



2022 Residential Standard Plan Notes

The general notes sheet is based on the 2022 California Building Standard Codes. This is not an all-inclusive list of code requirements specific to the project. Please reference applicable sheets and specific areas of the plans for locations of fixtures/equipment, structural components, structural design criteria, building finishes and other components specific to the project construction.

CURRENT CODES:

2022 Calif. Residential Code
2022 Calif. Building Code. (Structural only)
2022 Calif. Mechanical Code
2022 Calif. Plumbing Code
2022 Calif. Electrical Code
2022 California Energy Code
2022 California Green Building Standards
Monterey County Code of Ordinances

DESIGN CRITERIA:

Risk Category: II
Site Class: D
Seismic Design Category: D
Basic Wind Speed: 91 mph, Exposure D
Climate Zone: 3

MINIMUM EROSION AND SEDIMENT CONTROLS FOR PROJECTS DISTURBING LESS THAN 1 ACRE:

The BMP's (Best Management Practices) listed below must be in place during construction. The BMP's listed are minimum requirements and additional BMP's could be required based on site conditions and projects located in ASBS areas (Area of Special Biological Significance).

BMP's to be in place at the start of construction:

1. Site-specific BMP plan per project conditions.
2. Existing vegetation/buffer zones protected.
3. Perimeter controls installed properly.
4. Storm drain/inlets protected on-site & nearby.

Other BMP's as applicable per project requirements:

1. **Perimeter controls:** Stabilized construction entrance, silt fence, fiber rolls, wattles, drain/inlet protection onsite and nearby, etc.
2. **Erosion prevention:** Maintain native cover as feasible, stabilize slopes (Straw, visqueen, erosion control blankets, etc.)
3. **Sediment control:** Stabilize/secure bare soil areas & sediment piles, perform dust control.
4. **Stockpile management:** Contain and cover when not active and for rain events.
5. **Materials & Waste management:** Keep away from drains/flow paths, securely cover and contain, no overflowing trash receptacles, proper disposal of paint and other chemicals.
6. **Concrete/Stucco:** Washout facility with cover for rain events and regular maintenance.
7. **Portable toilet facilities:** Keep away from storm drains/flow paths.
8. **Vehicles/equipment:** Maintained in good working order, no leaks or offsite tracking.
9. **Wet weather:** Watch forecast, keep extra BMP's on-site, prepare/cover/secure site.
10. **Dewatering:** Use approved handling method. And **ONLY RAIN IN THE STORM DRAINS.**

LIGHT, VENTILATION, GLAZING AND MINIMUM ROOM DIMENSIONS

1. Natural light >8% of room floor area, 4% of the floor area in occupied spaces mechanical ventilation of .35 air changes/hour, or whole-house fan of 15 cfm per occupant. (CRC R301.3)
2. Bathroom aggregate glazing area >3sq.ft.; ½ operable OR provide artificial light & a fan w/ min. 50 cfm for intermittent or 25 cfm for continuous ventilation; exhaust air vented directly to outside. (CRC R303.3). Each bathroom combo fan with Energy Star capt. (min.50cfm) w/ humidistat installed. (CRC R303.3.1)
3. The following windows shall be fully tempered: (CRC R308.4)
 - Sliding/swinging glass doors
 - Glazing in walls and enclosures facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers, and swimming pools where the glazing is less than 60" above the standing surface within the compartment and within 60" horizon- tally of the water's edge (CRC R308.4.5)
 - Glazing within a 24" arc of a door that is less than 60" above the floor. Safety glazing required on a wall less than 180 degrees from the plane of the door in a closed position and within 24" of hinge side of an in-swing door. (R308.4.2)
 - Glazing where the exposed area is greater than 9sq.ft, bottom is less than 18" and at least 36" above the floor, and adjacent to a walking surface.
 - Within 60" of the bottom tread of a stairway and less than 36" above the landing • Glazing in guards and railings
 - Glazing adjacent to stairways, landings, and ramps within 36" horizontally of the walking surface less than 36" above the walking surface

4. Provide fall protection in accordance with C.R.C. Section R312.2.1 for the operable windows with sills located less than 24" above finished floor and greater than 72" above the finished grade, or surface on the outside of the building C.R.C. Section R312.2
5. Provide attic cross ventilation: 1/150 of attic area or 1/300 with min. 40% but not >50%. Provide min. of 1" of air space between insulation & roof sheathing. (CRC R806) Under floor cross ventilation: min.1.0 sq. ft. for each 150 sq. ft. of under floor area. When a class 1 vapor retarder is installed, min. area of ventilation may be limited to 1sq.ft for each 1,500 square feet of under-floor space. One ventilation within 3' of each building corner (CRC R408.1). Unvented crawl spaces shall comply with CRC R408.3.
6. Minimum 3" deep x door width landing & light at all exterior doors.
7. Minimum room dimensions (CRC R304):
 - Habitable rooms shall be min. 70 sq.ft.
 - Habitable rooms, hallways & basements min.7' ceiling height. Bathrooms, toilet rooms, laundry & basements w/o habitable spaces min. 6'8" ceiling height. (CRC R305.1 & R305.1.1)
 - Habitable spaces in basements min. 6'4" under obstructions. (CRC R305.1)
 - Kitchen shall be provided with passageway min. 3' in width between counters/appliances.
 - Shall not be less than 7 ft. in any dimension except kitchens.
 - Hallways shall have a minimum width of 36". (CRC R311.6)

EGRESS AND RESCUE OPENINGS

1. Provide each bedroom, basement, and habitable attic with a minimum of one exterior egress and rescue opening. Such opening shall lead directly to the public way. The egress and rescue opening shall have a clear net opening of 5.7 square feet (5ft for grade floor). The minimum net clear height shall be 24" and the minimum net clear width shall be 20". The opening shall have the bottom of the clear opening not greater than 44 inches measured from the floor. (CRC R310.1 – R310.3) Area Wells, ladders, steps, and area well drainage shall comply with CRC R310.4. Bars, grilles, covers, and screens or similar devices shall be releasable or removable from the inside without the use of a key, tool, special knowledge, or force greater than 15lbs. (CRC R310.4.4) Photovoltaic panels & modules shall not be placed on the portion of the roof below an emergency escape and rescue openings within 36". (CRC 324.6.3)
2. Provide landings and a porch light at all exterior doors. Landings are to be minimum 3' deep x width of door. Landings at required egress doors may step down a maximum of 7.75" when the door does not swing over the landing and 1.5" when door swings onto the landing. Other than required exterior exit doors may have a threshold of 7.75" maximum; a landing is not required if a stair with two or fewer risers is located on the exterior side and the door does not swing over the stairway. (CRC R311.3-R311.3.2)
3. At least one egress door shall be provided for each dwelling unit, the egress door shall be side hinged with a minimum opening width of 32"; the minimum clear openable height shall be 78" minimum (other doors shall not be required to comply with these dimensions). Egress doors shall be readily openable from the inside without the use of a key, special knowledge, or effort. (CRC R311.2)

AGING-IN-PLACE

1. For new construction at least one bathroom on the entry level shall be provided with grab bar reinforcement. If no entry level bathroom is present at least one bathroom on 2nd or 3rd floor shall comply with CRC R327.1.1 Reinforcement shall be 2x8 lumber or equal and located between 32" and 39.25" above the finished floor flush with wall framing. Water closet reinforcement shall be installed on both side walls of the fixture, or on the side and back wall. Shower reinforcement shall be continuous where wall framing is provided. Bathtub and combo tub/shower reinforcement shall be continuous on each end of tub and the back wall. Back wall reinforcement for a lower grab bar shall be provided with bottom edge located no more than 6" above the tub rim. Info with location of reinforcement shall be placed in the operations and maintenance manual.
2. Electrical outlets, switches and controls shall be located not more than 48" from the top of the outlet box and not less than 15" from the bottom of the outlet box above the finished floor. (CRC R327.1.2)
3. Doorbell buttons shall be installed not more than 48" above the finished floor measured to the top of the button. (CRC R327.1.4)
4. Effective July 1st, 2024, at least one bathroom and bedroom on entry level shall provide a doorway with net clear opening of not less than 32" measured with door open at a 90-degree angle. (CRC R327.1.3)

FOUNDATIONS & CONCRETE SLABS

1. Slope drainage 6" within the first 10' from the foundation wall. If physical obstructions or lot lines prohibit the 10' distance, a 2-5% slope shall be provided to an approved alternative method of diverting the water away from the foundation. Impervious surfaces sloped a minimum of 2% for 10' away from structures to an approved drainage way. (CRC R401.3)
2. Stepped footings shall req. when bottom footing slope >1 in 10 (V:H)(CRC R403.1.5)
3. Concrete slabs: 3 ½" minimum (CRC R506.1). Slabs shall have a 4" thickness of 3/8" minimum gravel under the concrete slab. Separate from soil with a 10-mil poly vapor retarder with joints lapped not less than 6". A capillary break shall be installed when a vapor retarder req. per CGBC Section 4.505.
4. Provide an 18" x 24" under-floor access, unobstructed by pipes or ducts and within 5" of each under-floor plumbing cleanout and not located under a door to the residence. Provide a solid cover or screen. (CRC 408.4 & CPC 707.9)
5. Minimum jolt bolting: ½" anchor bolts or approved anchors at 6 ft. o.c. maximum for one story. (CRC R403.1.6) Use anchor bolts at 4 ft. o.c. maximum for three story construction. Embed bolts 7" minimum. The anchor bolts shall be placed in middle third of the width of the plate. Locate end bolts not less than 7 bolt diameters, nor more than 12" from ends of sill members. In SDC D0 and above: Provide 3"X3"X0.229 plate washers on each bolt at braced or shear wall locations, standard cut washers permitted for anchor bolts not located in braced/shear wall lines. (CRC R403.1.6.1 & R602.11.1)

CLEARANCES AND TREATMENT FOR WOOD FRAMING

1. Weather exposed glued-lam, beams and posts shall be pressure treated or shall be wood of natural resistance to decay (CRC R317.1.3 & 5)
2. Columns exposed to weather or in basements, when supported on concrete pier or metal pedestals, pressure treated or natural resistance to decay unless pier/pedestals project 1" above concrete or 6" above earth & earth covered by approved impervious moisture barrier. (CRC R317.1.4 exc. 1)
3. Columns in enclosed crawl spaces or unexcavated areas located within the periphery of the building shall be pressure treated or natural resistance to decay unless the column is supported by a concrete pier or metal pedestal of a height 8" or more, and the earth is covered by an impervious moisture barrier. (CRC R317.1.4 exc. 2)
4. Wood joists 18" clearance to earth and girders 12" to earth, or shall be pressure treated or natural resistance to decay when located within the periphery of the building foundation. (CRC R317.1 (1))
5. Fasteners for siding attachment & into p/t lumber corrosion resistant (CRC R317.3)
6. Wood of natural resistance to decay or pressure treated wood per CRC R3170

FLOORS

1. Wood floor joist size, spacing, and grades for conventional construction per CRC Tables R502.3(1)-(2). Cantilevered joists shall conform to CRC Tables R502.3.3(1)-(2). Others shall be designed by structural cales completed by a registered California Design Professional.
2. Wood floor girder size, spacing, and grades for conventional construction per CRC Tables R602.7(1), R602.7(2) and R602.7(3). Others designed by structural cales per California Design Professional.
3. Joists under and parallel to bearing □ Specify type, thickness, and attachment of floor sheathing per table R503.2.1.1(1). Nail spacing for floor plywood sheathing: 6" o.c on the edges and 12" o.c in the field □ Solid block all joist at ends and supports or use other approved connections. (CRC R502.7)
4. Provide specs/cales for the use of engineered wood products. (CRC R502.1.2-7)
5. Positive connection shall be provided to ensure against uplift and lateral displacement. (CRC R502.9 & CBC 2304.10.7)

WALLS

1. Stud size, height, grade & spacing (CRC Table R602.3(5) & R602.3.1). Exterior & interior studs continuous floor to roof unless braced at ceiling. (R602.3)
2. The length of bracing along each braced wall line shall not be less than required for wind speed in Table R602.10.3(1) and per the SDC in CRC Table R602.10.3(3). See Tables R602.10.3(2) and R602.10.3(4) for adjustment factors based on story height, wall dead loads, exposure types, roof eave-to-ridge heights, bracing methods, etc.
3. The braced wall panel uplift value exceeds 100plf per CRC Table R802.11. Provide an approved listed connector. (CRC R602.3.5)
4. Braced wall lines max angle out of plane 45 degrees for max. 8' diagonal length (CRC R602.10.1.4)
5. Braced wall panels spaced at not more than 25ft o.c. for SDC D0, D1 & D2 and 35ft. o.c in SDC C (CRC Table R602.10.1.3). Braced wall lines at exterior walls in seismic design categories D0, D1, and D2 shall have a braced wall panel located at each end of the braced wall line. (See exceptions below)
6. If structural wood sheathing is used, it's permitted to begin no more than 10ft from each end of the braced wall line per R602.10.7.
7. Min. 24" wide panel at each building corner & braced wall line continuously sheathed per R602.10.4.2.
8. End of braced wall panel closet to the corner shall have a hold-down device installed with a minimum uplift value of 1,800lbs and the braced wall line is continuously sheathed or WSP sheathing.
9. Braced wall panels in one-and-two story buildings may be spaced at 35' o.c in order for one single room not exceeding 900sf. (CRC Table R602.10.1.3)
10. Alternate braced wall panels per CRC R602.10.6.1. Clearly provide an alternate braced wall detail showing minimum lengths, hold-down device used, fastener spacing, headers, etc.
11. Continuous braced wall sheathing per CRC R602.10.4.2 and R602.10.7.
12. Provide full depth blocking directly above and below braced wall lines when joists parallel to wall & not provided directly above/below per CRC Figure R602.10.8(2).
13. Braced wall panel connections to roof framing per CRC R602.10.8.2.
14. 2x blocking for horizontal and vertical joints in braced wall panels (CRC R602.10.4.4)
15. Where shear design values exceed 490lbs per foot, all framing member receiving edge nailing from abutting panels not less than a single 3" nominal or two 2" members stitch nailed together per the design professional. Panel joints and sill plate nailing shall be staggered. 3x sill plate required or 2x sill with double the # of anchors required for the 3x sill. (CBC T-2306.2(1) and sections 4.3.6.1 and 4.3.6.4.3 of AF&PASDPWS)
16. Post to beam connections per CRC R502.9 & CBC 2304.10.7)
17. Minimum header sizes & #/size of supports for light frame per CRC R502.5 & Tables 602.7(1), (2) & (3).
18. Double top plate with minimum 24" lap splice length each side of end joint. Nail with 12 16d each side of lap joint). (CRC T-R602.3(1)) Lap plates at intersecting walls. (CRC R602.3.2)
19. Minimum wood structural panel sheathing nailing: 6" o.c. edge including nailing into mudsill and top plate. 12" o.c. nailing in field (CRC T-R602.3(1))
20. Min. 2x6 framing in plumbing walls for drilling/matching of studs. (CRC R602.6)
21. Fasteners for siding & pressure treated lumber corrosion resistant (CRC R317.3)
22. Fire-block in concealed spaces of stud walls/partitions, vertically at ceiling/floor levels, & horizontally at 10ft. intervals. Fire-block at soffits, drop ceilings/similar locations & in concealed spaces at the top/bottom of stair stringers. (CRC R302.11)
23. Provide approved building paper under the building siding and approved flashing at exterior openings. (CRC R703.2) Min. of 2 layers of Grade D paper under stucco and 2 layers of 15lb felt under stone veneer.
24. Stucco minimum clearance to earth of 4" and 2" to paved surfaces with approved weep screed. (CRC R703.7.2.1) Masonry stone veneer flashed beneath first course of masonry and provided with weep holes above the flashing. (CRC R703.8.5 and R703.8.6)

ROOF

1. Roof sheathing can only cantilever 9" beyond a gable end wall unless supported by overhang framing. (CRC 802.5.2.1)
2. Provide a minimum 22" x 30" access opening to attic (CRC R807); may be required to be 30"x30" to remove the largest piece of mechanical equipment per the CMC.
3. Roof drains/gutters installed per the CPC with leaf/debris protection also installed. (CRC R337)
4. Roof construction and coverings shall comply with CRC Chapters 8, 9 and local ordinance. All roofing shall be tested/listed Class A minimum.
5. Asphalt shingles with sloped roofs 2/12 to <4/12 shall have two layers of underlayment applied per CRC R905.2.2.

MECHANICAL

1. Provide combustion air for all gas fired appliances per CMC Chapter 7
2. Gas vents passing through an insulated assembly shall have a metal insulation shield a minimum 2" above insulation. (CMC 509.6.2.7)
3. Gas water heater & furnace not allowed in areas opening to bathrooms, closets or bedrooms unless installed in closet equipped with a listed gasketed door & self-closing device w/ all combustion air obtained from outdoors. (CPC 504)
4. Rooftop equipment w/over 4/12 slope, 30"x30" platform. (CMC 304.2)
5. Exhaust openings terminating to outdoors shall be covered w/ a corrosion resistant screen ¼"-1/2" in size (not required for clothes dryers). (CMC 502.1)
6. Vent dryer to outside of building (not to under-floor area). Vent length 14'. max & terminate min. 3' from property line & any opening. (CMC 504.4.2)
7. Environmental Air Ducts shall not terminate less than 3' to a property line, 10' to a forced air inlet, 3' to openings & shall not discharge to public way. (CMC 502.2.1)
8. Min. 100 square " make-up air for clothes dryers in closets. (CMC 504.4.1(1))
9. Heating system is required to maintain 68 degrees at 3' above floor level and 2' from exterior walls in all habitable rooms. (CRC R303.10)

ELECTRICAL

1. No electrical panels in clothes closets & bathrooms. Maintain 36" front clearance, 30" wide or width of equipment & 6'-6" headroom. (CEC 110.26)
2. Provide min. 3 lug intersystem bonding bus bar at main service. (CEC 250.94)
3. Automatic garage door openers shall have a battery backup function that is designed to operate when activated because of an electrical outage. (SB-969)
4. A concrete-encased electrode (ufer) consisting of 20' of rebar or #4 copper wire in bottom of a footing required for all new construction. (CEC 250.52(A) (3)) Bond all metal gas and water pipes to ground. All ground clamps shall be accessible and of an approved type. (CEC 250.104)
5. All 15/20-amp receptacles shall be listed tamper-resistant receptacles. (CEC 406.12)
6. All branch circuits supplying 15/20-amp outlets in family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, rec rooms, closets, hallways, kitchens, laundry room or similar rooms/areas shall be protected by a listed combo type AFCI. (CEC 210.12) Provide a minimum of one 20A circuit to be used for the laundry receptacle. (CEC 210.11(C)(2))
7. Provide at least one 20A circuit for bathroom outlets. (CEC 210.11(C)(3))
8. Provide at least one outlet in basements, garages, laundry rooms, decks, balconies, porches & within 3' of outside of each bathroom basin. (CEC 210.52 (D), (F) & (G))
9. Furnaces installed in attics and crawl spaces shall have an access platform, light switch & service receptacle. (CEC 210.63)
10. All dwellings must have one exterior outlet at front & back (CEC 210.52(E))
11. Garage receptacles shall not serve outlets outside garage. Exception: Readily accessible outdoor receptacle outlets. ((CEC 210.11 (C)(4)) A minimum of 1 receptacle shall be provided for each car space. (210.52(G) (1))
12. At least one wall switched lighting outlet shall be installed in every habitable room, bathroom, hallways, stairways, attached & detached garages with electrical power, equipment spaces (attics, basements, etc.). (CEC 210.70)
13. Kitchens, dining rooms, pantries, breakfast nooks, and similar areas must have a minimum of two 20A circuits. Kitchen, pantry, breakfast nooks, dining rooms, work surfaces and similar areas counter outlets must be installed in every counter space 12" or wider, not greater than 4" o.c., within 24" of the end of any counter space and not higher than 20" above counter. (CEC 210.52 (C)) Island counter spaces shall have at least 1 outlet unless a range top or sink is installed than 2 may be required. 1 receptacle required for peninsula counter spaces. Receptacles shall be located behind kitchen sinks if counter depth behind sink is more than 12" for straight counters and 18" for corner installations. (CEC 210.52(C)(1))
14. Main service disconnect rated not less than 100 amps. C.E.C. 230.79(C)
15. Receptacles shall be installed at 12" o.c. max in walls starting at 6" max from the wall end. Walls 2' or longer shall have a receptacle. Hallway walls longer than 10' shall have a receptacle in hallways. (CEC 210.52(A))
16. Receptacles shall not be installed within or directly over a bathtub or shower stall. (CEC 406.9(C) Light pendants, ceiling fans, lighting tracks, etc. shall not be located within 3' horizontally and 8' vertically above a shower and/or bathtub threshold. (CEC 410.10(D))
17. Lighting/fan fixtures in wet/damp areas rated for application. (CEC 410.10)
18. GFCI outlets required: all kitchen receptacles for countertops, dishwashers, bathrooms, under-floor spaces, unfinished basements, crawl space lighting outlets, exterior outlets, within 6' of laundry/utility/wet bar sinks, laundry areas, and all garage outlets including for a single device or garage door opener. (CEC 210.8)
19. All 15/20 amp receptacles in wet locations shall have bubble covers. All receptacles in wet locations listed weather-resistant type. (CEC 406.9(B)(1))
20. Carbon-monoxide alarms shall be installed in dwelling units with fuel-burning appliances or with attached garages (CRC R315):
 - Outside of each separate sleeping area in the immediate vicinity of bedrooms
 - On every level of a dwelling unit including basements
 - Smoke alarms shall be installed (CRC R314):
 - In each room used for sleeping purposes.
 - Outside each separate sleeping area in the immediate vicinity of bedrooms.
 - In each story, including basements.
 - At top of stairways between habitable floors where intervening door or obstruction prevents smoke from reaching the smoke detector.
 - Shall not be installed within 20" horizontally of cooking appliances & no closer than 3' to registers, ceiling fans and bathroom doors with a bathtub or shower unless this would prevent placement of a smoke detector (314.3(4)).
 - All smoke and CO2 alarms hardwired w/battery backup (CRC R314.4 & R315.1.2)
 - Within 10' to 20' of stove w/ alarm silencing switch. CRC R314.3.3.

PLUMBING

1. Underfloor cleanouts located not more than 5' from underfloor access. (CPC 707.9)
2. ABS piping shall not be exposed to direct sunlight unless protected by water based synthetic latex paints. (CPC 312.13)
3. PVC piping shall not be exposed to direct sunlight unless protected by water based synthetic latex paint. .04" thick wrap or UV protected. (CPC 312.14)
4. Underground water lines shall have 14 awg blue tracer wire. (CPC 604.10.1)
5. The adjacent space to showers without thresholds considered a "wet location" when using the CRC, CBC, and the CEC. (CPC 408.5)
6. Shower compartment minimum finished interior of 1024 square inches (32" by 32") and capable of encompassing a 30" circle, measured at height equal to top of the threshold and maintained to a point not less than 70" above shower drain outlet. (CPC 408.6) Provide curtain rod or door a minimum of 22" in width. (CPC 408.5)
7. Showers and tub showers, non-absorbent surface up to 6" above the floor. (CRC R307.2) Minimum shower receptor slope is 1/8" per foot. (CPC 408.5)
8. Domestic hot water lines insulated to the thickness of the pipe diameter up to 2" in size and minimum 2" thickness for pipes larger than 2" in diameter. (CPC 609.11)
9. Water heaters located in attics, ceiling and raised floor assemblies shall show a water-tight corrosion resistant minimum 1 ½" deep pan under the water heater with a minimum ¼ inch drain to the exterior of the building. (CPC 507.5)
10. Water closet shall be located in a space not less than 30" in width (15" on each side) and 24" minimum clearance in front. (CPC 402.5)
11. Max hot water temp for a bathtub or whirlpool 120 degrees F. (CPC 408.3)
12. Pressure relief valve drained to outside for water heater. (CPC 504.6)
13. Provide seismic strapping in the upper & lower third (CPC 507.2)

TITLE 24 ENERGY

1. Provide compliance documentation for mandatory measures to shown throughout the plans. All ducts in conditioned spaces must include R-4.2 insulation. (California Energy Code 150.1(c)9) Minimum heating and cooling filter ratings shall be MRV 13. (California Energy Code 150.0(m) 12)
2. Isolation water valves required for instantaneous water heaters 6.8k BTU/hr and above. Valves shall be installed on both cold and hot water lines. Each valve will need a hose bib or other fitting allowing for flushing the water heater when the valves are closed. (California Energy Code 110.3(c)6)
3. All luminaires must be high efficacy (150.0(k)1A)
 - Luminaries recessed in insulated ceilings must meet five requirements (150.0(k)1C):
 - They must be rated for direct insulation contact (IC).
 - They must be certified as airtight (AT) construction.
 - They must have a sealed gasket or caulking between housing and ceiling to prevent flow of air out of living areas and into the ceiling cavity.
 - Hardwired ballasts or drivers, allow ballast or driver maintenance and replacement readily accessible from below ceiling w/o cutting holes in ceiling.
 - They may not contain a screw base socket.
4. In bathrooms, garages, laundry, and utility rooms, at least one luminaire shall be controlled by a vacancy or occupant sensor provided occupant sensor is initially programmed like a vacancy sensor (manual-on operation). (150.0(k)2I)
5. Joint Appendix A (JA8) certified lamps shall be considered high efficacy & controlled by a vacancy sensor or dimmer. (Exception:<70sf closets and hallway) (150.0(k)2K)
6. Under-cabinet lighting switched separately from other lighting systems. (150.0(k)2L)
7. All exterior lighting high efficacy, controlled by a manual on/off switch and have one of the following controls (150.0(k)3A):
 - Photo-control and motion sensor
 - Photo-control and automatic time switch control
 - Astronomical time clock control turning lights off during the day.
8. All high efficacy light fixtures certified as "high efficacy" light fixtures by the CEC.
9. Contractor shall provide homeowner lighting schedule (10-103(b))
10. Blank electrical boxes more than 5' above finished floor shall not be greater than number of bedrooms & served by a dimmer, vacancy sensor, or fan speed control. (150(k)1B)
11. Provide a gasket/insulation on all interior attic/under-floor accesses. (110.7)
12. Building to meet minimum ventilation and indoor air quality requirements per ASHRAE Standard 62.2. Window operation not allowed for required whole building ventilation. Subject to HERS testing. Attach following label to the fan switch: "To maintain minimum levels of outside air ventilation required for good health, fan control should be on at all times when building is occupied, unless there's severe outdoor air contamination." (150.0(o))
13. A minimum 100 CFM HERS verified indoor air quality fan required in kitchen Minimum heating and cooling filter ratings shall be MRV 13. (150.0(m)12)
14. Energy storage system (ESS) ready. At least one of the following shall be provided:
 - ESS ready interconnection equipment with a minimum backed-up capacity of 60 amps and a minimum of four ESS-supplied branch circuits, or
 - A dedicated raceway from the main service panel to a panelboard (subpanel) that supplies the following branch circuits: refrigerator, lighting circuit near primary egress door, sleeping room receptacle and one additional. 225-amp main panel busbar rating with space for system isolation equipment/transfer switch within 3'. Install raceways between pane & isolation equipment for backup power source.
15. Heat pump space heater ready. Gas or propane furnace shall have dedicated 240-volt branch circuit within 3' rated at 30 amps minimum. Main electrical service shall have space for the installation of a double pole circuit breaker, permanently marked as "For future 240V use". (150.0(i))
16. Electric cooktop ready. Gas or propane cooktop shall have a dedicated 240-volt branch circuit within 3' of the cooktop rated at 50 amps minimum. The main electrical service shall have space for double pole circuit breaker, permanently marked as "For future 240V use". (150.0(u))
17. Electrical clothes dryer ready. Systems using a gas or propane dryer shall include a dedicated 240-volt branch circuit within 3' of the clothes dryers. The branch circuit rated at 30 amps minimum.
18. Electrical service shall have space for installation of a double pole circuit breaker, permanently marked as "For future 240V use". (150.0(v)) Lighting in habitable spaces (living rooms, dining rooms, kitchens, and bedrooms, etc. shall have readily accessible dimming controls. (CEC 150(k))
19. Radiant barrier shall be installed on all gable ends per the manufacturer specifications.

GREEN BUILDING

1. Projects which disturb less than one acre of soil and are not part of a larger common plan of development which disturbs one acre or more, shall manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion, and retain soil runoff on the site (CGBSC 4.106.2):
 - Retention basins of sufficient size shall be utilized to retain storm water on site.
 - Storm water conveyed to a public drainage system, collection point, gutter, or similar disposal method, water shall be filtered by a wattle, etc. or approved by the enforcing agency.
2. Residential projects with an aggregate landscape area equal to or greater than 500 square feet shall comply with either a local water efficient landscape ordinance or current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. Automatic irrigation system controllers installed at time of final inspection shall have weather or soil-based controllers and/or weather-based controllers with rain sensors. Soil moisture-based controllers are not required to have rain sensor input. (CGBSC 4.304)
3. All new residential construction with attached private garages shall have the following for electric vehicle (EV) charging stations (CGBSC 4.106.4):
 - Install a minimum 1-inch conduit capable of supplying a 208/240V branch circuit for EV charging. The other end shall terminate to the main service and/or subpanel.
 - Main panel/subpanel, 40-amp dedicated branch circuit. labeled "EV CAPABLE".
4. Multiple shower heads serving a single shower shall have a combined flow rate of 1.8 gpm or only one shower outlet to be in operation at a time. (CGBSC 4.303.1.3.2)
5. 65% minimum of nonhazardous construction and demolition waste reused/recycled. CGBC 4.408.1
6. At time of final inspection, a building operation and maintenance manual, compact disc, etc. shall be provided containing the following: (CGBSC 4.410)
 - Directions that manual shall remain on site for the life of the building.
 - Operation and maintenance instructions for equipment, appliances, roof/yard drainage, irrigation systems, etc.
 - Information from local utility, water, and waste recovery providers
 - Public transportation and carpool options
 - Material regarding importance of keeping humidity levels between 30-60 percent.
 - Information regarding routine maintenance procedures
 - State solar energy incentive program information
 - A copy of any required special inspection verifications that were required (if any)
7. The project shall meet minimum pollutant control requirements for adhesives.
8. HVAC ducts shall be covered with tape, plastic, sheet metal to reduce amount of water, dust and debris which may enter the system. (CGBSC 4.504.1)
9. Provide ENERGY STAR rated bathroom fan per CGBC Section 4.506, controlled with humidistat capable of adjustment between a relative humidity range of 50% to 80%

