

Building and Fire Code Requirements

for

Cannabis Related Occupancies

The following regulations pertain to City of Barstow Building Division and Fire Prevention Department requirements for the permit application, plan review, approval, and inspection of cannabis related occupancies. The requirements listed below are intended to assist the applicant with *some* of the requirements applicable to a Building Division permit submittal, and are not to be considered an all- inclusive listing of Building and/or Fire Code requirements for plan approval or permit issuance. Only items pertinent to each specific submittal are to be included. Every listed item will not necessarily be applicable to all projects.

General Requirements

1. Industrial Cannabis Zoning (Green Zone)
Building type in the Industrial Green Zone shall consist of indoor growing only, indoor processing/manufacturing, or indoor testing and shall be Concrete tilt-up construction (see attached examples) that will house all types of cannabis operations that are allowed to be performed within the Industrial Green Zone. A glass roof/sky lights will be allowed if the concrete tilt-up design will allow it (structurally). The objective of this requirement is to have the Cannabis operations look like normal buildings, and have the ability to switch from a cannabis operation to a warehouse/trucking operation without too many modifications having to be performed.
2. Commercial Cannabis Zoning (Green Zone)
Building's located within the Commercial Cannabis Green Zone shall be made of Concrete tilt-up style construction if large scale growing is implemented inside those structures (over 2,500 SQFT). Any operation that consists of less than 2,500 SQFT of growing and has a dispensary, the type of construction can be standard stick built/brick and mortar. If the building is existing, the type of construction can be as is and make modifications as needed to be an appealing design if not already. Metal buildings will be allowed for dispensary operations with design modifications (commonly known as ginger breading) on the outside so the building does not appear to be a metal building.
3. A building permit is required to verify occupancy for a cannabis facility, even if no improvements or modifications to the property are proposed. The building permit application must meet the City's general building permit submittal requirements.
4. Construction plans, calculations and related documentation supporting the building permit application are required per the *California Building Code* Section 105 when the owner or occupant intends to construct, enlarge, alter, remove, repair, demolish, or change the occupancy of a building or structure; or to erect, install, enlarge, alter, repair, remove, convert, or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by the

Building and/or Fire Code; or to cause this work to be done. As a minimum, a site plan and floor plan of the proposed occupancy shall be submitted for all proposed projects.

5. All Building permit design and supporting documentation is required to be prepared, stamped, and signed by qualified design professionals licensed and registered by the state of California.
6. An application for a building permit will not be accepted for a cannabis related business without confirmation that all discretionary approvals have been obtained or a zoning clearance has been issued.
7. All construction and related work must be performed by contractors licensed by the State of California as general and/or specialty contractors for the specific discipline of work to be performed.
8. All design and construction shall be consistent with the provisions of the City of Barstow Municipal Code and the current edition of the *California Building and Fire Codes* as adopted by the California Building Standards Commission, and as amended by the City of Barstow's Municipal Code.
9. A City of Barstow building permit application form must be completed in its entirety and included with each submittal.
10. Codes and Standards regulating cannabis facilities currently adopted and/or recognized by the City of Barstow include, but are not limited to:
 - A. *California Building Code (CBC)*
 - B. *California Electrical Code (CEC)*
 - C. *California Mechanical Code (CMC)*
 - D. *California Plumbing Code (CPC)*
 - E. *California Energy Code*
 - F. *California Fire Code (CFC)*
 - G. *California Existing Building Code (CEBC)*
 - H. *California Green Building Standards Code (CalGreen)*
 - I. *California Existing Building Code (CEBC)*
 - J. *California Health and Safety Code (H&SC)*
 - K. *California Business and Professions Code (B&PC)*
 - L. *National Fire Protection Association Standards (NFPA)*
 - M. *Medical and Adult Use Cannabis Regulation and Safety Act (MAUCRSA)*
 - N. *City of Barstow Municipal Code (BMC)*
11. A project specific submittal package is required for each individual building and building address, or each tenant in multi-tenant buildings. A minimum of 3 sets of plan documents, 2 sets of Title 24 energy compliance documentation and 2 sets of CALGreen check lists are required at time of submittal. Additional documentation may be required for structural modifications and/or additions to existing building or structures. Contact the Permit Center for final determination of required documentation for submittal.
12. The plan review fees must be paid in full before the plans will be accepted for plan review.

13. Construction or work for which the permit is required shall be subject to inspection by the Building Division and/or Fire Department, and such construction or work shall remain accessible and exposed for inspection purposes until approved. No construction shall commence prior to the issuance of a Building permit.
14. No building or structure shall be used or occupied, and no change in the existing occupancy classification of the building or structure or portion thereof shall be made, until the Building Official has issued a certificate of occupancy. Issuance of a Certificate of Occupancy shall not be construed as an approval of a violation of the provisions of applicable codes and standards or the other regulations of the State of California or the City of Barstow.
15. The owner/occupant is required to keep all City approved plans, specifications, and related documents on the premises, in an easily accessible location for City inspection staff for the required inspections.
16. All gray water, condensation, inside water run-off shall be captured and recycled in accordance with the City of Barstow's requirements.

Building Code Requirements (applicable to all occupancies and MAUCRSA permit types)

1. The height and area of all structures shall be designed and detailed for compliance with CBC Chapter 5.
2. The Building Official shall determine the Occupancy and Construction Type of the proposed facility, and such occupancy designation shall be clearly identified by the applicant on the construction plan documents consistent with the requirements of CBC Chapter 6.
3. All fire rated elements in the space must meet the applicable requirements of CBC Chapter 7.
4. Applicable Means of Egress requirements shall be consistent with CBC Chapter 10. The design for the occupant load based on CBC Chapter 10, § 1004. Unless otherwise determined by the Building Official, growing, storage and shipping areas are 300 sq. ft. per person; cannabis manufacturing, processing, and infused products preparation, testing and business areas are 100 sq. ft. per person.
5. The minimum required exit width shall be consistent with CBC § 1005.
6. The means of egress, including the exit discharge, shall be illuminated at all times the building space is occupied in accordance with CBC § 1008.
7. Accessible means of egress is required. Accessible means of egress shall comply with CBC § 1007. Occupiable spaces shall be provided with not less than one accessible means of egress. Where CBC requires more than one means of egress from any space, each portion of the space shall be served by not less than two accessible means of egress. § 1015.1 or § 1021.1. An accessible route of travel shall be provided and maintained between multiple required exits from any space or building including cultivation areas.

8. The minimum width of stairways shall be consistent with CBC § 1005.1, but such width shall not be less than 44 inches. CBC § 1009.3.2
9. Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening means of egress doors within exits shall be marked by exit signs. Exit sign placement shall be such that no point in an exit access corridor or exit passageway is more than 100 feet or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign. CBC § 1013.
10. Two exits are required from all spaces when the occupant load is greater than 49 occupants and/or the *common egress path of travel* distance exceeds 75 feet, CBC § 1006.2.1 (NOTE: In other than H Occupancies, A 100-foot common path travel distance is allowed if the building is equipped with an automatic fire sprinkler system in accordance with CBC § 903.3.1.1)
11. Corridors shall be fire-resistance rated in accordance with CBC Table 1020.1. The corridor walls required to be fire-resistance rated shall be consistent with CBC § 708 for fire partitions.
12. Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide direct access to grade. The exit discharge shall not re-enter a building, and shall provide a compliant path of travel to the Public Way. CBC § 1028.
13. Interior finish requirements based on occupancy type of group. Interior wall and ceiling finishes shall have a flame spread index not greater than that specified in CBC Table 803.13 for the group and location designated. Interior wall and ceiling finish materials tested in accordance with NFPA 286 and meeting the acceptance criteria of CBC § 803.1.1.1, shall be permitted to be used where a Class A classification in accordance with ASTM E 84 or UL 723 is required. CBC § 803.1.2.
14. All materials used as interior finishes, trim and decorative materials must comply with the provisions of CBC §803 “Wall and Ceiling Finishes” and the flame spread rating for interior finishes or covered with a thermal barrier per CBC § 2603.4. Plastic film, foam plastic insulation and the paper facing on fiberglass insulation must be rated or covered with an approved thermal barrier.
15. The ventilation, temperature control, lighting, yards and courts, sound transmission, room dimensions, surrounding materials and rodent proofing associated with the interior spaces of buildings shall be consistent with CBC Chapter 12, “Interior Environment”.

Accessibility Requirements (applicable to all occupancies and MAUCRSA permit types)

Accessibility requirements are based on standards outlined in CBC Chapter 11-B. Access shall be provided throughout the building for individuals with disabilities.

Accessibility requirements apply to sites, building, structures, facilities, elements, and spaces,

temporary or permanent to provide access to individuals with disabilities. This includes anyone who utilizes a space, including occupants, employees, students, spectators, participants, and visitors. Minimum scoping and technical requirements are set forth in CBC Chapter 11-B. New buildings, structures, facilities, elements, and spaces must comply in their entirety. Additions and alterations to existing buildings or facilities must comply with CBC § 11B-202.4. Alterations that decrease accessibility are prohibited.

The following is a list of some of the elements of required access for individuals with disabilities:

Path of travel requirements.

When alterations or additions are made to an existing buildings or facilities, an accessible path of travel to the specific area of alteration or addition shall be provided. The primary accessible path of travel shall include:

- A. A primary entrance to the building or facility,
 - B. Toilets and bathing facilities serving the area,
 - C. Public telephones serving the area, and
 - D. Signs.
1. Interior accessible path of travel shall address all the following:
 - A. Accessible routes to all functional areas.
 - B. Common use circulation paths with employee work areas.
 - C. Clear width of walking areas.
 2. Door or gate information should include:
 - A. Required clear width dimensions.
 - B. Maneuvering clearances.
 - C. Level landings on each side of doors or gates.
 - D. Required threshold dimensions and geometry.
 - E. Door or gate hardware should not require tight grasping, pinching, or twisting of the wrist.
 - F. Required smooth surface dimensions on push side of the door within the finish floor or ground.
 3. Restroom information should include:
 - A. Turning space within the room.
 - B. Door swing not in the clear space of any fixture (except for a single user).
 - C. Mirrors and accessories.
 - D. Clear floor space at fixtures.
 - E. Compartment configuration side and end entry, toe clearances.
 - F. Side and rear grab bars.
 - G. Accessible lavatories (sinks), heights and knee clearances.
 - H. Restroom symbols on doors.
 - I. Shower compartments (if any) must be accessible.
 - J. Drinking fountains.
 4. Miscellaneous elements include:

- A. Dressing and locker rooms.
 - B. Storage.
 - C. Exit signs (tactile)
 - D. Signs.
 - E. Benches.
 - F. Dining or break room tables.
 - G. Electrical switches, controls, and electrical receptacle outlets.
 - H. Kitchen and common sinks.
5. Site plan should include information on site accessibility features including:
- A. Arrival points including parking area access points and signage from the public way.
 - B. The location and number accessible parking stalls and the number of standard parking stalls.
 - C. Access aisles from parking.
 - D. The slope of the accessible parking spaces and access aisles.
 - E. The identification at accessible spaces and/or lot entrances.
 - F. A clear accessible egress path of travel to the adjoining public way.

Fire Code Requirements (applicable to all occupancies and MAUCRSA permit types)

All applicants will need to provide a detailed written scope of work related to all business activities, equipment and products utilized in their business model or process in compliance with the current Edition of the California Building and Fire Codes. List license type(s) proposed, storage configurations, equipment type and location, and hazardous materials to be stored and utilized. Prior to finalization of Building Permit, annual operation permits will need to be secured with the Fire Department.

1. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in CFC § 903 and as amended by the Barstow Fire District's Fire Ordinance. A change in the occupancy of the space, substantial alterations, or an expansion of square footage, may require the installation of a fire suppression system for the proposed space.
2. Automatic fire-extinguishing systems, other than automatic sprinkler systems, shall be designed, installed, inspected, tested, and maintained in accordance with the provisions of CFC § 903 and the applicable referenced standards.
3. An approved fire alarm system installed in accordance with the provisions of the CFC and NFPA 72 shall be provided in new buildings and structures in accordance with CFC § 907.2 and provide occupant notification in accordance with CFC § 907.6 as well as specific requirements detailed in CFC Chapter 38.
4. Duct smoke detectors complying with UL 268A shall be installed in accordance with the CBC, CFC, CMC and NFPA 72.
 - a. In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 CFM. Such detectors shall be located in a serviceable area downstream of the last duct inlet.

- b. At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system.
5. Portable fire extinguishers shall be installed in F, B, H, and U occupancy groups per CFC § 906. The size and distribution of portable fire extinguishers shall be in accordance with CFC § 906.
6. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the Fire Code Official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type and shall contain keys to gain necessary access as required by the Fire Code Official per CFC § 506.1
7. The provisions of CFC § 407 shall be applicable where hazardous materials subject to permits under CFC § 5001.5 are used and/or stored on the premises or where required by the Fire Code Official.
8. Storage, use and handling of compressed gases in compressed containers, cylinders, tanks, and systems shall comply with CFC Chapter 53 including those gases regulated elsewhere in the CFC and/or any applicable NFPA Standards as determined by the Fire Code Official. Partially full compressed gas container, cylinders or tanks containing residual gases shall be considered as full for purposes of the controls required.
9. Compressed gases classified as hazardous materials shall also comply with CFC Chapter 50 for general requirements and chapter addressing specific hazards, including CFC Chapters 58 (Flammable Gases), 60 (Highly Toxic and Toxic Materials), 63 (Oxidizer, Oxidizing Gases, and Oxidizing Cryogenic Fluids) and 64 (Pyrophoric Materials) and/or any applicable NFPA Standards as determined by the Fire Code Official.
10. The storage, use and handling of all hazardous materials shall be in accordance with CFC Chapter 50 and California Health and Safety Code requirements. The maximum allowable quantity (MAQ) of hazardous materials per control area will be established using CFC § 5003.1. Applicant will need to contact the Fire Department for hazardous materials storage permitting and approval.
11. Hazardous Materials Inventory Statement (HMIS) per CFC § 5001.5.2. An application for building permit shall include an HMIS. The HIMS shall include the following information:
 - A. Product name.
 - B. Component.
 - C. Chemical Abstract Service (CAS) number.
 - D. Location where stored or used.
 - E. Container size.
 - F. Hazard classification.
 - G. Amount in storage.
 - H. Amount in use-closed systems.
 - I. Amount in use-open systems.
 - J. Safety Data Sheets (SDS) for all proposed materials

The business will also need to comply with electronic reporting requirements specific to the California Environmental Reporting System (CERS). Applicants will need to contact the Fire Prevention Department for direction and permitting related to hazardous materials inventory reporting amounts.

12. The smoking or carrying of a lighted pipe, cigar, cigarette or any other type of smoking paraphernalia or material is prohibited in the areas indicated in CFC § 310.
13. Storage of combustible materials in buildings shall be orderly. Storage shall be separated from heaters or heating devices by distance or shielding so that ignition cannot occur per CFC § 315.
14. Any security device or system that emits any medium that could obscure a means of egress in any building, structure or premise shall be prohibited per CFC § 316.5.
15. Reporting of emergencies, coordination with emergency response forces, emergency plans and procedures for managing or responding to emergencies shall comply with the provisions of CFC § 401.
16. Emergency evacuation drills complying with provisions of the Fire Code shall be conducted at least annually for Group H and Group F occupancies listed in section CFC § 403 or when required by the Fire Code Official. CFC § 405.
17. High-piled storage or rack storage in any occupancy group shall comply with the CFC Chapter 32.

Electrical Code Requirements (applicable to all occupancies and MAUCRSA permit types)

1. All electrical system design and permitting is required to be performed by licensed electrical engineers registered in the State of California or qualified and experienced licensed electrical contractors if they are performing the actual installations (design-build).
2. All electrical system(s) installation is required to be completed by licensed electricians and licensed electrical contractors.
3. The electrical system must be sized and installed in accordance with the California Electrical Code.
4. A single line diagram of the existing and proposed electrical system, including the main electrical service shall be provided in the submittal.
5. Electrical services which are 400 amps or greater must be designed by licensed electrical engineers registered in the State of California.
6. All electrical equipment must be listed and labeled by an approved testing agency, CEC Article 110.3.
7. Flexible cords (extension cords) are not permitted to substitute for fixed wiring and cannot be routed through or concealed in walls, structural ceilings, suspended ceiling, dropped ceilings or floors, attached to building surfaces, be within 6' - 8" of a means of egress, or subject to physical damage CEC § 400.12.

8. All buildings that are being newly constructed will be required to install a Concrete Encased Grounding Electrode (Ufer).
9. Heating and cooling equipment shall require a 15 or 20-amp GFCI protected service receptacle within 25 feet of the equipment. CEC article 210.63.

Mechanical Code Requirements (applicable to all occupancies and MAUCRSA permit types)

1. The provisions of the CMC shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to or the maintenance of mechanical systems.
2. A ventilation system shall be required to filter contaminants to the exterior of the building and any adjoining property (SRCC 20-46.050). The mechanical ventilation or exhaust system shall be installed to control, capture, and remove emissions or other odors generated from product growing, processing, use or handling where required in accordance with the Building or Fire Code, or as a Condition of Discretionary Approval. The design of the system shall be such that the emissions or other odors are confined to the area in which they are generated by air currents, hoods, or enclosures and shall be treated by removing contaminants. Certification of the odor control system design by a licensed engineer shall be submitted at the time of permit application.
3. Provide an exhaust system designed and constructed to capture sources of contaminants to prevent spreading of contaminants to other parts of the occupied spaces of the building (CMC Chapter5).
4. Building elements separating the cannabis agricultural area from other occupied portions of the building must be air sealed to prevent odor migration into adjacent spaces.
5. Appliances regulated by this code shall be listed and labeled for the application in which they are installed and used.
6. The inlet for the ventilation system shall be located in the area(s) of the highest contaminant concentration per CMC.
7. Every occupied space shall be ventilated by natural means in accordance with CMC § 402.2 or by mechanical means in accordance with CMC § 402.3.
8. Label information. A permanent factory-applied nameplate shall be affixed to appliances on which shall appear in legible lettering, the manufacturer's name or trademark, the model number, serial number and the seal or mark of the approved agency. A label shall also include the following:
 - A. *Electrical equipment and appliances*: Electrical rating in volts, amperes, and motor phase; identification of individual electrical components in volts, amperes or watts, motor phase; Btu/h (W) output; and required clearances.
 - B. *Absorption units*: Hourly rating in Btu/h (W); minimum hourly rating for units having step or automatic modulating controls; type of fuel; type of refrigerant; cooling capacity

- in Btu/h (W); and required clearances.
- C. *Fuel-burning units*: Hourly rating in Btu/h (W); type of fuel approved for use with the appliance; and required clearances.
 - D. *Electric comfort heating appliances*: Name and trademark of the manufacturer; the model number or equivalent; the electric rating in volts, ampacity and phase; Btu/h (W) output rating; individual marking for each electrical component in amperes or watts, volts, and phase; required clearances from combustibles; and a seal indicating approval of the appliance by an approved agency. CMC § 307.2
9. The building or structure shall not be weakened by the installation of mechanical systems. Where floors, walls, ceilings or any other portion of the building or structure are required to be altered or replaced in the process of installing, replacing, or repairing any system, such alterations shall be designed by a licensed design professional such that the building or structure shall be left in a safe structural condition in accordance with the CBC, CEBC, CMC. Anchorage of any mechanical equipment greater than 400 lbs. shall be designed and detail by a licensed design professional.
10. Condensate drain systems shall be provided for equipment and appliances containing evaporators or cooling coils. Condensate drain systems shall be designed, constructed, and installed in accordance with CMC § 310.3 and shall be captured for reuse.
11. Mechanical ventilation systems shall be provided with manual or automatic controls that will operate such systems whenever the spaces are occupied. Air-conditioning systems that supply required ventilation air shall be provided with controls designed to automatically maintain the required outdoor air supply rate during occupancy. CMC § 402.3.

Plumbing Code Requirements (applicable to all occupancies and MAUCRSA permit types)

1. New plumbing installations and alteration must meet requirements of the California Plumbing Code.
2. The provisions of the CPC shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to or the maintenance of plumbing systems, nonflammable medical gas, carbon dioxide extraction systems, inhalation, anesthetic, vacuum piping, nonmedical oxygen systems, sanitary and condensate systems, vacuum collection systems, fuel gas distribution piping and equipment, gas water heaters and water heater venting.
3. Plan documents must identify the locations of plumbing fixtures and fixture types.
4. Plans shall identify the locations of water heater(s), water supply and distribution, indirect and special waste, sanitary discharge, vents, traps, backflow preventers and interceptors and separators.
5. Plumbing fixtures and fixture fittings must be designed for individuals with disabilities and with the appropriate standards.
6. Installed plumbing systems regulated by this code shall be listed and labeled for the application in which they are installed and used, unless otherwise approved in accordance

with CPC.

Energy Code Regulations (applicable to all occupancies and MAUCRSA permit types)

New, modified and altered building envelope, lighting and mechanical systems must be designed to comply with California Energy Code Nonresidential requirements. The City of Barstow is located within Climate Zone 14. For purposes of energy design, the designer is responsible for specifying the building features that determine compliance with Building Energy Efficiency Standards and other applicable building codes. Alterations must comply with mandatory measures for the altered components.

1. The energy documents will be required for lighting, cooling, heating, water heating and building envelope modifications.
2. The mechanical equipment for heating and cooling the offices and cultivation facility must be certified and may require field verification testing. Heating, cooling, and ventilation equipment shall be designed and installed in compliance with California Energy Code §110.2.
3. All areas, other than lighting used for plant growth, must meet mandatory requirements for lighting control devices and systems (California Energy Code § 110.9).
4. Lighting wattage for the exclusive use in plant growth is not counted toward building lighting load if controlled by a multi-level astronomical time-switch control that complies with the applicable provisions of California Energy Code § 110.9.

CalGreen Code Requirements (applicable to all occupancies and MAUCRSA permit types)

California Green Building Standards Code provides provisions to outline planning design and development methods for environmentally responsible site and building design to protect, restore and enhance the environmental quality of the site, building and respect the integrity of adjacent properties. New construction; Additions with an area greater than 1000 sq. ft.; and alterations exceeding \$200,000 in construction valuation shall include a Non-residential CalGreen Building Check List demonstrating compliance with Tier 1 requirements. (SRCC § 18-42.010). All projects requiring CalGreen compliance shall include submittal of a CalGreen checklist prepared by an approved certified CalGreen inspector at the time of permit application. Field inspection certification from an approved certified CalGreen inspector shall be submitted prior to occupancy. The following items shall be addressed as required by the CalGreen checklist:

1. Storm water pollution prevention.
2. Bicycle parking.
3. Electric charging stations.
4. Outdoor lighting that complies with California Energy Code requirements.
5. Water efficiency and conservation. Indoor water use and reuse. Outdoor water use-WELO.
6. Construction waste reduction, disposal, and recycling.

7. Building maintenance and operation. Systems commissioning, testing, and operations training.
8. Pollutant control.

MAUCRSA Permit Specific Requirements

The requirements in this section are related to specific permit types as outlined in the *Medical and Adult Use Cannabis Regulation and Safety Act* (MAUCRSA)

Cultivation Facilities (MAUCRSA permit types 1-5)

1. An Annual Fire Operational Permit is required for all cannabis cultivation facilities. SRCC 18-44.105.6.50 (6).
2. Cannabis Cultivation facilities shall be consistent with CBC, Chapter 3 requirements based upon Use and Occupancy Classification for a Factory Industrial, F-1, Moderate-hazard Occupancy. CBC §306.2.
3. Cultivation areas shall be considered “wet locations” as they are subject to wash down. Indoor wet location wiring methods shall meet requirements of CEC article 300.6.
4. Grow lights must be installed per the manufacture instructions and wired per CEC article 410.
 - A. Remote ballasts shall be installed as near to the lamp as practicable to keep the secondary conductors as short as possible.
 - B. Ballast secondary cord/conductors cannot pass through partitions and must be visible its entire length outside the fixture.
 - C. All grow lights shall be controlled by a multi-level astronomical time switch.
5. High-Intensity Discharge Lighting. Luminaires that use a Metal Halide lamp, other than a thick- glass parabolic reflector lamp (PAR), shall be provided with a containment barrier (LENS) on the fixture. CEC article 410.130(F)(5).
6. NM cable (Romex) is not allowed for use in damp locations (cultivation rooms). Approved wiring methods utilized in cultivation facilities shall be consistent with “Wet Use” Wiring Methods and Materials, (CEC Chapter 3).
7. Cultivation areas shall be supplied with ventilation at a minimum rate of 15 cfm/person for the number of occupants. The minimum occupant load for ventilation design shall be specified by the building designer, and shall not be less than one half of the maximum occupant load assumed for egress purposes as specified in the California Building Code, whichever is greater.
8. All applications for a cultivation occupancy shall include an odor mitigation plan certified by a qualified licensed professional engineer that includes the following:
 - A. Operational processes and maintenance plan, including activities undertaken to ensure the odor mitigation system remains functional;
 - B. Staff training procedures;

- C. Engineering controls, which may include carbon filtration or other methods of air cleansing, and evidence that such controls are sufficient to effectively mitigate odors from all odor sources.

All odor mitigation systems and plans submitted pursuant to this subsection shall be consistent with accepted and best available industry-specific technologies designed to effectively mitigate cannabis odors

9. Cultivation facility exhaust outlets must be located at least 10' from the property lines, operable openings into the building and from mechanical air intakes (CMC § 506.9).
10. A separate permit from the Fire Prevention Department is required for CO₂ enrichment systems used within any cultivation system and room. Separate monitoring alarm systems shall be provided in all buildings, areas or rooms which use CO₂ enrichment

Manufacturing Facility (MAUCRSA permit type 6, N, P)

1. An Annual Fire Department Operational Permit is required for all cannabis manufacturing facilities. SRCC 18- 44.105.6.50 (6)
2. All Plant Processing and Extraction facilities shall comply with CFC.
3. Facilities used for processing cannabis into foods, beverages, salves, inhalants, tinctures or other forms for human consumption or use are subject to review and approval by the San Bernardino County Environmental Health Division. A separate permit application is required through their office. Building permits will not be issued prior to plan approval from Health Department. Final occupancy will not be granted prior to field inspection and approval from Health Department.
4. Type 6 (non-volatile) manufacturing facilities shall comply with CBC, Chapter 3 requirements based upon Use and Occupancy Classification for a Factory Industrial, F-1, Moderate-Hazard Occupancy. High pressure CO₂ extraction may require classification as a High Hazard H-2 Occupancy based upon system pressure and/or volume. CBC § 306 and 307.
5. Type 7 (volatile) manufacturing facilities are to meet CBC, Chapter 3 requirements based upon Use and Occupancy Classification for a Factory Industrial, F-1, Moderate-Hazard Occupancy, or High Hazard Group H-2 based upon the Maximum Allowed Quantities (MAQ) of hazardous, dangerous, flammable, or combustible materials used and/or stored in the facility. CBC § 306 and 307.
6. Extraction processes utilizing flammable gasses or flammable cryogenic fluids shall not be located in a building containing a Group A, E, I, or R occupancy.
7. Cannabis manufacturing facilities shall submit as a part of their permit application a comprehensive description of the program and all processes proposed for the operation and production at the facility. The documentation shall, as applies, include (but not be limited to) all the following:

- A. A written narrative that specifies all means, methods, materials, and equipment to be used for extracting, heating, washing, infusing, cooking, baking or otherwise combining, or changing the form of the cannabis plant; all methods and equipment used for testing any cannabis or cannabis product; all methods, materials, and equipment used for processing and packaging the final product; all means, methods, and quantities for storage of raw and processing materials, and final products.
 - B. A description of all toxic, dangerous, hazardous, volatile, flammable, or other materials regulated by the CBC, CFC, or any other federal, state, or local government codes and standards that will be used, stored, processed, or created at the facility; the quantities of such materials used at each location within the facility; and the manner and quantity in which such materials will be stored.
 - C. Material Safety Data Sheets for all proposed toxic, dangerous, hazardous, volatile, or health hazard materials proposed for storage and use within the facility.
8. Concentrations of grease, smoke, heat, steam, off-gassing, or products of combustion created when cannabis is manufactured into products including, but not limited to, foods, beverages, salves, inhalants, and tinctures are to be contained as detailed in the CMC §s 507 (Type I and Type II hoods). Hoods that are utilized for the removal of grease laden vapors shall be protected by a fixed engineered extinguishing system. Contact the Fire Prevention Department for verification of requirements under a separate permit.
9. Sanitation requirements for facilities used for processing cannabis into foods, beverages, salves, inhalants, and tinctures shall meet the requirements of San Bernardino County Environmental Health Department. The following are general guidelines that are to be detailed on the drawings submitted for review:
 - A. Location of hand wash sinks.
 - B. Hand sinks must be conveniently located for employees.
 - C. Hand sinks shall only be used for hand washing (maximum water temperature of 110 degrees is to be maintained through an appropriate mixing valve).
 - D. Sinks used for food or medicine preparation or for washing equipment shall not be used for hand washing.
 - E. How dishes will be washed. CPC requires all food handling and health care related fixtures, devices, and equipment to discharge through indirect waste lines into a floorsink.
 - F. Contact surfaces shall be smooth, free of breaks, open seams, cracks, chips, pits and similar imperfections, free from sharp internal angles, corners, crevices, finishes to have smooth welds and joints.
 - G. Equipment containing bearings and gears shall be designed, constructed, and maintained to ensure that it meets food and health requirements (washing machines are not listed for food or health related preparations).
 - H. All rooms shall have sufficient ventilation to keep them free from excessive heat, steam, condensation, vapors, odors, smoke, and fumes per CMC.
 - I. Table or counter mounted equipment shall be installed to facilitate the cleaning of the equipment and adjacent areas by being sealed to the surface

- or elevated by at least four inches.
- J. Three compartment sinks are required for washing, rinsing, and sanitizing equipment and utensils.
 - K. At least one utility or mop sink must be provided.
 - L. Garbage and refuse shall be stored in a manner to be inaccessible to insects and rodents.
 - M. Floors shall be smooth, durable, nonabsorbent, light colored and maintained in good repair.
 - N. Walls and ceilings must be smooth and easily cleanable.
 - O. Hazardous materials waste discharge to the sanitary sewer is prohibited.
10. Storage, use and handling of compressed gases in compressed gas containers, cylinders, tanks, and systems shall comply with CFC, NFPA Standards, H&SC and CCR, including those gases regulated elsewhere in this code. Partially full compressed gas containers, cylinders or tanks containing residual gases shall be considered as full for the purposes of the controls required.

**Compressed gases classified as hazardous materials shall also comply with CFC Chapters 50 and 53 for general requirements and chapters addressing specific hazards, including Chapters 58 (Flammable Gases), 60 (Highly Toxic and Toxic Materials), 63 (Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids) and 64 (Pyrophoric Materials).*

EXTRACTION EQUIPMENT

11. If cannabis plant oil extraction is proposed, provide complete details of the proposed extraction process as a part of the comprehensive narrative description outlined in item # 7 above. Extraction description shall include:
- A. Types of extraction proposed (CO₂, Butane, Propane, ethanol etc.)
 - B. Number of extraction equipment units proposed
 - C. Manufacturers cut-sheets for all listed equipment
 - D. Description of basic design of non-listed equipment
 - E. Resume of qualifications and experience of proposed independent equipment certification engineer
 - F. Description of proposed exhaust systems
 - G. Description of monitoring and alarm systems
 - H. Description for storage and use of raw and production materials
 - I. MAUCRSA Permit type (Type 6 or 7)
 - J. Description of employee safety program
12. Extraction equipment shall be located in an enclosed room fully separated from all other areas of the facility. Multiple extraction units contained in a single room shall comply with all requirements for occupancy type and MAQ quantities allowed for type of extraction proposed. All extraction units contained in a single room shall be of the same type.
13. Exit doors from any and all rooms containing extraction equipment shall swing in the direction of egress path of travel.

14. A local hydrocarbon, solvent vapor, or CO₂ detection and alarm system consistent with CFC requirements shall be used in all extraction and material storage areas as determined by the Fire Code Official. A separate permit from the Fire Department is required for all detection and alarm systems.
15. The use of propane, butane, hexane, or other similar flammable hydrocarbon gasses in open systems is prohibited by the City. Closed hydrocarbon systems are approved by permit only after review to confirm that the system is in compliance with the CBC, CFC, and City of Barstow Code requirements.
16. Closed hydrocarbon system rooms shall include a low level (typically floor level) mechanical exhaust system (minimum 1 CFM/sq. ft. of floor area) or a hazardous exhaust hood or other system listed and rated for exhausting flammable vapors to capture any possible vapor release. Hydrocarbon extraction ventilation and exhaust systems shall be designed by a licensed mechanical engineer.
17. Where closed hydrocarbon systems use refrigeration recovery units, the unit must be rated for use with hydrocarbon refrigerants.
18. CO₂ supercritical extraction relief venting shall be piped to the exterior of the building.
19. The use of alcohol or other volatile, flammable, combustible solvents in open systems is prohibited by City of Barstow Code. Closed solvent systems are approved by permit only after review to confirm that the system is in compliance with the CBC, CFC, and City of Barstow Code requirements.
20. Alcohol or other volatile, flammable, combustible solvent extractions or post production treatment where the liquid is heated, boiled, distilled, or evaporated shall be contained within a closed loop system and shall be consistent with the CFC and City of Barstow Code. The proposed solvents (typically alcohol) shall be clearly identified including type, use and storage in the narrative description noted under item # 5 above.
21. Rooms containing extraction equipment using volatile, flammable, or combustible materials and areas adjacent to extraction rooms shall include Class 1 Division 2 rated electrical fixtures, equipment, and wiring methods consistent with California Electrical Code Article 500.
22. Closed solvent extraction system rooms shall include a mechanical exhaust system (minimum 1 CFM/sq. ft. of floor area) or a hazardous exhaust hood or other system designed for or specifically listed and rated for exhausting flammable and/or volatile vapors to capture any possible vapor release. Solvent extraction ventilation and exhaust systems shall be designed by a licensed mechanical engineer.
23. Systems and/or equipment used for extraction shall be listed for the specific use. If the systems and/or equipment is not listed, then the systems and/or equipment shall be reviewed and analyzed by an independent approved California licensed professional engineer. The reviewing

engineer shall prepare a technical report based upon analysis of the systems and/or equipment. The report shall be consistent with CFC. The report shall include but not be limited to:

1. Equipment manufacturer information
2. Name and contact information of report author
3. Date of report and revision history
4. Preparers engineering stamp and signature
5. Equipment model number and/or description
6. Description of the design and review methodology
7. Equipment description
8. General flow schematic
9. Pressure vessel analysis
10. Structural analysis of the frame supporting equipment and seismic anchorage of equipment
11. Process safety analysis
12. Comprehensive process analysis
13. Review of assembly instructions, operational and maintenance manuals
14. List of standards and references used in the analysis

Report is to be provided for review by the Building Official and Fire Code Official at the time of building permit submittal. Deferred approval of extraction equipment is not allowed.

24. Certification from a California Licensed Engineer confirming field review of the extraction facility and verifying all extraction equipment assembly, installation, and the improvements associated with such equipment are constructed and installed consistent with the approved equipment design and supporting documents. This written certification shall be submitted at final inspection. This certification shall be reviewed and approved by the Building Official and Fire Code Official prior to issuance of occupancy.
25. All extraction equipment shall be subject to annual re-certification by a California licensed engineer. A current report shall be maintained on site for review by the Fire Prevention Department during the annual inspection of the facility.
26. Additions, alterations, or repairs to previously approved extraction equipment shall be reviewed and analyzed by an independent approved California licensed professional engineer consistent with the requirements of CFC. A new and/or revised report outlining all equipment modifications shall be submitted for review and approval by the Building Official and fire Code Official prior to operation of the modified equipment.

Testing/Laboratory (MAUCRSA permit type 8)

1. An annual Fire Department Operational Permit is required for all Testing and Laboratory facilities SRCC 18- 44.105.6.50 (6).
2. Testing/Laboratory facilities are to meet CBC, Chapter 3 requirements based upon Use and

Occupancy Classification for a Business Group, B, Occupancy. CBC § 304.1.

3. Exhaust hoods shall meet the requirements of CMC.
4. Hazardous materials storage, use, handling, and wastes shall be permitted and reported through the Fire Prevention Department prior to operation.

Retail (MAUCRSA permit type 10)

1. Cannabis Retail facilities are to meet CBC, Chapter 3 requirements based upon Use and Occupancy Classification for a Mercantile Group, M, Occupancy. CBC § 309.1.
2. Cannabis consumption areas associated with retail facilities shall meet CBC Chapter 3 requirements based upon use and occupancy classification A-2.
3. Retail areas including display cases, checkout counters, credit card readers or point of sale devices shall be accessible to persons with disabilities consistent with the requirements of CBC Chapter 11B.
4. Retail facilities where cannabis foods, beverages, salves, inhalants, tinctures, or other forms intended for human consumption or use are sold are subject to review and approval by the San Bernardino County Environmental Health Division. A separate permit application is required through their office. Building permit will not be issued prior to plan approval from Health Department. Final occupancy will not be granted prior to field inspection and approval from Health Department.

Distribution Facilities (MAUCRSA permit type 11)

1. An annual Fire Department Operational Permit is required for all Distributor facilities. SRCC 18-44.105.6.50 (6).
2. Distributor facilities are to meet CBC, Chapter 3 requirements based upon Use and Occupancy Classification for a Storage Group, S, Occupancy. CBC § 311.1.
 - A. Facilities that include storage and distribution of food products in non-combustible containers shall be classified in Occupancy Group S-2 "Low Hazard Storage". CBC § 311.3.
 - B. Facilities that include storage and distribution of all other cannabis packaged and manufactured products shall be classified in Occupancy Group S-1 "Moderate Hazard Storage". CBC §311.2.

Microbusiness (MAUCRSA permit type 12)

1. Cannabis microbusiness facilities containing cultivation, manufacturing, distribution, retail, and consumption areas in any combination shall be classified as "mixed use" occupancies consistent with CBC section 508. Occupancy classifications for specific areas may include: F-1 (cultivation, manufacturing); H-2 (manufacturing); B (office and administrative); S-1/S-2

(storage, open or enclosed vehicle parking); A-2 (larger consumption areas); M (retail areas).

2. Each separate occupancy area may require fire barrier separation between adjacent occupancies as required in CBC.

Transporter (MAUCRSA permit type 13)

1. Type 13 Transporter facilities are to meet CBC, Chapter 3 requirements based upon Use and Occupancy Classification for a Storage Group, S-1, and/or Business Group, B, Occupancy. CBC § 311.1.
 - A. Facilities that include storage, transfer, and/or temporary warehousing of cannabis products shall be classified in Occupancy Group S-1.
 - B. Facilities that do not contain any storage, transfer or warehousing of products and consists of administrative offices shall be classified in Occupancy Group B.

Examples of Concrete tilt-up designs:

