



San Rafael

FIRE DEPARTMENT – FIRE PREVENTION BUREAU

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Informational Bulletin

Tents and Other Membrane Structures

April 12, 2012

Fire Permit Process for Tents and Other Membrane Structures

The construction, operation, and use of Tents and other Membrane structures shall be in accordance with Chapter 24, of the 2010 California Fire Code (CFC).

TENT DEFINITION

- Tents and Membrane Structures having an area in excess of 400 square feet

OPERATIONAL FIRE PERMIT Fee's / City of San Rafael

- Permit Fee = \$220.00 + archival fees (fees will vary on case by case basis)
- Re-Inspection Fee (if required) = \$146.00 per hour
- Note: If an Electrical Permit is required, Permit Fee = \$102.00

SITE PLAN / DRAWING

- Fire Plot Plan (Fire / Life Safety)
 - o To include clearance distances between Tents, Canopies and Membrane structures.
- Electrical: Generators / Exterior Power Tap

OPERATIONAL PERIOD

- Type of Activity: _____ Event address: _____
- Date(s) of activity: _____ Operational / time: _____ AM to _____ PM to _____ PM
- Date of Tent or Canopy installation: _____

FLAME RETARDANT TREATMENTS (CFC 2404)

- State Fire Marshal Emblem on each partition - Name of the person and firm that applied the flame retardant:

Contractor _____ PH # _____

Contractor LIC No. _____ Address: _____

- **Contractor Erecting the Structure**

Contractor _____ PH # _____

Contractor LIC No. _____ Address: _____

ACCESS LOCATION & PARKING

- Fire Apparatus/ Ambulance access. (CFC 503)
 - Location and parking adjacent to the activity minimum 20 feet. (CFC 2403.8.2)
- NOTE:** (for determining required distances, support ropes and guy wires shall be considered as part of the temporary membrane structure or tent)

STRUCTURAL STABILITY (CFC 2403.9)

- Secured to ground / Stakes – anchors.
- Air-Supported & Inflated Structures (CBC)

PORTABLE FIRE EXTINGUISHERS (CFC 906 & 2404.12. H&SC Chapter 3, Title 19 CCR)

- One (1) type 2-A :10BC fire extinguisher shall be provided in every Tent having floor area between 500 and 1,000 square feet.
 - 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 with each
 - 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 -- _____

MAXIMUM OCCUPANT LOAD (CFC 1004)

- 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 1017)

- Seating # _____ Number of Rows _____
 - Tables _____ Location to exits _____
- Tables shall be spaced a minimum of 54 inches apart

MEANS OF EGRESS (CFC 2403.12.3)

- 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 2403.12.8)**
 - The required width of exits, aisles and passageways shall be maintained at all times to a public way.
 - Guywires, guyropes 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 2404.23)**
 - 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 anyway whatsoever, nor blocked by persons.

- MEANS OF EGRESS ILLUMINATION (CFC 2403.12.7)**
 - Fixtures required for means of egress illumination shall be supplied from a separate circuit or source of power.

- EXIT SIGNS (CFC 2403.12.6)**
 - 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 2404)**
 - 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. (CFC 2404.7)
 - 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. (CFC 2404.8)
 - All tent fabrics and all interior decorative fabrics or materials shall be flame resistant and identified with SFM Label. (CFC 2404 and Title 19)

- COOKING AND HEATING EQUIPMENT (CFC 2404.15)**
 - Except as approved by the Fire Marshal, cooking shall not be permitted inside or located within 20 feet of a tent or canopy in accordance with (CFC 2404.7 and 2404.15.6)
 - *Exception:* Operation such as warming foods, cooking demonstrations and similar operations which do not present an ignition hazard. (CFC 2404.15.4)
 - Location: Cooking and heating equipment shall not be located within 10 feet of exits or combustible materials. (CFC 2404.15.3)
 - Cooking Tents: Tents where cooking is approved shall be separated from other Tents and Membrane structures by a minimum of 20 Feet. (CFC 2404.15.5)

- FLAMMABLE AND COMBUSTIBLE LIQUIDS (CFC 2404.17)**
 - Flammable–liquid–fueled equipment shall not be used in Tents and Membrane structures. (CFC 2404.17.1)
 - 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 CFC Chapter 34.
 - Refueling: Shall be performed in an approved location not less than 20 feet from Tents and Membrane structures. (CFC 2404.17.3)

- DISPLAY OF MOTOR VEHICLE (CFC 2404.18)**
 - Batteries: Batteries shall be disconnected in an approved manner. (CFC 2404.18.1)
 - Fuel systems: Vehicles or equipment shall not be fueled or defueled within a Tent or Membrane structure. (CFC 2404.18.2)
 - Fuel quantity limit: Fuel in the gasoline tank shall not exceed one-quarter of the tank capacity or 5 gallons, whichever is less. (CFC Sec 2404.18.2.1)
 - Fuel tank openings shall be locked and sealed to prevent the escape of vapors. (CFC 2404.18.2.3)

GENERATORS (CFC 2404.19)

- 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 2404.20)

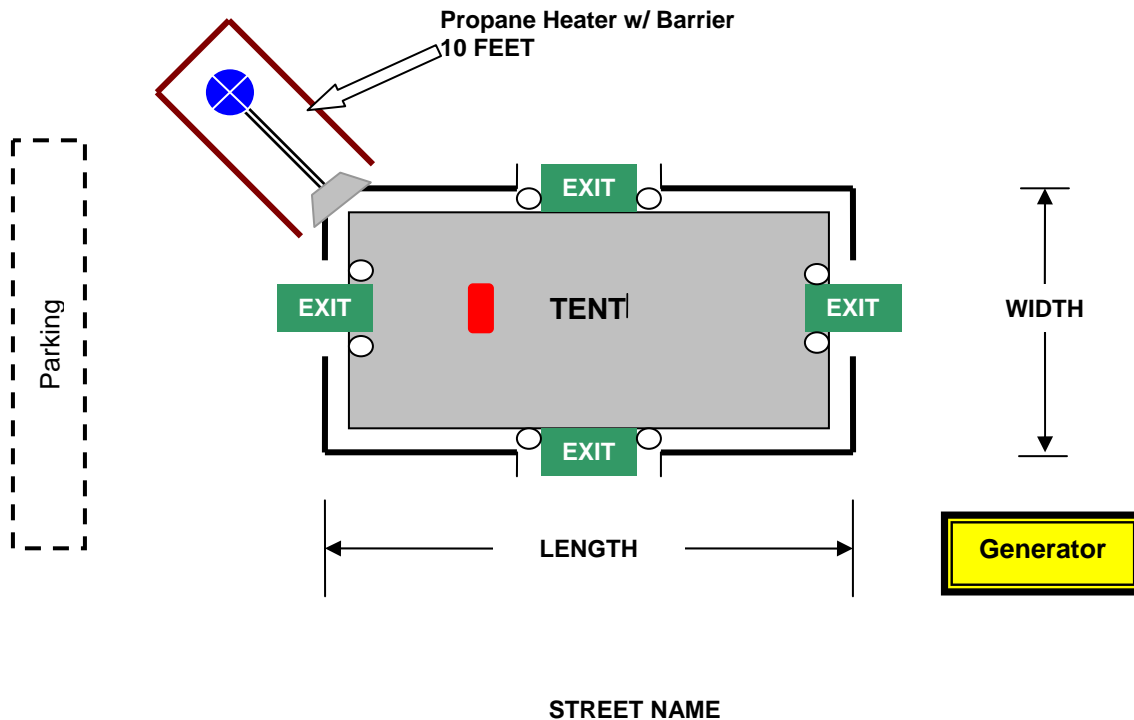
- Where required by the Fire Marshal, standby personnel shall be provided.

HOUSEKEEPING (CFC 2404.21)

- 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. (CFC 2404.22)

OTHER FIRE/ LIFE SAFETY INFORMATION/ CONCERNS

Example Site Plan



Additional Notes:

Please complete this form prior to making application for an Operational Permit.
Have questions or concerns; please call the Fire Prevention Bureau at (415) 485-3308.