



# Supplemental Plan Correction Sheet for LA Residential Code Prescriptive Design ( 2017 LARC)

Plan Check Submittal Date: \_\_\_\_\_

Plan Check #: \_\_\_\_\_ Permit App.# \_\_\_\_\_

Job Address: \_\_\_\_\_

Applicant: \_\_\_\_\_ Phone: (\_\_\_\_) \_\_\_\_\_

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**If you have any questions or need clarification on any plan check matters, please contact your plan check engineer and/or his or her supervisor.**

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## A. SCOPE

1. The Los Angeles City Residential Code Prescriptive Design is only for One and Two Family Dwellings, Efficiency Dwelling Units, and Townhouses with a separate means of egress and their accessory structures of light frame construction not exceeding two stories, and meeting the regularity requirements of Section R301.2.2.2.5 and the Weight limits of R301.2.2.2.1.
2. Weights of Material shall not exceed the following:
  - a. 25-psf for combined roof/ceiling.
  - b. 10-psf for floors.
  - c. 15-psf for wood frame walls
  - d. 14-psf for cold-formed steel exterior walls.
  - e. 10-psf for interior wood framed walls.
  - f. 5-psf for interior cold formed steel walls.
3. The following irregularities are not allowed.
  - a. When exterior shear wall lines or braced wall panels are not in one plane vertically from the foundation to the uppermost story in which they are required.
  - b. When a section of floor or roof is not laterally supported by shear walls or braced wall lines on all edges.
  - c. When the end of a braced wall panel occurs over an opening in the wall below.
  - d. When an opening in a floor or roof exceeds the lesser of 12 feet or 50 percent of the least floor or roof dimension.
  - e. When portions of a floor level are vertically offset.
  - f. When shear walls and braced wall lines do not occur in two perpendicular directions.
  - g. When stories above-grade partially or completely braced by wood wall framing in accordance with CBC Section R602 or steel wall framing in accordance with CBC Section R603 include masonry or concrete construction;

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## **B. MATERIAL SPECIFICATIONS**

1. Specify the following items on plans:
  - a. Type of Soil and Bearing Value per Table R401.4.1
  - b. 2,500-psi concrete.
  - c. A 615 Reinforcing Steel.
  - d. Grade and Species of wood.
  - e. ASTM Specification and grade of cold formed steel members.
  - f. ASTM C 1513 for self-drilling tapping screws for cold form steel connections.
  - g. ASTM F 1554 Anchor Rods.
2. Hold down anchors must be approved by a current Los Angeles City Research Report. Specify manufacturer, Product Model Number, and LARR Number on the plans.

## **C. FOUNDATION AND GRADING**

1. Add details to show compliance with all corrections on enclosed Grading Pre-Inspection Report and see supplemental grading correction sheet for additional comments.
2. All foundations shall be designed for expansive soils unless a soils report is provided and approved by LADBS Grading Division (see information bulletin P/BC-2014-116 for more information). Provide details on foundation plans to comply with the requirements.
3. Earthquake Induced Liquefaction/Landslide Area: A geotechnical report is required to evaluate the potential for soil liquefaction and soil strength loss during an earthquake. See information bulletin P/BC-2014-113 for exceptions to additions).
4. Site is in a Alquist-Priolo Special Studies Zone. Geology report must be submitted to and approved by the LADBS Grading Division. See information bulletin P/BC-2014-044 for additional information).
5. Specify the following information on the foundation plan:
  - a. Minimum 3-1/2" concrete slab on grade. (R506.1)
  - b. Minimum 6-mill polyethylene vapor barrier with joints lapped not less than 6-inches. (R506.2.3)
  - c. Support for reinforcement to maintain reinforcement between center and upper one third of slab for the duration of the concrete pour. (R506.2.4)
  - d. Slab below grade supported on minimum 4-inch base coarse of clean graded sand, gravel, or crushed stone passing 2-inch sieve. (R506.1 and R506.2.2)
6. Wood sill plates shall be anchored to the foundation with ½-inch diameter anchor bolts, spaced maximum 6-ft on center, and embedded a minimum 7-inches into concrete and within the middle third of the width of the plate. Provide minimum two bolts per plate with bolts located not more than 12-inches and not less than 7-bolt diameters from each end of the plate section. (R403.1.6)
7. Anchor bolts shall be provided with minimum 0.229-inch x 3-inch x 3-inch plate washer. The plate washer may be diagonally slotted when a standard cut washer is provided between the nut and the plate washer and the diagonal cut does not exceed 1-3/4-inches long and the width of the cut is not more than 3/16-inch larger than the bolt diameter. (R602.11.1)
8. Foundations with stem walls shall be reinforced with minimum of one number 4 bar within 12-inches of the top and one number 4 bar within 4-inches of the bottom of the footing and with minimum three inches of concrete cover. (R403.1.3.1)

9. Slab on grade with turned down footings shall be reinforced with a minimum one number 4 bar at the top and one number 4 bar at the bottom. The bottom bar shall be within 4-inches of the bottom of the footing and shall have minimum 3-inch concrete cover. (R403.1.3.3)
10. Where a construction joint is created between a footing and a stem wall, a minimum of one number 4 bar shall be installed at 4-ft maximum spacing. The bar shall extend to within 3-inches clear of the bottom of the footing, have a standard hook in accordance with Figure R608.5.4(3) , and extend a minimum of 14-inches into the stem wall. (R403.1.3.1)
11. Provide details for stepped footing when slope of bottom of footing will exceed 1:10 (V:H) slope. Top surface of footings shall be level. (R403.1.5)
12. All foundations shall be designed for expansive soil conditions unless determined not to be expansive as in accordance with Section R403.1.8.1. Testing shall be conducted by a Los Angeles City Approved Testing Agency. (See Information bulletin P/BC-2014-116 for requirements). Provide details on foundation plans to show the requirements.
13. Show on plans how concentrated drainage is being conveyed to the street via non-erosive devices. (R401.3)
14. Provide an ascending slope clearance to building of H/2 or 15-ft max. (R403.1.7.1)
15. Detail a footing setback of H/3 to the face of slope or as required by the approved soil report. (R403.1.7.2)
16. Add note on plans: If adverse soil conditions are encountered, a soils investigation report may be required. (R401.4)

#### **D. VERTICAL LOADS**

1. Ceiling joists sizes and spacing shall be determined using 20-psf live load. When the attic does not have 42-inches of clear space between joist and rafter, the ceiling joists may be determined using 10-psf live load. (R301.5)
2. Separate submittal is required engineered roof trusses. Submit structural calculations and plans including truss profiles, member sizes and connection details for all roof and floor trusses prior to issuance of building permit. Specify Manufacturer, product name, and LARR number for \_\_\_\_\_ (R802.10)

#### **E. WOOD**

1. Provide a framing nailing schedule on plans for prescriptive wood frame construction. (T-602.3(1))
2. Show the size of (rafters), (ceiling joists), and (floor joists) on plans.
3. Show size and grade of beams/headers over openings in exterior walls and interior bearing walls.
4. (Rafters) (ceiling joists) (floor joists): \_\_\_ x \_\_\_ at \_\_\_ o.c. \_\_\_\_\_ exceed the allowable span for grade. (T-R802.5.1(1), T-R802.4(1), T-R502.3.1(2))
5. Where the roof pitch is less than 3:12 (V:H) structural members that support rafters and joists, such as ridge beams, hips, and valleys shall be designed as beams. Provide calculations. (R802.3)
6. The size of ridge board, valley, or hip members shall not be less than the cut end depth of the rafter. (R802.3)
7. Provide designed ridge beam for vaulted ceiling when rafter ties are not provided. (R802.3.1)

8. Roof purlins shall not be smaller than the rafter they support. Purlins shall be continuous and shall be supported by 2 x 4 inch braces installed to bearing walls at a slope not less than 45 degrees from the horizontal. The braces shall be spaced not more than 4-ft and the unbraced length of the braces shall not exceed 8-ft. (R802.5.1)
9. Rafter ties are required immediately above ceiling joists which are not parallel with the rafters and at the same spacing as the rafters. (R802.3.1)
10. Provide minimum 1 x 4 collar tie or 1-1/4" x 20 gage ridge strap spaced maximum 4-ft o.c. to resist wind uplift, connected in the upper 1/3 of the attic space. (R802.3.1)
11. Ceiling joists used as rafter ties shall be continuous over interior partitions or shall be lapped and nailed in accordance with Table R802.5.1(9). (R802.3.1), (R802.3.2)
12. Show blocking at ends of rafters and trusses at exterior walls and at supports for floor joists. (602.10.8.2)
13. Floor Joists under parallel bearing partitions shall be sized in accordance with Section R502.4 and Table R602.7(2) .
14. Specify the header size at door, window, and other openings in bearing walls.
15. Detail is required for header support at the corner windows (see marked plans).
16. Use full height studs (balloon frame) on exterior walls of rooms with vaulted ceiling. Specify size and spacing. Studs in bearing walls are limited to 10-ft in height unless an approved design is submitted.
17. Exterior landings, decks, balconies, and stairs must be positively attached to the structure without the use of toenails or nails in withdrawal. (R311.5.1)
18. Fasteners in preservative treated wood or fire retardant treated wood shall be of hot dipped zinc coated galvanized or stainless steel. (R317.3.1)
19. Connectors in contact with preservative treated wood shall have coating types and weights in accordance with the connector manufacturer's recommendation or in the absence of manufacturers recommendation shall be a minimum of ASTM A653 Type G185 zinc coated galvanized. (R317.3.1)
20. When bolting to an existing footing, provide a copy of the Research Report for the bolt, allowable design load, and required edge distances. Engineering calculations and special inspection is required.

#### **F. BRACED WALL PANELS**

1. Clearly identify all braced wall lines on plans and identify location and length of all braced wall panels on each braced wall line.
2. Specify bracing method for each braced wall line on plans. See Table R602.10.4 for bracing methods.
3. Mixing bracing methods within a braced wall line is not allowed. (R602.10.4.1)
4. Mixing alternate braced wall panel with wood structural panel (WSP) within a braced wall line is not allowed. (R602.10.4.1)
5. Specify total required braced wall length (for both wind and seismic) and total braced wall length provided for each braced wall line on plans. Include all adjustment factors specified in footnotes to Table R602.10.3(2) for wind and adjustment factors specified in Table R602.10.3(4), and section R602.10.4.3 for seismic when determining the required braced wall line length. (R602.10.6.5.1)

6. Maximum height to width ratio for gypsum bracing and Portland cement plaster bracing is 1:1. (footnote e, T-R602.10.3(3))
7. Braced wall line spacing is not allowed to exceed 25-ft. Spacing between two adjacent braced wall lines may up to 35-ft per Table R602.10.1.3, when length of required bracing per table R602.10.3(3) is adjusted in accordance with Table R602.10.3(4). (R602.10.1.3)
8. A braced wall panel shall not be offset more than 4-ft from its designated braced wall line as demonstrated in Figure R602.10.1.1. (R602.10.1.2)
9. Braced wall panels shall comply with the following:
  - a. Minimum panel width for the Wood Structural Panel (WSP) method shall be 4'-0" for wall heights not exceeding 10-ft. (Table R602.10.5)
  - b. Gypsum board (GB) and Portland cement plaster (PCP) shall have height to width ratios not exceeding 1:1. (Table R602.10.3(3))
  - c. Gypsum board shall be applied to the opposite side of the bracing material, unless the required bracing length has been increased by the appropriate adjustment factors.
  - d. Spacing between centers of braced wall panels shall not exceed 25-ft. (R602.10.1.3)
10. End conditions for braced wall lines with continuous sheathing shall comply with the following:
  - a. Braced wall panel shall be located at each end of a braced wall line, or
  - b. Wood Structural Panel (WSP) may begin not more than 10-ft from the end of the braced wall line provided hold downs with a capacity of at least 1800-lb is provided at the braced wall panel closest to the corner, or
  - c. a 2-ft x 2-ft corner return is provided in accordance with Figure R602.10.7. (R602.10.1.4)
11. Braced wall panels within a braced wall line at interior walls shall comply with the following:
  - a. Braced wall panel shall be located not more than 10 ft from the end of an interior brace wall line and the distance between adjacent edges of braced wall panels along a braced wall line shall be no greater than 20 ft as shown in Figure R602.10.2.2. (R602.10.2.2)
12. Alternate Braced Wall Panel (ABW) shall be constructed in accordance with Figure R602.10.6.1. The hold down force shall be in accordance with Table R602.10.6.1. Alternate braced wall panel cannot be mixed with other types of bracing methods within a braced wall line.
13. Method PFH-Portal Frame with Hold Downs may only be used at a detached garage door openings in accordance with Section R602.10.6.2 and Figure R602.10.6.2.
14. Continuous sheathing methods require structural panel sheathing to be used on all sheathable surfaces on one side of a braced wall line including areas above and below openings and gable end walls and shall meet the requirements of section R602.10.7 and Figure R602.10.7. Method Continuous Portable Frame Panel Construction (Method CS-PF) shall be in accordance with Figure R602.10.6.4. (R602.10.4.2)
15. All braced wall panels shall be supported by a continuous foundation. (R403.1.2)
16. All vertical joints of panel sheathing shall occur over and be fastened to common studs. Horizontal joints in braced wall panels shall occur over and be fastened to minimum 2x common blocking. (R602.10.10) (R602.10.10)
17. Cripple wall bracing shall have length as specified in Tables R602.10.3(1) and R602.10.3(3) and with an increase of 1.15 times the required length, and shall have a spacing between panels not exceeding 14-ft. (R602.10.11)

