



The City of Long Beach

City of Long Beach

Cannabis Facilities

Permit Requirements

Information
Bulletin

BU-051

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The purpose of this Information Bulletin is to assist owners, owner's authorized agents, design professionals, and contractors ("Applicants") in understanding and complying with the permitting process for cannabis facilities including, but not limited to, dispensaries, cultivation, manufacturing, distribution, testing labs, and other related uses within nonresidential buildings or tenant spaces in the City of Long Beach ("City"). This Information Bulletin provides a general overview of the type of information and construction documents that must be submitted to the Long Beach Development Services Department ("LBDS"), Long Beach Fire Department ("LBFD"), Long Beach Water Department ("LBWD"), and Long Beach Health and Human Services Department ("LBHHS") after the Applicants have submitted a business license application and have been granted permission by the Business License Division to move forward with the permitting process.

This Information Bulletin is not intended to identify every code requirement; therefore, Applicants must follow all the requirements as stated in the California Building Standards Code ("CBSC") and the California Health and Safety Code ("CHSC") as adopted and/or modified by the City and as referenced in the Long Beach Municipal Code ("LBMC"). The City recommends using a licensed contractor and/or registered design professional licensed in the State of California ("RDP") to perform any construction work or develop the construction documents. For more information on this topic, refer to Information Bulletin BU-013, "Policy on When a Registered Design Professional is Required".

I. DEFINITIONS

The following terms used in this Information Bulletin shall mean as follows:

1. Dispensary – a facility where cannabis, cannabis products, or devices for the use of cannabis or cannabis products are offered, either individually or in combination, for retail sale, including an establishment that delivers, pursuant to express authorization by local ordinance, cannabis and cannabis products as part of a retail sale.
2. Cannabis Facility – a permanent structure in a fixed location that contains the permitted premises of one (1) or more Commercial Cannabis Businesses, including a dispensary, cultivator, manufacturer, distributor or testing laboratory.
3. Cultivation Facility – a facility where cannabis is planted, grown, harvested, dried, cured, graded, or trimmed, or where any combination of those activities occur.
4. Distribution Facility – a facility where cannabis or cannabis goods are stored, packaged, labeled, inspected for quality assurance or transported between cannabis licensees, or where any combination of those activities occur.

5. Manufacturing Facility – a facility that compounds, blends, extracts, infuses, or otherwise makes or prepares a cannabis product, or where any combination of those activities occur. Manufacturing involves any aspect of the extraction and/or infusion process, including processing, preparing, holding, storing, packaging or labeling of cannabis products.
6. Premises – a contiguous area where permit privileges are, or will be, exercised as diagrammed in the application for a cannabis business permit and for which a separate permit is required.
7. Testing Laboratory Facility – a facility that offers or performs tests of cannabis or cannabis products and that is accredited by an accrediting body that is independent from all other persons involved in commercial cannabis activity in the state.

II. SPECIFIC REQUIREMENTS

The requirements listed in the Cannabis Facilities Plan Check Information sheet must be met to obtain approval from the respective departments. The requirements will be checked during the plan review and inspection process prior to the issuance of a Certificate of Occupancy for the business. See **Attachment A** to this Information Bulletin for more information.

Additional requirements specific to Cultivation facilities can be found in **Attachment B** to this Information Bulletin. Requirements specific to Manufacturing facilities can be found in **Attachment C** to this Information Bulletin. The purpose of Attachments B & C is to aid Applicants in the planning and construction of these facility types, and to clarify what documents must be submitted to obtain Department approval. As with the rest of the Information Bulletin, Attachments B & C are not intended to identify every code requirement applicable to cannabis cultivation or manufacturing facilities. It is ultimately the responsibility of Applicants to comply with all Codes and Regulations related to these cannabis facility types.

III. SUBMITTAL REQUIREMENTS

After receipt of approval from the Business License Division to move forward with the permitting process, Applicants shall submit construction documents to the LBDS Development Permit Center located at 333 West Ocean Boulevard, 4th Floor, Long Beach, California to ensure that the building or tenant space comply with the CBSC and City policies and is safe to occupy. The following is a list of general submittal requirements:

1. Permit Application – Complete and submit a separate Development Services Permit Application for each cannabis business.
2. Construction Documents and Other Technical Data – A minimum of six (6) complete sets of construction documents consisting of building/planning, fire, electrical, mechanical, plumbing, and/or health plans, bearing the signature, registration number and expiration date of the RDP, shall be provided. The submission of technical data and specifications, including but not limited to, structural calculations, geotechnical reports, Title 24 energy reports, manufacturer specifications, etc., shall be provided when required. Construction documents shall be quality blue or black line drawings with uniform and light background color, legible and drawn to scale,

and a minimum size of 24" x 36" and a maximum size of 36" x 48", with lettering size not less than 1/8-inch (1/8").

3. Project Information – Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of the CBSC, CHSC and/or relevant laws, ordinances, rules and regulations of the City and State. Specify the floor area of the building or tenant space, previous and proposed occupancy group(s) and use(s), type of construction, number of stories, building height, type of fire sprinklers system and/or fire alarm system provided, fire separation distance or setback of building to property lines or other buildings on the lot, and the types and number of parking space(s) provided for the site on the first sheet or title sheet of the construction documents. Include justification and analysis for increase in area, height, and/or story where applicable.
4. Facilities Notes – See **Attachment D** for notes that must be included on the first sheet or title sheet of the construction documents. The notes shall be consistent with the Operation Plan submitted to the Business License Division and are in addition to all other notes required by Code. These notes will help City staff and the Applicant ensure that the construction documents comply with the LBMC, cannabis policies, and all other rules and regulations in place for cannabis facilities.

SITE INSPECTION

It is the responsibility of the Applicants to contact the various inspecting departments or agencies regarding any initial inspections, follow-up inspections, or re-inspections.

LBDS Inspections

Applicants shall request inspections at key stages of construction (e.g., prior to pouring concrete, framing, affixing drywall, etc.) to verify compliance. To schedule an LBDS inspection:

- Schedule inspection online at:
http://lbs.info/building/inspection_services/schedule_an_inspection.asp.
- Call the 24-hour Inspection Request Hotline at (562) 570-6105.
- Call the Development Permit Center at (562) 570-LBDS (5237), between 7:30 am - 4:30 pm on Monday, Tuesday, Thursday, and Friday OR between 8:30 am - 4:30 pm on Wednesday.
- Obtain an inspection request form from any of the Development Permit Center staff.

LBDS inspection requests submitted by 3 pm the prior business day will be conducted the following business day.

LBFD Inspections

To schedule a LBFD inspection, please call (562) 570-2569.

LBDHHS Inspections

Two construction progress inspections will be required by the Health and Human Services Department. The first inspection will occur at 80% project completion, following the completion of sub-trade inspections (mechanical, electrical and plumbing) by LBDS and LBFD. The second inspection by LBDHHS will be the final inspection before business opening. Please allow a minimum of two working days advance notice for scheduling LBDHHS Inspections.

To schedule a LBDHHS inspection, please call (562) 570-4195.

After all inspection conditions are met, a Certificate of Occupancy shall be issued by the Building Official. Applicant shall take the Certificate of Occupancy to the Business License Counter to complete the application process and obtain their business license.

IV. ANNUAL OPERATIONAL PERMITS

1. Annual Operational Permit(s) may be required by the LBFD and LBDHHS after issuance of a Certificate of Occupancy. Annual Operational Permits shall be clearly posted inside the business establishment near the main entrance. Annual Operational Permits fees shall be in accordance with the City's Master Fee Resolution.

The following are the most common Annual Operational Permits, but not all inclusive, that may be required:

- Cannabis Facility Permit (commercial occupancies)
- LPG Use & Storage Permit (extractions)
- Compressed Gas Use & Storage Permit
- Fumigation/Thermal Insecticide Fogging Permit
- Flammable and Combustible Liquids Use & Storage Permit
- Hazardous Material Disclosure Permit
- Hazardous Waste Generator Permit (CUPA)
- Public Health Permit
- Cannabis Facility Fire Permit

2. Annual Operational Permit(s) may be revoked if:

- Any of the conditions or limitations set forth in the permit have been violated.
- Compliance with written orders has not been achieved.
- False statements or misrepresentations of information are provided in the permit application or inventory statement.
- The permit is issued in error or in violation of the CBSC, CHSC and/or relevant laws, ordinances, rules and regulations of the City and State.

V. NOTICE OF VIOLATION

Any location discovered operating a Cannabis Business (including but not limited to distributing, manufacturing, cultivating, testing laboratory, and dispensing) not in compliance with all of the requirements of the LBMC, CBSC, CHSC, City policies and/or relevant laws, ordinances, rules and regulations of the City and State and/or the requirements of this Bulletin may result in the issuance of a "Notice of Violation."



City of Long Beach
333 West Ocean Blvd., 4th Floor
Long Beach, CA 90802
Phone: (562) 570-5237 | Fax: (562) 570-6753
Website: www.lbds.info

Attachment A

Cannabis Facilities Plan Check Information Cannabis Related Occupancies

The following regulations pertain to the City of Long Beach (“City”) requirements for the plan review and inspection of cannabis-related occupancies (e.g., dispensaries, cultivation facilities, distribution facilities, testing laboratory facilities and manufacturing facilities). The information listed below is intended to assist the Applicant with their project submittal and is not intended to be considered an all-inclusive listing of City requirements necessary to obtain plan approval or permit issuance.

GENERAL PLANNING REQUIREMENTS

1. *Development Standards.* All proposed work must comply with development standards in Title 21 of the LBMC for the zoning district in which the property is located. This includes but is not limited to the following development standards:
 - a. Design of buildings including required window area and transparency.
 - b. Trash receptacles.
 - c. Screening of mechanical equipment.
 - d. Landscaping.
2. *Entitlement Approval.* Some projects may require a Site Plan Review or other entitlement approval prior to plan check. For additional information, please consult with Planning Bureau Staff at the LBDS Permit Center.
3. *Identification signage.* Exterior business identification signage shall comply with all laws and regulations, including but not limited to Title 21 of LBMC and CBPC Chapter 15 (“Advertising and Marketing Restrictions”) of Division 10. Business identification signage shall be limited to that needed for identification only and shall not contain any logos or information that identifies, advertises, or lists the services or the products offered. Business identification signage is discouraged for Cannabis Businesses that are not open to the public. Cannabis facilities conducting multiple cannabis activities from the same physical address shall use one business identification sign to represent all uses (LBMC 5.92.440).
4. *Building design.* Building design must meet any applicable criteria in Title 21 of the LBMC, Specific Plans or Planned Developments and meet the following requirements of LBMC 5.92.765 (medical-only cannabis facilities exempt):
 - a. Blank building facades over twenty-five feet (25’) fronting the street or parking lot shall be prohibited and must incorporate architectural features, such as building plane breaks, three-dimensional elements, windows, doors, and changes in color and materials that result in a building with articulation.

This information is available in an alternative format by request to (562) 570-3807. For an electronic version of this document, visit our website at www.lbds.info.

- b. On any building elevation visible from the street, windows shall comprise at least forty percent (40%) of the ground floor building elevation. On all other ground floor elevations visible from the street, windows shall comprise at least twenty-five percent (25%) of the building elevation.
 - c. An identifiable entrance to the cannabis facility shall be visible from the street.
 - d. Windows along the street-facing frontage shall be transparent. Such glass should be clear with an exterior daylight reflectance of not more than eight percent (8%).
 - e. Where feasible, the storefront window shall provide visibility to the tenant space. Where visibility to the tenant space by means of the storefront window is not feasible due to security needs of the permittee's operation, the creation of a storefront window display may be permitted.
 - f. Window display areas shall have a minimum depth of at least forty-eight inches (48"), not including walls. Display windows shall be permitted for up to sixty percent (60%) of the building's storefront window area. Display areas shall be well lit during hours of operation. The window display area shall be maintained with a creative attractive window display including but not limited to display of artwork, non-cannabis plants, and the like.
5. *Security barriers.* Security barriers shall comply with LBMC 5.92.750 (medical-only cannabis facilities exempt). Any security barriers installed on the windows or the doors of the premises shall be installed only on the interior of the building and in compliance with all City Building, Zoning, and Fire Codes. Security bars are discouraged for all Adult-Use Cannabis Businesses and shall not be minimally visible from the public right-of-way. Security barriers shall meet the following criteria:
- a. Only open grill design security systems located on the inside of the building shall be permitted on elevations visible from the street.
 - b. Open grill design security systems shall be primarily transparent with not less than seventy-five percent (75%) visibility from the street.
 - c. Solid roll-down security doors are prohibited unless part of a vehicle loading bay.
 - d. Interior security gates shall be opened and fully retracted during the hours of operation.

GENERAL BUILDING REQUIREMENTS

1. *Contractor qualifications.* All construction and remodeling work must be performed by CA licensed Class A or Class B contractors. All building trades work must be performed by a State of California licensed contractor(s).
2. *Relevant codes.* The currently adopted building codes and standards that have been adopted by the City are as follows:
 - 2016 California Building Code ("CBC")
 - 2016 California Existing Building Code ("CEBC")
 - 2016 California Mechanical Code ("CMC")
 - 2016 California Plumbing Code ("CPC")

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- 2016 California Fire Code (“CFC”)
 - 2016 California Electrical Code (“CEC”)
 - 2016 California Energy Code
 - 2016 California Green Building Standards Code (“CalGreen”)
 - 2016 California Health and Safety Code (“CHSC”)
 - Long Beach Municipal Code (“LBMC”)
 - City amendments to these codes can be found at www.municode.com
3. *Plans and permits.* Construction documents and permits are required per the LBMC Section 18.04.010 when the occupant intends to construct, enlarge, alter, repair, move, 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 this code, or to cause any such work to be done.
 4. *Facility operations.* Plans shall include a summary of the daily operations of the facility, and where these operations will occur. This may include, but is not limited to: growing, harvesting, drying, curing, trimming, washing/cleaning, extracting, post-processing, inspecting, testing, packaging, labeling, storing, etc. If plant extraction will occur in the facility, plans should provide a summary of the intended extraction process.
 5. *Address.* Provide the address number and/or unit number on all applications, plans, specifications, and documents related to the location.
 6. *Permit application.* A City of Long Beach Development Services Permit application must be completed in its entirety and included with each construction document submittal.
 7. *Fees.* Plan review fees must be paid in full before construction documents will be accepted for plan review.
 8. *Permits.* Separate plan reviews and fire department permits will be required for the installation of fire protection and life safety systems installed in conjunction with the alteration of any building or structure.
 9. *Inspections.* Construction or work for which a permit is required shall be subject to inspection by the Building Official and such construction or work shall remain accessible and exposed for inspection purposes until approved. Inspections can be requested by calling the Inspection line at 562-570-6105. Refer to page 3 of the Bulletin for more information.
 10. *Certificate of Occupancy.* No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made, until the Building Official has issued a Certificate of Occupancy (“C of O”) as provided herein. Issuance of a C of O shall not be construed as an approval of a violation of the provisions of this code or other ordinances of the jurisdiction. The C of O shall be presented to the Business License Division for issuance of a business license.

11. *Building records.* The Applicant is required to keep all City approved construction documents, specifications, and related documents on the premises in an easily accessible location for the required inspections of the premises by the City inspectors.
12. *Occupancy Classification.* Cannabis Facilities occupancy designation are generally as follows:
 - “B” occupancy - Cannabis testing laboratory facility, marijuana manufacturing facility ≤ 2,500 sf.
 - “M” occupancy - Cannabis retail dispensary facility.
 - “F-1” occupancy - Cannabis cultivation facility, Cannabis manufacturing facility > 2,500 sf.
 - “S-1” occupancy - Cannabis storage and/or distribution warehouse.
 - “U” occupancy - Cannabis nursery (does not utilize any specialized equipment or treatment for growing).
13. *Rack storage.* High-piled stock or rack storage in any occupancy group shall comply with the CFC and CBC Section 413.
14. *Hazardous materials.* All hazardous materials must comply with the requirements of the CFC and CBC Section 414.
15. *Building height.* The height and area of all structures will be reviewed for compliance with the CBC Chapter 5, “General Building Heights and Areas.”
16. *Fire resistance ratings.* All fire resistance ratings of building elements, components or assemblies must meet the applicable requirements in the CBC Chapter 7 “Fire and Smoke Protection Features.”
17. *Fire barriers.* Unless higher performance is required by applicable law, there must be a minimum of a one-hour fire separation in accordance with CBC section 707 between every premises of a Commercial Cannabis Business and any adjacent business that is not engaged in commercial cannabis activity or that is not a Commercial Cannabis Business (LBMC 5.92.445).
18. *Continuity.* Fire barriers shall extend from the top of the 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 spaces, such as the space above a suspended ceiling (CBC Section 707.5).
19. *Openings.* Openings in a fire barrier shall be protected in accordance with the CBC Section 716. Openings shall be limited to a maximum aggregate width of 25 percent of the length of the wall, and the maximum area of any single opening shall not exceed 156 square feet.
20. *Penetration of fire barriers.* Penetrations of fire barriers shall comply with the CBC Section 714. Penetrations in a fire barrier by ducts and air transfer openings not protected with dampers shall comply with the CBC Section 714.2 through 714.3 and protected with dampers shall comply with the CBC Section 717.

21. *Drywall Separation.* Within a cannabis facility, every premises shall be fully separated from any other premises where commercial cannabis activities are conducted by walls that extend from floor to underneath the roof with 5/8" drywall on both sides.
22. *Joints.* Joints made in or between fire barriers and/or drywall separations, and joints made at the intersection of such walls with underside of the floor or roof sheathing, slab or deck above, shall comply with the CBC Section 715.
23. *Types of construction.* The type of construction for the proposed building or space must be determined and clearly identified by the Applicant on the construction documents using the requirements listed in the CBC Chapter 6, "Types of Construction."
24. *Interior finish requirements based on group.* Interior wall and ceiling finishes shall have a flame spread index and smoke-developed index not greater than that specified in the CBC Table 803.11 for the group and location designated. Interior wall and ceiling finish materials tested in accordance with the NFPA 286 and meeting the acceptance criteria of the CBC Section 803.1.2.1, shall be permitted to be used where a Class A classification in accordance with ASTM E 84 or UL 723 is required (CBC Section 803.11).
25. *Wall and Ceiling finishes.* All interior wall and ceiling finish materials shall be listed as Class A, Class B or Class C in accordance with ASTM E84 or UL 723, including flame spread and smoke-developed indexes, and excluding materials ≤ 0.036 " thick applied directly to the surface of walls and ceilings (CBC Sections 803.1.1 and 803.2).
26. *Plastic films.* Hanging plastic films shall not be used to create walls, ceilings, or rooms. Where plastic films are applied to the walls or ceilings as an interior finish, material installation shall comply with the CBC Chapter 8 Interior Finishes. Plastic film, foam plastic insulation and the paper facing on fiberglass insulation must be rated and covered with an approved thermal barrier.
27. *Fire protection and life safety systems.* The design, installation, operation and requirements for all fire protection and life safety systems, including fire sprinkler, fire alarm, fire extinguisher and gas detection systems will be governed by the CBC and CFC Chapter 9, "Fire Protection Systems" and the Long Beach Municipal Code.
28. *Means of egress.* Buildings, or portions thereof, shall be provided with a means of egress system as required by the CBC Chapter 10, "Means of Egress."
29. *Occupancy load.* The occupant load factor of cannabis facilities shall be determined as follows: (CBC Section 1004.1.2)
- Cannabis retail dispensary facility = 60 gross floor area per occupant
 - Cannabis testing laboratory facility, marijuana manufacturing facility = 100 gross floor area per occupant

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- Cannabis cultivation facility, retail dispensary accessory storage = 300 gross floor area per occupant
- Cannabis storage and/or distribution warehouse = 500 gross floor area per occupant

30. *Egress width.* The minimum required egress width will be determined by the CBC Section 1005.
31. *Exit illumination and signage.* The means of egress, including the exit discharge, shall be illuminated at all times the building space is occupied in accordance with the CBC Section 1008. An 8½" x 11" map displaying the general floor plan of the facility shall be posted near the main entrance in a clear protective cover.
32. *Accessible means of egress is required.* Accessible means of egress shall comply with the CBC Section 1009. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress is required by the CBC Section 1006.2 or 1006.3 from any accessible space, each accessible portion of the space shall be served by accessible means of egress, in at least the same number as required by the CBC Sections 1006.2 or 1006.3. Means of egress that provide access to, or egress from, buildings or facilities where accessibility is required for persons with disabilities shall also comply with the requirements of the CBC Chapter 11B.
33. *Exit signage.* 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. Enhanced building security measures shall not impede egress for the facility's occupants or firefighters in the event of an emergency (CBC Section 1013.1).
34. *Visibility.* Exterior lighting shall clearly illuminate the building address, all parking, driving, walking surfaces, exterior doors, and all window areas during the hours of darkness. All exterior lighting fixtures shall be vandal resistant, installed on exterior walls and shall have proper cutoffs to avoid any light pollution, including, but not limited to, urban sky glow, light trespass, glare, and clutter. Except for any signage authorized by LBMC, no exterior evidence of cannabis goods, graphics depicting cannabis goods, or cannabis activity shall be visible from a public right-of-way (LBMC 5.92.760).
35. *Corridors.* Corridors shall be fire-resistance rated in accordance with the CBC Table 1020.1. The corridor walls required to be fire-resistance rated shall comply with the CBC Section 708 for fire partitions.
36. *Exits.* Rooms, areas or spaces, including mezzanines, within a story or basement shall be provided with the number of exits or access to exits in accordance with the CBC Section 1006.2.

Each story and occupied roof shall have the minimum number of exits, or access to exits, as specified in the CBC Table 1006.3.1.

37. *Exit discharge.* Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide direct path of egress travel to grade. The exit discharge shall not reenter a building (CBC Section 1028.1).
38. *Accessibility to commercial buildings.* All areas of newly designed and newly constructed buildings and facilities and altered portions of existing buildings and facilities shall comply with the CBC Chapter 11B to ensure that barrier-free design is incorporated and accessible-to and usable-by persons with disabilities (CBC Sections 1.9.1 and 11B-201.1).
39. *Interior environment.* 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 in compliance with the CBC Chapter 12, "Interior Environment." Occupancies and operations involving flammable or combustible hazards or other contaminant sources shall be designed in accordance with the CMC and the CFC (CBC Sections 1203.5.2 and 1203.6).
40. *Door arrangement.* 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 (CBC Section 1010.1.8).
41. *Door operations.* Except as specifically permitted, egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort (CBC Section 1010.1.9).
42. *Hardware.* Door handles, pulls, latches, locks and other operating devices on doors required to be accessible by the CBC Chapter 11B, shall not require tight grasping, tight pinching or twisting of the wrist to operate (CBC Section 1010.1.9.1).
43. *Existing doors.* Unless permitted by the CBC Section 1010.1.9, existing doors that require more than one motion to open will be required to be changed to doors with hardware that do not require more than one operation to open the door.
44. *Hardware height.* Door handles, pulls, latches, locks and other operating devices shall be installed 34 inches minimum and 48 inches maximum above the finished floor. Locks used only for security purposes and not used for normal operation are permitted at any height (CBC Section 1010.1.9.2).
45. *Bolt locks.* Manually operated flush bolts or surface bolts are not permitted (CBC Section 1010.1.9.4).
46. *Commercial-grade locks.* Every Cannabis Business shall secure the following areas using commercial-grade, non-residential door locks, roof hatches, and window locks in a manner that prevents free and unauthorized access (LBMC 5.92.745):

- All points of ingress and egress to a premises.
- Limited-access areas.
- Areas where cannabis goods, living cannabis plants, cannabis waste, and currency are stored and/or present at any given time.
- Areas where surveillance equipment and records are stored.

47. *Unlatching.* The unlatching of any door or leaf shall not require more than one operation (CBC Section 1010.1.9.5).

48. *Gates.* Gates serving the means of egress system shall comply with the requirements of the CBC Section 1010.2. Gates used as a component in a means of egress shall conform to the applicable requirements for doors in the CBC Section 1010.1.

49. *Turnstiles.* Turnstiles or similar devices that restrict travel to one direction shall not be placed so as to obstruct any required means of egress (CBC Section 1010.3).

50. *Stairway width.* The width of stairways shall be determined as specified in the CBC Section 1009.3 and 1011.2, but such width shall not be less than 36 inches serving an occupant load of less than 50.

51. *Number of exits or exit access doorways.* Two exits or exit access doorways from any spaces shall be provided when the design occupant load or the common path of egress travel distance exceeds the values listed in the CBC Table 1006.2.1.

52. *Security of cannabis goods.* Whenever possible, cannabis facilities shall design an area of the premises for the secure transfer of cannabis goods from one cannabis facility to a vehicle for transportation or delivery (LBMC 5.92.725).

GENERAL MECHANICAL REQUIREMENTS

1. *Odor control.* Every Cannabis Business shall implement adequate ventilation system and odor control filtration measures to prevent odors from inside the cannabis facility from being detected outside the cannabis facility. A licensed professional engineer shall certify that the system is capable of preventing odors from inside the cannabis facility from being detected outside the cannabis facility. The design of the ventilation and filtration system shall be based on industry-specific best control technologies and best management practices to effectively mitigate cannabis odors. The system shall use a range of odor mitigation practices to control odor-emitting activities, sources, and locations (LBMC 5.92.540).

2. *Environmental control systems.* Environmental control systems shall be implemented to minimize and/or prevent the likelihood of mold and mildew growth and shall include a range of environmental control technologies and practices to control humidity levels, illumination, heating, cooling, air circulation, and ventilation. The system shall be compatible with odor prevention and

ventilation systems to prevent cannabis odors from being detected outside the cultivation facility, while still allowing for the permittee to successfully cultivate (LBMC 5.92.1035).

3. *List of systems and equipment.* A list of all mechanical systems, environmental systems, generation systems, and fuel gas equipment proposed to be utilized on the property shall be provided. This includes carbon dioxide generation systems, extraction equipment, etc. (CMC Section 302.1).
4. *Energy utilization.* Heating, ventilating and air-conditioning systems of all structures shall be designed and installed for efficient utilization of energy in accordance with the California Energy Code.
5. *Fuel gas appliances and equipment.* The approval and installation of fuel gas distribution piping and equipment, fuel gas-fired appliances and fuel gas-fired appliance venting systems shall be in accordance with the CPC and CMC.
6. *Listed and labeled.* Appliances, appurtenances and equipment regulated by the CMC shall be listed and labeled for the application in which they are installed and used (CMC Sections 301.2, 302.1, and 303.1).
7. *Labeling.* Labeling shall be in accordance with the procedures set forth in CMC 307.0.
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: (CMC Section 307)
 - *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.
 - *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.
 - *Fuel-burning units:* Hourly rating in Btu/h (W); type of fuel approved for use with the appliance; and required clearances.
 - *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.
9. *Fuel types.* Fuel-fired appliances shall be designed for use with the type of fuel to which they will be connected and the altitude at which they are installed. Appliances that comprise parts of the building mechanical system shall not be converted for the usage of a different fuel, except where approved and converted in accordance with the manufacturer's instructions. The fuel input rate

shall not be increased or decreased beyond the limit rating for the altitude at which the appliance is installed.

10. *Structural safety.* 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 or repairing any system, the building or structure shall be left in a safe structural condition in accordance with the CMC Section 303.
11. *Penetration of fire resistant assemblies.* Penetrations of floor/ceiling assemblies and assemblies required to have a fire-resistance rating shall be protected.
12. *Condensate drain systems.* 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 the CMC Section 310.
13. *Ventilation required.* Every occupied space shall be ventilated by natural means in accordance with the CMC Section 402 or by mechanical means in accordance with the CMC Section 403.
14. *Ventilation plan.* A plan for ventilation of a retail cannabis establishment that describes the ventilation systems that will be used to prevent any odor of cannabis off the premises of the establishment must be submitted to the City. For cannabis cultivation facilities, such plan shall also include all ventilation systems used to control the environment for the plants and describe how such systems operate with the systems preventing any odor leaving the premises.
15. *Intake opening location.* Air intake openings shall comply with all of the following:
 - Intake openings shall be located a minimum of 10 feet from lot lines or buildings on the same lot. Where openings front on a street or public way, the distance shall be measured to the centerline of the street or public way.
 - Mechanical and gravity outdoor air intake openings shall be located not less than 10 feet horizontally from any hazardous or noxious contaminant source, such as vents, streets, alleys, parking lots and loading docks.
 - Intake openings shall be located not less than 3 feet (914 mm) below contaminant sources where such sources are located within 10 feet (3048 mm) of the opening.
 - Intake openings on structures in flood hazard areas shall be at or above the design flood level.
16. *Contaminant sources.* Stationary local sources producing airborne particulates, heat, odors, fumes, spray, vapors, smoke or gases in such quantities as to be irritating or injurious to health shall be provided with an exhaust system in accordance with the CMC Chapter 5 or a means of collection and removal of the contaminants. Such exhaust shall discharge directly to an approved location at the exterior of the building.
17. *Ventilation system.* Mechanical ventilation shall be provided by a method of supply air and return or exhaust air. The amount of supply air shall be approximately equal to the amount of return

and exhaust air. The system shall not be prohibited from producing negative or positive pressure. The system to convey ventilation air shall be designed and installed in accordance with the CMC Chapter 6.

18. *Outdoor air required.* The minimum outdoor airflow rate shall be determined in accordance with the CMC Section 403.
19. *Recirculation of air.* The outdoor air required by the CMC Section 403 shall not be recirculated. Air in excess of that required by the CMC Section 403 shall not be prohibited from being recirculated as a component of supply air to building spaces, except that ventilation air shall not be recirculated from one space to another or to dissimilar occupancies.
20. *Balancing.* The ventilation air distribution system shall be provided with means to adjust the system to achieve at least the minimum ventilation airflow rate as required by the CMC Section 403. Ventilation systems shall be balanced by an approved method. Such balancing shall verify that the ventilation system is capable of supplying and exhausting the airflow rates required by CMC Sections 403.2. Such air balance reports shall be provided to the inspector at time of inspection. Air balance reports may be requested by the inspection during annual inspections to ensure ongoing compliance with City requirements, and when issues or concerns regarding odors are brought to the attention of the City.
21. *Ventilation controls.* 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.
22. *Continuous ventilation.* When carbon dioxide is stored, used, or generated in a building, a continuous ventilation system shall be provided as required by the CFC Section 5308.2. When approved by the Fire Marshal, a non-continuous ventilation system may be allowed with a code modification for the installation of a carbon dioxide detection system which, when once activated, will immediately turn on the ventilation system.
23. *Noxious gas ventilation.* Building plans shall include all ventilation systems used to mitigate noxious gases or other fumes used or created as part of the production process. The design, construction and installation of mechanical exhaust systems, including hazardous exhaust systems shall be in compliance with the CMC Section 501 and LBMC 5.90.230.
24. *Exhaust discharge.* The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a nuisance and not less than the distances specified in the CMC. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic or crawl space (CMC Section 501.3).
25. *Location of exhaust outlets.* The termination point of exhaust outlets and ducts discharging to the outdoors shall be located with the following minimum distances:

- For ducts conveying explosive or flammable vapors, fumes or dusts: 30 feet from property lines; 10 feet from operable openings into buildings; 6 feet from exterior walls and roofs; 30 feet from combustible walls and operable openings into buildings which are in the direction of the exhaust discharge; 10 feet above adjoining grade.
- For other product-conveying outlets: 10 feet from the property lines; 3 feet from exterior walls and roofs; 10 feet from operable openings into buildings; 10 feet above adjoining grade.
- For all environmental air exhaust: 3 feet from property lines; 3 feet from operable openings into buildings for all occupancies other than Group U, and 10 feet from mechanical air intakes. Such exhaust shall not be considered hazardous or noxious.
- Exhaust outlets serving structures in flood hazard areas shall be installed at or above the flood level elevation.

26. *Pressure equalization.* Mechanical exhaust systems shall be sized to remove the quantity of air required by this chapter to be exhausted. The system shall operate when air is required to be exhausted. Where mechanical exhaust is required in a room, such space shall be maintained with a neutral or negative pressure. If a greater quantity of air is supplied by a mechanical ventilating supply system than is removed by a mechanical exhaust for a room, adequate means shall be provided for the natural or mechanical exhaust of the excess air supplied.

27. *Exhaust areas.* An exhaust system shall be provided, maintained and operated as specifically required by the CMC Section 502 and for all occupied areas where machines, vats, tanks, furnaces, forges, salamanders and other appliances, equipment and processes in such areas produce or throw off dust or particles sufficiently light to float in the air, or which emit heat, odors, fumes, spray, gas or smoke, in such quantities so as to be irritating or injurious to health or safety (CMC Section 502.1).

28. *Hoods.* Required hoods shall meet the requirements of the CMC Sections 506, 507 and 508.

29. *Hazardous exhaust systems.* Hazardous exhaust systems shall be designed and constructed in accordance with the CMC Section 510.

30. *Independent system.* Hazardous exhaust systems shall be independent of other types of exhaust systems. Incompatible materials, as defined in the CFC, shall not be exhausted through the same hazardous exhaust system. Hazardous exhaust systems shall not share common shafts with other duct systems, except where such systems are hazardous exhaust systems originating in the same fire area.

31. *Duct systems.* Duct systems used for the movement of air in air-conditioning, heating, ventilating and exhaust systems shall conform to the provisions of the CMC Chapter 6 except as otherwise specified in the CMC Chapters 5 and 7.

GENERAL PLUMBING REQUIREMENTS

1. *Relevant plumbing codes.* The erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing systems shall be in accordance with the CPC. The CPC shall also regulate sanitary and condensate vacuum collection systems, the installation of fuel gas distribution piping and equipment, fuel-gas-fired water heaters and water heater venting systems (LBMC Section 18.43.010).
2. *Fixtures, faucets and fixture fittings.* The CPC Section 401.1 shall govern the materials, design and installation of plumbing fixtures, faucets and fixture fittings in accordance with the type of occupancy, and shall provide for the minimum number of fixtures for various types of occupancies. Elongated type water closet bowls with open front type or automatic seat cover dispenser of water closet seats for public use are required (CPC Section 411.3).
3. *Water heaters.* The provisions of the CPC Chapter 5 shall govern the materials, design and installation of water heaters and the related safety devices and appurtenances.
4. *Water supply and distribution.* The materials, design and installation of water supply systems, both hot and cold, for utilization in connection with human occupancy and habitation and shall be governed by the CPC Section 601.1.
5. *Backflow prevention.* Backflow prevention on hose bibs and faucets will be required per CPC 608.
6. *Sanitary drainage.* The materials, design, construction and installation of sanitary drainage systems shall be in compliance with the CPC Section 701.1.
7. *Indirect/special waste.* The CPC Chapter 8 shall govern matters concerning indirect waste piping and special wastes. This chapter shall further control matters concerning food handling establishments, sterilizers, clear-water wastes, methods of providing air breaks or air gaps, and neutralizing devices for corrosive wastes.
8. *Vents.* The CPC Chapter 9 shall govern the materials, design, construction and installation of vent systems.
9. *Traps, interceptors and separators.* The CPC Chapter 10 shall govern the material and installation of traps, interceptors and separators. Interceptor or clarifier for proper handling of liquid wastes containing grease, flammable wastes, sand, solids, acid or alkaline substances, or other ingredients harmful to the building drainage system, and/or the public or private sewer system shall be provided (CPC Section 1009.1).
10. *Listed and labeled.* All fixtures and appliances are to be identified and are required to be listed and labeled by an approved testing agency (CPC Section 401.2).

11. *Maximum flow.* The specification for maximum flows for each plumbing fixture shall comply with the requirements of the California Energy Code and CalGreen.
12. *Fuel gas systems.* The CPC shall govern the design and installation of fuel gas piping systems.
13. *Maintenance.* Installations, both existing and new, and parts thereof shall be maintained in proper operating condition in accordance with the original design and in a safe condition. Devices or safeguards which are required by the CMC and NFPA shall be maintained in compliance with the code edition under which they were installed. The owner or the owner's designated agent shall be responsible for maintenance of installations.

GENERAL ENERGY REQUIREMENTS

1. *Relevant energy codes.* The California Energy Code will apply to newly constructed buildings, building additions and building alteration for project submitted to the City for plan review. The California Energy Code may impact the design and installation, including but not limited to, the building envelope, space-conditioning systems, water-heating systems, solar ready buildings, indoor lighting systems of buildings, outdoor lighting systems and signs located either indoors or outdoors.
2. *Climate zone.* The City is considered to be Climate Zone 6 and 8 for purposes of design and applicable code requirements.
3. *Solar ready buildings.* Mandatory requirement for solar ready buildings shall be included in the design and construction of new building projects (California Energy Code Section 110.10).
4. *Commissioning.* Building commissioning is to be included in the design and construction processes of new nonresidential building projects to verify that the building energy systems and components meet the owner's or owner representative's project requirements. Of particular note, the expectation and requirements of the building shall be documented before the design phase of the project begins (California Energy Code Section 120.8).

GENERAL FIRE CODE REQUIREMENTS

1. *Storage.* Storage of combustible materials in buildings shall be orderly and shall be separated from heaters or heating devices by distance or shielding so that ignition cannot occur per the CFC Section 315.3.
2. *Obstruction of egress.* 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 the CFC Section 316.5.
3. *Emergency response.* Reporting of emergencies, coordination with emergency response forces, emergency plans and procedures for managing or responding to emergencies shall comply with the provisions of the CFC Section 401.

4. *Hazardous materials.* The provisions of the CFC Sections 407.2 through 407.7 shall be applicable where hazardous materials are subject to permits under the CFC Sections 105.6 and 105.7 and are located on the premises or where required by the Fire Code Official.
5. *Key box.* 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 the CFC Section 506.1.
6. *Address number.* The address number shall be posted per the CFC Section 505 and the Long Beach Municipal Code (LBMC) Sections 18.48.330 and 18.48.340.
7. *Aisles.* Aisles shall be maintained through grow and storage rooms per the CBC Section 1018.
8. *Electronic access.* Electronic access control systems on egress doors shall comply with the CBC Section 1010.1.9.
9. *Sprinklers.* Approved automatic sprinkler systems in new buildings and structures or where a change of occupancy occurs, shall be provided in the locations described in the CFC Sections 903.
 - a. CFC Section 903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:
 - i. A Group F-1 fire area exceeds 12,000 square feet.
 - ii. A Group F-1 fire area is located more than three stories above grade plane.
 - iii. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet.
 - b. CFC Section 903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:
 - i. A Group M fire area exceeds 12,000 square feet.
 - ii. A Group M fire area is located more than three stories above grade plane.
 - iii. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet.
 - c. An automatic sprinkler system shall be provided as required in the CFC Chapter 32 in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays per the CFC Section 903.2.7.1.
10. *Fire suppression.* In addition to the requirements of the CFC Section 903.2, the provisions indicated in the CFC Table 903.2.11.6 also require the installation of a fire suppression system for certain buildings and areas.
 - a. Exhausted enclosures where flammable materials are used shall be protected by an approved automatic fire-extinguishing system in accordance with the CFC Chapter 9 (CFC Section 5003.8.5.3).

11. *Other fire-extinguishing systems.* Automatic fire-extinguishing systems, other than automatic sprinkler systems, shall be designed, installed, inspected, tested and maintained in accordance with the provisions of the CFC Section 904 and the applicable referenced standards.
 12. *Fire extinguishers.* Portable fire extinguishers shall be installed per the CFC Section 906.1. The size and distribution of portable fire extinguishers shall be in accordance with the CFC Sections 906.3.1 through 906.3.4.
 13. *Fire alarm systems.* 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, or in existing buildings where a change of occupancy occurred, in accordance with the CFC Sections 907.2.1 through 907.2.23 and to provide occupant notification in accordance with the CFC Section 907.5, unless other requirements are provided by another section of the CFC.
 - a. A manual fire alarm system that activates the occupant notification system in accordance with the CFC Section 907.5 shall be installed in Group F occupancies where both of the following conditions exist:
 - i. The Group F occupancy is two or more stories in height; and
 - ii. The Group F occupancy has a combined occupant load of 500 or more above or below the lowest level of exit discharge.
 - iii. Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with the CFC Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.
 - b. A manual fire alarm system that activates the occupant notification system in accordance with the CFC Section 907.5 shall be installed in Group M occupancies where one of the following conditions exists:
 - i. The combined Group M occupant load of all floors is 500 or more persons.
 - ii. The Group M occupant load is more than 100 persons above or below the lowest level of exit discharge.
 - iii. Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with CFC Section 903.3.1.1 and the occupant notification appliances will automatically activate throughout the notification zones upon sprinkler water flow.
 14. *Fire alarm systems.* Businesses not required to install a fire alarm system as required per CFC 907.2.1 through 907.2.23 and as listed above in Item 13, shall install and use a fire and burglar alarm system that is monitored by a company that is staffed twenty-four hours (24) a day, seven (7) days a week.
 15. *Smoke and heat vents.* Smoke and heat vents shall be installed per the CFC Section 910.2, in the roofs of one-story buildings or portions thereof occupied in Group F-1 having more than 50,000 square feet of undivided area.
 16. *Explosion control.* Explosion control shall be provided per the CFC Section 911.1. in the following locations:
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- a. Where a structure, room or space is occupied for purposes involving explosion hazards as identified in the CFC Table 911.1.
- b. Where quantities of hazardous materials specified in the CFC Table 911.1 exceed the maximum allowable quantities in the CFC Table 5003.1.1(1).

Such areas shall be provided with explosion (deflagration) venting, explosion (deflagration) prevention systems, or barricades in accordance with this section and NFPA 69, or NFPA 495 as applicable. Deflagration venting shall not be utilized as a means to protect buildings from detonation hazards.

17. *Hazardous materials inventory statement.* Per the CFC Section 5001.5.2, an application for a building permit shall include an Hazardous Materials Inventory Statement (HMIS), such as the Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Tier II Report or other approved statement. The HMIS 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.

18. *Safety data sheet.* Safety Data Sheets (SDS) for all chemicals/hazardous materials must be kept at the facility.

19. *Pesticides.* Fumigation, pesticides, fungicides, herbicides, rodenticides, and miticides shall not be used, stored and/or kept in inventory without proper permit and advance notification, which includes submittal of a Pesticide Inventory Statement to the LBFD.

20. *Handling of hazardous materials.* The storage, use and handling of all hazardous materials shall be in accordance with CFC Chapter 50. The maximum allowable quantity of hazardous materials per control area will be established using CFC Section 5003.1.

- a. The maximum allowable quantity per control area shall be as specified in the CFC Tables 5003.1.1(1) through 5003.1.1(4).
 - i. Note: For retail and wholesale storage and display in Group M occupancies, see the CFC Section 5003.11.

21. *Handling of hazardous materials (cont'd).* Use, dispensing and handling of hazardous materials in amounts exceeding the maximum allowable quantity per control area set forth in the CFC Section 5003.1 shall be in accordance with the CFC Sections 5001, 5003 and 5005. Use, dispensing and handling of hazardous materials in amounts not exceeding the maximum allowable quantity per control area set forth in the CFC Section 5003.1 shall be in accordance with the CFC Sections 5001 and 5003.

22. *Handling of compressed gas.* Storage, use and handling of compressed gases in compressed gas containers, cylinders, tanks and systems shall comply with the LBMC 5.92, CFC 53 and NFPA 55, 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.
- a. Compressed gases classified as hazardous materials shall also comply with the CFC Chapter 50 for general requirements and chapters addressing specific hazards, including the CFC Chapters 58 (Flammable Gases), 60 (Highly Toxic and Toxic Materials), 63 (Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids) and 64 (Pyrophoric Materials).
 - b. LP-gas shall also comply with the CMC Chapter 61.
 - c. Any compressed gases used in the cultivation or manufacturing process shall not be stored on any property within the City in containers that exceed the amount that is approved by the Fire Code Official and authorized by the cannabis business permit (LBMC 5.92.1170).
23. *List of flammable and combustible liquids.* A list of all flammable and/or combustible liquids proposed to be utilized on the property shall be provided in the submitted plans.
24. *Handling of flammable and combustible liquids.* Prevention, control and mitigation of dangerous conditions related to storage, use, dispensing, mixing and handling of flammable and combustible liquids shall be in accordance with the CFC Chapters 50 and 57. Flammable and combustible liquid extraction processes where the liquid is boiled or evaporated shall be located within a hazardous exhaust fume hood, rated for exhausting flammable vapors. In addition, electrical equipment used within the hazardous exhaust fume hood shall be rated for use in flammable atmospheres. Heating of flammable or combustible liquids over an open flame is strictly prohibited.
- Flammable and combustible liquids shall be classified in accordance with the definitions in the CFC Chapter 2.
 - The storage of flammable and combustible liquids in containers and tanks shall be in accordance with the CFC Section 5704 and the applicable sections of the CFC Chapter 50.
 - Liquid storage quantity limitations shall comply with the CFC Sections 5704.3.4.1 through 5704.3.4.4.
 - For occupancies other than Group M wholesale and retail sales uses, indoor storage of flammable and combustible liquids shall not exceed the maximum allowable quantities per control area indicated in the CFC Table 5003.1.1(1) and shall not exceed the additional limitations set forth in the section.

GENERAL HEALTH REQUIREMENTS

1. *Edibles/food production.* Pursuant to the California Health and Safety Code (CHSC), California Retail Food Code (CRFC) and LBMC 5.92, plan approval must be obtained from the Health Department prior to constructing or remodeling any building for use as a food facility, including edible cannabis (CRFC 114380(a) and LBMC 5.92.450).

Plans shall include the following:

- Location and design of sinks and washing facilities, including prep sinks, hand and utensil washing facilities, employee restrooms and Janitorial sinks.
- Storage of cannabis waste. Cannabis waste shall be stored in a secured waste receptacle or in a secured area on the permitted premises.
- Finish schedule for walls, ceilings and floors for each room and area. Indicate the type of material, color and surface finish. Provide specific brand names. Samples may be required.
- Equipment List Schedule including cut sheets meeting American National Standards Institute (ANSI) standards, (NSF, ETL, UL, etc) or equivalent.
- Plumbing layout showing water heater, floor sinks, floor drains, backflow prevention devices and grease interceptors.
- Electrical layout to ensure adequate lighting is provided in the following areas: hand-washing areas, dressing and locker rooms; toilet facilities; all areas where components or cannabis goods are examined, trimmed, harvested, manufactured, processed, packed, or held; and in all areas where equipment or utensils are cleaned. Include water heater if electrical water heater is proposed.

2. *General sanitation requirements.* Pursuant to LBMC 5.92.450, every premises shall have:
 - Hand-washing facilities designed to ensure an employee's hands do not pose a source of contamination to products, surfaces, or packaging materials. Hand-washing facilities shall also be convenient and furnish hot running water of at least 100°F.
 - Effective hand-cleaning (liquid soap) and disposable paper towel or suitable drying devices.
 - Three (3) compartment utensil washing facilities.
 - Employee restrooms.
 - Janitorial sinks with hot and cold running water.
3. *Sanitation standards.* Manufacturing facilities shall meet sanitation standards equivalent to the California Retail Food Code (Part 7 (commencing with Section 113700) of Division 104 of the California Health and Safety Code) for food preparation, storage, handling, and sale of products. (LBMC 5.92.1120).
4. *Storage of cannabis goods.* In compliance with LBMC 5.92.620, all extractions, concentrates, infusions, components, and edible cannabis products intended for human consumption and capable of supporting the growth of pathogenic microorganisms or toxin formation shall be refrigerated at a temperature of 41°F continually, unless otherwise approved by the city health officer. Any refrigerator, refrigerated storage, or freezer used for storage of cannabis products shall be locked and secured to the structure of the cannabis facility in a limited-access area and shall meet the following refrigeration equipment standards:

- Meet NSF or ANSI standards or an equivalent.
 - Be equipped with an NSF or equivalent thermometer or temperature-recording device that is accurate to plus or minus 2°F and installed in a location to indicate the air temperature in the warmest part of the unit and to be readily visible.
 - Be approved by the City health officer prior to use.
5. *Pesticides.* The use, storage and disposal of pesticides, fertilizer, materials, processes, products and wastes shall prevent hazards on the premises. At a minimum, cultivation facilities shall properly ventilate all areas of the cultivation site and ensure proper storage, handling and disposal of pesticides, in compliance with all applicable federal, State and local laws and regulations pertaining to pesticide use and worker safety (LBMC 5.92.1055).
6. *Weighing devices.* Any weighing devices utilized by cultivation facilities shall be approved, tested, sealed, and registered with the Los Angeles County Agricultural Commissioner/Weights and Measures in compliance with California Business and Professions Code Division 5 (“Weights and Measures”) and Division 10 (“Cannabis”), any regulations implemented by the State Department of Food and Agriculture, and all other applicable local, State, and Federal laws. Scales, weights, or measures that do not accurately conform to the standards of weights and measures of the State and county are prohibited (LBMC 5.92.1065).

GENERAL ELECTRICAL REQUIREMENTS

1. *Relevant electrical code.* A single line diagram of the existing and proposed electrical system, including the main electrical service, shall be provided to the City (CEC Article 215.5).
2. *List of electrical systems.* A list of any electrical systems utilized on the facility (e.g. generators, switch gear, special equipment, etc.) shall be provided to the City. All electrical equipment is to be listed and labeled by an approved testing agency (CEC Article 110.3).
3. *Flexible cords.* Per CEC Article 400.8, flexible cords (extension cords) are not to be:
- a. Used as a substitute for fixed wiring nor run through holes or concealed in walls, structural ceilings, suspended ceilings, dropped ceilings or floors;
 - b. Run through doorways, windows or similar openings; or
 - c. Attached to building surfaces.

The use of extension cords to supply power to any electrical equipment used in cultivation is prohibited. All electrical equipment used in cultivation shall be plugged directly into a wall outlet or otherwise hardwired (LBMC 5.92.1025)

4. *Wiring.* Approved wiring methods must be utilized in cultivation facilities in accordance with the CEC Chapter 3.
5. *Power outages.* To ensure locks are not released during power outages, all access doors and the premises shall not be solely controlled by an electronic access panel (LBMC 5.90.755).

6. *Wet locations.* Grow rooms will be considered damp/wet locations as they are subject to wash down and are subjected to high humidity. Indoor wet location wiring methods shall meet the requirements of the CEC Article 300.6(D) when humidity is left uncontrolled > 50%.
7. *Circuit interrupters.* Ground Fault Circuit Interrupters are required for personnel protection in wet locations (CEC Article 210.8(B)(6)).
8. *NM cables.* NM cable (romex) is not allowed for use in wet locations (i.e. grow rooms) per the CEC Article 334.10.
9. *Working space.* Clear working space around electrical equipment shall be maintained per the CEC Articles 110.26(A)(1), (A)(2), and (A)(3).
10. *Warnings and postings.* All electrical distribution equipment, switch boards, panel boards and control centers must be identified with ARC-FLASH HAZARD WARNINGS. Electrical panel load schedules (from engineered electrical permit drawings) shall be posted at each panel.
11. *Ground-fault protection.* All Electrical services that are a solidly grounded wye with more than 150V to ground and larger than 1,000 AMPS are required to be Ground-Fault Protected (CEC Article 230.95).
12. *Lighting.* Grow lights must be installed per manufacture instructions and wired per the 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 (CEC Article 410.144(B)).
 - b. Ballast secondary cord/conductors cannot pass through partitions and must be visible its entire length outside the fixture (CEC Article 410.62(C)(1)).
13. *Interior lighting.* Lighting used for indoor cultivation shall be fully shielded, downward casting, and shall not spill over onto structures, other properties, or into the night sky. Indoor cultivation lighting shall be contained so that little to no light escapes and any light that escapes shall be at a level that is not visible from neighboring properties between sunset and sunrise (LBMC 5.92.1030).
14. *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)).
15. *Hazardous location.* Portions of manufacturing facilities may be considered a Hazardous Location based on the method used for THC and CBD extraction and the amount hazardous material stored. Full disclosure of the proposed extraction process will be required at time of plan submittal.

16. *Concrete encased grounding electrode.* All buildings that are being newly constructed will be required to install a Concrete Encased Grounding Electrode.
17. *Show window receptacles.* Show window receptacles for retail stores shall be required per the CEC Article 210.62.
18. *Heating and A/C equipment.* Heating and Air-conditioning equipment shall require a 15 or 20-amp service receptacle within 25 feet of the equipment (CEC Article 210.63).
19. *Stocking of products.* Prior to stocking of any cannabis products, all building components and electrical equipment shall be completed, inspected, and approved per the LBMC Chapter 18.07.

GENERAL GAS DETECTION REQUIREMENTS

1. *Gas detection systems.* A construction permit is required for installation of or modification to gas detection systems. A gas detection system is a system or portion of a combination system that utilizes one or more stationary sensors to detect the presence of a specified gas at a specified concentration and initiate one or more responses, such as notifying a responsible person, activating an alarm signal, or activating or deactivating equipment. A self-contained gas detection and alarm device is not classified as a gas detection system.
2. *Carbon Dioxide Enrichment Gas Detection.* A gas detection system shall be provided in rooms and indoor areas in which carbon dioxide enrichment processes are located. An operational permit is required for carbon dioxide enrichment systems having more than 874 cu. ft. scf (100 pounds) of carbon dioxide. For more information on carbon dioxide detection system requirements, see Attachment B to this Bulletin.
3. *Extraction Gas Detection.* For extraction processes utilizing flammable gases as solvents, a continuous gas detection system shall be provided. For more information on extraction gas detection system requirements, see Attachment C to this Bulletin.
4. *Construction documents.* Documentation of the gas detection system design and equipment to be used that is adequate to demonstrate compliance with the requirements below and the California Fire Code shall be provided with the application for permit.
5. *Equipment.* Gas detection system equipment shall be designed for use with the gases being detected and shall be installed in accordance with manufacturers' instructions.
6. *Power connections.* Gas detection systems shall be permanently connected to the building electrical power supply or shall be permitted to be cord connected to an un-switched receptacle using an approved restraining means that secures the plug to the receptacle.
7. *Emergency and standby power.* Standby or emergency power shall be provided or the gas detection system shall initiate a trouble signal at an approved location if the power supply is interrupted.

8. *Sensor locations.* Sensors shall be installed in approved locations where leaking gases are expected to accumulate.
9. *Gas sampling.* Gas sampling shall be performed continuously. Sample analysis shall be processed immediately after sampling, except as follows:
 - a. For HPM gases, sample analysis shall be performed at intervals not exceeding 30 minutes.
 - b. For toxic gas that are not HPM, sample analysis shall be performed at intervals not exceeding 5 minutes in accordance with Section 6004.2.2.7.
 - c. Where a less frequent or delayed sampling interval is approved.
10. *System activation.* A gas detection alarm shall be initiated where any sensor detects a concentration of gas exceeding the following thresholds:
 - a. For flammable gases, a gas concentration exceeding 25 percent of the lower flammable limit (LFL).
 - b. For non-flammable gases, a gas concentration exceeding the threshold specified by the CFC requiring a gas detection system. Upon activation of a gas detection alarm, alarm signals or other required responses shall be as specified by the section the CFC requiring a gas detection system. Audible and visible alarm signals associated with a gas detection alarm shall be distinctive from fire alarm and carbon monoxide alarm signals.
11. *Signage.* Signs shall be provided adjacent to gas detection system alarm signaling devices that advise occupants of the nature of the signals and actions to take in response to the signal.
12. *Fire alarm system connections.* Gas sensors and gas detection systems shall not be connected to fire alarm systems unless approved and connected in accordance with the fire alarm equipment manufacturer's instructions.
13. *Inspection, testing, and sensor calibration.* Inspection and testing of gas detection systems shall be conducted not less than annually. Sensor calibration shall be confirmed at the time of sensor installation and calibration shall be performed at the frequency specified by the sensor manufacturer.

GENERAL GREEN AND SUSTAINABILITY REQUIREMENTS

1. *Relevant CalGreen code.* The CalGreen Chapter 5 Nonresidential Mandatory Measures will apply to newly constructed nonresidential buildings, nonresidential building additions of one thousand (1,000) square feet or greater, and nonresidential building alterations with a permit valuation of two hundred thousand dollars (\$200,000) or above.
2. *EV charging infrastructure.* The CalGreen Section 5.106.5.3.3 as amended by the LBMC Section 18.47.050 requires new nonresidential developments to facilitate future installation and use of EV chargers. EV supply equipment shall be installed in accordance with the CEC Article 625. The requirements are as follows: 25% of total parking shall be EV charging space and 5% of total parking shall be provided with EV charging station.

3. *Commissioning.* The CalGreen Section 5.410.2 requires building commissioning to be included in the design and construction processes of newly constructed nonresidential building projects 10,000 sq. ft. and over to verify that the building systems and components meet the owner's or owner representative's project requirements. Of particular note, the expectation and requirements of the building shall be documented before the design phase of the project begins.

GENERAL WATER REQUIREMENTS

1. *Sewer protection.* To determine if an Industrial Waste Water Discharge Permit (IWP) is required, Applicants must submit a plumbing plan showing proposed discharge line configuration and identification of all fixtures connected to it (LBWD Rules and Regulations, Part 13 – Section 1302).
2. *Backflow device.* A reduced pressure backflow prevention device (RP) is required for all cannabis cultivation, manufacturing, and testing facilities. The RP must be lead free and USC approved and shall be installed as close as possible to the meter and located on property and outside of the building. Plans must include a copy of the RP specifications in the drawings (LBWD Rules and Regulations, Part 8 – Sections 801 and 802).
3. *Water sources.* Cultivation facilities shall comply with California Water Code Section 13149 and any implementing regulations, policies, or guidelines adopted by the State Water Resources Control Board regarding water usage, the diversion of water, and the discharge of waste while cultivating cannabis (LBMC 5.92.1040).



Carbon Dioxide Enrichment System Plan Check Information

Carbon dioxide enrichment systems. Cultivation facilities shall test carbon dioxide levels and shall not utilize carbon dioxide without prior inspection and approval from the City's Building Official and Fire Code Official (LBMC 5.92.1045). The design, installation and maintenance of carbon dioxide enrichment systems with more than 100 pounds (874 cu. feet scf) of carbon dioxide, or carbon dioxide enrichment systems with any quantity of carbon dioxide with remote fill connections shall comply with the following:

Documentation. The following information shall be provided with the application for permit:

1. Total aggregate quantity of liquid CO₂ in pounds or cubic feet at normal temperature and pressure.
2. Location and total volume of the room where the carbon dioxide enrichment operation will be conducted. Identify whether the room is at grade or below grade.
3. Location of containers relative to equipment, building openings and means of egress.
4. Manufacturer's specifications and pressure rating, including cut sheets, of all piping and tubing to be used.
5. A piping and instrumentation diagram that shows piping support and remote fill connections.
6. Details of container venting, including but not limited to vent line size, material and termination location.
7. Alarm and detection system and equipment, if applicable.
8. Seismic support for containers.

Equipment. Pressure relief, vent piping, fill indicators, fill connections, vent terminations, piping system, and the storage, use, and handling of the carbon dioxide shall be in accordance with CFC Chapter 53 and NFPA 55 and shall be listed and labeled.

Gas detection system. A gas detection system shall be provided in the room or indoor area in which the carbon dioxide enrichment process is located, in the room or indoor area in which the container systems are located, and in other areas where carbon dioxide is expected to accumulate. Carbon dioxide sensors shall be provided within 12 inches (305 mm) of the floor in the area where the gas is most likely to accumulate or leaks are most likely to occur. The system shall be designed as follows:

1. Activate a low-level alarm upon detection of a carbon dioxide concentration of 5,000 ppm (9,000 mg/m³).
2. Activate a high-level alarm upon detection of a carbon dioxide concentration of 30,000 ppm (54,000 mg/m³).

System Activation. Activation of the low level gas detection system alarm shall automatically:

1. Stop the flow of carbon dioxide to the piping system.
2. Activate the mechanical exhaust ventilation system.

3. Activate an audible and visible supervisory alarm signal at an approved location within the building.

Activation of the high-level gas detection system alarm shall automatically:

1. Stop the flow of carbon dioxide to the piping system.
2. Activate the mechanical exhaust ventilation system.
3. Activate an audible and visible evacuation alarm both inside and outside of the carbon dioxide enrichment area, and the area in which the carbon dioxide containers are located.

Pressurization and ventilation. Rooms or indoor areas in which carbon dioxide enrichment is provided shall be maintained at a negative pressure in relation to the surrounding areas in the building. A mechanical ventilation system shall be provided in accordance with the California Mechanical Code that complies with all of the following:

1. Mechanical ventilation in the room or area shall be at a rate of not less than 1 cubic foot per minute per square foot.
2. When activated by the gas detection system the mechanical ventilation system shall remain on until manually reset.
3. The exhaust system intakes shall be taken from points within 12 inches of the floor.
4. The ventilation system piping shall terminate outdoors in an approved location.

Signage. Hazard identification signs shall be posted at the entrance to the room and indoor areas where the carbon dioxide enrichment process is located, and at the entrance to the room or indoor where the carbon dioxide containers are located. The sign shall be a minimum 8 in. (200 mm) wide and 6 in. (150 mm) high and indicate:

CAUTION- CARBON DIOXIDE GAS

Ventilate the area before entering.
A high carbon dioxide (CO₂) gas concentration
in this area can cause asphyxiation.

Seismic and structural design. Carbon dioxide system containers and piping shall comply with the seismic design requirements in Chapter 16 of the California Building Code and shall not exceed the floor loading limitation of the building.

Container refilling. Carbon dioxide containers located indoors shall not be refilled unless filled from a remote connection located outdoors.

Ventilation. Indoor storage and use areas and storage buildings shall be provided with ventilation in accordance with the requirements of Section 5004.3. Where mechanical ventilation is provided, the systems shall be operational at all times.

Exception: A gas detection system shall be permitted in lieu of mechanical ventilation.



City of Long Beach
333 West Ocean Blvd., 4th Floor
Long Beach, CA 90802
Phone: (562) 570-5237 | Fax: (562) 570-6753
Website: www.lbds.info

Attachment C

Extraction Room Plan Check Information

The following regulations pertain to the City of Long Beach (“City”) requirements for the plan review and inspection of cannabis manufacturing facilities. The information listed below is intended to assist the Applicant with their project submittal and is not intended to be considered an all-inclusive listing of City requirements necessary to obtain plan approval or permit issuance.

EXTRACTION ROOM

1. *Extraction Process.* The extraction process includes the act of extraction of the oils and fats by use of a solvent, desolventizing of the raw material and production of the miscella, distillation of the solvent from the miscella, and solvent recovery.
2. *Construction.* Processing shall be located in a building complying with the California Building and Fire Codes.
3. *Dedicated Room.* The extraction equipment and extraction process shall be located in a room dedicated to extraction.
4. *Room Design.* There must be no other equipment within the room (e.g. refrigerators, cooking appliances, electrical panels, computers, cell phones, etc.) that is not associated with the extraction process. Additionally there must be no penetrations into the room that are not essential for the extraction process (e.g. gas lines, HVAC systems, plumbing, etc.) Penetrations shall be sealed vapor tight. Non-operable glazing is permitted where glazing does not interfere with required exhaust systems. Rooms are to be of continuous, noncombustible, and smooth construction, and room finish should also consider Department of Health requirements for cleaning purposes. Booths constructed in compliance with flammable finish requirements will be accepted as meeting these construction requirements. Acoustic-type drop ceilings that could conflict with large LPG extraction exhaust systems will not be permitted. Hand sinks and eye wash stations can be located in the room.

EXTRACTION EQUIPMENT

1. *General Requirements.* Systems and equipment used with the processing and extraction of oils and products from plants shall comply with California Fire Code 5003.2, and other applicable provisions of the California Building, Fire and Mechanical Codes.
2. *Closed Loop Extraction.* In compliance with LBMC 5.92.1155, chemical extractions using carbon dioxide or a volatile solvent shall only be conducted in a professional or commercially manufactured closed loop extraction system certified by a California-licensed engineer. All professional and commercially manufactured closed loop extraction systems shall bear a permanent affixed and viable serial number. Persons using solvents or gases in a closed loop

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system shall be fully trained to use the system, have direct access to applicable safety data sheets, and handle and store the solvents and gases safely in compliance with State and local laws and regulations. Open blasting extractions or equipment that releases hazardous vapors to the atmosphere during the extraction process is strictly prohibited.

- a. Certification documents from a California-licensed engineer of any closed loop system used by a manufacturer shall be provided to the Fire Code Official to certify that the system was commercially manufactured, is safe for its intended use, and was built to codes of recognized and generally accepted engineering practices, including but not limited to:
 - i. The American Society of Mechanical Engineers (ASME);
 - ii. American National Standards Institute (ANSI);
 - iii. Underwriters Laboratories (UL); or
 - iv. The American Society for Testing and Materials (ASTM).
 - b. The certification document required shall contain the signature and stamp of the professional engineer and serial number of the extraction unit being certified.
3. *Listed or Approved.* Systems or equipment used for the extraction of cannabis/cannabis oils from plant material shall be listed or approved for the specific use. If the system used for extraction of cannabis/cannabis oils and products from plant material is not listed, then the system shall have a Registered Design Professional. The Registered Design Professional shall review and consider any information provided by the system's designer or manufacturer. For systems and equipment not listed for the specific use, a technical report in accordance with this attachment shall be prepared and submitted to the Fire Code Official for review and approval. The firm or individual performing the engineering analysis for the technical report shall be approved by the Fire Code Official prior to performing the analysis.
4. *Report Due Prior to Installation.* The technical report which has been reviewed and approved by the Fire Code Official is required prior to the equipment being located or installed at the facility. The report shall be prepared by a Registered Design Professional or other professional approved by the Fire Code Official.
5. *Report Content.* The technical report shall contain all of the following:
 - a. Manufacturer information.
 - b. Preparer of record on technical report.
 - c. Date of review and report revision history.
 - d. Signature page shall include all of the following:
 - i. Author of the report.
 - ii. Date of report.
 - iii. Date and signature of Registered Design Professional of record performing the design or peer review.
 - e. Model number of the item evaluated. If the equipment is provided with a serial number. The serial number shall be included for verification at time of site inspection.
 - f. Methodology of the design or peer review process used to determine minimum safety requirements. Methodology shall consider the basis of design and shall include a code analysis and code path to demonstrate the reason as to why specific code or standards are applicable or not.

- g. Equipment description. A list of every component and sub-assembly (fittings, hose, quick disconnects, gauges, site glass, gaskets, valves, pumps, vessels, containers, switches, etc.) of the system or equipment indicating the manufacturer, model number, material, and solvent compatibility. Manufacture data sheets shall be provided.
 - h. A general flow schematic or general process flow diagram of the process. Post-processing or winterization shall be included in this diagram. All primary components of the process equipment shall be identified and match the equipment list required in Item (g). Operating temperatures, pressures, and solvent state of matter shall be identified in each primary step or component. A piping and instrumentation diagram (PIO or PI&D) shall be provided.
 - i. Analysis of the vessel(s) if pressurized beyond standard atmospheric pressure. Analysis shall include purchased and fabricated components.
 - j. Structural analysis for the frame system supporting the equipment.
 - k. Process safety analysis of the extraction system from the introduction of raw product to the end of the extraction process.
 - l. Comprehensive process hazard analysis considering failure modes and points of failure throughout the process. The process hazard analysis shall include a review of emergency procedure information provided by the manufacturer of the equipment or process and not that of the facility building or room.
 - m. Review of the assembly instructions operational and maintenance manuals provided by the manufacturer.
 - n. List of references used in the analysis.
6. *Site Inspection.* Prior to operation of the extraction equipment, the engineer of record or approved professional shall inspect the site of the extraction process once equipment has been installed for compliance with the technical report and the building analysis. The engineer of record or approved professional shall provide a report of findings and observations of the site inspection to the Fire Code Official prior to the approval of the extraction process. The field inspection report authored by engineer of record shall include the serial number of the equipment used in the process and shall confirm the equipment installed is the same model and type of equipment identified in the technical report.

EXTRACTION SOLVENTS

1. *Volatile and nonvolatile solvents.* Manufacturers may only use volatile solvents or gases approved by the Fire Code Official and State law for extractions. Manufacturers may use nonvolatile solvents or mechanical processes to create or refine extracts, if approved by the Fire Code Official (LBMC 5.92.1160).
2. *Extraction System.* Any extraction process must use solvents or gases in a professional grade closed loop extraction system designed to recover the solvents and work in an environment with proper ventilation. Manufacturers shall control all sources of ignition where a flammable atmosphere is or may be present (LBMC 5.92.1160).
3. *Change in Extraction or Solvent.* In compliance with LBMC 5.92.1165, any Manufacturer that changes the medium of extraction or solvent used in manufacturing from the technical report previously approved by the Fire Code Official shall submit a revised technical report for

approval of the Fire Code Official prior to the use of the equipment with said new medium or solvent. The technical report shall be revised at the cost of the Manufacturer. If the original engineer of record that drafted the last approved technical report is not available, then the Manufacturer shall comply with the following requirements prior to submitting a revised technical report to the Fire Code Official that has been drafted by a new engineer of record

- a. The Manufacturer shall submit the new engineer's educational background and professional experience specific to the review and approval of system, equipment, and processes with like hazards of those associated with the extraction system to the Fire Code Official.
- b. Once the proof of qualifications is deemed acceptable by the Fire Code Official, the engineer of record shall produce the technical report and the report shall be signed and sealed in accordance with State requirements. The proof of qualifications shall include documentation indicating the person is a professional engineer licensed in the State.

EXHAUST SYSTEM

1. *Hazardous Exhaust System.* A hazardous exhaust system shall be installed in accordance with the Mechanical Code for extraction processes using hazardous materials. There are many different ways to design a hazardous exhaust system including use of fume hoods, walk-in hoods, booths, and exhausted rooms. The engineer of record must design and/or specify a system to meet the minimum requirements of a hazardous exhaust system.
2. *Exhaust Fume Hood.* The use of flammable and combustible liquids for liquid extraction processes where the liquid is boiled, distilled, or evaporated shall be located within a hazardous exhaust fume hood, rated exhausting flammable vapors. Electrical equipment used within the hazardous exhaust fume hood shall be rated for use in flammable atmospheres. Heating of flammable or combustible liquids over an open flame is prohibited. The use of a heating element not rated for flammable atmospheres approved where documentation from the manufacture or approved testing laboratory indicates it is rated for heating of flammable liquids.
3. *Closed Loop Justification.* The assumption that a "closed-loop" system does not release hazardous materials into the atmosphere will not be accepted as a basis in the design of these exhaust systems, since all extraction systems must be opened at some point in the process with vapor released.

VENTILATION

1. *Ventilation Requirements.* Mechanical ventilation shall be in accordance with Long Beach Municipal Code and the California Mechanical Code and shall comply with all of the following:
 - a. Mechanical ventilation in the room or area shall be at a rate of not less than 1 cubic foot per minute per square foot.
 - b. The exhaust system intake shall be taken from a point within 12 inches of the floor.
 - c. The ventilation system shall be designed to operate at a negative pressure in relation to the surrounding area.

- d. Ventilation or control equipment shall be used to minimize dust, odors, and vapors (including steam and noxious fumes) in areas where they may cause allergen cross-contact or contamination of products (LBMC 5.92.1115).
- e. Fans and other air-blowing equipment used at a manufacturing facility shall be used in a manner that minimizes potential for allergen cross-contact and contamination of manufactured cannabis products or packaging materials and contact surfaces intended for manufactured cannabis handling or production (LBMC 5.92.1115).

ELECTRICAL SYSTEMS

1. *Location.* The location of the hazardous material extraction process must be considered a Class I Division I location in accordance with the National Electric Code (NEC); depending on the type of exhaust system provided, this could be the entire room or the area inside of a hood or booth.
2. *Equipment.* Based on the Class I Division I location, all equipment in the extraction room must be rated for use in Class I Division I locations. This includes lighting, power receptacles, vacuum pumps, recovery pumps, and any other electrical equipment in the room.
3. *Conductive Equipment.* All conductive equipment and conductive objects within the exhaust room shall be bonded and grounded with a resistance of less than 1.0×10^6 ohms in accordance with NFPA 70.

POST-PROCESSING

1. *Post-Processing and Winterization.* Post-processing and winterization involving the heating, or pressurizing of the miscella to other than normal pressure or temperature shall be approved and performed in an appliance listed for such use. Domestic or commercial cooking appliances shall not be used.
2. *Heating Equipment.* Where an explosion condition exists, heating equipment such as vacuum ovens, heating mantels, heat guns, or other equipment shall not be used to heat flammable or combustible liquids or oils containing liquefied petroleum gasses.
3. *Industrial Ovens.* The use of industrial ovens shall comply with CFC Chapter 30.
4. *Electrified Equipment.* Electrified equipment used in solvent distillation processes are required to be listed by a NRTL for their intended use and are required to be operated within the manufacturer's guidelines. Where distillation stills or heated evaporation processes are performed, the heating source shall be listed as explosion-proof (i.e. rated for the electrically classified location) unless it can be shown that the equipment has been tested during its listing to heat flammable liquids without the explosion-proof classification.
5. *Exhaust System.* Exhaust system requirements for extraction processes using flammable liquids are also required for post oil processing using flammable liquids.

EXTRACTION GAS DETECTION SYSTEMS

1. *Continuous Gas Detection System.* For extraction processes utilizing flammable gases as solvents, a continuous gas detection system shall be provided. The gas detection threshold shall be no greater than 25% of the LEL/LFL limit of the materials. The flammable gas detection system shall be listed or approved and shall be calibrated to the types of fuels or gases used for the extraction process. The gas detection system shall be designed to activate when the level of flammable gas exceeds 25% of the lower flammable limit (LFL).
2. *Gas detection system components.* Gas detection system control units shall be listed and labeled in accordance with UL 864 or UL 2017. Gas detectors shall be listed and labeled in accordance with UL 2075 for use with the gases and vapors being detected.
3. *Activation of System.* Activation of the gas detection system shall result in all the following:
 - a. Initiation of distinct audible and visual alarm signals in the extraction room.
 - b. Deactivation of all heating systems located in the extraction room.
 - c. Activation of the mechanical ventilation system, where the system is interlocked with gas detection.
4. *System Failure.* Failure of the gas detection system shall result in the deactivation of the heating system, activation of the mechanical ventilation system where the system is interlocked with the gas detection system and cause a trouble signal to sound in an approved location.
5. *Interlocks.* All electrical components within the extraction room shall be interlocked with the gas detection system. Activation of the gas detection system shall cause a trouble signal to sound in an approved location.
6. *Emergency Shutoff System.* Extraction processes utilizing gaseous hydro-carbon based solvents shall be provided with emergency shutoff systems.
7. *Carbon Dioxide Detection System.* A fixed continuous CO₂ detection system is required within CO₂ extraction rooms set to alarm at 5000 ppm. This system is a local alarm only and is not required to be monitored off site. The system is intended to alert the extraction operator of a potential asphyxiation hazard. CO₂ extraction equipment is required to have releases of CO₂ piped to the exterior.

LIQUEFIED PETROLEUM GAS SOLVENT TANKS

1. *Tank Refills.* Filling the LPG solvent tank from a bulk tank is not included in the extraction equipment approval and is regulated per CFC Chapter 61 and NFPA 58 as LPG liquid transfer and must be conducted outdoors. Indoor filling and/or indoor filling from piped LPG liquid systems may be conducted indoors where the room and process has been designed in accordance with CFC Chapter 61 and NFPA 58. LPG liquid transfers using lighter refill-type containers using can taps or other puncture equipment is prohibited.
2. *Storage.* LPG containers shall not be stored in buildings.

AUTOMATIC FIRE SUPPRESSION SYSTEMS

1. *Suppression System.* An LPG extraction room, booth, or hood is required to be provided with an automatic fire suppression system. A suppression system is also required in a flammable liquid extraction room, booth, or hood where vapors are released exceeding 25% of the LFL (lower flammable limit). No suppression systems are required in CO₂ extraction rooms. Where the building is required to be sprinklered, the sprinkler system shall be extended to the room, booth, or hood.

OTHER REQUIREMENTS

1. *Vacuum Ovens.* Vacuum ovens shall not be used to process volatile solvents or flammable/combustible liquids contained in cannabis concentrate (e.g. alcohol/oil mixtures, oil containing off-gassing LPG, other flammable liquids, etc.) unless said vacuum oven is rated to process the vapors of volatile solvents or flammable/combustible liquids, such as a vacuum oven that is rated with an explosion-proof classification. It is the responsibility of the manufacturer conducting extractions with a vacuum oven to take adequate precautions to ensure that any cannabis concentrate introduced into the said oven does not contain volatile solvents or flammable/combustible liquids. All vacuum ovens shall be listed by a NRTL (LBMC 5.92.1140).
2. *Doors to Extraction Room.* Doors to any room using volatile solvents, hazardous materials, or flammable/combustible liquids must swing in the direction of egress, be self-closing/latching, and be provided with panic hardware (LBMC 5.92.1145).
3. *Signage.* Smoking of any substance is prohibited around Closed Loop systems. Post flammable gas and no-smoking signs in and around work areas.
4. *Eyewash Stations.* Eyewash stations shall be installed in the work area of a volatile gas closed loop extraction system. Plumbed systems with automatic temperature control systems built in are best. The eyewash station shall be located in the room where a temporarily blinded worker can still find it.
5. *Refrigerators.* Volatile solvents, hazardous chemicals, and flammable/combustible liquids, including volatile solvents, hazardous chemicals, and flammable/combustible liquids contained in concentrated cannabis or cannabis goods, shall be stored in a refrigerator, refrigerated storage, or a freezer rated to store flammable liquids. Manufacturers shall store and process all volatile solvents or flammable/combustible liquids, including concentrated cannabis and manufactured cannabis that contains volatile solvents or flammable/combustible liquids, in refrigerators, refrigerated storage, or freezers rated to store flammable liquids which are, at a minimum, rated "Lab-Safe" or "Flammable Safe." (LBMC 5.92.1150)
6. *Quality and preventative controls.* Manufacture facilities shall employ quality control personnel and establish standard operating procedures that comply with current good manufacturing practices, as outlined by the State Department of Public Health and the U.S. Food and Drug Administration (LBMC 5.92.1125).



City of Long Beach
333 West Ocean Blvd., 4th Floor
Long Beach, CA 90802
Phone: (562) 570-5237 | Fax: (562) 570-6753
Website: www.lbds.info

Attachment D

Title Sheet – Facilities Notes on First Sheet or Title Sheet Cannabis Related Occupancies

The following notes shall be made available on the Title Sheet of the construction plans. The notes shall be consistent with the Operation Plan submitted to the Business License Division and is in addition to all other notes required by Code. The following notes will assist the project Architect/Engineer, plan review, and inspection staff comply with the City of Long Beach Municipal Codes, medical and adult-use cannabis policies, and all other regulations in place for cannabis facilities.

General Planning Bureau Requirements

- *Development Standards.* All facilities proposing modification to the property site plan or building footprint shall include a table on the Title Sheet detailing the project's compliance with all applicable development standards (e.g. setbacks, height, floor area ratio, etc).
- *Parking.* The Title Sheet shall include a parking summary, indicating that the site complies with parking requirements for the type of use.

General Building Requirements

- *Facility operations.* The Title Sheet shall include a high-level summary of the daily operations of the facility. This may include growing, harvesting, drying, curing, trimming, washing/cleaning, extracting, post-processing, inspecting, testing, packaging, labeling, storing, etc. If plant extraction will occur in the facility, the Title Sheet shall include a summary of the intended extraction process.
- *Cannabis products.* The Title Sheet shall include a list of the types of cannabis products that will be produced, manufactured, tested or sold at the facility. This may include flower, edibles, vaporizers, tinctures, etc.
- *Fire barriers.* The Title Sheet shall confirm that the facility will provide a minimum of a one-hour fire barrier wall in between the cannabis establishment and any adjacent occupancy regardless of occupancy classification. Within a cannabis facility, every premises shall be fully separated from any other premises where commercial cannabis activities are conducted by walls that extend from floor to underneath the roof with 5/8" drywall on both sides.

General Mechanical Requirements

- *Ventilation and filtration plan.* The Title Sheet shall include a summary of the ventilation and filtration plan as required by LBMC 5.92.540 that describing the ventilation systems and odor control filtration measures that will be used to prevent odors from inside the cannabis facility from being detected outside the cannabis facility. For cannabis cultivation facilities, the Title Sheet shall include a summary of all ventilation systems used to control the environment for the plants.

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- *List of systems.* The Title Sheet shall include a list of all mechanical systems, environmental systems, generation systems, and fuel gas equipment proposed to be utilized on the property. This includes carbon dioxide generation systems, extraction equipment, etc.
- *Balancing.* The Title Sheet shall confirm that the ventilation air distribution system proposed is able to achieve at least the minimum ventilation airflow rate as required by the CMC Sections 403.2 through 403.9.4 and Attachment B of this document for manufacturing facilities.
- *Noxious gas ventilation.* The Title Sheet shall include a list of all ventilation systems used to mitigate noxious gases or other fumes used or created as part of the production process.

Fire Code Requirements

- *Pesticides.* The Title Sheet shall include a list of all fumigation, pesticides, fungicides, herbicides, rodenticides, and miticides proposed to be used, stored and/or kept in inventory at the facility.
- *List of flammable and combustible liquids.* The Title Sheet shall include a list of all flammable and/or combustible liquids proposed to be utilized on the property.

Electrical Requirements

- *List of electrical systems.* The Title Sheet shall include a list of all electrical systems utilized on the facility (e.g. generators, switch gear, explosion proof or other special equipment, etc.).