3. Exceptions to, or reductions in building code requirements based on the installation of automatic fire extinguishing system is not allowed when utilizing NFPA-13R type residential sprinkler system allowed for Group "R" occupancies. (CBC 903.2.8, 903.3.1.2, 504.2, 506.3, & T-601).

4. An approved automatic sprinkler system is required throughout the (entire building) (fire area) where the (building) (fire area) contains the following: (CBC 903.2)
   a. Has a(n) _____ occupancy; and/or
   b. Has a fire area over _____ sq. ft.; and/or
   c. Has over _____ occupant load.

5. Building with floor areas over 1,500 sq. ft. shall be sprinklered where 20 sq. ft. of opening for every 50 ft of exterior wall length is not provided on at least one side. (CBC 903.2.11.1)

6. Add a note on plan: "This building must be equipped with an automatic fire extinguishing system complying with (NFPA-13) (NFPA-13R) (NFPA-13D). The sprinkler system shall be approved by _____ prior to installation." (CBC 903.3.1)

7. Class (I) (II) (III) standpipe (dry) (wet) (combination) systems are required in this building. Show the location of standpipe hose connections on the plans. (CBC 905.3, 905.4, 905.5, & 905.6)

8. Provide automatic sprinkler system at top of rubbish and linen chutes and in their terminal room. When extending through 3 or more floors, additional sprinkler heads shall be installed at alternate floors. (CBC 903.2.11.2)

9. A (manual) (automatic) fire alarm system is required as a condition for the _____ occupancy. (CBC 907.2.9)

10. Group R occupancies with smoke alarm systems, hard-wired smoke detectors with a battery back up, shall be provided in the following areas (show location on the plans): (CBC 907.2.11)
    a. Group R-1: sleeping areas, in every room in the path of egress from the sleeping room to the exit door, in each story within the sleeping unit, in enclosed common stairwells.
    b. Groups R-2, R-2.1, R-3, R-3.1, and R-4: on the ceiling or wall outside of all sleeping areas, in each room used for sleeping purposes, in each story within a dwelling unit, in enclosed common stairwells, in Group R-3.1 in addition to the above throughout the habitable areas except the kitchen.
    c. Power source shall be from the building wiring and shall be equipped with battery backup.

11. Approved carbon monoxide alarms shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and on every level including basement in dwelling units that have fuel-fired appliances or attached garages (CBC 915.2.1).
    a. Power source shall be from the building wiring and shall be equipped with battery backup.
    b. Where more than one required within dwelling unit or sleeping unit, the alarms shall be interconnected.
    c. For R-1 only, carbon monoxides are required on the ceiling of sleeping units with permanently installed fuel-burning appliances.

CHAPTER 10 MEANS OF EGRESS

M. EXITS

1. Submit an exit plan that labels and clearly shows compliance with all required egress features such as, but not limited to, common path of travel, required number of exits, occupant load, required width, continuity, travel distance, etc. (CBC 1001.1)

2. In a two-story building, two exits or more are required when occupant load exceeds 10 or, common path of egress travel exceeds 75'. (CBC 1006.2.1, CBC T-1006.2.1.)

3. The number of exits shall comply with CBC 1029.7, T-1006.3.1

4. Rooms with a common path of egress travel exceeding that allowed in CBC 1007.1.1 shall have two separate and distinct means of egress.

5. When two exits are required from a building or area, they shall be separated by one-half (one-third if sprinklered throughout) the diagonal dimension of the building or area served. (CBC 1007.1.1, 1029.8)
6. Exit width shall be not less than permitted by CBC 1005. The net dimension (clear width) shall be used in determining exit width.

7. In single-story buildings, two or more exits are required when criteria in CBC T-1006.3.2(2), T-1016.1, T-1021.1 or T-1021.2 are exceeded. (CBC 1015, 1016, & 1021)

8. Two exits or more are required when occupant load of a room or space exceeds the criteria in CBC T-1006.3.1. (CBC 1006.3.1 &1006.2.1.)

9. Travel distance to reach an exit shall not exceed that allowed in CBC T-1006.2.1, CBC 1029.8

10. Every room or space that is an assembly occupancy shall have the occupant load posted in a conspicuous place near the main exit of the room. (CBC 1004.3)

N. CORRIDORS

1. Corridor and exit balcony width shall be not less than (72") (44") (36") (24"). (CBC 1020.2)

2. Dead end corridors shall not exceed 20' (50') in length. (CBC 1020.4)

3. Provide a complete architectural section of 1-hr. corridor detailing fire-resistance-rated construction of the walls and ceilings. Detail all duct and other penetrations. (CBC 708.1, 1020.1, 715.1, T-716.5 & 716.5.4)

4. Provide fire/smoke dampers at duct penetrations of 1 hr corridor walls. (CBC 716.5.4.1)

5. Glazed openings into 1-hr. corridors shall be protected per CBC T-715.5. The total area of such openings shall not exceed 25% of the common wall with any room per CBC 715.5.7.2.

6. Corridor walls may terminate at the ceiling, only if the entire ceiling is an element of 1-hr. floor or roof assembly. (CBC 709.4)

7. 1-hr. corridors and any enclosed ceilings within them shall not be used as an integral part of the duct system. (CBC 1020.5)

8. At rooms with exhaust fans adjacent to corridors, show how make up air is provided. No louvers shall be provided. (CBC 1020.5)

O. DOORS

1. Two exits or exit access doors of egress shall be provided from boiler, incinerator, or furnace rooms which exceed 500 sq. ft. and any fuel fired equipment exceeding 400,000 BTU input capacity. One exit is permitted to be a fixed ladder or alternating tread device. Exit access doorways shall be separated by a horizontal distance equal to one-half the max. horizontal dimension of room. (CBC 1006.2.2.1).

2. Each leaf of door in the means of egress shall provide 32" clear opening and a min. height of 6'-8", but in no case shall any swinging door leaf exceed 48". (CBC 1010.1.1)

3. Provide specifications for the door hardware (i.e., lever type, push-pull, panic, etc) to comply with disabled access requirements. (CBC 11B-404.2.7, 1010.1.2.1)

4. Doors serving an occupant load of 50 or more or hazardous rooms or areas shall swing in the direction of exit travel CBC 1010.1.2.1

5. All exit doors and gates from an _____ occupancy shall not be provided with a latch or lock, unless it is panic hardware. (CBC 1010.1.9)

6. Revolving, sliding or overhead doors shall not be used as exit doors. (CBC 1010.1.4)

7. The bottom 10" of all doors, except automatic and sliding, shall have a smooth, uninterrupted surface. (CBC 1133B.2.6)

8. Show that power operated doors are capable of being manually opened to permit exit travel in the event of a power failure. (CBC 1010.1.4.2)

9. When additional doors are provided, they shall conform to the provisions for exit doors. (CBC 1010.1)

10. Landings or floor level at doors shall not be less than 1/2" below the threshold. Raised thresholds and floor level changes greater than 1/4" at doorways shall be beveled with a slope not greater than one-unit vertical in two units horizontal. (CBC 1010.1.7)

11. Door swinging over landing shall not reduce the width by more than 7" when fully open. When serving 50 or more, the door in any position shall not reduce the required width to less than one-half. (CBC 1010.1.6)

12. Doors opening into the path of egress travel shall not reduce the required width to less than one half during the course of swing. When fully open, the door shall not project more than 7" into the required width. (CBC 1005.7.1)

13. Doors and their frames opening into a 1-hr. corridor shall be labeled 20-minute assemblies with smoke and draft control assemblies with self or automatic closers. (CBC 716.5.3, 716.5.9 & 715.4.7)

P. STAIRWAYS

1. Stairs shall have a min. width of 48" (36"). (CBC 1009.3)

2. Straight run stairways shall be detailed as follows:
   a. Max 7" and min. 4" rise height. (CBC 1011.5.2)
   b. Min. 11" tread depth. (CBC 1011.5.2)
   c. Min. 36" clear width. (CBC 1011.2)
   d. Min. 6'-8" vertical headroom measured vertically from a line connecting the edge of the nosing. (CBC 1011.3)

3. Provide section and details of interior or exterior stairway showing:
   a. Max. tread rise of 7" (min. 4") and min. tread run of 11". (CBC 1011.5.2)
   b. Min. headroom of 6'-8". (CBC 1011.3)
   c. Enclosed usable under stairways require 1-hr. construction on enclosed side. (CBC 1011.7.3)
   d. Provide visual striping per CBC 11B-504.4.1

4. Curved stairways with winder treads shall have treads and risers accordance with Section 1011.5. (CBC 1011.9)

5. Submit shop drawings for spiral stairway showing compliance with CBC 1010.10. Spiral stairways shall be detailed as follows:
   a. Min. 7.5" clear tread depth at a point 12" from the narrow edge.
   b. Min. 6'-6" vertical headroom measured vertically from a line connecting the edge of the nosing.
   c. Max. 9.5" riser height.
   d. Min. 26" stairway width.

6. Provide a barrier from upper stairs, and stairs leading to the basement. (CBC 1023.8)

7. Stairs shall be enclosed with fire barriers per CBC 1022.1. Enclosure shall conform to the following:
   a. 2-hr. fire-resistance-rated construction in all buildings 4 or more stories in height and 1-hr. for all other buildings less than 4 stories.
   b. Only exit doors from habitable space and egress from the enclosure can open into exit enclosures.
   c. Doors opening into exit enclosures shall be protected per CBC 715.
   d. Exit enclosures shall include an exit passageway of the same fire-resistance-rated construction as the enclosure leading to the outside of the building, including openings.
   e. Useable space is not allowed under the stairs. (CBC 1009.6.3)
   f. Exterior stairs shall be separated from the interior of the building with the same rating required for interior stairs. (CBC 1026.6)

8. Exterior stairs shall be separated from the interior of the building with the same fire-resistance-rated construction required for interior stairs. (CBC 1026.6)

9. In buildings 4 or more stories:
   a. One stair must extend to the roof. (CBC 1009.3)
   b. Stairs must have a penthouse or a smoke hatch. (CBC 1009.13.1)

10. Stairs in buildings over 75’ (55’ due to local ordinance which may apply) in height shall be in a smoke proof enclosure or pressurized stairway per CBC 909.20, 1022.9 and 202 high-rise definition.

11. Stair leading from an area of refuge requires a min. of 48” clear between handrails. (CBC 1007.3)

12. A min. of 2 areas of refuge with one at an elevator must be provided in accordance with Section 1007.1, 1007.2.1, 1007.4 and 1007.6 CBC since your project is four or more stories above grade.

Q. OTHER COMPONENTS

1. Handrails shall be detailed as follows: (CBC 1012)
   a. Handrail shall be continuous without interruption. (CBC 1012.4)
   b. Min. 34" to max. 38" high above the stair tread nosing. (CBC 1012.2)
   c. Min. 1.25” to max. 2” (for accessibility, 1-1/2” per CBC 1133B.4.2.6) circular cross-section for handgrip portion of handrail. (CBC 1012.3)
   d. Min. 4” to max. 6.25” perimeter dimension with max. 2.25” cross-section for non-circular handgrip portion of handrail. (CBC 1012.3)
   e. Min. 0.01” radius for edge of handrail (i.e., no sharp corner). (CBC 1012.3)
   f. Min. 12” horizontally extension beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser serving more than one dwelling unit or not within a dwelling unit. (CBC 1012.5)
   g. The handgrip shall extend 12” beyond the top and 12” plus tread width beyond bottom tread and return the handrail to newel post or wall. (See Title 24 Disabled Access for additional requirements.) (CBC 1133B.4.2.2)
   h. Min. 1.5” clear space between handrail and wall. (CBC 1012.6)

2. Guards shall be detailed as follows:
   a. Guards shall be located along open-sided walking surfaces, mezzanines, stairways, ramps and landings that are more than 30” above the floor or grade below. (CBC 1013.1)
   b. Guard whose top rail does not serve as a handrail shall have a height of 42” high above the leading edge of the tread. (CBC 1013.2)
   c. Guard whose top rail serves as a handrail shall have a height of 34" to 38" high above the leading edge of the tread. (CBC 1013.2)
   d. Open guard shall not permit 4.375" diameter sphere to pass through any opening. (CBC 1013.3)
   e. Triangular opening formed by tread, stair and bottom rail shall not permit 6” diameter sphere to pass through. (CBC 1013.3)

3. Guards shall be provided where the roof hatch opening or mechanical equipment is located within 10’ of a roof edge or open side of a walking surface and such edge or open side is located more than 30” above the floor, roof or grade below. The guard shall be constructed so as to prevent the passage of a 21” diameter sphere. (CBC 1013.6)

4. Provide emergency escape and rescue from sleeping rooms below the fourth story. Min. net clear opening dimensions of 24" height, 20" clear width, 5.7 sq. ft. area (5.0 sq. ft. at grade floor) and 44" max to bottom of clear opening is required. (CBC 1029)

5. Provide window wells at emergency escape and rescue opening with sill height located below ground level. Min. area of 9 sq. ft., min. 3’ width, and provide fixed ladder for window wells with a max. vertical depth of 44”. (CBC 1029.5)

6. Where elevation changes less than 12” occur in the means of egress, sloped surfaces shall be used. (CBC 1003.5)

7. Ramp slopes shall not exceed the following:
   a. Max. 1’ in 12’ (8%) if part of egress. (CBC 1012.2)
   b. Max. 1’ in 8’ (12.5%) for all others. (CBC 1012.2)
   c. Max. 1’ in 48’ (2%) for cross slope. (CBC 1012.3)
   d. Max. 30” vertical rise. (CBC1012.4)

8. Ramps with a rise greater than 6” shall have handrails on both sides. (CBC 1012.8)

9. Where an egress court serving a building or portion thereof is less than 10’ in width, the egress court walls shall have not less than 1-hr. fire-resistance-rated construction for a distance of 10’ above the floor of the court. Openings within such walls shall be protected by opening protectives having a fire protection rating of not less than 3/4-hr. (CBC 1027.5.2)

10. Exterior balconies, stairways and ramps shall be located at least 10’ 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 CBC 704 based on fire separation distance. (CBC 1027.3)

11. Balconies used for egress purposes shall conform to the same requirements as corridors for width, headroom, dead ends and projections. (CBC 1019.1)

12. Exterior egress balconies shall be separated from the interior of the building by walls and opening protection as required by corridors. (CBC 1019.1)

13. The means of egress system shall be illuminated with at least one-foot candle at the floor level. (CBC 1006.2)

14. Provide a separate source of power for exit sign illumination. (CBC 1011.5.3)

15. Exit signs are required when 2 or more exits are required. Show location of all exit signs. (CBC 1011.1)

16. Show conformance for floor-level exit signs and exit path marking in R-1 and R-2 occupancies per CBC 1011.6 and 1011.7 as enforced by the SFM.

17. Show two sources of power for means of egress. (CBC 1006.3)

18. Provide luminous egress path markings for group R-1 having occupied floor located more than 75 feet above the level of fire vehicle access per section CBC 1024.1.

CHAPTER 11A & 11B ACCESSIBILITY REGULATIONS

See separate accessibility plan review checklist for Title 24, Part 2, of the California Code of Regulations, Sections 1.8.2.1.2, 1.9.1 and 1102A, the state’s disabled access and adaptability requirements.

CHAPTER 12 INTERIOR ENVIRONMENT

R. INTERIOR ROOM, LIGHT AND VENTILATION

1. Provide a door and window schedule. Show type and size of each.

2. Show the following dimensions for each room or area:
   a. At least one room shall have a min. net area of 120 sq. ft. (CBC 1208.3)
   b. Habitable areas shall have a min. net area of 70 sq. ft. (CBC 1208.3)
   c. A kitchen shall have a min. gross area of 50 sq. ft. (CBC 1208.3 EX 1)
   d. Habitable spaces shall not be less than 7’ in any plan dimension. (CBC 1208.1)
   e. Occupiable spaces, habitable spaces, hallways & corridors shall have a ceiling height of no less than 7’-6”. (CBC 1208.2).
   f. Bathrooms, toilet rooms, kitchens, storage rooms, & laundry rooms shall have a ceiling height of no less than 7’ (CBC 1208.2)
   g. Kitchen shall have a clear passageway of not less than 3’ (CBC 1208.1)
   h. A min. 15" clearance from center of water closet compartment to any side-wall or obstruction nor 30” clearance from center to center to any similar fixture and a min. 24” clear space in front of water closet. (CPC 407.6)

3. Provide natural ventilation in habitable rooms or bathrooms by means of openable exterior wall openings with an area not less than 4% of the room floor area. This is deficient in _____. Mechanical ventilating systems may be permitted if designed in accordance with the Mechanical Code. (CBC 1203.5.1, CBC 1203.1)

4. Provide natural ventilation for adjoining spaces. In order to consider any room as a portion of an adjoining room, opening shall be unobstructed and shall have an area of not less than 8% the floor area of the interior room or 25 sq. ft., whichever is greater. (CBC 1203.5.1.1)

5. Rooms containing bathtubs, showers, spas and similar bathing fixtures shall be mechanically ventilated. Provide an exhaust fan with a min. capacity of 50 CFM. Ductless fans are unacceptable. (CBC 1203.5.2.1, CMC T-4-4)

6. Provide natural light in habitable rooms by means of exterior glazed openings with an area not less than 8% of the room floor area. This is deficient in _____. (CBC 1205.2)

7. Provide natural light for adjoining spaces. In order to consider any room as a portion of an adjoining room, at least 1/2 of the common wall area shall be open and unobstructed and shall provide an opening of not less than 1/10 the floor area of the interior room or 25 sq. ft., whichever is greater. Show that the common wall between _____ and _____ complies. (CBC 1205.2.1)

8. Openings required for natural light and ventilation shall be permitted to open into a thermally isolated sunroom or patios provided that:
   a. For natural light a glazed area of not less than 1/10 of the floor area of the interior room or 25 sq. ft., whichever is greater (1205.2.1 EX)
   b. For natural ventilation an area of not less than 8% of the floor area of the interior room or space, but not less than 25 sq. ft. (1203.5.1.2 EX)

9. Where openings below grade provide required natural ventilation, the outside horizontal clear space measure perpendicular to the opening shall be 1-1/2 times the depth of the opening measured from adjoining ground level to the bottom of the opening. (CBC 1203.5.1.2)

10. For the purpose of providing natural light or ventilation at exterior openings of buildings, a min. yard of 3’ in width for one and two story building is required. For buildings more than two stories, the min. width of the yard shall be increased to 1 foot for each additional story. (CBC 1206.2)

11. For the purposed of providing natural light or ventilation at exterior openings on opposite sides shall not be less than 6’ in width. Courts bounded on three or more sides by the wall of the buildings shall not be less than 10’ in length, unless bounded one end by a public way or yard. For buildings more than two stories in height, the court shall be increased 1 foot in width and 2’ in length for each additional story. (CBC 1206.3)

12. Porch over required windows at _____ must have a min. clear height of 7' with longer side at least 65% open and unobstructed. (CBC 1205.2.2 EX 1)

13. Toilet and bathing room floors shall have a smooth, hard, nonabsorbent surface such as Portland cement, ceramic tile or other approved material that extends upward onto the walls at least 6". (CBC 1210.2.1)

14. Walls within 2' of the front and sides of water closets shall have a smooth, hard, nonabsorbent surface of Portland cement, concrete, ceramic tile or other approved material surface to a height of 4', and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture. (CBC 1210.2.2)

15. All shower compartments, regardless of shape, shall have a min. finished interior area of not less than 1,024 sq. in. and shall be capable of encompassing a 30" circle. Shower doors shall swing out. The min. area and dimensions shall be maintained to a point 70" above the shower drain outlet. (CPC 411.7)

16. Shower compartments and walls above bathtubs with installed shower heads shall be finished with a smooth and nonabsorbent surface to a height not less than 70" above the drain inlet per CBC 1210.2.3. Use of water-resistant gypsum backing board shall be per CBC 2509.2.

17. Built-in tubs with showers shall have waterproof joints between the tub and adjacent wall. (CBC 1210.2.4)

18. Toilet rooms shall be provided with a fully openable exterior window with an area not less than 3 sq. ft. or a vertical duct not less than 100 sq. in. in area for the first water closet plus 50 sq. in. additional of area for each additional water closet, or a mechanically operated exhaust system capable of providing a complete change of air every 15 minutes. Such mechanically operated exhaust system shall be connected directly to the outside, and the point of discharge shall be at least 3' from any opening that allows air entry into occupied portions of the building.

19. Dimension a min. 15" clearance from center of water closet compartment to any side-wall or obstruction nor 30" clearance from center to center to any similar fixture and a min. 24" clear space in front of water closet for bathroom at _____. (CPC 407.6)

20. Occupancies and operations involving flammable or combustible hazards or other contaminant sources shall be designed in accordance with CMC. (CBC 1203.5.2)

21. Provide min. 1 foot-candle of stairway illumination at tread runs. (CBC 1205.4)

22. Add the following notes to plans:
    a. Flush volumes for low-consumption and water-saver water closets shall be provided with a max. 1.6 gallons of water per flush. (CPC 402.1, 402.2)
    b. Water heater shall be strapped to wall at points within the upper 1/3 and lower 1/3 of its vertical dimensions with the lower a min. 4" above the controls. (CPC 508.2.1)
    c. Garage door extension springs shall be fabricated from either hard drawn-spring wire or oil-tempered wire and installed in accordance with the manufacturer's instruction. (CBC 1211)

23. This plan contains _____ courts. Provide details of the proposed wall construction, opening protection and stair protection. (CBC 202, 1206.3, 1203.5.3 and 1024.5)

24. The width of courts shall meet the following: (CBC 1206.3)
    a. Not less than 3' in width
    b. Not less than 6' in width where openings occur on opposite sides

25. Courts shall not be less than 10' in length. (CBC 1206.3)
26. Courts located in buildings more than 2-stories in height shall be shall be increased: (CBC 1206.3)
    a. 1' in width for each additional story
    b. 2' in length for each additional story

27. Court access shall be provided at the bottom of courts. (CBC 1206.3.1)

28. Courts more than 2-stories shall be provided with horizontal air intake at the bottom not less than 10 sq. ft. and leading to the exterior of the building. (CBC 1206.3.2)

29. Courts shall be properly graded and drained to an approved disposal system. (CBC 1206.3.3)

30. The ventilating area in enclosed attics and rafter spaces shall be as follows: (CBC 1203.2)
    a. Show ventilation type, size, and location on the plans.
    b. The net free ventilating area shall not be less than:
        i. 1/150 of the attic space (approximately 10 sq. in. for each 10 sq. ft. of attic area), OR
        ii. 1/300 provided a vapor retarder is installed with a transmission rate not exceeding 1 perm. meeting ASTM E96.
    c. 50% of the required ventilation area must be located at least 3' above eave or cornice vents with the balance provided by eave or cornice vents.
    d. Openings shall have corrosion-resistant wire mesh or other approved material with 1/8" min. and 1/4" max. opening.
    e. A min. of 1" airspace shall be provided between insulation and roof sheathing.
    f. Enclosed framing in exterior balconies and elevated walking surfaces that are exposed to weather, shall be provided with openings that provide a net free cross ventilation area not less than 1/150 of the area of each separate space per CBC 2304.12.2.6.

31. An opening not less than 20" x 30" shall be provided to any attic area having a clear height of over 30". Min. clear headroom of 30" in the attic space shall be provided at or above the access opening. (CBC 1209.2)

32. Under-floor vents shall meet the following requirements: (CBC 1203.4)
    a. Show ventilation type, size, and location on the plans.
    b. Openings shall be placed so as to provide cross ventilation of the under-floor space
    c. The net free ventilating area shall not be less than 1/150 of the crawl-space area (approximately 10 sq. in. for each 10 sq. ft. of attic area).
    d. Openings shall have corrosion-resistant wire mesh or other approved material with 1/8" min. and 1/4" max. opening.

33. Show min. 18" x 24" under floor access opening. (CBC 1209.1)

34. Access to mechanical appliances in under-floor areas, in attic spaces, and on roofs or elevated structures shall be in accordance with the California Mechanical Code. (CBC 1209.3)

35. Sound Transmission. In Group R Occupancies, wall and floor- ceiling assemblies separating dwelling units or guest rooms from each other and from public space such as interior corridors and service areas shall provide airborne sound insulation for walls, and both airborne and impact sound insulation for floor-ceiling assemblies. All such separating walls and floor-ceiling assemblies shall provide an airborne sound insulation equal to that required to meet a sound transmission class (STC) of 50 (45 if field tested). All separating floor-ceiling shall provide impact sound insulation equal to that required to meet an impact insulation class (IIC) of 50 (45 if field tested). **EXCEPTION:** Impact sound insulation is not required for floor-ceiling assemblies over non habitable rooms or spaces not designed to be occupied, such as garages, mechanical rooms or storage areas. (CBC 1207.1, 1207.2 and 1207.3)
    a. Identify all sound rated partitions on the floor plans.
    b. Provide construction details for the following:
        i. Sound rated wall assemblies.
        ii. Sound rated floor-ceiling assemblies.
    c. Detail all penetrations or openings into sound rated partitions or approved permanent resilient sealants.
    d. All rigid conduits, ducts, plumbing pipes, and appliance vents located in sound assemblies shall be isolated from the building construction by means of resilient sleeves, mounts, or a min. 1/4" thick approved resilient

material. Vents located in sound assemblies shall be isolated from the building construction by means of resilient sleeves, mounts, or a min. 1/4" thick approved resilient material.

e. An approved permanent and resilient acoustical sealant shall be provided along the joint between the floor and the separation walls. Floor-ceiling assemblies shall be sealed, lined or insulated with _____.
f. Carpets or similar surface material which are part of the floor-ceiling assembly must be installed and inspected before the Certificate of Occupancy is issued and may be replaced only by other floor covering that provides the required impact sound insulation. (CBC 1207.8)
g. The entrance doors to residential units from interior corridors are required to have a min. STC rating of 26. (Laminated 1-3/4" solid-core doors with resilient stops and gaskets or 18 gauge insulated steel slab doors with compression seals all around, including thresholds will meet this requirement). (CBC 1207.7)
h. Metal ventilating and conditioned air ducts located in sound assemblies shall be lined. (**EXCEPTION**: Ducts serving only exit-ways, kitchen cooking facilities, and bathrooms need not be lined).
i. Mineral fiber insulation shall be installed in joist spaces whenever a plumbing piping or duct penetrates a floor-ceiling assembly or where such unit passes through the plane of the floor-ceiling assembly from within a wall. The insulation shall be installed to a point 12" beyond the pipe or duct. This requirement is not applicable to fire sprinkler pipe, gas line or electrical conduit.
j. Electrical outlet boxes in opposite faces of separation walls shall be separated horizontally by 24" and note that back and sides of boxes will be sealed with 1/8" resilient sealant and backed by a min. of 2" thick mineral fiber insulation. (TV, telephone and intercom outlets must be installed in boxes accordingly.)
k. Wall mounted lavatories and toilets are not permitted on sound rated partitions.

CHAPTER 14 EXTERIOR WALLS

S. EXTERIOR WALLS

1. Provide veneer details. Show method of anchorage, size and spacing of anchors. Comply with the applicable requirements in CBC 1405.

CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

T. ROOF

1. The min. roof coverings installed on buildings shall comply with CBC T-1505.1 based on the type of construction of the building. Roof covering shall be Class C rated or better or as required. (CBC 1505.1)

2. Identify on the plans the fire-retardant roof classification, manufacturer's name, and ICC/UL/SFM report number. (CBC 1506.3)

3. Provide specifications for roofing material and application.

4. Specify approved weatherproof walking surface material at decks and balconies.
    a. Where balcony or other elevated walking surfaces are exposed to the weather, and the structural framing is protected by an impervious moisture barrier, the construction documents shall include details for all elements of the impervious moisture barrier system. The construction documents shall include manufacturer's installation instructions per CBC 107.2.7.
    b. The impervious moisture barrier system protecting the structure supporting floors shall provide positive drainage of water that infiltrates the moisture-permeable floor topping per CBC 2304.12.2.5.
    c. All elements of the impervious moisture barrier system shall not be concealed until inspected and approved per CBC 110.3.8.1.

5. Clay and concrete tile attachment shall comply with CBC T-1507.3.7. Notes shall be provided on the plans to show compliance. (CBC 1507.3.7)

6. Roof slope shown on the plans is not adequate for the type of roof covering specified. The min. roof slope for _____ roof is _____. (CBC 1502.1, CBC 1507)

7. Built-up roofs shall have a min. slope of 1/4" per foot (2%) for drainage. (CBC 1507.10.1)

8. Show roof slope(s), drain(s) and overflow drain(s) or scupper(s) on the roof plan. Provide a detail of the roof drain and overflow system. Roof drainage system shall comply with the following requirements: (CBC 1503.4, CPC 1108)
   a. Size the roof drains and overflow drains in accordance with Chapter 11 of the CPC. (CBC 1503.4)
   b. System shall be sized for min. rain intensity of 3" per hour.
   c. The roof drain and overflow drain must maintain independent lines to the yard box.
   d. Roof drainage is not permitted to flow over public property.
   e. Secondary roof drains having the same size as the primary roof drains shall be installed with the inlet flow line located a min. 2" above the low point of the roof.
   f. Scuppers through parapet walls adjacent to the low point of the roof may be used as secondary roof drainage. Scupper openings shall be a min. of 4" high and have a width equal to the circumference of the roof drain required for the area served.
   g. Overflow scuppers shall be designed in accordance to CPC T-11-1.

9. Provide and detail access to equipment on roof per CMC 904.10.3.

10. Show that the penthouse and/or roof structures satisfy the requirements of CBC 1509. (CBC 1509)

CHAPTER 24 GLASS AND GLAZING

U. GLASS AND GLAZING

1. Each pane of safety glazing installed in hazardous locations shall be identified by a manufacturer's designation specifying who applied the designation, the manufacturer or installer and the safety glazing standard. The following shall be considered specific hazardous locations for the purposed of safety glazing. Glazing in: (CBC 2406)
   a. Swing doors.
   b. Fixed and sliding panels of sliding door assemblies and panels in sliding and bi-fold closet door assemblies.
   c. Storm doors.
   d. Unframed swinging doors.
   e. Doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs, and showers.
   f. Fixed or operable panels adjacent to a door where the nearest exposed edge of the glazing is within 24" arc of either vertical edge of the door in a closed position and where the bottom exposed edge of the glazing is less than 60" above the walking surface. Read code for exceptions.
   g. Fixed or operable panel, other than described in items e and f, which meets all of the following conditions (read code for exception with special installation).
      i. Exposed area of an individual pane greater than 9 sq. ft.
      ii. Exposed bottom edge less than 18" above the floor.
      iii. Exposed top edge greater than 36" above the floor.
      iv. One or more walking surfaces within 36" horizontally of the plane of the glazing.
   h. Guards and railings regardless of area or height above a walking surface. Included are structural baluster panels and nonstructural in-fill panels.
   i. Walls and fences enclosing indoor and outdoor swimming pools and spas where all of the following conditions are present:
      i. The bottom edge of the glazing is less than 60" above a walking surface on the pool or spa side of the glazing.
      ii. The glazing is within 60" of a swimming pool or spa water's edge.
   j. Adjacent to stairways, landings and ramps within 36" horizontally of a walking surface; when the exposed surface of the glass is less than 60" above the plane of the adjacent walking surface (read code for exception with special installation).
   k. Adjacent to stairways within 60" horizontally of the bottom tread of a stairway in any direction when the exposed surface of the glass is less than 60" above the nose of the tread (read code for exception with special installation).

2. For glass handrails and guards, the panels and their support system shall be designed to withstand the loads specified in Chapter 16. A safety factor of four shall be used. The min. nominal thickness of the glass shall be 1/4". Specify approved report number and manufacturer of glass panel guardrail on plans and/or detail. (CBC 2407)

3. Skylights set at an angle of less than 45 degrees from the horizontal plane shall be mounted at least 4" above the plane of the roof on a curb constructed as required for the frame. Except for R-3 occupancies, skylights without a curb shall be permitted on roofs with a min. slope of 14 degrees (3 units vertical in 12 units horizontal) per CBC 2405.4 and 2610.2. Glass skylights shall comply with CBC 2405. Plastic skylights shall comply with CBC 2610.

CHAPTER 25 GYPSUM BOARD AND PLASTER

V. GYPSUM BOARD AND PLASTER

1. A corrosion resistant weep screed, min. 26 galv. sheet gage, is required below the stucco at the foundation plate line a min. 4" above earth or 2" above paved area with a vertical attachment flange of 3.5". Weep screeds shall be of a type which will allow trapped water to drain to the exterior of the building. Show these dimensions on a foundation detail drawing. (CBC 2512.1.2)

2. Cement, fiber-cement or glass mat gypsum backers in compliance with ASTM C1178, C1288 or C1325 shall be used as a base for wall tile in tub and shower areas and wall and ceiling panels in shower areas. Water-resistance gypsum backing board shall be used as a base for tile in water closet compartment walls when installed in accordance with GA-216 or ASTM C840. Regular gypsum wallboard is permitted under tile or wall panels in other wall and ceiling areas when installed in accordance with GA-216 or ASTM C840. Water-resistant gypsum board shall not be used in the following locations: (CBC 2509.2)
   a. Over a vapor retarder.
   b. In areas subject to continuous high humidity, such as saunas, steam rooms or gang shower rooms.
   c. On ceilings where frame spacing exceeds 12" o.c. for 1/2" thick and more than 16" o.c. for 5/8" thick.

W. ADDITIONAL WRITTEN COMMENTS

No.	Comment	Code Sec. No.