



Tucson Fire Department Tent / Membrane Structure Information Rev. 11-08-13

The Tucson Fire Department is committed to help provide a safe environment for the public who occupy tents or temporary membrane structures, as well as those individuals involved with the erection and operation of these structures. All tents and membrane structures, regardless of size, are regulated by the Tucson Fire Code. This handout summarizes the most common fire code issues encountered by our staff. Additional fire code requirements may also apply. Tucson Fire Department personnel will inspect your structure to assure compliance. If you have any questions or require further assistance please call (520) 791-4502.

Definitions

- **Tent:** A structure, enclosure or shelter with or without sidewalls or drops, constructed of fabric or pliable material supported by any manner except by air or the contents that it protects.
- **Membrane Structure:** An air-inflated, air-supported, cable or frame-covered structure as defined by the *International Building Code* and not otherwise defined as a tent.
- **Cooking Booth:** A structure (tent or other construction) where food is prepared by a heating or cooking process such as, but not limited to, grilling, frying, barbecuing, deep fat frying, baking, broiling, boiling or steaming.

Permits

- Tents having an area of 400 square feet or more, and tents that are open on all sides that have an area 900 square feet or more **will require a permit** and shall not be erected, operated, or maintained for any purpose without first obtaining a permit and approval from the fire code official.
- Tent / membrane structure permits can be obtained from the Development Services Department located at 201 North Stone Avenue, first floor north side. Their hours of operation are 8:00 AM to 4:00 PM, Monday through Friday. They can be contacted at (520) 791-5550.
- A site plan including the following information shall be submitted: all property lines, buildings, accessory buildings and other tents or membrane structures. Plans shall be drawn to scale. **THREE SETS OF PLANS SHALL BE SUBMITTED FOR REVIEW.**
- **A detailed floor plan (to scale), including contents, shall be included when the calculated occupant load is 50 or more.**
- **Call the Fire Prevention Section office, (520) 791-4502, for final inspection at least 24 hours before any event is conducted. OVERTIME FEES WILL APPLY IF THE FINAL INSPECTION DOES NOT OCCUR BETWEEN 7:00AM TO 4:00PM M-F.**
- Tents, membrane materials and all decorations shall be flame-resistant (a certificate or label of flame-resistance is required).
- Permitted structures **shall not be occupied** prior to fire department inspection and approval.
- Permits shall remain on the premises at all times and be clearly posted.

Construction Stability

- All structures of any size shall be adequately braced and anchored to prevent collapse or movement.
- Structures shall have staked anchor plates, tethered stakes or water filled barrels (55 gallons) at each post. Also, tents or membrane structures 400 square feet or larger in size shall be secured with two stakes or two water filled 55-gallon barrels at each corner post. Each corner post shall be anchored with a separate tie rope and secured at 90-degree angles in line with the tent sides.
- Smaller (10 ft. X 10 ft.) pop-up type tents may be secured in any manner that provides adequate anchorage, but must be secured.
- The manufacture's recommended construction and use guidelines shall be followed for all structures.
- Booths or temporary structures, other than tents and membrane structures, may be only be constructed of material that will provide the necessary structural integrity and not pose a safety hazard to occupants or the public. Please consult TFD prior to construction.

Location

- Tents, canopies or membrane structures shall not be located within 20 feet of lot lines, buildings, other tents, or membrane structures.
Exception: When required means of egress provisions are provided for both the building and the membrane structure, or tent, including travel distances.
- All cooking operations shall be separated from tents and membrane structures by 20 feet.
- Open flame cooking devices, open flames, or flammable and combustible liquids shall not be permitted inside of tents or membrane structures.
- The area adjacent to the tents shall be maintained clear of combustible material and vegetation that could create a fire hazard.

Egress

Exits

- Exit doors, exit paths and exit discharge areas shall be maintained clear of all obstructions at all times.
- All required exits shall remain unlocked and uncovered, as per approved plans. If a covering is needed over an exit, the curtain shall be adequately marked indicating an exit opening or of a color in contrast with that of the tent color to that of the tent walls. These curtains shall be free-sliding on a metal support a minimum of 80 inches above the floor.
- Doors shall swing in the direction of travel.
- Doors that latch shall be equipped only with panic hardware. The panic hardware shall be the only locking device.

Exit Signs

- 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.
- Exit signs shall be of an approved self-luminous type or shall be internally or externally illuminated.

- Illuminated exit signs for structures with an occupant load of 50 to 300 shall be lit from two separate circuits. Illuminated exit signs for structures with an occupant load greater than 300 shall be lit from two separate sources of power, one of which shall be an approved emergency system.
- Externally illuminated exit signs shall have plainly legible letters not less than 6 inches high. The word “exit” shall be in contrast with the background.

Egress Lighting

- The means of egress shall be illuminated while the structure is occupied. Fixtures required for means of egress illumination at night shall be supplied from a separate circuit or source of power.

Egress Aisles

- The required width of aisles shall be maintained clear and free from obstructions at all times. The surface of the means of egress shall remain free from tripping hazards. Support ropes and guy wires shall not cross the means of egress at a height less than 8’.

Electrical Requirements

- All electrical service shall be in accordance with the National Electrical Code and local amendments.
- All exterior electrical equipment and wiring shall be GFCI protected.
- Only listed power strips with circuit breaker protection are allowed as multi-plug adapters.
- All extension cords shall be of the 3-wire grounded type.
- Extension cords shall be free of any splices and protected from foot traffic.

Cooking and Heating

- Exposed or non-exposed open flame cooking devices, open flames, or flammable and combustible liquids shall not be permitted inside or within 20 feet of tents or membrane structures electrically powered warming devices may be approved for use in tents. Warming of food must not produce smoke, flames or grease laden vapors. These devices are limited to situations that do not pose a risk to occupants involved in other activities within the structure.
- If cooking appliances are utilized on a table, the table shall be flame-resistant or a flame-resistant covering shall be placed under the appliance.
- For information regarding cooking booths refer to the Tucson Fire Department Exterior Cooking Booth Information sheet.
- LP-gas cylinders shall not be stored or used within tents or food booths.
Exception: LP cylinders with a maximum water capacity of not more than 2.7lbs.
- LP-gas heaters shall not be used within tents or food booths.
- Electrically powered heating equipment used in tents shall comply with the National Electrical Code and local modifications.
- Approved heating equipment shall not be located within 10 feet of exits or combustible material.

Fire Department Access

- Tents and membrane structures shall be accessible to fire apparatus at all times. The establishment of temporary fire apparatus access roads may be required.
- Fire apparatus access roads (fire lanes) shall be not less than 20 feet wide and 15 feet in height.
- Signs or other approved notices shall be provided to identify and prohibit the obstruction of temporary fire apparatus access roads.

Other Fire Precautions

- Open flame and flammable or combustible liquids shall not be permitted inside or within 20 feet of a tent or membrane structure that is not considered a cooking booth.
- Combustible waste and vegetation shall be removed from the area occupied by a tent or membrane structure.
- Combustible waste shall be stored in approved containers and shall not be allowed to accumulate in a manner that would pose a fire hazard.
- Fire Extinguishers:
 - A portable fire extinguisher with a minimum 2A rating shall be provided at every permitted tent.
 - If several smaller, non-permitted tents are arranged in long lines, extinguishers need not be provided at every structure, but shall be provided at least every 75 feet travel distance.
 - Extinguishers shall be located in a conspicuous location near the tent exit, not obscured from view.
 - Additional requirements apply to cooking operations near tents.
 - Extinguishers shall be mounted on hangers or brackets in a manner that allows the extinguisher to be removed easily.
- “No Smoking” signs shall be posted in conspicuous locations in all tents and membrane structures.

This information sheet provides the minimum requirements for tents and membrane structures. Additional fire and life safety requirements may be necessary depending on the particular situation. These requirements will be at the discretion of the fire code official.

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