



# Moraga-Orinda Fire District

## FIRE PREVENTION DIVISION

### STANDARD DETAILS & SPECIFICATIONS

Subject:	Reference:	Approved by:
Temporary Tent and Membrane Structure Permit Requirements	CFC 2019, MOFD Ordinance 20-01	Fire Marshal Jeff Isaacs August 2022

### SCOPE

The requirements that follow are intended for the temporary use of tents in or under which 10 or more persons may gather for any purpose.

Tents erected for a period of more than 180 days within a 12-month period, on a single premises, are considered to be permanent. Permanent use of tents shall be submitted to the building department for approval.

### DEFINITIONS

The following definitions are provided to facilitate the consistent application of these guidelines:

**Air-Inflated Structure:** A building where the shape of the structure is maintained by air pressurization of cells or tubes to form a barrel vault over the usable area. Occupants of such a 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.

**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.

**Tent:** A structure, enclosure, or shelter, with or without sidewalls or drops, constructed of fabric or pliable materials supported by any manner except by air or the contents that it protects.

### PERMIT REQUIREMENTS

Tents and membrane structures having an area in excess of 400 square feet shall not be erected, operated or maintained for any purpose without first obtaining an Operational Permit and approval from the Moraga Orinda Fire District. All permit requests must contain a site plan or diagram. An electronic site plan and a permit application must be submitted to the Fire District via online.

#### Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Tents open on all sides that comply with all of the following:
  - a) Individual tents having a maximum size of 700 square feet.
  - b) The aggregate area of multiple tents placed side by side without a fire break clearance of 12 feet, not exceeding 700 square feet total.
  - c) A minimum clearance of 12 feet to all structures and other tents.

## **GENERAL REQUIREMENTS**

Tents and membrane structures shall comply with the following requirements.

### **LOCATION**

Tents and membrane structures shall not be located within 20 feet of property lines, buildings, other tents, parked vehicles, or internal combustion engines. For the purpose of determining required distances, support ropes and guy wires shall be considered as part of the tent.

#### **Exceptions:**

1. Separation distance between tents not used for cooking is not required when the aggregate floor area does not exceed 15,000 square feet.
2. Tents need not be separated from buildings when all the following conditions are met:
  - a) The aggregate floor area of the membrane structure or tent shall not exceed 10,000 square feet.
  - b) The aggregate floor area of the building and tent shall not exceed the allowable floor area including increases as indicated in the California Building Code.
  - c) Required means of egress provisions are provided for the building and the tent including travel distances.
  - d) Fire apparatus access roads are provided.

Membrane structures having an area of 15,000 square feet or more shall be located not less than 50 feet from any other tent or structure as measured from the sidewall of the tent or membrane structure unless joined together by a corridor.

### **OCCUPANT LOAD**

**Posting of Occupant Load**—Every tent classified as assembly occupancy (e.g., gathering space for social, religious, educational, recreational and similar purposes) shall have the occupant load posted in a conspicuous location when the occupant load is 50 or more.

### **EGRESS**

**Exit Quantity and Location**—Exits shall be spaced at approximately equal intervals around the perimeter of the tent or membrane structure and shall be located such that all points are within 100 feet from an exit.

Occupant Load	Minimum Number of Exits	Minimum Width of Each Exit	
		Tent or Canopy	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"

**Exit Openings**—Exit openings shall remain open unless covered by a flame-resistant curtain.

1. Curtains shall be free sliding on a metal support that is a minimum of 80 inches above the floor.
2. The curtains shall be arranged so that, when open, no part of the curtain obstructs the exit.
3. Curtains shall be of a color, or colors, that contrast with the color of the tent.

**Exit Signs**—Exit signs shall be installed when occupant load is in excess of 50 people and be of an approved self-luminous type or internally or externally illuminated by lights supplied in the following manner:

1. Two separate circuits, one of which shall be separated from all other circuits, for occupant loads of 300 or less; **or**
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 system shall be installed in accordance with the California Electrical Code.

**Obtain electrical permit from local building department prior to the OCFA inspection.**

**Means of Egress Illumination**—Emergency lighting shall be provided at 50 or more persons. The 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.

## **HAZARDS**

**Fire Extinguishers**—One minimum 2-A:10-B:C fire extinguisher shall be provided every 75 feet of travel distance. The top of the portable fire extinguisher shall be mounted between 3 and 5 feet above the floor.

**Flame and Heat Sources**—Open flame or other devices emitting flame, fire, sparks, or heat or any other unapproved devices shall not be permitted inside or located within 20 feet of the tent while open to the public. Devices using charcoal, wood, and other solid fuel are not permitted inside or near tents. Cooking equipment and approved quantities of flammable gas or liquid/gel fuel for the cooking equipment may be allowed in the tent as approved by the inspector. Spare fuel shall be stored at least 20 feet from the tent.

**Smoking**—Smoking shall not be permitted in tents or membrane structures. Approved “NO SMOKING” signs shall be conspicuously posted throughout the structure.

**Fireworks**—Fireworks shall not be used within 100 feet of tents or membrane structures.

**Vegetation Removal**—Combustible vegetation shall be removed from the area occupied by a tent or membrane structure and from areas within 30 feet of such structures.

**Waste Material**—The floor surface inside tents or membrane structures and the ground outside and within a 30 foot perimeter shall be kept clear of combustible waste. Such waste shall be stored in approved containers until removed from the premises.

**Combustible Materials**—Hay, straw, shavings, or similar combustible materials shall not be located within the tent or membrane structure containing an assembly occupancy, except the materials necessary for the daily feeding and care of animals. Sawdust and shavings utilized for a public performance or exhibit shall not be prohibited provided the sawdust and shavings are kept damp. Combustible materials shall not be permitted under stands of seats at any time.

**Spot Lighting**—Spot or effect lighting shall only be by electricity, and all combustible construction located within 6 feet of such equipment shall be protected with approved noncombustible insulation not less than 9.25 inches thick.

**Safety Film**—Motion pictures shall not be displayed in structures unless the motion picture film is safety film.

**Standby Personnel**—A fire watch may be required when, in the opinion of the fire code official, it is essential for public safety in a tent or membrane structure used as a place of assembly or any other use where people congregate.

**Clearance**—There shall be a minimum clearance of at least 3 feet between the fabric envelope and all contents located inside the tent or membrane structure.

### **ADDITIONAL REQUIREMENTS for TEMPORARY AIR-SUPPORTED and AIR-INFLATED MEMBRANE STRUCTURES**

**Door Operation**—During high winds of 50 miles per hour or more or in snow conditions, the use of doors in air supported structures shall be controlled to avoid excessive air loss. Doors shall not be left open.

**Fabric Envelope Design and Construction**—Air supported and air-inflated structures shall have the design and construction of the fabric envelope and the method of anchoring be in accordance with Architectural Fabric Structures Institute ASI 77.

**Blowers**—An air-supported structure used as a place of assembly shall be furnished with not less than 2 blowers, each of which has adequate capacity to maintain full inflation pressure with normal leakage. The design of the blower shall be so as to provide integral limiting pressure at the design pressure specified by the manufacturer.