Long Beach Fire Department
Bureau of Fire Prevention

FIRE PREVENTION REQUIREMENT
NO. 4.001 3/25

TENT REQUIREMENTS

The intent of this document is to explain the California Fire Code (CFC) and California Code of Regulation (CCR) Title 19 requirements for tents, temporary special event structures and other membrane structures. This document is not all inclusive of the requirements, rather a guide to be used. Reference to the most current adopted CFC and Title 19 requirements is incumbent upon the applicant.

Definitions:

Tent. A structure, enclosure, umbrella structure or shelter, with or without sidewalls or drops, constructed of fabric or pliable material supported in any manner except by air or the contents it protects. [*California Code of Regulations, Title 19, Division 1, 310.(a) through (c)] Definitions.*

(a) *Tent. A shelter, structure or enclosure made of fabric or similar pliable material.*

(b) *Large tent. A tent designed for use by 10 or more people.*

(c) *Small tent. A tent designed for use by less than 10 people.*

Membrane structure. An air-inflated, air-supported, cable or frame-covered structure as defined by the *California Building Code* and not otherwise defined as a tent. See Chapter 31 of the *California Building Code*.

Temporary Special Event Structure. Any temporary ground-supported structure, platform, stage, stage scaffolding or rigging, canopy, tower supporting audio or visual effects equipment or similar structures not regulated within the scope of the *California Building Code.*

Air-inflated structure. A structure that uses air-pressurized membrane beams, arches or other elements to enclose space. Occupants of such structure do not occupy the pressurized areas used to support the structure.

Air-supported structure. A structure wherein the shape of the structure is attained by air-pressure, and occupants of the structure are within the elevated pressure area. Air-supported structures are of two basic types:

Double skin. Similar to a single skin, but with an attached liner that is separated from the outer skin and provides an airspace which serves for insulation, acoustic or similar purposes.

Single skin. Where there is only the single outer skin and the air pressure is directly against that skin.

A. Tents and membrane structures having an area in excess of 400 square feet that are erected for a period of 180 days or less in a 12-month period, shall obtain a permit and approval from the fire code official.

Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Tents **open on all sides** that comply with all of the following:

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2.1 Individual tents having a maximum size of 700 square feet.
2.2 The aggregate area of multiple tents placed side by side without a fire break clearance of 12 feet, not exceeding 700 square feet total.
2.3 A minimum clearance of 12 feet to all structures and other tents.

Construction documents. A detailed site and floor plan for tents or membrane structures with an occupant load of 50 or more shall be provided with each application for approval. The tent or membrane structure floor plan shall indicate details of the means of egress facilities, seating capacity, arrangement of the seating and location and type of heating and electrical equipment. The construction documents shall include an analysis of structural stability.

Inspections. The entire tent, air-supported, air-inflated or tensioned membrane structure system shall be inspected at regular intervals, but not less than two times per permit use period, by the permittee, owner or agent to determine that the installation is maintained in accordance with this chapter.

Exception: Permit use periods of less than 30 days.

Inspection report. Where required by the fire code official, an inspection report shall be provided and shall consist of maintenance, anchors and fabric inspections.

Tent location. Tents, canopies or membrane structures shall not be located within 20 feet of lot lines, buildings, other tents, canopies or membrane structures, parked vehicles or internal combustion engines. Internal combustion engine vehicles necessary to operation of event minimum 20 ft. clearance. Other internal combustion engine vehicles - minimum 100 ft. except vehicles parked on public street, then a minimum 20 ft. clearance.
CCR Title 19, Sec.312
For purposes of determining required distances, support ropes and guy wires shall be considered as part of the temporary membrane structure, tent or canopy.

Exceptions:

1. Separation distance between membrane structures, tent and canopies not used for cooking, is not required when the aggregate floor area does not exceed 15,000 square feet.
2. Membrane structures, tents or canopies need not be separated from buildings when all of the following conditions are met:
   2.1 The aggregate floor area of the membrane structure, tent or canopy shall not exceed 10,000 square feet.
   2.2 The aggregate floor area of the building and membrane structure, tent or canopy shall not exceed the allowable floor area including increases as indicated in the *California Building Code*.
   2.3 Required means of egress provisions are provided for both the building and the membrane structure, tent or canopy, including travel distances.
   2.4 Fire apparatus access roads are provided in accordance with Section 503.
3. *When approved by the enforcing agency, tents may be located in or on permanent buildings provided such use does not constitute an undue hazard.*

Structural stability and anchorage required. Tents or membrane structures and their appurtenances shall be designed and installed to withstand the elements of weather and prevent collapsing. Documentation of structural stability shall be furnished to the fire code official.
Tents and membrane structures greater than one story. Tents and membrane structures exceeding one story shall be designed and constructed to comply with Sections 1606 through 1609 of the *California Building Code*.
Tents and membrane structures greater than 7,500 square feet. Tents and membrane structures greater than 7,500 square feet (697 m2) shall be designed and constructed to comply with Sections 1606 through 1609 of the *California Building Code*.
Tents and membrane structures with an occupant load greater than 1,000. Tents and membrane structures with an occupant capacity greater than 1,000 persons shall be designed and constructed to comply with Sections 1606 through 1609 of the *California Building Code*.
Water-filled vessels. *Water-filled vessels shall not be used to anchor a tent or membrane structure unless approved and in accordance with the tent or membrane structure manufacturer's instructions.*

For temporary air-supported and air-inflated membrane structures, refer to the latest edition of the California Fire code, Chapter 31.

B. Submit plot plan of tent location, indicating exits, property line distances, parking areas, nearby structures, seating arrangements, etc. showing compliance with following requirements:

Means of egress*:*

1. Exits spaced at approximately equal intervals around tent perimeter with no point located more than 100 ft. travel distance from an exit.

2. Exits shall be provided in accordance with following:

Persons	**Minimum # of Exits**	**Min. Width Each Exit (FT.) Tent or Canopy**	**Min. for Membrane Structure**
10-199	2	6	36
200-499	3	6	72
500-999	4	8	96
1000-1999	5	10	96
2000 – 2999	6	10	96
Over 3000	7	10	96

(When the occupant load exceeds 3,000, the total width of means of egress (in inches) shall not be less than the total occupant load multiplied by 0.2 inches per person)

3. Exit openings shall remain open or have canvas curtain meeting following criteria:
   a. Free sliding on metal support,
   b. Minimum 8 feet above the floor level

c. Definite color contrast with color of tent,
d. Covered by a flame-resistant curtain.

4. Exits shall be clearly marked. Exit signs shall be installed at required exit doorways and where otherwise necessary to indicate clearly the direction of egress when the exit serves an occupant load of 50 or more.

5. Exits and exitways shall be clearly marked with signs having minimum 6-inch-high letters. Exit signs shall be of an approved self-luminous type or shall be internally or externally illuminated by luminaries supplied in the following manner: (1) Two separate circuits, one of which shall be separate from all other circuits, for occupant loads less than 300, (2) Two separate sources of power, one of which shall be an approved emergency system, shall be provided when the occupant load exceeds 300. Emergency systems shall be supplied from storage batteries or from the on-site generator set, and the system shall be installed in accordance with the *California Electrical Code*.

6. Means of egress shall be illuminated with light having an intensity of not less than 1 foot-candle at floor level while the structure is occupied. Fixtures required for means of egress illumination shall be supplied from a separate circuit or source of power.

7. Seating in tents, canopies or membrane structures shall be in accordance with Chapter 10 in the *California Fire Code*.
   a. Dual access. For rows of seating served by aisles or doorways at both ends, there shall be not more than 100 seats per row. The minimum clear width of 12 inches between rows shall be increased by 0.3 inch for every additional seat beyond 14 seats, but the minimum clear width is not required to exceed 22 inches.
   b. Single access. For rows of seating served by an aisle or doorway at only one end of the row, the minimum clear width of 12 inches between rows shall be increased by 0.6 inch for every additional seat beyond seven seats, but the minimum clear width is not required to exceed 22 inches.

8. The owners or operators of any tent used as a place of assemblage shall provide at least one qualified fire safety person in every tent having a capacity of 500 persons and one additional qualified person for each 1,000 additional persons or fraction thereof. Such persons shall be on duty in the tent at all times when the tent is open to the public. They shall be proficient in the handling of fire extinguishers and equipment and shall be familiar with the fire and panic safety regulations. The individual designated under this section shall meet the approval of the Long Beach Fire Department. This requirement may be waived, in the AHJ's opinion, public safety will not be jeopardized. *CCR Title 19, 320*

C. **Proof of Flame-Retardancy.** All tents and all decorations (including sawdust if applicable) shall be provided with proof of flame retardancy at time of permit submittal and maintained on premises with the tent. All tents and membrane structures shall have a permanently affixed label.

D. **Smoking** - There will be no smoking in tents. Each tent must have "No Smoking" signs conspicuously posted. Permittee has responsibility to enforce smoking ban.

E. **Prohibitions** - Fireworks, open flames, or spark producing devices shall be allowed in tents open to the public, unless approved by the fire code official.

F. **Cooking tents** – Outdoor cooking that produces sparks or grease-laden vapors Open flame or other devices emitting flame, fire or heat or any flammable or combustible liquids, gas, charcoal or other cooking device or any other unapproved devices shall not be permitted inside or located within 20 feet of the tent, canopy or membrane structure while open to the public unless approved by the fire code official. In tents not open to the public the following conditions apply:

1. Fryers shall be a minimum of 18 inches away from the tent and BBQ's a minimum of 10 feet. A minimum of 3 feet between a fryer and a BBQ is required.
2. Gas, liquid, and solid fuel burning equipment shall be installed as specified in the Mechanical Code.
3. If using liquid petroleum gas, portable container must be located outside of the tent. All connecting hoses & fittings must be approved and valves and connections must be protected with guard shields or recessing. The LPG tank must be in a location protected from vehicle and human traffic.
4. L.P. gas containers to be secured to prevent tipping over when in operation.
5. Cooking equipment using combustible oils shall meet the following:
   5.1 A noncombustible lid shall be immediately available and of sufficient size to cover the cooking surface.
   5.2 The equipment shall be placed on a non-combustible surface.
   5.3 An approved portable fire extinguisher for protection from cooking grease fires shall be provided at a location approved by the fire code official.

See Appendix A and B for a visual example of approved dimensions.

G. **Venting.** Gas, liquid and solid fuel-burning equipment designed to be vented shall be vented to the outside air as specified by the *International Fuel Gas Code* and the *California Mechanical Code.* Such vents shall be equipped with spark arrestors where required. Where vents or flues are used, all portions of the tent or membrane structure shall not be less than 12 inches from the flue or vent.

H. **Electrical equipment and wiring.**

1. Tent electrical system and equipment shall be isolated from the public by elevation or guarding, and all fuses and switches shall be in approved enclosures.
1. Electrical cables and cords on ground in public areas shall be in trenches or protected by approved covers.
2. Electrical system in tent must be inspected daily by qualified person before opening to public.
3. Electrical equipment and wiring shall be listed and labeled for outdoor use.
4. In tents with more than 300 persons, emergency lighting must be provided.
5. Two separate circuits, one of which shall be separate from all other circuits, for occupant loads of 300 or less.

I. **Generators.** Generators shall be installed not less than 20 feet from tents and membrane structures and shall be isolated from the public by physical guard, fence or enclosure installed no less than 3 feet away from the internal combustion power source.

J. **Portable fire extinguishers** - Minimum requirements (Title 19)

1. Up to 500 sq.ft., one - 2A 10BC extinguisher, 500 sq.ft. to 1000 sq.ft., two - 2A 10BC extinguishers, 1 additional 2A 10BC type extinguisher for each additional 2000 sq.ft. or fraction thereof.
2. For each kitchen, mess hall, power generator, and where flammable or combustible liquids are used, stored, or dispensed, at least one - 10 BC type fire extinguisher. (Note: For tents with occupant load over 1000 people, see Title 19 CAC Sec. 319 for on-site fire hose requirements)

K. **Flammable and combustible liquid storage.** Flammable and combustible liquids shall be stored outside in an approved manner not less than 50 feet from tents or membrane structures.

L. **Display of motor vehicles within tents. See CFC 3107.15**

M. **Inflatable amusement devices.** Inflatable amusement devices shall be designed, anchored, operated and maintained in accordance with the manufacturer's instructions and the requirements of *ASTM F2374.*

1. Portable generators shall comply with NFPA 70 and this *F.P. Requirement*. Each generator shall be provided with an approved portable fire extinguisher.
2. The number of anchor points shall be greater than or equal to four (4) and when located near an entrance or exit, shall be connected in such a manner to minimize the potential for tripping, abrasions, or other injuries.