



City of Huntington Beach
Department of Planning & Building
RESIDENTIAL CORRECTION LIST (2010 CRC/CBC)

2000 Main Street, Huntington Beach, CA 92648
Office: (714) 536 - 5241 Fax: (714) 374 - 1647

PERMIT #: _____	ADDRESS: _____
Date: _____	OWNER: _____
Plan Checker: _____	Contact Person: _____
Plan Checker Tel: _____	Contact Tel: _____
Description: _____	

INSTRUCTIONS

- **Please see corrections on submitted plans. Red marked set must be returned with revised plans.** Plans resubmitted without the red markup set may result in delayed review time and additional plancheck fees.
- Please note that additional corrections may be required following review of the revised plans. Completion of the corrections and/or submittal of revised plans do not presume approval.
- To expedite your project, please provide a written or oral response. Incomplete response may delay approval.
- Appointments need to be made prior to counter checks. Please call the plan checker to schedule an appointment.
- All substantial revisions or additions must be fully clouded with a revision mark.
- Three wet signed sets are required for permit issuance.

PLEASE ADDRESS ALL CHECKED CORRECTION AND HAND-WRITTEN COMMENTS BELOW

APPROVALS

- Planning Department:** Obtain Planning approval on the final plans prior to issuance of building permit. Call 714-536-5271 for status.
- Public Works Department:** Obtain Public Works approval prior to issuance of building permit. Call 714-536-5431 for status.
- Fire Department:** Obtain Fire Department approval prior to issuance of building permit. Call 714-536-5411 for status.

GENERAL

- 1. Plans are illegible and/or prints are to light/dark to microfilm. Provide clear and legible plans for review.
- 2. Designer's contact information is required on title sheet and wet signature required on all sheets.
- 3. Licensed architect or professional engineer's contact information is required on the title sheet. Wet stamp and signature are required on all sheets and calculations cover page.
- 4. Huntington Beach Security ordinance: Provide a copy of the Security Ordinance on the plans.
 - a. Add a note that: *"All doors & windows shall meet Huntington Beach Security ordinance."*
- 5. Provide the following with each set of plans:
 - a. Complete plot plan showing yard setbacks, easements, lot dimensions, distances between buildings, size of building, etc.
 - b. Fully dimensioned floor plan of each level
 - c. Fully dimensioned Roof plan
 - d. Fully dimensioned Foundation plan
 - e. Building cross sections
 - f. Building elevations. Show floor and top of roof elevations, natural and finished grade around the perimeter of the building
 - g. Architectural details
 - h. Door/window schedule – Identify all "Egress" windows
 - i. Structural foundation, roof, and floor plans, with referenced construction details

California Residential Code

1. Provide a code analysis on the cover sheet of the plans stating: Type of Construction, Occupancy, Number of stories, Living and garage floor areas, Fire sprinklers installed or not. (R106.1.1 CRC)
2. The construction documents shall be prepared, stamped, signed and dated by a California Registered Engineer or Architect. (R106.1 CRC)

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3. The construction documents submitted shall be clear and readable, provide a site plan drawn to scale, showing new and all existing structures on the property, walls and fences, active or abandon oil wells, active or abandon septic systems, dimensions between all structures, dimensions to all property lines, streets, easements and finish grades. Show slopes indicating full height of the slope, structural setback line plotted on the plans, dimensions from top or bottom of the slope to all structures, exact location of slope toe or top of slope, grade of slope. (R106.2 CRC)
4. Deferred submittals for any element of a single family dwelling, except fire sprinklers & roof truss, shall not be allowed. All building elements shall be submitted and reviewed as a part of the plan review process prior to any permit issuance. Remove any reference to deferred submittals from the plans.
5. A statement shall be provided on the cover of the plans identifying that structural design and details fully conform to all appropriate requirements of this code, the California Residential Code. Should a portion or all of the structural design conform to the requirements of the California Building Code, as allowed in the CRC, the statement shall clearly identify which portions of the structural design conform to the CBC or that the full structural design is in conformance with the structural requirements of the California Building Code. (R301.1.3 CRC)
6. Structures, or portions of structures, constructed of cold-formed steel, concrete, masonry or structural insulated panels shall require the floor, wall or roof ceiling structural elements to be designed and stamped by a California licensed engineer or architect. (R301.1.3.3 CRC)
7. Wind design shall be based upon a wind speed (V3s) of 85 and an exposure category of "B" or "C". Revise design.
8. The Seismic Design Category shall be C, Do, D1, D2 or E. Clearly show seismic design category on the plans and calcs. (R301.2.2.1 CRC)
9. Structures in Seismic Design Categories C, Do, D1, D2 shall not exceed the material weight or story heights of Sections R301.2.2.2 or 301.2.2.3. Provide design in accordance with the CBC.
10. Structures located in Seismic Design Category "E" shall be designed in accordance with the CBC. Provide full structural design. (301.2.2.4 CRC)
11. The maximum allowable height for laterally unsupported bearing wall studs shall not exceed 10'. Provide full design of bearing stud walls. (R301.3, Table R602.3(5) CRC)
12. Roof design live load shall conform to Table R301.6. Revise design.
13. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Revise the plans. (302.5.1 CRC)
14. Garage and/or carport shall be separated from the dwelling unit by a vertical wall from the slab thru the attic to the roof sheathing with minimum ½" gypsum board on the garage side. Show on plans. (Table R302.6 CRC)
EXCEPTION: A separation is not required between a carport and the dwelling provided the carport is open on two or more sides and there are not enclosed areas above.
15. Garages beneath habitable rooms above shall be separated by 5/8" gypsum board on the garage side. Show on plans. (Table R302.6 CRC)
16. Structures supporting floor/ceiling assemblies in a garage or carport (columns or beams in the garage) shall have not less than 1/2" gypsum board protection. (Table R302.6 CRC)
17. Garages located less than 3' from a dwelling on the same lot shall have not less than ½" gypsum board applied to the interior side of all exterior walls that are within that area. (Table R302.6 CRC)
18. Door openings between a private garage and the dwelling unit shall be either a solid wood door or a solid or honeycomb core steel door not less than 1 3/8" thick and self closing and self latching. The door may also be a 20 minute rated assembly. Show on plans. (R302.5.1 CRC)
EXCEPTION: Dwellings protected by an automatic fire sprinkler system need only be self closing and self latching.
19. Garage floors shall be of noncombustible material. The area of the floor used for parking of vehicles shall be sloped to drain toward the main vehicle entry door. (R309.1 CRC)
20. Carports shall be open on at least two sides. Carport floor surfaces shall be of noncombustible material or asphalt. The area of the floor used for parking of vehicles shall be sloped to drain toward the main vehicle entry. (R309.2 CRC)
21. Ducts penetrating wall or ceiling separations between a garage and a dwelling unit shall be constructed of minimum 26 gage sheet metal and shall have no openings into the garage. Show on plans. (R302.5.2 CRC)
22. Walls separating two-family dwelling units shall be minimum 1-hour fire partition. Fire rated floor-ceiling and wall assemblies shall extend to and be tight against the exterior wall, and wall assemblies shall extend from the foundation to the underside of the roof sheathing. Provide details on the plans. (R302.3 CRC)
EXCEPTIONS:
 - a. A fire-resistance rating of ½ hour shall be permitted in buildings equipped with automatic fire sprinklers.
 - b. Wall assemblies need not extend through attic spaces when the ceiling is protected by not less than 5/8" Type X gypsum board and a attic draft stop per R302.12.1 is provided above and along the wall separating the dwellings. Framing supporting the 5/8" ceiling shall be protected by ½" gypsum board.
23. Penetrations in wall or floor/ceiling assemblies in two-family dwellings shall comply with Section R302.4. Provide complete details on the plans.
24. Walls separating dwelling units shall provide airborne sound insulation for walls with an STC rating of at least 45. Provide details on plans and provide verification of a tested assembly to achieve the required STC rating of 45. (AK1.2.1 CRC)
25. Floor/ceiling assemblies separating dwelling units shall have both an STC and an IIC rating of at least 45. Provide details on plans and provide verification of tested assemblies to achieve the required STC and IIC ratings of 45. (AK102.1 & AK103.1 CC)
26. Floor/ceiling assemblies separating dwelling units shall have a minimum 1-hr fire rated assembly. Provide details on the plans of a listed 1-hr rated assembly. (R302.3 CRC)
EXCEPTIONS:
 - a. A fire-resistance rating of ½ hour shall be permitted in buildings equipped with automatic fire sprinklers.
 - b. Wall assemblies need not extend through attic spaces when the ceiling is protected by not less than 5/8" Type X

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gypsum board and a attic draft stop per R302.12.1 is provided above and along the wall separating the dwellings.

Framing supporting the 5/8" ceiling shall be protected by 1/2" gypsum board.

27. Townhouses shall be separated by either two 1-hr rated walls or may have a 1-hr rated wall if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The single wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of roof sheathing. Provide complete details on the plans. (R302.2 CRC)
28. Townhouse fire-resistive-rated wall assemblies 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, including extensions through and separating attached enclosed accessory structures. Provide complete details on the plans. (R302.2.1 CRC)
29. Townhouse exterior and common walls shall have parapets constructed of the same fire-resistive rating as required for the supporting wall. On any side adjacent to a roof surface, the parapet shall have noncombustible faces for the upper 18", to include counter flashing and coping. Where the roof slopes toward a parapet at slopes greater than 2:12, the parapet shall extend to the same height as any portion of the roof within 3', but not less than 30". The following conditions shall apply. Provide complete details on the plans. (R302.2.2.3 CRC)
 - a. Where roof surfaces on each side of the wall are the same elevation, the parapet shall be not less than 30" above the roof surface.
 - b. Where roof surfaces on each side of the wall are at different elevations and the higher roof is not more than 30" above the lower roof, the parapet shall extend not less than 30" above the lower roof.

EXCEPTION: A parapet is not required in the two cases above when the roof covering is Class C minimum, the roof decking or sheathing is noncombustible or fire retardant treated wood for a distance of 4' on each side of the wall or one layer of 5/8" Type X gypsum board is installed directly beneath the roof decking and supported by a minimum of 2" nominal ledgers attached to sides of the roof framing members for a minimum of 4' on each side of the wall.
 - c. A parapet is not required where roof surfaces on each side of the wall are of different heights and the higher roof is more than 30" above the lower roof.
30. Each individual townhouse shall be structurally independent. Provide complete details on the plans. (R302.2.4 CRC)
31. Exterior walls of dwelling units and garages less than 5' from a property line shall be 1-hr. rated in unsprinklered buildings. In fire sprinklered buildings, exterior walls less than 3' from a property line shall be 1-hr. rated. Provide complete details on the plans; (Tables R302.1(1) & 302.1(2) CRC)
32. Projections beyond the exterior wall in non-fire sprinklered buildings shall have 1-hr. fire protection on the underside for projections greater than or equal to 2' up to 5' from the property line. No protection is required when the projection is 5' or greater from a property line. Provide complete details on the plans. (Table R302.1(1) CRC)
33. Projections beyond the exterior wall in fire sprinklered buildings shall have 1-hr. fire protection on the underside for projections greater than or equal to 2' up to 3'. No protection is required when the projection is greater than 3' from a property wall. Provide complete details on the plans. (R302.1(2) CRC)
34. In non-fire sprinklered buildings no openings are permitted in an exterior wall less than 3' from the property line. Exterior walls may have 25% maximum of wall area in openings when the exterior wall is from 3' to 5' from a property line. Exterior walls 5' or greater from a property line may have unlimited openings. Revise the plans. (Table R302.1(1) CRC)
35. In fire sprinklered buildings no openings are permitted in exterior walls less than 3' from a property line. Exterior walls located 3' or more from a property line may have unlimited openings. (R302.1(2) CRC)
36. In non-fire sprinklered buildings all penetrations in exterior walls less than 5' from the property line shall comply with Section R302.4. Provide complete details on the plans for all penetration. (Table R302.1(1) CRC)
37. In fire sprinklered buildings all penetrations in exterior walls less than 3' from the property line shall comply with Section R302.4. Provide complete details on the plans for all penetrations. (Table R302.1(2) CRC)
38. All interior and exterior stairways shall be provided with means to illuminate the stairs, including landings and treads. Interior stairways shall be provided with artificial light located at each landing of the stairway. Exterior stairways shall be provided with artificial lighting located at the top landing of the stairway. Exterior stairways providing access to a basement from the outside shall be provided with artificial lighting at the bottom landing of the stairway. (R303.6 CRC)

EXCEPTIONS:

 - a. A light source is not required at the top and bottom landing provided a light source is located over each stairway section.
 - b. Lighting outlets installed in interior stairways shall have a wall switch installed at each floor level where the stairway has six or more risers.
 - c. Lighting outlets in exterior stairways shall be controlled from inside the dwelling unit.
39. New one and two family dwellings and townhomes shall install an automatic residential fire sprinkler system. Note on the plans. (R313.1 & R313.2 CRC)
40. Existing one and two family dwellings and townhomes shall provide an automatic residential fire sprinkler system when one of the following conditions exist; (R313.1 & R313.2 Amended CRC)
 - a. An addition occurs and the combined area of the existing building plus the area of the addition, including attached garage, exceeds 5,000 s.f.; or
 - b. Any addition when the existing building is already provided with an automatic sprinkler system.

Note: Portions of the structure not required to be protected by the automatic sprinkler system do not need to be included into the floor area calculations. Sprinklers shall not be required in open attached porches, carports and similar open structures. Note on plans, submit sprinkler plans to City of Huntington Beach Fire Department and provide plans approved by City of Huntington Beach Fire Department at time of framing inspection.
41. Provide smoke alarms at the following locations; (R314.3 CRC)
 - a. Outside each separate sleeping area in the immediate vicinity of bedrooms.
 - b. In each room used for sleeping purposes.

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- c. In each story, including basements. In split level units without an intervening door between adjacent levels, a smoke alarm installed on the upper level shall suffice provided that the lower level is less than one full story below the upper level.
 - d. Alarms shall be interconnected such that the actuation of one alarm shall activate all alarms.
 - e. Alarms shall receive their primary power from the building wiring with battery backup.
 - f. Approved combined smoke alarms and carbon dioxide alarms shall be acceptable.
42. An approved carbon monoxide alarm shall be installed in dwelling units and in sleeping units within which fuel-burning appliances are installed and in dwelling units that have attached garages. (R315.1 CRC)
- a. Alarms shall receive their primary power from the building wiring with battery backup.
 - b. Alarms shall be interconnected such that the actuation of one alarm shall activate all alarms.
 - c. Locate alarms outside each separate sleeping area in the immediate vicinity of the bedrooms.
 - d. Locate alarms on every level of a dwelling unit including basements.
 - e. Approved combined smoke alarms and carbon dioxide alarms shall be acceptable.
43. Provide at least one side-hinged door with clear width of 32" and a clear height of 78". Show on plans. (R311.2 CRC)
44. Provide a floor or landing on the each side of every exterior door. Landing shall have a width not less than the width of the door and be a minimum of 36" in length. (R311.3 CRC)
- a. The landing at required out-swinging door shall not be more than 1-½" lower than the top of the threshold.
 - b. The landing at in-swinging doors and doors other than the required egress shall not be more than 7-¾" below the top of the threshold.
45. Enclosed accessible space under stairs shall have walls, under-stair surface and soffits protected by ½" gypsum board. Show on the plans. (R302.7 CRC)
46. Stairways, provide details on plans;
- a. Minimum stairway width shall be not less than 36". (R311.7.1 CRC)
 - b. Handrails shall not project more than 4.5" on either side of the stairway. The clear stairway width at and below the handrail shall be 31 ½" where a handrail is installed on one side and 27" where handrails are installed on both sides. (R311.7.1 CRC)
 - c. Minimum clear headroom above nose of stair treads shall be 6'-8". (R311.7.2 CRC)
 - d. Maximum stair riser height shall be 7.75". (R311.7.4.1 CRC)
 - e. Minimum stair tread run shall be 10". (R311.7.4.2 CRC)
 - f. Winder stairs shall have a walkline located 12" from the narrow side of the stairs. The tread depth shall be 10" at the walkline and a minimum depth of 6" at any point. (R311.7.3 & R311.7.4.3 CRC)
 - g. Provide a landing at the top and bottom of all stairs. Landing shall not be less than the stair width. Exception: A floor or landing is not required at the top of an interior stairway, provided a door does not swing over the stairs. (R311.7.5 CRC)
 - h. The landing shall have a minimum dimension of 36" measured in the direction of travel. (R311.7.5 CRC)
 - i. A flight of stairs shall not have a vertical rise between floor levels or landings greater than 12'. (R311.7.5 CRC)
47. Stairways shall have handrails on at least one side of the stairway. Exception: stairs with fewer than four risers does not require handrails. (R311.7.7 CRC)
48. Handrails shall be between 34" and 38" above the nosing of the treads. (R311.7.7.1 CRC)
- a. Handrails (Type I) shall be at least 1.25" and not more than 2" outside diameter. If handrail is not circular, it shall have a perimeter dimension of at least 4" and not greater than 6.25" and a maximum cross-sectional dimension of 2.25". (R311.7.7.3 CRC)
 - b. Handrails (Type II) with a perimeter greater than 6-¼" shall have a graspable finger recess area on both sides of the profile. Recesses shall begin within ¾" from the tallest portion of the profile and be at least 5/16" deep within 7/8" below the widest portion of the profile. This required depth shall continue for at least 3/8" to a level that is not less than 1-¾" below the tallest portion of the profile. The minimum width above the recess shall be 1-¼" to 2-¾". (R311.7.7.3 CRC)
49. Spiral stairways, provide complete details on the plans; (R311.7.9.1 CRC)
- a. Minimum clear width at and below the handrail shall be 26".
 - b. Each tread shall have a 7-½" minimum tread depth at 12" from the narrower edge.
 - c. All treads shall be identical.
 - d. Stair rise shall be no more than 9-½".
 - e. Minimum headroom of 6'-6" shall be provided.
50. Guards, provide complete details on plans;
- a. Open sides of walking surfaces, stairways, landings located more than 30" above the floor or grade below at any point within 36" measured horizontally shall have a minimum 42" high guard. Exception: Guard on the open sides of stairways may be 34" to 38" high. (RR312.1 & R312.2 CRC)
 - b. Open guards shall not have openings that allow passage of a 4-inch diameter sphere. Exception: Openings for required guards on the sides of stair treads shall not allow a sphere of 4-3/8" to pass through. (R312.3 CRC)
 - c. The triangular space formed by the riser, tread and bottom rail at the open side of stairways shall be of a maximum size such that a sphere of 6" diameter cannot pass through. (R312.3 CRC)
51. Minimum hallway width shall be not less than 36". Revise plans. (R311.6 CRC)
52. Sleeping rooms and basement sleeping rooms shall have at least one operable emergency escape and rescue opening. Such openings shall open directly into a public way, yard or court that opens to a public way, provide details on plans; (R310.1 CRC)
- a. Emergency escape and rescue openings shall have a net clear opening of 5.7 s.f.. Exception: Minimum clear opening for grade floor openings shall be 5 s.f.

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- b. Minimum net clear opening height dimension shall be 24".
 - c. Minimum net clear opening width dimension shall be 20".
 - d. Emergency escape and rescue opening shall have a sill height not more than 44" above the floor. (1026.3 CBC)
 - e. Emergency escape and rescue openings with finished sill height below adjacent ground level (basements) shall be provided with a window well.
 - f. Minimum horizontal area of a window well shall be 9 s.f. with a minimum horizontal dimension of 36" and shall be fully open. (R310.2 CRC)
 - g. Window wells with a vertical depth of more than 44" shall be equipped with a permanently affixed ladder or steps. (R310.2.1 CRC)
53. Enclosed attic and enclosed rafter spaces shall have cross ventilation for each separate attic space. A net free ventilating area of not less than 1/150 of the space ventilated. (R806.1 CRC)
- EXCEPTIONS:
- a. The net free ventilating area may be not less than 1/300 of the ventilated space provided at least 50% and not more than 80% of the required ventilating area is located in the upper portion of the space at least 3' above the eave or cornice vents with the balance of the required ventilating area provided by eave or cornice vents.
 - b. The net free cross-ventilation area may be 1/300 when a Class I or II vapor barrier is installed on the warm-in-winter side of the ceiling.
54. The under floor space between the bottom of the floor joist and the earth shall be provided with ventilation openings through foundation or exterior walls. One such opening shall be within 3' of each corner of the building. Minimum net area of ventilation openings shall be not less than 1/150 of the under-floor space area. Openings shall also be not less than 1 s.f. for each 150 square feet of exterior wall. Openings shall be covered with openings not exceeding 1/4". (R408.1 CRC)
55. All habitable rooms shall have an aggregate glazing area of not less than 8% of the floor area of the room. Natural ventilation shall be through windows, doors, louvers or other approved openings to the outdoor air. The minimum openable area to the outdoors shall be 4% of the floor area being ventilated. (R303.1 CRC)
- EXCEPTIONS:
- a. The glazed area need not be openable where the opening is not required for emergency egress and mechanical ventilation capable of producing 0.35 air changes per hour in the room is installed or a whole house mechanical system is installed capable of supplying outdoor ventilation air of 15 cfm per occupant computed based on two occupants for the first bedroom and one occupant for each additional bedroom.
 - b. Glazed areas need not be installed in rooms where Exception (a) above is satisfied and artificial light is provided capable of producing 6 footcandles over the area of the room at a height of 30" above the floor level.
 - c. Use of sunrooms and patio covers shall be permitted for natural ventilation if in excess of 40% of the exterior sunroom or patio cover walls are open or enclosed only by insect screening.
56. For the purpose of determining light and ventilation, any room shall be considered as a portion of an adjoining room when at least 50% of the area of the common wall is open and unobstructed and provides an opening of not less than 10% of the floor area of the interior room but not less than 25 s.f. (R303.2 CRC)
- EXCEPTION: Openings required for light and ventilation shall be permitted into sunrooms and patio covers provided there is an openable area between the adjoining room and the sunroom or patio cover not less than 10% of the floor area of the interior room but not less than 20 s.f. The minimum openable area to the outdoors shall be based on the total floor area being ventilated.
57. Bathrooms, water closet compartments and other similar rooms shall be provided with glazed area in windows of not less than 3 s.f., one half shall be openable. (R303.3 CRC)
- EXCEPTION: Glazed area shall not be required where artificial light and mechanical ventilation are provided. Minimum ventilation rates shall be 50 cfm for intermittent ventilation and 25 cfm of continuous ventilation and vented directly to the outside.
58. Required glazed openings shall open directly onto a street or public alley, yard or court located on the same lot. (R303.7 CRC)
- EXCEPTIONS:
- a. Required glazed openings may face into a roofed porch where the porch abuts a street, court or yard and the longer side of the porch is at least 65% unobstructed and the ceiling height is not less than 7'.
 - b. Required glazed openings may face into an area under a deck, balcony, bay or floor cantilever provided a clear vertical space at least 36" high is provided.
 - c. Required glazed openings shall be permitted to open into sunrooms or patio covers if in excess of 40% of the exterior walls are open or enclosed only by insect screening and the ceiling height is not less than 7'. (R303.7.1 CRC)
59. Every dwelling unit shall be provided with heating facilities capable of maintaining 68 deg. Minimum at a point 3' above the floor and 2' from exterior walls in all habitable rooms. The installation of portable space heaters shall not be used to achieve compliance. (R303.8 CRC)
60. Habitable space, hallways, bathrooms, toilet rooms, laundry rooms and portions of basements containing these spaces shall have a ceiling height of not less than 7'. (R305.1 CRC)
- EXCEPTIONS:
- a. For rooms with sloped ceilings, at least 50% of the required floor area of the room must have a ceiling height of 7' and no portion of the required floor area may have a height of less than 5'.
 - b. Bathrooms shall have a minimum ceiling height of 6'-8" at the center of the front clearance area for fixtures.
 - c. A shower or tub equipped with a showerhead shall have a minimum ceiling height of 6'-8"

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above the minimum area 30"x30" at the showerhead.

61. Basements that do not contain habitable spaces shall have a ceiling height of not less than 6'-8". Beams, girders, ducts or other obstructions may project to within 6'-4" of the floor. (R305.1 CRC)
62. Every dwelling unit shall have at least one room of 120 s.f. of net floor area. (R304.1 CRC)
63. Other habitable rooms shall have a net floor area of not less than 70 s.f., except kitchens. (R304.2 CRC)
64. Habitable rooms shall not be less than 7' in any horizontal dimension, except kitchens. (R304.3 CRC)
65. Portions of a room with a sloping ceiling measuring less than 5' or a furred ceiling measuring less than 7' shall not be considered as contributing to the minimum required habitable area for that room. (R304.4 CRC)
66. Under floor crawl spaces shall be provided with at least one opening not less than 18" x 24" through a floor and 16"x24" through a perimeter wall. (R408.4 CRC)
67. Attic areas having an area exceeding 30 s.f. and a clear height of over 30" shall have an opening of not less than 20" x 30". 30" minimum clear headroom shall be provided at or above the access opening. (R807.1 CRC)
68. Bathtub and shower floors and walls above bathtubs with showers and shower compartments shall be finished with a nonabsorbent surface to a height of 6'-8" above the floor. (R307.2 CRC)
69. Roof covering for new and reconstruction shall be a Class 'C' roof assembly. (R902.1 Amended CRC)
70. The plans shall provide a statement specifically listing all required special inspections for the project. Special inspections shall be as required by Section 1704 of the CBC.
71. A formal soils investigation report shall be provided for any single structure which is 500 s.f. or greater, aggregate of all structures is 500 s.f. or greater or for special conditions for a structure of any size which the Building Official determines that a soils investigation is warranted. This report shall be prepared by an engineer registered in the State of California. The report shall be in accordance with and provide appropriate information as required by Section 1803 of the CBC. (R401.4 CRC)
72. Lots shall be graded to drain surface water away from foundation walls. The grade shall fall a minimum of 6" within the first 10'. (R401.3 CRC)
73. Foundations for one story buildings shall be a minimum of 12" wide and 12" deep. Foundations for two story buildings shall be a minimum of 15" wide and 12" deep. Footing sizes may be required to vary from this minimum as required by a soils report. (Table R403.1 CRC)
74. The braced wall panels at exterior walls and all interior braced wall panels in buildings with a plan dimension greater than 50' in Seismic Design Category Do, D1 & D2 shall be supported by continuous footings. (403.1.2 CRC)
75. Braced wall lines and braced wall panels shall be designed in accordance with Section R602.10.
 - a. Show locations and lengths of all braced wall panels on the plans
 - b. Show the braced wall panel type on the plans.
 - c. Indicate braced wall panel length adjustment factors used.
76. Braced wall panels shall be located as follows; (R602.10 CRC)
 - a. In Seismic Design Category C, panels shall be located not more than 25' on center and not more than 12.5' from the end of a braced wall line. The total combined distance from each end of a braced wall line to the outermost panel(s) in the line shall not exceed 12.5'.
 - b. Braced wall panels may be off-set up to 4' from a braced wall line with the total out-of-plane off-set of not more than 8'.
 - c. In Seismic Design Category D, D1 & D2, panels shall be located not more than 8' from each end of the braced wall line provided a 24' wide panel is applied to each side of the building corner or each end of the braced wall panel closest to the corner has a hold-down device at the edge of the braced wall panel closest to the corner rated at a minimum of 1,800#.

EXCEPTIONS:

 - a. Spacing between adjacent braced wall panels may be 35' to accommodate one single room not exceeding 900 s.f. All other braced wall lines shall not exceed 25'.
 - b. A spacing of 35' or less between braced wall lines is permitted if the required braced wall panel length is multiplied by the adjustment factor of Table R602.10.1.5, the length to width ratio of the floor/roof diaphragm does not exceed 3:1, and top plate lap splice face nailing is 12-16d nails on each side of the splice.
77. Buildings and structures placed adjacent to descending slopes steeper than 1:3 shall be set back from the slope a distance equal to the height of the slope divided by 3, but need not exceed 40'. (R403.1.7.2 CRC)
 - a. Building or structure setbacks required by this section of the code may only be varied as specified by an engineer registered in California and justified by a soils report addressing slope stability and building or structure foundation requirements.
78. Buildings or structures placed adjacent to ascending slopes steeper than 1:3 shall be set back from the slope a distance equal to the height of the slope divided by 2, but need not exceed 15'. (R403.1.7.1 CRC)
 - a. Building or structure setbacks required by this section of the code may only be varied as specified by an engineer registered in California and justified by a soils report addressing slope stability and building or structure foundation requirements.
79. Post tensioned slabs on grade shall be designed to the standards adopted by the Post Tensioning Institute (PTI). Provide calcs and plans to the PTI standard. (1805.8.2 CBC)
80. When soils properties are not known in adequate detail as determined by a site specific soils report, seismic design shall be based upon Site Class D. Provide seismic design for the structure to Site Class D. (1613.5.2 CBC)
81. Retaining walls not laterally supported and retaining in excess of 24" of fill shall be designed for a safety factor of 1.5 against lateral sliding and overturning and designed against excessive foundation pressure. Revise design. (R404.4 CRC)
82. All pier and pile foundation system designs shall be based upon recommendations provided in a formal soils investigation as specified in Sec. 1810 of the CBC. The required soils investigation shall be provided with the submittal of the pier or pile design and plan package.

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83. Provide truss plans, roof and floor, for all portions of the proposed structure(s). Plans shall include design for each individual truss, an overall truss layout plan and erection details. Plans shall be stamped, signed and dated by an engineer registered in the State of California. (R802.10 CRC)
84. Truss plans shall be submitted to the engineer of record for the overall building for review prior to submittal to the Building Division. The engineer of record shall provide a note on the truss plans or a shop drawing approval stamp stating that the truss plans are in general conformance with the design of the building. The plans submitted to the Building Division shall contain no red line revisions or corrections to the truss package. (R106.1 CRC)
85. Unless designed by an engineer, all sill plates for exterior walls, interior braced wall panels, interior and exterior bearing walls and shear walls shall be provided with 1/2" x 10" anchor bolts spaced not more than 6' o.c., with a minimum of two bolts for each piece of sill plate and 7" minimum embedment. (R403.1.6 CRC)
86. Wood framing members that rest on concrete or masonry exterior foundation walls less than 8" from exposed earth shall be of naturally durable or preservative-treated wood. (R317.1 CRC)
87. Sleepers or sills on a concrete or masonry slab in direct contact with earth unless separated from such slab by an impervious moisture barrier shall be of naturally durable or preservative-treated wood. (R317.1 CRC)
88. Wood joist or the bottom of wood structural floor closer than 18" or wood girders when closer than 12" to the exposed ground in crawl spaces or unexcavated area located within the periphery of the building foundation shall be naturally durable or pressure treated wood. (R317.1 CRC)
89. Wood sheathing, siding and wall framing on the exterior of a building having a clearance of less than 6" from the ground or less than 2" from concrete on grade shall be naturally durable or pressure treated wood. (R317.1 CRC)
90. Posts or columns exposed to weather or in basements and columns in crawl spaces or unexcavated areas located within the periphery of the building shall be supported by concrete piers or metal pedestals projecting 1" above a concrete floor or 6" above exposed earth and the earth is covered by an approved impervious moisture barrier impervious moisture barrier. Post or columns not so separated shall be of natural durability or preservative-treated wood. (R317.1.4 CRC)
91. Glued-laminated timbers that form the supports of a building or other structure and are exposed to weather and not properly protected by a roof, eave or similar covering shall be pressure treated with preservative or be from naturally durable or pressure treated wood. (R317.1.5 CRC)
92. Building shall have address numbers placed in a position that is plainly legible and visible from the street or road fronting the property. Numbers shall contrast with background, be Arabic or alphabetical letters and be a minimum of 4" high with a minimum stroke of 1/2". (R319.1 CRC)
93. Subterranean termite control shall be provided by one of the following methods. Provide information on the plans. (R318.1 CRC)
 - a. Chemical termiticide treatment.
 - b. Termite baiting system.
 - c. Pressure preservative treated wood.
 - d. Naturally durable termite-resistant wood.
 - e. Physical barriers as provided in Section R318.3.
 - f. Cold formed steel framing.
94. Anchor bolts on shear walls in Seismic Design Category D, D1, D2 & Townhouses in C shall have steel plate washers a minimum of 3"x3"x.229" between the sill plate and the nut. (602.11.1 CRC)
95. Safety glazing shall be provided in the following locations; (R308.4 CRC)
 - a. Glazing in swinging, sliding and bi-fold doors.
 - b. Glazing in enclosures for or walls facing hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers where the bottom exposed edge is less than 60" measured vertically above a standing or walking surface.
EXCEPTION: Glazing that is more than 60" measured horizontally from the waters edge of a hot tub, whirlpool or bathtub.
 - c. Glazing in walls and fences adjacent to indoor and outdoor pools, hot tubs and spas where the bottom edge of the glazing is less than 60" above the walking surface and within 60" measured horizontally of the waters edge. This shall apply to single and multiple pane glazing.
 - d. Glazing in an individual fixed or operable panel adjacent to a door where the nearest vertical edge is within a 24" arc of the door in a closed position and the bottom edge is less than 60" above the walking surface.
EXCEPTIONS:
 - i. Decorative glazing.
 - ii. Where there is an intervening wall or other permanent barrier between the door and the glazing.
 - iii. Glazing on the latch side of and perpendicular to the plane of the door in the closed position.
 - iv. Glazing adjacent to a door where access thru the door is to a closet or storage area 3' or less in depth.
 - v. Glazing that is adjacent to the fixed panel of a patio door.
 - e. Glazing in an individual fixed or operable panel that meets all of the following;
 - i. The exposed area of an individual pane is larger than 9 s.f.; and
 - ii. The bottom edge of the glazing is less than 18" above the floor; and
 - iii. The top edge of the glazing is more than 36" above the floor; and
 - iv. One or more walking surfaces are within 36" measured horizontally of the glazing.
EXCEPTIONS:
 - i. Decorative glazing.
 - ii. When a rail is installed on the accessible side(s) of the glazing 34"-38" above the walking surface.
 - iii. The rail shall be capable of withstanding 50 plf horizontal force without contacting the glass and be a minimum 1 1/2" in cross section.

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- iv. Outboard panes in insulating glass units and other multiple glazed panels when the bottom edge is 25' or more above grade, a roof, walking surfaces or other horizontal (within 45 deg.) surface adjacent to the glass exterior.
 - f. Glazing in railings regardless of area or height above walking surface.
 - g. Glazing adjacent to stairways, landings and ramps within 36" horizontally of a walking surface when the exposed surface of the glazing is less than 60" above the plane of the adjacent walking surface.
EXCEPTIONS:
 - i. When a rail is installed on the accessible side(s) of the glazing 34"-38" above the walking surface. The rail shall be capable of withstanding 50 plf horizontal force without contacting the glass and be a minimum 1 ½" in cross section.
 - ii. The side of stairway has a complying guardrail or handrail and the glazing is more than 18" from the railing.
 - iii. When a solid wall or panel extends from the plane of the adjacent walking surface to 34"-36" above the walking surface and the wall or panel and can withstand 50 plf horizontal load.
 - h. Glazing adjacent to stairways within 60" horizontally of the bottom tread of a stairway in any direction when the exposed surface of the glazing is less than 60" above the nose of the tread.
EXCEPTIONS:
 - i. The side of the stairway has a complying guardrail or handrail and the plane of the glass is more than 18" from the railing.
 - ii. When a solid wall or panel extends from the plane of the adjacent walking surface to 34"-36" above the walking surface of the wall or panel and can withstand 50 plf horizontal load.
96. Cement, fiber-cement, fiber-mat reinforced cement, glass mat gypsum or fiber-reinforced gypsum backers shall be used as a base for wall tile in tub and shower areas and wall and ceiling panels in shower areas. (R702.4.2 CRC)
97. A minimum 26 ga. Corrosion –resistant or plastic weep screed with a minimum vertical flange of 3 ½" shall be provided at or below foundation plate line on exterior stud walls. Screed shall be a minimum of 4" above earth or 2" above paved areas. (R703.6.2.1 CRC)
98. Patio cover openings shall be permitted to be enclosed with insect screening, approved translucent or transparent plastic not more than 0.125" thick or glass. (AH102 CRC)
99. Patio covers shall not exceed 12' in height, the open or glazed area of the longer wall and one additional wall is at least 65% of the wall area below 6'-8" of each wall. (AH102 CRC)
100. Patio shall be unenclosed if openings into the patio cover serve as emergency egress or rescue openings from sleeping rooms. (I103.1 CRC)
101. Patio covers shall be designed for all dead loads plus a minimum vertical live load of 10 psf. (AH104.1 CRC)
102. Patio cover columns may be supported by a 3 ½" slab without footings provided column loads to the slab do not exceed 750 pounds per column. (AH106.1 CRC)

California Green Building Standards Code (applicable for New Construction Only)

- 1. A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by at least 20% shall be provided. Provide the schedule on the plans. (4.303.1 CGBSC)
- 2. When single shower fixtures are served by more than one shower head, the combined flow rate shall of all shower heads shall not exceed the maximum flow rates specified in the 20% reduction column in Table 4.303.2 or the shower shall be designed to allow only one shower head to be in operation at one time. Specify method and flow rate on the plans. (4.303.2 CGBSC)
- 3. Provide a waste management plan to reduce construction waste at least 50%. Either provide a job specific proposal in accordance with Section 4.408 or provide a waste management plan document form provided by the City with the plan submittal. (4.408 CGBSC)
- 4. At the time of final inspection, a manual, compact disk, web-based reference or other acceptable media shall be placed in the building containing the following. Note on the plans. (4.410 CGBSC)
 - a. Directions to the owner that the manual shall remain with the building throughout the life of the structure.
 - b. Operation and maintenance instructions for equipment and appliances, including water saving devices and systems, HVAC systems, water heating systems and other major appliances and equipment. Roof and yard drainage, gutters and downspouts. Space conditioning systems, including condensers and air filters. Landscape irrigation systems. Water reuse systems.
 - c. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption.
 - d. Public transportation and/or carpool options available in the area.
 - e. Educational material on the positive impacts of an interior relative humidity between 30-60% and what methods an occupant may use to maintain that range.
 - f. Information about water-conserving landscape and irrigation design and controllers which conserve water.
 - g. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5' away from the foundation.
 - h. Information on required routine maintenance measures including, caulking, painting, grading around the building, etc.
 - i. Information about state solar energy and incentive programs available.
 - j. A copy of all special inspection verification required for the project.
- 5. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Provide manufacturer's recommended installation data showing compliance on the plans. (4.503 CGBSC)
- 6. At rough installation or during storage on the site and until final startup of the heating and cooling equipment, all duct and other related air distribution openings shall be covered with tape, plastic, sheet metal or other acceptable methods to reduce dust or debris which may collect in the system. Note on the plans. (4.504.1 CGBSC)

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7. All finish materials, such as adhesives, sealants, caulks, paints, aerosol paints, coatings, carpet systems, resilient flooring systems and composite wood products shall conform to the VOC and formaldehyde limits set forth in Section 4.504.2, 4.504.3, 4.504.4, 4.504.5 and Tables 4.504.1, 4.504.2, 4.504.3 and 4.504.5. Note requirements on the plans. (405.4 CGBSC)
8. Concrete slab foundations required to have a vapor retarder shall comply with one of the following requirements. Show on the plans. (4.505.2 CGBSC)
 - a. A 4" thick base of ½" or larger aggregate provided with a vapor barrier in direct contact with concrete.
 - b. A slab design specified by a licensed professional engineer.
9. Bathroom exhaust fans, a room which contains a bathtub, shower or tub/shower combination, shall comply with one of the following. Show on the plans. (4.506.2 CGBSC)
 - a. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
 - b. Unless functioning as a component of a whole house ventilation system, the fan must be controlled by a humidistat which shall be readily accessible. Humidistat controls shall be capable of adjustment between a relative humidity range of 50 to 80%.

California Plumbing Code

1. Water closet shall have 15" to any wall or obstruction on each side of its centerline and 24" clear space in front. (407.5 CPC)
2. Shower compartments shall be not less than 1,024 sq. in. and also be capable of encompassing a 30" diameter circle. (411.7 CPC)
3. Provide combustion air to the water heater equal to; (507.3 CPC)
 - a. One opening within 12" of the top of the enclosure and one opening within 12" of the bottom of the enclosure. Each opening shall have a minimum free area of 1 sq. in. per 1,000 Btu, but not less than 100 sq. in., for enclosures opening indoors.
 - b. One opening within 12" of the top of the enclosure and one opening within 12" of the bottom of the enclosure. Openings shall communicate directly or by ducts to the outdoors. Each opening shall have a minimum free area of 1 sq. in. per 4,000 Btu of input when opening directly outdoors or thru vertical ducts.
 - c. One opening within the top 12" of the enclosure and one opening within the bottom 12" of the enclosure. When communicating thru horizontal ducts to the outdoors, each opening shall have a free area of 1 sq. in. per 2,000 Btu of input.
 - d. One opening within the upper 12" shall be ducted directly to the outdoors or area directly communicating to the outdoors (attic). 1 sq. in. per 3,000 Btu of appliance in an enclosure.
4. Water heaters located in Seismic Design Categories C, D, E & F, as defined by the Building Code, shall have straps located in the upper and lower 1/3 of its vertical dimension. (508.2 CPC)
5. Water heaters located in attics, floor-ceiling assemblies or floor-subfloor assemblies, where damage results from a leaking water heater, a water-tight corrosion-resistant pan shall be installed. The pan shall be installed under the water heater with a ¾" drain to the exterior. (508.4 CPC)
6. Appliances installed on roofs shall have both a readily accessible disconnect and a GFCI and weatherproof receptacle adjacent to the appliance. (509.2 (3) CPC)
7. Appliances in attics shall be accessible thru at least a 22"x30" access opening. The opening shall not be more than 20' from the opening along the pathway, pathway shall have a solid floor not less than 24" wide from opening to appliance, provide a 30"x30" working platform in front of the appliance and provide a 120 volt outlet with a light fixture near the appliance with the light switch located near the opening. (509.4 CPC)
8. Water heaters located within a garage shall be installed so that all burners and ignition devices are not less than 18" above the floor. (508.14 CPC)
9. Mechanical equipment located in a garage shall be located or protected so it is not subject to damage by a moving vehicle. (508.14 (2) CPC)

California Mechanical Code

1. Appliances installed on roofs shall have both a readily accessible disconnect and a GFCI and weatherproof receptacle adjacent to the appliance. (303.8.1.6 CMC)
2. Appliances located in a garage shall be protected from mechanical damage by being installed behind protective barriers, by being elevated or by being located out of the normal path of vehicles. (308.1 CMC)
3. Heating equipment located in a garage that generates a glow, spark or flame shall be installed with the pilots, burners or heating elements and switches at least 18" above the floor level. (308.1 CMC)
4. Condensate lines from mechanical equipment shall discharge to a plumbing fixture or an approved location by means of an indirect waste pipe. Condensate lines shall not terminate in landscape or yard areas. (309.1 CMC)
5. When a domestic clothes dryer is located in a closet, a minimum opening of 100 sq. in. for makeup air shall be provided in the door. (504.3.2 CMC)
6. A domestic clothes dryer duct shall be of metal and a minimum of 4" in diameter. The exhaust duct shall not exceed a total combined horizontal and vertical length of 14', including two 90 degree elbows. Two feet shall be deducted for each 90 degree elbow in excess of two. (504.3.2.2 & 504.3.2.2 CMC)
7. All new construction and additions exceeding 1,000 sf shall meet the requirements of ANSI/ASHRAE 62.2 ventilation and acceptable indoor air quality in low-rise residential buildings. Window operation is not a permissible method of providing the whole building ventilation required.
 - a. Noteblock, sheet notes, schedules or other forms of written communication that specify the requirements for ventilation airflow, the rooms where the whole-building and local ventilation exhaust fans are located, and duct sizing

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for Whole-Building Ventilation and Local Ventilation exhaust shall be specified on the plans submitted to the City of Huntington Beach Building Department for a permit. However, in all cases, Table 7.1 from the 2008 California Energy Code shall be electronically placed on the plans to allow for duct changes that may be required during construction of the system.

- b. See ANSI/ASHRAE 62.2 for additional references and requirements.

California Electrical Code

1. All receptacles in bathrooms, garages, accessory buildings, outdoors, crawl spaces, unfinished basements, kitchens (where receptacles serve counter top surfaces), laundry, utility, wet bar sinks (within 6' of the edge of the sink), shall have ground-fault circuit-interrupter (GFCI) protection. Show on the plans. (210.8 CEC)
2. All branch circuits supplying 120v 15-ampere and 20-ampere outlets in family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways and similar rooms or areas shall be protected by a listed arc-fault circuit interrupter (AFCI). Show on the plans. (210.12(B) CEC)
3. All wall spaces, 2' or more in width, shall have receptacles installed such that no point measured horizontally is more than 6' from a receptacle (12' maximum spacing). Show minimum receptacles on the plans. (210.52 (A) (1) & (2) CEC)
4. Countertops in kitchens, pantries, breakfast rooms, dining rooms and similar areas spaces 12" or wider shall have receptacles installed such that no point along the wall is more than 2' from a receptacle. Show receptacles on the plans. (210.52 (C) (1) CEC)
 - a. Receptacle outlets shall be located above, but not more than 20" above, the countertop. Receptacle shall be readily accessible.
5. Island and peninsula counters 24" x 12" or greater in length shall have at least one receptacle. Show receptacles on the plans. (210.52 (C) (2) & (3) CEC)
6. Range hoods shall be permitted to be cord-and-plug connect. The receptacle shall be accessible and shall be supplied by an individual branch circuit.
7. In bathrooms, at least one receptacle shall be installed within 3' of the outside edge of each basin. Show receptacles on the plans. (210.52 (D) CEC)
 - a. At least one 20-ampere branch shall be provided to supply bathroom receptacle outlets. This circuit shall have no other outlets. (210.11(C)(3) CEC)
8. At least one receptacle at grade level shall be installed in both the front and back of each dwelling unit. Show receptacles on the plans. (210.52 (E) (1) CEC)
9. Balconies, decks and porches accessible from inside the dwelling unit shall have at least one receptacle installed within the perimeter of the deck balcony or porch. Show receptacles on the plans. (210.52 (E) (3) CEC)
10. At least one receptacle shall be installed for the laundry. Show receptacles on the plans. (210.52 (F) CEC)
 - a. The receptacle shall be supplied by at least one additional 20-ampere circuit.
11. At least one receptacle, in addition to those for specific equipment, shall be provided in each attached or detached garage and in each unfinished basement. Show receptacles on the plans. (210.52 (G) (1) CEC)
12. Any hallway 10' or more in length shall have at least one receptacle. Show receptacles on the plans. (210.52 (H) CEC)
13. In closets, luminaries shall be (a) surface-mounted or recessed incandescent with completely enclosed lamps, (b) Surface mounted or recessed fluorescent luminaries, (c) surface mounted or LED luminaries identified as suitable for installation within storage areas. Minimum clearances between luminaries and the nearest point of storage space shall be as follows. Show on the plans. (410.16 CEC)
 - a. 12" for surface-mounted incandescent or LED luminaries with completely enclosed light installed on the wall above the door or on the ceiling.
 - b. 6" for surface mounted fluorescent luminaries installed on the wall above the door or on the ceiling.
 - c. 6" for recessed incandescent or LED luminaries with a completely enclosed light installed in the wall or ceiling.
 - d. 6" for recessed fluorescent luminaries installed in the wall or ceiling.
 - e. Surface-mounted fluorescent or LED luminaries installed within storage space where identified for this use.
14. Electrical boxes shall have drywall, plaster, or plasterboard surfaces finished so there will be no gaps or open spaces greater than 1/8" at the edge of the box per article 314.21 (CEC). In walls or ceilings boxes shall be installed so that the front edge of the box or plaster ring shall not be recessed more than 1/4" from non-combustible finish surface and shall be flushed with a combustible surface per article 314.20 (CEC).
15. No cord-connected, chain, cable, cord-suspended, lighting track, pendant or ceiling-suspended fans shall be located within 3' horizontally and 8' vertically from the top of the bathtub rim or shower stall threshold, including directly over the tub or shower. Luminaries located in this zone shall be listed for damp areas or listed for wet locations where subject to shower spray. Show on the plans. (410.10 (D) CEC)
16. All 125v 15-ampere and 20-ampere receptacles in areas specified in article 210.52 (CEC) shall be listed tamper resistant receptacle.
17. Lighting shall comply with the applicable high efficacy requirement of the California Title 24 part 6 section 150.
18. New boxed used at luminaire or lampholder outlets in a ceiling shall be required to support a luminaire weighing a minimum of 50lbs. boxes used at luminaire outlets in walls shall be designed for the purpose and shall be marked on the interior indicating the maximum weight of the luminaire permitted, if other than 50lbs. outlet boxes or systems used as the sole support of ceiling fans shall be listed and marked by the manufacture as suitable for this purpose. (314.27 CEC)
19. Driven grounding electrodes shall be stainless steel, a minimum of 5/8" diameter, and a minimum of 8' driven into the soil. (H.B.M.C.) The grounding electrode conductor connector to a driven electrode shall be listed for this purpose. (250.70 CEC)
20. Provide complete electrical load calculations, on the plans, showing the main electrical service size required for the project. An electrical service sized larger than 400 amperes shall be designed by an Electrical Engineer registered in the State of California or a licensed C-10 electrical contractor per the Business and Professional Code. The Electrical Engineer shall

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stamp, sign and date all electrical sheets and the load calculations. An electrical service sized 400 amps or less may be designed by the homeowner or an appropriately licensed electrical contractor. When a registered Electrical Engineer or electrical contractor is responsible for the electrical design, the contractor shall sign all electrical sheets and load calculations showing the name of the person preparing the electrical plans, company name and state contractors license number.

California Energy Code

1. Provide complete, signed energy compliance forms CF-1R and MF-1R for Climate Zone 6, reproduced on the plans.
2. Provide a specific listing on the plans of all the Installation Certificate Forms (CF-6R) and Certificate of Field Verification and Diagnostic Testing Forms (CF-4R) (if applicable) required to be presented to the City field inspector prior to the final inspection sign-off for this project in accordance with the requirements of the energy analysis. This listing shall be placed in the plans with the Certificate of Compliance Forms.
3. Show minimum R-30 ceiling/roof insulation on the plans. (Table 151-C Package D, CEC)
4. Show minimum R-19 floor insulation on the plans. (Table 151-C Package D, CEC)
5. Show minimum R-13 wall insulation on the plans. (Table 151-C Package D, CEC)
6. Show minimum R-13 under floor insulation on the plans. (150 (d) CEC)
7. Masonry or factory built fireplaces shall have; (150 (e) CEC)
 - a. Closable metal or glass covering over the entire opening of the fire box.
 - b. Combustion air intake from outside of the building directly into firebox of at least 6 sq. in. and has a accessible, operable and tight fitting damper or combustion air control device.
Exception: outside combustion-air intake not required if installed on a slab on grade and not on an exterior wall.
 - c. A flue damper with a readily accessible control.

Additional comments

1. Revise notes on plans to show compliance with the 2010 Editions of the California Residential Code, California Building Code, California Electrical Code, California Plumbing Code, California Mechanical Code, California Fire Code and the 2008 California Energy Code.
2. Provide general construction notes, material specifications, material strengths, material grades, species, etc. as appropriate for the project.
3. Plans and calculations shall be stamped, signed and dated by an engineer or architect registered in the State of California.
4. Show lengths of all shear walls on the plans.
5. Provide truss plans, stamped by an engineer registered in the state of California.
Truss plans shall be reviewed by the building engineer of record and stamped with a shop drawing stamp stating that the plans are in compliance with the overall building design. (106.3.4.2 CBC)

Notes Required on the Plans

- a. Applications for which no permit is issued within 180 days following the date of application shall automatically expire. (R105.3.2 CRC)
- b. Every permit issued shall become invalid unless work authorized is commenced within 180 days or if the work authorized is suspended or abandon for a period of 180 days. **A successful inspection must be obtained within 180 days.** A permit may be extended if a written request stating justification for extension and an extension fee is received prior to expiration of the permit and granted by the Building Official. No more than one (1) extension may be granted. Permits which have become invalid shall pay a reactivation fee of approximately 50% of the original permit fee amount when the permit has been expired for up to six (6) months. When a permit has been expired for a period in excess of one (1) year, the reactivation fee shall be approximately 100% of the original permit fee. (R105.5 CRC)
- c. Fire sprinkler plans stamped approved by the City of Huntington Beach Fire Department shall be provided at the site at time of framing inspection.
- d. Water closets shall have an average water consumption of not more than 1.6 gallons of water per flush, 1.28 gallons per flush after July 1, 2011. (402.2 CPC)
- e. Urinals shall have an average water consumption of not more than 1.0 gallons of water per flush, 0.5 gallons per flush after July 1, 2011. (402.3 CPC)
- f. Shower heads shall have a water flow not to exceed 2.5 gallons per minute. (402.1.1 CPC)
- g. Faucets in kitchens, wet bars, lavatories, laundry sinks, etc. shall have a water flow not to exceed 2.2 gallons per minute. (402.1.2 CPC)
- h. Water piping materials within a building shall be in accordance with Sec. 604.1 of the California Plumbing Code. Pex, CPVC and other plastic water piping systems shall be installed in accordance with the requirements of Sec. 604 of the CPC, Installation Standards of Appendix I of the CPC and manufacturers recommended installation standards. CPVC water piping requires a Certification of Compliance as specified in Sec 604.1.1 of the CPC prior to permit issuance.
- i. All construction shall comply with the 2010 Editions of the California Residential Code, California Building Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Fire Code and 2008 California Energy Code.
- j. Two separate site visits and reports prepared by the Engineer of Record for the new home design are required; (109.3.8 CBC)
 1. The Engineer of Record shall inspect the slab and foundation system installation just prior to the concrete pour to verify that the foundation installation is in accordance with the approved plans and design. The Engineer of Record shall then

