

**DATE:** March 20, 2013

**TO:** Councillor Deb Schulte  
Chair, Task Force on the City's Role in Festivals and Community Events

**FROM:** Leo Grellette

**RE:** **Building Code - Tents**

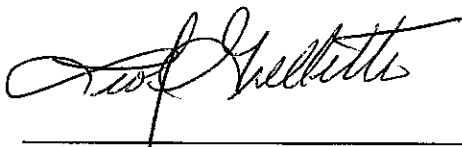
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The attached is information from the Building Code with respect to tents. I have included section A-3.14 from the Appendix. It should be noted that although the Appendix does not comprise a component of the Ontario Building Code that is enforceable, it is provided as guidance in its application and interpretation. In all circumstances the authority having jurisdiction (City of Vaughan → Chief Building Official) has the ultimate decision making authority.

In most instances the highlighted sections would apply. It is rare that festival tents exceed 225m<sup>2</sup> except where used for special events such as a dance or large banquet etc. In the case where tents are less than 225m<sup>2</sup> article 3.14.1.2 (2) sets parameters. Keeping in mind that 3.1.14.2 (2) (d) is applicable. In simple terms, where a tent regardless of size has side walls all of Section 3.14.1 must be considered and not just the highlighted sections.

There is a basic permit fee of \$50.00 for tents of this size while larger tents are more costly.

Trust this is of assistance. I would be pleased to attend at a future meeting to provide clarification if required.



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Leo Grellette  
Director of Building Standards

Enclosure

- (5) The washrooms required in Sentence 3.13.6.2.(4) shall be designed in conformance with the requirements in Articles 3.8.3.8. to 3.8.3.11.

## Section 3.14. Tents and Air-Supported Structures

(See Appendix A.)

### 3.14.1. Tents

#### 3.14.1.1. Application

- (1) Except as provided in this Subsection, tents are exempted from complying with the requirements of this Division.



#### 3.14.1.2. General

- (1) Except as provided in Sentence (2), the requirements of this Subsection shall apply to all tents.
- r<sub>1</sub> (2) Articles 3.14.1.4., 3.14.1.5., 3.14.1.6. and 3.14.1.9. apply to tents that,
- (a) do not exceed 225 m<sup>2</sup> in ground area,
  - (b) do not exceed 225 m<sup>2</sup> in aggregate ground area and are closer than 3 m apart,
  - (c) do not contain bleachers, and
  - (d) are not enclosed with sidewalls.


#### 3.14.1.3. Means of Egress

- (1) Except as provided in Sentences (2) and (3), tents shall conform to Sections 3.3. and 3.4.
- (2) A tent need not conform to Article 3.4.6.11. except where swing type doors are provided.
- (3) Where the area between adjacent tents or a tent and the property line is used as a *means of egress*, the minimum width between stake lines shall be the width necessary for *means of egress*, but not less than 3 m.


#### 3.14.1.4. Clearance to Other Structures

-  (1) Tents shall not be erected closer than 3 m to the property line.
- (2) Except as provided in Sentences (3), (4) and (5), tents shall not be erected closer than 3 m to other tents or structures on the same property.
- (3) A *walkway* between a *building* and a tent occupied by the public is permitted provided,
- (a) the tent is not closer than 3 m from the *building*, and
  - (b) the *walkway* conforms to Article 3.2.3.19.
- (4) Tents not occupied by the public need not be separated from one another, and are permitted to be erected less than 3 m from other structures on the same property, where such closer spacing does not create a hazard to the public.
-  (5) Tents located on fair grounds or similar open spaces, need not be separated from one another provided such closer spacing does not create a hazard to the public.

### 3.14.1.5. Clearances to Flammable Material

-  (1) The ground enclosed by a tent and for not less than 3 m outside of such structure shall be cleared of all flammable or *combustible* material or vegetation that will carry fire.

### 3.14.1.6. Flame Resistance

-  (1) Every tent, and tarpaulins, decorative materials, fabrics and films used in connection with tents, shall be certified to CAN/ULC-S109, "Flame Tests of Flame-Resistant Fabrics and Films", or NFPA 701 "Fire Tests for Flame-Resistant Textiles and Films".


### 3.14.1.7. Bleachers

- (1) Where bleachers are provided in tents, they shall be designed in conformance with Articles 3.3.2.8., 3.3.2.10. and Subsection 4.1.5.

### 3.14.1.8. Sanitary Facilities

- (1) Except as provided in Sentence (3), the minimum number of water closets for tents shall be determined in accordance with Table 3.7.4.3.E.
- (2) Article 3.7.4.16. applies to sanitary facilities in Sentence (1).
- (3) Sanitary privies, chemical closets or other means for the disposal of human waste may be provided in lieu of toilet fixtures.

### 3.14.1.9. Provision for Fire Fighting

-  (1) Access shall be provided to all tents for the purpose of fire fighting.

## 3.14.2. Air-Supported Structures

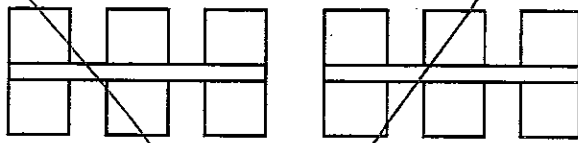
### 3.14.2.1. Application

- (1) Except as provided in this Subsection, the requirements of this Division apply to *air-supported structures*.

### 3.14.2.2. General

- (1) *Air-supported structures* shall not be used for Groups B, C, or Group F, Division 1 *major occupancies* or for classrooms.
- (2) Except where no *fire separation* is required between *major occupancies*, *air-supported structures* shall contain not more than one *major occupancy*.
- (3) Except as provided in Sentence (5), *air-supported structures* are exempt from complying with Articles 3.2.2.20. to 3.2.2.83., except for maximum *building size*.
- (4) *Air-supported structures* may be designed with interior walls, *mezzanines*, or similar *construction*.
- (5) Interior construction contained within *air-supported structures* must meet the construction requirements of Articles 3.2.2.20. to 3.2.2.83.

Case 5



Distance between classrooms: less than 6 m

No. of classrooms in group: 6 max.

Distance between groups: not less than 12 m

3.2.2. applies to each group

3.2.3. does not apply between classrooms within a group

3.2.3. applies between groups

Extinguisher required

Fire alarm required (extension of main system)

Access; street; hydrant; - not required

All other cases require: - Fire extinguisher

- Access

- Street

- Hydrant

- Fire alarm: extension of existing system

### A-3.14. Tents and Air-Supported Structures.

The requirements in this Subsection are intended to be limited to certain types of structure. For instance, the word "tent" as used in the Code is intended to refer to a temporary shelter which is used at an open air event such as a fair or an exhibition. A tent will normally be constructed of a fabric held up by poles and attached to the ground by ties. The requirements for tents, however, are not intended to be applied to fabric structures located on buildings.

The term "air-supported structure", as used in the Code, refers to an envelope which is held up by air pressure alone and which is erected on the ground or on a building. The structure will usually require ballast or a positive anchorage system around the entire perimeter to secure it to the ground or building structure.

### A-3.16.1.7.(7) Exits and Means of Egress from Shelf and Rack Storage Systems.

The fundamental principle of providing sufficient exits and means of egress from a shelf and rack storage system is to have the occupants reach an open public thoroughfare, a separate building, or an exterior open space protected from fire exposure from the building and having an access to an open public thoroughfare before the environment in the building becomes life threatening.

In addition to the time-based egress calculation, the professional engineer or architect undertaking the time-based egress analysis, must also undertake a detailed fire dynamics evaluation of the occupancy to determine when critical life threatening levels are reached. Temperature, toxic conditions and psycho-physiological characteristics of the occupants will play an important role in the analysis.

### A-4.1.1.3.(1) Structural Integrity.

The requirements of Part 4, including the CSA design standards, generally provide a satisfactory level of structural integrity. Additional considerations may, however, be required for building systems made of components of different materials, whose interconnection is not covered by existing CSA design standards, buildings outside the scope of existing CSA design standards, and buildings exposed to severe accidental loads such as vehicle impact or explosion. Further guidance can be found in the Commentary entitled "Structural Integrity" in the *User's Guide - NBC 2005, Structural Commentaries (Part 4 of Division B)*.