CITY OF [NAME OF CITY]

Department of [NAME OF DEPARTMENT]
[NAME OF DIVISION OR BUREAU]

ONE- AND TWO-FAMILY DWELLING
PLAN REVIEW CHECKLIST

INFORMATION

PLAN CHECK NO.: EXPIRATION DATE: STATUS:

PROJECT ADDRESS:

WORK DESCRIPTION:

APPLICANT'S NAME: TEL. NO.:

ADDRESS: EMAIL:

USE	OCCUPANCY GROUP	FLOOR AREA	OCCUPANT LOAD	TYPE OF CONSTR.	NO. OF STORIES	FIRE SPRINKLER LOCATION

INSTRUCTIONS

Your application for a permit, together with plans and specifications, has been examined and you are advised that the issuance of a permit is withheld for the reasons hereinafter set forth. The approval of plans and specifications does not permit the violation of any sections of the Building Code or other local ordinances or state laws.

In an effort to streamline the plan review process, please follow the steps outlined below to ensure that there is no delay in processing your application and reviewing your responses to these plan check comments.

- Comments with circled item numbers apply to this plan check.
- Revised plans and calculations shall incorporate or address all comments marked on the original checked set of plans, calculations, and this plan review checklist. Provide a written response to each comment and show where and how it has been addressed. Identify the sheet number and detail or reference note on the revised plans where the corrections are made. Time spent searching for the corrected items on the revised plans or calculations will delay the review and approval process. Once all comments on the plans, calculations, and this checklist have been addressed, contact the plan check staff to **schedule an appointment** to review the changes made.

  PLAN REVIEWER: _____ TEL. NO.: _____

  ADDRESS: _____

  EMAIL: _____ WEBSITE: _____

  Should you have any questions or need clarification pertaining to the comments made on your project, you may contact the plan check staff by telephone from to M T W TH F.
- Bring the original checked set of plans and calculations along with this checklist to the meeting. Do not schedule an appointment meeting with the plan check staff until all comments have been addressed.
- Incomplete, indefinite or faded drawings or calculations will not be accepted.

NOTE

Numbers within the parenthesis ( ) refer to the section of the applicable code. 2007 California Building Code (CBC). Table (T). 2007 California Plumbing Code (CPC). 2007 California Mechanical Code (CMC). 2007 California Fire Code (CFC).

CHAPTER 1 GENERAL PROVISIONS

A. PERMIT APPLICATION

1. Provide a fully dimensioned plot plan to scale, in ink and copy it to the plot plan sheet provided by the department. Include the following information as applicable: project address, type of construction, number of stories, use and occupancy of the building, fire separation distance or setback of building to property lines or other buildings on the lot, lot size and dimensions, street center line, alley, # of parking spaces, location of all other buildings on the lot, legal description, and permit application number.

2. Valuation provided or determined during the initial submittal process was not accurate. Valuation is revised to $_____. Pay additional required plan check fee of $_____.

3. Provide complete and correct legal description (i.e., Tract, Lot, Block, APN, metes and bounds, etc.).

4. Provide complete information for (applicant) (owner) (engineer) (architect) (contractor) (_____).

5. Separate permit application is required for the following items:
   a. Retaining walls or block fence walls
   b. Grading work
   c. Swimming pools
   d. Separate structures
   e. Shoring
   f. Demolition
   g. Electrical, Mechanical, and/or Plumbing work
   h. Fire sprinkler systems
   i. Signs
   j. Others_____

6. When all required approvals are obtained, the permit application must be signed by the property owner, licensed contractor, or authorized agent at the time the permit is to be issued:
   a. For owner-builder permits: Owner's signature can be verified with owner's driver license. Owner's representatives must present owner's approval with a notarized letter from the owner.
   b. For contractor building permits: Prior to the issuance of a building permit, the contractor shall have the following:
      i. Certificate of workers Compensation Insurance made out to the Contractors State License Board.
      ii. Copy of Contractors State License or pocket ID.
      iii. Copy of city business tax registration certificate or a newly paid receipt for one.
      iv. Notarized letter of authorization for agents.

B. ADMINISTRATION

1. Obtain all approvals/clearances from the following department/bureau/agency noted below. It is necessary to apply immediately for the signoff as it can take weeks or months for some departments/bureaus/agencies to review and approve the project. All required approvals/clearances must be secured prior to permit issuance.
   a. Planning
   b. Fire
   c. Public Works
   d. Health
   e. Others_____

2. The final set of construction documents must be stamped by the following department/bureau/agency:
   a. Planning
   b. Fire
   c. Public Works
   d. Health
   e. Others_____

3. Each sheet of the construction documents must bear the signatures, registration number and expiration date of the registered design professional in responsible charge licensed in the State of California.

4. The address of the project and the name/address of the owner are required on the first sheet or title sheet of the construction documents. Include the name/address of the registered design professionals and/or consultants on the construction documents where applicable.

5. _____ set(s) of construction documents will be required during permit issuance. Construction documents must be:
   a. Quality blue or black line drawings with uniform and light background color.
   b. Max. 36' x 48" size with min. 1/8" lettering size.
   c. Sticky back details must produce prints without contrasting shades of background color.

6. Provide the following type of information with each set of construction documents:
   a. Topography Survey Map
   b. Grading
   c. Floor Plans
   d. Two Elevations
   e. Construction Sections
   f. Foundation Plans

h. Framing Plans
i. Structural Details
j. Others_____

7. Show the building area, occupancy group(s), use(s), type of construction(s), number of story(ies), height, type of fire sprinklers system provided, and the number of parking space(s) on the first sheet or title sheet of the construction documents. Include justification and analysis for increase in area, height, and/or story.

8. Show on site plans the natural and finish grade elevations around the perimeter of the building. Show elevations for all floors and top of roof. Survey map signed by a licensed Surveyor or Civil Engineer may be required by the department.

9. Remove all plans, details or notes that do not pertain to the project.

CHAPTER 3 USE AND OCCUPANCY

C. GENERAL

1. Specify on floor plans uses of all rooms or areas.

2. The occupancy group specified for one or more areas within the building is incorrect. See plan check annotation on sheet _____.

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS

D. GARAGE AND CARPORT

1. U occupancy garage or carport shall not exceed 1,000 sq. ft. floor area or 1-story in height (except as provided for in Section 406.1.2). (CBC 406.1.1)

2. Carport shall be open on at least two sides. (CBC 406.1.3)

3. Garage or carport floor surface shall be provided as follows: (CBC 406.1.3)
   a. Shall be of noncombustible or asphalt paving material.
   b. Shall be sloped to facilitate movement of liquids to a drain or toward the main vehicle entry doorway.

4. Attached garage and carport to dwelling shall be separated as follows: (CBC 406.1.4)
   a. Min. 1/2" gypsum board required on the garage side separating dwelling and attic area from garage.
   b. Min. 5/8” gypsum board required between garage or carport and all habitable rooms located above garage or carport (including structural members supporting the upper floor, ceiling, post and beam).
   c. Min. 1-3/8” thick solid wood doors or solid or honeycomb core steel door, or min. 20 minute rated fire door assembly.
   d. Doors to be self-closing and self-latching.
   e. Garage shall not open directly into a room used for sleeping purposes.
   f. Min. 0.019” sheet steel with no opening for ducts in walls and ceilings that penetrate into the garage.

E. OTHER USE AND OCCUPANCY

1. The fire-resistance-rated wall or assembly separating townhouses shall be continuous from the foundation to the underside of the roof sheathing, deck or slab. The fire-resistance rating shall extend the full length of the wall or assembly, including wall extensions through and separating attached enclosed accessory structures. (CBC 419.4.1)

2. Large family day care homes shall comply with CBC 445:
   a. The use of an R-3 occupancy as a large family day care home requires single station residential smoke alarms in the following locations _____.
   b. Note on plans. “Large family day care home will be provided with at least one (1) 2A10BC fire extinguisher.”
   c. Provide at least one manual fire alarm device.
   d. Identify the location of all gas fired water heaters and furnaces and provide protection to prevent physical contact by children.

CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS

F. HEIGHTS AND AREAS

1. On site plan, dimension distances from building(s) to all property lines, street center lines, and adjacent existing or proposed structures on the site.

2. On site plan show all interior assumed lot lines, any designated flood plains, open space easements or development restricted areas.

3. Show the size, use, occupancy, and type of construction of all existing buildings on the site.

4. When a new building is constructed adjacent to an existing building, show the required wall and opening protection requirements for the existing building will be maintained. (CBC 503.1.2, T-508.3.3, T-704.8 and 704.3)

5. Allowable building height for dwellings of Type VB construction is limited to 40’ and 3 stories (60’ and 4 stories with automatic sprinkler system). (CBC 503.1, 504.2, T-503)

6. Clearly show the max. height of the building as defined in CBC 502.1

7. Identify “Grade Plane” elevation for this project. Show the grade plane reference datum on all elevation and section drawings.

8. Assumed “Grade Plane” elevation is incorrect. Grade plane is determined as the average elevation of the lowest points around the perimeter of the building within the space described in CBC 502.1. Grade plane is not defined as the average of the highest and lowest points adjacent to the building. Justify the assumed grade plane for this project pursuant to CBC 502.1.

9. Unless considered a separate story, the floor area of a mezzanine shall be considered a part of the story in which it is located. CBC 505.1

10. Provide fire separation for incidental use area in the _____ in accordance with CBC 508.2 and T-508.2.

CHAPTER 6 TYPES OF CONSTRUCTION

G. TYPES OF CONSTRUCTION

1. Exterior walls of a garage or carport with a fire separation distance less than 5' shall have a 1-hr fire-resistive rating. (CBC 602.1, T-602)

2. Structural elements in exterior walls required to be of fire-resistance-rated construction shall have fire-resistance rating equal to or greater than that required for an exterior bearing wall. (CBC T-602)

3. Provide details, notes and specifications for the fire protection of building elements as required for the type of construction. (CBC T-601 and CBC 602)

CHAPTER 7 FIRE-RESISTANCE-RATED CONSTRUCTION

H. EXTERIOR WALLS

1. Exterior walls with a fire separation distance of 5’ or less shall be 1-hr fire-resistance rating for exposure to fire from both sides. (CBC 704.5, 602.1, T-602)

2. Exterior wall opening criteria is required for the following fire separation distance: (CBC 704.8, T-704.8 footnote c, g and j)
   a. No openings are permitted with a fire separation distance of 3’ or less.
   b. Max. 25% areas of openings are permitted with a fire separation distance greater than 3’ to 5’.

3. Cornices, eave overhangs, exterior stairways, exterior balconies and similar projections beyond the exterior wall shall not extend beyond (clearly show on elevations/cross section):
   a. A point one-third the distance from an assumed vertical plane located where protected openings are required due to location on property. (CBC 704.2)
   b. More than 12” into areas where openings are prohibited. (CBC 704.2)

4. Projections located where openings are required to be protected shall be non-combustible, heavy timber, or one hour construction. (CBC 704.2)

5. Openings in exterior walls required to have protected openings shall have fire protection rating of (3/4) (1-1/2) hour assemblies. (CBC 704.12, T-715.4, T-715.5)

6. Exterior wall with a fire separation distance of 3’ or less shall be provided with a parapet not less than 30” height above roof (see 704.11 for exception). (CBC 704.11, T-704.8)

7. Parapets shall have the same fire-resistance rating as the wall supporting them. The uppermost 18” of the parapet wall facing the roof shall be of noncombustible face materials. (CBC 704.11.1)

8. When a new building is constructed adjacent to an existing building, an assumed property line shall be places between them such that the existing wall and opening protection requirements for the existing building will be maintained. (CBC 503.1.2, T-508.3.3, T-704.8 and 704.3)

9. The fire resistance rating of exterior walls shall comply with the provisions of CBC 704.5.

10. Fire-resistance-rated exterior wall construction shall be maintained through crawl spaces, floor framing, and attic spaces in accordance with CBC 705.6.

I. INTERIOR WALLS

1. Fire partition is required to separate dwelling units in the same building and shall be a min. 1-hr. fire-resistance rating (or 1/2-hr with automatic sprinkler system in Type IIB, IIIB, or VB construction) extending from top of foundation to underside of roof sheathing. (CBC 708.1, 708.2, 708.3, 708.4)

2. Each townhouse unit shall be considered a separate building per CBC 419.4 and shall comply with the following:
   a. Adjacent townhouse units shall each be provided with a 1-hr. fire-resistance-rated wall assembly separating the units or a common 2-hr. fire-resistance-rated wall (see exception for additional criteria). (CBC 705)
   b. Openings are not permitted.
   c. Penetrations shall comply with CBC 705.9.

3. A ____-hour fire barrier is required between _____ occupancy and the _____ occupancy. (CBC 508.3.3, T-508.3.3 and 706.3.8)

4. Fire partition continuity must be detailed in accordance with CBC 708.4.

5. Penetrations in fire-resistance-rated walls shall comply with CBC 712.3. Through penetrations shall comply with CBC 712.3.1.1 or 712.3.1.2, or as noted below: (CBC 712.3.1)
   a. Steel, ferrous or copper pipes may penetrate fire-resistance rated walls, provided the opening is protected as follows: (CBC 712.3.1 EX.)
      i. Item penetrating concrete or masonry walls is a max. 6” nominal diameter and the area of the opening through the wall does not exceed 144 sq. in., concrete, grout or mortar is permitted where it is installed the full thickness of the wall or the thickness required to maintain the fire-resistance rating; or
      ii. When the annular space is protected with material that meets ASTM E 119.
   b. Penetrations shall be fire-stopped by a system installed as tested in accordance with ASTM E 814 or UL 1479, and shall have an F rating of not less than the required fire-resistance-rating of the wall penetrated. (CBC 712.3.1.2)
   c. Membrane penetrations of max. 2-hr. fire-resistance rated walls by steel electrical boxes are permitted, provided that each does not exceed 16 sq. in. in area and the total area of such openings does not exceed 100 sq. in. for any 100 sq. ft. of wall area, and the space between the wall membrane and the box does not exceed 1/8”. Additionally, outlet boxes on opposite sides of the wall shall be separated by a horizontal distance of not less than 24”. (CBC 712.3.2 EX. 1)
   d. Membrane penetrations by listed electrical boxes of any material are permitted, provided such boxes have been tested for use in fire-resistance-rated assemblies, and the space between the wall membrane and the box does not exceed 1/8” unless listed otherwise. Additionally, outlet boxes on opposite sides of the wall shall be separated by a horizontal distance of not less than 24”. (CBC 712.3.2 EX. 2)
   e. A fire sprinkler shall be permitted to be unprotected provided such space is covered by a metal escutcheon plate. (CBC 712.3.2 EX. 3)
   f. Where walls are penetrated by other materials or openings larger than those mentioned above, they must be qualified by tests in accordance with CBC 703.2.

6. Joints installed in or between fire-resistance-rated walls, floor or floor/ceiling assemblies and roofs or roof/ceiling assemblies shall be protected an approved fire-resistant joint system with a fire-resistance rating not less than that of the assembly in which it is installed. Provide details. (CBC 713.1)

7. Fireblocking shall be installed in combustible concealed locations in accordance with CBC 717.2 in the following locations: (Provide Details)
   a. In concealed spaces of stud walls and partitions, including furred spaces and parallel rows of studs or staggered studs, as follows:
      i. Vertically at the ceiling and floor levels.
      ii. Horizontally at intervals not exceeding 10’.
   b. At all interconnections between concealed vertical stud wall or partition spaces and concealed horizontal spaces created by an assembly of floor joists or trusses, and between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings, cove ceilings and similar locations. (CBC 717.2.3)
   c. In concealed spaces between stair stringers at the top and bottom of the run. Enclosed spaces under stairs shall also comply with CBC 1009.5.3.
   d. Where annular space protection is provided in accordance with CBC 707.2 EX. 6, CBC 712.4.1.2 EX. 1, or CBC 712.4.2, fireblocking

shall be installed at openings around vents, pipes, ducts, chimneys and fireplaces with an approved material to resist the free passage of flame and the products of combustion. (CBC 717.2.5)

8. Draftstopping shall be installed in combustible concealed locations in accordance with CBC 717.3 and 717.4, respectively, at the following locations: (Provide Details)
   a. In floor-ceiling assembly and located above and in line with the dwelling unit separation in duplexes not equipped with an automatic sprinkler system. (CBC 717.3.2)
   b. In attics and concealed roof spaces such that any horizontal area does not exceed 3,000 sq. ft. in dwelling not equipped with an automatic sprinkler system. (CBC 717.4.3)
   c. Show draft-stop construction on the plans. Draftstopping materials shall not be less than 1/2" gypsum board, 3/8" wood structural panel, 3/8" particleboard, 1" nominal lumber, cement fiberboard, batts or blankets of mineral wool or glass fiber, or other approved materials adequately supported. (CBC 717.3.1)
   d. Openings in the partitions shall be protected by self-closing doors with automatic latches constructed as required for the partitions. (CBC 717.4.1.1)

CHAPTER 8 INTERIOR FINISHES

J. INTERIOR FINISHES

1. Where finish materials are applied on walls, ceilings or structural elements required to have a fire-resistance rating or to be of noncombustible construction, they shall comply with the requirements of CBC 803.4.

2. Note on plans or finish schedule: "Wall, floor and ceiling shall not exceed the flame spread classifications in CBC T-803.5."

3. Interior floor finish and floor covering materials shall comply with CBC 804.2 through 804.4.1.

CHAPTER 9 FIRE PROTECTION SYSTEMS

K. SMOKE ALARM

1. Smoke alarms (i.e., smoke detectors) shall be installed and maintained at all of the following locations: (CBC 907.2.10.1.2)
   a. In each room used for sleeping purposes.
   b. On the ceiling or wall outside immediate vicinity of sleeping room.
   c. In each story, basement or split level within a dwelling unit.
   d. In enclosed common stairwells of two or more dwelling units.

2. A permit for alterations, repairs, or additions, exceeding $1,000, shall require the installation of smoke detectors. (CBC 907.2.10.5.2, HSC 13113.7)

3. In new construction, smoke alarms (i.e., smoke detectors) shall receive their primary power source from the building wiring and shall be equipped with battery backup and low battery signal. In existing construction, smoke alarms (i.e., smoke detectors) may be battery operated. (CBC 907.2.10.1.3, 908.2.10.5.2)

4. Where more than one smoke alarm is required to be installed, it shall be interconnected in such a manner so that the activation of one alarm will activate all of the alarms. (CBC 907.2.10.3)

CHAPTER 10 MEANS OF EGRESS

L. DOORS

1. For one and two family dwellings and townhouses, means of egress is not allowed to pass through garages. (CBC 1014.2 EX. 5)

2. Means of egress doors shall be detailed as follows:
   a. Min. 32" (max. 48") clear opening width of exit doorway. For swinging door, clear width is measured between the face of the door and the stop, with the door open 90 degrees. For non-swinging door, the clear width is to be measured from the face of the doorjamb. (CBC 1008.1.1)
   b. Min. height of 80" for exterior exit doorway, 78" for interior doorway, and 76" for all other exterior doorway. (CBC 1008.1.1)
   c. Exterior egress door shall be side-hinged swinging. (CBC 1008.1.2)
   d. Max. 0.75" threshold height at sliding doors and max. 0.5" for other doors. (CBC 1008.1.4)
   e. Min. width of landing at door shall not be less than width of stairway or door. (CBC 1008.1.5)
   f. Min. 36" length of landing at door measured in the direction of travel. (CBC 1008.1.5)
   g. Max. 7.75" below the top of the threshold height of an exterior doorway not part of a required means of egress provided the door, other than storm or screen doors, does not swing over the landing. (CBC 1008.1.4, 1008.1.6)

3. Egress doors shall be readily openable from the egress side without the use of a key or special knowledge. (CBC 1008.1.8)

4. Door handles, pulls, latches, locks and other operating devices shall be a min. 34” to max. 48” height above the floor. (CBC 1008.1.8.2)

5. Manually operated flush bolts or surface bolts are not permitted on doors required for egress. (CBC 1008.1.8.4)

6. Locks and latches shall not be permitted to prevent operation of doors where: (CBC 1008.1.8.3)
   a. Door serve dwelling unit with an occupant load greater than 10.
   b. Single egress doors use automatic flush bolts.

7. Any door or window that permits direct access from the residence to the pool area shall be equipped with an exit alarm that make audible, continuous alarm sounds when open or left ajar. Doors shall be self-closing with exit alarm device located a min. 54” above the floor. (CBC 3109.4.4.2)

M. STAIRWAYS

1. Straight run stairways shall be detailed as follows:
   a. Max 7.75” and min. 4” rise height. (CBC 1009.3)
   b. Min. 10” tread depth. (CBC 1009.3)
   c. Min. 36” clear width. (CBC 1009.1)
   d. Min. 6’-8” vertical headroom measured vertically from a line connecting the edge of the nosing. (CBC 1009.2)
   e. Provide details and notes showing framing (stringer) size, bracing, connections, footings.

2. Curved stairways shall have a min. 6” tread depth with a min. 10” tread depth measured at right angle to the tread’s leading edge at a point 12” from the side where the treads are narrower. (CBC 1009.3, 1009.7)

3. Submit shop drawings for spiral stairway showing compliance with CBC 1009.8. 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.

4. Stair treads and risers shall be detailed as follows:
   a. The tolerance between the largest and smallest riser height or tread depth shall not exceed 0.375” in any flight of stair. (CBC 1009.3.2)
   b. The radius of curvature at the leading edge of the tread or beveling of nosing shall not exceed 0.5”. (CBC 1009.3.3)
   c. Risers shall be vertical or sloped a max. 30 degrees from the vertical. (CBC 1009.3.3)
   d. Leading edge of tread shall not project more than 1.25” beyond tread below. (CBC 1009.3.3)
   e. Opening between treads shall not permit the passage of a 4” diameter sphere. (CBC 1009.3.3)

5. Stairway landings shall be detailed as follows: (CBC 1009.4)
   a. Landing at stairway shall have a min. length measured in the direction of travel equal to the width of the stairway.
   b. Floor or landing shall be at top and bottom of each stairway. (Landing is not required at the top of an interior flight of stair, including stair in an enclosed garage, provided door does not swing over the stair.)
   c. Doors opening onto a landing shall not reduce the landing to 1/2 the required width.
   d. Max. 7” projection of fully opened door onto a landing.

6. Walls and soffits within enclosed useable space under stairways shall be protected as follows: (CBC 1009.5.3)
   a. Interior stairs requires 0.5” gypsum board on the enclosed side.
   b. Exterior stairs shall be enclosed in 1-hr fire-resistance-rated construction.
   c. Open space under exterior stairs shall not be used for any purpose.

7. The walking surface of treads and landings shall not be sloped steeper than 2% (1:48) in any direction. (CBC 1009.5.1)

8. A flight of stair shall have a max. 12’ vertical rise between floor levels or landings. (CBC 1009.6)

N. OTHER COMPONENTS

1. Handrails shall be detailed as follows:
   a. Continuous handrail is required when 4 or more treads are provided. (CBC 1009.10)
   b. Min. 34" to max. 38" high above the stair tread nosing. (CBC 1012.2)
   c. Min. 1.25” to max. 2” 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. Handrail shall be continuous without interruption (except by newel post). (CBC 1012.4)
g. 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)
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. Exit access travel distance, including travel down an open exit stairway, shall not exceed 200’ (250’ with sprinkler system). (CBC 1016.1)

4. Ramp slopes shall not exceed the following:
   a. Max. 1’ in 12’ (8%) if part of egress. (CBC 1010.2)
   b. Max. 1’ in 8’ (12.5%) for all others. (CBC 1010.2)
   c. Max. 1’ in 48’ (2%) for cross slope. (CBC 1010.3)
   d. Max. 30” vertical rise. (CBC1010.4)

5. Provide emergency escape and rescue from sleeping rooms. 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 1026)

6. 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 1026.5)

CHAPTER 12 INTERIOR ENVIRONMENT

O. 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)

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 1203.4.1, 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 1203.4.1.1)

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 1203.4.2.1, 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 20 sq. ft., whichever is greater. (CBC 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 20 sq. ft. (CBC 1203.4.1.1 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 1203.4.1.2)

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 1210.1)

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)

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 1210.3. 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 1210.4)

18. 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)

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

20. 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)

P. ATTIC AND UNDERFLOOR VENTILATION

1. 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-in. min. and 1/4” max. opening.

e. A min. of 1" airspace shall be provided between insulation and roof sheathing.

2. 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)

3. Under-floor vents shall meet the following requirements: (CBC 1203.3)
   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.

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

5. 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)

Q. SOUND TRANSMISSION

1. Sound transmission control in duplexes shall be provided as follows:
   a. Wall and floor-ceiling assemblies separating dwelling units from each other and from public or service areas such as interior corridors shall provide airborne sound insulation for walls and both airborne and impact sound insulation for floor-ceiling assemblies equal to that required to meet a sound transmission class (STC) of 50 (45 if field tested). (CBC 1207.6.1, 1207.7)
   b. Entrance doors to residential units from interior corridors shall have a min. STC rating of 26 or may be solid-core wood-slab doors 1-3/8" thick or 18 gauge insulated steel-slab doors with compression seals all around, including threshold. (CBC 1207.7)
   c. Penetrations or openings in acoustically rated wall and floor-ceiling assemblies for piping, electrical devices, recessed cabinets, bathtubs, soffits or heating, ventilating or exhaust ducts shall be sealed, lined, insulated or otherwise treated to maintain the required ratings. (CBC 1207.7)

2. Identify all sound rated partitions on the floor plans.

3. Provide construction details for the following:
   a. Sound rated wall assemblies.
   b. Sound rated floor-ceiling assemblies.

CHAPTER 14 EXTERIOR WALLS

R. EXTERIOR WALLS

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

2. In R-3 occupancy, window sill of openable windows more than 72" above finished grade or other surface below shall not be less than 24" from finished floor of the room it is located in. (CBC 1405.12.2)

CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

S. 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. Min. roof covering for Type VB construction shall be class C roof assembly or better. (CBC 1505.1 & 1505.4)

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.

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 shall be provided as follows:
   a. Min. 2% (0.25:12) for built-up roofs. (CBC 1507.10.1)
   b. Min. 8% (1:12) for mineral-surfaced roll roofing. (CBC 1507.6.2)
   c. Min. 17% (2:12) for asphalt shingles. (CBC 1507.2.2)

d. Min. 21% (2.5:12) for clay and concrete tiles. (CBC 1507.3.2)
e. Min. 25% (3:12) for metal or wood shingles. (CBC 1507.5.2, 1507.8.2)
f. Min. 33% (4:12) for slate shingles and wood shakes. (CBC 1507.7.2, 1507.9.2)

7. 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.

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

CHAPTER 21 MASONRY

T. CHIMNEY

1. Chimney shall extend a min. 2' above any portion of the building within 10', but not less than 3' above the roof. (CBC 2113.9)

2. Chimneys shall be equipped with an approved spark arrestor. (CBC 2113.9.1)

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. Glass skylights shall comply with CBC 2405. Plastic skylights shall comply with CBC 2610.

CHAPTER 25 GYPSUM BOARD AND PLASTER

W. 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.

X. ADDITIONAL WRITTEN COMMENTS

No.	Comment	Code Sec. No.