



A publication of Fairfax County, Virginia



CODE COMPLIANCE GUIDELINE

TEMPORARY TENTS

AND MEMBRANE STRUCTURES 901+ SQUARE FEET / 50+ PERSONS

Fire Marshal's Office

12099 Government Center Parkway
Fairfax, Virginia 22035
Telephone: 703-246-4849
Fax: 703-246-6044
TTY: 711 or 1-800-828-1120

**** PERMIT REQUIRED ****

This publication outlines the *Virginia Statewide Fire Prevention Code* (i.e., Fire Prevention Code or SFPC) operational permit and fire safety requirements for temporary tents and temporary membrane structures erected within Fairfax County and the towns of Clifton, Herndon, and Vienna. This publication does not address tents and membrane structures erected for a period of 180 days or longer, nor does it address membrane structures that are erected on buildings, parking garages, balconies, decks or other structures, all of which require a building permit issued by the local Building Official. For building permit information in Fairfax County and the towns of Clifton and Vienna, call 703-222-0801. For the town of Herndon, call 703-435-6850.

***** PLEASE REVIEW THIS ENTIRE PUBLICATION BEFORE TAKING ACTION *****

Questions regarding the content of this publication should be directed to the Fire Inspections Branch at 703-246-4849 during regular office hours, Monday thru Friday, 8 a.m. to 4 p.m.

OVERVIEW

Temporary tents and temporary membrane structures shall be approved by the Fire Marshal's Office and be in accordance with Chapter 31 of the Fire Prevention Code.

APPROVAL REQUIRED. Temporary tents and temporary membrane structures shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the fire code official. Exceptions: 1) Tents used exclusively for recreational camping purposes; 2) Tents and air-supported structures that cover an area of 900 square feet or less, including all connecting areas or spaces with a common means of egress, and with an occupant load of less than 50 persons.

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 Virginia Uniform Statewide Building Code (USBC) and not otherwise defined as a tent. See Section 3102 of the USBC for detailed information about membrane structures.

TIME LIMITATION. Temporary tents and temporary membrane structures shall not be erected for a period of more than 180 days within a 12-month period on a single premises.

PLACE OF ASSEMBLY. With respect to temporary tents or temporary membrane structures, a place of assembly shall include a circus, carnival, tent show, theater, skating rink, dance hall, or other place of assembly in or under which persons gather for any purpose.

THE APPROVAL PROCESS -- GETTING STARTED

Approval of temporary tents and membrane structures includes a plan review, site inspection, and operational permit. Final approval is granted only after a site inspection by the Fire Marshal.

THREE STEP PROCESS. The following steps form the procedural framework for obtaining approval for a temporary tent or membrane structure, and includes the permit application and tent plan submittal, plan retrieval, and scheduling a fire marshal site inspection.

- STEP 1 - Submit permit (FPCP) application. Submit tent plan and documents to be reviewed.
- STEP 2 - Retrieve approved copies of tent plan.
- STEP 3 - Schedule a fire marshal inspection.

STEP 1 - SUBMIT PERMIT APPLICATION AND TENT PLAN

The responsible party shall make an application for a Fire Prevention Code Permit (FPCP) in writing to the Fire Marshal for each temporary tent or membrane structure. Applications may be obtained by calling the Revenue & Records Branch at 703-246-4803, or online at:

<https://www.fairfaxcounty.gov/fire-ems/sites/fire-ems/files/assets/documents/pdf/fire%20marshal/tentappl.pdf>

PERMIT FEE. A \$150 FPCP fee is due at the time of permit application or at the time approved plans are retrieved. This fee generally covers the cost of the plan review and inspection(s) associated with the permit and is authorized by Section 107.10 of the Fire Prevention Code.

TENT PLAN SUBMITTAL INSTRUCTIONS. The following documentation must be submitted along with the completed FPCP application to the Fire Marshal's Office for review and approval at least 5 business days prior to the event:

- Three (3) copies of a Site Installation Plan. *(See Page 5 for Details)*
- Three (3) copies of an Interior Floor Plan. *(See Page 5 for Details)*
- Three (3) copies of NFPA 701 flame spread certification information for all sections of tents or membrane structures and their appurtenances; sidewalls, drops, tarpaulins, and marquees; floor coverings, bunting and combustible decorative materials and effects.

Submit the completed permit application and three (3) complete copies of the tent plan and documents to be reviewed to this address:

Fairfax County Fire Marshal's Office
ATTN: Revenue & Records Branch (Temporary Tents)
12099 Government Center Parkway
3rd Floor
Fairfax, VA 22035

Plans submittals can be dropped off Monday through Friday, between 7:30 a.m. and 3:30 p.m.

TENT PLAN REVIEW WALK-THROUGH PROGRAM. Tuesday, Wednesday, and Thursday of each week (excluding holidays), tent plans may be reviewed the same day as part of the walk-through program during these hours: Morning, 8 am to 12 p.m.; Afternoon, 1 pm to 3 p.m. The walk-through submitter must wait in the lobby area while the plan is being reviewed. If the walk-through submitter chooses to be elsewhere and questions arise about the plan, the plan may be set aside since the questions will not be able to be answered. Plans will be processed in the order received. Actual review time will not necessarily be less than 1 hour, depending on the complexity

of the plan. If plan information is incomplete, or if existing records are incomplete or inconclusive, review may take longer. Same day reviews are not guaranteed.

STEP 2 - RETRIEVE APPROVED COPIES OF TENT PLAN

After the tent plan is reviewed and approved, retrieve the approved plan. The Fire Marshal's Office will retain one set. The approved plans must be retrieved in person from the 12099 Government Center Parkway address listed above during regular office hours. Plans will only be released after the required permit fee has been paid in full. To find out the review status of the submitted tent plan, call the Revenue & Records Branch at 703-246-4803, Monday thru Friday, 8 a.m. to 4 p.m.

Notice about Fire Marshal Plan Approval. In accordance with Section 107.7 of the Fire Prevention Code, plans approved by the fire official are approved with the intent that they comply in all respects to the Fire Prevention Code. Any omissions or errors on the plans do not relieve the applicant responsible party of complying with all applicable requirements. Final approval is granted only after a site inspection by the Fire Marshal.

STEP 3 - SCHEDULE A FIRE MARSHAL INSPECTION

Fire Marshal Inspections. Approval of a temporary tent or membrane structure is finalized through a site inspection, which must be scheduled by the responsible party for a date at least one business day prior to the use and/or occupancy of the tent or structure. The approved tent plan must be available at the inspection location. To schedule an inspection, call the Fire Inspections Branch at 703-246-4849, Monday thru Friday, 8 a.m. to 4 p.m.

OTHER LOCAL GOVERNMENT AGENCIES

When erecting, operating, and maintaining a temporary tent or membrane structure for any purpose, particular attention should be given to notification and coordination with the following county agencies and local governments:

- Department of Planning & Zoning (DPZ), Temporary Special Permit (TSP) - 703-222-1082
- Fairfax County Health Department, Food Service Permits and Inspections - 703-246-8492
- The Herndon and Vienna Police Departments for events in the towns of Herndon and Vienna

Important Notice about Zoning Requirements. The Fire Marshal will not issue a permit for a temporary tent or membrane structure without approval of the local zoning authority. In Fairfax County, a Temporary Special Permit (TSP) may be required for events using temporary tents and membrane structures. For information about a TSP, contact the Fairfax County Department of Planning & Zoning at 703-222-1082. The towns of Clifton (703-830-2727), Herndon (703-787-7380), and Vienna (703-255-6341) may also require approval for temporary tents and temporary membrane structures. Contact the appropriate municipality for detailed zoning requirements.

ASSOCIATED APPROVALS & PERMITS

ELECTRICAL AND SPECIAL AMUSEMENT DEVICE PERMITS. The use of an electrical generator 6500 watts or greater and/or the installation of temporary electrical wiring, circuits, and equipment may require an electrical permit and inspection. In Fairfax County and the towns of Clifton and Vienna, contact the Fairfax County Department of Public Works and Environmental Services (DPWES) at 703-222-0801 for information about electrical, special amusement device permits, and associated inspections/approvals.

If the tent or membrane structure is in the Town of Herndon, contact the town Building Official at 703-435-6850 for information about associated electrical and special amusement device permits and inspections.

OTHER OPERATIONAL PERMITS. Carnivals, fairs, festivals, outdoor public assemblages of 500 people or more, the storage and/or use of liquefied petroleum gas (i.e., LPG, propane, butane), and the display and/or use of open-flames, fireworks, and pyrotechnic special effects each require approval from the Fire Marshal and are strictly prohibited until the appropriate permits have been issued. For detailed information about these operational permit requirements, contact 703-246-4803. The following are some of the more common permits (FPCP) associated with temporary tents and temporary membrane structures:

- **Liquefied Petroleum Gas (LPG).** An operational permit is required for the handling, storage, and use of LPG outside where the quantity is greater than 10 gallons aggregate; e.g., more than two twenty-pound cylinders. There are two LPG operational permits typically associated with use and occupancy of temporary tents and membrane structures:

Temporary Single Event Use

Time Limit: *30 Days*
FIDO Code: *F3LP6*
Permit Fee: *\$78*

Temporary Long-term Installation

Time Limit: *One Year*
FIDO Code: *F3LP5*
Permit Fee: *\$150*

Application: https://www.fairfaxcounty.gov/fire-ems/sites/fire-ems/files/assets/documents/pdf/fire%20marshal/frd_069.pdf

Notice about DOT LPG Cylinders. Cylinders shall be continued in service and transported in accordance with DOT regulations. A cylinder with an expired requalification date shall not be refilled or used until requalified in accordance with DOT regulations.

- **Candles / Open-Flame Devices.** Open flames or other devices emitting flame, fire or heat, or any flammable or combustible liquids, gas, charcoal or other cooking device or any other unapproved devices shall not be permitted inside or located within 20 feet of the tent or membrane structures while open to the public unless approved by the fire code official. An operational permit is required for the use of open flame, fire or burning in connection with Group A or E occupancies. There is one candle / open-flame device permit typically associated with temporary tents and temporary membrane structures:

Candle / Open-Flame Device

Time Limit: *Each Event*
FIDO Code: *F3FLM2*
Permit Fee: *\$78*

Application:

<https://www.fairfaxcounty.gov/fire-ems/sites/fire-ems/files/assets/documents/pdf/fire%20marshal/openflameappla.pdf>

- **Carnivals, Fairs, Festivals, Outdoor Public Assemblages 500+ People.** An operational permit and public safety plan is required for any carnival, fair, festival, and large outdoor public assemblage of 500 persons or more. Detailed procedures, requirements, and the permit application for these outdoor events may be obtained by calling the Revenue & Records Branch at 703-246-4803, Monday thru Friday, 8 a.m. to 4 p.m., or online at:

<https://www.fairfaxcounty.gov/fire-ems/fire-marshal/festival>

- **Fireworks & Pyrotechnics.** Operational permit (FPCP) requirements associated with the display, handling, sale, storage, and use of fireworks and pyrotechnics in Fairfax County and the towns of Clifton, Herndon, and Vienna, can be obtained by contacting the Fire Inspections Branch at 703-246-4849, Monday thru Friday, 8 a.m. to 4 p.m., or online at: <https://www.fairfaxcounty.gov/fire-ems/fire-marshall/fireworks-and-indoor-pyrotechnics>

NFPA 701 FLAME SPREAD INFORMATION

NFPA 701 flame spread certification information for all sections of tents or membrane structures and their appurtenances; sidewalls, drops, tarpaulins, and marquees; floor coverings, bunting and combustible decorative materials and effects shall be submitted as part of the temporary tent or membrane structure FPCP application, and shall be in accordance with the following sections of the Fire Prevention Code:

- **Flame Propagation Performance Treatment.** Before a permit is granted, the *owner* or agent shall file with the *fire code official* a certificate executed by an approved testing laboratory certifying that the tents and membrane structures and their appurtenances; sidewalls, drops and tarpaulins; floor coverings, bunting and combustible decorative materials and effects, including sawdust when used on floors or passageways, are composed of material meeting the flame propagation performance criteria of NFPA 701 or shall be treated with a flame retardant in an *approved* manner and meet the flame propagation performance criteria of NFPA 701, and that such flame propagation performance criteria are effective for the period specified by the permit. *SFPC 3104.2*
- **Label.** Membrane structures or tents shall have a permanently affixed label bearing the identification of size and fabric or material type. *SFPC 3104.3*
- **Certification.** An affidavit or affirmation shall be submitted to the fire code official and a copy retained on the premises on which the tent or air-supported structure is located. The affidavit shall attest to the following information relative to the flame propagation performance criteria of the fabric:
 - 1) Names and address of the owners of the tent or air-supported structure.
 - 2) Date the fabric was last treated with flame-retardant solution.
 - 3) Trade name or kind of chemical used in treatment.
 - 4) Name of person or firm treating the material.
 - 5) Name of testing agency and test standard by which the fabric was tested. *SFPC 3104.4*

NOTICE: Each certificate must also include the date(s), location name, and address where the tent or structure is erected; certification number; tent size, number of sections, and fabric type.

STANDBY PERSONNEL & CROWD MANAGERS

Special public safety requirements for temporary tents and membrane structures shall be as required in accordance with the following sections of the Fire Prevention Code:

- **Standby Personnel.** 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, because of the number of persons, or the nature of the performance, exhibition, display, contest or activity, the *owner*, agent or lessee shall employ one or more qualified persons, as required and *approved*, to remain on duty during the times such places are open to the public, or when such activity is being conducted. *SFPC 3104.20*

- **Duties of Standby Personnel.** Before each performance or the start of such activity, standby personnel shall keep diligent watch for fires during the time such place is open to the public or such activity is being conducted and take prompt measures for extinguishment of fires that occur and assist in the evacuation of the public from the structure. *SFPC 3104.20.1*
- **Crowd Managers.** There shall be trained crowd managers or crowd manager and/or supervisors at a ratio of one crowd manager/supervisor for every 250 occupants, as approved. *SFPC 3104.20.2*

DETAILED PLAN REQUIREMENTS

A detailed site installation plan and interior floor plan for temporary tents and temporary membrane structures requiring an operational permit (FPCP) shall be provided with each application for approval. Temporary tents and membrane structures shall be erected, operated and maintained in accordance with Chapter 31 of the Fire Prevention Code. Plans must be scaled; Dimensional drawings are not acceptable.

SITE INSTALLATION PLAN. The site installation plan shall include the following details with respect to the location, installation, and arrangement of a temporary tent or membrane structure:

1. List on each page of the site installation plan the location name, property address, and dates the tent or membrane structure will be erected.
2. Exact location, footprint, and dimension of the tent or membrane structure. If multiple tents and/or membrane structures are erected, each tent/membrane structure location, footprint, and dimension must be shown, including all associated firebreaks and connecting corridors.
3. Location of fire apparatus access roads, designated fire lanes, and fire hydrants.
4. Distances from lot lines, buildings, other tents or membrane structures, combustibles, parked vehicles or parking areas, or internal combustion engines (e.g., motor-driven generator). Location of tents and membrane structures shall be in accordance with the following:
 - **Location.** Tents or membrane structures shall not be located within 20 feet of lot lines, buildings, other tents or membrane structures, 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 temporary membrane structure or tent. *SFPC 3103.8.2*

Exceptions:

- 1) Separation distance between membrane structures and tents not used for cooking is not required when the aggregate floor area does not exceed 15,000 square feet.
- 2) Membrane structures or tents need not be separated from buildings when all of the following conditions are met:
 - 2.1) The aggregate floor area of the membrane structure or tent shall not exceed 10,000 square feet;
 - 2.2) The aggregate floor area of the building and membrane structure or tent shall not exceed the allowable floor area including increases as indicated in the International Building Code;
 - 2.3) Required means of egress are provided for both the building and the membrane structure or tent including travel distances;
 - 2.4) Fire apparatus access roads are provided in accordance with Section 503.
- **Structures in Excess of 15,000 Square Feet in Area.** 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. *SFPC 3103.8.3*

SITE INSTALLATION PLAN *(Continued)*

- **Connecting Corridors.** Tents or membrane structures are allowed to be joined together by means of corridors. Exit doors shall be provided at each end of such corridor. On each side of such corridor and approximately opposite each other, there shall be provided openings not less than 12 feet wide. *SFPC 3103.8.5*
 - **Fire Break.** An unobstructed fire break passageway or fire road not less than 12 feet wide and free from guy ropes or other obstructions shall be maintained on all sides of all tents and membrane structures unless otherwise approved by the fire official. *SFPC 3103.8.6*
5. Provide size/type of structural members to be used to support the tent/membrane structure. The manufacturers specifications and installation instructions may meet this requirement.
 6. Provide flame spread certification information for the tent or membrane structure and the appurtenances; sidewalls, drops and tarpaulins; floor coverings, bunting and combustible decorative materials and effects, including sawdust when used on floors or passageways, are composed of material meeting the flame propagation performance criteria of NFPA 701.
 7. Location of any cooking areas and storage of propane (LPG) tanks to be used.
 8. Location of electrical generator and associated fencing in relation to tent/structure, if used.

INTERIOR FLOOR PLAN. The interior floor plan shall indicate details of the means of egress facilities, seating capacity, arrangement of the seating and location and type of heating and electrical equipment. More specifically, interior floor plans shall include the following details:

1. Intended use/occupancy of the tent or structure (e.g., party, vehicle display, demonstration)
2. Maximum number of attendees, guest, or occupants including employees/staff expected to occupy the tent or membrane structure.
3. Type and location of furniture and/or equipment to be used inside the tent or structure.
4. Scaled furniture layout showing all tables, chairs, furnishings, standing areas, aisles, material storage areas, food preparation areas, and demonstration/display areas; Location and dimensions of all stages, platforms, and dance floors. Seating in tents or membrane structures shall be in accordance with Chapter 10 of the Building Code.
5. Scaled egress layout showing the locations and sizes of all required emergency exits. 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. Tents, or membrane structures or a usable portion thereof shall have at least one exit and not less than the number of exits required by table below. Exit doors shall swing in the direction of exit travel. The total width of means of egress in inches shall not be less than the total occupant load served by a means of egress multiplied by 0.2 inches per person. In public areas, smooth-surfaced, unobstructed aisles having a minimum width of not less than 44 inches shall be provided from seating areas, and aisles shall be progressively increased in width to provide, at all points, not less than 1 foot of aisle width for each 50 persons served by such aisle at that point.

| OCCUPANT LOAD | MINIMUM NUMBER OF MEANS OF EGRESS | MINIMUM WIDTH OF EACH MEANS OF EGRESS (inches) | |
|----------------|-----------------------------------|--|---------------------------|
| | | <i>TENT</i> | <i>MEMBRANE STRUCTURE</i> |
| 10 to 199 | 2 | 72 | 36 |
| 200 to 499 | 4 | 72 | 72 |
| 500 to 999 | 5 | 96 | 72 |
| 1,000 to 1,999 | 6 | 120 | 96 |
| 2,000 to 2,999 | 6 | 120 | 96 |
| Over 3,000 | 7 | 120 | 96 |

6. Location of all required **EXIT** signs, emergency lights, and at least two mounted and readily accessible portable fire extinguishers. **EXIT** signs shall be installed at required exit doorways and where otherwise necessary to indicate clearly the direction of egress.
7. Location of not less than four **NO SMOKING** signs conspicuously posted inside the tent.
8. Location of all approved air conditioning, heating, cooking equipment, and open-flames.

Fairfax County is committed to nondiscrimination on the basis of disability in all county programs, services and activities. Reasonable accommodations will be provided upon request. Materials such as this publication may be available in alternate formats. To request reasonable ADA accommodations or materials in alternative formats, call the Fire Marshal's Office at 703-246-4803 (TTY: 711 or 1-800-828-1120) or write us at the following address: 12099 Government Center Parkway, Fairfax, VA 22035.