2012 NC Building Code Table 508.4 Required Separation of Occupancies. (150310 Item B-1)

TABLE 508.4 REQUIRED SEPARATION OF OCCUPANCIES

occu	JPANCY	Ad	В	E	F- 1	F- 2	H- 1	H- 2	H- 3	H- 4	H- 5	I- 1	I-2	I- 3	I- 4	М	R	S- 1	S- 2 ^b	U
В	S	1	2e	1	2	1	NP	2	1	1	1	1	2	1	1	1	1	<u>21</u>	1	1
ь	NS	2	2 ^e	2	3	2	NP	3	2	2	2 ^a	2	NP	2	2	2	2	<u>32</u>	2	2
М	S	1	1	1	2	1	NP	2	1	1	1	1	2	1	1	2 ^e	1	<u>21</u>	1	1
M	NS	2	2	2	3	2	NP	3	2	2	2 ^a	2	NP	2	2	2 ^e	2	<u>32</u>	2	2
S-1	S	1	<u>21</u>	1	2	1	NP	2	1	1	1	1	2	1	1	<u>21</u>	1	3e	1	1
3-1	NS	2	<u>32</u>	2	3	2	NP	3	2	2	2	2	NP	2	2	<u>32</u>	2	3e	2	2

The delayed effective date of this Rule is January 1, 2017.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.

AGENCY: Building Code Council

RULE CITATION: 2012 NC Residential Code 706

DEADLINE FOR RECEIPT: Monday, November 9, 2015

<u>NOTE WELL:</u> This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made. Approval of any rule is contingent upon making technical changes as set forth in G.S. 150B-21.10.

706.2, Exception – The references to types of buildings are ambiguous. If this accurately reflects the intended meaning, please consider revising as follows:

Exception: For fire walls separating Group R-2 and from Group S-2 buildings per footnotes c & d of Table 706.4, the structural wall of the S-2 building shall be permitted to serve as the fire wall between the Group R-2 and Group S-2 buildings and shall be permitted to be laterally supported by floor construction of the same rating as the wall.

706.4, note c – the text of this note differs from the text published in the NC Register on May 15, 2015. Please explain why the two versions of the text differ. In particular, please explain how the effect of the text that was filed with the Rules Review Commission would be reasonably expected based on the text that was published in the Register.

706.4, note c, line 1 – it is unclear which buildings are separated from which. If this accurately reflects the intended meaning, please consider revising as follows: "R-2 buildings of Type V construction and from S-2 buildings of Type IB construction ..."

706.4, note c, lines 3-5 – If this accurately reflects the intended meaning, please consider revising as follows: "... without requiring a fire wall on the R-2 building, provided that when the floor provides lateral stability to the vertical construction, the floor construction of the S-2 structure has a fire-resistance rating equal to or greater than the exterior walls of the S-2 structure."

706.4, note d – the text of this note differs from the text published in the NC Register on May 15, 2015. Please explain why the two versions of the text differ. In particular, please explain how the effect of the text that was filed with the Rules Review Commission would be reasonably expected based on the text that was published in the Register.

Jason S. Thomas
Commission Counsel
Date submitted to agency: Monday, October 26, 2015

706.4, note d, line 1 – it is unclear which buildings are separated from which. If this accurately reflects the intended meaning, please consider revising as follows: "R-2 buildings of Type III construction and from S-2 buildings of Type IA construction ..."

706.4, note d, lines 3-5 – If this accurately reflects the intended meaning, please consider revising as follows: "... without requiring a fire wall on the R-2 building, provided that when the floor provides lateral stability to the vertical construction, the floor construction of the S-2 structure has a fire-resistance rating equal to or greater than the exterior walls of the S-2 structure."

2012 NC Building Code 706 Fire walls. (150310 Item B-20)

706.2 Structural stability. *Fire walls* shall have sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall for the duration of time indicated by the required *fire-resistance rating*.

Exception: For *fire walls* separating Group R-2 and S-2 buildings of different construction types per footnotes c and d of Table 706.4, the structural wall of the S-2 building shall be permitted to serve as the *fire wall* between the buildings and shall be permitted to be laterally supported by floor construction of the same rating as the wall.

706.3 Materials. *Fire walls* shall be of any *approved* noncombustible materials.

Exception: Buildings of Type V construction.

706.4 Fire-resistance rating. Fire walls shall have a fire-resistance rating of not less than that required by Table 706.4.

TABLE 706.4 FIRE WALL FIRE-RESISTANCE RATINGS

GROUP	FIRE-RESISTANCE RATING (hours)
A, B, E, H-4, I, R-1, R-2 ^{c.d} , U	3ª
F-1, H-3 ^b , H-5, M, S-	3
H-1, H-2	4 ^b
F-2, S-2 ^{c,d} , R-3, R-4	2

a. In Type II or V construction, walls shall be permitted to have a 2-hour fire-resistance rating.

b. For Group H-1, H-2, or H-3 building, also see Sections 415.4 and 415.5.

c. Where *fire walls* are used to separate R-2 buildings of Type V construction and S-2 buildings of Type IB construction, a 2 hour exterior wall of the Type IB S-2 structure shall be permitted to satisfy the requirements of Section 706.2 and Table 706.4 without requiring a *fire wall* on the R-2 building provided the floor construction of the S-2 structure has a fire-resistance rating equal to or greater than the exterior walls of the S-2 structure when the floor provides lateral stability to the vertical construction.

d. Where *fire walls* are used to separate R-2 buildings of Type III construction and S-2 buildings of Type IA construction, a 3 hour exterior wall of the Type IA S-2 structure shall be permitted to satisfy the requirements of Section 706.2 and Table 706.4 without requiring a *fire wall* on the R-2 building provided the floor construction of the S-2 structure has a fire-resistance rating equal to or greater than the exterior walls of the S-2 structure when the floor provides lateral stability to the vertical construction.

AGENCY: Building Code Council

RULE CITATION: 2012 NC Building Code 1007.7 Exterior area for assisted rescue

DEADLINE FOR RECEIPT: Monday, November 9, 2015

<u>NOTE WELL:</u> This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made. Approval of any rule is contingent upon making technical changes as set forth in G.S. 150B-21.10.

Line 1 – replace "must" with "shall."

Lines 1-2 – does the phrase "open to the outside air" have a specific meaning to your regulated public? Is it defined elsewhere in the Code?

Line 4 – does "within 10 feet" mean "less than 10 feet" or "less than or equal to 10 feet?" If it means "less than 10 feet" then the rule leaves unstated what is required when the area of assisted rescue is precisely 10 feet from the exterior wall. If it means "less than or equal to 10 feet," then line 4 should be clarified, perhaps as follows:

Where walls or openings are between the area for assisted rescue and the interior of the building, the building *exterior walls* within <u>located</u> 10 feet (3048 mm) <u>or less</u> horizontally <u>of from</u> a nonrated wall or unprotected opening shall have a *fire resistance rating* of not less than 1 hour.

2012 NC Building Code 1007.7 Exterior area for assisted rescue. (150310 Item B-2)

1007.7 Exterior area for assisted rescue. The exterior area for assisted rescue must be open to the outside air and meet the requirements of Section 1007.6.1. Separation walls shall comply with the requirements of Section 705 for *exterior walls*. Where walls or openings are between the area for assisted rescue and the interior of the building, the building *exterior walls* within 10 feet (3048 mm) horizontally of a nonrated wall or unprotected opening shall have a *fire resistance rating* of not less than 1 hour. Openings within such *exterior walls* shall be protected by opening protectives having a *fire protection rating* of not less than 3/4 hour. This construction shall extend vertically from the ground to a point 10 feet (3048 mm) above the floor level of the area for assisted rescue or to the roof line, whichever is lower.

Exception: Areas for assisted rescue that are located greater than 10 feet (3048 mm) from the exterior face of a building are not required to be separated from the building by fire-resistance rated walls or protected openings.

AGENCY: Building Code Council

RULE CITATION: 2012 NC Building Code 1109.14 Recreational and sports facilities

DEADLINE FOR RECEIPT: Monday, November 9, 2015

<u>NOTE WELL:</u> This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made. Approval of any rule is contingent upon making technical changes as set forth in G.S. 150B-21.10.

In Block 9A of the Submission for Permanent Rule form please also check the box next to "Legislation enacted by the General Assembly" and cite SL2014-120, section 13(a).

Line 3 – clarify as follows:

Exception: <u>Pools-Swimming pools</u> for single or multiple Group R-2 and Group R-3 occupancy buildings intended for the <u>use by</u> residents only.

2012 NC Building Code 1109.14 Recreational and sports facilities. (150310 Item B-4)

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

Exception: Pools for single or multiple Group R-2 and Group R-3 occupancy buildings intended for the residents only.

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

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

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

(Note this is a companion change to a previous U-factor change, to Table 502.1.2)

TABLE 502.2(1) BUILDING ENVELOPE REQUIREMENTS – OPAQUE ASSEMBLIES

Climate Zone		3		4		5					
	All Other	Group R	All Other	Group R	All Other	Group R					
Roofs											
Insulation entirely above deck	R - 25 ci	R-25 ci	R - 30 ci	R-30 ci	R - 30 ci	R-30 ci					
Metal buildings (with	R-10 + R-19	R-10 + R-19	R-19 + R-11	R-19 + R-11	R-19 + R-11	R-19 + R-11					
R-5 thermal blocks) ^{a,b}	FC	FC	Ls	Ls	Ls	Ls					
Attic and other - wood framing	R-38	R-38	R-42	R-42	R-42	R-42					
Attic and other - steel framing	R-38	R-38	R-49	R-49	R-49	R-49					
	Walls, Above Grade										
Mass	R-7.6 ci	R-9.5 ci	R-9.5 ci	R-11.4 ci	R-11.4 ci	R-15 ci					
Metal building ^b	R-0+R-13 ci	R-0 + R-19 ci	R-0 + R-15.8 ci	R-0 + R-19 ci	R-0 + R-19 ci	R-0 + R-19 ci					
Metal framed	R-13 + 7.5 ci	R- 13 +	R-13 + R-10 ci	R-13 +	R-13 +	R-13+					
		R-7.5 ci	R-13 + R-7.5ci	R-12.5 ci	R-12.5 ci	R-15 ci					
				R-13 + R-7.5ci	<u>R-13 + R-7.5ci</u>	<u>R-13 + R-10ci</u>					
Wood framed and	R-13 + R-3.8	R-19, R-13+	R-13 + R-7.5	R-19, R-13+	R-13 + R-10 ci	R-19, R-13+					
other	ci	R-5, or R-15 +	ei	R-5, or R-15 +	R-13 + R-3.8	R-5, or R-15+					
	<u>or R-20</u>	R-3 _g	$\frac{R-13 + R-3.8ci}{R-20}$	R-3 _g	<u>ci</u>	R-3 _g					
		R-13 + R-3.8	<u>or R-20</u>	$\frac{R-13 + R-3.8}{ci}$	or R-20	$\frac{R-13 + R-7.5ci}{or R-20 + R-}$					
		<u>ci</u> <u>or R-20</u>		or R-20		3.8ci					
	l .	Wal	lls, Below Grade	L							
Below-grade wall ^c	R-7.5 ci	R-7.5 ci	R-7.5 ci	R-10 ci	R-7.5 ci	R-10 ci					
<u> </u>	l .	L	Floors	L							
Mass	R-12.5 ci	R-12.5 ci	R-14.6 ci	R-16.7 ci	R-14.6 ci	R-16.7 ci					
Joist / Framing	R-30e	R-30e	R-38	R-38	R-38	R-38					
-	•	Slab-	on-Grade Floors	l							
Unheated slabs	NR	R-10 for 24 in.	R-15 for 24 in.	R-15 for 24 in.	R-15 for 24 in.	R-20 for 24 in.					
Heated slabs	R-15 for 24 in.	R-15 for 24 in.	R-20 for 24 in.	R-20 for 48	R-20 for 48	R-20 for 48					
				in.	in.	in.					
	Opaque Doors										
Swinging	U - 0.70	U - 0.50	U - 0.50	U - 0.50	U - 0.50	U - 0.50					
Roll-up or sliding	U - 0.50	U - 0.50	U - 0.50	U - 0.50	U - 0.50	U - 0.50					

The delayed effective date of this Rule is January 1, 2016.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.

AGENCY: Building Code Council

RULE CITATION: 2012 NC Fire Code 308.1.6.3 Sky lanterns

DEADLINE FOR RECEIPT: Monday, November 9, 2015

<u>NOTE WELL:</u> This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made. Approval of any rule is contingent upon making technical changes as set forth in G.S. 150B-21.10.

Line 1 – what does "untethered" mean? Is the term defined in the Code?

The definition of "Sky Lantern" seems very broad – what is the source of this definition? Has the International Code Council approved it?

Is this rule necessary? Several jurisdictions have reasoned that sky lanterns are already prohibited, in effect, because they are recreational fires (302.1) that cannot, by definition, be "constantly attended until the fire is extinguished" as required by 307.5. On the other hand, you state that the International Code Council has approved these provisions. Has the ICC or the NCBCC explained why specific Sky Lantern provisions are necessary?

2012 NC Fire Code 308.1.6.3 Sky lanterns. (150310 Item B-5)

308.1.6.3 Sky lanterns. A person shall not release or cause to be released an untethered *sky lantern*.

Add the following to Section 202 General Definitions:

SKY LANTERN. An unmanned device with a fuel source that incorporates an open flame in order to make the device airborne.

AGENCY: Building Code Council

RULE CITATION: 2012 NC Residential Code R102.7 Existing Structures

DEADLINE FOR RECEIPT: Monday, November 9, 2015

<u>NOTE WELL:</u> This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made. Approval of any rule is contingent upon making technical changes as set forth in G.S. 150B-21.10.

Lines 1-2 – is the "North Carolina Administration and Enforcement Requirements Code" still the correct title, or does the document now have another title (perhaps "North Carolina Administrative Code and Policies")?

2012 NC Residential Code R102.7 Existing structures. (150310 Item B-9)

R102.7 Existing structures. For requirements of existing structures, refer to the North Carolina Administration and Enforcement Requirements Code <u>and the North Carolina Existing Building Code</u>.

AGENCY: Building Code Council

RULE CITATION: 2012 NC Residential Code Table R302.6 Dwelling-Garage Separation

DEADLINE FOR RECEIPT: Monday, November 9, 2015

<u>NOTE WELL:</u> This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made. Approval of any rule is contingent upon making technical changes as set forth in G.S. 150B-21.10.

In the footnote, the phrase "prior to the 2012 code edition" is ambiguous. Do you mean when the 2012 code was adopted (12/14/10), its effective date (1/1/12), or some other date? Please specify the precise date.

2012 NC Residential Code Table R302.6 Dwelling/Garage Separation. (150310 Item B-10)

TABLE R302.6 DWELLING/GARAGE SEPARATION

DWEELING/GRANGE SELIKATION	1
SEPARATION	MATERIAL
From the residence and attics	Not less than 1/2-inch gypsum board or equivalent applied to the garage side
From all habitable rooms above the garagea	Not less than 5/8-inch X-gypsum board or equivalent
Structure(s) supporting floor/ceiling assemblies used for separation	Not less than 1/2-inch gypsum board or equivalent
Garages located less than 3 feet from a dwelling unit on the same lot	Not less than 1/2-inch gypsum board or equivalent applied to the interior side of exterior walls that are within this area

For SI: 1 inch – 25.4 mm, 1 foot – 304.8mm

Footnote: a. For dwelling units constructed prior to the 2012 code edition, 1/2" or greater existing gypsum on the bottom side of the garage ceiling shall be acceptable. Joints shall be taped.

AGENCY: Building Code Council

RULE CITATION: 2012 NC Residential Code R308.4 Hazardous Locations

DEADLINE FOR RECEIPT: Monday, November 9, 2015

<u>NOTE WELL:</u> This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made. Approval of any rule is contingent upon making technical changes as set forth in G.S. 150B-21.10.

In Block 9B of the Submission for Permanent Rule form you describe what the amendment does, but not what prompted the Council to amend the rule. Please briefly explain why the Council seeks to exempt certain glazing from hazardous location requirements.

In Exception 2, the phrase "change in elevation is 8½ inches" is ambiguous because it is not clear what is changing in elevation. Do you mean "change in elevation <u>of a walking surface</u> is 8½ inches?"

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Jason S. Thomas
Commission Counsel
Date submitted to agency: Monday, October 26, 2015

2012 NC Residential Code R308.4 Hazardous Locations. (150310 Item B-11)

R308.4 Hazardous Locations. The following shall be considered specific hazardous locations for the purposes of glazing:

7. Glazing adjacent to stairways, landings and ramps within 36 inches (914 mm) horizontally of a walking surface when the exposed surface of the glazing is less than 60 inches (1524 mm) above the plane of the adjacent walking surface.

Exception:

- 1. When a rail is installed on the accessible side(s) of the glazing 34 to 38 inches (864 to 965 mm) above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot (730 N/m) without contacting the glass and be a minimum of $1\frac{1}{2}$ inches (38 mm) in cross sectional height.
- 2. Where a change in elevation is 81/4 inches or less at an exterior door.

AGENCY: Building Code Council

RULE CITATION: 2012 NC Residential Code R311.4 Vertical egress

DEADLINE FOR RECEIPT: Monday, November 9, 2015

<u>NOTE WELL:</u> This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made. Approval of any rule is contingent upon making technical changes as set forth in G.S. 150B-21.10.

In Block 9B of the Submission for Permanent Rule form you describe what the amendment does, but not what prompted the Council to amend the rule. Please briefly explain why the Council seeks to eliminate the vertical egress requirement.

2012 NC Residential Code R311.4 Vertical egress. (150310 Item B-12)

R311.4 Vertical egress. Egress from habitable levels including habitable attics and basements not provided with an egress door in accordance with Section R311.2 shall be by a ramp in accordance with Section R311.8 or a stairway in accordance with Section R311.7. Deleted.

AGENCY: Building Code Council

RULE CITATION: 2012 NC Residential Code R408.2 Ground vapor retarder

DEADLINE FOR RECEIPT: Monday, November 9, 2015

<u>NOTE WELL:</u> This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made. Approval of any rule is contingent upon making technical changes as set forth in G.S. 150B-21.10.

In Block 9B of the Submission for Permanent Rule form you describe what the amendment does, but not what prompted the Council to amend the rule. Please briefly explain why the Council seeks to eliminate the drain requirement.

Line 2 – what does "nominally" mean? Is it defined in the Code?

2012 NC Residential Code R408.2 Ground vapor retarder. (150310 Item B-13)

R408.2 Ground vapor retarder. When required by Section 408.1.1, A a minimum 6-mil (0.15 mm) polyethylene vapor retarder or equivalent shall be installed to nominally cover all exposed earth in the crawl space, with joints lapped not less than 12 inches. Where there is no evidence that the groundwater table can rise to within 6 inches (152 mm) of the floor of the crawl space, it is acceptable to puncture the ground vapor retarder at low spots to prevent water puddles from forming on top of the vapor retarder due to condensation. Install a drain to daylight or sump pump at each low spot. Crawl space drains shall be kept separate from roof gutter drain systems and foundation perimeter drains.

AGENCY: Building Code Council

RULE CITATION: 2012 NC Residential Code Table R602.10.1 Bracing methods

DEADLINE FOR RECEIPT: Monday, November 9, 2015

<u>NOTE WELL:</u> This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made. Approval of any rule is contingent upon making technical changes as set forth in G.S. 150B-21.10.

Page 2, Table note 9 – what does "mixed" mean? Is it defined in the Code or well understood by your regulated public?

Table R602.10.1 BRACING METHODS^{1, 2}

Method	Minimum	Minimum	Connection	Criteria	Illustration of
	Brace Material Thickness or Size	Brace Panel Length or Brace Angle	Fasteners	Spacing	Bracing Method (illustrates method only, not location)
LIB Let-in Bracing	1x4 wood brace (or approved metal brace installed per manufacturer instructions)	45° angle for maximum 16"oc stud spacing ³	2-8d common nails or 3- 8d (2-1/2" long x 0.113" dia.) nails	Per stud and top and bottom plates	
DWB Diagonal wood boards	3/4" (1" nominal)	48"	2-8d (2- 1/2" long x 0.113" diameter) or 2 – 1- 3/4" long staples	Per stud and top and bottom plates	
WSP Wood structural panel	3/8"	48"4	6d common nail or 8d (2-1/2" long x 0.113" diameter) nail	6" edges 12" field	
SFB Structural Fiberboard Sheathing	1/2"	48"4	1-1/2" long x 0.120" dia. Galvanized roofing nails	3" edges 6" field	
GB Gypsum Board Installed on both sides of wall	1/2"	96" for use with R602.10.2 48" for use with R602.10.3	Min. 5d cooler nails or #6 screws	7" edges 7" field	
PCP Portland cement plaster	34" (maximum 16"oc stud spacing)	48"	1-1/2" long, 11 gage, 7/16" diameter head nails or 7/8" long, 16 gage staples	6" o.c. on all framing members	

CS-WSP ⁵ Continuously sheathed WSP	3/8"	24" adjacent to window not more than 67% of	Same as WSP	Same as WSP	
CS-SFB ⁵ Continuously sheathed SFB	1/2"	wall height; 30" adjacent to door or window greater than 67% and less than 85% of wall height. 48" for taller openings.	Same as SFB	Same as SFB	
PF Portal Frame ^{6,7,8}	7/16"	See Figure R602.10.1	See Figure R602.10.1	See Figure R602.10.1	+

Table Notes:

- 1. Alternative bracing materials and methods shall comply with Section 105 of the North Carolina Administrative Code and Policies, and shall be permitted to be used as a substitute for any of the bracing materials listed in Table R602.10.1 provided at least equivalent performance is demonstrated. Where the tested bracing strength or stiffness differs from tabulated materials, the bracing amount required for the alternative material shall be permitted to be factored to achieve equivalence.
- 2. All edges of panel-type wall bracing shall be attached to framing or blocking, except GB bracing horizontal joints shall not be required to be blocked when joints are finished.
- 3. Two LIB braces installed at a 60° angle shall be permitted to be substituted for each 45° angle LIB brace.
- 4. For 8-foot or 9-foot wall height, brace panel minimum length shall be permitted to be reduced to 36-inch or 42-inch length, respectively, where not located adjacent to a door opening. A braced wall panel shall be permitted to be reduced to a 32-inch length when studs at each end of the braced wall panel are anchored to foundation or framing below using hold-down device with minimum 2,800 lbs. design tension capacity. For detached single story garages and attached garages supporting roof only, a minimum 24-inch brace panel length shall be permitted on one wall containing one or more garage door openings.
- 5. Bracing methods designated CS-WSP and CS-SFB shall have sheathing installed on all sheathable surfaces above, below, and between wall openings.
- 6. For purposes of bracing in accordance with Section R602.10.2, two portal frame brace panels with wood structural panel sheathing applied to the exterior face of each brace panel as shown in Figure R602.10.1 shall be considered equivalent to one braced wall panel.
- 7. Structural fiberboard (SFB) shall not be used in portal frame construction.
- 8. No more than three portal frames shall be used in a single building elevation.
- 9. CS-WSP and CS-SFB cannot be mixed on the same story.

2012 NC Residential Code

R703.12. Adhered stone or masonry veneer installation. (150310 Item B-15)

R703.12. Adhered stone or masonry veneer installation. Adhered <u>stone</u> **or** masonry veneer shall be installed in accordance with the manufacturer's instructions. <u>Protection against the accumulation of water in the exterior wall assembly shall be provided in accordance with Section R703.6 of this code.</u>