Residential Code

City of San Diego
2013 Residential Building Regulations - Proposed Code Changes

1. **ADMINISTRATIVE**

Text as it appears in LDC.

§149.0101 Purpose of the Residential Building Regulations

(a) The purpose of the Residential Building Regulations is to establish minimum standards to safeguard life and limb, health, property and public welfare and to satisfy the purpose of the California Residential Code as provided in ~~Section 1.1.2~~ Section 1.8.1of the California Residential Code.

(b) The purpose of this Section is not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this Section.

Reason: Update for consistency with CRC.

2. **DEFINITIONS**

Text as it appears in LDC.

§149.0201 Local Additions to Chapter 2 "Definitions" of the California Residential Code

(a) Chapter 2 of the California Residential Code is adopted by reference with additions pursuant to Sections 149.0103 and 149.0106 of the San Diego Municipal Code.

(Remainder no change)

§149.0202 Local Modifications and Additions to Chapter 2 "Definitions"

The following definition has been added to the California Residential Code as follows pursuant to Section 149.0106 of the

San Diego Municipal Code: ~~IVE WORK UNIT~~ LIVE WORK. A unit in which a portion of the unit is used for other than living purposes as defined and subject to the limitations set forth in Section 419 "LIVE/WORK UNITS" in the California Building Code, as adopted and amended by the City of San Diego. Live Work Unit shall not mean Live/Work Quarters as defined and regulated in Section 141.0311 of the San Diego Municipal Code

Reason: Code edition inadvertently omitted last cod cycle.

3. **CLIMACTIC AND GEOGRAPHIC DESIGN CRITERIA**

Text as it appears in CRC.

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

~~GROUND SNOW LOAD~~	WIND DESIGN		SEISMIC DESIGN CATEGORY[f]	~~SUBJECT TO DAMAGE FROM~~			~~WINTER DESIGN TEMPe~~	ICE BARRIER UNDERLAYMENT	FLOOD HAZARDS[g]	~~AIR FREEZING INDEX[i]~~	~~MEAN ANNUAL TEMP[j]~~
	~~Speed[d] (mph)~~	~~Topographic effects[k]~~		~~Weathering[a]~~	~~Frost line depth[b]~~	Termite[c]					
	85	B	D_2			Severe per Fig R301.2 (3)			Section §143.0145		

Text as it appears in LDC.

§149.0302 Local Modifications and Additions to Section R301.2 "Climatic and Geographic Design Criteria"

(a) Section R301.2 of the California Residential Code is adopted with modifications and additions pursuant to Sections 149.0105 and 149.0106 of the San Diego Municipal Code.

(b) Section R301.2 is adopted with modifications as follows. Buildings shall be constructed in accordance with the provisions of California Residential Code as limited by the

provisions of Section R301. Additional criteria shall be as outlined in Table 149.0302.

Table as it appears in LDC.

Table 149.0302				
Wind Design		**Seismic Design Category[f]**	**Termite[c]**	**Flood Hazards[g]**
Speed[d] (Mph)	**Topographic Effects[k]**			
85	B	D_2	Severe per Fig R301.2 (3)	Section §143.0145

Reason: Clarifies minimum local design conditions. Inadvertently not amended in last code cycle. The City of San Diego s not subject to snow loads, special weathering, ground freezing, the energy portions of the IRC were not adopted by the State, no roof ice, no air freezing and as such those columns of the table in the CRC are not applicable. This table was inadvertently not modified during adoption of the 2010 CRC. The table provides design criteria primarily for the CRC wall bracing requirements.

4. **PRESERVATIVE WOOD USING BORATES**

~~**§149.0317 Local Modifications and Additions to Section R317 "Protection of Wood and Wood Based Products Against Decay" of the California Residential Code**~~

~~(a) Section R317 is adopted with modifications and additions pursuant to Sections 149.0105 and 149.0106 of the San Diego Municipal Code.~~

~~(b) Exception 3 is added to Section R317.3.1 as follows: Plain carbon steel fasteners in SBX/DOT and zinc borate preservative-treated wood in an interior, dry environment shall be permitted.~~

Reason: This amendment is proposed to be repealed since Section R317.3.1 Exception # 3 now addresses the issue.

5. **FLOOD REGULATIONS.**

Text as it appears in CRC

R322.1 General. Buildings and structures constructed in whole or in part in flood hazard areas (including A or V Zones) as established in ~~Table R301.2(1)~~ in Table 149.0302 shall be designed and constructed in accordance with the provisions contained in this section. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24. For additional regulations for construction in special flood hazard areas see Section §143.0145 and Section §143.0146 of the Land Development Code.

Text as it appears in LDC

§149.0322 Local Modifications and Additions to Section R322 "Flood Resistant Construction" of the of the California Residential Code

(a) Section R322.1 is modified as follows pursuant to Section 149.0105 of the Land Development Code.

(1) R322.1 General. Buildings and structures constructed in whole or in part in flood hazard areas (including A or V Zones) as established in Table §149.0302 shall be designed and constructed in accordance with the provisions contained in this section. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24. For additional regulations for construction in special flood hazard areas see Section §143.0145 and Section §143.0146 of the Land Development Code.

Reason: The modification to Section R322 is to reference the City flood hazard map and to identify other local flood regulations.

6. **UPDATE REFERENCE TO THE VERY HIGH FIRE HAZARD SEVERITY ZONE MAP**

This code change s necessary to revise the reference to the VHFHSZ map

Text as it appears in LDC

§149.0327 Local Additions and Modifications to Section R327 "Definitions" of the California Residential Code

(a) Section R327 of the California Residential Code is adopted with modifications and additions pursuant to Sections 149.0105 and 149.0106 of the San Diego Municipal Code.

(b) Section R327.1.3 is adopted by reference with modifications and additions pursuant to Sections 149.0105 and 149.0106 of the San Diego Municipal Code. Exception 5 is added as follows: 5. Fences.

(c) Section R327.2 has been adopted by reference with modifications and additions pursuant to Sections 149.0105 and 149.0106 of the San Diego Municipal Code as follows: Local Agency Very High Fire Hazard Severity Zones shall mean the Very High Fire Hazard Severity Zones as designated on the Very High Fire Hazard Severity Zone Map – Local Responsibility Areas adopted pursuant to Section ~~55.5001~~ 55.9401 of the San Diego Municipal Code.

(*Remainder of Section no change)*

Reason: The modification is necessary to update the section reference due to renumbering in the Fire Code regulations.

7. **RENUMBER SECTION 149.0331 THROUGH 149.0333**

Text as it appears in LDC.

§149.~~0331~~ 0332 Local Addition of Section ~~R331~~ R332 "Encroachments Into The Public Right-Of-Way" to the California Residential Code

(a) Section ~~R331~~ R332 is added to the California Residential Code pursuant to Section 149.0106 of the

San Diego Municipal Code as follows: ~~R331~~ R332 Encroachments into the Public Right-Of-Way. Encroachments into the Public Right-of-Way shall comply with the standards in Chapter 32 of the California Building Code as adopted and amended by the city of San Diego in San Diego Municipal Code Section 145.3203. The City Engineer may require a Right-Of-Way permit for the construction of an encroachment in accordance with the authority granted in San Diego Municipal Code Section 129.0710.

§149.~~0332~~0333 Local Addition of Section ~~R332~~ R333 "Safeguards During Construction" to the California Residential Code

(a) Section ~~R332~~ R333 is added to the California Residential Code Building Code pursuant to Section 149.0106 of the San Diego Municipal Code as follows: ~~R332~~ R333 Safeguards During Construction. Provisions for safety during construction and the protection of adjacent public and private properties shall be governed by the requirements of Chapter 33 of the California Building Code as adopted and amended by the City of San Diego in San Diego Municipal Code Section 145.3303.

§149.~~0333~~ 0334 Local Addition of Section R333 "Sound Transmission Control" to the California Residential Code

Section ~~R333~~ R334 is added to the California Residential Code Building Code pursuant to Section 149.0106 of the San Diego Municipal Code as follows:

1. ~~R333~~ R334 Sound Transmission Control. Wall and floor-ceiling assemblies separating dwelling units

from each other and from public or service areas such as interior corridors, garages and mechanical spaces shall provide airborne sound insulation for walls, and both airborne and impact sound insulation for floor-ceiling assemblies.

Reason: The 2013 CRC includes new Section R330 and R331 that are adopted without change. Section R333 remains since Appendix Chapter K is not adopted by State or City.

8. **SWIMMING POOL SAFETY SECTION 149.0330**

Text as it appears in LDC.

§149.~~0330~~ 0335 Local Addition of Section ~~R330~~ R335 "Building Regulations for Swimming Pools" to the California Residential Code

(a) When Swimming Pool, Spa, and Hot Tub Regulations Apply. The building regulations of this Division apply to any outdoor private swimming pool. An outdoor swimming pool means any structure intended for swimming or recreational bathing that can contain water over 18 inches in depth and is not totally contained within a residence and surrounded on all four sides by walls of the structure. This includes in-ground, aboveground and on-ground swimming pools, hot tubs, and spas. The regulations shall also apply to artificial structures creating ponds.

(b) Section ~~R330~~ R335 is added to the California Residential Code pursuant to Section 149.0106 of the San Diego Municipal Code as follows:

(1) ~~R330.1~~ R335.1 The purpose of this Section is to establish building regulations for private swimming pools and hot tubs or spas that do not have locking safety covers that comply with the American Society for Testing Materials Emergency Performance Specifications (ASTM ES 1346-91) located on the premises of dwellings and dwellings units complying with the California Residential Code.

(2) ~~R330.2~~ R335.2 Private swimming pool shall mean is any constructed pool, permanent or portable, which is intended for noncommercial use as a swimming pool by not more than three owner families and their guests.

(3) ~~R330.4~~ R335.3 Barriers for private swimming pools shall comply with Section 3109 of the California Building Code as adopted and amended by the City of San Diego in Section 145.3109 (c) of the San Diego Municipal Code.

Reason: The 2013 CRC includes new Section R330 that IS adopted without change. Section R335 remains since Appendix Chapter g is not adopted by State or City. Sub-section (a) is modified to address the drowning hazards to children when Koi ponds and similar artificial bodies of waters are added to properties within the scope to the California Residential Code.

9. **REPEAL WALL FRAMING / SHEAR TRANSFER AMENDMENT**

~~**§149.0602 Local Modifications to Section R602 "Wood Wall Framing" of the California Residential Code**~~

~~(a) Section R602 has been adopted by reference with modifications pursuant to Section 149.0105 of the San Diego Municipal Code.~~

~~(b) Section R602.10.6.1 numbers 3 and 4 are modified as follows:~~

~~(1) 3. For SDC D_0, D_1 and D_2 or wind speeds of 100 miles per hour (45 m/s) or greater, where the distance between the top of rafters or roof trusses and perpendicular top plates is 151/4 inches (387 mm) or less, rafters or roof trusses shall be connected to the top plates of braced wall panels with blocking over the full length of the braced wall line and attached in accordance with Table R602.3 (1).~~

~~(2) 4. For all seismic design categories and wind speeds, where the distance between the top of rafters or roof trusses and perpendicular top plates exceeds 151/4 inches (387 mm), perpendicular rafters or roof trusses shall be connected to the top plates over the full length of the braced wall line in accordance with one of the following methods:~~

~~(i) 4.1. In accordance with Figure R602.10.6.2(2),~~

~~(ii) 4.2. With full height engineered blocking panels designed for values listed in American Forest and Paper Association (AF&PA) Wood Frame Construction Manual for One- and Two-Family Dwellings (WFCM). Both the roof and floor sheathing shall be attached to the blocking panels in accordance with Table R602.3 (1).~~

~~(iii) 4.3. Designed in accordance with accepted engineering methods.~~

~~(c) Figure R602.10.6.2 (1) and Figure R602.10.6.2 (3) are not adopted pursuant to Section 149.0104 of the San Diego Municipal Code.~~

Reason: This requirement was revisited in the 2012 IRC however the local amendment codified for the 2013 CRC did not prevail. While as depicted Figure R602.10.8.2 (1) and Figure R602.10.8.2 (3) appear to conflict with the Section R301 that requires a complete load path, proponents of the revised Section R602.10.8 and demonstrated through engineering that load transfer through bearing between trusses and blocking methods for connections resisting light loads of approximately 100 lb per ft in prescriptively designed buildings will perform consistently with the intended performance for the remaining portions of the lateral load resisting system. We are not aware of designers opting to use the connection detailing methods, full depth blocking positively connected to roof diaphragms is typical.

10. **REPEAL ATTIC VENTILLATION EXCEPTION**

Text as it appears in CRC.

SECTION R806 ROOF VENTILATION
RS06.1 Ventilation required. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilation openings shall have a least dimension of *1/16* inch (1.6 mm) minimum and *1/4* inch (6.4 mm) maximum. Ventilation openings having a least dimension larger than *1/4* inch (6.4 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth, or similar material with openings having a least dimension of 1/ 16 inch (1.6 mm) minimum and *1/4* inch (6.4 mm) maximum.

Openings in roof framing members shall conform to the requirements of Section RS02.7. Required ventilation openings shall open directly to the outside air.

Exception: Attic ventilation shall not be required when determined not necessary by the code official due to atmospheric or climatic conditions.

~~**§149.0806 Local Modifications to Section R806 "Roof Ventilation" of the California Residential Code**~~

~~(a) Section R806 is adopted by reference with additions and modifications pursuant to Sections 149.0105 and 149.0106 of the San Diego Municipal Code.~~

~~(b) Section R806.1 is modified by adding an exception. R806.1 Ventilation required. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilation openings shall have a least dimension of 1/16 inch (1.6 mm) minimum and ¼ inch (6.4 mm) maximum. Ventilation openings having a least dimension larger than ¼ inch (6.4 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth, or similar material with openings having a least dimension of 1/16 inch (1.6 mm) minimum and ¼ inch (6.4 mm) maximum. Openings in roof framing members shall conform to the requirements of Section R802.7. Exception: Attic ventilation shall not be required when determined not necessary by the Building Official due to atmospheric or climatic conditions.~~

Reason: This local amendment is being repealed since the City of San Diego was successful in the addition of the exception to Section R806 of the 2012 International Residential Code. A companion code change by another proponent

addressed the method of constructing unventilated attics that has been updated by the State for consistency with California energy efficiency standards.

11. **FIRE CLASSIFICATION FOR SOLAR PHOTOVOLTAICS**

R902.3 Building integrated photovoltaic systems. Rooftop installed building integrated photovoltaic systems that serve as the roof covering shall be listed and labeled for fire classification in accordance with ~~Sections R902.1 through R902.1.4~~ §149.0902.

R902.4 Photo voltaic panels and modules. Effective January 1, 2015, rooftop mounted photovoltaic panels and modules shall be tested, listed and identified with a fire classification in accordance with UL 1703. The fire classification shall comply with Table 1505.1 of the California Building Code based on the type of construction of the building. When located in the Very High Fire Hazard Severity Zone as designated on the Very High Fire Hazard Severity Zone Map – Local Responsibility Areas adopted pursuant to Section 55.9401 of the San Diego Municipal Code, rooftop mounted photovoltaic panels and modules shall have a minimum fire classification rating of Class A.

§149.0902 Local Additions and Modifications to Section R902.1 "Roof Classification" of the California Residential Code

(a) Section R902.1 is adopted by reference and modified by adding Section R902.1.5 as follows:

(1) R902.1.5 Roof covering materials. All newly constructed roofs shall be covered with a fire-retardant roof covering that is at least Class "A" and the roof classification shall be demonstrated based on the requirements in the California Residential Code.

(2) R902.1.5.1 The entire roof shall be shall be covered with a fire-retardant roof covering that is at least Class "A" where a building addition is more than twenty-five percent of the original floor area of the building.

(b) Section R902.2 is adopted by reference and modified by adding Sections R902.2.1 and R902.2.2 as follows:

(1) R902.2.1 Wood shingles. Wood shingles are not permitted, except as provided in the California Historical Building Code Section 8-408 and San Diego Municipal Code Section 149.0907.

(2) R902.2.2. Wood shakes. Wood shakes are not permitted, except as provided in the California Historical Building Code Section 8-408 and San Diego Municipal Code Section 149.0907.

(c) Section R902.3 is adopted by reference and modified by adding as follows:

(1) R902.3 Building integrated solar photovoltaic systems. Integrated solar photovoltaic systems that serve as the roof covering shall be listed and labeled for fire classification in accordance with Section §149.0902 of the Land Development Code.

(d) Section R902.4 is adopted by reference and modified by adding as follows:

(1) R902.4 Roof mounted solar photo voltaic panels and modules. Effective January 1, 2015, rooftop mounted photovoltaic panels and modules shall be tested, listed and identified with a fire classification in accordance with UL 1703. The fire classification shall comply with Table 1505.1 of the California Building Code based on the type of construction of the building. When located in the Very High Fire Hazard Severity Zone as designated on the Very High Fire Hazard Severity Zone Map – Local Responsibility Areas adopted pursuant to Section 55.9401 of the San Diego Municipal Code,

rooftop mounted photovoltaic panels and modules shall have a minimum fire classification rating of Class A.

Reason: The proposed modifications to Section R902.3 and R902.4 are in response to the State's action to incorporate Solar PV regulations into the California Building Code and California Residential Code. The City of San Diego requires a class A roof on all new roofs and certain re-roofs or recovers. The proposed code change cross-references to the Building Regulations. When located in the Very High Fire Hazard Severity Zone photovoltaic modules or panels shall have a fire classification not less than Class A pursuant to California State Fire Marshall Information Bulletin 14-011 dated November 25, 2014.