

**Subject:** Membrane Structures

**MEMBRANE COVERED STRUCTURES** – are regulated by Chapter 31 of the Florida Building Code. They may be erected only in approved locations, must be anchored to meet wind load requirements, and such structures do require a permit.

This Technical Advisory is limited to structural requirements for free-standing **Residential Accessory Structure** applications only, with or without enclosed sides, and a maximum size of **10'x20'x10'**.

### REQUIRED AT TIME OF PERMIT SUBMITTAL:

1. A survey showing all property lines, all buildings and easements on the property, all streets and bodies of water abutting the property, and the location of the proposed membrane covered structure.
2. Details regarding the type, size, and materials of the proposed membrane structure, **especially frame dimensions and covering details**.
3. Details regarding the installation and anchoring proposed for the frame, including details of the attachment of the membrane to the frame, and specifically a method of rapid removal.

### GENERAL INFORMATION:

- Membrane covered structures must be erected within setbacks established for the buildable area in the particular zoning districts.
- The Membrane Covering must be designed, and have a statement on it that it is to be removed in the event of a tropical storm or high wind warning, where winds exceed 40 mph. This Statement is to be stamped, printed, or sewn on the membrane.
- The frame support sections shall be fastened together at each joint. If telescoping or “slip-together” joints hold frame piping together, then a minimum ¼” thru bolt or 2 #10 self-tapping sheet metal screws shall secure each joint.
- **Each post of the structure** shall be anchored to the ground by any method listed below.

**Method 1:** install auger type earth anchors 3” diameter, 24” long; attached by strap, cable or chain with a minimum working strength of 250 lbs.

**Method 2:** install 6” x 6” cast-in-place concrete footings, continuous between posts, reinforced with one #4 bar; attached by strap with two #12 hex-head self-drilling sheet metal screws.

**Method 3:** requires the legs to be bolted to a concrete slab on grade equal in area to canopy, minimum 4” thick, reinforced with WWF 6x6, 1.4x1.4; attached by strap with two 3/16” x 1-1/4” concrete screws and two #12 self-drilling sheet metal screws.

**Method 4:** install one precast concrete wheelstop, nominally 5” x 7” x 71”, centered under each post, buried a minimum of 3” below grade; attached by strap, cable or chain with a minimum working strength of 250 lbs

**Method 5:** Method 5: One 8"x8"x16" hollow concrete block buried a minimum of 10 inches below grade; attached by strap, cable or chain with a minimum working strength of 250 lbs.

**INSPECTIONS:**

- If new concrete footings are to be installed, they can be inspected when formed and prior to pouring of concrete, or two opposite sides may be excavated adequately to reveal the depth of poured concrete for inspection.
- In all cases a final inspections shall be requested by the applicant, and Inspection approval received to complete the permit and issue a Certificate of Completion.

For Building Code Advisory Board



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Robert Lecky, Chair