



PERMIT NO.: K20200XXXX

DESCRIPTION:
ADDRESS:

OWNER:
DESIGNER:

DATE: **01/01/2020**
OCCUPANCY:
TYPE OF CONST.:
REVIEW NO.:

PLAN CHECK HOURS:

8:00 a.m. – 10:00 a.m. & 3:00 p.m. – 5:00 p.m.
MONDAY – FRIDAY

Plans have been checked in accordance with the 2019 California Building Code (CBC), the 2019 CalGreen Code, and the Kern County Code of Building Regulations (KCCBR).

To facilitate rechecking, please identify next to each listed item below, the sheet of the plans upon which the corrections have been made. It is the applicant's responsibility to assemble and provide a complete set of plans for final approval.

The approval of plans and specifications does not permit the violation of any section of the Building Code or other County Ordinance or State law. The following list does not necessarily include all errors and omissions.

***Note: Additional time and material fees will apply after third plan review.**

APPROVALS

Before plans can be issued, please obtain approval from the following departments. To check the status of these reviews, please use the [Citizen Portal](#), status can be found in the 'Processing Status' section of your permit.

- Plumbing, Mechanical, and Electrical (PME) review. Please see the letter dated 01/01/2019 for PME comments.
- Fire Department. Please see the letter dated 01/01/2019 for Fire comments.
- Environmental Health (EH). Please see the letter dated 01/01/2019 for EH comments.
- Flood Department. Please see the letter dated 01/01/2019 for Flood comments.
- Drainage Department. Please see the letter dated 01/01/2019 for Drainage comments.
- Planning and Natural Resources Department (PLNR). Please see the letter dated 01/01/2019 for PLNR comments.
- Kern Sanitation Authority/County Service Area (KSA/CSA). Please see the letter dated 01/01/2019 for KSA/CSA comments.
- A food service type of occupancy requires approval from the County Environmental Health Department, which must be submitted before a building permit will be issued. Call 661-862-8700 for their plan check processing requirements.
- Note on the plans that a Cal/OSHA permit is required for elevators or wheelchair lifts. This may be obtained from the State Division of Occupational Safety & Health – Cal/OSHA Elevator Unit.

GENERAL PLAN REQUIREMENTS

1. Plans were resubmitted but no response sheet was attached. Plans will not be checked unless corrections or changes have been identified. A copy of the original correction list has been attached for your convenience.
2. Plans and related documents, as submitted, are not complete. Additional reviewing time may be necessary upon re-submittal. Additional information and comments may be added to supplement this list.
3. All sheets of plans and first page of calculations are required to be stamped and signed by a California Registered Design Professional.
4. Valuation should be \$XXX (due to type of construction, total area, sprinkler system, etc...). Additional building and plan review fee is required prior to permit issuance.
5. Sheets are too light/dark and hard to check or scan. Please resubmit legible plans.
6. Show on the title page of the drawings:
 - a. Job address and name of owner
 - b. Name, address, and wet signature of the person responsible for preparing the plans.
 - c. Legal description, APN, or physical address of site.
 - d. New, existing, converted, and remodeled floor area.
7. Submit full dimensioned plot plan including:
 - a. Clear width of front, rear, and side yards measured from property line to building face.
 - b. North arrow, centerline of the street, street name, and building address.
 - c. Show all easements.
 - d. Show grades around the building or structure (except minor permits)
 - e. Show finished first floor elevations of all areas.
8. Submit soils report as required per CBC Sections 1803.5.11 and 1803.5.12. All relevant recommendations from the soils report shall be shown on the plans. The soils report must include the following potential geologic and seismic hazards:
 - a. Slope instability
 - b. Liquefaction potential and mitigation measures if necessary
 - c. Total and differential settlement
 - d. Surface displacement due to faulting or seismically induced lateral spreading or lateral flow
 - e. Determination of dynamic seismic lateral earth pressures on foundation walls and retaining walls supporting more than 6 feet of backfill height due to design earthquake ground motions.
 - f. Peak ground accelerations in accordance with ASCE 7-16 Chapter 21 or Section 11.8.3.Please see Building Bulletin 16-01 for exceptions.
9. Obtain a grading permit. The following work is exempt from a grading permit, all other work requires a grading permit:
 - a. Building site excavation which:
 - i. Is less than 2 feet in depth; and
 - ii. Does not create a cut slope grader than 5 feet in height and steeper than 1½ horizontal to 1 vertical.
 - b. A fill not intended to support structures and which
 - i. Does not obstruct a drainage course; and
 - ii. Fill is to be placed on natural grade that has a slope flatter than 5 horizontal to 1 vertical; and
 - iii. Is less than 3 feet in depth, and does not exceed 50 cubic yards on any single lot.
10. Unless identified and approved as a deferred submittal, submit truss drawings, layout plan, and calculations, wet stamped and signed by an RDP and reviewed and accepted by the Project RDP. If not deferred, the documents must be submitted, reviewed and approved prior to permit issuance. To avoid delay in plan check, submit calculations and drawings at first submittal.

11. Provide section(s) through the construction to identify all framing members, exterior and interior finish, ceiling heights and construction details.
12. Please add the following note for deferred submittals on the title sheet:

“Documents for deferred submittal items shall be submitted to the registered design professional in responsible charge who shall review them and forward them to the building official with a notation indicating that the deferred submittal documents have been reviewed and found to be in general conformance to the design of the building. The deferred submittal items shall not be installed until the deferred submittal documents have been approved by the building official.”

GENERAL BUILDING HEIGHTS AND AREAS

1. Provide a Building Code Analysis on the **title sheet**. Include the following code information for each building proposed:
 - a. Description of use
 - b. Occupancy group and division per CBC Chapter 3
 - c. Type of construction per CBC Section 602 and Table 601
 - d. Sprinklers
 - e. **Proposed** floor area, height, and number of stories
 - f. **Allowable** floor area, height, and number of stories per CBC Sections 506 and 504
 - g. If the building is mixed occupancy, indicate whether the occupancies are accessory, nonseparated, or separated, per CBC Section 508.2, 508.3, or 508.4.
 - h. For buildings with mixed occupancies, the allowable area per story shall be based on the most restrictive provisions for each of the occupancies when the mixed occupancies are treated according to CBC Section 508.3 (nonseparated). If treated per Section 508.4 (separated) the maximum total building area shall be such that the sum of the ratios of the actual area divided by the allowable area of all occupancies does not exceed 1.
 - i. Unless considered a separate story, the floor area of a mezzanine shall be considered a part of the story in which it is located per CBC Section 505.2. Per Section 505.2.3, a mezzanine shall be open and unobstructed to the room in which such mezzanine is located except for wall not more than 42 inches in height. See exceptions for cases in which mezzanines need not be open.
 - j. If a multistory building, verify the proposed occupancy is allowed on the upper stories based on the type of construction.
 - k. Per CBC Table 601, if the type of construction requires fire-resistance rated assemblies, clearly identify the rating for each of the building elements AND specify the listed fire assembly reference number.
2. Per CBC Section 602.2, in Type I and II construction all building elements listed in Table 601 shall be of noncombustible materials. The inclusion of interior wood framed walls violates this requirement and as such, this building or structure should be classified as Type III or Type V construction. Please address.
3. The PLNR Department has requested the following note be added to plans:

“This building shall not be used for any cannabis cultivation or any other activity related to cannabis as such activities are currently banned in Kern County. If cannabis ordinances are adopted making it legal, such activities shall not commence until 1) a land use permit from the Department of Planning and Natural Resources is obtained and 2) a building permit from the Public Works Department is obtained and 3) any other permits/approvals deemed necessary are obtained and the facility is in full compliance with all requirements.”

SPECIAL INSPECTION REQUIREMENTS

1. Special inspections are not required for the following items:
 - a. Construction of a minor nature
 - b. Group U accessory to a residential occupancy
 - c. Portions of structures designed and constructed in accordance with prescriptive steel light-frame construction and/or prescriptive wood light-frame construction.

2. Provide a Statement of Special Inspections that identifies an accurate and complete listing of required special inspections pursuant to CBC Sections 1704.3 and 1705. The statement should appear in a prominent position on the **cover sheet of the plans**. Alternatively, provide a clear note in a prominent position of the cover sheet that states what sheet of the plans the Statement of Special Inspections specific to this project may be found.

The statement of special inspections shall identify the following:

- a. The materials, systems, components, and work required to have special inspection or testing.
 - b. The type and extent of each special inspection or test.
 - c. Additional requirements for seismic or wind resistance per Sections 1705.11, 1705.12, and 1705.13.
 - d. For each type of special inspections, identification as to whether it will be continuous or periodic.
3. Per CBC Section 1704.6.1, structural observations shall be provided for those structures where one or more of the following conditions exist:
 - a. The structure is classified as Risk Category IV.
 - b. The structure is a high-rise building
 - c. When so designated by the registered design professional.
 - d. As specifically required by the building official.
 4. Per CBC Section 1704.6.2, structural observations for seismic resistance shall be provided for structures assigned to Seismic Design Category D, E or F where one or more of the following conditions exist:
 - a. The structure is classified as Risk Category III or IV
 - b. The structure is assigned to Seismic Design Category E, is classified as Risk Category I or II, and is greater than two stories above the grade plane.
 5. Per CBC Section 1704.6.3 Structural observations for wind resistance shall be provided for structures sited where V is 130 mph or greater and the structure is classified as Risk Category III or IV.
 6. Special inspection for structural steel shall be in accordance with the quality assurance inspection requirements of AISC 360.
 7. If the shop is to be considered an approved steel fabricator per CBC Section 1704.2.5, provide approval from a certified independent testing agency.
 8. Provide notes to require special inspections for high-strength field bolting per AISC 360 Tables N5.6-1, N5.6-2, and N5.6-3 and AISC 341 Tables J7-1, J7-2, and J7-3.
 9. Per CBC Section 1705.2.2, special inspection for welded steel decks shall be in accordance with SDI QA/QC.
 10. Special inspection of open-web steel joists and joist girders shall be in accordance with CBC Table 1705.2.3.
 11. Per CBC Section 1705.2.4, where a cold-formed steel truss clear span is 60 feet or greater, the special inspector shall verify that the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the approved truss submittal package.
 12. Special inspections and verifications for concrete construction shall be as required by Table 1705.3.

Exceptions:

 - a. Isolated spread concrete footings of buildings three stories or less above grade plane.
 - b. Continuous concrete footings supporting walls of buildings three stories or less above grade plane where:
 - i. The footings support walls or light-frame construction;
 - ii. The footings are design in accordance with Table 1809.7; or
 - iii. The structural design of the footing is based on a specified compressive strength, f'_c , no greater than 2,500 psi.
 - c. Nonstructural concrete slabs supported directly on grade.
 - d. Flatwork.
 13. Per CBC Section 1705.4, masonry construction shall be inspected and verified in accordance with TMS 402 and TMS 602 quality assurance program requirements.
 14. Per CBC Section 1705.5.1, high-load diaphragms (multiple rows of fasteners) require special inspection.

15. Per CBC Section 1705.5.2 For metal-plate connected wood trusses; special inspections of wood trusses with overall heights of 60 inches or greater shall be performed to verify that the installation of the permanent individual truss member restraint/bracing has been installed in accordance with the truss submittal package.
16. Per CBC Section 1705.5.2, where a truss clear span is 60 feet or greater the special inspector shall verify that the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the approved truss submittal package.
17. Special inspection for existing site soil conditions, fill placement, and load-bearing requirements shall be as required by Table 1705.6.
18. Special inspection and tests shall be performed during installation of driven deep foundations shall be in accordance with Table 1705.7.
 - a. For driven foundations supporting nonbuilding structures, that do not exceed 8 feet in depth; periodic inspection may be provided unless otherwise required by the Registered Design Professional or the geotechnical report per KCCBR item 17.08.465.
19. Special inspections shall be performed during installation and testing of cast-in-place deep foundation elements as required by Table 1705.8.
20. Per CBC Section 1705.9, special inspections shall be performed continuously during installation of helical pile foundations. The information required shall include installation equipment used, pile dimensions, tip elevations, final depth, final installation torque, and other pertinent installation data as required by the RDP in responsible charge.
21. Per CBC Section 1705.12, the following special inspections are required for all structures in Kern County due to seismicity.
 - a. Special inspection for structural steel shall be in accordance with the quality assurance requirements of AISC 341 per Section 1705.12.1.
 - b. Continuous special inspections is required during field gluing operations of elements of the seismic force resisting system per Section 1705.12.2.
 - c. Periodic special inspection is required for wood nailing, bolting, anchoring, and other fastening of components within the seismic force resisting system, including wood shear walls, wood diaphragms, drag struts, braces, shear panels, and hold-downs per Section 1705.12.2. **(Not required where nailing is greater than 4" on center)**
 - d. Periodic special inspection is required for cold-formed steel light-frame construction during welding operations of elements of the seismic force resisting system per Section 1705.12.3.
 - e. Periodic special inspection is required for screw attachment, bolting, anchoring, and other fastening of components within the seismic force resisting system, including shear walls, braces, diaphragms, collectors, and hold-downs per Section 1705.12.3. **(Not required where sheathing is gypsum board or fiberboard. Not required where nailing is more than 4" on center)**
 - f. Periodic special inspection is required during the erection and fastening of exterior cladding, interior and exterior nonbearing walls, and interior and exterior veneer per Section 1705.12.5. Special inspection is not required where one of the following is true:
 - i. Exterior cladding, interior and exterior nonbearing walls, and interior and exterior veneer is 30 feet or less in height above grade.
 - ii. Exterior cladding and interior and exterior veneer weighs 5 psf or less.
 - iii. Interior nonbearing walls weight 15 psf or less.
 - g. Periodic special inspection is required during the anchorage of electrical equipment for emergency or standby power systems per Section 1705.12.6 item #1.
 - h. Periodic special inspection is required during the anchorage of other electrical equipment in structures assigned to SDC E or F per Section 1705.12.6 item #2.
 - i. Periodic special inspection is required during the installation and anchorage of piping systems design to carry hazardous materials and their associated mechanical units per Section 1705.12.6 item #3.
 - j. Periodic special inspection is required during the installation and anchorage of ductwork designs to carry hazardous materials per Section 1705.12.6 item #4.

- k. Periodic special inspection is required during the installation and anchorage of vibration isolation systems per Section 1705.12.6 item #5.
 - l. Periodic special inspection is required during the installation of mechanical and electrical equipment and their supports where fire sprinkler systems are installed per Section 1705.12.6 item #6.
 - m. Periodic special inspection is required during the anchorage of storage racks 8 feet or greater in height per Section 1705.12.7.
22. Per CBC Section 1705.14, the following special inspections are required for sprayed fire-resistant materials applied to the floor, roof, and wall assemblies and structural members:
 - a. Condition of substrates
 - b. Thickness of application
 - c. Density in pounds per cubic foot
 - d. Bond strength adhesion/cohesion
 - e. Condition of finished application
 23. Per CBC Section 1705.15, special inspections for mastic and intumescent fire-resistant coatings applied to structural elements and decks. Shall be in accordance with AWCI 12-B.
 24. EIFS shall have special inspections per CBC Section 1705.16.
 25. Per CBC Section 1705.17, in high-rise building or in buildings assigned to Risk Category III or IV in accordance with Section 1604.5, special inspections for through-penetrations, membrane penetration firestops, fire-resistant joint systems, and perimeter fire barrier systems that are tested and listed in accordance with Section 714.3.1.2, 714.4.2, 715.3, and 715.4 shall be in accordance with Section 1705.17.1 or 1705.17.2.
 26. Per CBC Section 1705.18, smoke control systems shall be tested by a special inspector.
 27. Please provide completed "Applicant's Acknowledgement of Special Inspections" OR "Contractor's Statement of Responsibility – Special Inspections". These forms can be found on the County Public Works Website.

SITE PLAN REQUIREMENTS

1. Dimension distances from building(s) to all property lines, street center lines, and adjacent existing or proposed structures on the site.
2. Show the size, use, occupancy, and type of construction of all existing buildings on the site.
3. Show all interior assumed lot lines, any designated flood plains, easements or development restricted areas.
4. Delineate all projecting elements, and show distance to property line or adjacent structures.
5. Identify location and rating of Fire Walls used to create separate buildings in accordance with CBC Section 706.1.

FLOOR PLAN REQUIREMENTS

1. Specify uses of all rooms or areas.
2. Clearly identify all Fire Walls, Fire Barriers, Fire Partitions, Fire Areas, and all fire-resistance rated elements.
3. Provide a note on the plans indicating if any hazardous materials will be stored and/or used within the building, which will exceed the quantities listed in CBC Tables 307.1(1) and 307.1(2).
4. Provide separate floor plans identifying hazardous material quantities, types and locations prepared by a qualified person in accordance with CBC Section 414.1.3.
5. The percentage of maximum allowable quantities of hazardous materials per control area for each floor and the total number of control areas shall comply with CBC Table 414.2.2.

SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

1. Covered Mall and Open Mall Buildings shall conform to CBC Section 402.
2. High-Rise Buildings and Group I-2 Occupancies having occupied floors located more than 75 feet above the lowest level of Fire Department vehicle access shall conform to CBC Section 403.
3. Atriums shall conform to CBC Section 404.
4. Underground buildings shall conform to CBC Section 405.

5. Motor-vehicle-related occupancies shall conform to CBC Section 406.
6. Group I-2 structures shall conform to CBC Section 407.
7. Group I-3 structures shall conform to CBC Section 408.
8. Motion picture projection rooms shall conform to CBC Section 409.
9. Stages, platforms, and technical production areas shall conform to CBC Section 410.
10. Special amusement buildings shall conform to CBC Section 411.
11. Aircraft-related occupancies shall conform to CBC Section 412.
12. Combustible Storage shall conform to CBC Section 413.
13. Hazardous Materials shall conform to CBC Section 414.
14. Groups H-1, H-2, H-3, H-4, and H-5 shall conform to CBC Section 415.
15. Application of flammable finishes shall conform to CBC Section 416.
16. Drying rooms shall conform to CBC Section 417.
17. Organic coatings shall conform to CBC Section 418.
18. Live/work units shall conform to CBC Section 419.
19. Groups R-1, R-2, R-2.1, R-3, R-3.1, and R-4 shall conform to CBC Section 420.
20. Hydrogen Fuel Gas Rooms shall conform to CBC Section 421.
21. Ambulatory Care Facilities shall conform to CBC Section 422.
22. Storm Shelters shall conform to CBC Section 423.
23. Children's Play Structures shall conform to CBC Section 424.
24. Hyperbaric Facilities shall conform to CBC Section 425.
25. Combustible dusts, grain processing, and storage shall conform to CBC Section 426.
26. Special provisions for licensed 24-hour care facilities in a Group R-2.1, R-3.1, and R-4 occupancy shall conform to CBC Section 435.
27. Group I-4 shall conform to CBC Section 436.
28. Road tunnels, bridges, and other limited-access highways shall conform to CBC Section 439.
29. Horse racing stables shall conform to CBC Section 440.
30. Pet Kennels shall conform to CBC Section 441.
31. Combustion engines and gas turbines shall conform to CBC Section 442.
32. Fixed guideway transit systems shall conform to CBC Section 443.
33. Winery Caves shall conform to CBC Section 446.
34. Public Libraries shall conform to CBC Section 449.
35. Group C shall conform to CBC Section 450.
36. School facilities for kindergarten through 12th grade and Group E day care shall conform to CBC Section 452.
37. Group L shall conform to CBC Section 453.
38. Large family day-care homes shall conform to CBC Section 455.

EXTERIOR WALL REQUIREMENTS

1. Exterior walls less than ___ feet to the property line or assumed property line shall be fire-resistance rated with opening protection per CBC Table 602. Specify the listed fire assembly reference number. Per CBC Section 705.5, if the fire separation distance is 10 feet or less, the assembly shall be rated for exposure to fire from both sides.
2. The maximum area of protected and unprotected openings on exteriors shall be in accordance with CBC Table 705.8.

3. Where protected and unprotected openings occur in the exterior wall in any story, the total area shall comply with the unity formula (Equation 7-2) in CBC 705.8.4.
4. Per CBC Section 707.5, Fire Barriers shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above and shall be securely attached thereto. Such fire barriers shall be continuous through concealed space, such as the space above a suspended ceiling. Where openings occur in a Fire Barrier, they shall comply with Section 707.6. **Joints and voids at intersections shall comply with Sections 707.8 and 707.9**
5. Fire resistance-rated exterior walls shall have parapets per CBC Section 705.11. See exceptions.
6. Projections shall be in accordance with CBC Section 705.2. Projections are not permitted within 24 inches of the property line.
7. Per CBC Section 705.3, when two or more buildings are on the same property and they are not analyzed to comply as one building, the building shall have an assumed property line between them for determining wall and opening protection, and roof cover requirements or treated as a single building. Where a new building is to be erected
8. Per CBC Section 503.1.2, when a new building is constructed adjacent to an existing building, show that the wall and opening protection requirements for the existing building will be maintained in accordance with Table 508.4 and Table 705.8.
9. Structural elements in exterior walls required to be fire-resistive construction in accordance with CBC Table 602 shall have fire resistive protection equal to or greater than that required for an exterior bearing wall.

FIRE RESISTANCE-RATED CONSTRUCTION REQUIREMENTS

1. Clearly label and identify on plans fire-resistive corridors, exit enclosures, exit passageways, horizontal exits, occupancy separation walls and floors, fire resistive shafts, fire barriers, fire partitions, fire walls, and all other fire resistant rated elements, along with their fire-resistive ratings. Indicate listed fire assembly reference numbers.
2. Provide fire separation for incidental use area in accordance with CBC Section 509.4 and Table 509. Construction supporting 1-hour fire barriers or horizontal assemblies used for incidental use separations in buildings of Type IIB, IIIB, and VB construction is not required to be fire-resistance rated unless required by another section of the code.
3. In fire-resistive walls, identify protection requirements of all openings per CBC Section 716.
4. In fire-resistive walls, detail through penetrations and membrane penetrations per CBC Section 714.
5. In fire-resistive floors and ceilings, detail fire resistive penetrations per CBC Section 714.4.
6. Provide fire-resistant joint systems per CBC Section 715.
7. Ducts and air transfer openings must comply with CBC Section 717.
8. Draftstop floors per CBC Section 718.3.
9. Draftstop attic spaces per CBC Section 718.4

FIRE PARTITION & FIRE BARRIER REQUIREMENTS

1. Provide a Fire Partition in accordance with CBC Section 708.1 for:
 - a. Walls separating dwelling units in the same building as required by Section 420.2
 - b. Walls separating sleeping units in the same building as required by Section 420.2
 - c. Walls between mall tenant spaces as required by Section 402.4.2.1
 - d. Corridor walls as required by Section 1020.1
 - e. Elevator lobby separation as required by Section 3006.2
 - f. Egress balconies as required by Section 1021.2
2. Ducts penetrating Fire Partitions must comply with CBC Section 717.
3. Fire Partition continuity shall comply with CBC Section 708.4.
4. Per CBC Section 717.5.2, ducts and air transfer opening in Fire Barriers shall be protected with approved fire dampers installed in accordance with their listing. Ducts and air transfer openings shall not penetrate

enclosures for stairways, ramps, and exit passageways except as permitted by Section 1023.5 and 1024.6, respectively.

ROOF ASSEMBLY REQUIREMENTS

1. Aggregate roofs shall meet the mean roof height limitations of CBC Table 1504.8.
2. A class ___ roof covering is required per CBC Section 1505 and Table 1505.1.
3. For roof covering, specify the following per CBC Section 1505.1:
 - a. Manufacturer and ICC/UL/SFM number
 - b. Roof slope(s) of all areas on the roof plan.
 - c. Note on Plans: "Installation of roofing shall be in accordance with manufacturer's specifications."
4. Per CBC Section 1507, the roof slope is not adequate for type of roof covering specified. Please address.
5. Show sizes/locations of the roof/deck drains and overflows per CBC Section 1502.2 and Plumbing Code Section 1101.12.
6. Specify minimum 1/4 inch per foot roof slope for drainage along flow lines or design to support accumulated water per CBC Section 1611.3.
7. Specify approved weatherproof walking surface material at decks and balconies.
8. Provide specifications for roofing material and application in accordance with CBC Section 1507.
9. Roof drainage shall not flow over public property, or adjacent properties.
10. Per CBC Section 1208.1, crawl spaces shall be provided with no less than one access opening which shall be not less than 18 inches by 24 inches.
11. Per CBC Section 1208.2, an opening not less than 20 inches by 30 inches with clear headroom of not less than 30 inches shall be provided to the attic space.
12. Provide and detail access to equipment on roof.
13. Per CBC Section 1202.2.1, enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof framing members shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain and snow. A minimum of 1 inch of airspace shall be provided between the insulation and the roof sheathing.

The net free ventilating area shall not be less than 1/150th of the area of the space ventilated.

The net free ventilating area shall be permitted to be reduced to 1/300th of the area of the space ventilated, provided:

 - a. At least 40% and not more than 50% of the required ventilating area provided by ventilators located in the upper portion of the space to be ventilated not less than 3 feet below the ridge with the balance of the require ventilation provided by eave or cornice vents; or
 - b. In Climate Zones 14 and 16, a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.
14. Draft stop attics and mansards per CBC Section 718.4.
15. Provide smoke and heat venting in F-1 or S-1 occupancies with undivided floor areas greater than 50,000 square feet in accordance with CBC Sections 910.2 and 910.2.1 with exceptions. Skylights do not meet vent standards unless specifically tested and labeled.
16. Provide detail of skylights to show compliance with CBC Sections 2606 and 2610, or show on plans ICC or other approval number.
17. Per CBC Section 2610.6, plastic skylights shall be separated from each other by not less than 4 feet. (see exceptions)
18. Per CBC Section 2610.7, where exterior wall openings are required to be protected in accordance with Section 705, a skylight shall not be installed within 6 feet of such exterior wall.

INTERIOR REQUIREMENTS

1. Detail furred or dropped finishes at fire resistive walls or ceilings as required by CBC Sections 602.1, 603.1 and 805.1.

2. Detail furred or dropped ceilings as noncombustible construction or fire retardant treated wood (if allowed) per CBC Section 803.
3. Indicate interior finish compliance with CBC Section 803.1 flame spread provisions.
4. At restrooms, provide hard, non-absorbent wall and floor finishes per CBC Sections 1209.2.2 and 11B-302.
5. In accordance with CPC Section 422.2, separate toilet facilities shall be provided for each sex with exceptions.

SAFETY GLAZING REQUIREMENTS

1. Per CBC Section 2406.4, safety glazing is required in the following locations:
 - a. Glazing in all fixed and operable panels of swinging, sliding, and bifold doors (see exceptions).
 - b. Within a 24" arc either vertical edge of a door and less than 60 inches above the walking surface (see exceptions).
 - c. Glazing in windows that meet all of the following requirements (see exceptions):
 - i. The exposed area of an individual pane is greater than 9 square feet;
 - ii. The bottom edge of the glazing is less than 18 inches above the floor;
 - iii. The top edge of the glazing is greater than 36 inches above the floor; and
 - iv. One or more walking surfaces are within 36 inches.
 - d. Glazing in guards or railings.
 - e. Glazing in walls, enclosures, or fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers, and indoor or outdoor swimming pools where the bottom exposed edge of the glazing is less than 60 inches measured vertically above any standing or walking surface. Glazing more than 60 inches from the water surfaces is exempt.
 - f. Adjacent to stairways, ramps, or landings if less than 60 inches above the walking surface and within 36 inches horizontally from the first or last riser.

EGRESS REQUIREMENTS

1. Per CBC Section 107.2.3, the construction documents shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of this code. In occupancies other than R-2, R-3, and I-1, the construction documents shall designate the number of occupants to be accommodated on every floor and in all rooms and spaces.

Submit an egress 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., as well as Accessible Exits per CBC Sections 1001.1 and 1009.
2. Per CBC Section 1003.2, the means of egress shall have a ceiling height of not less than 7'-6". Per Section 1003.3, protruding objects shall provide a minimum headroom height of 80 inches for at least 50% of the means of egress. Door closers and stop shall not reduce headroom to less than 78 inches.
3. Per CBC Section 1003.5, changes in elevations of less than 12 inches within the means of egress shall use a sloped surface. Where the slope is greater than 1:20, ramps per Section 1012 shall be used. Locations not required to be accessible have exceptions, see the code.
4. Per CBC Section 1003.7, elevators (other than those in compliance with Section 1009.4), escalators, and moving walks shall not be used as a component of a required means of egress from any other part of the building.
5. Please provide an egress plan that clearly calls out all portions of the egress system. Design occupant load shall be determined for all spaces in accordance with CBC Section 1004.1 and Table 1004.5. Please follow the egress system throughout the structure and indicate where cumulative occupant loads are required in accordance with Section 1004.2.
6. Per CBC Section 1004.9, every room or space that is an assembly occupancy shall have the occupant load of the room or space posted in a conspicuous place, near the main exit or exit access doorway from the room or space.
7. Occupant loads for fixed seating shall be determined in accordance with CBC Section 1004.6.
8. Per CBC Section 1004.4, where a building contains two or more occupancies, the means of egress requirements shall apply to each portion of the building based on the occupancy of that space. Where two or

more occupancies utilize portions of the same means of egress system, those egress components shall meet the more stringent requirements of all occupancies that are served.

9. Per CBC Section 1005.3.1, the minimum width of stairways that are part of the means of egress system is 0.3 inches per occupant.
10. Per CBC Section 1005.3.2, the minimum width of all other portions of the means of egress (other than stairways) shall be 0.2 inches per occupant.
11. Per CBC Section 1005.4, the capacity of the means of egress required from any story of a building shall not be reduced along the path of egress travel.
12. Per CBC Section 1005.5, where more than one exit is required, the means of egress shall be configured such that the loss of any one exit shall not reduce the available capacity to less than 50% of the required capacity.
13. Egress convergence from stories above and below shall be in accordance with CBC Section 1005.6.
14. Per CBC Section 1005.7.1, doors, when fully opened, shall not reduce the required width by more than 7 inches. Doors in any position shall not reduce the required width by more than one-half.
15. Per CBC Section 1008.2.1, the means of egress illumination level shall not be less than 1 footcandle at the walking surface.
16. Per CBC Section 1008.3, in the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas in buildings required to have two or more exits:
 - a. Aisles
 - b. Corridors
 - c. Interior and exterior exit access stairways and ramps and exit stairways and ramps
 - d. Exit passageways
 - e. Vestibules and areas on level of exit discharge in accordance with Section 1028.1
 - f. Exterior landings required by Section 1010.1.6
 - g. Group I-2 and I-2.1 exit discharge stairways, ramps, aisles, walkways and escalators leading to a public way or to a safe dispersal area in accordance with Section 1028.5.
 - h. Operation of a patient room smoke detector in Group I-2, and R-2.1 occupancies shall not include a positive alarm sequence feature.
 - i. Electrical equipment rooms
 - j. Fire command centers
 - k. Fire pump rooms
 - l. Generator rooms
 - m. Public restrooms greater than 300 square feet.
17. Provide accessible means of egress in accordance with CBC Section 1009.
18. Per CBC Section 1010.1, when additional doors are provided, they shall conform to the provisions for exit doors.
19. Per CBC Section 1010.1.1, the minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of 32 inches. There shall not be projections into the required clear width lower than 34 inches above the floor or ground. Projections into the clear opening width between 34 inches and 80 inches above the floor or ground shall not exceed 4 inches in accordance with Section 1010.1.1.1.
20. Per CBC Section 1010.1.2, egress doors shall be of the pivoted or side-hinged swinging type (see exceptions)
21. In accordance with CBC Section 1010.1.2.1, doors shall swing in the direction of egress travel *where serving a room or area* containing an occupant load of 50 or more persons or a Group H occupancy.
22. Per CBC Section 1010.1.3, the force of pushing or pulling open interior swinging egress doors, other than fire doors, shall not exceed 5 pounds. For other swinging doors, as well as sliding and folding doors, the door latch shall release when subjected to a 15 pound force.
23. Special doors shall comply with CBC Section 1010.1.4.

24. Per CBC Section 1010.1.5, there shall be a floor or landing on each side of a door. Such floor or landing shall be at the same elevation on each side of the door. Landings shall be level except for exterior landing, which are permitted to have a slope not to exceed 2% slope.
25. Per CBC Section 1010.1.6, landings shall have a width not less than the width of the stairway or the door, whichever is greater. Doors in the fully open position shall not reduce a required dimension by more than 7 inches. When a landing serves an occupant load of 50 or more, doors in any position shall not reduce the landing to less than one-half its required width. Landing shall have a length measured in the direction of travel of not less than 44 inches.
26. Per CBC Section 1010.1.7, thresholds at doorways shall not exceed $\frac{1}{2}$ inch above the finished floor or landing for other doors. Raised thresholds and floor level changes greater than $\frac{1}{4}$ inch at doorways shall be beveled with a slope not greater than one unit vertical in two units horizontal.
27. Per CBC Section 1010.1.8, space between two doors in a series shall be 48 inches minimum plus the width of a door swinging into the space. Doors in a series shall swing either in the same direction or away from the space between the doors.
28. Per CBC Sections 1010.1.9.2 and 11B-404.2.7, door hardware shall be installed 34 inches minimum and 44 inches maximum above the finished floor.
29. Per CBC Section 1010.1.9.4, Item 2: in buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M and S, and in places of religious worship, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
 - a. The locking device is readily distinguishable as locked; and
 - b. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch high on a contrasting background.
30. Delayed egress locks may be installed on door serving any occupancy other than Group A, E, H, and L occupancies provided an automatic sprinkler system and an approved automatic smoke or heat detection system is installed. Locks must conform to CBC Section 1010.1.9.7. Group A occupancy courtrooms are permitted to utilize delayed egress locks.
31. In accordance with CBC Section 1010.1.10, doors serving a Group H occupancy and door serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy, assembly area not classified as an assembly occupancy, E, I-1, or I-2.1 occupancies shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.
32. Gates shall be in accordance with CBC Section 1010.2.
33. Security access turnstiles and similar devices shall be in accordance with CBC Section 1010.3.
34. All interior exit stairways shall be enclosed in accordance with the provisions of CBC Section 1023.1.
35. Per CBC Section 1019.3, where exit access stairways do not meet one of the listed conditions, floor openings between stories created by exit access stairways shall be enclosed in accordance with Section 713.
36. Per CBC Section 1011.2, the width of stairways shall be determined as specified in Section 1005.1, but such width shall not be less than 44 inches. Stairways serving an occupancy load of less than 50 are permitted to have a width of not less than 36 inches.
37. Per CBC Section 1011.3, stairways shall have a minimum headroom clearance of 80 inches.
38. Walklines across winder treads shall be in accordance with CBC Section 1011.4.
39. Per CBC Section 1011.5.2, stair riser heights shall be 7 inches maximum and 4 inches minimum. Tread depths shall be 11 inches minimum.
40. Per CBC Section 1011.5.5.1, the leading edge of treads shall project not more than $1\frac{1}{4}$ inches beyond the tread below.
41. Per CBC Section 1011.5.5.3, risers shall be solid. See exceptions.
42. Provide details and notes showing framing size, bracing, connections, and footings of stairs. Provide calculations as necessary.
43. Provide connection details of guardrails and/or handrails adequate to support loads as required by CBC Section 1607.8. Handrails and guards shall be designed to resist 50 plf in accordance with Section 4.5.1.1 of ASCE 7. Handrails and guards shall also be designed to resist a concentrated load of 200 pounds.

Intermediate rails (all those except the handrail), balusters, and panel fillers shall be designed to resist a concentrated load of 50 pounds.

44. Per CBC Section 1011.6, the width of landings shall not be less than the width of stairways they serve. Every landing shall have a minimum width measure perpendicular to the direction of travel equal to the width of the stairway. Where the stairway has a straight run the depth need not exceed 48 inches. Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches into a landing. When wheelchair spaces are required on the stairway landing in accordance with Section 1009.6.3, the wheelchair space shall not be located in the required width of the landing and doors shall not swing over the wheelchair spaces.
45. Per CBC Section 1011.7.3, the walls and soffits within enclosed usable spaces under enclosed and unenclosed stairways shall be protected by 1-hour fire-resistance-rated construction or the fire-resistance rating of the stairway enclosure, whichever is greater. Access to the enclosed space shall not be directly from within the stair enclosure.
46. Per CBC Section 1011.7.4, there shall be no enclosed usable space under exterior exit stairways unless the space is completely enclosed in 1-hour fire-resistance-rated construction.
47. Per CBC Section 1011.8, a flight of stairs shall not have a vertical rise greater than 12 feet between floor levels or landings.
48. Per CBC Section 1011.11, stairways shall have handrails on each side and shall comply with Section 1014. See exceptions.
49. Per CBC Section 1011.12 in buildings four or more stories above grade plane, one stairway shall extend to the roof surface, unless the roof has a slope steeper than four units vertical in 12 units horizontal.
50. All interior exit ramps shall be enclosed in accordance with the applicable provisions of CBC Section 1023.1. Exit access ramps shall be enclosed in accordance with the provisions of Section 1019.3 for enclosure of stairways.
51. Per CBC Section 1012.2, ramps used as part of a means of egress shall have a running slope not steeper than one unit vertical in 12 units horizontal (8% slope). The slope of other pedestrian ramps shall not be steeper than one unit vertical in eight units horizontal (12.5% slope).
52. Per CBC Section 1012.3, the slope measured perpendicular to the direction of travel of a ramp shall not be steeper than one unit vertical in 48 units horizontal.
53. Per CBC Section 1012.4, the rise for any ramp run shall be 30 inches maximum.
54. Per CBC Section 1012.5.1, the minimum width of a means of egress ramps shall not be less than that required for corridors by Section 1020.2. The clear width of a ramp between handrails, if provided, or other permissible projections shall be 36 inches minimum.
55. Per CBC Section 1012.5.2, the minimum headroom in all parts of the means of egress ramp shall not be less than 80 inches.
56. Per CBC Section 1012.5.3, means of egress ramps shall not reduce in width in the direction of egress travel. Projections into the required ramp and landing width are prohibited. Doors opening onto a landing shall not reduce the clear width to less than 42 inches.
57. Per CBC Section 1012.6, ramps shall have landing at the bottom and top of each ramp, points of turning, entrance, exits, and at doors.
58. Per CBC Section 1012.6.2, the landing shall be at least as wide as the widest ramp run adjoining the landing.
59. Per CBC Section 1012.6.3, the landing length shall be 60 inches minimum.
60. Per CBC Section 1012.6.4, where changes in direction of travel occur at landing provided between ramp runs, the landing shall be 60 inches by 60 inches minimum.
61. Per CBC Section 1012.8, ramps with a rise greater than 6 inches shall have handrails on both sides. Handrails shall comply with Section 1014.
62. Per CBC Section 1012.10, edge protection complying with one of the following. See exceptions.
 - a. A curb, rail, wall, or barrier shall be provided to serve as edge protection. A curb must be a minimum of 4 inches in height. Barriers must be constructed so that the barrier prevents the passage of a 4-inch-diameter sphere, where any portion of the sphere is within 4 inches of the floor or ground surface; or

- b. The floor or ground surface of the ramp run or landing shall extend 12 inches minimum beyond the inside face of a handrail complying with Section 1014.
63. Per CBC Section 1013.1, exit and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. (see exceptions)
 64. Tactile exits signs are required where specified in CBC Section 1013.4. For more information about tactile signs, please see the 'Accessible Communications Elements' portion of this checklist.
 65. Per CBC Sections 2702.2.5, 1013.5, and 1013.6.3, exit signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than 90 minutes in case of primary power loss, the sign illumination means shall be connected to an emergency power system provided from a second power source.
 66. Floor-level exit signs are required where exits signs are required in Group A, E, I, R-1, and R-2.1 occupancies in accordance with CBC Section 1013.7.
 67. Per CBC Section 1013.8, when exit signs are required, in addition to approved floor-level exit signs, approved path marking shall be installed at floor level or no higher than 8 inches above the floor level in all interior rated exit corridors of unsprinklered Group A, R-1, and R-2 occupancies.
 68. Per CBC Section 1014.2, where required for ramps or stairs, handrails shall be not less than 34 inches and not more than 38 inches above the walking surface.
 69. Per CBC Section 1014.3, handrails shall be Type I or Type II profiles.
 70. Per CBC Section 1014.6, handrails shall return to a wall, guard, or the walking surface or shall be continuous to the handrail of an adjacent stair flight or ramp run. Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser. At ramps where handrails are not continuous between runs, the handrails shall extend horizontally above the landing 12 inches minimum beyond the top and bottom of ramp runs. The extensions of handrails shall be in the same direction of the stair flights at stairways and the ramp runs at ramps.
 71. Per CBC Section 1014.7, clear space between a handrail and a wall or other surface shall be a minimum of 1½ inches.
 72. Per CBC Section 1015.2, guards shall be located along open-sided walking surfaces, including mezzanines, equipment platforms, stairs, ramps, and landings that are located more than 30 inches measured vertically to floor or grade below at any point within 36 inches horizontally. See exceptions.
 73. Per CBC Section 1015.3, required guards shall not be less than 42 inches high.
 74. Per CBC Section 1015.4, required guards shall not have openings which allow the passage of a sphere 4 inches in diameter from the walking surface to the required guard height. See exceptions.
 75. Window guards shall comply with CBC Section 1015.8.
 76. Egress through intervening spaces shall conform to CBC Section 1016.2.
 77. In accordance with CBC Section 1016.2, Item #5, Exception #2, means of egress are not prohibited through stockrooms in Group M occupancies when all of the following are met:
 - a. The stock is of the same hazard classification as that found in the main retail area;
 - b. Not more than 50% of the exit access is through the stockroom;
 - c. The stockroom is not subject to locking from the egress side; and
 - d. There is a demarcated, minimum 44-inch-wide aisle defined by full- or partial-height fixed walls or similar construction that will maintain the required width and lead directly from the retail area to the exit without obstructions.
 78. Per CBC Section 1016.2.1, where more than one tenant occupies any one floor of a building or structure, each tenant space, dwelling unit and sleeping unit shall be provided with access to the required exits without passing through adjacent tenant spaces.
 79. Per CBC Section 1006.2.1, the common path of egress travel shall not exceed the lengths given in Table 1006.2.1.
 80. Per CBC Section 1006.2.1, two exits or exit access doorways from any space shall be provided where one of the following conditions exists:
 - a. The occupant load of the space exceeds one of the values in Table 1006.2.1.

- b. The common path of egress travel exceeds on of the limitations of Table 1006.2.1.
 - c. Where required by Section 1006.2.2.
81. Per CBC Section 1006.2.1.1, three exits shall be provided from any space with an occupant load of 501 to 1,000. Four exits shall be provided from any space with an occupant load greater than 1,000.
 82. Per CBC Section 1007.1.1, where two exits or exit access doorways are required from any portion of the exit access, the exit doors or exit access doorways shall be placed a distance apart equal to not less than one-half the length (one-third if sprinklered) of the maximum overall diagonal dimension of the building or area to be served.
 83. Per CBC Section 1007.1.2, where access to three or more exits is required, at least two exit doors or exit access doorways shall be arranged in accordance with the provisions of Section 1007.1.1. Additional required exit or exit access doorways shall be arranged a reasonable distance apart so that if one becomes blocked, the other will be available.
 84. Per CBC Section 1017.2, exit access travel distance shall not exceed the values given in Table 1017.2.
 85. Per CBC Section 1017.3.1, travel distance on exit access stairways or ramps shall be included in the exit access travel distance measurements.
 86. Aisles shall conform to CBC Section 1018.
 87. Per CBC Section 1020.1, corridors shall be fire-resistance rated in accordance with Table 1020.1. The corridor walls required to be fire-resistance rated shall comply with Section 708 for fire partitions. See exceptions. Provide a complete architectural section of one-hour corridor detailing fire-resistive construction of the walls and ceilings. Detail all duct and other penetrations.
 88. Per CBC Section 716.2.2.1 and Table 716.1(2), door assemblies opening into one-hour rated corridors shall be 20 minute rated and meet the requirements of fire doors in Section 716.
 89. Glazed openings into one hour corridors shall be protected in accordance with CBC Section 716.
 90. Minimum corridor widths shall conform to CBC Table 1020.2.
 91. Per CBC Section 1020.4, where more than one exit or exit access doorway is required, the exit access shall be arranged such that there are no dead ends in corridors more than 20 feet in length. See exceptions.
 92. Air movement in corridors shall comply with CBC Section 1020.5.
 93. Corridor ceilings shall comply with CBC Section 1020.5.1.
 94. Per CBC Section 1020.6, fire-resistant-rated corridors shall be continuous from the point of entry to an exit and shall not be interrupted by intervening rooms.
 95. Egress balconies shall conform to CBC Section 1021.
 96. Per CBC Section 1021.4, exterior egress balconies shall have a minimum fire separation distance of 10 feet measure from the exterior edge of the egress balcony to adjacent lot lines and from other buildings on the same lot unless the adjacent building exterior walls and opening are protected in accordance with Section 705 based on fire separation distance.
 97. Single exits are permitted only when the requirements of CBC Section 1006.3.3 have been met.
 98. Minimum number of exits or access to exits per story shall comply with CBC Table 1006.3.2.
 99. Stories with one exit or access to one exit shall conform to CBC Table 1006.3.3(1) or 1006.3.3(2).
 100. Interior exit stairways and ramps shall conform to CBC Section 1023.
 101. Discharge identification shall be provided in accordance with CBC Section 1023.8 when stairs or ramps provide access to and from levels below the level of exit discharge.
 102. Exit passageways shall conform to CBC Section 1024.
 103. Luminous egress path markings shall conform to CBC Section 1025.
 104. Horizontal Exits shall conform to CBC Section 1026.
 105. Exterior exit stairways and ramps shall conform to CBC Section 1027.
 106. Exit discharge shall conform to CBC Section 1028.

107. A room or space used for assembly purposes which contains seats, tables, displays, equipment, or other material shall comply with CBC Section 1029.

108. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue openings in Group R-2, R-3, and R-4 occupancies in accordance with CBC Section 1030.

GENERAL ACCESSIBILITY REQUIREMENTS

The following requirements apply to all newly designed and newly constructed buildings and facilities that affect commerce as well as altered portions of existing buildings and facilities that affect commerce. These requirements also apply to temporary buildings and facilities per CBC Section 11B-201.3 and construction trailers in accordance with Section 11B-201.4.

1. Per CBC Section 11B-202.4 Exception #2, if the following elements were constructed or altered under the 2016 CBC, they are exempt from the requirements of the 2019 CBC:
 - a. A primary entrance to the building or facility,
 - b. Toilet and bathing facilities serving the area,
 - c. Drinking fountains serving the area,
 - d. Public telephones serving the area, and
 - e. Signs

2. See CBC Section 11B-203 for general exceptions to accessibility requirements.

3. Per CBC Section 11B-206.2, provide an accessible route from site arrival points including accessible parking spaces and accessible passenger drop-off and loading zones; public streets and sidewalks; and public transportation stops. Where more than one route is provided, all routes must be accessible.

Similarly, at least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

4. Per CBC Section 11B-206.2.3.2, where the floor area on any floor exceeds 10,000 square feet, an accessible means of vertical access via ramp, elevator, or lift shall be provided within 200 feet of travel of each stair and each escalator.

5. Per CBC Section 11B-206.2.5, in restaurants, cafeterias, banquet facilities, bars, and similar facilities, an accessible route shall be provided to all functional areas, including raised or sunken areas and outdoor areas. See the exceptions for alterations, mezzanines, and sports facilities.

6. See the code for specific requirements for recreation areas, including but not limited to, amusement rides, recreational boating facilities, bowling lanes, court sports, piers and platforms, golf facilities, and play areas.

7. Please see CBC Sections 11B-206.2.3, 11B-206.6, 11B-407, 11B-408, and 11B-409 for information regarding elevators and exceptions.

8. Please see CBC Section 11B-206.7 and 11B-410 for information regarding platform lifts.

9. Per CBC Section 11B-207.2, standby power shall be provided for platform lifts permitted by Section 1009.5 to serve as a part of an accessible means of egress.

10. Per CBC Section 11B-206.8, security barriers shall not obstruct a required accessible route or accessible means of egress. Please dimension between barriers and/or provide accessible security features.

11. Per CBC Section 11B-211.2, where drinking fountains are provided, no fewer than two drinking fountains shall be provided. When provided, one drinking fountain shall comply with Section 11B-602.1 through 11B-602.6, 11B-602.8 and 11B-602.9 and one drinking fountain shall comply with Sections 11B-602.7 and 11B-602.9.

Where a single drinking fountain is installed in place of the two drinking fountains, it must comply with Section 11B-602.1 through 11B-602.9.

12. Per CBC Section 11B-212.3 where sinks other than mop, service, scullery, or scrub sinks are provided, at least 5%, but no less than one, of each type provided in each accessible room or space shall comply with Section 11B-606.

13. Automatic teller machines, fare machines, and point-of-sale devices shall comply with CBC Section 11B-220.

14. Assembly areas shall comply with Section 11B-221.

15. Per CBC Section 11B-221.2.1.1, in assembly areas, wheelchair spaces complying with Section 11B-802.1 shall be provided in accordance with Table 11B-221.2.1.1.

16. Per CBC Sections 11B-221.2.2 and 11B-221.2.3, in assembly areas, wheelchair spaces shall be an integral part of the seating plans and shall be dispersed.
17. Per CBC Section 11B-221.3, at least one companion seat complying with Section 11B-802.3 shall be provided immediately adjacent to each wheelchair space required by Section 11B-221.2.1.
18. Per CBC Section 11B-221.6, in assembly areas, at least 1% of the total number of seats, and no fewer than two, shall be semi-ambulant seats complying with Section 11B-802.5.
19. In accordance with CBC Section 11B-222.1, where dressing rooms, fitting rooms, or locker rooms are provided, at least 5 percent, but no fewer than one, of each type of use in each cluster provided shall comply with Section 11B-803.
20. In accordance with CBC Section 11B-803.2, where dressing rooms, fitting rooms, or locker rooms are provided, turning space complying with Section 11B-304 shall be provided within the room.
21. Per CBC Section 11B-803.3, doors shall not swing into dressing rooms, fitting rooms, or locker rooms unless a turning space complying with Section 11B-304.3 is provided beyond the arc of the door swing.
22. Per CBC Section 11B-803.4, a bench complying with Section 11B-903 shall be provide within all accessible dressing rooms, fitting rooms, or locker rooms when provided.
23. Per CBC Section 11B-903.2, clear floor or ground space complying with Section 11B-305 shall be provided and shall be positioned at the end of the bench seat and parallel to the short axis of the bench.
24. Per CBC Section 11B-903.3, benches shall have seats that are 48 inches long minimum and 20 inches deep minimum and 24 inches deep maximum.
25. Per CBC Section 11B-903.5, the top of the bench seat surface shall be 17 inches minimum and 19 inches maximum above the finish floor or ground.
26. Per CBC Section 11B-222.2, where coat hooks or shelves are provided, at least one of each type shall comply with Section 11B-803.5. Coat hooks shall be within an approved reach range. Shelves shall be 40 inches minimum and 48 inches maximum above the finish floor or ground. Coat hooks shall not be located above the bench or other seating in the room.
27. Per CBC Section 11B-803.6, mirrors shall be installed with the bottom edge of the reflecting surface 20 inches maximum above the finish floor or ground. Mirrors shall be full length with a reflective surface 18 inches wide minimum by 54 inches high minimum and shall be mounted in a position affording a view to a person on the bench as well as to a person in a standing position.
28. Medical care and long-term care facilities shall comply with CBC Section 11B-223.
29. Transient lodging guest rooms shall comply with CBC Section 11B-224.
30. Per CBC Section 11B-225.2.1, where lockers are provided, at least 5%, but no less than one of each type, shall comply with Section 11B-811.
31. Per CBC Section 11B-225.2.3, book stacks available for public use shall be 54 inches maximum above the finish floor. Stacks may be higher than 54 inches maximum above the finish floor when an attendant is available to assist persons with disabilities or where restricted to an employee use area.
32. Per CBC Section 11B-226.1, where dining surfaces are provided for the consumption of food or drink, at least 5% of the seating spaces and standing spaces at the dining surfaces shall comply with Section 11B-902. In addition, where work surfaces are provided for use by other than employees, at least 5% shall comply with Section 11B-902.

Dining surfaces required to comply with Section 11B-902 shall be dispersed throughout the space or facility containing dining surfaces for each type of seating in a functional area.
33. Per CBC Section 11B-226.3, where food or drink is served for consumption at a counter exceeding 34 inches in height, a portion of the main counter 60 inches minimum in length shall be provided in compliance with Section 11B-902.3.
34. Sales and service areas shall comply with CBC Section 11B-227.
35. Depositories, vending machines, change machines, mail boxes, fuel dispensers, and electric vehicle charging stations shall comply with CBC Section 11B-228.
36. Electric Vehicle Charging Stations shall comply with CBC Section 11B-228.3.

37. Per CBC Section 11B-229.1, where glazed openings are provided in accessible rooms or spaces for operation by occupants, at least one opening shall comply with Section 11B-309. See the exceptions for residential occupancies.
38. Judicial facilities shall comply with Section 11B-231.
39. Detention facilities and correctional facilities shall comply with CBC Section 11B-232.
40. Residential facilities shall comply with CBC Section 11B-233.
41. Per CBC Section 11B-247.1, detectable warnings shall comply with Section 11B-705 and shall be located in all of the following locations:
 - a. Platform boarding edges
 - b. Curb ramps
 - c. Islands or cut-through medians
 - d. Bus stops
 - e. Hazardous vehicular areas
 - f. Reflecting pools
 - g. Track crossings
42. Per CBC Section 11B-249, newly constructed commercial places of public amusement shall provide no fewer than one adult changing facility in compliance with Section 11B-813.
43. Per CBC Section 11B-302.1, floor and ground surfaces shall be stable, firm, and slip resistant. Carpet or carpet tile shall have a pile height of no more than ½-inch and exposed edges of carpet shall be fastened to floor surfaces and shall have trim on the entire length of the exposed edge.
44. Per CBC Section 11B-302.3, elongated openings in the floor (grates, etc.) shall be placed so that the long dimension is perpendicular to the dominant direction of travel.
45. Per CBC Section 11B-303.2, changes in level greater than ¼-inch are not permitted. Changes in level of ½-inch maximum are permitted only when beveled per Section 11B-303.3. Please see Figure 11B-303.3.
46. Per CBC Section 11B-303.4, changes in level greater than ½-inch high shall be ramped and shall comply with Section 11B-405 or 11B-406.
47. Per CBC Section 11B-303.5, abrupt changes in level exceeding 4 inches in a vertical dimension between walks, sidewalks, or other pedestrian ways and adjacent surfaces or features shall be identified by warning curbs at least 6 inches in height above the walk or sidewalk surface. Curbs between sidewalks and adjacent streets or driveways are exempt. A warning curb is not required when a guard or handrail is provided.
48. Per CBC Section 11B-304.3, where a turning space is provided and/or required, the turning space shall be a space of 60 inches diameter minimum. The space shall be permitted to include knee and toe clearance complying with Section 11B-306. A T-shaped turning space is allowed. Please see Figure 11B-304.3.2 for dimensional requirements.
49. Per CBC Section 11B-305.3, clear floor or ground space shall be 30 inches minimum by 48 inches minimum. Clear floor or ground space shall be permitted to include knee and toe clearance complying with Section 11B-306.
50. Per CBC Section 11B-305.7.1, to provide a forward approach, alcoves shall be 36 inches wide minimum where the depth exceeds 24 inches. Please see Figure 11B-305.7.1.
51. Per CBC Section 11B-305.7.2, to provide a parallel approach, alcoves shall be 60 inches wide minimum where the depth exceeds 15 inches. Please see Figure 11B-305.7.2.
52. Toe clearance shall be in accordance with 11B-306.2.
53. Knee clearance shall be in accordance with 11B-306.3.
54. Per CBC Section 11B-307.2, objects with leading edges more than 27 inches and not more than 80 inches above the finish floor or ground shall protrude 4 inches maximum horizontally into the circulation path.
55. Per CBC Section 11B-307.3, free-standing objects mounted on posts or pylons shall overhang circulation paths 12 inches maximum when located 27 inches minimum and 80 inches maximum above the finish floor.
56. Per CBC Section 11B-307.5, protruding objects shall not reduce the clear width required for accessible routes.

57. Reach ranges shall comply with CBC Section 11B-308. Please see Figures 11B-308.2.1, 11B-308.2.2, 11B-308.3.1, and 11B-308.3.2.
58. Per CBC Section 11B-309, operable parts shall have a clear floor or ground space complying with Section 11B-305 and shall be located within a reach range as defined in Section 11B-308.
59. Accessible routes shall be in accordance with Section 11B-401.
60. Per CBC Section 11B-403.3, the running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.
61. Per CBC Section 11B-403.5.1, the clear width of walking surfaces shall be 36 inches minimum.

The clear width is permitted to be reduced to 32 inches minimum for a length of 24 inches maximum provided that reduced width segments are separated by segments that are 48 inches long minimum and 36 inches wide minimum. Please see Figure 11B-403.5.1.

The clear width for walking surfaces in corridors serving an occupant load of 10 or more shall be 44 inches minimum.

The clear width for sidewalks and walks shall be 48 inches minimum.
62. Per CBC Section 11B-403.5.3, an accessible route with a clear width less than 60 inches shall provide passing spaces at intervals of 200 feet maximum.
63. Clear widths for turns shall comply with CBC Section 11B-403.5.2. Please see Figure 11B-403.5.2.
64. Please specify detectable warning strips in accordance with CBC Section 11B-705.

Truncated domes shall have a base diameter of 0.9 inches minimum, and 0.92 inches maximum, a top diameter of 0.45 inches minimum and 0.47 inches maximum, and a height of 0.2 inches.

Truncated domes in a detectable warning surface shall have a center-to-center spacing of 2.3 inches minimum and 2.4 inches maximum, and a base-to-base spacing of 0.65 inches minimum, measured between the most adjacent domes on a square grid.

Detectable warning strips shall contrast visually with adjacent walking surfaces.
65. Kitchens, kitchenettes, and wet bars shall comply with CBC Section 11B-804.
66. Built-in elements, including, but not limited to, dining surfaces and work surfaces, benches, and check-out aisles and sales and service counters, shall comply with CBC Section 11B-901.
67. Recreation facilities shall comply with CBC Section 11B-1001.
68. In accordance with CBC Section 11B-403.5.1, Exception #4, the clear width for aisles shall be 36 inches minimum if serving elements on only one side, and 44 inches minimum if serving elements on both sides.

ACCESSIBLE DOORS

1. Per CBC Section 11B-404.2.1, revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.
2. Per CBC Section 11B-404.2.3, door opening shall provide a clear width of 32 inches minimum. Clear openings of doorways with swinging doors shall be measure between the face of the door and the stop, with the door open 90 degrees.

Openings more than 24 inches deep shall provide a clear opening of 36 inches minimum.

There shall be no projections into the required clear opening width lower than 34 inches above the finish floor or ground. Projections into the clear opening width between 34 inches and 80 inches above the finish floor or ground shall not exceed 4 inches.
3. Per CBC Section 11B-404.2.4.1, swinging doors and gates shall have maneuvering clearances complying with Table 11B-404.2.4.1. Please see Figure 11B-404.2.4.1 for illustrations.
4. When a pull door is approached from the front, 18 inches clear space (24 inches at exterior sides of exterior doors) is required beyond the latch side of the door and a 60 inch clear landing perpendicular to the door is required per CBC Table 11B-404.2.4.1. Please see Figure 11B-404.2.4.1.
5. Where a front approach, push side door provided with both a closer and a latch is used, a 12 inch minimum strike side clearance is required. Please see Table 11B-404.2.4.1 and Figure 11B-404.2.4.1.

6. Where doors are recessed more than 8 inches, please comply with CBC Section 11B-404.2.4.3. Please see Figure 11B-404.2.4.3.
7. Per CBC Section 11B-404.2.4.4, floor or ground surfaces at doors shall have a slope not steeper than 1:48.
8. Per CBC Section 11B-404.2.5, thresholds, if provided at doorways, shall be ½ inch high maximum. Raised thresholds and changes in level at doorways shall comply with Sections 11B-302 and 11B-303.
9. Per CBC Section 11B-404.2.6, the distance between two hinged or pivoted doors in series and gates in series shall be 48 inches minimum plus the width of doors or gates swinging into the space. Please see Figure 11B-404.2.6.
10. Per CBC Section 11B-404.2.7, handles, pulls, latches, locks, and other operable parts on doors and gates shall be 34 inches minimum and 44 inches maximum above the finish floor or ground.
11. Door and gate closing speed shall comply with CBC Section 11B-404.2.8.
12. Per CBC Section 11B-404.2.9, the force for pushing or pulling open a door or gate shall be as follows:
 - a. Interior hinged doors and gates: 5 pounds maximum
 - b. Exterior hinged doors: 5 pounds maximum
 - c. Sliding or folding doors: 5 pounds maximum
 - d. Fire doors: 15 pounds maximum.

See the exceptions for powered doors and machinery spaces.
13. Per CBC Section 11B-404.2.10, swinging door and gate surfaces within 10 inches of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate.
14. Per CBC Section 11B-404.2.11, where doors, gates, and side lights adjacent to doors or gates contain one or more glazing panels lower than 66 inches from the finished floor, at least one glazed panel located 43 inches maximum above the finish floor shall be provided.
15. Automatic and power-assisted doors and gates shall comply with CBC Section 11B-404.3.

ACCESSIBLE PARKING

1. Per CBC Section 11B-208.1, where parking spaces are provided, accessible parking spaces shall be provided in accordance with Table 11B-208.2.
2. Per CBC Section 11B-208.2.4, for every six or fraction of six parking spaces required to be accessible shall be made van accessible in accordance with Section 11B-502.
3. Please see CBC Section 11B-208 for requirements regarding accessible parking for hospital outpatient facilities, rehabilitation facilities and outpatient physical therapy facilities, and residential facilities.
4. Per CBC Section 11B-208.3.1, accessible parking spaces that serve a particular building or facility shall be located on the shortest accessible route from parking to an entrance complying with Section 11B-206.4. Where accessible parking serves more than one accessible entrance, parking spaces shall be dispersed and located on the shortest accessible route to the accessible entrances.

All van parking spaces shall be permitted to be grouped on one level within a multi-story parking facility.
5. Passenger drop-off and loading zones, where provided, shall comply with CBC Section 11B-209.
6. Where covered parking is provided, it shall be considered a separate parking facility and accessible parking shall be provided per CBC Table 11B-208.2.
7. The minimum clear height of covered accessible parking spaces, access aisles, and vehicular routes serving them is 8'-2" per CBC Section 11B-502.5. See exceptions.
8. Per CBC Section 11B-502.2, accessible parking spaces shall be 216 inches long minimum.

Car parking spaces shall be 108 inches wide minimum and van parking spaces shall be 144 inches wide minimum and shall have an adjacent access aisle complying with Section 11B-502.3. Van parking spaces shall be permitted to be 108 inches wide minimum where the access aisle is 96 inches wide minimum.
9. Per CBC Section 11B-502.3, access aisles serving car and van parking spaces shall be 60 inches wide minimum. Access aisles shall be marked with a blue painted borderline around their perimeter. The area within the blue borderlines shall be marked with hatched lines a maximum of 36 inches on center in a color contrasting with that of the aisle surface, preferably blue or white.

The words "NO PARKING" shall be painted on the surface within each access aisle in white letters a minimum of 12 inches in height and located to be visible from the adjacent vehicular way.

10. Per CBC Section 11B-502.3.4, access aisles shall be located on the passenger side of the parking spaces for all van accessible parking spaces.
11. Per CBC Section 11B-502.4, parking spaces and access aisles serving them shall comply with Section 11B-302. Access aisles shall be at the same level as the parking spaces they serve. Changes in level are not permitted. Slopes not steeper than 1:48 are permitted.
12. Per CBC Section 11B-502.5, parking spaces, access aisles, and vehicular routes serving them shall provide a vertical clearance of 98 inches minimum.
13. Per CBC Section 11B-502.6, parking space identification signs shall include the International Symbol of Accessibility complying with Section 11B-703.7.2.1. Signs identifying van parking spaces shall contain additional language or an additional sign with the designation "van accessible." Signs shall be 60 inches minimum above the finished floor or ground surface measured to the bottom of the sign. When signs are located within an accessible route, signs shall be located a minimum of 80 inches above the finished floor or ground surface measured to the bottom of the sign.
14. Per CBC Section 11B-502.6.1, parking identification signs shall be reflectorized with a minimum area of 70 square inches.
15. Per CBC Section 11B-502.6.2, additional language or an additional sign below the International Symbol of Accessibility shall state "Minimum Fine \$250."
16. Per CBC Section 11B-502.6.3, a parking space identification sign shall be visible from each parking space. Signs shall be permanently posted either immediately adjacent to the parking space or within the projected parking space width at the head of the parking space. Signs may also be permanently posted on a wall at the interior end of the parking space.
17. Per CBC Section 11B-502.6.4, each accessible car and van space shall have surface identification complying with one of the following. The symbol shall be aligned with the centerline of the space, aligned with the end of the parking spaces, and shall be orthogonal to the edges of the space.
 - a. The parking space shall be marked with an International Symbol of Accessibility (ISA) complying with Section 11B-703.7.2.1 in white on a blue background a minimum of 36 inches square.
 - b. The parking space shall be outlined or painted blue and shall be marked with an ISA complying with Section 11B-703.7.2.1 a minimum of 36 inches square in white or a suitable contrasting color.
18. Per CBC Section 11B-502.7.1, parking spaces and access aisles shall be designed so that persons using them are not required to travel behind parking spaces other than their own.
19. Per CBC Section 11B-502.7.2, a curb or wheel stop shall be provided if required to prevent encroachment of vehicles over the required clear width of adjacent accessible routes.
20. Per CBC Section 11B-502.8, an additional sign shall be posted either: (1) in a conspicuous place at each entrance to an off-street parking facility, or (2) immediately adjacent to on-site accessible parking and visible from each parking space. The additional sign shall meet the following requirements:
 - a. The sign shall be no less than 17 inches wide by 22 inches high.
 - b. The additional sign shall clearly state in letters with a minimum height of 1 inch the following:

"Unauthorized vehicles parked in designated accessible spaces not displaying distinguishing placards or special license plates issued for persons with disabilities will be towed away at the owner's expense. Towed vehicles may be reclaimed at: _____ or by telephoning _____."

Blank spaces shall be filled in with appropriate information as a permanent part of the sign.

21. Passenger drop-off and loading zones shall comply with CBC Section 11B-503.
22. Please see CBC Section 11B-228.3 for requirements related to Electric Vehicle Charging Stations.

ACCESSIBLE RAMPS

1. Per CBC Section 11B-405.2, ramp runs shall have a running slope not steeper than 1:12.
2. Per CBC Section 11B-405.3, the cross slope of ramp runs shall not be steeper than 1:48.

3. Per CBC Section 11B-405.5, the clear width of a ramp run shall be 48 inches minimum.
4. Per CBC Section 11B-405.6, the rise for any ramp run shall be 30 inches maximum.
5. Per CBC Section 11B-405.7, ramps shall have landings at the top and bottom of each ramp run. Landings shall comply with the following:
 - a. The slope of the landing in any direction may not be greater than 1:48.
 - b. The landing clear width shall be at least as wide as the widest ramp run leading to the landing. Top landings shall be 60 inches wide minimum.
 - c. The landing clear length shall be 60 inches long minimum. Bottom landings shall extend 72 inches minimum in the direction of ramp run.
 - d. Ramps that change direction between runs at landings shall have a clear landing 60 inches minimum by 72 inches minimum in the direction of downward travel from the upper ramp run.
 - e. Doors, when fully open, shall not reduce the required ramp landing width by more than 3 inches. Doors, in any position, shall not reduce the minimum dimension of the ramp landing to less than 42 inches.

See Figure 11B-405.7 for a graphical representation.

6. Ramp runs shall have handrails complying with Section 11B-505. Handrails are not required at door landings where the ramp run is less than 6 inches in rise or 72 inches in length.
7. Per CBC Section 11B-405.9.2, a curb or barrier shall be provided that prevents the passage of a 4 inch diameter sphere, where any portion of the sphere is within 4 inches of the finish floor or ground surface. See Figure 11B-405.9.2.
8. Perpendicular curb ramps shall comply with Section 11B-406.2.
9. Parallel curb ramps shall comply with Section 11B-406.3.
10. Blended transitions shall comply with Section 11B-406.4.
11. Per CBC Section 11B-406.5.1, curb ramps and the flared sides of curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces, or parking access aisles.
 The clear width of curb ramp runs, blended transitions, and turning spaces shall be 48 inches minimum.
 Landings shall be provided at the tops of curb ramps and blended transitions. The landing clear length shall be 48 inches minimum and at least as wide as the curb ramp.
12. Per CBC Section 11B-406.5.7, the cross slope of curb ramps and blended transitions shall be 1:48 maximum.
13. Per CBC Section 11B-406.5.12, curb ramps and blended transitions shall have detectable warnings complying with Section 11B-705.
14. Per CBC Section 11B-505.10.1, ramp handrails shall extend horizontally above the landing for 12 inches minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run.

ACCESSIBLE STAIRWAYS

1. Per CBC Section 11B-210.1, in alterations, stairs between levels that are connected by an accessible route shall not be required to comply with the stair requirements of Section 11B-504, except that striping complying with Section 11B-504.4.1 and handrails complying with Section 11B-505 shall be provided when the stairs are altered.
 Similarly, in assembly areas, aisle stairs shall not be required to comply with Section 11B-504 except that striping complying with Section 11B-504.4.1 shall be provided.
 Additionally, stairs that connect play components shall not be required to comply with Section 11B-504 except that striping complying with Section 11B-504.4.1 shall be provided.
2. Per CBC Section 11B-504.2, all steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 4 inches high minimum and 7 inches high maximum while treads shall be 11 inches deep minimum.
3. Per CBC Section 11B-504.3, open risers are not permitted unless the opening does not permit the passage of a ½-inch sphere.

4. Per CBC Section 11B-504.4.1, interior stairs shall have the upper approach and the lower tread marked by a stripe providing clear visual contrast. Exterior stairs shall have the upper approach and all treads marked by a stripe providing clear visual contrast.

The stripe shall be a minimum of 2 inches wide to a maximum of 4 inches wide placed parallel to, and not more than 1 inch from, the nose of the step or upper approach. The stripe shall extend the full width of the step or upper approach and shall be of material that is at least as slip resistant as the other treads of the stair. A painted stripe shall be acceptable. Grooves are not acceptable.
5. Stair nosings shall conform to CBC Section 11B-504.5. Please see Figure 11B-504.5.
6. Floor identification signs shall comply with CBC Section 11B-504.8.
7. Per CBC Section 11B-505.10.2, at the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches minimum beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight. Please see Figure 11B-505.10.2.
8. Per CBC Section 11B-505.10.3, at the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance equal to one tread depth beyond the last riser nosing. The horizontal extension of a handrail shall be 12 inches long minimum and a height equal to that of the sloping portion of the handrail as measured above the stair nosings. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight. Please see Figure 11B-505.10.3.

HANDRAILS

1. Handrails are required at ramps complying with Section 11B-405 and stairs complying with Section 11B-504.
2. Per CBC Section 11B-505.2, handrails shall be required on both sides of stairs and ramps other than specific assembly stairs, curb ramps, and ramps where the ramp run is less than 6 inches in rise or 72 inches in length.
3. Per CBC Section 11B-505.3, handrails shall be continuous within the full length of the each stair flight or ramp run.
4. Per CBC Section 11B-505.4, the top of handrails shall be 34 inches minimum and 38 inches maximum vertically above the walking surface.
5. Per CBC Section 11B-505.5, clearance between handrails and adjacent surfaces shall be 1½ inches minimum. Per Section 11B-505.8, handrails and adjacent surfaces shall be free of sharp or abrasive elements and shall have rounded edges. Per Section 11B-505.9, handrails shall not rotate within their fittings.
6. Per CBC Section 11B-505.7.1, handrails with a circular cross section shall have an outside diameter of 1¼ inches minimum and 2 inches maximum. Non-circular cross sections shall conform to CBC Section 11B-505.7.2

ACCESSIBLE FACILITIES

1. Drinking fountains shall conform to CBC Section 11B-602.
2. Unisex toilet and unisex bathing rooms shall comply with CBC Section 11B-213.2.1.
3. Per CBC Section 11B-213.3.1, where toilet compartments are provided, at least 5% of the toilet compartments, or 5% of the combination of toilet compartments and urinals, but no fewer than one toilet compartment shall comply with Section 11B-604.8.1. In addition to the compartments required to comply with Section 11B-604.8.1, where six or more toilet compartments are provided, or where the combination of urinals and water closets totals six or more fixtures, toilet compartments complying with section 11B-604.8.2 shall be provided in the same quantity as the toilet compartments required to comply with Section 11B-604.8.1.
4. Per CBC Section 11B-213.3.2, where water closets are provided, at least 5% but no less than one shall comply with Section 11B-604.
5. Per CBC Section 11B-213.3.3, where one or more urinals are provided, at least 10% but no less than one shall comply with Section 11B-605.
6. Per CBC Section 11B-213.3.4, where lavatories are provided, at least 10% but no less than one shall comply with Section 11B-606 and shall not be located in a toilet compartment.
7. Per CBC Section 11B-213.3.5, where mirrors are provided, at least one shall comply with Section 11B-603.3.
8. Per CBC Section 11B-213.3.6, where bathtubs or showers are provided, at least one bathtub complying with Section 11B-607 or at least one shower complying with Section 11B-608 shall be provided. Where two or more

accessible showers are provided within the same functional area, at least one shower shall be opposite hand from the other or others.

9. Per CBC Section 11B-603.2.3, doors shall not swing into the clear floor space or clearance required for any fixture. For doors other than the door to the accessible water closet compartment, a door in any position may encroach into the turning space by 12 inches maximum.
10. Per CBC Section 11B-603.3, mirrors located above lavatories or countertops shall be installed with the bottom edge 40 inches maximum above the finished floor. Mirrors not located above lavatories or countertops shall be installed with the bottom edge 35 inches maximum above the finished floor.
11. Per CBC Section 11B-603.5, all operable parts of toilet room accessories shall be located a maximum of 40 inches above the finish floor.
12. Per CBC Section 11B-604.2, the water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 17 inches minimum to 18 inches maximum from the side wall or partition.

See exceptions for ambulatory water closets.

13. Per CBC Section 11B-604.3.1, clearance around a water closet shall be 60 inches minimum measured perpendicular from the side wall and 56 inches minimum measured perpendicular from the rear wall. Additionally, a minimum 60 inches wide and 48 inches deep maneuvering space shall be provided in front of the water closet. Please see Figure 11B-604.3.1.
14. Per CBC Section 11B-604.4, the seat height of a water closet above the finished floor shall be 17 inches minimum and 19 inches maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position. Seats shall be 2 inches high maximum.

See the code for residential and alteration exceptions.

15. Per CBC Section 11B-604.5, grab bars shall be installed at the rear wall and side wall of water closets.
The side wall grab bar shall be 42 inches long minimum, located 12 inches maximum from the rear wall and extending 54 inches minimum from the rear wall with the front end positioned 24 inches minimum in front of the water closet. Please see Figure 11B-604.5.1.
The rear wall grab bar shall be 36 inches long minimum and extend from the centerline of the water closet 12 inches minimum on one side and 24 inches minimum on the other side. Please see Figure 11B-604.5.2.
16. Per CBC Section 11B-609.2.1, circular grab bars shall have an outside diameter of 1¼ inches minimum and 2 inches maximum. Please see Section 11B-609.2.2 for non-circular cross sections.
17. Per CBC Section 11B-609.4, grab bars shall be installed in a horizontal position, 33 inches minimum and 36 inches maximum above the finished floor measured to the top of the gripping surface.
18. Per CBC Section 11B-604.7.1, toilet paper dispensers shall comply with Section 11B-309.4 and shall be 7 inches minimum and 9 inches maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be below the grab bar, 19 inches minimum above the finished floor and not be located behind grab bars.
19. Per CBC Section 11B-604.7.2, where provided in accessible stalls, sanitary napkin disposal units shall comply with Section 11B-309.4 and shall be wall mounted and located on the sidewall between the rear wall of the toilet and the toilet paper dispenser, adjacent to the toilet paper dispenser. The disposal unit shall be located below the grab bar with the opening of the disposal unit 19 inches minimum above the finish floor.
20. Per CBC Section 11B-604.8.1.1, wheelchair accessible compartments shall be 60 inches wide minimum and 56 inches deep minimum for wall hung water closets and 59 inches deep minimum for floor mounted water closets. Maneuvering space shall comply with Figure 11B-604.8.1.1.2 and Figure 11B-604.8.1.1.3.
21. Doors opening into a water closet compartment must comply with CBC Section 11B-604.8.1.2. See Figure 11B-604.8.1.2.
22. Where a water closet compartment is 66 inches wide or less, toe clearance per CBC Section 11B-604.8.1.4 is required. Please see Figure 11B-604.8.1.4.
23. Per CBC Section 11B-604.8.3, coat hooks shall be located within one of the accessible reach ranges specified per CBC Section 11B-308.

24. Per CBC Section 11B-605.2, urinals shall be the stall-type or the wall-hung type with the rim 17 inches maximum above the finish floor or ground. Urinals shall be 13½ inches deep minimum measured from the outer face of the urinal rim to the back of the fixture. Please see Figure 11B-605.2.
25. Per CBC Section 11B-605.3, the clear floor space in front of accessible urinals shall be 30 inches minimum by 48 inches minimum.
26. Per CBC Section 11B-605.4, urinal flush controls shall be hand operated or automatic. The maximum height of controls shall be 44 inches above the finished floor.
27. Per CBC Section 11B-606.2, lavatory clear floor space shall be 30 inches minimum by 48 inches minimum. Clear floor or ground space shall be permitted to include knee and toe clearance complying with Section 11B-306.
28. Per CBC Section 11B-606.3, lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches maximum above the finished floor.
29. Per CBC Section 11B-606.5, water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact and shall have no sharp or abrasive surfaces under lavatories and sinks.
30. Per CBC Section 11B-606.6, lavatories, when located adjacent to a side wall or partition, shall be a minimum of 18 inches to the centerline of the fixture.
31. See CBC Section 11B-607 for information regarding accessible bathtubs.
32. See CBC Section 11B-608 for information regarding accessible showers.
33. See CBC Section 11B-610 for information regarding accessible seats in bathtubs and showers.
34. See CBC Section 11B-611 for information regarding accessible washing machines and clothes dryers.
35. See CBC Section 11B-612 for information regarding accessible saunas and steam rooms.
36. Per CBC Section 11B-703.7.2.6, doorways leading to toilet rooms and bathing rooms shall be identified by a geometric symbol. The symbol shall be mounted at 58 inches minimum and 60 inches maximum above the finish floor measured from the centerline of the symbol. Signs shall be centered on the door.
37. Per CBC Section 11B-703.7.2.6.1, men's toilet and bathing facilities shall be identified by an equilateral triangle, ¼ inch thick with edges 12 inches long and a vertex pointing upward. The triangle symbol shall contrast with the door.
38. Per CBC Section 11B-703.7.2.6.2, women's toilet and bathing facilities shall be identified by a circle, ¼ inch thick and 12 inches in diameter. The circle symbol shall contrast with the door.
39. Per CBC Section 11B-703.7.2.6.3, unisex toilet and bathing facilities shall be identified by a circle, ¼ inch thick and 12 inches in diameter with a ¼ inch thick triangle with a vertex pointing upwards superimposed on the circle and within the 12-inch diameter. The triangle symbol shall contrast with the circle symbol, either light on a dark background or dark on a light background. The circle symbol shall contrast with the door.
40. In accordance with AB 1732, effective March 1, 2017, all single accommodation restrooms shall be labeled unisex. Please correct door and tactile signage. This requirement is independent of permit application date.

ACCESSIBLE COMMUNICATION ELEMENTS

1. Per CBC Section 11B-216, interior and exterior signs identifying permanent rooms and spaces as well as signs that provide direction to or information about interior and exterior spaces and facilities shall comply with Section 11B-703.
2. Per CBC Section 11B-216.4.1, signs required by Chapter 10, Section 1013.4 at doors to exit passageways, exit discharge, and exit stairways shall comply with Sections 11B-703.1, 11B-703.2, 11B-703.3, and 11B-703.5.

Signs required by Section 1009.11 to provide instruction in areas of refuge shall comply with Section 11B-703.5. Signs required by Section 1009.9 at doors to areas of refuge and exterior areas for assisted rescue shall comply with Section 11B-703.1, 11B-703.2, 11B-703.3, and 11B-703.5 and include an International Symbol of Accessibility complying with Section 11B-703.7.2.1.

Signs required by Section 1009.10 to provide directions to accessible means of egress shall comply with Section 11B-703.5.

3. Per CBC Section 11B-216.6, entrances in existing buildings and facilities where not all entrances comply with the accessibility features of the 2019 CBC shall have a directional sign that indicates the location of the nearest entrance complying with Section 11B-404.
4. Per CBC Section 11B-216.11, where more than one check-out aisle is provided, check-out aisles complying with Section 11B-904.3 shall be identified by a sign complying with Section 11B-904.3.4.
5. Per CBC Section 11B-702.1, fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 and Section 907.5.2.1 and 907.5.2.3.
6. Per CBC Section 11B-703.1.1.1, plans and specifications for accessible signs shall be made a permanent part of the plans and shall be sufficient to verify compliance with all requirements of Chapter 11B.
7. Per CBC Section 11B-703.2, raised characters on signs shall be duplicated in Braille. Characters shall be raised 1/32-inch minimum above their background. All characters shall be uppercase, sans serif, and shall be a minimum of 5/8-inch tall and a maximum of 2 inches tall.
8. Per CBC Section 11B-703.3, all Braille shall be contracted (Grade 2) and shall comply with Section 11B-703.3 and 11B-703.4.
9. Per CBC Section 11B-703.4, tactile characters shall be located 48 inches minimum above the finish floor and 60 inches maximum above the finish floor. Please see Figure 11B-703.4.1.

Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Please see the code for information regarding double doors and locations where space is not available.

10. See CBC Section 11B-704 for accessible telephones.
11. See CBC Section 11B-706 for information regarding assistive listening systems.
12. See CBC Section 11B-708 for information regarding two-way communication systems.
13. See CBC Section 11B-219 for assistive listening systems.

STRUCTURAL REQUIREMENTS

1. In accordance with CBC Section 106.1, where floor live loads exceed 50 psf, such design live loads shall be conspicuously posted by the owner in that part of each story in which they apply, using durable signs. It is unlawful to remove or deface such signs. Please show the location and text of all signs on the plans.
2. Please provide calculations and details for all nonfixed, fixed, and movable fixtures, cases, racks, counters, and cantilevered partitions over 5'-9".
3. Per ASCE 7-16 Chapter 13, provide structural design and details for the anchorage of floor mounted equipment over 400 pounds and for suspended equipment over 20 pounds.
4. Please show how seismic design coefficients were obtained for this location.
5. In accordance with CBC Sections 107.2.7 and 1603.1, on the plans, clearly indicate all design criteria, vertical and lateral design loads applicable to this project, including but not limited to:
 - a. Floor live load
 - b. Roof live load
 - c. Roof snow load data
 - i. Where ground snow load is converted to roof snow load, please list all information contained in Section 1603.1.3.
 - d. All wind design data listed in Section 1603.1.4:
 - i. Basic wind speed
 - ii. Risk Category
 - iii. Wind exposure
 - iv. Applicable internal pressure coefficient
 - v. Design wind pressures to be used for exterior component and cladding materials not specifically designed by the RDP responsible for the design of the structure

- e. All earthquake design data listed in Section 1603.1.5
 - i. Risk category
 - ii. Seismic importance factor, I_e
 - iii. S_S and S_1
 - iv. Site Class
 - v. S_{DS} and S_1
 - vi. Seismic design category
 - vii. Basic seismic force-resisting system(s)
 - viii. Design base shear(s)
 - ix. C_S
 - x. R
 - xi. Analysis procedure used
 - f. Geotechnical information
 - g. Flood design data
 - h. Special loads, if applicable, including PV systems per Section 1603.1.8.
6. Provide structural calculations addressing a complete vertical and lateral analysis. All relevant requirements from the calculations shall be clearly indicated on the plans.
 7. Per ASCE 7-16 Section 12.7.2, in areas used for storage, a minimum of 25% of the floor live load shall be included in the seismic weight (see exceptions).
 8. Per ASCE 7-16 Section 12.7.2, where provision for partitions is required by Section 4.3.2 in the floor load design, the actual partition weight or a minimum weight of 10 *psf* (whichever is greater) shall be included in the seismic weight.
 9. Per ASCE 7-16 Section 12.7.2, where the flat roof snow load, P_f , exceeds 30 *psf*, 20% of the uniform design snow load, regardless of actual roof slope, shall be included in the seismic weight.
 10. Per ASCE 7-16 Section 12.7.2, the weight of landscaping and other materials at roof gardens and similar areas shall be included in the seismic weight.
 11. In accordance with CBC Section 2304.10.5, fasteners for preservative treated and fire treated wood shall be of hot dipped zinc coated galvanized steel, silicon bronze or copper. The coating weights for zinc coated fasteners shall be in accordance with ASTM A153.
 12. Provide structural details and calculations for light pole footings, retaining walls, etc. involved in this project but not part of the building. These may require separate permits.
 13. Provide structural details and calculations for equipment and components per ASCE 7-16 Chapter 13.
 - a. For seismic/wind connections.
 - b. For gravity support.
 14. Provide plate washers and anchorages in accordance with CBC Section 2308.3.1.
 15. The soils report requires foundation excavations to be reviewed by soils engineer. Note on the foundation plan "Prior to requesting a Building Department foundation inspection, the soils engineer shall inspect and approve the foundation excavations".
 16. Soil bearing pressure is limited to 1500 *psf* unless soil is classified in accordance with CBC Section 1806.2 and Table 1806.2, or a soils report recommends otherwise.
 17. Call out minimum thickness of 3 ½ inch concrete for grade floor slabs, reinforcement and 6-mil (vapor) moisture barrier on foundation plan in accordance with CBC Section 1907.

18. Please update all load combinations in accordance with CBC Section 1605.

The following load combinations shall be used for LRFD:

- a. $1.4(D + F)$ [Eq. 16-1]
- b. $1.2(D + F) + 1.6(L + H) + 0.5(L_r \text{ or } S \text{ or } R)$ [Eq. 16-2]
- c. $1.2(D + F) + 1.6(L_r \text{ or } S \text{ or } R) + 1.6H + (f_1L \text{ or } 0.5W)$ [Eq. 16-3]
- d. $1.2(D + F) + 1.0W + f_1L + 1.6H + 0.5(L_r \text{ or } S \text{ or } R)$ [Eq. 16-4]
- e. $1.2(D + F) + 1.0E + f_1L + 1.6H + f_2S$ [Eq. 16-5]
- f. $0.9D + 1.0W + 1.6H$ [Eq. 16-6]
- g. $0.9(D + F) + 1.0E + 1.6H$ [Eq. 16-7]

The following load combinations shall be used for ASD:

- a. $D + F$ [Eq. 16-8]
- b. $D + H + F + L$ [Eq. 16-9]
- c. $D + H + F + (L_r \text{ or } S \text{ or } R)$ [Eq. 16-10]
- d. $D + H + F + 0.75(L) + 0.75(L_r \text{ or } S \text{ or } R)$ [Eq. 16-11]
- e. $D + H + F + (0.6W \text{ or } 0.7E)$ [Eq. 16-12]
- f. $D + H + F + 0.75(0.6W) + 0.75L + 0.75(L_r \text{ or } S \text{ or } R)$ [Eq. 16-13]
- g. $D + H + F + 0.75(0.7E) + 0.75L + 0.75S$ [Eq. 16-14]
- h. $0.6D + 0.6W + H$ [Eq. 16-15]
- i. $0.6(D + F) + 0.7E + H$ [Eq. 16-16]

19. The weight of the footing used to resist uplift is considered a dead load. Please factor the weight per the following load combinations when calculating the allowable uplift:

a. For LRFD:

- i. $0.9D + 1.0W + 1.6H$ [CBC Eq. 16-6]
- ii. $0.9(D + F) + 1.0E + 1.6H$ [CBC Eq. 16-7]

b. For ASD:

- i. $0.6D + 0.6W + H$ [CBC Eq. 16-15]
- ii. $0.6(D + F) + 0.7E + H$ [CBC Eq. 16-16]

20. Hairpins are designed for $\Omega_o E$ load. Strength reduction factor (ϕ) shall be 0.75 for hairpin anchor reinforcement per ACI 318 Appendix D.6.2.9, not 0.9. Please revise.

21. The use of Strong Walls, Hardy Frames, and other similar manufactured braced wall panels may not be used in the same braced wall line unless loads are distributed based on their relative lateral stiffness as required by their corresponding ICC reports.

22. Provide damp proofing details for basement or other walls below finish grade in accordance with CBC Section 1805.

23. Call out anchor bolt size and spacing on foundation plan. Provide 1/2" (SDC 'D') or 5/8" (SDC 'E') diameter anchor bolt, as required per CBC Section 2308.3.1, embedded 7" minimum at 6' on center maximum spacing.

24. If required by structural calculations, show size, location and embedment length of hold down anchors on foundation plan.

25. Show continuous reinforcement in footings with #4 rebar top and bottom.

26. Note on Foundation plan that hold-down hardware must be secured in place prior to foundation inspection.

27. Provide complete details and specifications for the installation of glass block in accordance with CBC Section 2110.

28. Provide a section view of all new interior partitions.
 - a. Type, size and spacing of studs. Provide gauge and ICC number for metal studs.
 - b. Method of attaching top and bottom plates to structure. (NOTE: Top of partition must be secured to roof or floor framing, unless suspended ceiling has been designed for lateral load of partition.)
 - c. Wall sheathing material and details of attachment (size and spacing of fasteners).
 - d. Height of partition and suspended ceiling and distance from ceiling to structure above.
29. Per Simpson specifications for PHD hold downs, the designer must calculate and specify the anchor bolt type, length, and embedment for the PHD when not using the standard SSTB bolts. Please specify the SSTB bolts per the Simpson catalog listing for the PHD size on the plans, OR submit calculations and specifications for alternate anchorage type, length, and embedment
30. Please provide lateral bracing and gravity support details for the suspended ceilings. Suspended ceilings must conform to ASCE 7-16 Section 13.5.6 and more specifically Section 13.5.6.2.2, ASTM C635, ASTM C636, and ASTM E580, Section 5 – Seismic Design Categories D, E, and F as modified by ASCE 7-16.
31. Per ASCE 7-16 Section 13.5.6.2.2.a, the width of the perimeter supporting closure angle or channel shall not be less than 2.0 inches unless qualified perimeter supporting clips are used. Closure angles or channels shall be screwed or otherwise positively attached to wall studs or other supporting structures. Perimeter supporting clips shall be qualified in accordance with approved test criteria per Section 13.2.5 of ASCE 7-16.
32. Per ASCE 7-16 Section 13.5.6.2.2.a, perimeter supporting clips shall be attached to the supporting closure angle or channel with a minimum of two screws per clip and shall be installed around the entire ceiling perimeter. In each orthogonal horizontal direction, one end of the ceiling grid shall be attached to the closure angle, channel, or perimeter supporting clip. The other end of the ceiling grid in each horizontal direction shall have a minimum 0.75 inch clearance from the wall and shall rest upon and be free to slide on a closure angle, channel, or perimeter supporting clip.
33. Per ASCE 7-16 Section 13.5.6.2.2.b, include information about seismic separation joints for ceiling areas that exceed 2,500 square feet. Seismic joints must maintain required aspect ratios.
34. Per ASTM E 580 Section 5.1.1, only heavy-duty main tees defined in Specification C635 shall be used.
35. Per ASTM E 580 Section 5.2.2, the perimeter support angle shall supply a support ledge of not less than 2 inches.
36. Per ASTM E 580 Section 5.2.3, the main runner and/or cross runner ends shall be attached to the perimeter on two adjacent walls. A clearance of 3/4 inch shall be maintained between the main runner and cross runner ends and the perimeter members on the two opposite walls.
37. Per ASTM E 580 Section 5.2.3, where the terminal end runners are not fixed to the perimeter supporting closure, allow for 3/4 inch axial movement.
38. Per ASTM E 580 Section 5.2.4, terminal ends of main runners and cross runners not attached to the perimeter closure angle or channel, shall be prevented from spreading.
39. Per ASTM E 580 Section 5.2.5, direct concealed suspended ceiling systems shall have positively connected stabilizer bars or mechanically connected cross runners at a maximum spacing of 60 inches perpendicular to the main runners. Stabilization shall occur within 24 inches of each wall.
40. Per ASTM E 580 Section 5.2.6, the terminal end of each cross runner and main runner shall be supported independently, a maximum of 8 inches from each wall or ceiling discontinuity with No. 12-gauge wire or approved wall support.
41. Per ASTM E 580 Section 5.2.7.1, suspension wire shall be galvanized, soft-annealed, or mild steel No. 12-gauge minimum spaced at 4 feet on center along each main runner unless calculations are provided.
42. Per ASTM E 580 Section 5.2.7.2, each vertical wire shall be attached to the ceiling suspension member and to the support above with a minimum of three full tightly wrapped turns within a 3 inch length. Connections shall be capable of carrying not less than a 90 pound allowable load.
43. Per ASTM E 580 Section 5.2.7.3, suspension wires shall not hang more than 1:6 out of plumb.
44. Per ASTM E 580 Section 5.2.7.4, wires shall not attach to or bend around interfering material or equipment. A trapeze or equivalent device shall be used where obstructions preclude direct suspension and sized to appropriately resist dead loads and lateral forces.

The following T-bar ceiling restraints are required where the ceiling area is greater than 1,000 ft².

45. Per ASTM E 580 Section 5.2.8.2, provide four No. 12-gauge wires secured to the main runner within 2 inches of the cross runner intersection and splayed 90° from each other at an angle not exceeding 45° from the plane of the ceiling every 12 feet on center in both directions and beginning within 6 feet from each wall.
46. Per ASTM E 580 Section 5.2.8.2, a compression strut fastened to the main runner at the location of the bracing wires shall be extended to and fastened to the structural members supporting the roof or floor above. The strut shall be adequate to resist the vertical force induced by the bracing wires. These horizontal restraint points shall be placed 12 feet on center in both directions with the first point within 6 feet from each wall. Attachment of the restraint wires to the structure above and to the main runner shall be adequate for the load imposed.
47. Per ASTM E 580 Section 5.2.8.3, lateral force bracing wires and members shall be located a minimum of 6 inches from all unrestrained piping and ductwork. Bracing wire shall be attached to the grid and structure in such a manner that they can support a load of not less than 250 pounds.
48. Per ASTM E 580 Section 5.2.8.5, sprinkler heads and other penetrations shall have a 2 inch oversize ring, sleeve, or adapter through the ceiling tile to allow for free movement of at least 1 inch in all directions.
49. Per ASTM E 580 Section 5.2.8.6, changes in ceiling plane elevation shall have independent positive bracing.
50. Per ASTM E 580 Section 5.2.8.7, cable trays and electrical conduits shall be supported and braced independently of the ceiling.
51. Per ASTM E 580 Section 5.2.9.1, all continuous ceiling areas exceeding 2,500 ft² shall have a seismic separation joint, bulkhead braced to the structure, or full height partition that breaks the ceiling into areas of no more than 2,500 ft² and having a maximum 4:1 aspect ratio. Each area shall be capable of allowing +/- 3/4 axial movement.
52. Per ASTM E 580 Section 5.3.1, all lighting fixtures shall be positively attached to the suspended ceiling system by a minimum of two mechanical clips. The attachment device shall have the capacity of 100% of the lighting fixture weight acting in any direction.
53. Per ASTM E 580 Section 5.3.2, surface-mounted lighting fixtures shall be attached to the ceiling suspension system with positive clamping devices that completely surround the supporting members. Safety wires shall be attached between the clamping device and the adjacent ceiling hanger or to the structure above. In no case shall the fixture exceed the design carrying capacity of the supporting members.
54. Per ASTM E 580 Section 5.3.3, when the load carrying capability of cross tees supporting light fixtures is less than 16 plf, supplemental hanger wires shall be required, see Figure 8 of ASTM E 580.
55. Per ASTM E 580 Section 5.3.4, lighting fixtures weighing less than 10 pounds shall have one, No. 12-gauge safety wire connected from the fixture housing to the structure above. Wires need not be taut.
56. Per ASTM E 580 Section 5.3.5, lighting fixtures weighting more than 10 pounds but less than 56 pounds shall have two No. 12-gauge hanger wires connected from the fixture housing to the structure above. Wire need not be taut.
57. Per ASTM E 580 Section 5.3.6, lighting fixtures weighting 56 pounds or more shall be supported directly from the structure above by approved hangers.
58. Per ASTM E 580 Section 5.3.7, pendant-hung lighting fixtures shall be supported directly from the structure above using no less than No. 9-gauge wire. The ceiling shall not provide any direct support.
59. Per ASTM E 580 Section 5.3.8, rigid conduit shall not be used for attachment of the fixtures.
60. Per ASTM E 580 Section 5.4.1, flexible sprinkler hose fittings or other services weighing less than 20 pounds shall be positively attached to the ceiling suspension main runners or to cross runners that have the same carrying capacity as the main runners.
61. Per ASTM E 580 Section 5.4.2, flexible sprinkler hose fittings or other services weighing more than 20 pounds but less than 56 pounds shall be positively attached to the ceiling suspension main runners or to cross runners that have the same carrying capacity as the main runners and shall have two No. 12-gauge hanger wires connected from the terminal or service to the ceiling system hangers or to the structure above. Wires need not be taut.
62. Per ASTM E 580 Section 5.4.3, flexible sprinkler hose fittings or other services weighing more than 56 pounds shall be supported directly from the structure above by approved hangers.

63. In accordance with CBC Table 1808.8.1, foundations for Group U occupancies of light-frame construction, two stories or less in height, assigned to Seismic Design Category D, E, or F shall use 2,500 psi concrete; foundations for all other occupancies assigned to Seismic Design Category D, E, or F shall use 3,000 psi concrete.
64. In accordance with CBC Section 3108.1, towers shall be designed and constructed in accordance with the provisions of TIA-222-H. Towers shall be designed for seismic loads; exceptions related to seismic design listed in TIA-222-H Section 2.7.3 shall not apply.
65. In accordance with TIA-222-H Section 9.8.1, self-supporting latticed towers supported by independent foundations located in areas where $S_g > 1.0$, a grade beam or similar construction shall be installed. Such beams shall be capable of resisting 2/3 of the total seismic shear as calculations in Section 2.7.7 in compression and in tension.
66. In accordance with TIA-222-H Section 9.8.2, longitudinal reinforcement in piers supported on an isolated spread footing or in piles, piers or caissons supporting a pile cap or mat shall be continuous and extend into the footing, pile cap or mat and be fully developed in tension at the interface. The free ends of hooks utilized for longitudinal reinforcement shall be permitted to be oriented either inward or outward from the center of the longitudinal bar arrangement. When grouted reinforcing bars are used at the interface, the grouting system shall be demonstrated by testing to develop at least 125% of the minimum specified yield strength of the reinforcing bars.
67. In accordance with TIA-222-H Section 9.8.3, stirrup splices in piles, piers or caisson shall be staggered with a nominal 180 degree separation. Transverse reinforcement at the top of piles, piers or caissons supporting a pile cap or mat shall be in accordance with ACI 318 Section 18.13.4.3 and shall be anchored in accordance with ACI 318 Sections 25.7.2, 25.7.3 or 25.7.4.
68. In accordance with TIA-222-H Section 9.8.4, pile caps and mats supporting batter piles shall be designed to resist the full compressive strength of the batter piles acting as short columns.
69. In accordance with TIA-222-H Section 9.8.5, precast foundations shall have a design moment strength equal to or greater than the expected moment capacity of the pole determined in accordance with 2.7.9.
70. Per TIA-222-H, the modal analysis procedure shall be limited to pole structures and triangular or square cross section latticed self-supporting or bracketed towers. Latticed towers shall be limited to structures with symmetrical identical members in each panel of the structure (i.e. same main bracing pattern with same size bracing members and same size leg members in a given panel).

CALGREEN REQUIREMENTS

NOTE: Per CalGreen Section 301.3, the requirements listed below are required for all newly constructed buildings, building additions of 1,000 square feet or more, and/or building alterations with a permit valuation of \$200,000 or more (for occupancies within the authority of the California Building Standards Commission). Requirements relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of a permitted work.

1. Per CalGreen Section 5.106.1, all newly constructed projects and additions which disturb less than one acre of land shall prevent the pollution of stormwater runoff from the construction activities. Please indicate on the plans how this will be managed OR submit a site specific Best Management Plan (BMP) for this site.
2. Per CalGreen Section 5.106.4.1.1, if the new project or addition or alteration is anticipated to generate visitor traffic, please provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, or 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack for short-term bicycle parking.
3. Per CalGreen Section 5.106.4.1.2, for buildings with over 10 tenant-occupants, please provide secure long-term bicycle parking for 5% of tenant-occupied motorized vehicle parking spaces being added, with a minimum of one space. See the exception for addition or alterations.
4. Per CalGreen Section 5.106.5.2, in new projects or additions or alterations that add 10 or more vehicular parking spaces, please provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2.
5. Per CalGreen Section 5.106.5.3, when more than 9 parking spaces are provided, install EVSE raceways. Show location and specifications on plans.
6. Per CalGreen Section 5.106.10, construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering building. See the code for examples.

7. Per CalGreen Section 5.106.12, shade trees shall be planted in surface parking areas, landscape areas, and hardscape areas complying with sections 5.106.12.1, 5.106.12.2, and 5.106.12.3. See exceptions.
8. Per CalGreen Section 5.303.1.1, for new buildings or additions in excess of 50,000 square feet, separate submeters shall be installed as follows:
 - a. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gallons per day.
 - b. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:
 - i. Makeup water for cooling towers where flow through is greater than 500 gpm.
 - ii. Makeup water for evaporative coolers greater than 6 gpm.
 - iii. Steam and hot-water boilers with energy input more than 500,000 Btu/h.
9. Per CalGreen Section 5.303.1.2, separate meters shall be installed for any tenant within a new building or an addition that is projected to consume more than 1,000 gallons per day.
10. Per CalGreen Section 5.303.3.1, the effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the US EPA WaterSense Specification for Tank-Type Toilets. NOTE: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.
11. Per CalGreen Section 5.303.3.2, the effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush and the effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.
12. Per CalGreen Section 5.303.3.3.1, showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the US EPA WaterSense Specification for Showerheads.
13. Per CalGreen Section 5.303.3.3.2, when a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlet controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.
14. Per CalGreen Section 5.303.3.4.1, lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.
15. Per CalGreen Section 5.303.3.4.2, kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi.
16. Per CalGreen Section 5.303.4.1, disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.
17. Per CalGreen Section 5.407.2.2.1, primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finished within at least 2 feet around and perpendicular to such openings plus at least one of the following:
 - a. An installed awning at least 4 feet in depth.
 - b. The door is protected by a roof overhang at least 4 feet in depth.
 - c. The door is recessed at least 4 feet.
 - d. Other methods which provide equivalent protection.
18. Per CalGreen Section 5.408.1, please fill out a Construction Waste Management (CWM) Plan, CWM Worksheet, and CWM Acknowledgement and attach them to the construction documents. These forms may be found on the Building Inspection Department website at <https://kernpublicworks.com/building-and-development/building-inspection/>. Per CalGreen Section 5.408.1, 65% of nonhazardous waste must be diverted.
19. Per CalGreen Section 5.408.2, additions and alterations to a building shall require verification that Universal Waste items such as fluorescent lamp and ballast and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed of properly and are diverted from landfills.

20. Per CalGreen Section 5.410.1, provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling. Per Section 5.410.1.1, any addition or alteration resulting in less than a 30% increase in the tenant space floor area is exempt from this requirement.
21. Per CalGreen Section 5.410.2, for new buildings 10,000 square feet and over, building commissioning for all building systems covered by Title 24, Part 6, process systems and renewable energy systems shall be included in the design and construction processes of the building project. Commissioning requirements shall include items listed in Section 5.410.2. The following projects are exempt from the requirements of Section 5.410.2:
 - a. Unconditioned warehouses of any size.
 - b. Areas under 10,000 square feet used for offices or other conditioned accessory spaces within unconditioned warehouses.
 - c. Tenant improvements under 10,000 square feet as described in Section 303.1.1.
 - d. Open parking garages.
22. Per CalGreen Section 5.410.2.1, for newly constructed buildings, Owner's Project Requirements (OPR) shall be documented before the design phase of the project begins. The OPR shall include items listed in Section 5.410.2.1.
23. Per CalGreen Section 5.410.2.2, for newly constructed buildings, a written explanation of how the design of the building systems meets the OPR shall be complete at the design phase of the building project to cover the systems listed in Section 5.410.2.2.
24. Per CalGreen Section 5.410.2.3, for newly constructed buildings, a commissioning plan describing how the project will be commissioned shall include items listed in Section 5.410.2.3.
25. Per CalGreen Section 5.410.2.4, for newly constructed buildings, functional performance testing shall demonstrate the correct installation and operation of each component, system, and system-to-system interface in accordance with the approved plans and specifications.
26. Per CalGreen Section 5.503.1, install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace or a sealed woodstove or pellet stove and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150.
27. Per CalGreen Section 5.503.1.1, woodstoves and pellet stoves shall comply with US EPA New Source Performance Standards NSPS emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits.
28. Per CalGreen Section 5.504.1, if the HVAC system is used during construction, use return air filters with a MERV of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992. Replace all filters immediately prior to occupancy. Applies to additions and alterations.
29. Per CalGreen Section 5.504.3, at the time of rough installation and during storage on the construction site and until final startup of the heating, cooling, and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal, or other approved methods to reduce the amount of dust, water, and debris which may enter the system.
30. Per CalGreen Section 5.504.4.1, adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with Table 5.504.4.1 and 5.504.4.2.
31. Per CalGreen Section 5.504.4.3, architectural paints and coatings shall comply with Table 5.504.4.3.
32. Per CalGreen Section 5.504.4.4, all carpet installed in the building interior shall meet the testing and product requirements of one of the standards listed in Section 5.504.4.4.
33. Per CalGreen Section 5.504.4.4.2, all carpet adhesive shall meet the requirements of Table 5.504.4.1.
34. Per CalGreen Section 5.504.4.5, hardwood plywood, particleboards and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in Table 5.504.4.5.
35. Per CalGreen Section 5.504.4.6, resilient flooring systems shall comply with the VOC-emission limits defined in the 2014 CA-CHPS criteria and listed in its High Performance Products Database, products certified under the UL GREENGUARD Gold program, certified under the FloorScore program of the Resilient Floor Covering Institute, or shall meet California Department of Public Health 2010 Specification.

36. Per CalGreen Section 5.505.1, building shall meet or exceed the provisions of CBC Section 1202 and Chapter 14.
37. Per CalGreen Section 5.506.2, for buildings or additions equipped with demand control ventilation, CO₂ sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120.1(c)4.
38. Per CalGreen Section 5.507.4, employ building assemblies and components with STC values determined in accordance with ASTM E90 and ASTM E413 or OITC determined in accordance with ASTM E1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.
39. Per CalGreen Section 5.507.4.3, wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.
40. Per CalGreen Section 5.304, landscape water use shall be regulated. Please complete the Kern County Landscape Water-Efficiency Forms for this project. If (a) less than 500 sq. ft. of new landscaping, or (b) less than 2,500 sq. ft. of rehabilitated landscaping, or (c) no water using landscaping is proposed, only the first page must be filled out. The form can be found on our website on the "Bulletins/Documents/Forms" page, under the "Forms" section, in the "Green Building Standards" tab. This form is intended to be filled out on a computer.