

**RESIDENTIAL ROOM ADDITIONS/ALTERATIONS
SUBMITTAL CHECKLIST**

When submitting plans for Building Plan Check, **three (3) sets** of scaled drawings with the following information are required:

SITE PLAN – Indicate distances to the property lines.

FOUNDATION PLAN & DETAILS – Expansive soils are common in the City of Mission Viejo. Please provide footings with a minimum depth of 24". A minimum 4" thick slab reinforced with a minimum #3 bars at 18" on center each way, a minimum 6 mil moisture barrier, and at least 4" of sand. Dowel a minimum 6" into existing concrete and extend dowels a minimum 24" into new concrete with #3 bars at 18" on center. **Or**, you may submit a soils investigation report prepared by a licensed civil or geotechnical engineer making specific foundation design recommendations.

CONCRETE – High levels of sulfates are common in soils in Mission Viejo, therefore, concrete in contact with soil shall have an Ultimate Compressive Strength of 4,500 psi, water-cement ratio of 0.45 and type V cement unless a soils report recommends otherwise. **Or**, you may submit a soils report as described above.

FLOOR PLAN – Indicate the new areas, door sizes, window sizes, headers, electrical outlets, light switches, FAU registers, plumbing fixtures, etc. (Existing floor plan to be included)

ROOF PLAN – Indicate roof slopes, ridges, valleys, flashings, overhangs, drainage, etc. Class A Roofing Assembly is required when addition equals more than 50% of the existing structure.

EXTERIOR ELEVATIONS – Indicate finish materials (stucco, siding, fire treated shakes, etc.), lateral bracing system, (i.e. Let-in braces, shear panel, window and door openings, plate straps, etc.), and building heights.

STRUCTURAL PLAN(S) – Indicate framing member sizes, beam sizes, and construction details. (Note: this information may be provided on the **ARCHITECTURAL** plans (i.e. floor plan, roof plan, elevations, etc.), separate **STRUCTURAL** plans may not be necessary).

Section(s) cut through additions and existing structure – Indicate a section cut through the addition to show the framing and relationship and attachment to the structure.

ENGINEERS STRUCTURAL CALCULATIONS – TWO (2) sets may be required to justify proposed framing member and beam sizes, footing and reinforcement sizes, lateral resisting system and connections. Calculations are required for two (2) story room additions.

ENERGY COMPLIANCE FORMS – TWO (2) sets will be required to indicate compliance with the California Energy Commission regulations. (Title 24, CF-1R, MF-1R)

NOTE: School District Fees / Certificate and Water District Approval may be required prior to issuing a building permit.

Homeowner's Association approval and Neighbor's Consent may also be required. Please inquire with the Planning Department.

DWELLING DESIGN

1. **Purpose:** This information is intended to provide general guidance on the non-structural building code requirements relating to the design of one or two story single family residences of less than 3000 square feet. It is not a complete rendering of all of the detail contained in the building, plumbing, mechanical or electrical codes and is not intended to replace them. It does not address structural issues. It is intended to provide a checklist of issues that experience shows should be addressed during the planning stage of dwelling construction or remodel. Where unusual circumstances are encountered or where more detail is needed the codes should be consulted. Building codes can be reviewed in many libraries or at your Building Department.
2. **Stairs:** Stairs must be at least 36" wide except that the handrails may project into this width as much as 4-1/2" on each side if necessary. They must have headroom clearance of at least 6'-8". Stair risers must be between 4" and 7" high and their height must be the same throughout the flight. The maximum difference allowed between the highest and lowest riser is 3/8". Stair treads must be at least 11" deep. For safety and if space is available, it is best to make stairs as gradual as possible. Rises of 7" and runs of 11" are more typical though not strictly required. If the stairs curve or spiral, consult the 2007 California Building Code.
3. **Handrails:** Stairways with 4 or more risers are required to have at least one handrail. Handrails must be continuous and smooth with a hand grip portion between 1-1/4" and 2" in cross-section. If you intend to fabricate your own rail it is best to show a sample to your building inspector before installation. Place handrails between 34" and 38" above the nose of the treads. They must be at least 1-1/2" from the wall. Stairs that are open on the side must have a guardrail at least as high as the handrail. See below.
4. **Guards:** Elevated porches, landings, decks or floors that are 30" or more above grade or floor below must have a guard at least 42" high. It must be rigid and secure and strong enough to accept a sideways push of 20 pounds per foot throughout its length. It is typical to use bolts or metal brackets instead of nails to secure guard posts. Open guards shall have balusters or ornamental patterns such that a 4 inch sphere cannot pass through any opening. Consult section 1013 of the California Building Code for additional code requirements and exceptions.
5. **Exit doors:** Provide at least one exit door with a lock or latch that is openable from the inside without using a key (no double key dead bolts) and without any special knowledge (no combination locks) or effort (no heavy cross bars). The lock or latch must be no more than 48" from the floor. The landing at an exterior doorway shall not be more than 7 3/4" below the top of the threshold, provided the door does not swing over the landing. The landing width shall not be less than the door served and shall be a 36 inches. The minimum landing length shall be 36 inches.
6. **Emergency exits:** Sleeping rooms must be provided with a means to exit directly to the outside in case of fire. Sleeping rooms must have a window or door that is openable from the inside without tools. These windows must be large enough to let occupants escape and firemen to climb in. Such windows must have a net clear opening of at least 5.7 sq ft. on the second floor and 5.0 sq ft. on the first floor. They must have a minimum net clear width of 20". The finished sill height may not exceed 44". Bars, grills, grates, etc., must be openable from the inside without key or special knowledge or effort and, if they are installed, the building must be equipped with smoke detectors. Note that most manufacturers are aware of these regulations and clearly indicate which of their products are "C.B.C. approved for egress".

7. **Hallways:** Hallways must be at least three feet wide.
8. **Safety glass:** Safety glazing is required in doors of all types, shower enclosures, bath enclosures, whirlpool enclosures, etc., window glazing that is within 24" of a door unless it is 5' above the floor, windows greater than 9 sq. ft. and within 18" of the floor, and glass in guardrails and handrails. Note that the manufacturers of doors and shower enclosures are generally aware of these requirements. Use caution when ordering windows that may be located near doors because windows are not normally equipped with safety glazing. Consult the 2007 California Building Code for more information.
9. **Smoke detectors:** Provide smoke detectors on the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms; in each room used for sleeping purposes; in each story within a dwelling unit, including basements; in dwellings with split levels and without an intervening door between the adjacent levels. Place one above the top of the stairs leading to upper level sleeping areas. Provide smoke detectors with power from the house wiring in all new construction. Use battery type elsewhere. Detectors are required to be installed throughout the house whenever you remodel. They are one of the most important things you can do to your house to safeguard your family. Consult the 2007 California Building Code –Section 907.2.10.1.2
10. **Room sizes:** Habitable spaces and corridors must have a ceiling height of at least 7'6" but bathrooms, kitchens and laundry rooms may be 7'0". Consult section 1208 of the 2007 California Building Code for sloped ceilings, furred ceilings and ceilings with exposed structural members. Habitable rooms may not be less than 7' in any dimension. Kitchens, baths, halls, laundry spaces, utility room, etc., may be smaller.
11. **Light and ventilation:** Provide habitable rooms with glazed windows for natural light with a minimum net glazed area of 8% of the floor area. Provide habitable rooms with minimum openable area to the outdoors of 4% of the floor area being ventilated. Provide bathrooms with openable windows. If openable windows are not provided then mechanical ventilation must be provided as detailed in the 2007 C.M.C.
12. **Laundry chutes:** Laundry chutes represent a severe fire-spread problem. Consult section 707 of the 2007 C.B.C. for detailed requirements.
13. **Fire wall:** Where the garage is attached to the house, a separation from the dwelling unit and the attic area is required by means of a minimum 1/2 inch gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than a 5/8 inch Type X gypsum board or equivalent. A door between the house and such a garage must be a minimum of 1 3/8" solid wood, tight fitting, self-closing and self-latching. Avoid any other openings in this fire wall. Avoid electrical panels in these walls. The installation of a furnace in a garage presents problems with this fire wall. Consult the 2007 C.B.C. if a furnace is to be located in a garage.
14. **Circuit breaker panels:** Typical panels must be installed with a dedicated working space 30" wide and 36" deep. Consult Article 110.26 of the California Electrical Code. Electrical panels may not be installed in clothes closets. Avoid installing them in the fire wall between dwelling and garage because it presents special problems with the fire barrier. The main power disconnect must be very close to the point where the lines enter the house. Consult Article 230-70(A1) of the 2007 California Electrical Code (C.E.C.) and your electric utility representative.

15. **Lights and receptacles:** Plan on one switchable receptacle or light in every room and hall. Plan on a light outside exit doors. If lights are planned in closets consult Article 410.8 of the 2007 C.E.C. Plan to install an electrical receptacle within 6 feet of all points along the wall in all habitable rooms. Plan on one GFCI protected receptacle at the bathroom sink. Receptacles must be placed every two feet above kitchen counters and be GFCI protected. All lighting must comply with the 2007 California Energy Code. Check for Title 24 requirements.
16. **Toilets:** Plan a space at least 30" wide for the toilet. The space must be deep enough to allow 24" of clear space in front of the fixture. Consult Section 407.6 of the California Plumbing Code.
17. **Tubs:** Most bathtubs and whirlpool baths require some sort of access panel to the trap, overflow or pump.
18. **Forced Air Units:** Consult installation directions for appropriate clearances. The return air inlet for blower type furnaces must be at least ten feet from the draft hood of your water heater or other fuel burning appliance and must not be where it will pick up objectionable odors or moisture. Forced air units require bulky ducts and plenums. Where will they be routed? Forced Air Units are must comply with Title 24 requirements referencing the 2007 California Energy Code.
19. **Fuel burning appliances:** Fuel burning appliances such as water heaters and furnaces require combustion air ducts and exhaust vents that must extend to the outside. Thought must be given to routing. It is advisable to locate fuel burning appliances adjacent to an outside wall for ease in providing combustion air. Consult the 2007 California Mechanical Code and 2007 California Energy Code.
20. **Roof decks:** Plumbing vents must be 10' from a roof deck.
21. **Clothes Dryers:** The length of ducts is limited. Place these appliances near an outside wall and consult the installation directions. If you cannot place them at an outside wall then consult the 2007 California Mechanical Code (C.M.C.).
22. **Fuel Burning Appliance Vents:** Vent system offsets are limited. Consult the 2007 C.M.C. where the vent cannot be routed straight up through the roof.