Subject Title: FABRIC-COVERED FRAME STRUCTURES/SHADE STRUCTURES
Applicable Code: FBC, 2020, 7TH Edition , Section 3105
Date: October 16, 2003
Revised Date May 18, 2023

Question:
When is a permit required and under what conditions are fabric-covered frame structures/shade structures allowed without doing a complete code analysis?

Answer:
A permit is required for any shade device or structure over 25 square feet.

A fabric-covered frame structure/shade structure maybe installed on a school site under the following conditions without a complete code analysis;
- The structure shall be a minimum of 10-feet from any building(s) including overhangs.
- Place over level play surface without combustible ground cover and with positive drainage.
- Provide a 4-foot minimum accessible walkway from an accessible route to the structure.
- Maintain a perimeter area outside of the structure for at least 10-feet free of combustible materials.
- Maximum size not to exceed the following:
  - 735 net square feet without play equipment (15 SF per person).
  - 2450 gross square feet with playground equipment (50 SF per person).
- Multiple fabric-covered structures/shade structures maybe placed next to each other if the total area is less than 2500 square feet (gross). If total area of a group exceeds 2500 square feet, then the next group shall be at least 60-feet apart.
- Provide protection for students from any tie-down ropes/wires or stakes.
- Structure shall have no side panels, curtains, or valance extending down more than 18”.
- Locate structure in secure area, with proper emergency exiting.
- Remove fabric cover at the end of the school year and replace at the beginning of following school year, and when hurricane warnings are issued, or design the fabric cover to break away when winds reach 70 mph. Exception, if the structure with the fabric is designed to withstand the required wind loads with the fabric in place.

Comment:
Provide the following documentation for the permitting of the structure (Submit documents electronically):
- Provide a site plan or aerial map showing the location of the structure in relationship to building, property lines, and vehicle traffic routes.
- Plan indicating the location of the exit doors, and any emergency windows adjacent to the shade structures proposed location.
• Structural plans and specifications for the fabric-covered structure/shade structure signed and sealed by Florida Professional Engineer. (Wind loads, 70mph with fabric cover, wind design loads in figure 1609A risk category II of FBC chapter 16 without the fabric cover, or optional wind design loads in figure 1609A risk category II of FBC chapter 16 for fabric and structure with the fabric in place.)

• Copy of letter from the school principal advising of condition under which the fabric cover must be removed, see sample letter.

• Certificate certifying the fabric cover meets the requirements of NFPA 701, Standard Methods of Fire Tests for Flame-Resistant Textiles and Film. Also, provide instruction on caring of the fabric and any requirements for re-treating the fabric to maintain its fire retardant classification.
(Insert Date)

Principal (Insert Principal’s name)
(Insert school address)

Reference: (Insert project name and number)

Dear Principal (Insert principal’s name),

Pursuant to the attached Florida Building Code and NFPA Interpretation for Fabric-Covered Structures/Shade Structures, by the SDPBC Building Code Services, this letter is to advise you of the stipulated requirements of (Insert School Name), for removal of the shade fabric from the structure. Removal and storage is to occur at the end of every school year, or notice of high wind event. Shade fabric re-installation may occur at the beginning of the following school year or after high wind event.

Due to high wind conditions, the engineered plans for this shade structure canopy require that the canopy fabric be removed when wind speeds are predicted to be greater than 70 MPH.

This notification is a requirement of the SDPBC, Building Code Services for permitting and the Maintenance Plant & Operations Department for protection, life cycle, and maintenance of the removable canopy.

Upon completion of the installation of the shade canopy, a post installation training and turn-over meeting will be scheduled for you and your staff to familiarize you with and provide record file documents on the following requirements:

- Care and maintenance of the canopy for its expected life cycle.
- Removal, storage and re-installation of the canopy.
- Manufacturer product, structural and maintenance data.
- Contact information of manufacturer I vendor and Facility Manager for your use as required.

Should you have any questions, please do not hesitate to contact your (Insert FMC’s name), Facility Management Coordinator at (561) (Insert phone) or (Insert name), Facility Management Coordinator, Program Management at (561) (Insert phone).

Sincerely,

(Insert Name)
Facility Management Coordinator, Program Management

Principal _______________________________ Date: __________

copy: (Inset Name), FMC, SDPBC M&PO Dept.
Thomas Hogarth, Director, Building Code Services