7MAR13

From: J.P. Staub
To: 760 Ocean AVE Design Team

Subj: CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

Ref: (1) 2009 International Residential Code

Table R301.2(1) included below establishes the climatic and geographic design criteria for 760 Ocean AVE. Criteria are based on information contained in reference (1). Where Passive House criteria apply for thermal envelope design and analysis apply those criteria. For building permit compliance, reference (1) establishes planning minimums.

TABLE R301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY[f]	SUBJECT TO DAMAGE FROM		
	Speed[d] (mph)	Topo Effects[k]		Weathering[a]	Frost line Depth[b]	Termite[c]
50	100	NO	B	SEVERE	48”	SLIGHT

a. Weathering may require a higher strength concrete or grad of masonry than necessary to satisfy the structural requirements of this code. The weathering column shall be filled in with the weathering index (i.e., “negligible,” “moderate” or “severe”) for concrete as determined from the Weathering Probability Map [Figure R301.2(3)].
b. The frost line depth may require deeper footings than indicated in Figure R403.1(1). The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below the finish grade.
c. The jurisdiction shall fill in this part of the table to indicate the need fro protection depending on whether there has been a history of local subterranean termite damage.
d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(4)]. Wind exposure category shall be determined on a site-specific bases in accordance with Section R301.2.1.4.
f. The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.
k. In accordance with Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with “YES.” Otherwise, the jurisdiction shall indicate “NO” in this part of the table.

TABLE R301.2(1) cont’d
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

WINTER DESIGN TEMP[e]	ICE BARRIER UNDERLAYMENT REQUIRED[h]	FLOOD HAZARDS[g]	AIR FREEZING INDEX[i]	MEAN ANNUAL TEMP[j]
-1	YES	(N/A)	1407	45.0

e. The outdoor design dry-bulb temperature shall be selected from the columns of $97^{1/2}$ – percent values for winter from Appendix D of the *International Plumbing Code.* Deviations from Appendix D temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official.
g. The jurisdiction shall fill in this part of the table with (a) the date of the jurisdiction’s entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas), (b) the date(s) of the Flood Insurance Study and (c) the panel numbers and dates of

all currently effective FIRMs and FMFMs or other flood hazard map adopted by the authority having jurisdiction, as amended.

h. In accordance with Sections R905.2.7.1, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall fill in this part of the table with "NO."

i. The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the 100-year (99%) value on the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32^0)" at www.ncdc.noaa.gov/fpsf.html.

j. The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32^0F)" at www.ncdc.noaa.gov/fpsf.html.

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