



Building & Safety Division

COMMERCIAL CHECK LIST

APPLICATION

The following items will be required at the permit counter before permit issuance; they do not need to necessarily get reflected on the plans:

1. Provide fully dimensioned plot plan to scale in ink, for the permit application, showing:
 - a) Lot dimensions
 - b) Building dimensions
 - c) Type of construction
 - d) Number of stories
 - e) Location of adjoining streets
 - f) Location of easements (if any)
2. Show the name and California license/registration number of the architect / engineer responsible for the design.
3. Show the contractor's name, address, state contractors license number / classification, and phone number.
4. Contractor or property owner must sign the building permit application.
5. A separate permit is required for (grading), (demolition), (retaining walls), (block walls), (swimming pool), (signs), _____
6. The revised total floor area shows that a supplemental plan check fee of \$ _____ is required to be paid prior to plan re-submittal.

CLEARANCES

7. Approval from the Health Department is required.
8. AQMD (Air Quality Management District) notification is required for projects involving demolition activity where asbestos containing material is present. For more information contact AQMD at (909) 396-2336 or search www.aqmd.gov.
9. California State Division of Industrial Safety permit is required for excavations five (5) or more feet in depth to bottom of excavation and for the demolition or construction of buildings over 3 stories in height.
10. Provide safeguarding features for pedestrians during construction, remodeling and demolition work. as required [3306]

11. Provide protection of adjoining property when excavation is to a greater depth than the walls or foundation of an adjacent building or structure and the adjacent building or structure is located closer to the property line than the depth of the excavation. Submit to B&S (prior to issuance of permit) evidence of adjoining property owner(s) written notification and provide plans for temporary shoring [3307].

****Provide a Detailed response to the items below. Reference the sheet and detail number where the item is addressed for each correction.***

PLANS

ARCHITECTURAL (GENERAL)

12. Provide the following with each set of plans:
- a. Complete site plan showing yard set backs, easements, lot dimensions, distance between buildings, size of building, etc.
 - b. A complete code and exiting analysis.
 - c. Fully dimensioned floor plan of each level identifying all fire walls, barriers and partitions with their respective rating
 - d. Roof plan.
 - e. Foundation plan.
 - f. Construction sections.
 - g. Building elevations. Show floor and top of roof elevations, natural and finished grade around the perimeter of the building.
 - h. Architectural details.
 - i. Door/window schedule.
 - j. Address of the building, the name and address of the owner(s), and of the person(s) preparing the plans.

Response:

13. Show finish floor elevations, elevations of finish grade adjacent to buildings, established street grades, drainage patterns and locations and gradients of cut or fill slopes. [107.2.5]

Response:

14. Finish grade around the structure/addition shall slope away from the foundation a minimum of 5% for a minimum distance of 10 feet. Include a note on the site plan or show on a foundation detail. Impervious surfaces within 10ft of the building foundation shall be sloped a minimum 2%. [1804.3]

Response:

15. On graded sites, the top of any exterior foundation shall extend above the elevation of the street gutter at point of discharge at the inlet of an approved drainage device a minimum 12 inches plus 2 %. Provide elevations on the site plan to show compliance. [1808.7.4]

Response:

16. Provide a statement on the title sheet of the plans that this project shall comply with Title 24 and 2013 California Building Code (CBC), California Mechanical Code (CMC), California Plumbing Code (CPC), California Electrical Code (CEC), and California Energy Code (CEnC).

Response:

17. Plans shall be quality blue or black ink line drawings with uniform light background color 24"x36" in size stamped, and signed by the responsible architect or engineer designing the project.

Response:

18. You are encouraged to schedule a meeting with the Plan Check Engineer prior to re-submitting the plans. Please call the plan check engineer directly at the number provided at the end of this list.

Response:

19. The final 2 sets of plans must be signed by an engineer or architect licensed by the State of California. Plans for elements of the structure designed by others must be reviewed and approved by engineer or architect of record for general conformance to the structural design. [California Business and Professional Code 5536.1, 6735]

Response:

20. An application for the demolition of any existing structures at the site must be filed and approved prior to building permit issuance. Since this process may take up to 2-3 months, it is highly recommended that demolition application be filed as soon as possible.

Response:

21. Provide damp-proofing of foundation basement walls by an approved method. [1805]

Response:

22. Perform an area, occupancy and type of construction analysis on the cover sheet of drawings. Verify compliance with equation 5-1 of section 506. This analysis shall be performed for each floor and for the building as a whole.

Response:

23. A single basement need not be included in the total allowable area provided such a basement does not exceed the area permitted for a one-story building. [506.5]

Response:

24. The area increase due to frontage may be used for public ways and open spaces with a minimum width of 20 feet. Where the open space or public way exceeds 30 feet, a value of 30 feet shall be used in the calculations. [506.4 &506.5]

Response:

25. Where one-hour fire-resistive construction is required in Table 601 for a particular construction type, an approved NFPA13 automatic sprinkler system, when not otherwise required by other provisions of the code, may be substituted for the one-hour fire-resistance construction. However, the fire sprinkler system shall not waive the fire-resistance requirements for exterior walls. [T-601 Footnote (d) CBC]

Response:

26. The open space used in the frontage increase shall be either on the same lot or dedicated for public use and shall be accessed from a street or approved fire lane. [506.2.2]

Response:

27. The automatic sprinkler system increase for allowable area is permitted to be used in addition to the height and story increases of Section 504.2 except in high rise and group A, E, H, I and R occupancies. [506.3]

Response:

28. Clearly show the maximum building height based on the definition in Section 502.

Response:

29. Clearly show if the lower level is a basement or story, based on the definitions in Section 502.1.

Response:

30. When two or more buildings are on the same property, the buildings shall have an assumed property line between them for the purpose of determining the required wall and opening protection and roof cover requirements, per Section 705.3. An exception is provided if the combined area of the buildings is within the limits specified in Chapter 5, for a single building. [503.1.2].

Response:

31. Provide general notes, details and necessary procedures for the installation of elements with an ICC Evaluation Report or Los Angeles Research Report.

Response:

32. Specify the existing and proposed use of all rooms and areas. [302]

Response:

33. Provide a separate existing and proposed floor plan for all altered areas within an existing building. Plans shall be dimensioned or scaled.

Response:

34. Buildings with floors used for human occupancy more than 55' above the lowest level of Fire Department vehicle access shall comply with the high-rise building requirements [403, Chapter 8.44.080 SMMC].

Response:

35. Wall rating and opening protection of exterior walls of the buildings shall be determined based on fire separation distance defined as follows:

The distance measured from the building face to one of the following:

1. The closest interior lot line;
2. To the centerline of a street, an alley or public way; or
3. To an imaginary line between two buildings on the property. [702].

Response:

36. Provide () - hour exterior wall construction with no openings within ()' from property lines for type () construction [Tables 601 and 602].

Response:

37. Maintain fire-resistive rating of exterior wall through attic or other concealed spaces. [709.4].

Response:

38. Provide a parapet on the exterior wall [705.11.1] unless one of the exceptions of section 705.11 applies.

Response:

39. Limit openings in the exterior walls where to the limitations stated in table 705.8.

Response:

40. Mixed use and occupancies shall be provided for per section 508. Provide necessary fire barriers depending on the approach taken (508.3, 508.4, T508.4)

Response:

41. Where a building contains more than one occupancy group (Section 508, Mixed Use and Occupancy), the building or portion thereof shall comply with the applicable provisions of Section 508.2, 508.3 or 508.4, or a combination of these sections.

Response:

42. The allowable heights and areas of buildings based on the occupancy classification and type of construction shall comply with the provisions specified in Section 510 for such condition and other applicable requirements of this code. The provisions of Sections 510.2 (Horizontal Building Separation Allowance) to 510.9 are considered independent and separate from each other.

Response:

43. Fire walls shall be continuous from exterior wall to exterior wall and shall extend 18” beyond the exterior surface of exterior walls.. [706.5]

Response:

44. Fire walls shall extend to the outer edge of horizontal projections (balconies, roof overhangs, canopies marquees and architectural projections) that are within 4 feet of the fire wall. See section 706.5.2 for exceptions.

Response:

45. Fire walls shall extend from the foundation to a termination point at least 30 inches above both adjacent roofs. See section 706.6 for exceptions.

Response:

46. Each opening through a fire wall shall be protected in accordance with Section 715.4 and shall not exceed 156 square feet (706.8). [T716.5]

Response:

47. Fire Barriers shall extend through under-floor and attic areas including areas where fire-resistive ceilings are provided. [707.5].

Response:

48. Structural system supporting fire barriers shall have an equivalent fire-resistive construction. [707.5.1].

Response:

49. All buildings housing Group (E and A) Occupancies shall front directly on a public street or an exit discharge not less than 20' in width. [442.1.1, 1028.2].

Response:

50. For all walls, at or near a property line, provide a complete wall section from the foundation to the roof and locate the property line on the cross section.

Response:

51. Maintain minimum access and parking headroom clearance of not less than 7' [406.4.1] and 8' 2" for accessible parking. [11B-502.5]

Response:

52. Vehicle barrier systems not less than 2'-9" height shall be placed at the end of drive lanes and parking spaces where the vertical distance to the ground or level below is greater than 1 foot. [406.4.3]

Response:

53. Parking garages shall have an unobstructed headroom clearance of not less than 7'-0" above the finish floor to any ceiling, beam pipe or similar construction. The clear height of vehicles and pedestrian areas required to be accessible shall comply with Chapter 11A or Chapter 11B, as applicable. [406.4.1] [1109A.8.1] [11B-502.5]

Response:

54. The maximum area of unprotected or protected openings permitted in an exterior wall in any story shall not exceed the values in Table 705.8. Where both unprotected and protected openings are located in the exterior wall in any story, verify compliance with equation 7-2 of CBC [705.8.4]. The allowable area of unprotected opening may be assumed as protected if the building is sprinklered.

Response:

55. Provide ¾ hour opening assembly rating for exterior walls required to be 1-hour fire rated and 1 ½ hour openings assembly rating for exterior walls greater than a 1-hour fire rating. [705.8.2]

Response:

56. Specify that exterior walls shall have no openings when closer than a _____ feet fire separation distance. Openings include windows, doors, scuppers, vents, etc. [Table 705.8]

Response:

57. Projections beyond the exterior wall shall not extend any closer than 24 inches where the fire separation distance is between 2 feet to less than 5 feet, or 40 inches where the fire separation distance is 5 feet or greater. Projections are not permitted where the fire separation distance is less than 2 feet. [705.2]

Response:

58. Combustible projections located within 5 feet of the line used to determine the fire separation distance, or where openings are not permitted or where protection of some openings is required shall be of one-hour-fire-resistance, heavy timber construction or fire-retardant treated wood. [705.2.3]

Response:

59. Specify on elevations the proposed exterior wall finish. Specify material and thickness. [§ 1405.2 CBC]

Response:

60. Penetrations by air ducts and air transfer openings in fire resistance rated exterior walls required to have protected openings (705.10) shall comply with Section 716.

Response:

61. Fire walls shall have sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall for the duration of time indicated by the required fire-resistance rating. (706.2)

Response:

62. Provide ()-hour fire-protection assembly for openings in a ()-hour firewall. Openings limited to 25% of the length of the wall in each story. [706.8].

Response:

63. Provide fire rated opening protectives for all fire rated assemblies per requirements of section 716.

Response:

64. Fire barriers shall be used for shaft enclosures, exit enclosures, exit passageways, horizontal exits, separation of mixed occupancies and incidental use areas. Openings in a fire barrier shall be protected in accordance with Section 716. Openings shall be limited to a maximum width or 25 percent of the length of the wall with a maximum area of any single opening of 156 sq ft. [707.3 & 707.6]

Response:

65. Fire partitions shall comply with Section 708. Fire partitions shall be used for walls separating dwelling units, corridor walls and elevator lobby separation. [708]

Response:

66. Detail how fire resistance of wall construction is maintained at built-in wall fixtures and behind mailboxes, fire extinguisher cabinets, electric panels exceeding 16 square inches in area, etc. [714.3.2]

Response:

67. Fire dampers, smoke dampers, combination fire/smoke dampers and ceiling radiation dampers shall be provided at the locations prescribed in Sections 717.5.1 through 717.5.7. Where an assembly is required to have fire dampers and smoke dampers, combination fire/smoke dampers or a fire damper and a smoke damper shall be shown with the applicable rating on the mechanical plans.

Response:

68. In combustible construction, fireblocking shall be installed to cut off concealed draft openings (both vertical and horizontal) and shall form an effective barrier between floors, between a top story and a roof or attic space. Fireblocking shall be installed in the locations specified in Sections 718.2.2 through 718.2.7. Provide details on plans or complete notes on the drawings.

Response:

69. Provide approved protection details for through penetrations of fire-resistive assemblies [714.3.1.1, 714.3.1.2]. Also, provide a note on the plans stating: "Penetrations of fire-resistive walls, floor-ceilings and roof ceilings shall be protected as required in CBC Sections 714.3 & 714.4.

Response:

70. Detail column fire protection [704.2] and specify column impact protection in garages or other areas subject to impact. As a minimum, show a 22-ga. Steel jacket around each column or corner guards to a height of 5 feet above the ground for impact protection. [704.9]

Response:

71. Protection of the primary structural frame other than columns that require a fire-resistance rating and that support more than two floors or one floor and roof or support a load bearing wall or a nonload bearing wall more than two stories high must be individually fire protected. [704.3]

Response:

72. Clearly label and identify on the plans the fire-resistive corridors, fire walls, shaft enclosures, fire barriers, fire partitions, smoke barriers and smoke partitions along with their hourly ratings.

Response:

73. Provide details for a corrosion-resistant weep screed on all exterior stud walls at or below the foundation plate line a minimum of 4" above grade, or 2" above paved areas [2512.1.2].

Response:

74. Indicate two layers of Grade D paper between plywood shear panel and exterior lath. [§ 2510.6 CBC]

Response:

75. Provide veneer design and installation details: thickness, anchors, backing, lintels and support systems. [Chapter 14].

Response:

76. Exterior walls, including basement walls, shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing, as described in Section [1405.4]

Response:

77. Show roof specifications, Specify roof covering material. All roofs shall be Class A or B roofing assemblies in accordance with chapter 15. The use of non-fire-retardant wood shingles or non-fire-retardant shakes for new or replacement roofing is prohibited. (SMMC 8.12.070)

Response:

78. Fasteners for roof covering shall comply with sections 1507.3.6 of the California Building Code (Nails for slate shingle and clay or concrete tiles shall be corrosion resistant such as copper, brass or stainless steel).

Response:

79. Verify that the penthouse satisfies the provisions of section 1509.2.

Response:

80. Provide a minimum of 20" x 30" attic access opening. Opening shall be located in a corridor, hallway or other readily accessible location. [1209.2].

Response:

81. Provide cross ventilation for attic and enclosed rafter spaces equal to 1/300 of the area of the ventilated space. [1203.2].

Response:

82. Provide positive roof drainage (minimum 1/4" per ft) and roof drains at each low point of the roof. [1503.4].

Response:

83. Provide overflow drains or scuppers per section 1101.11.2 of the California Plumbing Code. Overflow drain shall be installed with the inlet flow line 2" above the low point of the roof, and shall not be connected to the roof drain lines. [CPC 1101.11.2.2].

Response:

84. Indicate on the plans how exterior building openings conform to security provisions. [Chapter 8.48.020, 8.48.130 SMMC].

Response:

85. Indicate how mezzanine complies with area, enclosure and exit requirements [505].

Response:

86. Unenclosed openings connecting 3 or more levels qualify as atriums and shall comply with provisions of section 404 of CBC.

Response:

87. Provide shaft construction and opening protection per provisions of section 713 for the following items:

Response:

88. Provide elevator hoistway [3004.1] and machine room [3006.2] ventilation.

Response:

89. Provide guards at floor and roof openings, landings, balconies, and at open sides of stairs, which are more than 30" above grade, or floor below at any point within 36" horizontally to the edge of the open side. Guardrails shall be not less than 42" in height. [1013].

Response:

90. Open guards shall have intermediate rails or an ornamental pattern such that a sphere 4" in diameter cannot pass through. [1013.4].

Response:

INTERIOR ENVIRONMENT

91. For all occupied spaces provide exterior openings for natural light (8% of floor area) per 1205.2 or artificial lighting per 1205.3. Natural ventilation (4% of floor area) [1203.4] or a mechanical system for all occupied spaces is also required [1203, 1205]

Response:

92. Required ceiling height is 7'-6" minimum in occupiable spaces, habitable spaces, and corridors, and 7'-0" minimum in kitchens, bathrooms, storage rooms and laundry rooms. [1208.2]

Response:

93. Provide a hard nonabsorbent floor surface such as concrete or ceramic tile in all toilet room. [1210].

Response:

94. Foam plastics (803.4) shall not be used as interior finish except as provided in Sections 2603.9 or 2604. [801.2]

Response:

95. When walls and ceiling are required to be fire-resistive or noncombustible, the finish material shall be applied directly against such fire-resistive or noncombustible construction or to furring strips not exceeding 1-3/4 inches. The furred space shall be filled with inorganic or Class A material or fire blocked not to exceed 8 feet in any direction. [803.11.1]

Response:

96. Hangers and assembly members of dropped ceilings below a fire rated ceiling shall be noncombustible materials except in Types III and V construction, where fire-retardant treated wood may be used. [803.11.2]

Response:

97. All interior wall or ceiling finishes (except Class A) less than ¼ inch thick shall be applied directly against a noncombustible backing unless it is in accordance with an approved tested assembly. [803.11.4]

Response:

98. Provide complete details and note on the plans that suspended ceilings shall comply with Section 808 and ASCE Section 13.5.6.

Response:

99. Show installation, flame spread and smoke density rating of interior wall and ceiling finish [803, 804, T803.5].

Response:

100. Provide plumbing fixtures per Chapter 4 of the CPC. Use Table A for establishing the occupant load.

Response:

SPECIAL HAZARD REQUIREMENTS

101. Provide strapping for water heater Per DSA Guidelines. [SMMC 8.08.200].

Response:

102. Provide one-hour fire resistive construction on enclosed usable space under interior stair. [1009.9.3 & 1022].

Response:

103. Provide () hour fire barriers between rooms containing a boiler, central heating plant or hot-water supply boiler and the rest of the building housing a () Group Occupancy. [509.4.1].

Response:

104. Provide () hour fire-resistive construction shaft enclosure to enclose openings between floors. [712].

Response:

105. Rubbish and linen chutes shall terminate in rooms separated from the remainder of the building by an occupancy separation having a fire resistance of ()-hour(s). Openings into chutes and chute termination rooms shall not be located in corridors or stairways. [713.13].

Response:

106. Provide fire sprinklers. Fire sprinklers are required for all new construction and:

- a. Throughout any existing building, when there is a change in occupancy classification to a more hazardous division, as shown in Table 8.44-A or as determined by the Fire Chief, in 33% or more of the existing building floor area within three calendar years.
- b. Throughout any existing building greater than 1,000 square feet, whenever more than 50% cumulative, of the existing floor area, including mezzanines, is added to within three calendar years.
- c. Throughout any existing building 1,000 square feet or less, whenever more than 75% cumulative, of the existing floor area, including mezzanines, is added within three calendar years.
- d. Throughout any existing building greater than 1,000 square feet, whenever more than 50% of the interior and exterior walls and ceilings are exposed.
- e. Throughout any existing building 1,000 square feet or less, whenever more than 75% of the interior and exterior walls and ceilings are exposed.
- f. Throughout any existing building whenever an additional story is added.
- g. Throughout any existing building or structure determined to be used primarily for public assembly more than 5,000 square feet in total floor area. This subsection shall not apply to buildings or structures with an approved full automatic fire sprinkler system or to churches and theaters with fixed seating.
- h. Throughout the entire floor of any existing non-residential building equipped with a partial fire sprinkler system whenever more than fifty percent of the floor space is altered or reconfigured.

Response:

107. Provide safety glazing in the following locations: [2406.4].
- a) Glazing in ingress and egress doors.
 - b) Glazing in fixed and sliding panels of sliding doors and panels in swinging doors.
 - c) Glazing within 2' vertical edge of closed door and within 5' of walking surface.
 - d) Glazing in railings and stair landings.
 - e) Other

Response:

EXITS

108. Every required exit doorway shall not be less than 3'-0" wide x 6'-8" high [1008.1.1].

Response:

109. Provide level landing on each side of the door not more than () below the threshold. [1008.1.5, 1008.1.7].

Response:

110. Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more persons or a Group H occupancy. [1008.1.2].

Response:

111. Provide a landing width not less than the width of the door or the stair served (whichever is greater). Doors fully open shall not reduce the width of the landing by more than 7". [1008.1.6].

Response:

112. Exit doors from Group A, assembly areas not classified as an A occupancy, E, I-2 and I-2.1 occupancies having an occupant load of 50 or more and any H occupancies shall not be provided with latch or lock unless it is panic hardware or fire exit hardware. [1008.1.10]

Response:

113. Provide two exits from the buildings on all floors. [1021].

Response:

114. Provide two exits from the space () [Table 1015.1]

Response:

115. Provide access to two exits since the common path of egress travel exceeds 75 ft (100 ft) in room _____. [Table 1014.3]

Response:

116. The total width of means of egress in inches shall not be less than the total occupant load served by the means of egress multiplied by the factors in Section 1005.1

Response:

117. Multiple means of egress (including stairs) shall be sized such that the loss of any one means of egress shall not reduce the available capacity to less than 50 percent of the required capacity. [1005.5]

Response:

118. No point in the building shall exceed the distances in Table 1016.1 from an exterior exit, door at the level of exit discharge, an entrance to a vertical exit enclosure, enclosed stairway, exit passageway, exterior exit stair or ramp measured along the path of travel. The travel distance shall include travel within unenclosed stairways. [1016.1] Note: Travel distance and common path of egress travel each share the same starting point.

Response:

119. Provide adequate exit separation between required exits. [1015.2].

Response:

120. Show the following stair details: [1009.1].
- a) Minimum 11" run & maximum 7" rise. The largest rise or run in a flight of stairs may not exceed the smallest by more than 3/8" [1009.7]
 - b) Minimum of 6'-8" headroom clearance at tread nosing [1009.5]
 - c) Minimum of stairway width dimension for landing at the top and bottom of each stairway [1009.8]
 - d) Handrails for the length of the stairs (~~required for 4 or more risers~~). The top of the handrail shall be placed not less than 34" nor more than 38" above tread nosing [1012.2]
 - e) Minimum of 44" clear width [1009.4]
 - f) Handrails with a circular cross-section shall have an outside diameter of at least 1.25 inches and not greater than 2 inches or shall provide equivalent graspability. If the handrail is not circular, it shall have a perimeter dimension of at least 4 inches and not greater than 6.25 inches with a maximum cross-section dimension of 2.25 inches. Edges shall have a minimum radius of 0.01 inch. [1012.3]
 - g) Handrails shall extend horizontally at least 12" beyond the top riser and 12 inches plus the tread width beyond the nosing at the bottom. Handrails shall return to a wall, guard or the walking surface. [1012.6 CBC]

Response:

121. Buildings four or more stories in height are required to have one stairway extended to the roof unless the roof has a slope steeper than 4 to 12. Provide stairway identification signs. [1009.16].

Response:

122. Spiral stairways are permitted as a means of egress only from a space not more than 250 square feet in area and serving not more than 5 occupants. [1009.12]

Response:

123. Vertical distance between stairway landings is limited to 12 feet. [1009.10]

Response:

124. Stairways from upper levels which extend below the level of exit discharge shall have an approved barrier to preclude exiting into such lower levels. Directional exit signs shall be provided. [1022.8]

Response:

125. Provide two-hour fire-resistive enclosure where connect 4 or more stories and not less than one-hour fire-resistive walls less than 4 stories. [1009.16]

Response:

126. Exit enclosures shall exit directly to the exterior of the building or shall include an exit passageway on the ground level leading from the exit enclosure directly to the exterior of the building unless an exit discharge lobby or exit discharge passageway is used. Openings into the exit passageway shall comply with Section 715. [1009.2, 1023]

Response:

127. Occupied floors more than 55 feet above the lowest level of fire department vehicle access should have all exits from the building in smokeproof enclosure or pressurized enclosures. [909.6, 909.20]

Response:

128. Access to exits shall be marked by readily visible exit signs in cases where the exit or the path of egress travel is not immediately visible to the occupants. Exit sign placement shall be such that no point in a corridor is more than 100 feet or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign.

Exceptions: Exit signs are not required in rooms or areas that require only one exit or exit access. [1011.1].

Response:

129. Comply with the following **exit access** requirements:
- a) Provide a minimum corridor width of 44" serving an occupant load of 50 or greater. [1018.2].
 - b) Limit projection of handrails and doors when fully opened into the required corridor width a maximum of 7". Doors in any position shall not reduce the required width by more than one half of the required corridor width. [1018.3, 1005.7].
 - c) Limit dead ends in hallways/corridors to not more than 20' (50' in sprinklered buildings) when more than one exit access is required. [1018.4].
 - d) Except for groups A, B, E, F, M, S, U occupancies located in sprinklered buildings, walls and ceilings of corridors must be of one-hour fire-resistive construction. Provide architectural section through the corridor to show how this is accomplished [1018]

- e) Elevators opening into a corridor shall be provided with an elevator lobby at each floor containing such a corridor. The lobby shall completely separate the elevators from the corridor by fire partitions equal to the fire-resistance rating of the corridor and the required opening protection. [713.14]
- f) Provide a complete architectural section of the corridor showing all fire-resistive materials and details of construction for all floor, walls, and roof assemblies.
- g) Corridor walls may terminate at the ceiling only if the ceiling is an element of a one-hour fire-resistive floor or roof system. [709.4 Exception #3]

Response:

130. Comply with the following **exit** requirements:

- a) Maintain () hour fire resistive exit enclosure with () hour protected openings until egress is provided from the building. [1022.2].
- b) Provide a barrier in the exit enclosure to prevent accidental entry into the basement.
- c) Maintain () hour fire resistive construction for walls, floor and ceiling of exit passageways and their supporting structural elements. [1023.3].

Response:

131. Comply with the following **exit discharge** requirements:

- a) Exterior balconies, stairways and ramps shall be located at least 10 feet from adjacent lot lines and from other buildings on the same lot unless the adjacent building exterior walls and openings are protected in accordance with Section 705 based on fire separation distance. [1019, 1009]
- b) Exterior exit ramps and stairways shall be separated from the interior of the building as required in Section 1026.5. Openings shall be limited to those necessary for egress from normally occupied spaces. [1026.6]
- c) The building exterior walls within 10 ft horizontally of an exit enclosure or exterior stairway with nonrated walls and openings less than 180 degrees to the exterior building walls shall have a fire resistance of 1hr and opening protection of ¾ hr. [1022.7].
- d) Exterior stairways shall be open on at least one side [1026.3]
- e) Where an exit court has an occupant load of 10 or more, provide not less than one-hour fire-resistive construction exit court walls for a height of 10 feet above the floor of the court when exit court is less than 10 feet in width [1027.4].

Response:

ELEVATORS

132. Elevator shafts shall be enclosed in a 2-hour fire barrier where connecting four stories or more, and not less than a 1-hour fire barrier where connecting less than four stories. [713.4]

Response:

133. Elevator shafts extending through more than three stories shall be vented to the outside. The area of vent shall be not less than 3-1/2 percent of the shaft area and a minimum of 3 square feet per elevator. Ventilation is not required in sprinklered buildings of other than Group R-1, R-2 and I-2 occupancy. [3004.1 & 3004.3]

Response:

134. Elevators in high rise buildings shall comply with Section 403.6

Response:

135. Provide clear inside elevator car dimensions as required by Title 24:

Response:

136. Elevators shall provide a clear space of 80" by 54" inside, with a 42-inch side slide door. [3002.4.3a, 11B-407.4.1]

Response:

137. Elevators in buildings four or more stories above ,or four or more stories below grade plane shall have the size to accommodate a 24" by 84" stretcher. [§ 3002.4 CBC]

Response:

138. The emergency elevators shall be identified by the international symbol for emergency medical services. [§ 3002.4 & 3002.4.5a CBC]

Response:

139. Provide notes, details or specifications to show the elevator will comply with CBC Chapter 30 and Title 24

Response:

140. Doors other than the hoistway door and the elevator car door are prohibited at the point of access to elevator car, except doors readily openable from the car side. [3002.6]

Response:

STRUCTURAL

141. The final structural plans must be signed by an engineer or architect licensed by the State of California. Plans for elements of the structure designed by others must be reviewed and signed by engineer or architect of record.

Response:

142. Provide a complete and consistent grid system with grid lines for each lateral line of resistance on structural framing plans. Lack of grid lines makes the review process difficult and may delay the plan review and permit process.

Response:

143. Provide complete material specifications.
- a) Plywood diaphragms: DOC PS 1 or PS 2, Structural I.
 - b) Particleboard: ANSI A208.1-99. Moisture protection is required.
 - c) Wood framing members: Grade and species of all lumber.
 - d) Glue Lam Beams: Identify grade symbol and lamination species per ANSI/ AITC A 190.1 and ASTM D3737. .
 - e) Steel: Structural steel ASTM A36, Structural Pipe ASTM A53 Grade B, Tubing ASTM A 500, Reinforcing bars ASTM A615.
 - f) Concrete: Standard 2500psi concrete. 3000 psi min. for grade beams and caissons.

Response:

144. Construction documents shall show the size, section and relative locations of structural members with floor levels, column centers and offsets dimensioned.

Response:

145. The design loads and other information pertinent to the structural design required by Sections 1603.1.1 through 1603.1.9 shall be indicated on the construction documents:[1603.1]

Response:

146. Structural observation is required. Provide complete notes on the plans and clearly indicate stages of construction and items where observation is required [SMMC 8.08.120, 1709].

Response:

147. Special inspection (by a certified inspector) is required for field welding, high strength bolting, sprayed on fire proofing, concrete with strength > 2500 psi, high-lift grouting, special moment-resisting frames, piles, drilled piers, caissons and shotcrete. Please note on the plans [1704].

Response:

148. Special inspections for wind requirements, and seismic requirements shall comply with Sections 1706 and 1707.

Response:

149. For each type of special inspection, identification as to whether it will be continuous special inspection or periodic special inspection.

Response:

150. The following additional systems and components in structures:

- a) Anchorage of electrical equipment used for emergency or standby power systems.
- b) Exterior wall panels and their anchorage.
- c) Suspended ceiling systems and their anchorage.
- d) Access floors and their anchorage.
- e) Steel storage racks and their anchorage, where the importance factor is equal to 1.5 in accordance with Section 15.5.3 of ASCE 7.

f) Electrical Equipment

Response:

151. Provide a note on the plans stating: “Each contractor responsible for the construction of a main wind or seismic force resisting system, designated seismic system or a wind or seismic resisting component listed in the statement of special inspections shall submit a written statement of responsibility to the building official and the owner prior to the commencement of work on the system or component. The contractor’s statement of responsibility shall contain the following: [1709.1]
- (1) Acknowledgement of awareness of the special requirements contained in the statement of special inspections.
 - (2) Acknowledgement that control will be exercised to obtain conformance with the construction documents approved by the building official.
 - (3) Procedures for exercising control within the contractor’s organization, the method and frequency of reporting and the distribution of the reports.
 - (4) Identification and qualification of the person(s) exercising such control and their position(s) in the organization.”

Response:

152. When special inspection is required, provide general notes that designate:
- I. Portions of the work that require special inspection
 - II. Names of individual(s) /firm(s) that will provide special inspection
 - III. Duties of the special inspector(s), including time limits for submission of reports to the building official

Response:

153. Reference/identify all applicable sections and details as to location on plans.

Response:

154. Show foundation sections: Width, thickness, and depth below undisturbed ground surface or engineered compacted fill per approved compaction report.

Response:

155. Provide details of anchorage of roof mounted mechanical, electrical, and plumbing equipment as applicable. Include the unit weight in the calculations as necessary. [1603.1]

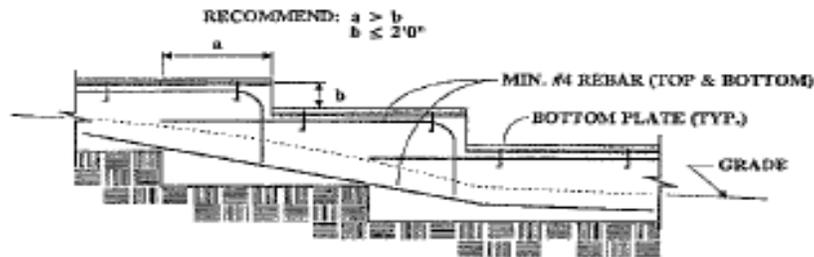
See also the "Statement of Special Inspections" for additional requirements. [1706 and 1707]

Response:

156. Provide details of (balcony) (stairway) railing base connection capable of withstanding a load of at least 200 lbs. applied in any direction at any point of the rail. Provide calculations to verify above. [1607.7.1.1]

Response:

157. Detail stepped foundations on ground sloping more than 1 unit vertical in 10 units horizontal. Steps must be such that both top and bottom are level. [1808] [SMMC 8.16.030 (a)]. See detail below:



Response:

158. Provide pile ties to interconnect individual pile caps and caissons. Ties shall be capable of resisting, in tension or compression, a minimum horizontal force of 10% of the larger column vertical load multiplied by S_{DS} and 25% of the smaller pile cap design gravity load. (1810.3.13) [1810].

Response:

159. Submit Soils/Geotechnical report for review and approval [1803.2].

Response:

160. Show on the building or grading plans the name, address and phone number of the Project Geotechnical Consultant and a list of all applicable geotechnical reports.

Response:

161. Include a note on the grading and foundation plans that states: "Excavations shall be made in compliance with CAL/OSHA Regulations."

Response:

162. Provide a notation on the foundation plans that states: "All foundation excavations must be observed and approved by the Project Geotechnical Consultant prior to placement of reinforcing steel."

Response:

163. Provide complete shoring plans for the subterranean excavation or provide plans and sections showing cut slopes as recommended per approved soils report. Before commencing the excavation, proof of notification to adjoining property owners shall be submitted. [3307]

Response:

164. When applicable, include on the building and drainage plans all surface and subsurface non-erosive drainage devices, flow lines and catch basins.

Response:

165. Final shoring and foundation plans shall be reviewed, signed and wet-stamped by the Project Geotechnical Consultant.

Response:

166. Show hold-down hardware locations on foundation plan.

Response:

167. Specify on the plans the type, size, embedment, edge distance, and spacing of all anchor bolts. Bolt size and spacing shall be designed per chapter 19, 21 and 23 requirements. [2301.2]

Response:

168. Holdown connector bolts into wood posts require steel plate washers on the post on the opposite side of the anchorage device. Plates shall be 3x3x3/8 [SMMC 8.16.070 (b)]

Response:

169. Specify minimum 3"x3"x0.229" plate washers for all anchor bolts [2308.12.8]

Response:

170. Nails in pressure treated wood sill plates shall be hot dipped galvanized, stainless steel, silicon bronze or copper. (2304.9.5)

Response:

171. Note on plans that all hold-down connectors shall be re-tightened just prior to enclosure.

Response:

172. Extend foundation a minimum of 8" above adjacent finish grade/surface [2304.11.2.2].

Response:

173. Specify plywood thickness, grade, span, panel index, nailing schedule and panel layout for roof and floor diaphragms.

Response:

174. Provide 2 x 6 studs in plumbing walls to prevent excessive notching or boring of studs.

Response:

175. Provide complete design/details of truss system (s).

Response:

176. Provide the Simpson Strong-Wall or Hardy Frame manufacturer's detail sheets on the plan. [1603.1]

Response:

177. Studs supporting two floors, ceiling, and roof must be 3x4 or 2x6 at 16" o.c. [Table 2308.9.1]

Response:

178. Studs in bearing walls are limited to 10 feet in height unless an approval design is submitted. [Table 2308.9.1]

Response:

179. Call out size of headers for wall openings 4 feet or greater. [2308.9.5]

Response:

180. Exterior egress balconies, exterior exit stairs and similar means of egress components shall be positively anchored to the primary structure at not over 8' on center or shall be designed for lateral forces. [2308.12.7]

Response:

181. Posts and columns in enclosed crawl spaces supported by a concrete pier or metal pedestal shall be a minimum 8 inches above exposed ground and shall be separated by an impervious moisture barrier (alternate, provide a preservative-treated wood post or column). [2304.11.2.7 & Exception 2]

Response:

182. Provide positive connections at all post-beam connections to account for uplift forces and lateral displacements. [2304.9.7].

Response:

183. Provide shear transfer details where standard shear wall schedule requirements do not apply.

Response:

184. Structures using wood shear walls and diaphragms to resist wind, seismic, and other lateral loads shall be designed and constructed in accordance with AF&PA SDPWS and the provisions of Sections 2305, 2306, and 2307.

Response:

185. Openings in shear walls that materially affect their strength shall be detailed on the plans and shall have their edges adequately reinforced to transfer all shearing stresses.

Response:

186. Provide shear wall schedule on the plans and specify the maximum design shear load for each shear wall type. [T2306.3].

Response:

187. Specify minimum length of all shear walls on plans.

Response:

188. The use of rectangular HSS (steel tubes) are not permitted for bracing members in SCBF'S, unless filled solid with cement grout having a minimum compressive strength of 2500 psi. [SMMC 8.16.060]

Response:

189. Provide the following for all shear walls with a shear value greater than 350 plf: [T 2306.3].
- a) 3 x foundation sill plates.
 - b) 3 x framing members receiving edge nailing from abutting panels.
 - c) Diaphragms and shear wall nailing shall utilize common nails or galvanized box where untreated wood is used.
 - d) Diaphragms and shear wall nailing to sill plates shall be compatible with other fasteners used and with the chemical composition of the preservative used to treat the wood. Provide specifications.
 - e) 1/2" edge distance for plywood boundary nailing.

Response:

STRUCTURAL CALCULATIONS

190. Provide calculations for (roof) (floor) trusses.

Response:

191. Provide key plans cross-referencing all design elements, and details to the plans.

Response:

192. Provide a table of contents for the calculations accounting for all pages of the clacs.

Response:

193. Railings and its components (including glass railings) shall withstand minimum horizontal force of 50 plf applied at the top in any direction [1607.7.1, 2407].

Response:

194. Provide deflection calculations for all horizontal gravity members and walls to show compliance with Table 1604.3 and per sections 1604.3.2 through 1604.3.5 for the more restrictive limitations. [1604.3]

Response:

195. Design ceiling framing for a live load of 10 psf or 20 psf for uninhabitable attics with storage. [T 1607.1 item 27].

Response:

196. Provide factor of safety of 1.5 to resist sliding and overturning for design of retaining walls. [1807.2.3].

Response:

197. Provide calculations for wind loading on the building showing compliance with ASCE 7 Chapter 6. Indicate in the calculations which method is being used. [1609.1.1]

Response:

198. Structure shall be designed with redundancy factor (ρ) =1.3 unless one of the conditions enumerated in section 12.3.4.2 of ASCE 7 is satisfied.

Response:

199. Provide a rigid diaphragm analysis. The building does not meet the conditional criteria under which a diaphragm can be idealized as flexible. [1613.6.1 CBC, 12.3.1.1 ASCE 7]

Response:

200. For concrete structural slabs supporting multiple levels of light frame construction:

- a. Use cumulative unreduced live load of all levels supported by the slab, or
- b. Use the exact loading of walls and columns on slabs, or
- c. If reduced uniform live loads are used, provide sample calculations for at least two critical strips of slab verifying that reduced live loads are equivalent or more conservative than actual loads applied.

Response:

201. Provide calculations and details for chord splices and drag struts between shear walls. See structural plans for location.

Response:

202. For stacked shear walls, calculate the cumulative overturning forces due to the respective lateral loads applied at all stories above the reference level.

Response:

203. Allowable holdown hardware values shall be based on 75% of the Research Report unless the device is tested for cyclic loading [SMMC 8.16.070(c)].

Response:

204. When determining the maximum uplift force for hold-down design, multiply the dead load resisting moment by 0.9 for seismic or wind forces for LRFD combination or 0.6 if basic ASD load combinations used. [1605.2, 1605.3].

Response:

205. Cantilevered columns resisting seismic forces shall be designed with an appropriate R, Ω and C_d factor per ASCE 7 T12.2-1 Item G and shall be limited to a maximum drift of 0.025h.

Response:

206. Wood diaphragms are not permitted to transfer lateral loads by rotation [SMMC 8.16.070(c) 5].

Response:

207. When using flexible diaphragm approach, cantilevered diaphragms supporting floors or roof shall not exceed **15%** of the distance between adjacent lines of lateral-load resisting elements from which the diaphragm cantilevers. The depth to width ratio of the cantilevered diaphragm shall not be less than 4:1 [SMMC 8.16.020(i)].

Response:

208. The maximum allowable shear for 3-ply plywood shear walls is 200plf. [SMMC 8.16.070. (c) 2].

Response:

209. Structural support elements of discontinuous lateral-load resisting systems (including concrete structural slabs) shall be designed to resist the load combinations with overstrength factor specified in ASCE 7-05 Chapter 12. Applicable loads shall be considered including both earthquake and wind, in accordance with the specified load combinations of Section 1605.

Response:

210. Provide shrinkage analysis for wood stud walls and bearing partitions supporting more than two floors and roof [2304.3.3].

Response:

211. Provide sections through glass block wall showing: reinforcement in each direction, size of glass panels; lateral support and expansion joints. Submit lateral calculations. [2110].

Response:

212. In concrete design strength reduction factor, Φ , shall be $\Phi = .9$ for tension controlled sections, $\Phi = .75$ for shear and torsion controlled sections, and $\Phi = .65$ for compression controlled sections. Provide calculations/justification for using alternate Φ value. ACI 9.3

Response:

213. Where $\Phi V_c > V_u > .5\Phi V_c$: Minimum shear reinforcement shall be provided in all reinforced concrete flexural members. [ACI 11.4.6]

Response:

214. Masonry structures and components shall comply with the requirements in Section 1.17 of TMS 402/ ACI 530/ ASCE 5 depending on the structure's seismic design category as determined in Section 1613. [2106]. See Section 2107 for allowable stress design, Section 2108 for strength design, and Section 2109 for empirical design of masonry.

Response:

215. Concrete and masonry wall anchorage to roof and floors shall meet the following: [SMMC 8.16.020 (e)]
- a. Spacing of continuity ties shall not exceed 40'
 - b. Maximum diaphragm shear used to determine the depth of the sub-diaphragm shall not exceed 75% of the allowable diaphragm load

Response:

CALGREEN Mandatory Nonresidential Measures

216. Meet T24 Energy Standards [5.201.1 CGBSC]

Response:

217. Demonstrate 20% savings in indoor water use. [5.303.2 CGBSC]
- Show compliance with note on plans. Include a fixture schedule and/or water savings calculations (WS-2 sheets) on plans showing the use of prescriptive or performance measures to comply with this requirement
- If there are multiple showerheads in one shower, they must meet the single fixture flow rate [5.303.2.1]
- When single shower fixtures are served by more than one showerhead, the combined flow rate of all showerheads shall not exceed the max flow rates specified in Table 5.303.2.3 (20% reduction, 2.0 gpm avg).
 - Show compliance with note on plans

Response:

218. Calculate 20% savings in waste water. [5.303.4 CGBSC]
- Show on plans by explaining the use of water-conserving fixtures

Response:

219. All plumbing fittings and fixtures must meet standards in CALGreen table 5.306.6 [5.303.6 CGBSC]
- Provide note on plans stating compliance

Response:

220. Provide weather resistant exterior wall and foundation envelope as required as CBC 1403.2 [5.407.1 CGBSC]

Response:

221. Design exterior entries/openings to prevent water intrusion [5.407.2.2 CGBSC]

- Show compliance on plans with details of exterior entries

Response:

222. Commissioning for buildings over 10K sq. ft. [5.410.2 CGBSC]

- Submit electronic version of Cx plan in ProjectDox/ePlans (needed to obtain permit)
- Provide note on plans that this plan will be carried out

Response:

223. Testing and adjusting plan for buildings under 10,000 square feet [5.410.4 CGBSC]

- Provide note on plans that this plan will be carried out

Response:

224. Ensure all fireplaces are direct vent sealed combustion gas [5.503.1 CGBSC]

- Show and identify all fireplaces as compliant on plans

Response:

225. Ensure protection and covering of duct openings during storage and construction [5.504.3 CGBSC]

- Provide note on plans
- Subject to verification during field inspection

Response:

226. Low VOC adhesives, sealants, paints, coatings, carpet systems, low formaldehyde wood, low VOC resilient flooring [5.504.4 CGBSC]

- Provide note on plans/have spec sheets readily available
- Subject to verification during field inspection; product specifications and containers must be available

Response:

227. Use MERV 8 filters for regularly occupied areas of the building [5.504.5.3 CGBSC]

- Provide note on plans and show on schedule

Response:

228. Indoor moisture control (Ventilation, Exterior Walls) - existing CBC requirement [5.505.1 CGBSC]

Response:

229. Outside air delivery per T24 - Section 121 [5.506.1 CGBSC]

Response:

230. Provide CO2 monitoring for buildings with demand control ventilation [5.506.2 CGBSC]

- Provide note on plans and show on schedule

Response:

231. Provide wall and roof assemblies with an STC of at least 50 and exterior windows with an STC of at least 30 [5.507.4.1 CGBSC]

- This applies when buildings are within 1,000 ft. of a freeway, within 5 miles of an airport, or where sound levels at the property line regularly exceed 65 decibels
- Show on plans

Response:

232. Provide tenant separation walls and floors with an STC rating of at least 40. [5.507.4.2 CGBSC]

- Show on plans

Response:

233. Ensure there are no CFCs or halons in HVAC, refrigeration, fire suppression equipment [5.508.1 CGBSC]

- Provide note on plans

Response:

234. Provide an energy compliance report showing that the building is designed to use 15% less energy than required by the California Energy Code. [SMMC 8.106.055, 8.106.180]

Response:

235. Provide solar heating as the primary heat source for new swimming pools. [SMMC 8.106.055, 8.106.180]

Response:

236. Provide pipe insulation on all exposed and accessible hot water pipes connected to a new water heater per the California Energy Code. [SMMC 8.106.055, 8.106.180]

Response:

237. All new plumbing fixtures installed in new and existing buildings shall meet the 20% water use reduction. [SMMC 8.106.057, 8.106.190]

Response:

238. Delineate an area on the roof plan showing that the new building shall be solar ready. [SMMC 8.106.055, 8.106.180]

Response:

Reviewer:

(310) 458-2201 x

Supervisor:

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Office Hours:

7:30 a.m. – 5:30 p.m. Monday – Thursday

8:00 a.m. – 5:00 p.m. alternate Fridays