

## Tent Safety

When installing temporary structures such as tents at festivals and events, it is imperative that consideration be given to the following safety related concerns: **Obstructions, location, weather, wind exposure, access, exits, and anchoring stability**. Event organizers and planners are responsible for identifying materials and standards that provide requirements for the proper setup and use of tents in event environments. Event organizers and planners must consult manufacturer instruction manuals, industry standards, and national and local regulations and codes when organizing and setting-up events regardless of size or scope that will be using tents.

Quality 10'x10' tents are sold with accompanying instructions for care, maintenance and set-up procedures. Although 10'x10' tents have the ability to be free-standing they **require proper anchoring** for weather and other related concerns. It is important to determine the **installation requirements** and capabilities of the tents allowed at festivals and events in order to ensure the safety of the vendors and patrons occupying and using the tents. Most, if not all, owner's manuals for 10'x10' tents clearly indicate the appropriate methods for staking down a 10'x10' tent.

In addition to the provided owner's manual, there are **readily available guidelines and standards** addressing the safety of tents, canopies and temporary membrane structures. The National Fire Protection Association (NFPA) 102 Standard for Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures (2006) addresses the safe installation and use of tents, canopies and temporary membrane structures at festivals. The Industrial Fabric Association International (IFAI) Procedural Handbook for the Safe Installation and Maintenance of Tentage addresses the safe installation and use of tents, canopies and temporary membrane structures. The IFAI addresses the requirements for site surveys, staking and setting-up pipe frame supported tents.

The IFAI discusses the requirement of consulting the provided manufacturer's manual regarding the setup of each tent. The consultation of the owner's manual is required for ensuring compliance with layout, staking and setup regarding the safe use of any tent. The **IFAI provides site survey safety materials** to identify and recognize hazards concerning the installation and use of tents. Of its seven listed safety considerations, it recognizes that the installer should be

aware of obstructions, location and access. Additionally, the IFAI suggests that a detailed installation and **safety check sheet** should be developed by the company providing set-up. Aside from weather related tent failures, trip hazards in walkways and paths must be considered. Careful attention must be paid to make certain that **trip hazards are not created** when having an event. The layout and use of space should be established in order to avoid introducing known or foreseeable trip hazards (*It is a clear violation, in any environment, to create an obstruction or trip hazard in a path/walkway meant for pedestrian use; ASTM F 1637-07 discusses the importance of maintaining safe exterior walking conditions*). Tent tethers and stakes are known to pose a trip hazard at events. There are numerous established standards and common industry practices available that detail efforts to avoid the creation of trip hazards as a result of the use of tethers and stakes to secure temporary tents. Event planners and organizers can do the following to minimize the potential of tripping hazards associated with temporary tents and structures (consult the manufacturer manual for the best recommendation) (a combination of the following may be used) (please understand this is not a complete list):

- Stake directly into the ground and clip the stake at the base of the pole;
- Tie flags onto the tethers and/or stakes;
- Weights should be tethered with lines that are clearly visible (color and size);
- OSHA 1910.144 (a) (3), Safety color code for marking physical hazards, ‘Yellow shall be the basic color for designating caution and for marking physical hazards such as: Striking against, stumbling, falling, tripping, and ‘caught in between.’; and,
- ANSI Z535.2-2007, Environmental Facility and Safety Signs, safety colors shall warn through the use of black and orange and caution with black and yellow;
- Large potted plants or other similar indicators could be placed in front of and around the stakes and tethers;
- Crowd barriers/fencing;
- Use of orange safety cones;
- Sand bag tent pole wraps;
- Run the tethers along the frame and stake directly into the surface;
- Use non-tethered weight plates at the base of the tent poles; and/or,
- Use tethered suspended/non-suspended tube/anchor weights that run along the tent frame.

As an event organizer, it is unacceptable not to be aware of available guidelines and standards addressing patron/student safety. Attached are some websites regarding tent safety.

<https://www.aclassicpartyrental.com/four-tent-safety-requirements-you-should-know/>

<https://www.fayetteville-ar.gov/DocumentCenter/View/2440/Temporary-Structure-Safety-Requirements-PDF>

<https://www.safety.rochester.edu/fire/pdf/SpecialEvents.pdf>

NFPA 102 – reference

<https://www.osha.gov/news/newsreleases/region1/02182016>

ADA – Resource

<https://adata.org/guide/planning-guide-making-temporary-events-accessible-people-disabilities>