

RESIDENTIAL STANDARD CORRECTIONS LIST. 2007 CBC
Dated 1-21-08

ADMINISTRATIVE

1. Show correct address of building on plans. CBC 105.3 Appendix
2. All sheets of plans and cover sheet of any calculations must be wet signed and dated by person responsible for their preparation. CBC 105.3 Appendix
3. Portions of the plans that do not meet conventional construction, or require structural calculations, must be signed by an architect, civil engineer, or structural engineer registered to practice in California.
4. A complete plot plan showing lot dimension, yard setbacks, street name(s), north arrow, existing building to remain, distance between buildings and location of private sewage disposal system is required. CBC 106.2 Appendix
5. Delete notes and details that do not apply to this project.
6. Provide existing and proposed contours, spot elevations to indicate general site slope and drainage pattern. CBC 106.2 Appendix
7. On site plan delineate all projecting elements, and show distance to property line. CBC 106.2 Appendix
8. The current design codes have changed. Please submit design and plans based on the 2007 CBC, CPC, CMC and 2007 CEC.
9. Identify current code years on plans. 2007 CBC, CMC, CPC, CEC along with the 2005 T-24 Energy Standards.
10. Provide an index of drawings on the cover sheet of plans.

ARCHITECTURAL

11. Walls between 5 and 3 ft to property lines shall be one hour rated construction and have a maximum of 25% of unprotected/protected openings. CBC Table 602 and 704.8. (Including footnotes)
12. Walls closer than 3 ft to property lines shall be one hour rated construction, have no opening, and shall have 30 inch parapets when the building floor area exceeds 1,000 square feet on any floor. CBC Table 602 and 704.8
13. Detached garage/carport walls closer than 5 ft to property line shall have one-hour exterior protection with openings as allowed by CBC Table 602 and 704.8.

14. Buildings adjacent to ascending or descending slopes shall be setback according to the requirements of Section 1805.3 and Figure 1805.3.1.
15. Projections, including eaves, shall be one-hour fire resistive construction, heavy timber or of noncombustible material if they project into the 3 ft setback area from the property line. They may project a maximum of 12 inches beyond the 3 ft setback. CBC 704.2
16. Each townhouse unit shall be considered a separate building and shall comply with the following: CBC 419.4
 - A. Adjacent townhouse units shall each be provided with a 1-hour fire-resistance-rated wall assembly separating the units. (Section 705)
 - B. Openings are not permitted.
 - C. Penetrations shall comply with Section 705.9.

Exception: In lieu of the two 1-hour walls a common 2-hour fire-resistance-rated wall shall be permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. Electrical installations shall be installed in accordance with the California Electrical Code. Penetrations of electrical outlet boxes shall be in accordance with Section 712.
17. The fire-resistance-rated wall or assembly separating townhouses shall be continuous from the foundation to the underside of the roof sheathing, deck or slab. The fire-resistance rating shall extend the full length of the wall or assembly, including wall extensions through and separating attached enclosed accessory structures. CBC 419.4.1.
18. Parapets constructed in accordance with Section 704.11.1 shall be constructed for townhouses as an extension of exterior walls or common walls. CBC 419.4.2.
19. For roof covering specify per CBC Ch. 15:
 - A. Manufacturer and ICBO/UL/FM number.
 - B. Roof slope(s) of all areas on the roof plan.
 - C. Note on Plans: "Installation of roofing shall be in accordance with manufacturer's specifications".
20. Roof slope is not adequate for _____ Type of roof covering specified. CBC Ch. 15.
21. Show sizes/locations of the roof/deck drains and overflows. CBC 1503.4 and CPC 1108.
22. Specify minimum 1/4 inch per foot roof slope for drainage or design to support accumulated water. CBC 1611.3

23. Specify approved weatherproof walking surface material at decks and balconies.
24. Habitable rooms, other than kitchens shall contain at least 70 (50 for kitchens) square feet of floor area. CBC 1208.3.
25. No habitable room (other than a kitchen) shall be less than 7 ft. in any dimension. CBC 1208.2.
26. Show that ceiling height for habitable rooms and corridors are a minimum of 7 ft 6 inches. CBC 1208.2
27. Show that ceiling height for kitchens, laundry rooms and bathrooms is a minimum of 7 feet.
CBC 1208.2
28. Window area of habitable rooms must be at least 8% of the room floor area. CBC 1205.2
29. Openable window area of habitable rooms must be 4% of the room floor area. CBC 1203.4.1
30. Openable window area for bathrooms, laundry rooms, water closet compartments and similar nonhabitable rooms, must be 4% of room floor area or mechanically ventilated per CMC 403.7, Table 4-1, CBC 1203.4.2.1 and 1203.1.
31. At least ½ of the common wall between _____ must be open and have an unobstructed opening area of not less than 25 sq ft or 1/10 (8% if ventilation) the floor area of the interior room, whichever is greater, if light and ventilation is being supplied from an adjacent room.
CBC 1205.2.1.
32. Porch over required windows at _____ must have a minimum clear height of 7 ft with longer side at least 65% open and unobstructed. CBC 1205.2.2
33. Dimension on the plans the 30 inch clear width for water closet compartment and 24 inch clearance in front of the water closet for bathroom. CPC 407.6
34. Wall covering shall be cement plaster, tile or approved equal to 70 inches above drain at showers or tub with showers. Materials other than structural elements to be moisture resistant. CBC 1210.3
35. Net area of shower receptor shall be not less than 1,024 sq. in. of floor area, and encompass 30 inch diameter circle. CPC 411.7
36. All glazing less than 60" above a shower or tub floor shall be safety glazing. CBC

2406.3, item 5.

37. Provide details and/or notes for one hour fire resistive construction of walls and floor separating dwelling units. CBC 419.2 and 708.
38. At bedrooms and basement provide one openable escape window or door meeting all of the following: an openable area of not less than 5.7 sq ft (5 sf at grade level), a minimum clear 24 inch height and 20 inch width, and a sill height not over 44 inches above the floor. CBC 1026.2
39. The following glazing shall be tempered: CBC 2406.3
 - a. All glazing less than 60" above a shower or tub floor.
 - b. All glazing where the nearest exposed edge of the glass is within 24" arc of either vertical edge of a door.
 - c. All glazing in stair landings and within 5 feet of the top or bottom of stairway and less than 5ft above the walking surface.
40. Show location(s) of hard wired smoke detectors: CBC 907.2.10
 - A. Centrally located in corridor (or area) leading to sleeping areas, and inside each sleeping room.
 - B. On ceiling of upper level in close proximity to the stairway when sleeping areas are on an upper level.
 - C. On each floor level and in basement.
 - D. In the adjacent room (or area) where the ceiling height exceeds that of the hallway by 24" or more.
 - E. Battery operated smoke detector permitted in existing construction.
 - F. Note on plan, smoke detector shall be interconnected such that the activation of one alarm will activate all alarms.
 - G. Smoke detectors shall be "hard wired" and shall be equipped with battery back up.
41. Show location of 20 x 30 inch attic access with 30 inch minimum headroom. CBC 1209.2
42. Provide draftstops in attic where horizontal area exceeds 3000 s.f. CBC 717.4.3
43. Attic access is required to all attic areas. CBC 1209.2
44. Provide draftstopping between dwelling units per CBC 717.3.2.
45. One exit door shall not be less than 3 ft wide and 6 ft 8 inches in height so mounted that the clear width of exit way is not less than 32 inches. This door shall also have a .5 inch max threshold. CBC 1008.1.6. Be aware exit may not pass through garage. CBC 1014.2(5)

46. Landings at doors shall have a length measured in direction of travel of not less than 36 inches. CBC 1008.1.4
47. If not a component of a required means of egress (not main entry) a threshold not exceeding 7.75" must be shown and door may not swing over elevation change. (1008.1.6 exception)
48. A door may swing over landing that is not more than .5 inch below threshold and .75 inch for sliding doors. CBC 1008.1.6
49. Provide section and details of interior/exterior stairway showing:
 - A. Maximum rise of 7.75 inches and minimum run (tread) of 10 inches. CBC 1009.3
 - B. Minimum width of 36 inches. CBC 1009.1
 - C. Minimum head room of 6 feet 8 inches. CBC 1009.2
 - D. Provide details and notes showing framing (stringer) size, bracing, connections, footings.
 - E. Enclosed usable space under stairway requires 1 layer of ½ gyp board on enclosed side. CBC 1009.5.3
50. Delete winder tread unless width of run at narrow end is at least 10 inches. Winder tread shall have a minimum tread depth of 11 inches measured at a right angle to the tread's leading edge at a point 12 inches from the narrow end of tread. CBC 1009.3.
51. Submit shop drawings for spiral stairway showing compliance with CBC 1009.8
52. Provide spiral stairway column base connection/footing detail and structural connection to building.
53. Provide connection details of guardrail and-or handrail on open side of balconies, decks, landings, and stairs adequate to support a single concentrated 200 lb load at a right angle to the top rail. CBC 1607.7.1
54. Handrail shall satisfy the following:
 - A. Provide continuous handrail for stairway with 4 or more risers. CBC 1009.10
 - B. Handrail shall be 34 to 38 inches above the nosing of treads. CBC 1012.2 and 1013.2
 - C. Intermediate balusters shall be spaced 4.375 inches o.c. maximum on open side(s).
 - D. The handgrip portion of handrail shall not be less than 1 1/4 inches nor more than 2 inches in cross-sectional dimension. If the handrail is not circular, it shall have a perimeter dimension of at least 4 inches and not greater than 6.25 inches with a maximum cross-section dimension of 2.25 inches.

55. Provide 42 inch high protective guard for decks, porches, balconies and raised floors, (more than 30 inches above grade or floor below). Openings between rails shall be less than 4 inches up to 34" height and 8" openings above 34".
56. Where the opening of the sill portion of an operable window is located more than 72 inches above finished grade or other surface below, the lowest part of the clear opening of the window shall be 24 inches above the finished floor surface of the room. Glazing between the floor and a height of 24 inches shall be fixed or have openings such that a 4 inch sphere cannot pass. CBC 1405.12.2
57. The triangular area formed by riser, tread and bottom of guardrail shall be sized so that a 6" sphere can not pass through. CBC 1013.1
58. Show on plans the required attic ventilation area, and the attic ventilation type, size and location provided. The required ventilating area ratio is 1/150 of attic area with 50% of openings 3' above eave or cornice vents or 1/300 of attic area if a vapor retarder is providing the remaining portion of the vent area. Openings to have 1/4 inch corrosion resistant metal mesh covering. Also detail vapor retarders. CBC 1203.2
59. Provide and detail moisture protection or ventilation space with setback between planter and wall framing as well as flashing unless wood is preservative treated. CBC 2308.11
60. At vaulted ceiling or flat roofs, detail ventilated for space between individual roof joists.
61. Provide fireblocking in concealed spaces vertically and horizontally in accordance with CBC 717.2.
62. Show underfloor ventilation opening size and locations equal to 1 sq ft for each 150 sq ft of underfloor area. Openings shall be as close to corners as practicable and shall provide cross ventilation along the length of at least two opposite sides. Openings shall have 1/4 inch corrosion resistant metal mesh covering. CBC 1203.3
63. The following are required for attached garage:
 - A. Specify makeup of fire-resistive construction on the garage side for walls, ceilings, posts and beams of garage adjacent to or supporting residential uses. A minimum of 1/2" drywall on the garage side is required where not protecting elements supporting structures above. CBC 406.1.4
 - B. All elements inside the garage supporting stories above shall be have 5/8" Type X or equivalent protection.
 - C. Self-closing, self-latching, tight-fitting, solid wood 1 3/8 inch thick door or a 20 minute rated door at openings to dwelling. CBC 406.1.4.
 - D. Doors from garage not permitted to open into room used for sleeping. CBC

406.1.4

- E. Door may swing into the garage if floor or landing in the garage is not more than 1 inch lower than the door threshold. CBC 1008.1.6
- 64. Specify/detail masonry veneer material, thickness, backing, anchorage, footings and support over openings. (Chapter 14).
- 65. For fireplace/chimney specify the following:
 - A. Chimney shall extend 2 ft above roof/wall within 10 ft. CBC 2113.9
 - B. Anchor chimney to floor and roof/ceiling joists. Reinforce masonry chimney per CBC 2111 and 2113
 - C. Spark arrestor required. CBC 2113.9.1
- 66. For factory built metal fireplace specify:
 - A. Manufacturer, model and ICBO/UL number.
 - B. Installation and use shall be in accordance with their listing.
 - C. Non-vented fireplaces or gas fired appliances are not permitted.
- 67. Fireplace gas valves must be located outside of required hearth area, but not more than 6 ft unless listed for installation in the fireplace. CPC 1212.4
- 68. Provide complete details and specifications for installation of glass block. CBC 2110

ENERGY

- 69. The residence shall conform to the State energy standards. Submit forms and calculations.
- 70. Incorporate all of the requirements of the energy analysis into the plans.
- 71. Assumptions made in energy calcs do not match the plans as follows_____.
- 72. Sticky back the CF-1R and MF-1R forms onto the sheets of the plans.
- 73. Have all of the required signatures on the CF-1R.
- 74. Show on plans all mandatory energy conservation features and devices.
- 75. For room additions, show that the glazing area of the addition does not exceed 20% of the new conditioned floor area, plus glazing removed due to the addition. Fill out the required forms to show compliance.
- 76. Relocated or replaced glazing must conform to the current Energy Regulations. Section 152.

77. T-24 energy calculations used must be by one of the Energy Commission approved computer programs.
Please see- www.energy.ca.gov/title24/2005standards/2005_computer_prog_list.html for current versions.
78. An unlicensed professional can sign energy calculations and forms when:
- A. Single family dwellings not more than 2 stories in height and constructed from wood framing.
 - B. Multi family dwelling not more than 2 stories, three or fewer units and wood framing.
79. Measures requiring field verification and/or diagnostic testing: (Provide a list on cover sheet of plans of required measures)
- A. Duct sealing
 - B. Supply duct location, surface area and R-factor.
 - C. Refrigerant charge in split system air conditioners and heat pumps.
 - D. Installation of TXV
 - E. Adequate air flow.
 - F. Air handler fan power.
 - G. High energy efficiency ratio (EER)
 - H. Maximum cooling capacity.
 - I. Building envelope sealing.
 - J. High quality insulation installation.
80. West facing fenestration area includes skylights tilted to the west or tilted in any direction when the pitch is less than 1:12. See §151(f)3c.
81. Replacement windows in low rise residential buildings must comply with the prescriptive requirements.
82. The requirements for Package C and D have changed when using prescriptive method. Please revise forms and calculations.
83. Luminaires recessed in insulated ceilings must meet requirements of §150(k)5.
84. Cool roof credit can not be combined with credit taken for radiant barrier.
85. Effective January 23, 2006 split system air conditioners with single-phase power must have a minimum seasonal energy efficiency ratio (SEER) of 13.0. Single phase heat pump efficiency will also increase to SEER 13.0 and HSPF of 7.7.
86. For the prescriptive packages, more duct insulation is required. For Package D, in climate zones 14 through 16, R-8 insulation is required. R-4.2 is required in climate

- zones 6 through 8, and R-6 is required in other climate zones. For Package C, R-8 is required in all climate zones.
87. Duct sealing is now prescriptively required in climate zones 2 and 9 through 16 when an air conditioner or furnace is replaced and when new ducts are added or ducts are altered in an existing home.
 88. Show building orientation with respect to North direction on compass.
 89. When taking compliance credit in the energy calculations for _____, please detail and document compliance on plans.
 90. Water heater systems used for prescriptive requirements of Package D must be a single gas, propane or oil storage type water heater with a tank capacity less than or equal to 50 gallons and a standard distribution system (no recirculating pumps) or compliance with alternative systems in Table 5-4 of 2005 RCM.
 91. Provide a reflective ceiling plan and light fixture schedule. All fixtures shall be identified, labeled and then cross referenced. Appropriate switching diagrams must also be shown to demonstrate compliance with lighting standards.
 92. Pipe insulation is a mandatory requirement in the following cases:
 - A. Storage tanks for a non-recirculating system must have pipe insulation on both hot and cold water pipes for length of five feet. There is no exception for water heater piping in the conditioned space.
 - B. Recirculating sections of domestic hot water systems must be insulated (the entire length of piping, whether buried or exposed).
 - C. Indirect fired domestic hot water system piping from the heating source to the storage tank.
 93. Show compliance with the following lighting measures:
 - A. Kitchens. At least half the installed wattage of luminaires in kitchens shall be high efficacy and the ones that are not must be switched separately.
 - B. Lighting in Bathrooms, Garages, Laundry Rooms and Utility Rooms. All luminaires shall either be high efficacy or shall be controlled by an occupant sensor.
 - C. Other Rooms. All luminaires shall either be high efficacy or shall be controlled by an occupant sensor or dimmer. Closets that are less than 70 square foot are exempt from this requirement.
 - D. Outdoor Lighting. All luminaires mounted to the building or to other buildings on the same lot shall be high efficacy luminaires or shall be controlled by a photocontrol/motion sensor combination.

- E. Common Areas of Multifamily Buildings. All luminaires in the common areas of multifamily buildings shall either be high efficacy or shall be controlled by an occupant sensor.
94. Non-high efficacy luminaires must be switched on a separate circuit from high efficacy luminaries.
 95. Occupancy sensors must have no manual override, 30 minute maximum timer and be microwave/ultrasonic or passive infra-red type. Occupancy sensor layout must be shown on plans.
 96. High efficacy luminaires must be pin based. Please add notes to plans.
 97. Radiant barrier installation shall comply with the following:
 - A. Provide no less than 30% upper vents.
 - B. Be installed on vertical attic surfaces and gable ends.
 - C. When installed in enclosed rafter spaces a minimum air space of 1" must be provided and ventilation be provided at upper and lower end of every rafter bay.
 - D. Provide an installation method detail.
 98. Alteration. Alterations to existing residential buildings or alterations in conjunction with a change in building occupancy to a low-rise residential occupancy shall meet either Item 1 or 2 below.
 1. Prescriptive approach. The altered component and any newly installed equipment serving the alteration shall meet the applicable requirements of Sections 110 through 118, Section 119(d), and Section 150; and
 - A. Alterations that add fenestration area shall meet the U-factor requirements of Package D [Section 151 (f) 3 A and **STANDARDS TABLE 151-C**, the total fenestration area requirements of Package D [Section 151 (f) 3 B and **STANDARDS TABLE 151-C**], and the Solar Heat Gain coefficient requirements of Package D [Section 151 (f) 4 and **STANDARDS TABLE 151-C.**]
 - B. Replacement fenestration, where all the glazing in an existing fenestration opening is replaced with a new manufactured fenestration opening is replaced with a new manufactured fenestration product, shall not exceed the U-factor and Solar Heat Gain Coefficient requirements of Package D [Sections 151 (f) 3 A and 151 (f) 4 and **STANDARDS TABLE 151-C**]

Note: Glass replaced in an existing sash and frame, or replacement of a

 - C. New space-conditioning systems or components other than new or replacement space conditioning ducts shall:
 - i. Meet the requirements of Sections 150 (h), 150 (I), 150 (j) 2, 151 (f) 7, and 151 (f) 9; and Sections 150...

- ii. Be limited to natural gas, liquefied petroleum gas, or the existing fuel type unless it can be demonstrated that the DTV energy use of the new system is more efficient than the existing system.
- D. When more than 40 feet of new or replacement space-conditioning ducts are installed in unconditioned space, the new ducts shall meet the requirements of Section 150 (m) and the duct insulation requirements of Package D Section 151 (f) 10, and if in climate zones 2, 9, 10, 11, 12, 13, 14, 15, or 16, the duct system shall be sealed as confirmed through field verification and diagnostic testing in accordance with procedures for duct sealing of existing duct systems as specified in the Residential ACM manual, to meet one of the following requirements:
- i. If the new ducts form an entirely new duct system directly connected to the air handler, the measured duct leakage shall be less than 6% of fan flow; or
 - ii. If the new ducts are an extension of an existing duct system, the combined new and existing duct system shall meet one of the following requirements:
 - a. The measured duct leakage shall be less than 15% of fan flow; or
 - b. The measured duct leakage to outside shall be less than 10% of fan flow; or
 - c. The duct leakage shall be reduced by more than 60% relative to the leakage prior to the installation of the new ducts and a visual inspection including a smoke test shall demonstrate that all accessible leaks have been sealed or
 - d. If it is not possible to meet the duct sealing requirements of Subsection a, b or c, all accessible leaks shall be sealed and verified through a visual inspection and a smoke test by certified HERS rater.
- E. In climate zones 2, 9, 10, 11, 12, 13, 14, 15, and 16, when a space conditioning system is altered by the installation or replacement of space-conditioning equipment (including replacement of the air handler, outdoor condensing unit of a split system air conditioner or heat pump, cooling or heating coil, or the furnace heat exchanger) the duct system that is connected to the new or replacement space-conditioning equipment shall be sealed, as confirmed through field verification and diagnostic testing in accordance with procedures for duct sealing of existing duct systems as specified in the Residential ACM manual, to one of the following requirements.

- i. The measured duct leakage shall be less than 15% of fan flow; or
 - ii. The measured duct leakage to outside shall be less than 10% of fan flow; or
 - iii. The measured duct leakage shall be reduced by more than 60% relative to the measured leakage prior to the installation or replacement of the space conditioning equipment and a visual inspection including a smoke test shall demonstrate that all accessible leaks have been sealed; or
 - iv. If it is not possible to meet the duct requirements of i, ii, or iii, all accessible leaks shall be sealed and verified through a visual inspection and a smoke test by a certified HERS rater.
- F. New service water-heating systems or components shall;
- i. Meet the requirements of Section 150; and
 - ii. Be limited to natural gas, liquefied petroleum gas, or the existing fuel type unless it can be demonstrated that the TDV energy use of the new system is more efficient than the existing system.

2. **Performance approach**

- A. The altered components shall meet the applicable requirements of Sections 110 through 118, Section 119 (d), and Section 150; and
- B. The energy efficiency of the existing building shall be improved so that the building meets the energy budget in Section 151 that would apply if the existing building was unchanged except that those altered components that do not meet the requirements of Section 152 (b) 1 (including improvements proposed to comply with this section) are assumed to be upgraded to comply with Section 152 (b) as specified in the Residential ACM Manual.

PLUMBING, MECHANICAL & ELECTRICAL

- 99. Every dwelling unit shall be provided with heating facilities capable of maintaining a room temperature of 68 degrees F. at 3 feet above the floor in all habitable rooms. Show basis for compliance. CBC 1204.1
- 100. Show location of F.A.U ./ return air grill / water heater on floor plan.
- 101. Show 30 x 30" deep unobstructed working space in front of furnace. CMC 904.11.4

102. Access to attic furnace must be within 20 feet of unit and shall have a continuous solid walkway at least 24 inches wide. A switch controlled light is also required. CMC 904.11
103. Show source of combustion air to furnace and water heater. (UMC 701 UPC 507.0).
104. When a water heater is located in the attic, attic-ceiling assembly, floor-ceiling assembly, or floor-subfloor assembly where damage may result from a leaking water heater, a watertight pan of corrosion-resistant materials shall be installed beneath the water heater with a minimum three-quarter (3/4) inch (20 mm) diameter drain to an approved location. CPC 508.4
105. Water heaters shall be anchored or strapped to the structure. CPC 508.2. Show size and location of straps, connector, etc.
106. The minimum capacity for water heaters shall be in accordance with the first hour rating listed in UPC Table 5-1.
107. Show how heat producing appliances (water heater/dryer/furnace) in garage will be protected from automobile damage (wheel blocks are not sufficient). Elements of appliances which create a glow, spark, or flame shall be located a minimum of 18" above garage floor. CMC 308.1
108. Provide clothes dryer moisture exhaust duct (min. 4 inch dia.) to the outside and equip with a back-draft damper. Exhaust duct length is limited to 14 ft. with 2 elbows. (CMC 504.3).
109. Provide 100 sq. in. of makeup air to laundry room per CMC 504.3.2
110. All hose bibs must have an approved anti-siphon device. CPC 603.3
111. Show elevations of finish floor and nearest upstream manhole. Show that finish floor is above upstream manhole or provide backwater valve per CPC 710. Note that fixtures above such elevation shall not discharge through the backwater valve.
112. Provide UFER or other approved ground per CEC 250.
113. Provide 18 inch by 24 inch access to under floor area. CBC 1209.1. Access must be within 20 feet of any plumbing clean-outs. (CPC 707.10).
114. Show size and location of electrical service and panels. Provide panel schedules and single line diagrams for services of 400 amp and greater.
115. One switched light fixture or switch lighting outlet shall be installed in every habitable room, bathroom, stairway, hall, attached garage, and at outdoor entrances. CEC

- 210.70(a).
116. Provide at least one outside weatherproof, GFI 120 volt receptacle at front and back of dwelling unit. CEC 210.52(e) and 210.8(a).
 117. Provide at least one receptacle in garage or basement in addition to any receptacle provided for stationary appliances. CEC 210.52 (f).
 118. Provide GFI protection to all 120 volt, 15 and 20 amp receptacles installed outdoors, in bathrooms, in basement, at counter top surface and garages. Exception: Single outlet receptacles in garages utilized for a fixed or stationary appliance. CEC 210.8(a).
 119. Walls 2 feet wide or greater shall have an outlet. Outlets shall be spaced no more than 12 feet apart, and a maximum of 6 feet from end of walls or opening. CEC 210.52(a).
 120. Provide electrical outlets in hallways over 10 ft in length. CEC 210.52(h).
 121. In the kitchen and dining area, a receptacle shall be provided for each counter space wider than 12 inches so that no point is more than 24" from an outlet. CEC 210.52(c).
 122. Surface mounted lighting fixtures in closets must be 18 inches from storage area(s). Flush mounted must be 6 inches away. CEC 410.8).
 123. Where the electrical service is located in/on the attached garage and a furred garage wall is the method used to run the non-metallic sheathed cables to the residence through the fire wall, provide a detail showing how the penetration will be fire stopped. CEC 300.21).
 124. All branch circuits that supply 125 volt, single phase, 15 and 20 ampere outlets installed in dwelling unit bedrooms shall be protected by an arc-fault circuit interrupter(s). CEC 210.12. Note that requirement is for entire circuit, not just the outlets.

STRUCTURAL

125. Provide an accurate and complete listing of required special inspections pursuant CBC 1704 specific to this project. This should appear in prominent position on the cover sheet of the plan. Alternatively, provide a clear note in a prominent position on the cover sheet which states what sheet of the plans the list of special inspections specific to this project may be found. Please be aware extensive changes required special inspections. See exceptions for accessory structures to R-3 and U occupancies. (CBC 1704.1)
126. If this project is required to have structural observation pursuant CBC 1709 provide a prominent note on the cover sheet of the plans stating same. List the stages at which the architect or engineer of record is to perform structural observation, what is to be observed, when structural observation reports are to be submitted to the Building Official, and any other documentation or observation requirements. Alternatively to noting this on

the cover sheet, place a note in a prominent position on the cover sheet which states what sheet of the plans this information may be found.

127. Specify grade and species of framing lumber, treated mudsills, type and grade of plywood, design strength of concrete and glued-laminated timber, ASTM designation of structural steel shapes and masonry units, mix of mortar and grout.
128. Specify the size, spacing and direction of rafters.
129. The _____ x _____ rafters at _____ o.c. over _____ exceed the allowable span for grade.
130. A ridge board, valley and hip members not less in depth than the cut end of the rafter is required. It shall be a vertical load-bearing member when roof slope is less than 3 inches in 12 inches.
131. Roof purlins shall not be smaller than the rafters they support. The max span for 2 x 4 /2 x 6 inch roof purlins is 4/6ft respectively. For purlin supports provide struts, not smaller than 2 x 4 inch with an unbraced length not over 8 feet, and not flatter than 45 degrees from the horizontal, to bearing walls or partitions. CBC 2308.10.5
132. Provide designed ridge beams for open beam vaulted ceilings or when ceiling joists or rafter ties are not provided and detail ridge/rafter connection.
133. Provide manufactured roof truss profiles, layout plan and calculations from truss manufacturer.
134. Show ceiling joists size, spacing, direction and span on plans.
135. The _____ x _____ ceiling joists at _____ o.c. over _____ exceed the allowable span for grade.
136. Provide rafter ties spaced 4 ft (max) on centers immediately above ceiling joists which are not parallel to the rafters. (Section 2308.10.4.1 CBC)
137. Show blocking at ends of rafters and trusses at exterior walls, at supports of floor joists and at the ridge line of truss roofs. CBC 2308.8.2
138. Show draft separation for attic areas between units in a duplex. CBC 708.4
139. Detail double rafters at roof and ceiling openings. CBC 2308.10.4.3
140. Specify the header size at door, window and other openings over 4 ft wide in bearing walls. (See 2308.9.5.1 and Table 2308.9.5)
141. Studs in bearing walls are limited to 10 ft in height unless an approved design is

submitted.

CBC Table 2308.9.1

142. Detail connection of the top of interior non-bearing walls to manufactured trusses. Provide a ½" min deflection space or the deflection specified by the truss design engineer.
143. Studs supporting two floors, roof and ceiling must be 3 x 4 or 2 x 6 at 16" o.c. CBC 2308.9.1
144. Note the use of full length studs (balloon frame) on exterior walls of rooms with vaulted ceiling.
145. If using plaster or gypsum, both sides of studs must be covered for every lineal foot of required braced wall panel per Table 2308.12.4
146. When plywood is used both sides, per footnote (a) provide 1800# or 3000# uplift hardware at each end of the braced panels or engineer for overturning forces.
147. Fasteners for preservative treated and fire treated wood shall be of hot dipped zinc coated galvanized steel, silicon bronze or copper. The coating weights for zinc coated fasteners shall be in accordance with ASTM A 153. CBC 2304.9.5.
148. Provide a lateral bracing system of exterior/main interior walls in conformance with the methods and locations as specified in CBC 2308, 2308.3, 2308.9.3 and specifically with 2308.12 for California Cities. Alternate Braced Wall Panels do not comply with 2308.12 which is specific, the most restrictive and governs. See Table 2308.12.4 for your specific area. Braced wall panels must be placed within 8' of the end of each braced wall line.
149. Show location of project on seismic maps to identify seismic design coefficients to be used. You may also chose to use <http://earthquake.usgs.gov/research/hazmaps/design> and print out the design values and submit a copy with your resubmittal.
150. Show size, spacing, support points and direction of floor joists.
151. Doubled joists are required under parallel bearing partitions.
152. The _____ x _____ floor joists at _____ o.c. over _____ exceed the allowable span for grade.
153. Openings greater than 4 feet in dimension must be detailed with doublers, blocking and straps (Section 2308.11.3.3 and Figure 2308.11.3.3 or provide engineering.
154. For plywood roof and floor diaphragm specify thickness, grade, T&G edges, panel span rating, nailing schedule and required blocking and panel layout pattern.
155. Bearing partitions, perpendicular to joists, shall not be offset from supporting girders,

- beams, wall or partitions, more than the depth of the joist. CBC 2308.8.4
156. Irregular structures which do not comply with limitations described in 2308.12.6 require engineering by a licensed design professional.
 157. Provide 3 x 3 x .229" plate washers. CBC 2308.12.8.
 158. A geological report/soil report is required. (CBC 1802.2).
 159. Submit a review letter by soils engineer and incorporate any requirements and recommendations into the plans.
 160. The soils report requires foundation excavations to be reviewed by soils engineer. Note on the foundation plan "Prior to requesting a Building Department foundation inspection, the soils engineer shall inspect and approve the foundation excavations".
 161. Soil bearing pressure is limited to 1500 lbs/sq ft unless soil is classified per CBC 1804.2, or a soils report recommends otherwise. CBC Table 1804.2
 162. Call out minimum thickness of 3 ½ inch concrete or grade floor slabs, reinforcement and moisture barrier on foundation plan. CBC 1910
 163. Call out anchor bolt size and spacing on foundation plan. Provide 5/8" diameter imbedded 7" minimum at 6' o.c. maximum spacing. (2308.6 and 2308.12.9). If an engineer's report justifies that it is not in Seismic Design Category E, ½" bolts may be used.
 164. Specify size, spacing , ICC number and manufacturer of power driven pins. (Not permitted on perimeter footings.)
 165. If required by structural calculations, show size, location and embedment length of hold down anchors on foundation plan.
 166. Note on plan that holddown hardware must be secured in place prior to foundation inspection.
 167. Detail (and reference location on foundation plan) typical foundation sections for: perimeter walls, interior bearing walls, depressed slabs, foundation common to dwelling and garage, garage entrance, spread and/or post pads.
 168. Foundation sections shall be 12/15/18 inches wide, 6/6/6 inches thick, and 12 inches depth below natural ground surface. CBC Table 1805.4.2
 169. Provide detail for stepped footings when slope of the footing exceeds one in ten. CBC 1805.1
 170. Show minimum 18 inch clearance from grade to bottom of floor joists and minimum 12

inch clearance to bottom of girders. CBC 2304.11.2.1

171. Specify that foundation sills shall be pressure treated, or Foundation grade redwood. CBC 2304.11
172. Wood posts exposed to weather or water splash shall be 1" above a slab and 6" above grade or 8" above grade. CBC 2304.11.2.7
173. Show 8" min distance from grade to wood sill framing and sheathing. CBC 2304.11.2.2.
174. The end of wood girders entering exterior masonry or concrete walls shall be protected with a ½" air space or provide pressure treated lumber. CBC 2304.11.2.5
175. Foundation cripple walls shall be framed and sheathed per CBC 2308.12.4. Specify stud size if wall is over 4 feet high. Solid blocking must be provided at 14" and less in height. Be advised, cripple walls over 14" high constitute an additional story.
176. Provide a weep screed for stucco at the foundation plate line a minimum of 4 inches above grade. CBC 2512.1.2
177. Cross reference all calculations for joists, beams, shearwalls, etc... to framing/floor plans.
178. Detail the shear transfer connections which transfer lateral forces from horizontal diaphragms through intermediate elements and shearwalls to the foundation. CBC 2305.1.4
179. Specify on the framing plans the shear wall material, thickness, size and spacing of fasteners and sole plate nailing. Call out anchor bolt spacing and hold down hardware on foundation plan.
180. Detail how the interior shearwalls are connected to the roof diaphragm.
181. Check the shearwall overturning reactions on the beams/columns per CBC 1605.4 for the special seismic load combinations. Also see ASCE 7, section 12.4.3.
182. Wood elements designed primarily as flexural members shall be provided with lateral bracing or solid blocking at each end of the element and at connection location(s) of the discontinuous system.

ADMINISTRATIVE

183. Have changes been made to the plans that are not as a result of corrections on this
correction list? Please check:
Yes _____ No _____
If so, provide a brief description and note where on plans the changes occur:

184. At the time of permit issuance, an additional set of plans, including the site plan, floor plans, or other drawings, sufficient to describe the project shall be provided to the Building Department, to be filed with the County Assessor's office.