prepared as part of the construction documents for a building. At a minimum, the control diagrams must show all devices (fans, dampers, risers) in the system and identify their location and function. This section further requires that approved copies of the control diagrams be kept on file with the building official and/or fire code official, and in the fire command center. These requirements are generally consistent with the IBC Section 909.15 requirements for control diagrams for smoke control systems. This section also clarifies that it is permissible to incorporate the smoke removal system control diagrams with the smoke control drawings (SCDs) when SCDs are also required for a project.

403.4.7.3: This new section provides criteria for special inspections of smoke removal systems. Special inspections are critical in order to have an accurate assessment of the smoke removal system performance prior to AHJ final inspections. An Exception to Section 403.4.7.3 was included to clarify that special inspections are not required when natural ventilation in accordance with Item 1 of Section 403.4.7 is used to satisfy the smoke removal requirement (i.e., special inspections are not required for operable windows or breakable panels). These requirements are generally consistent with the IBC Section 909.18.8 requirements for special inspections for smoke control systems.

COST IMPACT:

The proposed amendments to Section 403.4.7 will not increase the cost of construction. Since the base code language for smoke removal systems does not provide specific design requirements, it is likely that the Southern Nevada jurisdictions would interpret Section 403.4.7 to require the features that have been proposed in this amendment.

COMMITTEE ACTION: Motion to Approve and Seconded

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP			AP	AP	AP

RESULT: Approve

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-035

COMMITTEE: General

CODE SECTION: Section 420.6 (new)

PROPONENT: Jim Gerren, Clark County

PROPOSAL: Add new Section 420.6

REVISE AS FOLLOWS:

420.6 Visual access. The primary entrance door of individual units in motels, hotels, apartment houses, condominiums, and vacation timeshare properties shall contain a means to allow the occupant to visually identify a visitor without opening the unit entry door.

JUSTIFICATION:

The proposed amendment maintains Southern Nevada's current requirements for visual access through front entrance doors of individual rooms in hotels/motels (guestrooms), apartment houses, condominiums, and vacation timeshare properties. This requirement has previously been incorporated into the Southern Nevada amendments to the 2000, 2006, and 2009 editions of the IBC. This requirement, which essentially requires a peephole or other type of door viewer, provides an additional safety feature for non-residents (e.g., vacationers, convention attendees) staying at a hotel, motel, apartment, condo, or timeshare in Southern Nevada.

The proposed amendment satisfies SNBO's Criteria for Code Amendments because it is required to address special use and occupancy. Since the Southern Nevada economy is highly dependent on tourism, the additional level of safety provided by the proposed amendment is warranted.

COST IMPACT:

This proposal will increase the cost of construction compared to the base IBC. However, this proposal will have no cost impact when compared to the previously adopted amendments to the UBC and IBC, which have consistently required visual access through entrance doors of hotel guestrooms and similar residential units.

COMMITTEE ACTION: Motion to Approve and Seconded

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP			AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-036

COMMITTEE: General

CODE SECTION: Section 421.5

PROPONENT: Jim Gerren, Clark County

PROPOSAL: Amend Section 421.5

REVISE AS FOLLOWS:

[F] 421.5 Ventilation. Cutoff rooms shall be provided with mechanical *ventilation* ~~in accordance with the applicable provisions for repair garages in Chapter 5 of the *International Mechanical Code*~~.

Exception: Where approved by the *building official*, natural ventilation shall be permitted in lieu of mechanical ventilation.

421.5.1 Ventilation rate. Mechanical ventilation of hydrogen cutoff rooms shall be provided at a minimum rate of 1 cubic foot per minute per 12 cubic feet [0.00138 $m^3/(s \cdot m^3)$] of room volume.

421.5.2 Inlets and outlets. Hydrogen cutoff rooms shall be ventilated utilizing air supply inlets and exhaust outlets arranged to provide uniform air movement to the extent practical. Inlets shall be uniformly arranged on exterior walls near floor level. Outlets shall be located at the high point of the room in exterior walls or the roof.

421.5.3 Operation. The mechanical ventilation system shall operate continuously.

Exception: Where approved by the building official, ventilation shall be permitted to be by a mechanical ventilation system activated by a continuously monitoring flammable gas detection system that activates at a gas concentration of 25 percent of the lower flammable limit (LFL).

421.5.4 Shutdown. The gaseous hydrogen system shall be automatically shut down in the event of failure of the ventilation system.

JUSTIFICATION:

2012 IBC Section 421.5 directly references Chapter 5 of the IMC, which contains specific ventilation requirements for "repair garages for natural gas- and hydrogen-fueled vehicles" (see IMC Section 502.16). However, Southern Nevada will be adopting the 2012 edition of the UMC in lieu of the IMC, and the 2012 UMC does not contain any special ventilation requirements for repair garages for hydrogen-fueled vehicles. Instead, the 2012 UMC Table 403.7 simply specifies a minimum exhaust rate of 1.5 cfm/ft^2 for "Auto repair rooms." Therefore, this proposal provides the ventilation requirements for repair garages for hydrogen-fueled vehicles from IMC Chapter 5 directly in IBC Section 421.5. Accordingly, the reference to Chapter 5 of the IMC is proposed to be deleted from IBC Section 421.5. The proposed new Sections 421.5.1 through 421.5.4 provide the technical requirements from IMC Section 502.16.1. Only the format for the presentation of these requirements has been changed in order to be more user-friendly.

The proposed amendment satisfies SNBO's Criteria for Code Amendments because it is required for code correlation (2012 IMC/UMC) and to clarify the intent of the codes. Specifically, in recognition of the adoption of the 2012 UMC by the Southern Nevada jurisdictions in lieu of the 2012 IMC, this proposal is necessary for correlation between the IBC and the intended mechanical ventilation requirements for hydrogen cutoff rooms found in the 2012 IMC. The requirements for ventilation of repair garages for hydrogen-fueled vehicles are simply not provided in the 2012 UMC.

COST IMPACT:

None. The proposed requirements were always intended by the IBC through direct reference to Chapter 5 of the IMC.

COMMITTEE ACTION: Motion to Approve and Seconded

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP			AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-037

COMMITTEE: General

CODE SECTION: Section 403.5.3

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Amend Section 403.5.3*

REVISE AS FOLLOWS:

403.5.3 Stairway door operation. *Stairway* doors other than the *exit discharge* doors shall be permitted to be locked from *stairway* side. *Stairway* doors that are locked from the *stairway* side shall be ~~capable of being~~ unlocked simultaneously without unlatching upon any of the following: a signal from the *fire command center*; activation of a fire alarm signal in an area served by the *stairway*; or failure of the power supply.

> **Exception:** Upon approval of the *building official*, *stairway* doors opening directly into privately owned residential units or leased tenant spaces are permitted to unlock without unlatching only upon signal from the *fire command center*.

JUSTIFICATION:

In accordance with NAC 477.283.2(e), the Nevada State Fire Marshal amends 2006 IBC Section 403.12 to permit stairway doors in high-rise buildings (occupied floors located more than 55 feet above the lowest level of fire department vehicle access) to be locked from the stairway side as long as such doors are capable of being unlocked simultaneously without unlatching upon a signal from the fire command center *or an activation of any fire alarm system or a power failure*. The proposed amendment provides consistency with NAC 477.283.2(e). The phrase “capable of being” is proposed to be deleted since it would result in a non-mandatory requirement. The proposed change will require the stairway doors to be automatically unlocked upon any of three separate conditions: (1) a signal from the FCC; (2) a fire alarm signal in an area served by the stairway; or (3) failure of the power supply to the door.

There is a security and insurance risk for stair doors to unlock automatically upon alarm when the access door is directly into a privately owned residential unit, leased or owner tenant spaces. Tenant spaces that have only certain hours of operation and are closed during off hours or owners of residential units that are not always there (e.g., vacation home) are at risk of intentional or unintentional alarms providing free access to their unit/tenant space. Therefore, the proposed Exception to Section 403.5.3 provides a reasonable allowance for these types of spaces to utilize only the manual function from

the fire command center to unlock the associated doors to their space, so only trained personnel (either fire department or facility personnel) can provide this necessary access.

This amendment proposal satisfies the SNBO Criteria for Code Amendments because it is required for consistency with State Statues (NAC 477.283.2(e)) and to address unique designs or systems not anticipated in the code (e.g., stairs doors that provide direct access to residential units or leased tenant spaces).

COST IMPACT:

This proposal may increase the cost of construction relative to the base IBC. However, relative to State of Nevada laws, the proposed amendment does not increase the cost of construction since the additional requirements are derived directly from NAC 477.283.2(e).

COMMITTEE ACTION: The proponent briefly described this proposed amendment. The Turnberry Towers and several other project in the community benefit from this amendment. This amendment is unique to Southern Nevada. Motion to Approve and Seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-038

COMMITTEE: General

CODE SECTION: Section 507.2

PROPONENT: Jim Gerren, Clark County

PROPOSAL: Amend Section 507.2

REVISE AS FOLLOWS:

507.2 ~~Nonsprinklered,~~ Group F-2 or S-2, one story. The area of a Group F-2 or S-2 building no more than one *story* in height shall not be limited where the building is surrounded and adjoined by *public ways* or *yards* not less than 60 feet (18 288 mm) in width and the building is provided with an automatic sprinkler system throughout where required by Section 903.2 or the *International Fire Code*.

JUSTIFICATION:

The reference to "Nonsprinklered" in the title of this section needs to be deleted to eliminate conflict with local fire and administrative codes, which require sprinkler protection when square footage thresholds are achieved. For example, the Clark County Building Administrative Code Section 22.02.170 requires that a sprinkler system be provided in any building or structure that exceeds 10,000 square feet, while the Southern Nevada amendments to the 2009 IFC require sprinkler protection throughout buildings that exceed 5,000 ft^2 in area.

The proposed additional language is also intended to eliminate the conflict between Section 507.2 and local fire and administrative codes because it will still require sprinklers when required by IBC Section 903.2 or the IFC. Please note that the proposed amendment language is intentionally flexible so that if the local fire and administrative codes are revised in the future to change the area criteria for sprinkler requirements, the amendment will still apply without creating conflicts.

Admittedly, the proposed modification to Section 507.2 will make it redundant with Section 507.3 ("Sprinklered, one story), and the easiest way to eliminate the noted conflicts would be to delete Section 507.2 in its entirety (as was the approach in the Southern Nevada amendments to the 2000 IBC). However, this approach would create two problems. First, by deleting Section 507.2 in its entirety, we would have to amend Sections 507.3 through 507.12 just to renumber them to account for the deleted Section 507.2. Second, Section 507.2 is referenced in other sections of the code, such that we would also have to amend those other sections to delete the references to the deleted

Section 507.2 (e.g., Section 507.5). In an effort to reduce the number of corresponding amendments, the proposed amendment is based on keeping Section 507.2 and amending it to eliminate the conflicts with local fire and administrative codes.

The proposed amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (local administrative codes such as CCBAC, amended IFC, and NFPA 13).

COST IMPACT:

The proposed amendment will increase the cost of construction by eliminating the potential for unlimited area, nonsprinklered Group F-2 or S-2 buildings. However, relative to the local administrative and fire codes, which require automatic sprinkler protection of Group F-2 or S-2 buildings once they exceed a relatively small building area limit, the proposed amendment does not increase the cost of construction.

COMMITTEE ACTION: The proponent briefly discussed the necessity for this amendment since an unsprinklered, unlimited area building would be inconsistent with other provisions of the code. Deleting the section in it entity creates a potential administrative task that would require additional amendments where the code makes references to 507.2.1 (contrary to the SNBO objective to minimize the number of amendments). Jim Begley commented, through proxy, that the entire section should be deleted. Motion to Approve as Submitted and Seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	DA

RESULT: Approved.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-040(R1)

COMMITTEE: General

CODE SECTION: Section 507.3

PROPONENT: Jim Gerren, Clark County

PROPOSAL: Amend Section 507.3

REVISE AS FOLLOWS:

507.3 Sprinklered, one story. The area of a Group B, F, M or S building no more than one *story above grade plane* of any construction type, or the area of a Group A-4 building no more than one *story above grade plane* of other than Type V construction, shall not be limited where the building is provided with an *automatic sprinkler system* throughout in accordance with Section 903.3.1.1 and is surrounded and adjoined by *public ways* or *yards* not less than 60 feet (18 288 mm) in width.

Exceptions:

1. Buildings and structures of Type I and II construction for rack storage facilities that do not have access by the public shall not be limited in height, provided that such buildings conform to the requirements of Sections 507.3 and 903.3.1.1 and Chapter 32 of the *International Fire Code*.
2. The *automatic sprinkler system* shall not be required in areas occupied for indoor participant sports, such as tennis, skating, swimming and equestrian activities in occupancies in Group A-4, provided that:
   2.1 *Exit* doors directly to the outside are provided for occupants of the participant sports areas; and
   2.2 The building is equipped with a *fire alarm system* with *manual fire alarm boxes* installed in accordance with Section 907.

JUSTIFICATION:

Exception No. 2 to Section 507.3 would allow one-story sports arenas of unlimited area to be without sprinkler protection simply based on open perimeter (60 feet on all sides), exit doors that lead directly to the outside, and a manual fire alarm system. A manual fire alarm system and direct exits to the exterior are not an equivalent level of protection to automatic sprinklers, especially considering the potentially large occupant loads possible in an indoor arena of unlimited area.

Additionally, Exception No. 2 conflicts with local fire and administrative codes, which require sprinkler protection when square footage thresholds are achieved. For example, Clark County Building Administrative Code Section 22.02.170 requires that a sprinkler system be provided in any building or structure that exceeds 10,000 square feet. Additionally, the Southern Nevada amendments to the 2009 IFC include a 5,000 ft^2 area threshold for when sprinklers are automatically required regardless of occupancy classification.

Finally, Exception No. 2 applies to "areas" occupied for indoor participant sports, which could potentially result in partially sprinklered buildings. This approach would not be consistent with the high level of protection that Southern Nevada has traditionally prescribed for buildings or portions of buildings that typically have large assembly occupant loads.

The proposed amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (CCBAC, amended IFC, NFPA 13).

COST IMPACT:

The proposed amendment will increase the cost of construction for areas occupied for indoor participant sports that meet the provisions of Exception No. 2. However, relative to the local administrative and fire codes, which require automatic sprinkler protection of such arenas once they exceed a relatively small building area limit, the proposed amendment does not increase the cost of construction.

COMMITTEE ACTION: This amendment was previously approved as submitted by the Committee. However, it was determined that the reference to the Chapter 32 of the International Fire Code (IFC) in Exception No. 1, which was previously proposed to be changed to a reference to Chapter 23 of the IFC, was actually correct. This revision (R1) to the proposed amendment corrected that error. Motion to Approve and Seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP			AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-043(R1)

COMMITTEE: General

CODE SECTION: Section 603.1.2

PROPONENT: Jim Gerren, Clark County & Greg Shino, JBA

PROPOSAL: Amend Section 603.1.2

REVISE AS FOLLOWS:

603.1.2 Piping. The use of combustible piping materials shall be permitted where installed in accordance with the limitations of the *International Mechanical Code* and the *International Plumbing Code*~~.~~ or the following:

603.1.2.1 Mechanical equipment rooms. Approved combustible piping shall be permitted to be installed in a noncombustible mechanical equipment room that is protected throughout by an *automatic sprinkler system*. The combustible piping shall be permitted to be extended from the equipment room to other rooms provided the piping is encased in an *approved*, dedicated 2-hour *fire-resistance rated* assembly. Where such combustible piping penetrates a *fire-resistance rated* wall and/or floor/ceiling assembly, the penetration shall be protected by a *through-penetration firestop system* that is listed for the specific piping material and that has F and T ratings not less than the required *fire-resistance rating* of the penetrated assembly.

603.1.2.2 Chemical waste systems. Combustible piping shall be permitted to be installed for chemical waste and vent systems where the chemical waste would otherwise react with noncombustible piping. Combustible piping serving such systems shall be protected as required in Section 603.1.2.1.

603.1.2.3 Medical water systems. Combustible piping shall be permitted to be installed for purified water systems that are used in conjunction with medical treatment systems, such as dialysis. Combustible piping serving such systems shall be protected as required in Section 603.1.2.1.

603.1.2.4 Bars and soda fountains. Combustible piping shall be permitted to be installed for distribution/process systems that serve bars and soda fountains. Combustible piping serving such systems shall either be installed below a slab-on-grade, protected as required in Section 603.1.2.1, or sleeved within noncombustible EMT conduit or metal piping from the room of origin to the area of end use. Where combustible piping serving bars and soda fountains is sleeved within noncombustible EMT conduit or metal piping, the end points of the

conduit or pipe shall be sealed in accordance with Southern Nevada Health District requirements.

603.1.2.5 Fire sprinkler systems. CPVC piping that is specifically listed and labeled for fire protection use shall be permitted to be installed for fire sprinkler system piping provided that it is installed in accordance with its listing, the manufacturer's installation requirements, and the *International Building Code*.

603.1.2.6 Under slab-on-grade. Combustible piping shall be permitted to be installed under a slab-on-grade provided the transition from combustible to noncombustible piping occurs either entirely below the slab-on-grade or within the room it serves as identified in Section 603.1.2.1.

Exception: The transition from combustible to noncombustible piping shall be permitted to occur in any location in the building provided it occurs within one pipe transition fitting, but not more than 8 inches, above the top plane of the slab-on-grade, directly above the point of the pipe penetration through the slab-on-grade.

JUSTIFICATION:

The Mechanical/Plumbing Code Committee has proposed to amend Sections 604.1, 701.1.2, 903.1.2, and 1101.3 in the 2012 Uniform Plumbing Code (UPC) such that the use of plastic piping for water supply and distribution systems, drainage waste and vent systems, and rainwater storm drainage systems would be limited to buildings defined as combustible construction. The Mechanical/Plumbing Code Committee has proposed to amend 2012 UPC Section 205.0 to define "combustible construction" as Type III, Type IV, or Type V construction, as defined in the building code. The plumbing code amendments essentially prohibit the use of plastic piping in buildings of Type I or II construction.

The proposed amendment to Section 603.1.2 of the 2012 *International Building Code* (IBC) would permit combustible (plastic) piping in buildings of Type I or II construction in specific situations. The intent of the proposed amendment is to allow combustible piping in those common situations in which the fluid in the piping is not compatible with metal piping. The specific locations that this would benefit are mechanical equipment rooms (e.g., pool and spa systems), hospitals and laboratories (e.g., chemical waste), other medical treatment facilities (e.g., medical water for dialysis), and bars and soda fountains (e.g., syrup and alcohol distribution).

This proposal is consistent with local policies in place prior to the Southern Nevada Amendments to the 2006 SNBC. This requirement in the 2006 and 2009 IBC amendments has proven to be a burden on property owners in areas with corrosive soil conditions, such as Laughlin. A limited quantity of combustible piping does not pose a significant hazard to the level of safety in a building of Type I or II construction when the room or space is entirely protected with automatic fire sprinklers, generally requiring not less than Ordinary Hazard, Group 1 protection. Further, if the transition from combustible to noncombustible piping occurs within one pipe transition fitting and not more than 8 inches above the top plane of the slab-on-grade, the room, the limited

quantity of combustible piping does not warrant a 2-hour fire-resistance rated enclosure. The 8-inch maximum dimension is the value identified by the Mechanical/Plumbing Code Committee based on their research and discussions with piping manufacturers.

The 2-hour fire-resistive enclosure included in 2006 and 2009 Southern Nevada Amendments for mechanical equipment rooms such as pool and spa equipment rooms, where piping is continuously filled with water or other non-flammable/noncombustible liquids with low boiling points has proven onerous for industry without significant benefit. If combustible piping were kept within a storage room or workshop as loose replacement parts, a 2-hour fire-resistance rating would not be required and yet the condition of having equipment filled with low-boiling point liquids represents no additional hazard. Further, if the mechanical equipment rooms do represent a hazard as a result of hazardous materials or Incidental Use, a fire-resistive rating would be required by the applicable 2012 IBC Section.

The proposed amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (amended 2012 UPC) and it is necessary to address local geologic conditions (corrosive soils).

COST IMPACT:

This proposal will reduce the cost of construction. Although rated construction may be required in some situations involving combustible piping, the additional cost of the rated construction will be offset by the material, labor, and maintenance savings associated with the combustible piping.

COMMITTEE ACTION: During the discussion on this amendment, the necessity for this proposal was discussed. The base building code would allow plastic piping in Type I and Type II buildings; however this amendment is required due to a plumbing code amendment. The committee would not support an amendment in the building code that would prohibit plastic piping in Type I and Type II buildings. This amendment would address specific conditions that would allow plastic piping, if and only if, the plumbing code amendment is vetted through the SNBO process. This amendment should be eliminated if the plumbing code amendment is withdrawn or subsequently disapproved by the steering committee and/or the building officials. The current version of this amendment is much closer to the 1997 Clark County policy regarding plastic piping. The current version drops the requirement for the 2 hour equipment room for a non-combustible mechanical room. The committee generally agreed with the proposal; however the interface between the 2 hour shaft outside the room and the non-combustible room and at the termination of the piping was discussed as an issue. Other applications may require a plastic piping allowance such as fish tanks and irrigation systems. The removal of the term fire-resistive as it pertains to the slab construction was discussed as unnecessary definition for a slab. It was also discussed that the 8” or one transition fitting should be carried forward since this would be a consistent with the plumbing code amendments. Most of the committee felt as if this issue is a building code or fire protection issue and not a plumbing issue. The committee recommended that SNBO require the plumbing and general committee come together to address the issue of plastic piping. Chairman Gerren will discuss the issue with our SNBO liaison. The amendment was tabled until the 6/19 meeting.

6/19/12: Jim Gerren informed the Committee that Neil Burning indicated that the Committee should evaluate this amendment proposal based on the Plumbing Code Committee's expected amendment that would prohibit combustible piping in buildings of Type I or II construction. The Committee discussed the possibility of incorporating the base plumbing code allowances for combustible piping directly into a building code amendment. Greg Shino volunteered to put together an initial draft of this type of amendment. Therefore, GC12-043 was tabled to allow Mr. Shino an opportunity to put together a new amendment that would work around the Plumbing Code Committee's amendment.

6/26/12: Jim Gerren noted that the SNBO Steering Committee Chair could not say whether SNBO would approve an amendment in the Building Code that referenced Plumbing Code requirements. Instead the Steering Committee Chair recommended working toward a Code Amendment that will work under the assumption that the Plumbing Code amendment is carried forward. While all of the General Committee members felt that there was no technical justification to prohibit plastic piping in Types I and II buildings, it was agreed that if some form of this amendment was not passed the restrictions of the Plumbing Code committee's amendment would severely limit operational design for many systems. The committee looked at the limitation of the plastic piping pent rating a single floor. Since the piping is in a rated enclosure, this limitation appeared redundant. The motion was to approve as modified; striking the last sentence from 603.1.2.1 that limited the piping to penetrate a single floor.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: The committee recognized the need for this amendment based upon the Plumbing Code Committee's passage of the amendment prohibiting plastic piping in Type I and II buildings. The committee saw no technical justification or regional substantiation for prohibiting what the base version of the Plumbing and Building Codes permit. The committee also included the limitation of 8" or one transitional fitting as noted in the plumbing code amendment.

STEERING COMMITTEE RECOMMENDATION: Does not concur since the proposed UPC and UMC amendments dealing with plastic piping have not been approved by the SNBO.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT #: GC12-045

COMMITTEE: IBC

CODE SECTION: 1006.3

PROPONENT: Wesley Walters

PROPOSAL: *Amend Section 1006.3*

REVISE AS FOLLOWS:

1006.3 Illumination emergency power. The power supply for *means of egress* illumination shall normally be provided by the premises' electrical supply.

In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:

1. *Aisles* and unenclosed egress *stairways* in rooms and spaces that require two or more *means of egress*.

2. *Corridors*, *interior exit stairways* and *ramps* and *exit passageways* in buildings required to have two or more *exits*.

3. Exterior egress components at other than their levels of *exit discharge* until *exit discharge* is accomplished for buildings required to have two or more *exits*.

4. Interior *exit discharge* elements, as permitted in Section 1027.1, in buildings required to have two or more *exits*.

5. Exterior landings as required by Section 1008.1.6 for *exit discharge* doorways in buildings required to have two or more *exits*.

6. Electrical equipment rooms, *fire command centers*, fire pump rooms and generator rooms.

The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 2701

JUSTIFICATION:

During a fire emergency at a major resort or other special use facility (e.g., high-rise buildings), it is common practice for Southern Nevada fire department personnel to shunt the primary power supply prior to emergency operations. Once the primary power supply has been shunted, it may be difficult to return to normal power without special, complex control logic. Shunts at many large mixed-use facilities cannot be easily reset by pushing a button in the fire command center. Electrical equipment rooms, fire command centers, fire pump rooms, PBX rooms, and generator rooms are areas that the emergency responders may need to access while the primary power supply is shunted. As such, requiring emergency illumination in these special use areas will ensure that sufficient lighting is available to emergency personnel that access these areas during an emergency. Since the normal power to the lights in these areas will often be shunted due to standard response procedures used by Southern Nevada fire departments, this amendment is required to address a unique design that is not anticipated by the national codes.

Prior to the 2009 code cycle, the Southern Nevada amendments to Article 700 of the National Electrical Code (NEC) included a requirement for emergency illumination in electrical equipment rooms, fire control rooms, fire pump rooms, PBX rooms, generator rooms, and public restrooms. Starting with the Southern Nevada amendments to the 2009 IBC, this requirement for when emergency illumination must be required was moved to the building code because the electrical code should specify how to install required systems while the building code should specify when such systems are required. This proposal merely intends to maintain the long-standing Southern Nevada requirement for emergency illumination in electrical equipment rooms, fire control rooms, fire pump rooms, and generator rooms. Further, the proposed change is consistent with changes that have been accepted to be in the 2015 edition of the IBC.

The proposed new #6 simply requires that in the event of an emergency in which the normal lighting is lost, emergency power is required for the lights in electrical equipment rooms, fire command centers, fire pump rooms, and generator rooms. These are all critical spaces in a building that emergency responders need full use of during an emergency. The expansion of areas required to have emergency illumination to include these emergency equipment areas provides a higher level of safety for emergency responders.

The proposed amendment satisfies the SNBO Criteria for Code Amendments because it is required to address special use and occupancy and to address unique designs or systems not anticipated in the code.

COST IMPACT:

This proposal will increase the cost of construction because emergency lighting is not otherwise required by the model IBC in electrical equipment rooms, fire control rooms, fire pump rooms, or generator rooms. However, the overall cost impact of this requirement will be minimal since the emergency electrical system is already required to supply the means of egress lighting.

COMMITTEE ACTION: The committee discussed this amendment as the favored amendment over GC12-044. However, the written justification under GC12-044 provided better insight into the necessity for the amendment. This amendment has been

vetted through the ICC Code Development process for the 2015, so this amendment was favored. Therefore, the justification submitted for GC12-044 was incorporated into the justification for this proposal. The committee agreed with emergency lighting requirements in rooms where emergency equipment and services may be required during power outage or emergency responses. However, the original proposal included a new Item #7 that would require an emergency electrical system to automatically illuminate public restrooms with an area greater than 300 ft^2. The committee was split on the issue of emergency lighting for large bathrooms. The committee discussed the setting the criteria for emergency lighting in public restrooms as any bathroom larger than a single use restroom. However, there was no consensus on this issue, as several members of the committee felt this requirement would include too many restrooms and would be overly burdensome. The first motion was to Approved as Submitted and Seconded. However, the vote on the first motion was split 5-5. Therefore, a second motion was made to approve as modified, with the modification being to delete item #7 (restrooms) in its entirety, and the motion was seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
DA	AP	DA	DA		AP	DA	DA	AP	AP	AP
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved as modified (Item #7 from original proposal was deleted).

STEERING COMMITTEE RECOMMENDATION: Concurs.
It should be noted that Amendment GC12-063 on this same code section was approved to include emergency illumination in restrooms separately. The final version of the section is shown in proposed amendment GC12-063.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-047

COMMITTEE: General

CODE SECTION: 1008.1.5

PROPONENT: Jim Gerren, Clark County & Duane Feuerhammer, City of Las Vegas

PROPOSAL: *Amend Section 1008.1.5*

REVISE AS FOLLOWS:

1008.1.5 Floor elevation. There shall be a floor or landing on each side of a door. Such floor or landing shall be at the same elevation on each side of the door. Landings shall be level except for exterior landings, which are permitted to have a slope not to exceed 0.25 unit vertical in 12 units horizontal (2-percent slope).

Exceptions:

1. *Unchanged.*
2. *Unchanged.*
3. *Unchanged*.
4. *Unchanged.*
5. *Unchanged.*
6. A single step with a maximum height of 7 inches (178 mm) is permitted for doors serving building equipment rooms that are not normally occupied and are not required to be accessible by Chapter 11.

JUSTIFICATION:

Section 1008.1.5 requires a floor or landing to be provided on each side of a door, and that such floors or landings be at the same elevation on each side of the door. However, this requirement creates a challenge for certain spaces that are only used for maintenance of equipment or roof access. In such spaces, a floor or landing that is at the same elevation on each side of the door can create hazardous conditions due to weather infiltration. This situation is particularly true for electrical equipment rooms, which typically require a raised slab to prevent water infiltration around the electrical gear.

There is precedence within the IBC for the proposed arrangement. IBC Section 1003.5, Exception No. 1 permits a single step with a maximum riser height of 7 inches at exterior doors not required to be accessible by Chapter 11 for buildings with occupancies in Groups F, H, R-2, R-3, S and U. The proposed new Exception No. 6 to Section

1008.1.5 is consistent with Section 1003.5, Exception No. 1 except that (a) it would apply to normally unoccupied building equipment rooms in any occupancy, and (b) it would not be limited to exterior doors.

This proposal was adopted into the Southern Nevada amendments to the 2006 and 2009 editions of the IBC, and it has proven to be a useful exception for the local AHJs and designers.

The proposed amendment satisfies the SNBO Criteria for Code Amendments because it is required to clarify the intent of the codes and to provide for consistency in regional interpretation and application of the codes.

COST IMPACT:

This proposal will not increase the cost of construction.

COMMITTEE ACTION: The committee discussed the need for this amendment as noted in the justification. Motion to Approved and Seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-048

COMMITTEE: General

CODE SECTION: 1008.1.8

PROPONENT: Jim Gerren, Clark County

PROPOSAL: Amend Section 1008.1.8

REVISE AS FOLLOWS:

1008.1.8 Door arrangement. Space between two doors in a series shall be 48 inches (1219 mm) minimum plus the width of a door swinging into the space. Doors in a series shall swing either in the same direction or away from the space between the doors.

Exceptions:

1. The minimum distance between horizontal sliding power-operated doors in a series shall be 48 inches (1219 mm).
2. Storm and screen doors serving individual *dwelling units* in Groups R-2 and R-3 need not be spaced 48 inches (1219 mm) from the other door.
3. Doors within individual *dwelling units* in Groups R-2 and R-3 other than within *Type A* dwelling units.
4. The space between doors serving access vestibules of smokeproof enclosures shall be permitted to be in accordance with Section 909.20.1.

JUSTIFICATION:
The purpose of this proposal is to clarify the code. IBC Section 1008.1.8 requires that the space between two doors in series must be at least 48 inches minimum plus the width of a door swinging into the space. However, where vertical exit enclosures are required to be smokeproof enclosures per IBC Section 1022.10, IBC Section 909.20.1 requires that the access to the stair in a smokeproof enclosure be by way of a vestibule or open exterior balcony. When vestibules provide access to the stair, IBC Section 909.20.1 requires that the vestibule be a minimum of 44 inches wide, but not less than the required width of the corridor leading to the vestibule, and a minimum of 72 inches in the direction of egress travel. As noted in the 2009 IBC Commentary on Section 909.20.1, as well as Figures 909.20.1 and 909.20.4.1 of the Commentary, the intent of IBC Section 909.20.1 is to permit a minimum 44-inch by 72-inch vestibule. However, the language of IBC Section 1008.1.8 would not permit a minimum 44-inch by 72-inch vestibule since Section 1008.1.8 requires the space between the two vestibule doors in series to be 48 inches minimum plus the width of the door swinging into the vestibule, i.e., 36 inches, which means that IBC Section 1008.1.8 would require smokeproof

enclosure vestibules to be a minimum 44-inches wide by 84-inches in the direction of egress travel.
The proposed new Exception No. 4 to IBC Section 1008.1.8 would eliminate the conflict between Sections 1008.1.8 and 909.20.1 by specifically allowing the space between smokeproof enclosure vestibule doors to be sized in accordance with Section 909.20.1.

This proposal does not create any conflicts with IBC Chapter 11 or ICC/ANSI A117.1. In accordance with IBC Section 1007.2, Item No. 2, interior exit stairways that comply with Sections 1007.3 and 1022 are acceptable components of a required accessible means of egress. IBC Section 1007.3 permits the omission of an area of refuge at exit stairways in fully sprinklered buildings. IBC Section 1022.10 requires exit enclosures serving high-rise levels of a high-rise building to be smokeproof enclosures in accordance with IBC Section 909.20, and that access to the stairway within a smokeproof enclosure be by way of a vestibule or open air balcony. Section 909.20.1 requires the minimum dimensions of the vestibule to be 44 inches (width) and 72 inches (length in direction of travel). Therefore, since a 44-inch by 72-inch vestibule is a compliant design per IBC Section 909.20.1, smokeproof enclosures are considered acceptable accessible means of egress components per IBC Section 1007.2. Further, ICC/ANSI A117.1 Section 404.2.5 addresses "Two Doors in Series" and clearly requires a minimum 84 inch dimension in the direction of travel as well as a minimum 60-inch turning radius. However, ICC/ANSI A117.1 Chapter 4 addresses "accessible *routes*", not accessible *means of egress*, and therefore does not apply to a smokeproof enclosure, which per IBC Section 909.20 is defined as an enclosed interior exit stairway and an open balcony or ventilated vestibule. Exit stairs are not required to meet the "accessible *route*" requirements of IBC Section 1104.3 or ICC/ANSI A117.1 Chapter 4 (accessible routes provide access into a building). During the development of the Southern Nevada amendments to the 2009 IBC, Mike Gentille of Philip Chun Associates contacted ICC and received a verbal staff opinion that confirmed that the requirements of ICC/ANSI Section 404.2.5 are not applicable to smokeproof enclosures under the 2009 IBC.
The proposed amendment satisfies the SNBO Criteria for Code Amendments because it is required to clarify the intent of the codes and to provide for consistency in regional interpretation and application of the codes.

COST IMPACT: This proposed amendment will not increase the cost of construction.

COMMITTEE ACTION: This amendment is a clarification of the code requirements and provides for consistency in regional interpretation. The amendment was allowed to stand on the justification submitted. Motion to Approve and Seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-050(R2)

COMMITTEE: General

CODE SECTION: Section 403.4.7

PROPONENT: Stephen DiGiovanni, CCFD & Jim Begley, Terp Consultanting

PROPOSAL: *Amend Section 403.4.7*

REVISE AS FOLLOWS:

Amend Section 403.4.7 to read as follows:

403.4.7 Smoke removal. To facilitate smoke removal in post-fire salvage and overhaul operations, buildings and structures shall be equipped with natural or mechanical *ventilation* for removal of products of combustion in accordance with one of the following:

Exceptions:

1. Smoke removal is not required for building renovations where HVAC systems are not being modified.

2. Smoke removal systems are not required for remodels and alterations within existing buildings where the area being remodeled or altered is provided with a smoke control approach consistent with the smoke control requirements of the existing building.

3. Where permitted by the *fire code official*, smoke removal systems are not required for minor additions to existing buildings that are not already provided with smoke removal systems.

1. Easily identifiable, manually operable windows or panels shall be distributed around the perimeter of each floor at not more than 50-foot (15 240 mm) intervals. The area of operable windows or panels shall not be less than 40 square feet (3.7 m^2) per 50 linear feet (15 240 mm) of perimeter.

   Exceptions:

   1. In Group R-1 occupancies, each *sleeping unit* or suite having an *exterior wall* shall be permitted to be provided with 2 square feet (0.19 m^2) of venting area in lieu of the area specified in Item 1.

   2. Where permitted by the fire code official, ~~W~~windows of tempered glass shall be permitted to be fixed provided no coating or film is applied and that glazing can be cleared by firefighters.

3. Manually operable windows or panels are not required in Group R-1 and R-2 residential units provided the residential units comply with the passive requirements of Section 909 and all corridors between the residential units and the exit enclosures serving the residential units comply with Section 403.4.7, Item 3.

2. Mechanical air-handling equipment providing one exhaust air change every 15 minutes for the area involved. Return and exhaust air shall be moved directly to the outside without recirculation to other portions of the building. The air volume shall be calculated based upon the volume of the space between the floor and the floor or roof structure above. The exhaust air quantity shall be as measured at the exhaust fan.

   Exception: Smoke removal is not required for normally unoccupied areas such as mechanical equipment rooms, electrical rooms, storage rooms that do not exceed 500 square feet in area, elevator equipment rooms, or similar areas as approved by the *building official*.

3. A smoke control system that provides a minimum of one exhaust air change every 15 minutes is provided for the area involved upon manual activation of the smoke removal feature at the smoke control graphics panel. The volume of air shall be calculated based upon the volume of the space between the floor and the floor or roof structure above. The exhaust air quantity shall be as measured at the exhaust fan.

4. Any other *approved* design that will produce equivalent results where permitted by the Authority Having Jurisdiction.

JUSTIFICATION:

This amendment is intended to clarify the intent of the code and provide consistency in regional interpretation and application of the code.

Southern Nevada implements high-rise provisions differently than anticipated by the base IBC. Typically, in most other jurisdictions high-rise provisions are implemented in only the high-rise portions of the building (e.g., smoke control in towers); however, in Southern Nevada high-rise provisions are applied throughout buildings. The proposed exceptions are intended to clarify intent of applications requiring smoke removal.

Exception 1 to charging paragraph:

The proposed exceptions 1, 2 and 3 are intended to address the difficulties of providing smoke removal for building renovations. Application of these provisions has been found to be difficult in remodels where minimal square footage is impacted in normally occupied spaces. Currently, Requests for Alternate Methods (RFAMs) are being submitted on a constant basis when work scope is minimal. As such, this exception incorporates current practice into the SNBC.

Furthermore, the text of the 2012 IBC Commentary discusses the application of smoke removal to “new high-rise buildings”. As such, this implies that the application of smoke

removal in renovated buildings was not anticipated in the original proposal and the proposed verbiage clarifies the intent of the original requirement.

This exception proposes new verbiage not previously adopted in the 2009 SNBC.

Exception 2 to charging paragraph:

There is difficulty in retrofitting existing buildings to meet smoke removal system requirements when remodels and alterations occur. Due to the past practice within this valley and the State of Nevada, which has history with smoke control system requirements that are unique from most everywhere else in the country, many existing high-rise facilities are already equipped with smoke control systems. Although no longer required in the local and state codes as they were before, smoke control systems provide smoke management in case of fire and provide a life safety benefit to occupants. This exception allows for an existing building to continue the existing smoke control concepts for the building area being remodeled and altered, and to use that smoke control system in lieu of the smoke removal system required by this current code.

This exception proposes new verbiage not previously adopted in the 2009 SNBC.

Exception 3 to charging paragraph:

Overall, there is a desire to not require retrofit in existing buildings to accommodate new smoke removal requirements. Building additions is a complicated subset. Small additions are expected to depend on existing building service infrastructure, while major additions may have stand-alone dedicated building services. This exception is provided to recognize that smoke removal requirements may not be appropriate for minor additions, and provides latitude for not requiring smoke removal systems in all building additions.

This exception proposes new verbiage not previously adopted in the 2009 SNBC.

Exception 2 to Item 1:

The base code language for Exception 2 allows breakable windows as an alternative to the manually operable windows or panels specified in Item 1. For most situations, Southern NV Fire Departments do not want to have to break fixed windows in order to remove smoke during post-fire salvage and overhaul operations. Therefore, the amendment will make the use of Exception 2 contingent upon approval of the fire code official.

If the fire code official does not support this design option for a particular situation, then the designers will be required to comply with one of the other design alternatives. For those situations when the use of breakable fixed windows is allowed, this proposal also amends Exception 2 to require that the windows intended for breakage must be tempered glass without any applied coating or film.

This additional requirement is intended to ensure that the glass will shatter into small pieces. The concept is to avoid having large plates of glass being cleared, as such large glass panels pose a significant threat to civilian/firefighter safety, not to mention they pose a potential risk to charged hose lines used by the firefighters outside the building.

This exception uses the previously approved verbiage in the 2009 SNBC.

Exception 3 to Item 1:

The proposed new Exception 3 provides an allowance for an alternative method for smoke removal of residential units in Group R-1 or R-2 occupancies.

The use of manually operable windows/panels or providing breakable windows is not feasible for many designs. Where a residential unit is adjacent to a corridor that provides smoke removal and the residential units are of passive construction in accordance with IBC Section 909, the proposed new Exception 3 will permit the omission of operable windows/panels or breakable windows provided the fire department can manually control corridor smoke control fans to remove smoke from the corridor.

This new Exception 3 assumes that the fire department will use their own portable fans to move smoke from the residential unit into the corridor, at which point the building's corridor smoke control system can be manipulated by the fire department to clear the smoke from the building (through the corridor).

This exception uses the previously approved verbiage in the 2009 SNBC.

Item 2:

When preparing amendments to the 2009 IBC, the Smoke Control Sub-Committee debated whether the air volume used to determine the exhaust air quantity needed to achieve four (4) air changes per hour should be based on the space between the floor and ceiling or the space between the floor and structure above.

Ultimately, the consensus opinion of the sub-committee was that the volume should include the volume between the ceiling and the structure above since there can be a significant volume located between the ceiling and the structure above. Therefore, Item 2 is amended to specify how the volume is to be calculated and also to mandate that the exhaust air quantity is to be measured at the exhaust fan. These clarifications are expected to result in consistency of the smoke removal system designs in Southern Nevada.

This exception uses the previously approved verbiage in the 2009 SNBC.

Exception to Item 2:

The new exception is intended to clarify that spaces that do not normally have mechanical ventilation equipment are not required to be provided with additional mechanical systems just for purposes of complying with the new smoke removal

requirement, which is consistent with the original intent of the code change that lead to the inclusion of Section 403.4.6 in the 2009 IBC.

The exception language proposed clarifies that the exception only applies to storage rooms that do not exceed 500 ft^2 in area. The cutoff value of 500 ft^2 was chosen since that is the cutoff used in the IFC for when no extinguishing systems, fire detection systems, building access, or smoke and heat vents are required for high-piled storage areas.

This exception uses the previously approved verbiage in the 2009 SNBC.

COST IMPACT:

The proposed amendments reduce the cost of construction due to the elimination of unnecessary and unwanted smoke removal systems.

COMMITTEE ACTION: Motion to Approve and Seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
DA	AP	DA	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved by vote of 8-2

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-051

COMMITTEE: IBC General

CODE SECTION: 419.5

PROPONENT: Stephen DiGiovanni, Fire Code Committee

PROPOSAL: *Amend Section 419.5*

REVISE AS FOLLOWS:

[F] 419.5 Fire protection. The *live/work unit* shall be provided with a monitored *fire alarm* system where required by Section 907.2.9 and an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 ~~903.2.8~~.

JUSTIFICATION:
There is concern with the type of work that could occur in these facilities. There are no limitations in code that could restrict certain activities, such as welding, furniture sales, or woodworking. Further, there is no restriction from whether public are permitted in the space, nor restrictions on combustible stock. The code reference leaves the type of required system up to debate. 13D systems are only permitted for single and two-family dwellings, while larger commercial residential facilities utilize either NFPA 13R or NFPA 13. This amendment clarifies which NFPA code to use, within the scope of those codes as adopted by the Fire Code. This amendment is intended for code correlation between the Building Code and Fire Code, and provides consistency in regional interpretation and application of the codes.

COST IMPACT:

None, scope already defined by Fire Code, NFPA 13, NFPA 13R, and NFPA 13D.

COMMITTEE ACTION: Motion to approve and seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP	N/A	AP	AP	AP	DA	AP	DA

RESULT: Approved by a vote of 8-2.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-052

COMMITTEE: General

CODE SECTION: 1016.4

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Add new Section 1016.4*

REVISE AS FOLLOWS:

1016.4 Corridor increases. The travel distances specified in Table 1016.2 may be increased up to an additional 100 feet (30 480 mm) provided that the last portion of *exit access* leading to the *exit* occurs within a minimum one-hour *fire-resistance rated corridor*. The length of such *corridor* shall not be less than the amount of increase taken, in feet (mm).

JUSTIFICATION:

Many of the occupancies within the Southern Nevada jurisdictions have significant footprints where the travel distances outlined in Table 1016.2 will be difficult to meet without some increases allowed, such as the corridor increase. This applies to both new and existing facilities. Many of the existing facilities have used the corridor increases to provide adequate travel distances, and based on the types of projects being presented to designers today, it is likely that these corridor increases will be useful in meeting exiting requirements. For new work in existing buildings, travel distances may no longer comply if the travel distances are reduced from what has been allowed in the past. This proposal would provide a design option to both new and existing buildings in order to allow exiting to meet code.

Adding a maximum 100 foot increase to the travel distances outlined in Table 1016.2 would apply to those corridors constructed with a minimum one-hour fire resistance rating, including corridors in Group R occupancies that are required to be a minimum of 30-minutes. Many of the occupancies that this amendment would benefit are allowed to have a non-fire resistive rated corridor under the sprinkler system provisions of Table 1018.1. The provisions for corridor increases would only apply if the corridor is provided with a minimum one-hour fire-resistive rating thereby providing a greater level of protection than allowed by code.

This amendment is not less restrictive than the State code as added protection is provided to the exit route if the 100 foot travel distance increase is applied. While the travel distance is extended beyond the State code requirements, that increase is offset

by the increase in the level of protection of the corridor thereby providing an alternative approach without conflicting with State code requirements.

This proposal is consistent with the Southern Nevada amendments to Sections 1016.4 and 1016.3 of the 2006 and 2009 editions of the IBC, respectively, and Section 1004.2.4.3 of the 2000 IBC. Please note that the wording of the proposed amendment is essentially based on Section 1004.2.5.2.3 of the 1997 edition of the Uniform Building Code (UBC).

The proposed amendment satisfies the SNBO Criteria for Code Amendments because it is required to address special use and occupancy and to address unique designs or systems not anticipated by the codes (e.g., large footprint resorts).

COST IMPACT:

This amendment will not increase the cost of construction.

COMMITTEE ACTION: Motion to approve as submitted and seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP	N/A	AP	AP	AP	AP	AP	AP

RESULT: Approved by a vote of 10-0.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-054(R1)

COMMITTEE: General Committee

CODE SECTION: 1015.2.2

PROPONENT: Stephen DiGiovanni, Fire Code Committee

PROPOSAL: *Amend Section 1015.2.2*

REVISE AS FOLLOWS:

1015.2.2 Three or more exits or exit access doorways. Where access to three or more *exits* is required, at least two *exit* doors or *exit access doorways* shall be arranged in accordance with the provisions of Section 1015.2.1. Additional *exits* or *exit access doorways* shall be distributed so that if one becomes blocked, the others will be available.

JUSTIFICATION:

This amendment is needed to address the uses in the convention and hospitality industry, with our large amount of shows and special events that occur. The purpose of this amendment is to achieve distribution of required exits to that a single event does not disturb a majority of exits. Further, distribution of exits makes future use of exhibition and convention space easier to approve, a most facilities tend to block exits that are not needed for the specific event. Distribution of building exits will make application of Fire Code requirements easier.

COST IMPACT:

None, exit doors are the same as previously required.

COMMITTEE ACTION: The original amendment proposal required a "uniform" distribution of exits. The proponent modified the amendment to match the 2009 Southern Nevada amendment language. The opponent to this amendment discussed the enforceability of this amendment since there is no minimum distance or a percentage of diagonal distance required in 1015.2.1. It could be argued that any distance could comply or not comply. It was also noted that the 2000 IBC had similar language, with a minimum dimension of 10 feet. Another comment suggested that in assembly occupancies this is already required in another provision of the code. Generally, the code requires this type of exiting system. There was not support by the committee for a minimum dimension. The committee agreed that the proponent should provide addition

documentation that the amendment meets the SNBO criteria for amendments. The amendment was motioned for approval as submitted and seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	DA	AP	AP		DA	AP	AP	DA	AP	DA

RESULT: Approved by vote 6-4

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-055(R1)

COMMITTEE: General

CODE SECTION: 1022.4

PROPONENT: Jim Gerren, Clark County & Jeff Grove, RJA

PROPOSAL: *Amend Section 1022.4*

REVISE AS FOLLOWS:

1022.4 Openings. *Interior exit stairway* and *ramp* opening protectives shall be in accordance with the requirements of Section 716.

Openings in *interior exit stairways* and *ramps* other than unprotected exterior openings shall be limited to those necessary for *exit access* to the enclosure from normally occupied spaces and for egress from the enclosure.

Elevators shall not open into *interior exit stairways* and *ramps*.

Exceptions:

1. In buildings required to comply with Section 403 or 405, each of the *interior exit stairways* serving a *story* with a floor surface located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access or more than 30 feet (9144 mm) below the finished floor of the lowest level of exit discharge, and accessed by way of a vestibule in accordance with Section 909.20.4 for the stairway and vestibule pressurization alternative are permitted to provide a second vestibule providing access into the required vestibule for areas considered normally non-occupied spaces. The second vestibule is required to be constructed in accordance with Section 909.20 and provided with automatic-closing opening protection in accordance with Section 716. Smoke detection connected to the building fire alarm system shall be provided within the second vestibule.

2. In buildings required to comply with Section 403 or 405, each of the *interior exit stairways* serving a *story* with a floor surface located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access or more than 30 feet (9144 mm) below the finished floor of the lowest level of exit discharge, and designed in accordance with Section 909.20.5 (stair pressurization alternative) are permitted to provide a vestibule providing access into the interior exit stairway for areas

considered normally non-occupied spaces. The vestibule is required to be constructed in accordance with Section 909.20 and provided with automatic-closing opening protection in accordance with Section 716. Smoke detection connected to the building fire alarm system shall be provided within the vestibule.

3. In buildings not required to comply with Sections 403 or 405, each of the *interior exit stairways* are permitted to provide a vestibule between the floor and the *interior exit stairway* for areas considered normally non-occupied spaces. The vestibule is required to be constructed in accordance with Section 909.20 and provided with automatic-closing opening protection in accordance with Section 716. Smoke detection shall be provided within the vestibule. Where a building fire alarm system is provided, the vestibule smoke detector(s) shall be connected to the building fire alarm system.

JUSTIFICATION:

Exit enclosures are intended to provide a high level of safety to occupants exiting from a building or portion of a building. The Code intends that these enclosures be protected in a manner so as not to impact this level of safety. As such, occupants are considered safe from surrounding areas of the building once they have reached an exit. Exit enclosures have a higher level of fire-resistance separation than most adjacent building spaces and openings are limited to those required for exiting. Section 1022.4 limits the types of openings to "those necessary for exit access to the enclosure from normally occupied spaces and for egress from the enclosure." This limitation is intended to prevent normally non-occupied spaces from having openings directly onto the enclosure where a fire could develop undetected and thus impact the exit enclosure. If a fire occurred within a non-occupied space and was allowed to open directly onto an exit enclosure, opening of the door under the fire condition could impact the integrity of the exit. By providing a second vestibule, as herein proposed, protection of the integrity of the exit enclosure is provided.

In Southern Nevada, many of the large-scale projects are provided with entire floor levels or areas dedicated to mechanical and electrical equipment. These areas are required by Code to be provided with a means of egress but are not permitted to open directly onto an exit enclosure. To allow the use of a second vestibule as a protected entry point into the smokeproof enclosure / exit enclosure would simplify the design and review process for facilities in Southern Nevada. This amendment would also allow a more uniform interpretation and accepted design practice.

This amendment is warranted based on the fact that Southern Nevada has a large number of high-rise buildings with multiple uses and those uses require a multitude of mechanical and electrical services. With a premium on building space, utilizing an entire area for mechanical / electrical use to provide services throughout the building / facility is often incorporated by the Owner's or operators of a facility.

The proposed amendment satisfies the SNBO Criteria for Code Amendments because it is required to address unique designs or systems not anticipated by the codes (e.g.,

large high-rise buildings with entire mechanical levels that are normally non-occupied) and to provide for consistency in regional interpretation and application of the codes.

COST IMPACT:

This proposal may increase the cost of construction. However, this proposal provides a means for designers to continue with the current design practice of providing entire mechanical levels that are normally unoccupied without requiring special approval through the alternate materials and methods process. In the end, the cost of construction may actually be unaffected since the additional construction required by the option presented in this proposal would likely be required by the building official as part of any alternate materials and methods request. As such, this proposal may actually reduce the overall costs by reducing design costs.

COMMITTEE ACTION: The uniqueness and cost of the construction in Southern Nevada drive alternate design requirements that meet safety considerations and allow for modifications to strict code requirements. It was noted that during the busy years, jurisdictions would consider numerous Alternate Methods and Materials designs employing these requirements. This amendment was motioned as approved as modified and seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
	AP		AP		AP	AP	AP	AP	AP	AP

RESULT: Approved by Vote of 8-0.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-057

COMMITTEE: General

CODE SECTION: Section 1028.6.2.3

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Amend Section 1028.6.2.3*

REVISE AS FOLLOWS:

1028.6.2.3 Automatic sprinklers. Enclosed areas with walls and ceilings in buildings or structures containing *smoke-protected assembly seating* shall be protected with an *approved automatic sprinkler system* in accordance with Section 903.3.1.1.

Exceptions~~:~~

~~1. The floor area used for contests, performances or entertainment provided the roof construction is more than 50 feet (15 240 mm) above the floor level and the use is restricted to low fire hazard uses.~~
~~2. Press boxes and storage facilities less than 1,000 square feet (93 m^2) in area.~~
~~3.~~ Outdoor seating facilities where seating and the *means of egress* in the seating area are essentially open to the outside.

JUSTIFICATION:

Exception Nos. 1 and 2 to Section 1028.6.2.3 are not necessary and would result in partially sprinklered buildings, which is not consistent with the high level of protection that Southern Nevada has traditionally prescribed for buildings or portions of buildings containing large assembly uses.

There is substantial evidence that automatic sprinkler systems, in the correct configuration, are effective at heights exceeding 55 feet (related to atriums), let alone 50 feet. There is no technical justification for the omission of sprinklers allowed by Exception No. 1.

NFPA 13 (2010), Section 8.1.1(1) requires sprinklers throughout the premises. Under certain conditions, NFPA 13 permits the omission of sprinklers in certain areas and spaces within a building (see Section 8.15 “Special Situations”). However, NFPA 13 does not permit the omission of sprinklers above a floor area used for contests,

performances or entertainment just because the roof construction is more than 55 feet above the floor, nor does NFPA 13 permit the omission of sprinklers in press boxes and storage facilities less than 1,000 square feet in area. If the building is required to be sprinklered throughout, and NFPA 13 does not permit the omission of sprinkler in the locations listed in Exception Nos. 1 and 2, then Exception Nos. 1 and 2 should be deleted for code/standard consistency.

For special circumstances where sprinkler ineffectiveness can be sufficiently demonstrated, the designers can still propose the omission of sprinklers at the ceiling of a tall (> 50 feet) assembly seating space under the Alternate Method process. However, by deleting Exception No. 1, the designers will be required to address each project on a case-by-case basis, which is not unreasonable. Entirely removing automatic sprinkler protection from any room should be carefully considered prior to having a blanket allowance such as is provided in Exception Nos. 1 and 2.

Exception No. 3, which permits the omission of sprinklers in outdoor seating facilities where the seating and the means of egress in the seating area are essentially open to the outside, is proposed to remain but be renumbered accordingly.

The proposed amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (NFPA 13).

COST IMPACT:

The proposed amendment will not increase the cost of construction because NFPA 13 would still require sprinkler protection of the areas addressed in Exception Nos. 1 and 2.

COMMITTEE ACTION: The committee was mildly concerned about open seating area such as press boxes that remain open to the atmosphere during the event. Such a facility could be a high-school football stadium. The open press box, normally small, has a large opening to the field side that is open during the event. These press boxes may present a code challenge to designs and/or the jurisdictions. The motion was approved and seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	DA	AP	AP

RESULT: The amendment was approved by the committee with 9-1 vote.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-058

COMMITTEE: General

CODE SECTION: 1203.1

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Amend Section 1203.1*

REVISE AS FOLLOWS:

1203.1 General. Buildings shall be provided with natural ventilation in accordance with Section 1203.4, or mechanical ventilation in accordance with the *International Mechanical Code* or Section 1203.6.

Where the air infiltration rate in a *dwelling unit* is less than 5 air changes per hour when tested with a blower door at a pressure 0.2 inch w.c. (50 Pa) in accordance with Section 402.4.1.2 of the *International Energy Conservation Code*, the *dwelling unit* shall be ventilated by mechanical means in accordance with Section 403 of the *International Mechanical Code*.

JUSTIFICATION:

This amendment is proposed at the request of the Plumbing & Mechanical Committee, which has also requested that the General Committee carryover the current Southern Nevada amendment to Section 1203.6 of the 2009 IBC. The new Section 1203.6 provides alternative ventilation design criteria for specific occupancies. The intent of this amendment and the new Section 1203.6 is to give the designers alternative design options for specific occupancies. It will be the designer's option to comply with the ventilation requirements in new Section 1203.6 or follow the ventilation requirements in the 2012 Uniform Mechanical Code. This proposed amendment simply provides a pointer to the new Section 1203.6, which, as stated previously, will carryover the current Southern Nevada amendments to the 2009 IBC Section 1202.6.

COST IMPACT: None.

COMMITTEE ACTION: The majority of the General Committee believes that this amendment and the following amendments on the same subject should be located in the Mechanical Code not the Building Code. This amendment allows a designer's option of

either 1203.6 of this code (amended) or the Mechanical Code. It was noted that a minor typographical error existing in the second paragraph. This was noted and modified. Motion to Approve as Amended:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	DA	AP	AP

RESULT: Tabled (7/10/12); Approved as modified (7/24/12)

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-060

COMMITTEE: General

CODE SECTION: 1203.4.1

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Add new Sections 1203.4.1.3, 1203.4.1.4, and 1203.4.1.5*

REVISE AS FOLLOWS:

1203.4.1.3 Guest rooms and habitable rooms. Guest rooms and habitable rooms within a dwelling unit or congregate residence in R occupancies, when provided with natural ventilation by means of openable exterior openings, shall be provided with a minimum ventilation area of 5 square feet (0.46 m^2).

1203.4.1.4 Bathrooms, water closets, laundry rooms and similar rooms in R occupancies. Bathrooms, water closet compartments, laundry rooms and similar rooms in R occupancies, when provided with natural ventilation by means of openable exterior openings, shall be provided with a minimum ventilation area of 1.5 square feet (0.14 m^2).

1203.4.1.5 Toilet rooms. Toilet rooms, when provided with natural ventilation by means of openable exterior openings, shall be provided with a minimum ventilation area of 3 square feet (0.28 m^2), or a vertical duct not less than 100 square inches (64 516 mm^2) in area for the first water closet plus 50 square inches (32 258 mm^2) of additional area for each additional water closet.

JUSTIFICATION:

The proposed amendment is required for code correlation, and was submitted at the request of the Plumbing & Mechanical Committee. The proposed new sections, which are carried over from the current Southern Nevada amendments to Sections 1203.4.1.3, 1203.4.1.4, and 1203.4.1.5 of the 2009 IBC, are necessary to ensure minimum natural ventilation areas for specific occupied spaces. Further, the proposed minimum natural ventilation areas for these specific occupied areas play an essential and important public health role. The technical requirements contained in these proposed new sections are essentially taken from 1997 UBC Sections 1202.2.1 and 1203.3.

COST IMPACT: None.

COMMITTEE ACTION: The majority of the General Committee believes that this amendment should be located in the Mechanical Code not the Building Code. Motion to Approve as submitted and seconded.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	DA	AP	AP

RESULT: Tabled (7/10/12); Approved (7/24/12)

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-061

COMMITTEE: General

CODE SECTION: 1203.4.2.1

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Delete Section 1203.4.2.1*

REVISE AS FOLLOWS:

~~**1203.4.2.1 Bathrooms.** Rooms containing bathtubs, showers, spas and similar bathing fixtures shall be mechanically ventilated in accordance with the *International Mechanical Code*.~~

JUSTIFICATION:

The proposed amendment is required for code correlation, and was submitted at the request of the Plumbing & Mechanical Committee. The proposed deletion of Section 1203.4.2.1 is necessary because the proposed amendments to Sections 1203.4.1.4, 1203.6.1, and 1203.6.4, which were all submitted at the request of the Plumbing and Mechanical Committee, provide natural and mechanical ventilation options for bathrooms, whereas IBC Section 1203.4.2.1 would mandate mechanical ventilation only for bathrooms.

COST IMPACT: None.

COMMITTEE ACTION: The majority of the General Committee believes that this amendment should be located in the Mechanical Code not the Building Code. Motion to approve as submitted and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	DA	AP	AP

RESULT: Tabled (7/10/12); Approved (7/24/12)

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-062(R1)

COMMITTEE: General

CODE SECTION: 1203.6 (new)

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Add new Sections 1203.6 through 1203.6.5.2*

REVISE AS FOLLOWS:

1203.6 Mechanical ventilation. Mechanically operated ventilation systems shall be in accordance with the *International Mechanical Code* or Sections 1203.6.1 through 1203.6.5.

1203.6.1 General. In all enclosed portions of Groups A, B, E, F, H, I, M and S Occupancies customarily occupied by human beings, when mechanically operated ventilation systems are provided in lieu of required exterior openings for natural ventilation, such system shall be capable of supplying a minimum of 15 cubic feet per minute (7 L/s) of outside air per occupant in all portions of the building during such time as the building is occupied. If the velocity of the air at a register exceeds 10 feet per second (3 m/s), the register shall be placed more than 8 feet (2438 mm) above the floor directly beneath. Such exterior openings shall open directly onto a public way or a yard or court as set forth in Section 1206.

In toilet rooms, if mechanically operated systems are to be utilized for required ventilation, such systems shall be capable of providing a complete change of air every 15 minutes. Such mechanically operated exhaust systems shall be connected directly to the outside, and the point of discharge shall be at least 3 feet (914 mm) from any opening that allows air entry into occupied portions of the building.

1203.6.2 Groups B, F, M and S Occupancies. In all buildings classified as Groups B, F, M and S Occupancies or portions thereof where Class I, II or III-A liquids are used, a mechanically operated exhaust ventilation system shall be provided sufficient to produce a minimum of six air changes per hour. Such exhaust ventilation shall be taken from a point at or near the floor level.

1203.6.3 Group H Occupancies. All Group H Occupancies shall comply with the *International Fire Code*, *International Mechanical Code* and Section 415. In Group H, Division 5 Occupancies, mechanical exhaust ventilation shall be provided in accordance with 415.10.1.6, 415.10.3.2, 415.10.5.8, 415.10.10.2 and other

appropriate Sections of this code. Rooms, areas or spaces of Group H Occupancies in which explosive, corrosive, combustible, flammable or highly toxic dusts, mists, fumes, vapors or gases are or may be emitted due to the processing, use, handling or storage of materials shall be mechanically ventilated as required by Section 414.3, the *International Fire Code*, and the *International Mechanical Code*.

1203.6.4 Group R Occupancies. In Group R Occupancies, in lieu of required exterior openings for natural ventilation, a mechanically operated ventilation system may be provided. Such system shall be capable of providing two air changes per hour in guest rooms, dormitories, habitable rooms and in public corridors with a minimum of 15 cubic feet per minute (7 L/s) of outside air per occupant during such time as the building is occupied.

In lieu of required exterior openings for natural ventilation in bathrooms containing a bathtub, shower or combination thereof, laundry rooms, and similar rooms, a mechanically operated ventilation system capable of providing a minimum of five air changes per hour shall be provided. Such systems shall be connected directly to the outside, and the point of discharge shall be at least 3 feet (914 mm) from any opening that allows air entry into occupied portions of the building. Bathrooms that contain only a water closet, lavatory or combination thereof and similar rooms may be ventilated with an approved mechanical re-circulating fan or similar device designed to remove odors from the air.

1203.6.5 Motor Vehicle Related Occupancies

1203.6.5.1 Repair garages. Ventilation in repair garages shall be in accordance with Section 406.6.3.

1203.6.5.2 Enclosed parking garages. Ventilation in enclosed parking garages shall be in accordance with Section 406.4.2.

JUSTIFICATION:

This amendment is proposed at the request of the Plumbing & Mechanical Committee. The proposed new Section 1203.6 provides alternative ventilation design criteria for specific occupancies. The intent of this amendment is to give the designers alternative design options for specific occupancies. It will be the designer's option to comply with the ventilation requirements in new Section 1203.6 or follow the ventilation requirements in the 2012 Uniform Mechanical Code.

The technical requirements proposed in this amendment are carried over from the current Southern Nevada amendments to Section 1203.6 of the 2009 IBC. These requirements are essentially based on Section 1202.2 from the 1997 edition of the Uniform Building Code (UBC).

COST IMPACT: None.

COMMITTEE ACTION: The majority of the Architectural Committee believes that this amendment, amendments GC12-058, GC12-060, and GC12-061 should be located in the Mechanical Code not the Building Code. This code section contains specific design provisions that should be reviewed by the mechanical committee and mechanical engineers. The committee had very little experience as it pertains to these design applications. Considerable time was spent considering section 1203.6.2. This section addresses ventilation requirements for specific occupancies where Type I, II, IIIA liquids are being used. This may be inconsistent with either the fire or mechanical codes. The other issue with this section is there was no lower bound for the amount of liquid being used. Strictly written, a capful of the liquid being used would require the additional ventilation requirements outlined in 1203.6.2; this seemed overly restrictive. It was finally noted that the Plumbing and Mechanical Committee requested the Architectural Committee review these amendments. It was understood that the Plumbing and Mechanical Committee has been forwarding the 1997 UBC requirements to the Architectural Committee since 2000. It was assumed the Plumbing and Mechanical Committee was satisfied with the language and there were no known conflicts. Motion to Approve as Submitted

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	DA	AP	AP

RESULT: Tabled (7/10/12); Approved (7/24/12)

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-063(R1)

COMMITTEE: General

CODE SECTION: 1006.3

PROPONENT: Steve Cullen, City of Henderson

PROPOSAL: *Amend Section 1006.3*

REVISE AS FOLLOWS:

Amend Section 1006.3 to read as follows:

1006.3 Emergency power for illumination. The power supply for *means of egress* illumination shall normally be provided by the premises' electrical supply.

In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:

1. *Aisles* and unenclosed egress stairways in rooms and spaces that require two or more *means of egress*.

2. *Corridors*, interior exit stairways and *ramps* and *exit passageways* in buildings required to have two or more *exits*.

3. Exterior egress components at other than their levels of *exit discharge* until *exit discharge* is accomplished for buildings required to have two or more *exits*.

4. Interior *exit discharge* elements, as permitted in Section 1027.1, in buildings required to have two or more *exits*.

5. Exterior landings as required by Section 1008.1.6 for *exit discharge* doorways in buildings required to have two or more *exits*.

6. Electrical equipment rooms, fire command centers, fire pump rooms and generator rooms.

7. Public restrooms that are greater than 64 square feet (5.9 square meters) and accessed by *means of egress* components that are required to have emergency illumination.

The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site

generator. The installation of the emergency power system shall be in accordance with Section 2702.

JUSTIFICATION:

Item 6 is included in the wording of the proposed amendment; however, it was previously approved by the General Committee as GC12-045.

Item 7 requires emergency lighting in public restrooms designed for two or more users. The casinos of Southern Nevada are unique in their design as they have become quite large with very large restroom facilities that were not anticipated by the code. These restroom designs have many doors (stalls), twists and turns. By requiring emergency lighting in all but single user restrooms, anyone required to evacuate will encounter minimal doors, obstructions, screen walls and other disorienting objects in the dark. This amendment will create uniform application of emergency lighting in restrooms.

These changes have been in the local amendments for some time. Item 6 has been accepted as a change to the 2015 IBC; Item 7 has also been accepted to be in the 2015 IBC with a threshold of 300 SF rather than "single user". A restroom of 300 SF could easily be designed for as many as 6 water closets and 3 lavatories. A restroom of this size could easily become disorienting to occupants, especially in busy conditions. Southern Nevada's economy is based on visitors not having a bad experience.

COST IMPACT: There is a cost increase over base code as additional emergency lighting will be required; however, as it is carried over from numerous previous code adoptions, the amendment is cost neutral compared to previous codes.

COMMITTEE ACTION: The proponent originally proposed an amendment that required emergency lighting in public restrooms designed for more than a single user. Upon discussion by the committee, the current version from the 2009 amendments was deemed preferable to the version currently approved for the 2015 (restrooms greater than 300 square feet) or the requirement for emergency illumination in a public restroom designed for "more than a single user". The proposal was modified to match the existing language in the 2009 Southern Nevada amendments. Motion to approve as modified and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: GC12-063 was approved as modified by a vote 10-0.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-064(R1)

COMMITTEE: General

CODE SECTION: Table 2902.1

PROPONENT: Greg Shino, JBA

PROPOSAL: *Amend Table 2902.1 to include a new row for Casinos (Group A-2):*

REVISE AS FOLLOWS:

No.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAINS	OTHER
				MALE	FEMALE	MALE	FEMALE			
1	Assembly	A-2[d]	Casinos	1:1-100	3:1-50	1:1-200		-	-	1 service sink
				---	4:51-100	2:201-400				
				2:101-200	6:101-200	3:401-750				
				3:201-400	8:201-400	Over 750, add one fixture for each additional 500 persons.				
				Over 400, add one fixture each additional 250 males, and one for each 150 females.						

Remaining portion of the table remains including the footnotes.

JUSTIFICATION:

This proposed amendment is being carried forward from the 2006 and 2009 Code Adoption processes.

The IBC Plumbing Fixture Count Table does not take into account many of the unique features that a tourist region such as Las Vegas affords. By adopting IBC Table 2902.1 directly, the minimum number of fixtures required will increase as much as 200% or more depending on interpretation. Specifically, for a 30,000-ft^2 Casino, IBC Table 2902.1 would require 152% of the number of fixtures that are currently required *if* Casinos are tabulated as large assembly space. As a restaurant or nightclub, IBC Table 2902.1 would require 238% of the number of fixtures required by SNBC Table 2902.1.

There has been no history in the Las Vegas Valley of long lines at Casino restrooms. Casinos represent a unique place where restaurants, gaming, retail and shows are combined into one expansive building. However, even with large crowds on gaming floors, restroom facilities are not so overcrowded as to produce long lines.

The basis for the fixture count is a combination of the 2012 UPC and the existing 2009 SNBC. Since both of these versions reference occupant load factors (OLF) other than the means of egress (OLF), it is more appropriate to adjust the numbers relative to the OLF. Specifically, both the 2009 SNBC and the 2012 UPC reference an OLF of 1/15. The 2012 IBC references 1/11 for casinos. The difference creates a 36% percent increase in the number of occupants required for fixture count. The proposed modification takes into account the 36% increase in occupant load by reducing the fixture count factor. The 2012 UPC also references urinals in addition to water closets. Since the 2012 IBC does not contain particulars related to urinals, the water closets have been increased to adjust.

The format is a departure from the 2012 IBC since smaller buildings have less restrictive requirements. For example, 10,000-ft^2 casinos require fewer fixtures in the 2012 IBC than they would in the larger 100,000-ft^2 casinos. Also, as the floor area increases, the number of fixtures increases modestly above what was originally required by the 2000 SNBC and will remain consistent with what was adopted to the 2006 and 2009 SNBC.

COST IMPACT: None

COMMITTEE ACTION: This amendment is consistent with previous amendments issued by SNBO. The unique nature of the casino properties in the Las Vegas valley justifies the reduced bathroom to occupant ratios. It was clarified by the committee that the remaining portions of the table and the footnotes still apply. A note was added during the committee discussion. Motion to Approved and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved by vote 10-0

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-065

COMMITTEE: General

CODE SECTION: Table 2902.1

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Revise Table 2902.1*

REVISE 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 (URINALS[h] ~~SEE SECTION 419.2 OF THE *INTERNATIONAL PLUMBING CODE*~~)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAINS[e,f,g] ~~(SEE SECTION 410.1 OF THE *INTERNATIONAL PLUMBING CODE*~~)	OTHER[f]
				MALE	FEMALE	MALE	FEMALE			
Row No. 1 to remain unchanged.										
2	Business	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	1 service sink[g]
Row Nos. 3, 4, and 5 to remain unchanged.										
6	Mercantile	M	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 per 750		-	1 per 1,000	1 service sink[g]
Row Nos. 7 and 8 to remain unchanged.										

a. The fixtures 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 care patients.
c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient sleeping units shall be permitted where such room is provided with direct access from each patient sleeping unit 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. The minimum number of required drinking fountains shall comply with Table 2902.1 and Chapter 11.
f. Drinking fountains and service sinks are not required for an occupant load of 50 ~~15~~ or fewer.
~~g. For business and mercantile occupancies with an occupant load of 15 or fewer, service sinks shall not be required.~~
g. Where water is served in restaurants, drinking fountains shall not be required. In other occupancies, where drinking fountains are required, water coolers or bottled water dispensers that provide water to occupants free of charge shall be permitted to be substituted for not more than 50 percent of the required drinking fountains.
h. 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*.

JUSTIFICATION:

This proposal is intended to accomplish the following:

- Provide correlation with the 2012 Uniform Plumbing Code (UPC), which is to be adopted and amended in lieu of the 2012 *International Plumbing Code* (IPC).
- Provide correlation with the 2012 IPC by incorporating provisions from the 2012 IPC directly into IBC Table 2902.1.
- Provide for consistency in regional interpretation and application of the codes.
- Provide relief to the Southern Nevada business community from potentially punitive drinking fountain and service sink requirements.

The "Water Closets" heading in IBC Table 2902.1 explicitly references *International Plumbing Code* (IPC) Section 419.2, which allows for urinals to be substituted for water closets. However, since the IPC is not adopted, the urinal substitution intended by IBC Table 2902.1 is not accounted for. This proposal to delete the reference to IPC Section 419.2 from the "Water Closets" heading in IBC Table 2902.1 will resolve this code correlation issue because the proposed new footnote h incorporates verbatim the language from IPC Section 419.2.

The "Drinking Fountain" heading in IBC Table 2902.1 directly references *International Plumbing Code* (IPC) Section 410.1, which allows (a) the omission of drinking fountains in restaurants where water is served, and (b) water coolers or bottled water dispensers to be substituted for not more than 50 percent of the required drinking fountains in other occupancies where drinking fountains are required. However, since the IPC is not adopted in Southern Nevada, these alternative allowances to drinking fountains are not accounted for. This proposal to delete the reference to IPC Section 410.1 from the "Drinking Fountain" heading in IBC Table 2902.1 will resolve this code correlation issue because the proposed new footnote g, incorporates the language from IPC Section 410.1. The only proposed modification to the language from IPC Section 410.1 is the addition of the phrase "that provide water to occupants free of charge", which is intended to clarify that any water coolers or bottled water dispensers that are substituted for required water fountains must provide the water to occupants for free. This clarification is necessary to eliminate the potential for fee-based bottled water vending machines from being substituted for required drinking fountains. Please note that in the Southern Nevada amendments to the 2009 IBC Table 2902.1, footnote g applied to "restaurants and other similar occupancies". This proposal does not carry forward the reference to "other similar occupancies" in response to complaints from designers and code officials about inconsistent interpretations as to what constitutes "other similar occupancies". The national standard that is the basis of this part of the proposed amendment, IPC Section 410.1, only applies to restaurants, so it is reasonable to only reference restaurants in footnote g and leave the interpretation of other similar occupancies to the discretion of the authority having jurisdiction.

The last part of this proposal is to (1) delete the original footnote g and (2) amend footnote f to (a) apply to both drinking fountains *and service sinks* and (b) change the cutoff for the omission of drinking fountains *and service sinks* from a maximum occupant load of 15 to 50 for all occupancies. Original footnote g is new to the 2012 IBC, and it specifically allows the omission of a service sink for business and mercantile occupancies with an occupant load of 15 or fewer. Section 415.2 of the 2012 UPC, which is to be adopted in Southern Nevada in lieu of the IPC (per State Law), permits drinking fountains to be omitted in any occupancy with an occupant load of 30 or less. Further, the 2012 UPC does not require service sinks at all, as Table 422.1 in the 2012 UPC is to be deleted in its entirety by a Southern Nevada amendment that has been approved by the SNBO Mechanical & Plumbing Code Committee. The Southern Nevada amendments to the 2009 edition of the IBC modified Table 2902.1 to permit the omission of drinking fountains and service sinks from any occupancy when the occupant load did not exceed 30. However, comments from industry suggest that an occupant load of 30 is sometimes not even a reasonable (i.e., overly restrictive) cutoff for drinking fountain requirements for certain situations, such as Groups A, B, and M occupancies in existing mixed-use facilities (e.g., strip malls). In addition, the requirement for a service sink for any occupancy, regardless of occupant load, is an unreasonable burden on small tenants. This proposal is intended to provide a reasonable accommodation to the business community without significantly impacting the public.

The Southern Nevada amendments to the 2006 and 2009 editions of the IBC both included an increase in the occupant load cutoff for the omission of drinking fountains in any occupancy from a maximum occupant load of 15 to 30, which at the time was deemed essential since the existing tenant spaces that were permitted under previous editions of the Southern Nevada codes were based on a drinking fountain cutoff of 30 occupants. This proposal would not create conflicts for existing tenant spaces, and the proposed increase in the occupant load cutoff from a maximum occupant load of 30 to a maximum occupant load of 50 will benefit a significant number of smaller tenant spaces without adversely affecting the occupants (employees or the public). The base IBC would require a tenant improvement to provide at least one service sink in all cases except Group B or M occupancies with occupant loads of 15 or fewer, and at least one drinking fountain in all occupancies when the occupant load exceeds 15. This would result in a severe cost impact for many relatively small tenant improvements or remodel projects. For comparison purposes, the table below presents the maximum area permitted for various occupancies without exceeding the limit for which a drinking fountain or service sink is required. One column of the table shows the results for the base IBC, another column shows the results for the currently adopted and amended 2009 IBC, while the far-right column shows the results for the proposed amendment. Please note that the column that shows the results for the currently adopted/amended 2009 IBC also represents the maximum area permitted by the 2012 UPC for any occupancy without a drinking fountain. The results provided in the table below are based on the occupant load factors from 2012 IBC Table 1004.1.2.

Occupancy	**Occupant Load Factor (OLF) (ft^2/person)**	***Base* 2012 IBC Max. Area Permitted without a Drinking Fountain or Service Sink (OLF x 15)**	***_Amended 2009 IBC_ Max. Area Permitted without a Drinking Fountain or Service Sink**	***Proposed Amended* 2012 IBC Max. Area Permitted without a Drinking Fountain or Service Sink (OLF x 50)**

		(ft²)	(OLF x 30) (ft²)	(ft²)
Assembly (unconcentrated use)	15	225	450	750
Business	100	1500	3000	5000
Educational	20	300	600	1000
Factory/Industrial	100	1500	3000	5000
Institutional areas:				
Inpatient treatment areas	240	3600	7200	12000
Outpatient areas	100	1500	3000	5000
Sleeping areas	120	1800	3600	6000
Mercantile	30	450	900	1500
Residential	200	3000	6000	10000
Storage	200	3000	6000	10000

* This column also represents the maximum area permitted by the 2012 UPC for any occupancy without a drinking fountain.

COST IMPACT: This proposal will reduce the cost of construction.

COMMITTEE ACTION: This amendment allows for specific issues identified in the IPC that are not addressed in the UPC. A review the drinking fountain issue discovered no discernable reason why the code requires fountains at an occupant load greater than 15. The limit of 50 is greater than previous editions; however, the proponent showed a nominal difference in building size if this amendment were approved. Motion to Approved and Seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved by a vote 10-0.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-066

COMMITTEE: General

CODE SECTION: 2902.2

PROPONENT: Jim Gerren, Clark County

PROPOSAL: Amend Section 2902.2

REVISE AS FOLLOWS:

[P] 2902.2 Separate Facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

1. Separate facilities shall not be required for *dwelling units* and *sleeping units*.
2. Separate facilities shall not be required in structures or tenant spaces with a total *occupant load*, including both employees and customers, of 30 ~~15~~ or less.
3. Separate facilities shall not be required in Group M ~~mercantile~~ occupancies in which the maximum occupant load is 100 or less.
4. Separate facilities shall not be required in Group B occupancies in which the maximum occupant load is 50 or less provided a single toilet facility is designed for use by no more than one person at a time.

JUSTIFICATION:
IBC Section 2902.2 requires that separate facilities be provided for males and females when plumbing fixtures are required by IBC Table 2902.2. Exception No. 2 to IBC Section 2902.2 allows shared facilities for spaces with a maximum occupant load of 15, while Exception No. 3 allows shared facilities for mercantile (Group M) occupancies with a maximum occupant load of 100. The proposed amendment is to modify Exception No. 2 to raise the minimum occupant load that requires separate facilities for males and females from 15 to 30, and to add a new Exception No. 4 to allow a single toilet facility for business (Group B) occupancies with a maximum occupant load of 50. The intent of this amendment is to provide potentially significant economic relief to small business owners (of various occupancies).
The following table identifies the occupant load factors for various occupancies based on IBC Table 1004.1.2 and shows the maximum area that would be allowed for each occupancy in order to avoid providing separate facilities. The table also shows the maximum area that the proposed amendment would allow for each occupancy in order to avoid providing separate facilities. The table does not include Group M (mercantile) occupancies because Exception No. 3 to IBC Section 2902.2 already allows Group M

occupancies to have an occupant load up to 100 (3000 ft^2) before separate facilities are required.

Occupancy	**Occupant Load Factor (OLF) (ft^2/person)**	***Base* 2012 IBC Max. Area Permitted without Separate Facilities (OLF x 15) (ft^2)**	***Proposed Amended 2012 IBC* Max. Area Permitted without Separate Facilities (OLF x 30) (ft^2)**
Assembly (unconcentrated use)	15	225	450
Business	100	1500	5000[1]
Educational	20	300	600
Factory/Industrial	100	1500	3000
Institutional areas:			
Inpatient treatment areas	240	3600	7200
Outpatient areas	100	1500	3000
Sleeping areas	120	1800	3600
Residential	200	3000	6000
Storage	200	3000	6000
Mixed:[2] Restaurant (70%) Kitchen (30%)	 15 200	312	623
Mixed:[3] Car Repair Shop (80%) Office (20%)	 200 100	2500	5000

[1] Proposed area for Group B occupancies is based on an occupant load of 50 per proposed new Exception No. 4.
[2] [(0.70)(A)/15] + [(0.30)(A)/200] = Limiting Occupant Load.
[3] [(0.80)(A)/200] + [(0.20)(A)/100] = Limiting Occupant Load

For Group B (business) occupancies, please note that Exception No. 3 to Section 422.2 of the 2012 Uniform Plumbing Code (UPC) permits business occupancies with a total occupant load of 50 or less, including customers and employees, to have a single toilet facility provided that it is designed for use by no more than one person at a time. Therefore, a new Exception No. 4 specific to Group B occupancies is proposed for coordination with the 2012 UPC, which is to be adopted by the jurisdictions in Southern Nevada. For all other occupancies besides Group B (proposed Exception No. 4) and Group M (base code Exception No. 3), the proposed amendment would simply double the minimum occupant load cutoff that requires separate facilities from 15 to 30.

In the last row of the table presented above, I've provided two typical mixed use examples. In the first example, a restaurant tenant space is comprised of 70% restaurant dining area and 30% kitchen area. In this example, the base IBC would require separate facilities once the floor area of the space exceeds 312 ft^2 (i.e., the point at which the occupant load exceeds 15). Two accessible single user toilet facilities in a 312 ft^2 restaurant tenant space would occupy approximately 80 ft^2, which represents approximately 26% of the overall area of the tenant space. In the second example, an industrial tenant suite in a "flex" office/warehouse facility is comprised of 80% motor vehicle repair shop (Group S-1) with 20% office area (Group B). In this example, the base IBC would require this industrial tenant suite to have separate facilities for males and females once the overall area of the tenant space exceeds 2500 ft^2. Under the

proposed amendment, this industrial tenant suite example could be up to 5000 ft^2 before the occupant load exceeds 30 and then requires separate facilities.

The IBC Commentary on IBC Section 2902.2 acknowledges that "There is no specific documentation as to why 15 and 100 persons, respectively, were chosen as the thresholds for these exceptions ***other than what is perceived to be reasonable for such small spaces***." A single accessible toilet facility occupies approximately 40 ft^2. Therefore, requiring separate facilities for males and females in small businesses requires the loss of approximately an additional 40 ft^2 of floor area along with the cost of the additional plumbing fixtures and enclosure. Forty square feet represents a significant percentage of the floor area for the minimum size of spaces that require separate facilities per the base IBC Section 2902.2. In light of the current economic conditions in Southern Nevada, the proposed amendment seems much more reasonable for small tenant spaces, and the proposed amendment will have no detrimental impact on life safety of the affected small tenant spaces.

As further demonstration of how interpretive the nature of what is "reasonable" can be, please note that 2009 IBC, Section 2902.2, Exception No. 3 requires separate facilities for mercantile occupancies (Group M) when the occupant load exceeds 50, while 2012 IBC, Section 2902.2, Exception No. 3 has been revised to double the cutoff from an occupant load of 50 to an occupant load of 100. There was no substantial technical validation for the change in Exception No. 3 between the 2009 and 2012 editions. Instead, as noted in the proponent's rationale for Proposal P25-09/10, this change was made to relieve "the undue burden placed on the small retail space having an area in the range of 1500 to 3000 ft^2." In other words, the modification was made due to changing views of what was "reasonable".
The proposed amendment satisfies the SNBO Criteria for Code Amendments because it is required for code correlation (proposed Exception No. 4 to 2012 UPC) and it is necessary to clarify the intent of the codes (i.e., what is "reasonable" for small businesses).

COST IMPACT: This proposed amendment will decrease the cost of construction.

COMMITTEE ACTION: The committee recognized the relief this proposal provides and the discussion was favorable regarding the proposed language. The committee preferred an occupancy group to a description of use (Group B vs. business occupancies and Group M vs. mercantile occupancies). The proposal was amended by the committee with the proponent's acceptance. A motion to approve as modified was made and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-068(R1)

COMMITTEE: IBC General

CODE SECTION: 1008.1.9.11

PROPONENT: Raoul Brown, Steelman Partners

PROPOSAL: *Revise Section 1008.1.9.11*

REVISE AS FOLLOWS:

1008.1.9.11 Stairway doors. Interior *stairway means of egress* doors shall be openable from both sides without the use of a key or special knowledge or effort.

Exceptions:

1. Unchanged
2. Unchanged
3. In *stairways* serving buildings other than *high-rise buildings* ~~not more than four stories~~, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side. Except for exit discharge doors, the *stairway* doors shall be automatically ~~and capable of being~~ unlocked simultaneously without unlatching upon any of the following: a signal from the *fire command center*, if present, or a signal by emergency personnel from ~~a single~~ an approved location inside ~~the main entrance to~~ the building; activation of a *fire alarm system* or a fire sprinkler system in an area served by the stairway; or failure of the power supply.
4. Unchanged
5. Unchanged
6. Upon approval of the *building official*, *stairway* doors opening directly into *sleeping units*, *dwelling units* or tenant spaces are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side. The doors are permitted to unlock without unlatching only upon signal from the *fire command center*, if present, or a signal by emergency personnel from an approved location inside the building.

JUSTIFICATION:

In accordance with NAC 477.283.2(j), the Nevada State Fire Marshal specifically amends Exception No. 3 to Section 1008.1.8.7 of the 2006 IBC to permit stairway doors in non-high-rise buildings (no occupied floors located more than 55 feet above the lowest level of fire department vehicle access) to be locked from the stairway side as long as

such doors are capable of being unlocked simultaneously without unlatching “upon the activation of a fire alarm system or a fire sprinkler system and for a power failure.” During the development of the Southern Nevada amendments to the 2006 IBC, a representative from the SFM’s office attended a General Committee meeting and stated that the SFM wants to prevent cases where occupants and/or firefighters become trapped in stair enclosures. Therefore, the proposed changes to Exception No. 3 are required for compliance with NAC 477.283.2(j).

A similar, but not identical, change was made to Section 403.5.3 for compliance with NAC 477.283.2(b). Section 403.5.3 is referenced by Exception No. 2 to Section 1008.1.9.11. Refer to Amendment No. GC12-037 for the change to Section 403.5.3.

The base code language in Exception No. 3 specifies that when a FCC is not available, a signal from “a single location inside the main entrance to the building” must cause the doors to unlock. The proposed deletion of the reference to a “single” location “inside the main entrance” is necessary to maintain the ability to specify a location other than inside the “main entrance” for situations where other locations are more appropriate. In addition, many of the casino resorts, malls, hospitals and other non-high-rise buildings in Southern Nevada do not have a single main entrance; rather, it is common for these facilities to have several “main” entrances. The proposed language gives the building and fire officials the ability to approve a more appropriate location in the building, and it also helps avoid differences of interpretation of what constitutes “inside the main entrance to the building.”

There is a security and insurance risk for stair doors to unlock automatically upon alarm, when the access door is directly into privately owned residential units, leased or owner tenant spaces. Tenant spaces that have only certain hours of operation and are closed during off hours or owners of residential units that are not always there (e.g., vacation home) are at risk of intentional or unintentional alarms providing free access to their unit / tenant space. Therefore, it is reasonable to allow these types of spaces to utilize only the manual function from Fire Command Center or an approved location inside the building, to unlock the associated doors to their space. In this arrangement, only trained personnel (either fire department or facility personnel) can provide this necessary access. The language in proposed new Exception No. 6 is similar to the language in the SNBC amendment to Exception No. 4 to Section 1008.1.9.10 of the 2009 edition of the IBC. However, this amendment replaces the references to “privately owned residential units or leased tenant spaces” with references to “sleeping units, dwelling units, or tenant spaces”.

This amendment satisfies the SNBO Criteria for Code Amendments because it is required for consistency with State statutes and it is required to address unique designs or systems not anticipated by the code.

COST IMPACT:

This amendment will have minimal, if any, impact on the cost of construction.

COMMITTEE ACTION: Motion and second to Approve as Modified. The committee felt this proposal had merit. However, the committee felt that the original proposal's deletion of base code Exception No. 5 was unnecessary. Therefore, the committee decided to leave base code Exception No. 5 unchanged and added a new Exception No. 6 that would address the issue raised by the proponent. Specifically, new Exception No. 6 revised the language developed by the proponent and made it applicable to sleeping units, dwelling units, or tenant spaces. In Southern Nevada, there are a number of high-end facilities that have residential units or tenant spaces accessed directly from stairways, which creates an obvious security concern. The committee felt that it was reasonable to allow the stairway doors that provide direct access into such spaces to be locked, and that it was also reasonable that such locks only be unlocked upon a signal from the FCC or other approved location.

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP	N/A	AP	AP	AP	AP	AP	AP

RESULT: Approved as modified.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-070(R1)

COMMITTEE: General

CODE SECTION: Section 1011.2

PROPONENT: Raoul Brown Steelman Partners

PROPOSAL: *Revise Section 1011.2*

REVISE AS FOLLOWS:

1011.2 Floor-level exit signs in Group R-1. Where exit signs are required in Group R-1 occupancies by Section 1011.1, additional low-level exit signs shall be provided in all areas serving guestrooms in Group R-1 occupancies and shall comply with Section 1011.5.

The bottom of the sign shall be not less than 10 inches (254 mm) nor more than 18 inches (455mm) ~~12 inches (305 mm)~~ above the floor level. The sign shall be flush mounted to the door or wall. Where mounted on the wall, the edge of the sign shall be within 4 inches (102 mm) of the door frame on the latch side.

JUSTIFICATION:

The base code provides just a 2-inch tolerance for where the bottom of required low-level exit signs must be located. This 2-inch window is often challenging for designers and property owners due to field conditions or desired interior finish and trim. For example, several high-end resort properties have installed 12-inch tall base boards in the exit access corridors of the hotels. The base code requirement that the bottom of the sign be located within 10- to 12-inches above the floor level would create issues for these facilities.

The proposed amendment is to allow the bottom of the required low-level exit signs to be located between 10- and 18-inches of the floor level. The additional 6 inches provides sufficient “wiggle room” for designers and owners. Further, there is no impact on the level of life safety of the occupants of the R-1 occupancies since the low-level exit signs will still be visible below a smoke layer from a fire (in the zone in which the occupants would presumably be crawling).

NFPA 101 (Life Safety Code), Section 7.10.1.6 permits the bottom of low-level exit signs to be installed between 6- and 18-inches above the floor level. Therefore, there is another code standard that allows the bottom of the low-level exit signs to be installed up to 18 inches above the floor level. Although NFPA 101, Section 7.10.1.6 permits the

bottom of low-level exit signs to be as low as 6-inches above the floor level, this proposal does not change the base IBC's requirement that the bottom of the low-level exit signs be within 10-inches above the floor level because ANSI A117.1, Section 404.2.9 requires door surfaces within 10 inches of the floor to be a smooth surface for the full width of the door. There is no reason to have the bottom of low-level exit signs installed on the walls as low as 6 inches above the floor level when a low-level exit sign installed on the door must be at least 10 inches above the floor level in order to comply with ANSI A117.1.

This proposal satisfies the SNBO Criteria for Code Amendments because it is required to address unique designs or systems not anticipated in the code. Further, this proposal provides is consistent with the upper bounds permitted by another national code (NFPA 101 Life Safety Code).

COST IMPACT:

No cost impact.

COMMITTEE ACTION: The original proposal would have mimicked NFPA 101 exactly and allowed the bottom of the low-level exit signs to be installed between 6- and 18-inches above the floor level, which would have also been consistent with the Southern Nevada amendments to the 2009 IBC. The committee was supportive of providing greater "wiggle room" for designers and property owners to account for unique interior finishes and trim, such as 12-inch or taller base boards that are sometimes used at high-end resort hotels. However, the Committee did not want to create conflicts with ANSI A117.1, Section 404.2.9 of which requires door surfaces within 10 inches of the floor to be a smooth surface for the full width of the door. Therefore, at the 8/21/12 meeting the committee modified the proposal to allow the bottom of the exit signs to be installed between 10- and 18-inches above the floor level. **Motion to Approve as Modified and seconded.**

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP	N/A	AP	AP	AP	AP	AP	AP

RESULT: APPROVED AS MODIFIED.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-072(R2)

COMMITTEE: General

CODE SECTION: Section 1015.1

PROPONENT: Raoul Brown, Steelman Partners

PROPOSAL: *Amend Section 1015.1*

REVISE AS FOLLOWS:

1015.1 Exits or exit access doorways from spaces. Two *exits* or *exit access* doorways from any space shall be provided where one of the following conditions exits:

1. The *occupant load* of the space exceeds one of the values in Table 1015.1.

   Exceptions:

   1. In Group R-1, R-2 and R-3 occupancies, one *means of egress* is permitted within and from individual *sleeping units* or *dwelling units* with a maximum occupant load of 20 where the *sleeping unit* or *dwelling unit* is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.

   2. Care suites in Group I-2 occupancies complying with Section 407.4.3.

2. The *common path of egress travel* exceeds one of the limitations of Section 1014.3.

3. Where required by Section 1015.3, 1015.4, 1015.5, or 1015.6.

Where a building contains mixed occupancies, each individual occupancy shall comply with the applicable requirements for that occupancy. Where applicable, cumulative *occupant loads* from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.

JUSTIFICATION:

It is a unique condition of the Southern Nevada area that we have a disproportionate number of large hotel suites. The second exit access doorway requirement has created design issues since the two exits of these suites of rooms must be separated by 1/3 of the diagonal per 1015.2.1 and cannot be accessed through a sleeping room, toilet room, or bathroom, or per Section 1014.2.

The most common configuration for suites in the middle portion of a tower is to have the sleeping rooms in the end bays with the living areas in the center. Since the diagonal measurement is from the sleeping rooms and not the common area it is near impossible to provide the required diagonal separation on a 2000-2500 sf. suite since even exit access doors provided directly from the sleeping rooms cannot be used as the second exit.

Different challenges are encountered at end of tower configurations. The location is desirable due to the increased glazing capability. A typical 80 ft. by 30 ft. end bay would trigger the second exit access doorway requirement but there is limited opportunity to provide the second exit access doors since the space is surrounded by air, and the destination would by necessity be the corridor loading the suite.

Lastly locations at the top of towers restrict mezzanine potential since there is no corridor to allow egress from the mezzanine.

It is the nature of our area that these large suites are more often than not booked by affluent users or provided by the operator for VIP customers. Groups over 20 wanting an entertainment area use the concierge suites that are “A” occupancies and don’t have sleeping rooms.

The 1997 UBC allowed exit access through the IBC restricted areas in dwelling units per 1004.2.2. Thus the diagonal requirement could be met. The various NFPA’s require two exits but are mute on the subject of access through adjoining areas.

This amendment is required to address special uses and occupancies.

COST IMPACT:

No cost impact.

COMMITTEE ACTION:

8/14/12: Tabled at the request of the proponent, who was unable to attend the meeting.

8/21/12: The committee pointed out a few editorial issues, and noted that the original proposal was missing Exception No. 2. The proponent confirmed that those issues were simple oversights. The committee expressed support for the concept of the proposal, but noted that the proponent’s intent was really to address large sleeping units in Group R-1 occupancies, but the proposal does not add Group R-1 occupancies. Also, the committee pointed out that simply adding Group R-1 occupancies and sleeping units to Exception No. 1 would not solve the proponent’s issue because large Group R-1 sleeping units would be required to provide a second means of egress due to the 75-ft. common path of

egress travel requirement for Group R-1 occupancies, as referenced in Section 1015.1, Condition No. 2. In contrast, IBC Table 1014.3 permits a maximum common path of egress travel of 125 feet for fully sprinklered Group R-2 and R-3 occupancies. Based on the committee discussion, the proponent requested that this proposal be tabled to allow the proponent to revise the proposal to address the committee's comments.

9/04/12: The proponent added R1 to the occupancies listed in this code section, it was noted that his is the transient use occupancy that defers from the R2 and R3 applications. Amendment #78 was proposed to address the common path of egress issue. Due to the unique nature of the resort properties in Las Vegas, the committee motioned to approved as submitted and seconded the motion:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved by a vote 10-0.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-074

COMMITTEE: General

CODE SECTION: 3112 (new)

PROPONENT: Virginia Charter, RJA

PROPOSAL: *Add new Section 3112*

REVISE AS FOLLOWS:

SECTION 3112
CABANAS

3112.1 General. This section shall apply to cabanas on, or in close proximity to, buildings where the predominant building construction type would not otherwise allow cabanas to be constructed as membrane structures in accordance with Section 3102.3. Cabanas that are erected for a period of less than 180 days shall comply with the *International Fire Code*.

3112.2 Definitions. The following words and terms shall, for the purposes of this section, have the meanings shown herein:

CABANA. A structure used for temporary shelter, comfort and privacy of occupants located on, or in close proximity to, a building. Cabanas shall not be used for retail sales, bar service, food preparation, storage, or overnight sleeping.

CABANA GROUP. A group of individual cabanas that are not separated from each other as required within this section. The total area of the cabana group shall be used to determine code requirements for all cabanas contained within the cabana group.

3112.3 Design and Construction. Cabanas shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration.

3112.3.1 Frame. Cabanas shall be constructed of a rigid, noncombustible frame that is permanently mounted to the roof or deck on which it is located.

3112.3.2 Membrane Covering. The membrane covering of the cabana shall either be noncombustible in accordance with Section 703.4 or be tested by an approved agency and pass Test 2 of NFPA 701.

3112.3.3 Openness. Each cabana shall be provided with a minimum of one opening to an exterior egress route. Such opening shall provide a minimum unobstructed opening of 5 feet (1524 mm) wide by 7 feet (2134 mm) high.

3112.3.4 Height. The highest point of a cabana shall not exceed 20 feet (4572 mm).

3112.3.5 Area. The area of any single cabana or cabana group shall not exceed 1,000 square feet (46.45 m^2).

Exception: The area of cabanas that are constructed entirely of noncombustible materials shall not exceed 2,000 square feet (92.90 m^2).

3112.3.5.1 Subdivision. Subdivision of a cabana is permitted where subdivision of the cabana is provided by any material that is tested by an approved agency and passes Test 2 of NFPA 701.

3112.4 Location. Cabanas shall be located to minimize the hazard to the building, other cabanas, and the means of egress.

3112.4.1 Separation between cabanas. Cabanas shall be separated from all other cabanas by a minimum distance of 10 feet (3048 mm), as measured at the nearest horizontal projection. Where cabanas do not meet this spacing, the cabanas shall be considered a cabana group, and the cabana group shall meet the requirements set forth herein.

3112.4.2 Separation between cabana groups. Cabana groups shall be separated from all other cabanas by a minimum distance of 10 feet (3048 mm), as measured at the nearest horizontal projection.

3112.4.3 Separation to building. Cabanas shall be a minimum of 10 feet (3048 mm) from any wall or building opening, and shall not be located beneath any horizontal projection of the main building.

3112.4.4 Obstruction to means of egress. Cabanas shall be located and spaced such that the required means of egress is not obstructed by the cabanas for the entire height of the cabanas.

3112.5 Automatic sprinkler system. Cabanas and cabana groups shall be protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

Exception: An automatic sprinkler system shall not be required in cabanas or cabana groups that do not exceed 120 square feet (11.148 m^2) in area.

3112.6 Cooking facilities. Cooking shall not be permitted within 20 feet (6096 mm) of a cabana or inside a cabana.

3112.7 Fuel-fired equipment. Fuel-fired equipment shall not be permitted within 20 feet (6096 mm) of a cabana or inside a cabana.

3112.8 Lighting. All lighting within or attached to cabanas shall be electric. Open flames for any purpose are prohibited within 20 feet (6096 mm) of a cabana or inside a cabana.

3112.9 Fire Protection Report. A Fire Protection Report shall be submitted and shall address the type of construction of the main structure and the cabana(s), the size of the cabana(s), fire protection systems for the cabana(s), and the impact of the cabana(s) on the means of egress.

JUSTIFICATION:
Cabanas are used at hotel, condominium, timeshare, and casino resorts throughout Southern Nevada to provide a means of shade and privacy. In many cases, cabanas are installed on pool/amenity decks located above grade (i.e., on top of a portion of the building). In other cases, cabanas are installed on grade level pool/amenity decks but they are located in close proximity to the main building. The building code does not specifically address cabanas, which, by default, results in a situation where such cabanas must be constructed to meet the requirements for the type of construction of the building. The proposed amendment provides specific requirements that would allow cabanas to be constructed of non-rated and flame-resistant materials even when they are located adjacent to or on top of buildings of fire-resistant construction (i.e., Type I construction). The proposed amendment is necessary to address local climatic conditions (high local temperatures and high level of UV rays) and special uses (cabanas at resorts).

The code does not currently allow the use of combustible materials for the specific purpose of shade in these types of configurations (cabanas on elevated pool/amenity decks). However, there are allowances in the code for the use of similar materials for the purposes of awnings and canopies. Further, although canopies and awnings do not define a use or occupancy, there is no limitation to the coverage area of awnings and canopies, and they are allowed to be attached directly to a building, with no separation requirement from buildings. Review of the proposed code language will show that the cabanas are proposed with a maximum square footage, and with a minimum separation from the building and building openings. It can be argued that the cabanas as described in this section potentially may pose less of a fire hazard to the building than do awnings and canopies.

The proposed amendment requires the cabanas to be constructed of a rigid, noncombustible frame that is permanently mounted to the deck, and permits the membrane fabric to be either noncombustible or flame-resistant per Test 2 of NFPA 701. These requirements are similar to those for membrane structures (Section 3102) and for canopies and awnings (Section 3105). Compared to the requirements for canopy materials (Section 3105.4), the proposed requirements are more restrictive in that only materials that pass Test 2 of NFPA 701 are permitted while canopies are permitted to have materials that pass Test 1 or Test 2 of NFPA 701.
The potential fire hazard associated with cabanas is also limited by the height, area, and openness requirements of the proposed new Section 3111. The proposed maximum height (20 feet) and area (1000 square feet) are consistent with typical cabana designs that have been observed in Southern Nevada. Though the 2006 Code amendments set the restriction to 500-square feet, more recent projects / owners are utilizing larger cabanas that can be subdivided to clientele. However, the additional square footage

does not add to the hazard, as the materials and items contained within cabanas are the same. Subdivision of the cabana by use of an approved NFPA 701 Test 2 material is consistent with the material that can be used as a membrane covering as well as complying with requirements for interior finishes. The proposed minimum openness dimensions (35 ft^2) should provide for natural ventilation of smoke from a fire in a cabana.
The location/separation requirements in the proposed amendment further limit the hazard posed by cabanas. Cabanas must be 10 feet from any walls or openings of the main building, 10 feet away from each other, and must not obstruct any portion of the means of egress.

Sprinkler protection is required for cabanas that exceed 120 square feet in area. The cut-off value for requiring sprinklers (120 ft^2) was selected based on the following:

- One-story detached accessory buildings in conjunction with a single family dwelling used as tool and storage sheds, playhouses and similar uses are exempt from requiring a building permit as long as the floor area does not exceed 120 square feet.
- The typical cabanas that range in size from 90 to 120 ft^2 are small enough to inherently limit the amount of combustible contents housed in the cabanas. However, cabanas larger than 120 ft^2 have been observed to be designed more as hospitality tents, complete with multiple sofas, tables, refrigerators, televisions, pool tables, etc. Therefore, sprinkler protection is required for cabanas that are 120 ft^2 or greater.

Finally, a Fire Protection Report (FPR) is required for all cabanas. The FPR will document the construction and fire protection features of the cabanas, which will allow the plans examiners to ensure that the cabanas are meeting the proposed new requirements.
This amendment proposal satisfies the SNBO Criteria for Code Amendments because it provides criteria for designs that are unique to Southern Nevada and the hospitality industry.

COST IMPACT:
This proposal will reduce the cost of construction compared to the base IBC. This amendment to the 2012 SNBC is similar to the current amendment in the 2009 and 2006 SNBC (Section 3111 and 3110, respectively, Cabanas), thus there is no additional cost impact when compared to the current standard of practice in Southern Nevada.

COMMITTEE ACTION: Motion to Approve as Submitted (and seconded).

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
	AP		AP		AP	AP	AP	AP	AP	AP

RESULT: Approved as Submitted.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-075(R2)

COMMITTEE: General

CODE SECTION: Section 3113

PROPONENT: Allyn Vaughn, JBA Consulting Engineers & Bryan Douglass, Terp Consulting

PROPOSAL: Add new Section 3113.

REVISE AS FOLLOWS:

SECTION 3113
SHADE STRUCTURES

3113.1 General. This section shall apply to *shade structures* on, attached to, or in close proximity to buildings of Type I or Type II construction. Where *shade structures* are constructed as a cabana, membrane structure or separate building, compliance with this section is not required. *Shade structures* that are erected for a period of less than 180 days shall comply with the *International Fire Code*.

3113.2 Definitions. The following words or terms shall, for the purposes of this section, have the meanings shown herein.

SHADE STRUCTURE. A *shade structure* is a structure with not less than 50 percent of its perimeter wall area unenclosed, has no interior partitions, and provides solar or weather protection for uses accessory to a building of any occupancy. *Shade structures* shall not apply to cabanas, canopies, roof structures over vehicle drive-through lanes (porte cocheres), parking facilities, playground structures, or industrial uses.

SHADE STRUCTURE GROUP. A *shade structure group* is a group of individual shade structures that are not separated from each other by a minimum distance of 10 feet (3048 mm), as measured from the nearest horizontal projection. The total area of the *shade structure group* shall be used to determine code requirements for all *shade structures* within the *shade structure group*.

3113.3 Design and Construction. S*hade structures* shall be designed and constructed to withstand the wind and lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressure of loads. Structural members shall be protected to prevent deterioration.

3113.3.1 Frames. Frames shall be non-rated, and noncombustible or wood of Type IV size.

3113.3.2 Shade Coverings. Shade coverings shall be of:

1. Noncombustible materials in accordance with Section 703.5; or

2. Wood of Type IV size; or

3. An approved covering that meets the fire propagation performance criteria of NFPA 701.

3113.3.3 Height. The height of a *shade structure* shall not exceed that allowed for the predominant building construction type, but shall not exceed 50 feet in height.

3113.3.4 Area. The area of *shade structures* shall be limited to the maximum allowable area for the predominant building construction type, including the area of such building, but in no case shall the *shade structure* exceed 10,000 square feet (929 m^2).

Exception: *Shade structures* with combustible construction as outlined under Section 3113.3 shall be limited to no more than 5,000 square feet (464.52 m^2).

3113.4 Location. *Shade structures* shall be allowed to be constructed on or attached to the building or may be free standing separated from the building.

3113.4.1 Separation between *shade structures*. *Shade structures* shall be separated from all other shade structures by a minimum distance of 10 feet (3048 mm), as measured at the nearest horizontal projection, regardless of the height of each horizontal projection. Where *shade structures* do not meet this spacing, the *shade structures* shall be considered a *shade structure group*, and the *shade structure group* shall meet the requirements set forth herein.

3113.4.2 Separation between *shade structure groups*. *Shade structure groups* shall be separated from all other *shade structure groups* by a minimum distance of 10 feet (3048 mm), as measured at the nearest horizontal projection, regardless of the height of each horizontal projection.

3113.5 Means of Egress. Mean of egress shall comply with Chapter 10. Sufficient clearance and aisle widths shall be provided and maintained for means of egress that pass through the shade structure from any building or area.

3113.6 Automatic Sprinkler Systems. S*hade structures* and *shade structure groups* shall be protected by an automatic sprinkler system as specified in Chapter 9 for the appropriate hazard class.

Exceptions:

1. *Shade structures* attached to buildings not otherwise required to be protected by an automatic sprinkler system and where the *shade structure* does not increase the overall building area beyond 5,000 square feet (464.52 m^2).

2. Where a slatted, lattice or fixed louvered *shade structure* roof system is not less than 50 percent open to the sky and not provided with a fabric or similar covering.
3. Entirely noncombustible *shade structures* that are located a minimum of 10 feet from any wall, building opening, or adjacent shade structure; that do not exceed 1,000 square feet (92.91 m^2) in area, and has not less than 100 percent of its perimeter wall area unenclosed.
4. *Shade structures* that are located a minimum of 10 feet from any wall, building opening, or adjacent shade structure; that do not exceed 200 square feet (18.58 m^2), or 400 square feet (37.16 m^2) when comprised entirely of noncombustible materials.

3113.7 Fire Alarm & Detection System. Fire alarm notification appliances are required within *shade structures* where the predominant building includes an exit that discharges through the *shade structure*, or where the *shade structure* exits through the building. Fire alarm notification appliances are not required where the predominant building and *shade structure* exit independently of one another and where the use of the *shade structure* does not otherwise require notification appliances.

Shade structures shall be protected by fire detection systems as specified in Chapter 9 based on the applicable occupancy and use. Detection systems utilized as part of a suppression system shall be addressed in a Fire Protection Report as required by Section 3113.10.

3113.8 Fuel-Fired Equipment. Fuel-fired equipment shall not be permitted within 20 feet (6096 mm) of a *shade structure* or under a *shade structure.*

Exceptions:

1. Portable chafing dishes that utilize liquid fuel manufactured for its intended use.
2. Gas fired grills that are located a minimum of 10 feet (3048 mm) from the predominant building may be within 20 feet (6096 mm) of, or under entirely noncombustible *shade structures.*
3. Portable gas fired heaters that are located a minimum of 10 feet (3048 mm) from the predominant building may be within 20 feet (6096 mm) of, or under entirely noncombustible *shade structures.*
4. Gas fired fireplaces or fire pits that are located a minimum of 15 feet (3048 mm) from the predominant building may be within 20 feet (6096 mm) of, or under entirely noncombustible *shade structures.*

3113.9 Lighting. All lighting within or attached to *shade structures* shall be electric. Open flames for any purpose other than those noted above are prohibited within 20 feet (6096 mm) of a *shade structure* or under a *shade structure,* unless approved by the authority having jurisdiction.

3113.10 Fire Protection Report. When required by the Building Official, a fire protection report shall be provided to address the type of construction of the predominant structure and the *shade structure*(s), the size and use of the shade structure(s), fire protection systems for the shade structure(s), and the impact of the shade structure(s) on the means of egress.

JUSTIFICATION:

Shade structures are used throughout Southern Nevada at hotels, casinos, big box retail stores as well as free standing office complexes, churches and similar buildings. They are often an extension or projection from the building which under the current code are not well defined. The building code does not specifically address shade structures, which by default, results in a situation where they must be constructed to meet the requirements of the predominant building type. While the building code addresses awnings and canopies, they are not typically allowed to be used with occupancy beneath and membrane structures do not often fit the use of most shade structures.

The proposal is intended to address shade structures that are attached to, located on or in close proximity to buildings of Type I and Type II construction. If the shade structure has sufficient separation from the predominant building, the user could design the shade structure in accordance with other sections of the code, treating it as a separate building. The proposal is also not intended to address industrial type shade structures, playground structures, those associated with carports or parking facilities or structures providing weather protection for vehicle drive through or drop off areas, such as porte cocheres.

The proposed amendment provides specific requirements that would allow shade structures to be constructed of non-rated materials even when they are located adjacent to, on top of, or attached to buildings of fire-resistant or non-combustible construction. For buildings of combustible construction, the shade structure would be subject to the building construction type, or comply with other provisions of the code. This proposed amendment is necessary to address local climatic conditions (high local temperatures and high levels of UV rays) and special uses (shade structures for assembly and educational facilities).

The proposed amendment allows shade structures to be constructed of either non-rated non-combustible materials or non-rated combustible materials, or a combination thereof. Combustible materials used in the frame and roof covering is limited to wood of Type IV size, similar to that allowed by code for awnings and canopies found in Section 3105.3. Limiting the combustible framing to only wood of Type IV size provides a level of protection in that the wood members are of significant size and thermal inertia thus not likely to be consumed by small fires. Other combustible materials allowed to be used for shade structures in this proposal include combustible membrane fabric, which would cover either the non-combustible frame or Type IV wood frame.

It is recognized that shade structures will be in close proximity to the predominant building, on top of, or attached to the predominant building. Therefore the area of the building will regulate the overall size of the shade structure since it will be included in the allowable area calculations. In those cases where the shade structure is part of an unlimited area building, the proposal limits the overall size of the shade structure. Shade structures of entirely non-combustible construction are limited to 10,000 square feet and no more than 5,000 square feet for shade structures containing combustible materials in the frame or membrane fabric. The height is also regulated to no more than 50 feet, as sprinkler protection above 50 feet would require an engineering analysis.

Shade structures are expected to be separated from each other by a minimum of 10 feet from the nearest horizontal projection, or will be treated as a shade structure group,

similar to that found in the local amendments for cabanas. Regardless of varying shade covering heights, the horizontal projection is used to measure the separation between individual shade structures. This will likely be determined by a plan view of all shade structures.

Exiting from and under shade structures is regulated by Chapter 10 of the code. The proposal reinforces the requirements for clear aisles and exit paths from the predominant building since it is likely in certain cases that some exiting may occur under the shade structure from the building.

The proposed amendment requires automatic sprinkler protection for all shade structures unless one of four exceptions is met. One exception is if the predominant building is not required to be sprinklered and the shade structure does not increase the overall building area beyond 5,000 ft²; the trigger for automatic sprinkler systems in all buildings under the Southern Nevada amendments to the 2009 International Fire Code. Exception 2 accounts for where the roof of the shade structure is at least 50 percent open. The reasoning behind this exception is that the shade structure would not provide an effective barrier for heat collection necessary to operate sprinklers. A shade structure with a 50 percent open roof would also vent smoke and hot gases from the usable space beneath the structure. Additionally by definition the shade structure would be open on at least 50 percent of the perimeter such that the entire structure provides adequate natural ventilation.

Exception 3 permits a non-combustible shade structure of not more than 1,000 square feet that is separated a minimum of 10 feet from building walls or openings and adjacent shade structures, and has not less than 100 percent of its perimeter open from requiring sprinklers. This is due to the separation from the building and that the entire perimeter is open, allowing for heat and gas to readily escape from under the structure. Exception 4 exempts shade structures that are separated from the building or other shade structures by at least 10 feet and are limited in size up to 200 ft² for combustible construction or up to 400 ft^2 where the entire structure including any membrane is noncombustible. A 200 ft^2 shade structure of any construction type does not impose a significant fire risk to the predominant building. Cabanas under 120 ft^2 with a combustible covering are currently exempt from requiring sprinklers and are allowed to be open on only one side. A shade structure is required to be open on 50 percent of its perimeter, so the increased size does not pose any significant risks over that allowed for cabanas. A noncombustible shade structure will not support combustion and as such does not present a significant hazard to itself or the predominant building.

Shade structures are located outdoors where occupants are not subject to interior building fire hazards. Adequate direct exterior exits are also provided due to 50 percent of the shade structure perimeter required to be open. As such, occupants within the shade structure do not require immediate notification of a fire incident within the predominant building. Occupants will eventually be alerted of a significant fire incident via occupants exiting the predominant building. However, where the predominant building must egress through the shade structure it is necessary the shade structure be evacuated along with the building. As such, notification appliances are required under the shade structure only when the predominant building includes an exit that discharges through the structure.

Fire detection devices are required at the shade structure when the occupancy classification warrants such protection in accordance with Chapter 9. The majority of shade structures are utilized for assembly functions and therefore fire detection devices are not likely. However, detection devices may be necessary as part of an interlock system for a required suppression system.

Fuel fired equipment must be maintained 20 feet from the shade structure unless one of four exceptions are met. A 20 foot distance provides a safe separation between ignition sources and the shade structure and is equivalent to that required between cabanas and fuel fired equipment. Portable chafing dishes (warming trays) utilizing liquid fuel manufactured for that specific use are permitted as they do not represent a significant ignition source. Gas fired grills and portable heaters are permitted beneath entirely noncombustible shade structures however they must be located a minimum of 10 feet from the building. The grills and heaters do not present a significant hazard to the shade structure which is limited to specific materials, uses, and open to exterior. However, the grills and heaters may present a hazard to combustible material along the exterior wall of the predominant building. 2012 IFC Section 603.4.2.1.2 requires a clearance of 5 feet between portable gas fired heating appliances and buildings. The requirement for 10 feet exceeds that permitted by the IFC for gas fired heating appliances.
Gas fired fireplaces or fire pits may be located under entirely noncombustible shade structures where a minimum of 15 feet from the predominant building. 2012 IFC Section 307.4.3 requires portable outdoor fireplaces be located a minimum 15 feet from a building or combustible material.

Electric lighting is required which is consistent with local cabana requirements. Open flames other than those noted under Section 3113.8 are prohibited within 20 feet of shade structures, , unless specifically approved by the Authority Having Jurisdiction. When the overall building requires a Fire Protection Report, shade structures should be addressed within the associated report. A renovation involving the addition of a shade structure will also require a Fire Protection Report as required by the building official based on the complexity of the building and renovation (i.e. Tenant Improvement FPR).

COST IMPACT: There will some additional costs associated with this proposal since it will require Type IV wood size and flame resistant fabric, as well as automatic sprinkler protection. However, if the structure is required to be constructed of materials consistent with the predominant building type, it is expected that the costs will be reduced by this proposal. Costs may increase when an automatic sprinkler system is required. However, there are no current code regulations for shade structures so they are often required to be sprinkler protected. The proposed amendment includes exceptions to sprinkler requirements which may reduce costs.

COMMITTEE ACTION: The committee considered two other versions of this amendment (GC12-075, and GC12-075(R1)). This version is based on comments the committee provided during the discussion regarding the other amendments. There was a question regarding the area limitation, regarding the intent of the provisions. It appears to imply that the area limitation is for both a single shade structure and a shade structure group. The proponent confirmed this is, in fact, the intent. A motion to approve and second was made. The committee voted as follows:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: The amendment passed with an affirmative vote 10-0.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-076

COMMITTEE: General

CODE SECTION: Appendices A through I and K

PROPONENT: Jim Gerren, Clark County

PROPOSAL: *Delete and Adopt specific Appendices*

REVISE AS FOLLOWS:

Delete Appendices A, B, D, F, and K in their entirety.
Formally adopt Appendices C, E, and I in their entirety without amendment.

JUSTIFICATION:

Appendices A (Employee Qualifications), B (Board of Appeals), D (Fire Districts), F (Rodentproofing), and K (Administrative Provisions) potentially conflict with the Southern Nevada codes and administrative codes. Therefore, the proposed amendment is required for code correlation. Please note that the same appendices were also specifically deleted by Southern Nevada's amendments to the 2006 and 2009 editions of the IBC.

This amendment also proposes to formally adopt Appendices C (Group U – Agricultural Buildings), E (Supplementary Accessibility Requirements) and I (Patio Covers). Please note that the same appendices were also specifically adopted by Southern Nevada's amendments to the 2006 and 2009 editions of the IBC.

Adoption of Appendix C is required to address a special use/occupancy. Although not a major part of the Southern Nevada economy, agricultural buildings are present in the valley. Therefore, Appendix C is needed to provide specific code provisions for such facilities.

Adoption of Appendix E is required because it provides additional guidance on common accessibility features, including communication features for transient lodging, Group I-3, and dwelling and sleeping units. Appendix E also provides the accessibility requirements for portable toilets and bathing rooms, laundry equipment, and various service equipment such as depositories, vending machines, change machines, mailboxes, and ATMs. Appendix E also addresses accessibility requirements for public pay telephones, public closed-circuit telephones, and courtesy phones, all of which are common in the resort properties that dominate the Southern Nevada economy.

Adoption of Appendix I is required to address a special use/occupancy and Southern Nevada's climatic conditions. Based on the local weather conditions, patio covers are common throughout Southern Nevada to provide protection from the sun.

Please note that Appendices G (Flood-Resistant Construction), H (Signs), and J (Grading) are outside the assigned scope of the SNBO General Committee.

COST IMPACT: None

COMMITTEE ACTION: Motion to Approved and Seconded

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved as Submitted

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-077

COMMITTEE: IBC General

CODE SECTION: 403.6.1 exception

PROPONENT: Jason Beck, TERPconsulting

PROPOSAL: *Amend Section 403.6.1*

REVISE AS FOLLOWS:

403.6.1 Fire service access elevator. In buildings with an occupied floor more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access, no fewer than two fire service access elevators, or all elevators, whichever is less, shall be provided in accordance with Section 3007. Each fire service access elevator shall have a capacity of not less than 3500 pounds (1588 kg).

Exception: Where a building is provided with multiple ambulance stretcher sized elevator cars in accordance with Section 3002.4 and the table below, fire service access elevators shall not be required.

Table 403.6.1
Ambulance Stretcher Sized Elevator Cars

Highest floor level served above lowest level of fire department access in feet (meters)	Number of elevator cars sized to accommodate an ambulance stretcher [a.]
120-599 (36.6m-182.6m)	3
600-899 (182.9m-274.0m)	4
900 and greater (274.3m)	5

[a.] A fire service access elevator installed in accordance with Section 403.6.1 shall be permitted to substitute for one of these elevators.

JUSTIFICATION:
Local codes have previously been modified to provide additional elevator transport for fire department personnel in accordance with IBC Section 3002.4. The 2006 code had provisions requiring additional elevators with respect to number of stories, and the 2009 code had similar provisions but with a modification to trigger additional elevators by floor height. The proposed new exception to IBC Section 403.6.1 is similar to that which was proposed and approved for the 2009 code cycle.
Base IBC Section 403.6.1 requires a minimum of two (2) fire service access elevators, or all elevators, whichever is less, to be provided in buildings with an occupied floor more than 120' above the lowest level of fire department access. Per the commentary to the 2012 IBC, this is based on past experience that has shown that elevators are often not

available due to shutdowns for various reasons. Requiring two (2) fire service access elevators increases the likelihood there will be an elevator available for fire department use in an emergency event.

High rise elevator cores are typically located centrally within a tower, and exit stairs are typically located on either end of the tower. Depending on the size and occupant load of the tower, a tertiary (or more) stair may be located centrally within the tower; however, such stairs are typically not necessary and therefore not provided.

The design and economic implications of providing a minimum of two (2) fire service access elevators in high rise buildings is significant when taking into consideration all of the required support features in addition to the elevators themselves, such as enclosed lobbies with direct access to an interior exit stair. Requiring fire service access elevators to open into an enclosed lobby with direct access to an interior exit stair could potentially eliminate a guestroom from each level, or leasable space from each level, etc., due to the footprint required for the lobby and stair. IBC Section 3007.7.4 requires fire service access elevator lobbies to have a minimum size of 150 ft^2 with a minimum dimension of 8', and interior exit stairs are required to be sized in accordance with IBC Section 1009.2.

Further, the base code would only provide two (2) fire service access elevators for fire department use, including "super tall" buildings, which could have a negative impact on fire operations. The proposed exception to Section 403.6.1 would require additional elevators based on floor height in lieu of providing only (2) fire service access elevators regardless of building height. This provides additional redundancy as well as additional transport for shuttling fire department personnel and supplies from the ground level to the floor of incidence and staging levels.
The proposed amendment satisfies SNBO criteria for code amendments by addressing our unique human geographic condition relative to the hospitality and tourism industries.

COST IMPACT: None.

COMMITTEE ACTION: The committee considered retaining the current code language regarding ambulance stretcher sized elevators. This is a design option for architects and engineers and does not necessarily eliminate fire service elevators. This amendment would require more elevators on emergency power than the base code requires. Fire departments use elevators for access where buildings are greater than 8 stories. Motion was approved as submitted and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved by a vote 10-0

STEERING COMMITTEE RECOMMENDATION: Concurs. (*See GC12-080 and GC12-081)*

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-078

COMMITTEE: General

CODE SECTION: Table 1014.3

PROPONENT: Raoul Brown, Steelman Partners

PROPOSAL: *Amend Table 1014.3*

REVISE AS FOLLOWS:

TABLE 1014.3
COMMON PATH OF EGRESS TRAVEL

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (feet)		WITH SPRINKLER SYSTEM (feet)
	Occupancy Load		
	≤ 30	>30	
B, S [d]	100	75	100 [a]
U	100	75	75 [a]
F	75	75	100 [a]
H-1, H-2, H-3	Not Permitted	Not Permitted	25 [a]
R-1	75	75	125 [b]
R-2	75	75	125 [b]
R-3 [e]	75	75	125 [b]
I-3	100	100	100 [a]
All others [c,f]	75	75	75 [a]

Footnotes remain unchanged.

JUSTIFICATION:

The adoption of the amendment to increase the occupancy load of R-1 units requiring only one exit to 20 may require that the common path of egress travel be increased in end unit conditions. The majority of these larger units are end units to take advantage of the possibility of increased exterior glazing within the unit. As defined, the common path of egress travel could be construed to extend past the first exit stair unless the stair is at the end of the building (past the units entry door), thereby eliminating the primary reason for having the unit at the end of the tower; capacity for increased exterior glazing.

This amendment is required to address special uses and occupancies.

COST IMPACT:

No cost impact.

COMMITTEE ACTION: The committee discussion clarified the proposed amendment; the R-1 occupancy row was underlined, identifying new language. The committee discussed the transient vs. non-transient nature of the R-1 vs. R-2 and R-3 occupancies and whether it was appropriate to adjust the common path of egress travel in sprinklered building all the way to 125 feet, as the non-transient occupancies are allowed. A discussion to scale the number back to 100 feet was discussed; however there was not justification for a common path of egress travel of 100 feet. It was felt there was a nominal difference between 100 and 125 feet in this application. The motion to approve as submitted (with underlined new text) was made and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	DA	AP	AP

RESULT: Approved by a vote 9-1

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT #: GC12-079(R1)

COMMITTEE: General Committee

CODE SECTION: Sections 202 & 1109.16

PROPONENT: Wesley Walters (Himself) & Michael Gentille (PCNA Group)

PROPOSAL: *Amend Section 202 to add new definitions*

REVISE AS FOLLOWS:

SECTION 202 DEFINITIONS

GAMING. To deal, operate, carry on, conduct, maintain or expose for play any game played with cards, dice, equipment or any mechanical, electromechanical or electronic device or machine for money, property, checks, credit or any representative of value except wherein occurring at private home or as operated by a charitable or educational organization.

GAMING MACHINE TYPE. Categorization of gaming machines per type of game(s) played on them, including, but not limited to; slot machines, video poker, video keno or similar.

GAMING TABLE TYPE. Categorization of gaming tables per the type of game(s) played on them, including, but are not limited to; baccarat, bingo, blackjack/21, craps, pai-gow, poker, roulette or similar.

GAMING AREA(S). Single or multiple areas of a building or facility where gaming machines or tables are present and gaming occurs, including but not limited to: primary casino gaming areas, VIP gaming areas, high-roller gaming areas, bartops, lobbies, dedicated rooms or spaces such as in retail or restaurant establishments, sports books, tournament areas or similar.

Add a new section as follows:

1109.16 Gaming machines and tables. Where required, *gaming* machines and *gaming* tables shall be accessible and comply with this section and sections 1109.16.1 through 1109.16.2.

1109.16.1 Quantity and disbursement. A minimum of two percent, but not less than one of each *gaming machine type* and *gaming table type* shall be made accessible per ICC A117.1. Where multiple *gaming areas* occur, accessible *gaming* machines and tables shall be dispersed among all *gaming areas*.

1109.16.2 Approach. Accessible *gaming* machines shall be provided with a Clear Floor Space and an Unobstructed High Forward Reach per ICC A117.1. Accessible *gaming* tables shall be provided with a Clear Floor Space, Obstructed High Forward Reach, and Forward Approach including Knee and Toe Clearance, per ICC A117.1.

JUSTIFICATION: Similar language, having the effect of requiring a small number of gaming machines and tables to be made accessible, has been added by the ICC into the 2015 IBC review draft. That language is somewhat broad in approach, and does not take into consideration the various gaming locations, designations, and needs of the local gaming industry.

This proposed amendment does take those local factors into consideration and better defines the unique needs for accessibility among each of them. Unlike the gaming casinos in most other cities and states, local gaming occurs at several more and unique locations beyond just casino floors. These include, but are not limited to; bars, grocery stores, convenience stores and restaurants to name a few. Additionally, the separation of a single large casino into multiple special use/access gaming areas is more predominant locally than elsewhere. Therefore, this proposed amendment takes into consideration these factors and requires distribution among gaming types and gaming areas to assure a reasonable level of access to a significant variety of gaming activities for all people.

The provisions in this proposed amendment are intended to be scalable so they can be applied to each of these unique venues, best suit their needs, but still provide for accessible access to disabled gaming patrons. For example, an establishment with restricted gaming license (15 machines max.) in a tavern/bar or grocery store is now clearly required to provide one of those machines as accessible. Conversely, large casinos with multiple gaming areas are mandated to provide accessible machines or tables in each of their unique gaming areas.

Additionally, this proposed amendment considers the unique anthropometric design of most existing gaming machines, and provides a reasonable level of access that does not require a wholesale re-design of the machine itself. Essentially, by removing the requirement for "Front Approach" at these machines, the proposed considerations allow nearly all upright gaming machines to be considered accessible so long as they do not have a fixed chair or other obstruction in front of them. Conversely, gaming tables are pretty much standard throughout the country. Thus, no special consideration was given to their approach and clearance requirements.

As a practical matter, side approach access for the disable is neither a dignified nor comfortable way to operate gaming machines for any length of playing time. By providing a front approach or front reach requirement to them, the player is now given the same integration as given all other players. This should allow for equal play time and comfort for a wider array of gaming patrons. When gaming tables are provided (i.e., black-jack, roulette, craps, poker), at least one of each type should be accessible to allow disable players access to each unique game type. This too should increase play time and provide increased comfort for all patrons.

The proposed definitions are added to better define & clarify the terms used within Section 1109.16. They are primarily taken from NRS Chapter 463 (Sections NRS 463.0152 through NRS 463.01595)

COST IMPACT: There is no cost impact. These provisions align the 2012 IBC with the recently adopted 2010 ADA, and thus are already mandated to be provided in new & renovated projects.

COMMITTEE ACTION: 9/04/12: The committee discussed the potential for misapplication by the legal and accessibility experts. As originally written, the amendment could be interpreted to imply that the "branding" (i.e. "Wheel of Fortune" etc..) of the gaming machines could require distribution of the accessible devices. This was not the proponent's intent. Slot machines, video poker and keno machines where the category of devices intended to be distributed. The intent was to ensure smaller gaming areas in restaurants, convenience stores and bars meet the accessibility requirements. As noted the proponent identified that major resort properties are already in compliance with these accessibility requirements. As noted, this would match the 2010 ADA requirements already necessary for compliance by architects and properties. It appears the

amendment should be additional section and should be section 1109.16 in lieu of 1109.15. The committee asked about the distribution of machine and tables, which was somewhat ambiguous and the necessity of the appendix section. The proponent agreed to table the amendment and Mr. Gentille agreed to assist in a re-write to address some of the committee's concerns.

9/11/02: The committee reviewed the modified version of amendment GC12-079, noted as an R1 revision, based on comment from the previous meeting. The committee questioned the "or" in 1109.16.1 between gaming machine types and gaming table types. It was corrected to an "and" as noted above. 1109.16.4 was corrected to 1109.16.2 as reference in section 1109.16.1 based on comments from the committee. These were considered friendly amendments and accepted by the proponent. The amendment is not intended to include distribution of machine types based on "branding", color, or manufacturer. Just the gaming devices and tables, as noted in the definition, were derived from the NRS gaming statues. The accessibility references come from ANSI. Areas such as high roller areas are required for distribution where specific areas exist. This is consistent with other handicap code applications. The committee motioned to approved, with minor editorial changes accepted by the proponent, and seconded. The committee vote as follows:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: The amendment passed with an affirmative vote of 10-0.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-080

COMMITTEE: IBC General

CODE SECTION: 3002.4

PROPONENT: Jason Beck, TERPconsulting

PROPOSAL: *Amend Section 3002.4*

REVISE AS FOLLOWS:

3002.4 Elevator car to accommodate ambulance stretcher. Where elevators are provided in buildings four or more stories above, or four or more stories below, grade plane, at least one elevator, and no less than the minimum number specified in the exception to Section 403.6.1 when provided in lieu of fire service access elevators, shall be provided for fire department emergency access to all floors. The elevator car shall be of such a size and arrangement to accommodate an ambulance stretch 24 inches by 84 inches (601 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners, in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall not be less than 3 inches (76 mm) in height and shall be placed inside on both sides of the hoistway door frame. Such elevators shall open into a lobby providing sufficient area to accommodate transport of a 24-inch by 84-inch (610 mm by 2134 mm) ambulance stretcher.

JUSTIFICATION:

Local codes have previously been modified to provide additional ambulance stretcher sized elevator transport for fire department personnel. The 2006 code had provisions requiring additional elevators with respect to number of stories, and the 2009 code had similar provisions but with a modification to trigger additional elevators by floor height. The proposed amendment to IBC Section 3002.4 is similar to that which was approved for the 2009 code cycle.

It is important to provide tools for firefighting in large structures. The community is highly dependent on the economy generated with the large casinos, and it is important to provide maximum protection to these facilities. If a major event occurs, this proposed amendment will provide multiple means of access for emergency responders beyond that which is required by base code, providing for efficient and effective response. By amending Section 3002.4 as proposed, not only would larger elevators be required, but additional elevators would be required as well.

The proposed amendment satisfies SNBO criteria for code amendments by addressing our unique human geographic condition relative to the hospitality and tourism industries.

COST IMPACT: None.

COMMITTEE ACTION: This amendment is necessary with approval of GC12-077. This is a design option for architect and engineers to use. This would eliminate the "zero dimension elevator" lobby because this amendment implies that the elevator code must be sized to turn a stretcher 360 degrees in the lobby. Motion to approve as submitted and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved by vote 10-0

STEERING COMMITTEE RECOMMENDATION: Concurs.

This amendment is necessary due to the approval of GC12-077, also see GC12-081.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-081

COMMITTEE: IBC General

CODE SECTION: 3003.1.3

PROPONENT: Jason Beck, TERPconsulting

PROPOSAL: *Amend Section 3003.1.3*

REVISE AS FOLLOWS:

3003.1.3 Two or more elevators. Where two or more elevators are controlled by a common operating system, all elevators shall automatically transfer to standby power within 60 seconds after failure of normal power where the standby power source is of sufficient capacity to operate all elevators at the same time. Where the standby power source is not of sufficient capacity to operate all elevators at the same time, all elevators shall transfer to standby power in sequence, return to the designated landing and disconnect from the standby power source. After all elevators have been returned to the designated level, at least one elevator, and all elevators installed in accordance with the exception to Section 403.6.1, shall remain operable from the standby power source.

JUSTIFICATION:

This is companion amendment to the proposed amendment to Section 403.6.1. This amendment requires all elevators installed in accordance with the exception to Section 403.6.1 to be provided with secondary power simultaneously so that all elevators are available. This is necessary as emergency responders utilize multiple teams performing various functions.

It is important to provide tools for firefighting in large structures. The community is highly dependent on the economy generated with the large casinos, and it is important to provide maximum protection to these facilities. If a major event occurs, this proposed amendment will provide emergency responders multiple means of access in emergency power situations, providing for efficient and effective response.

The proposed amendment satisfies SNBO criteria for code amendments by addressing our unique human geographic condition relative to the hospitality and tourism industries.

COST IMPACT:

None.

COMMITTEE ACTION: The amendment was necessary with the approval of GC12-077 and GC12-080. The committee modified the language on the amendment proposal from emergency power to secondary power. Motion to approve as submitted and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved by vote 10-0

STEERING COMMITTEE RECOMMENDATION: Concurs.

This amendment is necessary due to the approval of GC12-077, also see GC12-080.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-082

COMMITTEE: General

CODE SECTION: 3306.2

PROPONENT: Kevin McOsker, Clark County

PROPOSAL: *Revise Section 3306.2*

REVISE AS FOLLOWS:

Revise Section 3306.2 to read as follows:

3306.2 Walkways. A walkway shall be provided for pedestrian travel in front of every construction and demolition site unless the applicable governing authority authorizes the sidewalk to be fenced or closed. Walkways shall be of sufficient width to accommodate the pedestrian traffic, but in no case shall they be less than 4 feet (1219 mm) in width. Walkways shall be provided with a durable walking surface. Walkways shall be *accessible* in accordance with Chapter 11 and shall be designed to support all imposed loads and in no case shall the design live load be less than 150 pounds per square foot (psf) (7.2 kN/m^2). Sidewalks or walkways that lead from the public sidewalk to a building entrance where the general public may be at risk due to falling construction debris shall be similarly protected.

JUSTIFICATION:

The base code requires pedestrian protection only "**in front** of every construction and demolition site". The assumption the code makes in this application is a typical urban environment where high rise construction occurs immediately adjacent to the public right of way or sidewalk. The unique nature of the pedestrian travel along the Las Vegas strip is such that the specific language in the code would not require pedestrian protection from the sidewalk (public right or way) to the entrance of the casino. Many properties have entrances located off the sidewalk. This section ensures the level of public safety necessary for pedestrians entering properties from the public right of way, only during construction activities. This amendment was approved under the 2009 IBC, this amendment complies with SNBO the criteria of special design and applications not anticipated by the code.

COST IMPACT:

This amendment has no cost impact as compared to the previous adoption of the 2009 IBC with local amendments. The amendment has a minor impact to cost of construction compared with the base code.

COMMITTEE ACTION: Fire department noted that sprinklers could be required if the pedestrian protection is connected to an existing occupied building. Motion to approve and seconded:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved by vote 10-0

STEERING COMMITTEE RECOMMENDATION: Concurs.

An identical amendment #38 is proposed by the structural committee. No technical differences exist, however the justifications are different.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-083

COMMITTEE: IBC General Committee

CODE SECTION: 3401.7

PROPONENT: Michael Gentille (PCNA), Jim Stroh (JSA), Stephen DiGiovanni (CCFD)

PROPOSAL: Add Section 3401.7 to allow for partial coverage of automatic sprinkler systems in existing buildings.

REVISE AS FOLLOWS:

3401.7 Automatic Sprinklers in Existing Buildings. Automatic sprinkler systems in accordance with Section 903 and designed per the Fire Code shall be provided in nonsprinklered *existing structures* at the locations described in Sections 3401.7.1 through 3401.7.3.

Where these provisions result in partially sprinklered buildings, durable weatherproof signage shall be provided at the Fire Department Connection(s) clearly indicating that the building is partially protected with fire sprinklers and clearly identifying the portion(s) of the building covered by the fire sprinkler systems.

Where required by the fire code official, the underground fire service and fire sprinkler lead-in to the first portion of an existing nonsprinklered building shall be sized to a minimum Ordinary Hazard Group II sprinkler design for future expansion of the fire sprinkler system to cover all other portions of the building.

3401.7.1 Additions. Additions to any building shall comply with this Section and Section 3403.

3401.7.1.1 Sprinklered Addition. In existing nonsprinklered buildings where sprinklers are provided for a building addition, whether required or not, the entire building shall be sprinklered.

Exceptions:

1. Other than occupancies of Group E Daycare, Group H, Group I, or Group R, sprinklers are not required to be provided beyond the fire area of the addition where the addition fire area is separated from the reminder of the building by a *fire barrier* of not less than 2-hours, constructed in accordance with Section 707, and without openings.

2. In all occupancies, sprinklers are not required to be provided beyond the fire area of the addition when the addition fire area is separated from the existing building by 4-hour rated *fire walls* constructed in accordance with Section 706, and without openings.

3. When approved by the *building official*, special hazard areas that are required to be sprinklered for specific uses, such as medical gas rooms, do not require the remainder of the building to be sprinklered.

3401.7.1.2 Nonsprinklered Addition. In existing nonsprinklered buildings where sprinklers are not otherwise required or provided in the building addition, the remainder of the building is not required to be provided with sprinklers where any of the following conditions are met:

1. The building has a total area of less than 5,000 sq ft (464 m^2) and the addition does not cause the existing building to trigger fire sprinkler protection due to occupancy-specific requirements contained in Section 903.

2. Other than occupancies of Group E Daycare, Group H, Group I, or Group R, the fire area containing the addition is separated from adjacent fire areas by a *fire barrier* of not less than 2-hours, constructed in accordance with Section 707, and without openings.

3. In all occupancies, sprinklers are not required to be provided outside the fire area of the addition where the addition fire area is separated from existing building by 4-hour rated *fire walls* constructed in accordance with Section 706, and without openings.

3401.7.2 Alterations. Alterations within existing building shall comply with this Section and Section 3404.

3401.7.2.1 Sprinklered Alterations. In existing nonsprinklered buildings where sprinklers are provided for an alteration, whether required or not, the entire building shall be sprinklered.

Exceptions:

1. Other than occupancies of Group E Daycare, Group H, Group I, or Group R, sprinklers are not required to be provided beyond the fire area containing the alteration where it is separated from the reminder of the building by a *fire barrier* of not less than 2-hours, constructed in accordance with Section 707, and without openings.

2. In all occupancies, sprinklers are not required to be provided beyond the fire area of the alteration when the alteration fire area is separated from the existing building by 4-hour rated *fire walls* constructed in accordance with Section 706, and without openings.

3. When approved by the *building official*, special hazard areas that are required to be sprinklered for specific uses, such as medical gas rooms, do not require the remainder of the building to be sprinklered.

3401.7.2.2 Nonsprinklered Alterations. In existing nonsprinklered buildings where sprinklers are not otherwise required or provided in the alteration, the remainder of the building is not required to be provided with sprinklers due to the alteration.

3401.7.3 Change of Occupancy. A change of occupancy within an existing building shall comply with this Section and Section 3408.

3401.7.3.1 Sprinklered Change of Occupancy. In existing nonsprinklered buildings where sprinklers are provided for an area containing a change of occupancy, whether required or not, the entire building shall be sprinklered.

Exceptions:

1. Other than occupancies of Group E Daycare, Group H, Group I, or Group R, sprinklers are not required to be provided beyond the fire area containing the change of occupancy where it is separated from the reminder of the building by a *fire barrier* of not less than 2-hours, constructed in accordance with Section 707, and without openings.

2. In all occupancies, sprinklers are not required to be provided beyond the fire area of the change of occupancy when the change of occupancy fire area is separated from the existing building by 4-hour rated *fire walls* constructed in accordance with Section 706, and without openings.

3. When approved by the *building official*, special hazard areas that are required to be sprinklered for specific uses, such as medical gas rooms, do not require the remainder of the building to be sprinklered.

3401.7.3.2 Nonsprinklered Change of Occupancy. In existing nonsprinklered buildings where sprinklers are not otherwise required or provided in the change of occupancy, the remainder of the building is not required to be provided with sprinklers where any of the following conditions are met:

1. The building has a total area of less than 5,000 sq ft (464 m^2) and the change of occupancy does not cause the existing building to trigger fire sprinkler protection due to occupancy-specific requirements contained in Section 903.

2. Other than occupancies of Group E Daycare, Group H, Group I, or Group R, the fire area containing the change of occupancy is separated from adjacent fire areas by a *fire barrier* of not less than 2-hours, constructed in accordance with Section 707, and without openings.

3. In all occupancies, sprinklers are not required to be provided outside the fire area of the change of occupancy when the change of occupancy fire

area is separated from the existing building by 4-hour rated *fire walls* constructed in accordance with Section 706, and without openings.

4. When approved by the building official, a change in occupancy to an equal or lesser hazard shall not require the installation of sprinklers for any part of the building. *To make such a determination, the building official may consider changes in occupant load, relative fire hazard and other relevant data.*

JUSTIFICATION:

This proposal is intended to satisfy SNBO criteria for new code proposals by providing for consistency in regional interpretation and application of the codes.

The existing regional interpretation of automatic sprinkler system requirements in Southern Nevada, represents a significantly stricter application of these provisions for nearly all buildings in Southern Nevada. When compared to the base code provisions, this existing regional interpretations mandate sprinkler protection for buildings of significantly smaller floor areas, the elimination of alternative automatic fire-protection system options, and noticeable limits restricting the use of NFPA 13R & 13D systems (to name a few). A great deal of these provisions were adopted to address the fire protection and life safety challenges associated with the variety of large-floor-plate construction projects in the local vicinity (regional interpretation). Further, nearly all of these provisions were adopted during periods where the great majority of local construction projects were new construction. During this period, the extent of renovation and/or addition work done on large-floor-plate buildings was usually a part of larger, more significant overhauls of all systems and components within the existing building. In effect, the impact of mandating such strict sprinkler requirements was not deemed to have any noticeable impact on these projects because the scope of work essentially represented new construction projects.

However, due to dramatic changes in local economic conditions, such projects have become more the exception than the rule. There are a great number of vacant buildings in the Southern Nevada area. Many of these buildings are no longer able to find tenants to lease the entire building, an entire floor, or even primary anchor spaces. As a result, smaller spaces are generally sought by increasingly smaller businesses. As the scale of these projects have diminished, so too does the ability of the landlord and tenant in being able to absorb the cost of significantly stricter sprinkler provisions. Specifically, it has become cost prohibitive for smaller building operators (or tenants) to provide sprinkler coverage to an entire existing building where only a small portion is being leased. This is a noticeable barrier that locally contributes to the continued and long-term high rates of vacancy that are the result of the “one-size-fits-all” approach to existing buildings. Further, it creates a competitive dis-advantage for businesses wishing to open a new location or expand in the local area.

Concerns raised regarding notification to emergency responders are addressed by adding a paragraph requiring permanent signage that indicates the building is partially fire sprinklered and clearly indicates that portion which is protected. Further concerns regarding the possibility of multiple sprinkler systems are addressed by adding a paragraph requiring the first system to be sized for future expansion, by requiring a

minimum design that is used for shell buildings. The term “where required by the fire code official”, is added to address situations where, on a case-by –case basis, it is impractical or unfeasible to oversize the system to the minimum requirement set forth herein due to site conditions.

This proposed amendment attempts to level the playing field for existing buildings with smaller tenant occupancies. It has ZERO impact on new construction projects since all sprinkler provisions for those remain unchanged. It also has ZERO impact on any of the large-floor-plate buildings noted above. Rather, it addresses the need to consider the basic fact that; **partially occupied buildings with partial sprinkler protections are far safer than non-occupied buildings having no sprinkler protections.**

COST IMPACT: This proposal represents a significant cost reduction for renovation projects to existing buildings in all local jurisdictions from the previous experience with varying code interpretations.

COMMITTEE ACTION: The existing buildings subcommittee developed this amendment. As noted, the amendment is a significant compromise regarding the sprinkler provisions in existing buildings. This is currently more than base fire code, but less restrictive than the current local fire codes. The compromise is to accept fire barriers in lieu of fire walls between areas of sprinklered and non-sprinklered uses. Even the IBC address sprinklering throughout areas and not the entire building. The committee was concerned over an exemption #2 in section 3401.7.1.1 regarding R-3 occupancies and how the amendment may be misapplied to residential construction. A motion was made to modify the amendment by removing said exemption. The motion was seconded and passed. A vote was cast as follows on the modification:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	DA	DA

The modification to the amendment passed. A motion and a second were made to approve the amendment as modified and the vote was cast as follows:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: The amendment pass with an affirmative vote 10-0.

Note: Section 3104.7.3.2, item #4 was revised to be consistent language with GC12-084. The committee agreed that this was editorial correction that improved the language and provided consistency between similar amendments.

STEERING COMMITTEE RECOMMENDATION: Does not concur.

JUSTIFICATION does not provide a strong explanation of which SNBO Criteria this proposed amendment falls under. It may provide consistency, but it is not an interpretation of the code. It is a stricter application of the code.

There is not any threshold for triggering the sprinkler requirements. Any minor addition or alteration may require sprinklers.

The COST IMPACT may not be very accurate since this proposed amendment may increase the cost of construction by a large amount especially in multistory buildings.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-084

COMMITTEE: IBC General Committee

CODE SECTION: 3401.8

PROPONENT: Michael Gentille (PCNA), Jim Stroh (JSA), Stephen DiGiovanni (CCFD)

PROPOSAL: *Add new Section 3401.8*

REVISE AS FOLLOWS:

3401.8 Fire Alarm Systems in Existing Buildings. Fire alarm systems, installed in accordance with Section 907 and the Fire Code, shall be provided in *existing structures* at the locations described in Sections 3401.8.1 through 3401.8.3.

3401.8.1 Additions. Additions to any building shall comply with this Section and Section 3403. In existing buildings where fire alarms are provided for the addition, whether required or not, coverage shall be extended to include the entire building.

Exceptions:

1. Other than occupancies of Group E Daycare, Group H, Group I, or Group R, fire alarm system coverage is not required beyond the fire area containing the addition where the addition fire area is separated from the reminder of the building by a *fire barrier* of not less than 2-hours, constructed in accordance with Section 707, with openings protected with automatic-closing devices.

2. In all occupancies, the addition of a *Fire Wall* in accordance with Section 706, with openings protected with automatic-closing devices, may be used to create a new fire area that separates the addition from the remainder of the building. The *Fire Wall* may either:

   a. limit required fire alarm system coverage to include only the new fire area containing the addition, or

   b. limit required fire alarm system coverage to include the new addition and other existing spaces adjacent to the addition that remain in the same fire area, or

   c. eliminate the requirement to install a fire alarm system in accordance with the provisions of Section 907.2.

3401.8.2 Alterations. Existing buildings that undergo an alteration shall comply with this Section and Section 3404.

Exception: Alterations consisting solely of 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.

In existing buildings where fire alarms are provided for an alteration, whether required or not, coverage shall be extended to include the entire building.

Exceptions:

1. Other than occupancies of Group E Daycare, Group H, Group I, or Group R, fire alarm system coverage is not required beyond the fire area containing the alteration where the alteration fire area is separated from the reminder of the building by a *fire barrier* of not less than 2-hours, constructed in accordance with Section 707, and with openings protected with automatic-closing devices.

2. In all occupancies, the addition of a *Fire Wall* in accordance with Section 706, with openings protected with automatic-closing devices, may be used to create a unique fire area to separate the alteration from the remainder of the building. The *Fire Wall* may either:

   a. limit required fire alarm system coverage area to include only the fire area containing the alteration, or

   b. eliminate the requirement to install a fire alarm system in accordance with the provisions of Section 907.2.

3401.8.3 Change of Occupancy. Existing buildings that undergo a change of occupancy shall comply with this Section and Section 3408.

Exception: When approved by the building official, a change in occupancy to an equal or lesser hazard shall not require the installation of a fire alarm system for any part of the building*. To make such a determination, the building official may consider changes in occupant load, relative fire hazard and other relevant data*.

In existing buildings where fire alarms are provided for a change of occupancy, whether required or not, coverage shall be extended to include the entire building.

Exceptions:

1. Other than occupancies of Group E Daycare, Group H, Group I, or Group R, fire alarm system coverage is not required beyond the fire area containing the change of occupancy where the change of occupancy fire area is separated from the reminder of the building by a *fire barrier* of not less than 2-hours, constructed in accordance with Section 707, with openings protected with automatic-closing devices.

2. In all occupancies, the addition of a Fire Wall in accordance with Section 706, with openings protected with automatic-closing devices, may be used to create a unique fire area to separate the portion of the building containing the change of use from the remainder of the building. The Fire Wall may either:

   a. limit required fire alarm system coverage area to include only the fire area containing the change of use, or

   b. eliminate the requirement to install a fire alarm system in accordance with the provisions of Section 907.2.

JUSTIFICATION:

This proposal is intended to satisfy SNBO criteria for new code proposals by providing for consistency in regional interpretation and application of the codes.

The existing regional interpretation of fire alarm system requirements represents a significantly stricter application of these provisions for nearly all buildings in Southern Nevada. The base code provisions require fire alarm system coverage to be provided only to those areas of the building where a specific use mandates them. This means that other non-separated uses occurring within the same building or fire area that do not, in and of themselves, require fire alarm system coverage, are not required to included as part of overall coverage for the building.

Conversely, the current regional interpretations mandate that mixed-use buildings must be provided with fire alarm coverage for all uses within the building or fire area should any one of those uses (within the fire area) be required to be required to include a fire alarm system. Additionally, if the building is three (3) or more stories, and none of the uses in the building (whether single or mixed-use) would require a fire alarm system, that building must still be provided with a complete fire alarm system throughout (except for R-3 & single family homes).

A great many of these provisions were adopted to address the fire protection and life safety
challenges associated with the variety of large-floor-plate construction projects in the local
vicinity (regional interpretation). Further, nearly all of these provisions were adopted during a time where the great majority of local construction projects were new construction. During this period, the extent of renovation and/or addition work done on large-floor-plate buildings was usually a part of larger, more significant overhauls of all systems and components within the existing building. In effect, the impact of mandating such strict fire alarm requirements was not deemed to have any noticeable impact on these projects because the scope of work essentially represented new construction projects.

However, due to dramatic changes in local economic conditions, such projects have become
more the exception than the rule. There are a great number of vacant buildings in the Southern

Nevada area. Many of these buildings are no longer able to find tenants to lease the entire
building, an entire floor, or even primary anchor spaces. As a result, smaller spaces are generally sought by increasingly smaller businesses. As the scale of these projects have diminished, so too does the ability of the landlord and tenant in being able to absorb the cost of
significantly stricter fire alarm system provisions.

Specifically, it has become cost prohibitive for smaller building operators (or tenants) to provide fire alarm system coverage to an entire existing building where only a small portion is being leased. This is a noticeable barrier that locally contributes to the continued and long-term high rates of vacancy that are the result of the “one-size-fits-all” approach to existing buildings. Further, it creates a competitive dis-advantage for businesses wishing to open a new location or expand in the local area.

The purpose of this proposed amendment is to clarify the extent of fire alarm system coverage requirements for existing buildings that do not already have fire alarm systems within them. When additions, alterations, or change of occupancies are made to an existing building, and those modifications require the installation of a fire alarm system (regardless of the size or scope of the modification) local jurisdictions currently require fire alarm system coverage to be extended to the entire remainder of the building and/or fire area. Under this proposal, fire alarm system coverage would not be required to be extended beyond the fire area containing the new use. But, this proposed reduction would only be applicable when certain conditions and specific occupancy groups are present.

This proposed amendment is still more restrictive than the base code provisions, which limit fire alarm system coverage requirements to include only the area of use that requires it. Thus, partial system coverage within a single fire area is not allowed.

However, if acceptable modifications, such as adding a new fire wall, are done to the building, either at the boundary, or elsewhere beyond the boundary of the modification, and these serve to create a smaller fire area within the original, or newly added fire area, it could serve to further limit the scope of the required coverage area. For example, the IBC recognizes that Fire Walls create boundaries that designate unique fire areas. Installing a new Fire Wall at a preferred location could reduce the required coverage area, or eliminate it entirely. This is because the overall floor area containing the modification (and any adjacent uses within the same fire area) could be sufficiently reduced to lower the occupant loads to below the triggers that would otherwise require the installation of a fire alarm system.

COST IMPACT: This proposal represents a significant cost reduction for some alteration, addition, and change of use projects done to existing buildings.

COMMITTEE ACTION: This concept and language behind this amendment is similar to the language in GC12-083, however, this amendment addresses alarming versus sprinklers. There was a friendly amendment to the language in 3401.8.3 clarifying the exception. The committee also considered the differences in alarming and sprinkering as it pertained to the opening in the barriers with automatic closing devices. These

items were modified by the committee and accepted by the proponent. A motion was made to approve as modified, and seconded. A vote was cast as follows:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP	AP	AP	AP	AP	AP	AP	AP

RESULT: The amendment passed with an affirmative vote 10-0.

STEERING COMMITTEE RECOMMENDATION: Does not concur.

JUSTIFICATION does not provide a strong explanation of which SNBO Criteria this proposed amendment falls under. It may provide consistency, but it is not an interpretation of the code. It is a stricter application of the code.

There is not any threshold for triggering the alarm requirements. Any minor addition or alteration may require fire alarms in the entire building.

The COST IMPACT may not be very accurate since this proposed amendment may increase the cost of construction by a large amount especially in multistory buildings.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-085(R1)

COMMITTEE: General

CODE SECTION: Section 3405.2

PROPONENT: Kevin McOsker, Clark County

PROPOSAL: *Amend Section 3405.2*

REVISE AS FOLLOWS:

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

~~**Exceptions:**~~

1. ~~Buildings assigned to *Seismic Design Category* A, B, or C whose *substantial structural damage* was not caused by earthquake need not be evaluated or rehabilitated for load combinations that include earthquake effects.~~
2. ~~One- and two-family dwellings need not be evaluated or rehabilitated for load combinations that include earthquake effects.~~

JUSTIFICATION:

Nevada is the fifth most seismically active state in the country. Nearly, every single family dwelling submitted to Clark County is an engineered system. This may be an acceptable approach to conventional construction methods. To allow the vertical elements of an engineered lateral force-resisting system to be ignored when a building has sustained substantial structural damage would seriously jeopardize the lateral load carrying capacity of the building. To ensure a safe-built environment, the vertical elements of a lateral force resisting system must be evaluated and constructed in accordance with structural provisions of the IBC. This proposed is intended to address the local geologic conditions of Southern Nevada, which meets the SNBO amendment criteria.

COST IMPACT:

These exceptions were added to the 2012 code, there is no cost impact as compared to the 2009 code.

COMMITTEE ACTION: The committee questioned what makes Nevada different, than the other 4 more active states, including California. It was understood that California has not vetted the 2012 code yet. The proponent suggested in very low hazard areas and for prescriptive design methods, that have significant redundancies, this approach may be acceptable. In Southern Nevada, it may not be an acceptable design approach. A motion was made to approve and was seconded. A vote was cast as follows:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: The amendment was approved by a vote 10-0.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-086(R1)

COMMITTEE: General

CODE SECTION: Section 3405.3.1

PROPONENT: Kevin McOsker, Clark County

PROPOSAL: *Amend Section 3405.3.1*

REVISE AS FOLLOWS:

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

~~**Exceptions:**~~

1. ~~One- and two-family dwellings need not be evaluated or rehabilitated for load combinations that include earthquake effects.~~
2. ~~Buildings assigned to *Seismic Design Category* A, B, or C whose *substantial structural damage* was not caused by earthquake need not be evaluated or rehabilitated for load combinations that include earthquake effects.~~

JUSTIFICATION:

Nevada is the fifth most seismically active state in the country. Nearly, every single family dwelling submitted to Clark County is an engineered system. To allow the gravity load carrying components to be ignored if damaged during a wind or earthquake could seriously jeopardize the structural stability of the building, in the event of any other seismic or wind event. Gravity load-carrying components are required by Chapter 16 to withstand their own seismic mass. For example, masonry and concrete tilt-up walls are typically gravity-only systems which require a seismic connection to the roof to support their own weight during a seismic event. To ensure a safe-built environment, these gravity load carrying elements must be evaluated and constructed in accordance with structural provisions of the IBC. This proposed is intended to address the local geologic conditions of Southern Nevada, which meets the SNBO amendment criteria.

COST IMPACT:

These exceptions were added to the 2012 code, there is no cost impact as compared to the 2009 code.

COMMITTEE ACTION: This amendment is similar to GC12-085 except it model code section address damage by earthquakes or wind. A motion was made to approve as submitted and was seconded. A vote was cast as follows:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: The amendment passed with an affirmative vote 10-0.

STEERING COMMITTEE RECOMMENDATION: Concurs.

SOUTHERN NEVADA CODE AMENDMENT FORM – 2012

AMENDMENT NO.: GC12-087(R1)

COMMITTEE: General

CODE SECTION: Section 3114

PROPONENT: Steve Cullen, City of Henderson

PROPOSAL: Add new Section 3114 for playground shade structures in conjunction with daycare and educational buildings.

REVISE AS FOLLOWS:

SECTION 3114
PLAYGROUND SHADE STRUCTURES

3114.1 General. The provisions of this section shall apply to shade structures that are constructed for solar or weather protection of playground areas, and that are attached to, or in close proximity to buildings used for education, daycare and similar uses.

3114.2 Design and Construction. Playground shade structures shall be designed and constructed to withstand the wind loads, lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressure of loads. Structural members shall be protected to prevent deterioration.

3114.2.1 Frames. Playground shade structure frames may be of combustible materials, noncombustible materials in accordance with Section 703.5, or any combination thereof.

3114.2.2 Shade Coverings. Shade coverings over playground shade structures may be solid or lattice, and shall consist of one of the following, or any combination thereof:

1. Noncombustible materials in accordance with Section 703.5; or
2. An approved material that meets the fire propagation performance criteria of NFPA 701, Test 2; or
3. Combustible materials permitted for the building's type of construction.

3114.2.3 Height. The height of a playground shade structure shall not exceed that allowed for the predominant building construction type.

3114.2.4 Area. The area of a playground shade structure shall not exceed 200 square feet (18.6 m^2).

Exception: The area of a playground shade structure may be increased to a maximum of 400 square feet (37.2 m^2) when the frame is constructed of noncombustible materials and the shade covering is either noncombustible or an approved material that meets the fire propagation performance criteria of NFPA 701, Test 2.

3114.2.5 Perimeter opening. Playground shade structures that are attached to a building shall be open on all portions of the perimeter that are not attached to the building. The entire perimeter of free-standing playground shade structures shall be open. Members of the playground shade structure frame shall not be considered to obstruct the required perimeter opening.

3114.2.6 Location. Playground shade structures shall be allowed to be attached to the building or may be free-standing. In all cases, the furthest perimeter projection of a playground shade structure shall be located a minimum of 10 feet (3048 mm) from property lines.

3114.2.6.1 Separation between playground shade structures. Playground shade structures of noncombustible construction and playground shade structures with noncombustible frames and NFPA 701 fabric shade coverings shall be separated from each other by a minimum of 5 feet (1524 mm) or shall be considered as a single playground shade structure. All other playground shade structures shall be separated from each other by 10 feet (3048 mm) or shall be considered a single playground shade structure.

3114.3 Exterior wall protection. Exterior wall protection shall not be required between the playground shade structures and the adjacent building.

3114.4 Means of Egress. A playground shade structure may extend over exit discharge from the adjacent building. Sufficient clearance and aisle widths shall be provided and maintained for means of egress that pass through the shade structure from the building.

3114.5 Automatic Sprinkler Systems. Playground shade structures shall be protected by an *automatic sprinkler system* when required by Table 3114.5.

Table 3114.5
Playground Shade Structures

Shade Structure Construction	Size	Separation Required To Building[a]	Roof Covering	Sprinklers Required
Combustible Construction	200 SF or Less	Nonsprinklered Building	Any	No[c]
		Less than 10-Feet to Sprinklered Building	Solid	Yes
		Less than 10-Feet to Sprinklered Building	Lattice[d]	No[c]
		10-Feet or More to Sprinklered Building	Any	No
Noncombustible	400 SF	Nonsprinklered	NFPA 701	No[c]

Frame with NFPA 701 Fabric Shade Covering	or Less	Building	Fabric (Test 2)	
		Less than 5-Feet to Sprinklered Building		Yes
		5-Feet or More to Sprinklered Building		No
Entirely Noncombustible	400 SF or Less	Nonsprinklered Building	Any	No[c]
		Less Than 3-Feet to Sprinklered Building[b]	Solid	Yes[b]
			Lattice[d]	No
		3-Feet or More to Sprinklered Building[b]	Any	No

Footnotes:

a. Separation shall be measured from roof edge of playground shade structure.
b. The separation required for a noncombustible playground shade structure to the building shall be measured from the roof edge of the playground shade structure to projections on the building.
c. The area of playground shade structures that comply with this section shall not be included in the building area for the purpose of requiring sprinklers in the building.
d. Lattice covering shall be fixed. Lattice covering members may overlap, but must provide a minimum of the 50% of the roof area as open. Lattice coverings shall not have a fabric covering.

JUSTIFICATION:

This amendment is limited to very small shade structures, 400 square feet or less, attached to or near daycare, educational and similar buildings, and that only provide solar or weather protection over playground areas. Shade structures that are larger, have a different use or occupancy or otherwise do not comply with this amendment default to complying with the other sections of the code.

This amendment will create much more consistency in the application of the codes as a lot of these playground shade structures are currently addressed by alternate method of design requests. This amendment will also lessen the impact of state statutes for these businesses.

Although on the surface it may seem as the minimum requirements of the code are being lessened by this amendment, that is not necessarily the case:

1. These are extremely small buildings: 200 SF for combustible construction and 400 SF or less for other construction.
2. Shade structures that are attached to sprinklered buildings will be sprinklered unless they are an open or lattice type roof that will vent any heat.
3. Shade structures with a solid roof will be open at the roof on all sides allowing heat to escape and vent.
4. With the openness of the shade structure, there is not a guarantee that the heat collected will operate sprinkler heads in the shade structure at a high percentage.
5. These structures are very small; the maximum travel distance should typically be less than 20-feet in any of them.
6. The materials below these shade structures are the same playground equipment, furniture, fixtures, etc. that would typically be in that location anyway.

COST IMPACT: This amendment will reduce costs for these businesses.

COMMITTEE ACTION: The amendment was modified by the committee members during the meeting. The intent of the amendment remained intact as originally proposed by the proponent; several items were modified for readability and consistency. The committee motioned to approve the amendments modified during the meeting and seconded. The committee voted as follows:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

The committee then motioned and seconded to approve as modified the amendment; the committee voted as follows:

Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las Vegas	CC School District	Industry		
								JB	RB	JG
AP	AP	AP	AP		AP	AP	AP	AP	AP	AP

RESULT: Approved as Modified by a vote 10-0.

STEERING COMMITTEE RECOMMENDATION: Concurs.

If this proposed amendment and the proposed amendment #83 get approved, addition of a 201 SF combustible playground shade structure to an existing nonsprinklered building will require the entire building to be retrofitted with a sprinkler system.