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## **Informational Bulletin**

# **Tents, Canopies and Other Temporary Membrane Structures**

### **PURPOSE:**

The purpose of this guideline is to provide information related to the construction, operation, and use of tents, canopies and other temporary membrane structures.

### **SCOPE:**

These standards shall apply to any tent, canopy or temporary membrane structure in or under which 10 or more persons may gather in accordance with California Code of Regulations (CCR) Title 19.

Tents, canopies and temporary membrane structures shall be used for a period of not more than 180 days within any 12-month period at a single facility unless approved by the local building code official.

### **AUTHORITY:**

2019 California Fire Code (CFC): Chapter 31 and applicable California Health and Safety Code sections.

### **DEFINITIONS:**

#### **CANOPY**

- A structure or architectural projection of rigid construction over which a covering is attached that provides weather protection, identity or decoration, and may be structurally independent or supported by attachment to a building on one end and by not less than one stanchion on the outer end.

#### **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*.

#### **TENT**

- A shelter, structure or enclosure made of fabric or similar pliable material, with or without side walls or drops.

## APPLICABLE PERMIT(S):

**NOTE:** Tents, canopies and membrane structures having an area in excess of 400 square feet (37 m2) shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the fire code official. (CFC 105.6.47 & CFC 105.7.25)

Exceptions:

1. Tents used exclusively for recreational camping purposes.
  2. Tents open on all sides that comply with all of the following: Individual tents having a maximum size of 700 square feet (65 m2), the aggregate area of multiple tents placed side by side without a fire break clearance of 12 feet (3658 mm), not exceeding 700 square feet (65 m2) total, a minimum clearance of 12 feet (3658 mm) to all structures and other tents.
- Permits are acquired through community development:  
Community Development Department: Building Division; Operational Permit – Handout 110
  - Note: If an Electrical, Structural, or other applicable permit is required this must be obtained through Community Development Department.

## GENERAL / REQUIREMENTS:

### FLAME PROPAGATION PERFORMANCE TREATMENTS (CFC 3104.2)

- Before a permit is granted, the owner or agent shall file with the fire code official a certificate executed by an approved testing laboratory. The certificate shall indicate that the floor coverings, tents, membrane structures and their appurtenances, which include sidewalls, drops and tarpaulins, shall be treated with a flame retardant in an approved manner and meet the flame propagation performance criteria of the applicable test method of NFPA 701
- Label with State Fire Marshal Emblem on each panel - Name of the person and firm that applied the flame retardant. (CFC 3104.3 and Title 19)
- Each section of top and sidewall in large tents shall have a durable label, permanently affixed, bearing the following information (CFC 3104.3 and (CCR; Title 19):
  - The Seal of Registration.
  - If treated fabric, the name and registration number of the approved application concern and approved chemical used, and the date of treatment.
  - If registered fabric, the trade name and registration number of the approved fabric, and the date of production.



Certificate of Flame Resistance	
REGISTERED FABRIC OR CONCRETE NUMBER	PAID BY
<input type="text"/>	Date tested or manufactured
This is to certify that the materials described on the reverse side hereof have been flame-retardant treated (or are inherently nonflammable).	
NO	YES
<input type="checkbox"/>	<input type="checkbox"/>
Certification is hereby made that: (Check "a" or "b")	
<input type="checkbox"/>	<input type="checkbox"/>
Name of chemical used _____ Chem. Reg. No. _____	
Method of application _____	
Trade name of flame-retardant fabric or material used _____ Reg. No. _____	
The Flame Retardant Process Used _____ Be Removed By Washing _____	
Name of Approver or Production Superintendent	By _____

<sup>24 pt. type</sup>  
**WARNING**  
<sup>16 pt. type</sup>  
**KEEP ALL FLAME AND HEAT SOURCES AWAY FROM THIS TENT FABRIC**

<sup>12 pt. type</sup>  
*This tent is made with flame-resistant fabric which meets CPAI-84 specifications. It is not fire proof. The fabric will burn if left in continuous contact with any flame source.*  
*The application of any foreign substance to the tent fabric may render the flame resistant properties ineffective.*

## ACCESS LOCATION & PARKING

- Fire Apparatus/ Ambulance access. (CFC 503) Approved fire apparatus access roads shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story.
- Tents, canopies or membrane structures shall not be located within 20 feet (6096 mm) of lot lines, buildings, other tents or membrane structures, parked vehicles or internal combustion engines. (CFC 3103.8.2)

**NOTE:** (for determining required distances, support ropes and guy wires shall be considered as part of the temporary membrane structure or tent

## STRUCTURAL STABILITY AND ANCHORAGE REQUIRED (CFC 3103.9)

- Tents or membrane structures shall be adequately roped, braced and anchored to withstand elements of weather and prevent against collapsing. Documentation of structural stability shall be furnished to the Code Official upon request.

## PORTABLE FIRE EXTINGUISHERS (CFC 3107.9)

- One (1) type 2-A :10BC fire extinguisher shall be provided in every Tent having floor area between 400\* and 1,000 square feet. One additional extinguisher shall be provided for each additional 2000 square feet or fraction thereof.
- One (1) additional 2-A fire extinguisher is required in each auxiliary adjacent Tent or Canopy.
- At least one (1) 10B-C fire extinguisher shall be provided in cooking areas, dining areas, locations where flammable/combustible liquids or flammable gases are used, stored or dispensed and generator location.
- One (1) Class K fire extinguisher shall be provided in each area where deep fat fryers are used.

**The Fire Marshal may modify or waive any of these requirements.**

- Additional Fire Extinguishers or Size Required – \* modified from 500 square feet

## MAXIMUM OCCUPANT LOAD (CFC 1003 and Table 3103.12.2)

- Maximum Occupant Load is based on the square footage within the temporary membrane structure divided by the appropriate occupant load factor found in CFC Table 1004.1.1. This determination would be calculated by the Fire Inspector at time of plan review. Example illustrated below:
  - o Assembly-with chairs only 7 net
  - o Assembly-standing space only 5 net
  - o Assembly-with tables & chairs 15 net
- Sign Posted in a conspicuous place near the main exit or exit access doorway (CFC Section 1004.3).

## SEATING ARRANGEMENTS (CFC 1029 and 3103.11)

- Seating # \_\_\_\_\_ Number of Rows \_\_\_\_\_
- Tables \_\_\_\_\_ Location to exits \_\_\_\_\_

Tables shall be spaced a minimum of 54 inches apart

### MEANS OF EGRESS (CFC 3103.12)

- Exit openings remain open unless covered by a flame-resistant curtain.
- Curtains shall be free sliding on a metal support.
- The support shall be a minimum of 80 inches above the floor level at the exit.
- The curtains shall be so arranged that, when open, no part of the curtain obstructs the exit and curtains shall be of a color or colors which contrast with the color of the tent.
- All points are 100 feet or less from an exit.
- Aisle – shall not be less than 44 inches.

### Minimum Number of Means of Egress and Means of Egress Widths

Occupant Load	Minimum Number Of Means of Egress	Minimum Width of Each Means of Egress (Inches)	
		Tent	Membrane Structure
10 to 199	2	72	36
200 to 499	3	72	72
500 to 999	4	96	72
1,000 to 1,999	5	120	96
2,000 to 2,999	6	120	96
Over 3,000	7	120	96

### MAINTENANCE OF MEANS OF EGRESS (CFC 3103.12.8)

- The required width of exits, aisles and passageways shall be maintained at all times to a public way.
- Guywires, guy ropes and other support members shall not cross a means of egress at a height of less than 8 feet.
- The surface of means of egress shall be maintained in an approved manner.

### OBSTRUCTIONS TO MEANS OF EGRESS (CFC 3107.20)

- Exits, aisles and passageways shall not be blocked or have their minimum clear width obstructed in any manner, by chairs, equipment, ticket offices, turnstiles, concessions, chairs, poles, guy wires or in any way whatsoever, nor blocked by persons.

### MEANS OF EGRESS ILLUMINATION (CFC 3103.12.7)

- Fixtures required for means of egress illumination shall be supplied from a separate circuit or source of power.

### EXIT SIGNS (CFC 3103.12.6)

- Exits shall be clearly marked.
- Exit signs must be installed at required exit doorways and where otherwise necessary to clearly indicate the direction of egress where multiple exits are provided.

### SOURCES OF IGNITION (CFC 3107)

- Except as approved by the Fire Marshal, open flame or any heat producing device shall not be permitted inside or located within 20 feet of a Tent or Membrane structure
- Smoking shall not be permitted in Tents and Membrane structures, or in adjacent areas. **“NO SMOKING”** signs shall be conspicuously posted on **both sides of the tent or**

**canopy.** Designated Smoking area/location shall be **50 feet away** of perimeter membrane and entrances.

- Fireworks and Pyrotechnic special effects shall not be permitted in Tents and Membrane structures.
- All tent fabrics and all interior decorative fabrics or materials shall be flame resistant and identified with SFM Label. (CFC 3104.3 and Title 19)
- No hay, straw, shavings or similar combustible materials allowed.

### **COOKING AND HEATING EQUIPMENT (CFC 3107.12.1 – 3107.12.7)**

- Except as approved by the Fire Marshal, cooking shall not be permitted inside or located within 20 feet of a tent or canopy.
- *Exception:* Operation such as warming foods, cooking demonstrations and similar operations which do not present an ignition hazard.
- Location: Cooking and heating equipment shall not be located within 10 feet of exits or combustible materials.
- Cooking Tents: Tents where cooking is approved shall be separated from other Tents and Membrane structures by a minimum of 20 Feet.

### **FLAMMABLE AND COMBUSTIBLE LIQUIDS (CFC 3107.14 – 3107.14.3)**

- Flammable–liquid–fueled equipment shall not be used in Tents and Membrane structures.
- Flammable and Combustible Liquid Storage: Shall be stored outside in an approved manner not less than 50 feet from Tents and Membrane structures. Storage shall be in accordance with Chapter 57.
- Refueling: Shall be performed in an approved location not less than 20 feet from Tents and Membrane structures.

### **DISPLAY OF MOTOR VEHICLES (CFC 3107.15.1 – 3107.15.4)**

- Batteries: Batteries shall be disconnected in an approved manner.
- Fuel systems: Vehicles or equipment shall not be fueled or defueled within a Tent or Membrane structure.
- Fuel quantity limit: Fuel in the gasoline tank shall not exceed one-quarter of the tank capacity or 5 gallons, whichever is less.
- Fuel tank openings shall be locked and sealed to prevent the escape of vapors.

### **GENERATORS (CFC 3107.16)**

- Generators and other internal combustion power sources shall be separated from Tents and Membrane structures by a minimum of 20 feet and must be isolated from contact with the public by fencing, enclosure or other approved means.
- Power taps that are attached other than direct connect shall require an Electrical Permit that is issued through the Building Inspection Division.

### **STANDBY PERSONNEL (CFC 3107.17)**

- Where required by the Fire Marshal, standby personnel shall be provided.

### **HOUSEKEEPING (CFC 3107.18 – 3107.19)**

- Vegetation Removal: Vegetation shall be removed from the area occupied by a Tent or Membrane structure and from the area within 30 feet of such structures. Combustible materials shall not be stored inside a Tent or Membrane structure, or within 30 feet. Exception: material treated with flame retardant in an approved manner.

- Waste Material: Floor surface inside and outside perimeter within 30 feet shall be kept clear of combustible waste. Such waste shall be stored in approved containers until removed from the premise.

Furnish the following:

- Completed City of Coronado Tent Permit Application
- Flame spread certificates.
- Proof of Worker's Compensation.
- Proof of City business registration.
- Other applicable permits (i.e. electrical, structural, etc.)

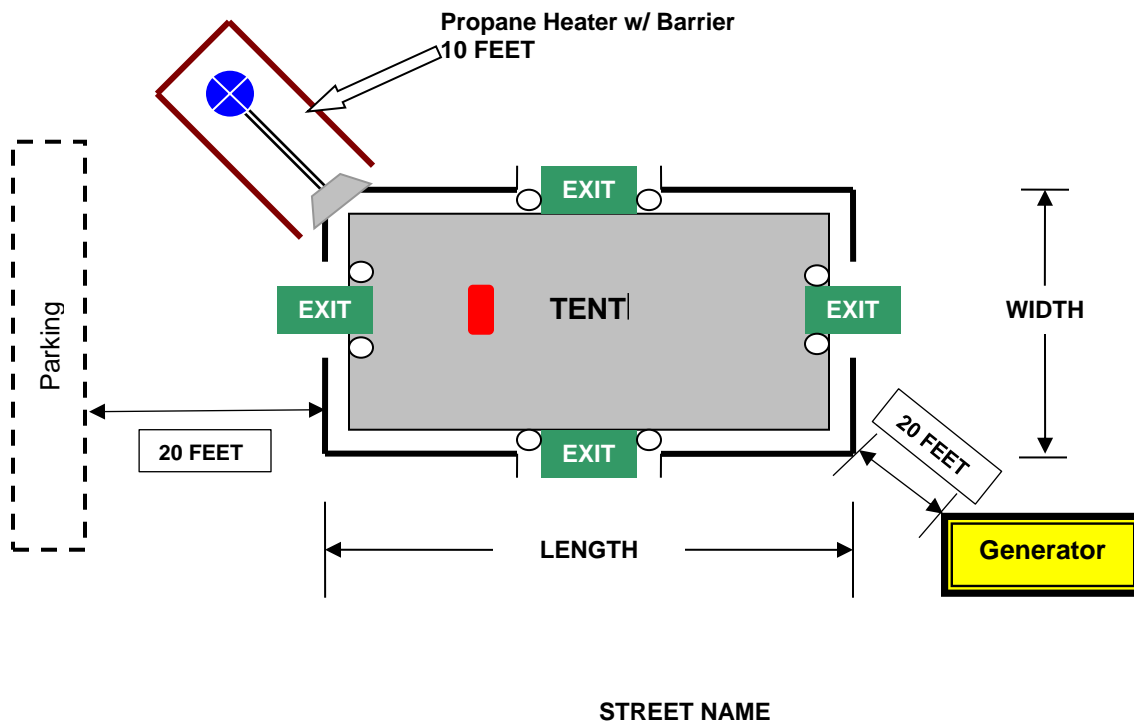
Permit submittals are made at the City Hall Community Development Counter

- Submit two sets of complete documents.

**SITE PLAN / DRAWING:**

- Fire Plot Plan (Fire / Life Safety)
  - o To include clearance distances between Tents, Canopies and Membrane structures
  - o Clearance to property lines and buildings/structures.
- Clearance Electrical: Generators

**Example Site Plan**



**Additional Notes:**

Please complete a site plan and submit with "Tent/Canopy Permit Request" Handout 110. For questions or concerns; please call Coronado Fire Department at (619) 522-7374