

General Requirements for the Use of Temporary Stage Canopies, Tents, and Temporary Membrane Structures on Iowa State University Property

General Information

Iowa State University is subject to the 2015 International Fire Code (IFC) Chapter 31. The 2015 IFC references the 2012 National Fire Protection Association (NFPA) Life Safety Code® as the guideline for this document and ISU EH&S uses these documents as well as the *IFAI Procedural Handbook for the Safe Installation & Maintenance of Tentage* as a reference for inspections. All temporary structures erected on ISU campus property will adhere to these codes and standards.

Temporary Structures Affected

All temporary stage canopies as well as tents and membrane structures having an area in excess of 400 SF shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the Iowa State University Authority Having Jurisdiction (Environmental Health & Safety Fire Safety Officer). IFC 3103.2

Exception: Tents open on all sides having a maximum size of 700 SF and a minimum clearance of 12 feet to all structures and other tents are exempted from permitting. Also, the aggregate area of multiple tents placed side by side without a fire break clearance of 12 feet, not exceeding 700 SF. IFC 3103.2

Definitions Chapter 2 IFC 2015

1. Fire Code Official (Authority Having Jurisdiction or AHJ) – The Fire Chief or other designated authority charged with the administration and enforcement of the code or a duly authorized representative.
2. Membrane Structure – An air inflated, air-supported, cable or frame-covered structure as defined by the *International Building Code* (IBC) and not otherwise defined as a tent. See Chapter 31 of the *International Building Code*.
3. Noncombustible Material – A material that, in the form in which it is used and under the conditions anticipated will not ignite, burn, support combustion, or release flammable vapors when subjected to fire or heat.
4. Temporary – Any structure not meant for use for more than 180 days within a 12 month period on a single premises. NFPA 101 Life Safety Code
5. Temporary Stage Canopy – A temporary ground supported membrane-covered frame structure used to cover stage areas and support equipment in the production of outdoor entertainment events.
6. 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.

Permitting Requirements

1. Tents and membrane structures will be designed to meet the requirements in 2015 IFC Chapter 31 as prescribed in this document.

2. Go to the Fire Safety page on the EH&S Website and follow the directions for submitting the *Request for Temporary Structure Permit* form. For AHJ approval the request must be submitted to EH&S not less than 1 week in advance of erecting any structure on Iowa State Property. The *Request for Temporary Structure Permit* form can be filled out on line.
3. Temporary structures meeting all pre-approved design requirements will be inspected by the AHJ or a designated representative for permitting prior to use or occupancy. The installation contractor will call EH&S at 515-294-5359 to schedule the inspection at least 24 hours prior to the installation. The installation contractor is expected to meet the inspector and stand by until the structure is cleared for occupancy. To fulfill their contractual requirements they will be expected to make the structure code compliant before the Inspector signs off on the installation for occupancy.
4. A Temporary Certificate of Occupancy signed by the AHJ along with a copy of all original documents will be maintained at EH&S for the duration of the structure's use.

Installation and Use Requirements for Contractors and Event Users

1. The placement of tents relative to other structures shall be at the discretion of ISU Facilities and the AHJ with consideration given to occupancy, use, opening, exposure, and other similar factors.
2. Tents, membrane structures or canopies, cord, cables, etc., may not obstruct sidewalks, drive lanes, fire lanes or pedestrian walkways.
3. Propane gas or electric heating devices intended to be used inside tents or membrane structures must be labeled equipment and shall be noted on the permit application and approved by the AHJ. NFPA 101
4. The electrical system and any equipment shall be isolated from the public by proper elevation or guarding, and all electrical fuses and switches shall be enclosed in the approved enclosures. Cables on the ground in areas traversed by the public shall be placed in trenches or protected by approved covers. All wiring shall comply with NFPA 70, National Electric Code. Planned Electrical equipment will be noted on the approval application for review.
5. Membrane structures shall be limited to one story in height. However, height shall not be limited in number of feet unless otherwise ruled by the AHJ.
6. Tents or membrane structures and their appurtenances shall be adequately roped, braced, and anchored to withstand the elements of weather and prevent against collapsing. Documentation of structural stability shall be furnished to the AHJ upon request. IFC 3103
Note: *The IFAI Procedural Handbook For the Safe Installation & Maintenance of Tentage* should be adhered to and used as the standard for all tent installations on ISU campus property.
7. 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 100 feet or less from an exit. IFC 3103.12.1
8. Exit doors shall swing in the direction of exit travel. IFC 3103.12.4
Note: See IFC 3103.12.4 for further specifications on doors in Air Supported Membrane Structures.
9. 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. IFC 3103.12.6.
10. The number of exits and exit width and location for all enclosed tents shall be approved by the AHJ
11. All tents greater than 400 square feet shall have at least one 5 pound (minimum 2A10BC), multipurpose (ABC) fire extinguisher for each 3,000 SF or portion thereof. AHJ. 2009 IFC 3104.12

12. Heating and Cooking equipment shall be in accordance with Sections 3104.15.1 through 3104.15.7 IFC 3104.15
13. Operations such as warming of foods, cooking demonstrations, and similar operations that use solid flammables, butane or other similar devices that do not pose an ignition hazard are approved. IFC 3104.15.4.
14. Heating and cooking equipment shall not be located within ten feet of exits or combustible materials. Tents with sidewalls or drops where cooking is performed shall be separated from other tents or membrane structures by not less than 20 feet. IFC 3104.15.5
15. The storage, handling and use of LP-gas and LP-gas equipment shall be in accordance with Sections 3104.16.1 through 3104.16.3. IFC 3104.16
16. Generators and other internal combustion power sources shall be separated from tents or membrane structures by not less than 20 feet and shall be isolated from contact with the public by fencing, enclosure or other approved means. IFC 3104.19
17. Combustible waste shall be stored in approved containers and be removed from the premises at least once a day during the period the structure is occupied by the public. IFC 3104.22
18. All cooking equipment must be attended at all times. Hot coals must be doused and/or properly disposed of to prevent fires.
19. Fires built on the ground and open fire pit devices are prohibited.
20. Open flames such as from candles, lanterns, kerosene heaters and gas-fired heaters shall not be located on or near decorative material or similar combustible materials.
21. Smoking shall not be permitted in any tent or membrane structure.
22. The applicant/tent users will be responsible for restitution of any damage resulting from the erection/use of tents.