

STATE BUILDING CODE INTERPRETATION FORM	STATE BUILDING COMMISSION One Capitol Hill Providence, RI. 02908-5859 (401) 222-3033	Code Interpretation No. <input type="text"/>	Code Section R 703.7
		Date of Staff Preparation	4-28-2011

INQUIRER	David Tacey	TITLE	Building Official
JURISDICTION / ORGANIZATION	Town of West Greenwich RI 02817		

ADDRESS	302 Victory Highway	TOWN	West Greenwich	STATE	RI	ZIP	02817
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<input type="checkbox"/>	BUILDING CODE	<input checked="" type="checkbox"/>	1&2 FAMILY CODE	<input type="checkbox"/>	ELECTRICAL CODE
<input type="checkbox"/>	MECHANICAL CODE	<input type="checkbox"/>	PLUMBING CODE	<input type="checkbox"/>	ENERGY CODE
<input type="checkbox"/>	ACCESSIBILITY CODE	<input type="checkbox"/>	FUEL AND GAS CODE	<input type="checkbox"/>	OTHER

**QUESTION:**

**Section R 703.7 Masonry Veneer**

According to this section the code will only allow masonry veneers' to extend one story above grade. The exceptions however allow up to 30 feet in seismic categories, according to Chapter 3 Table 301.2(1) Seismic Design Criteria is not required for one and two family dwellings.

*Code Article include in Italic font*

**"R703.7 Stone and masonry veneer, general.** Stone and masonry veneer shall be installed in accordance with this chapter, Table R703.4 and Figure R703.7. These veneers installed over a backing of wood or cold-formed steel shall be limited to the first story above-grade and shall not exceed 5 inches (127 mm) in thickness. See Section R602.12 for wall bracing requirements for masonry veneer for wood framed construction and Section R603.9.5 for wall bracing requirements for masonry veneer for cold-formed steel construction."

**Exceptions:**

1. For all buildings in Seismic Design Categories A, B and C, exterior stone or masonry veneer, as specified in Table R703.7(1), with a backing of wood or steel framing shall be permitted to the height specified in Table R703.7(1) above a noncombustible foundation.
2. For detached one- or two-family dwellings in Seismic Design Categories D0, D1 and D2, exterior stone or masonry veneer, as specified in Table R703.7(2), with a backing of wood framing shall be permitted to the height specified in Table R703.7(2) above a noncombustible foundation.

**RESPONSE:**

**R 703.7 Stone and masonry veneer general:** requires masonry / stone veneer to comply with Table R 703.7 and Figure R 703.7 limiting those installations over wood and steel frame structures to the first story above grade.

The code, RI SBC-2 2010, per Table 301.2(1) and footnote 4 (4. Seismic design criteria is not required for buildings and structures regulated by this code.) does not require one and two family structures designed and erected to consider seismic design. The exclusion of the requirement does not remove seismic criteria from consideration or use if other code sections make their use an option, or exception, to another requirement.

This is the case in the listed exceptions 1 & 2 of 703.7 above.

Should a design or construction be indicated to exceed the minimum listed prescriptive requirements of a single story masonry, by applying the exceptions offered for seismic compliance, that is a compliant alternative to the prescriptive path.

For such instances the use of exception 1 from 703.3 would apply as Rhode Island is indicated as being in **Seismic Design Category B**. See attachment "A" the partial map of IRC 2009 Figure R301.2(2) for verification.

Figures and code sections were deleted from the Rhode Island adoption of the code due to our location as a Category B and the exemption of Category A and B locations in the IRC 2009 code as well.

The use of all requirements of the exception and the application of those requirements for that exception and Category are an acceptable compliant alternative to the prescriptive path.

The following articles will supply information that was deleted from the Rhode Island Code adoption

IRC 2009 deleted in RI R301.2.2 Seismic provisions. *The seismic provisions of this code shall apply to buildings constructed in Seismic Design Categories C, D0, D1 and D2, as determined in accordance with this section. {Comment: The IRC provisions would not apply to seismic Category B in RI and they were therefore deleted for clarity.}*

*Exception: Detached one- and two-family dwellings located in Seismic Design Category C are exempt from the seismic requirements of this code. {Comment: The IRC provisions would not be mandated in RI and they were therefore deleted for clarity.}*

*R301.2.2.1 Determination of seismic design category. Buildings shall be assigned a seismic design category in accordance with Figure R301.2(2). See Attachment "A" {Comment: The IRC provisions would not be mandated in RI and they were therefore deleted for clarity.}*

**The deleted portions above do not prohibit the use of exception 1, or 2 of R 703.7.**

When the exceptions are applied as applicable to Seismic Category B the wall bracing requirements of R 602.12 included below would need to be compliant.

**R602.12 Wall bracing and stone and masonry veneer.** *Where stone and masonry veneer is installed in accordance with Section R703.7, wall bracing shall comply with this section.*

*For all buildings in Seismic Design Categories A, B and C, wall bracing at exterior and interior braced wall lines shall be in accordance with Section R602.10 and the additional requirements of Table R602.12(1).*

TABLE R602.12(1)  
STONE OR MASONRY VENEER WALL BRACING REQUIREMENTS, WOOD OR STEEL FRAMING, SEISMIC DESIGN CATEGORIES A, B and C

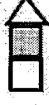
SEISMIC DESIGN CATEGORY	NUMBER OF WOOD FRAMED STORIES	WOOD FRAMED STORY	MINIMUM SHEATHING AMOUNT (length of braced wall line length)*
A or B	1, 2 or 3	all	Table R602.10.1.2(2)

TABLE R602.10.1.2(2)a, b, c—continued  
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY (AS A FUNCTION OF BRACED WALL LINE LENGTH)

SOIL CLASS D* WALL HEIGHT = 10 FT 10 PSF FLOOR DEAD LOAD 15 PSF ROOF/CEILING DEAD LOAD BRACED WALL LINE SPACING ≤ 25 FT			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE			
Seismic Design Category (SDC)	Story Location	Braced Wall Line Length	Method LIB	Methods DWB, SFB, GB, PBS, PCP, HPS	Method WSP	Continuous Sheathing
SDC A and B and Detached Dwellings in C			Exempt from Seismic Requirements Use Table R602.10.1.2(1) for Bracing Requirements			

This is the table that the exceptions for Masonry Veneer Construction in Seismic Category is directed to, THIS IS A PORTION OF THE TABLE on page (143 of the Rhode Island SBC-2 Code)it addresses wind speeds of 100 and 110 mph ONLY and is further based on WIND EXPOSURE Category B, and further all applicable footnotes need to be applied.

TABLE R602.10.1.2(1)<sup>a, b, c, d, e</sup>  
 BRACING REQUIREMENTS BASED ON WIND SPEED  
 (as a function of braced wall line spacing)

EXPOSURE CATEGORY B, 30 FT MEAN ROOF HEIGHT, 10 FT EAVE TO RIDGE HEIGHT, 10 FT WALL HEIGHT, 2 BRACED WALL LINES			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE			
Basic Wind Speed (mph)	Story Location	Braced wall Line Spacing (feet)	Method LIB <sup>1, h</sup>	Method GB (doubled sided) <sup>g</sup>	Method DWB, WSP, SFB, PCP, HPS <sup>1, i</sup>	Continuous Sheathing
≤ 100 (mph)	  	10	4.5	4.5	2.5	2.5
		20	8.5	8.5	5.0	4.0
		30	12.0	12.0	7.0	6.0
		40	15.5	15.5	9.0	7.5
		50	19.0	19.0	11.0	9.5
		60	22.5	22.5	13.0	11.0
	  	10	8.5	8.5	5.0	4.5
		20	16.0	16.0	9.0	8.0
		30	23.0	23.0	13.0	11.0
		40	29.5	29.5	17.0	14.5
		50	36.5	36.5	21.0	18.0
		60	43.5	43.5	25.0	21.0

Those requirements are similar to provisions required for wind bracing design but need to be verified to the nature of each individual design.

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STATE BUILDING COMMISSIONER  
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DATE:

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5/3/2011

**Attachment "A"**

Attached Portion of Figure R 301.2(2) from IRC 2009 Model Code  
This is the Seismic Classification Area Map indicating Rhode Island as Class B

