

## **SCOPE OF WORK**

Air structure will be approximately 450' long x 130' wide x 43' high – 58500sf

### **1) FABRIC MEMBRANE:**

**a. Outer Fabric:** Vinyl coated Opaque polyester fabric with acrylic exterior top-coating. The exterior surface color of the fabric will be white.

**b. Liner Fabric:** 15oz per square yard high gloss finish vinyl coated polyester fabric. The structure will be manufactured with blue liner 3m high along the sides of structure, and the remainder being white.

**c. Skylight:** This can be provided at No Charge. (Recommended on larger domes).

**d. Insulation:** Hi-performance reflective insulation with an E-value of 0.03 and an average R value of 10. The insulation is constructed of 2 layers of polyethylene bubbles with low emissivity aluminum foil laminated on both sides. Air structure will be prepared to facilitate installing insulation between inner and outer membranes. The insulation will be installed on site by the supplier.

**e. Divider Nets:** Seven (7) divider nets measuring 130' x 10'.

**f. Sections:** The dome will be manufactured in 4 sections fastened using aluminum joining plates with velcro fastened fabric covers to the outside.

**g. Flame Resistance:** The outer and liner fabric have been tested for flame resistance and meet California fire marshal requirements, UL 214, NFPA 701, UBC (#42-1 & #55-5), and ULC S109 Standard for Flame Tests of Flame Resistant Fabrics and Films.

**h. Seams and Edges:** All seams are dielectrically welded to form the dome's profile. Membrane shall be manufactured with rope edge to suit extruded profile anchoring system.

**i. Openings:** The fabric membrane will be provided with openings to accommodate:

- 1 - Three-leaf revolving door and one (1) pedestrian airlock combo will be provided.
- 6 - Single-width exit doors
- 1 - Extra width exit door
- Mechanical Unit openings as required

### **2) DOORS AND OTHER ACCESS COMPONENTS:**

**a. Single-Width Emergency Exits:** Supply 6 steel-framed aluminum balanced exit doors with cast-in bracing which will have a clear opening of 40". Each exit will be provided with combination emergency/exit light pack.

**b. Extra-Width Emergency Exit:** Supply 1 steel-framed aluminum balanced exit door with cast in bracing which will have an extra wide opening for ease of lift access, maintenance equipment, etc..

**c. Revolving Door / Pedestrian Airlock:** One 3 - leaf revolving door and one pedestrian airlock. Revolving door is 93" wide x 84" deep x 83" high. Doors have been specifically designed to allow easy change out of bearings. Pedestrian airlock is 86" wide x 84" deep x 83" high, with Lexan windows and is designed to meet CSA/ADA requirements. Pedestrian airlocks have custom attached ramps as part of door system.

### 3) LIGHTING:

**a. Hanging Light Fixtures:** Thirty-Two (64) – 412 watt LED hanging lights c/w wire and cord ends running from fixture location to closest perimeter base (extra three feet of wire provided at attachment point of grade beam and electrician is to provide and install the plug ends to match his receptacle)

### 4) MECHANICAL EQUIPMENT:

**a. Mechanical Design Parameters:** The air structure mechanical equipment has been designed using a winter outside design temp of 27F. Supply air volume of a minimum 13,798cfm.

**b. Heat and Inflation Unit:** Over/Under discharge configuration, indirect fired natural gas HEAT AND INFLATION UNIT with 1.50 million BTU output. Voltages to suit 480 volt 3 phase.

**c. Standby Inflation Unit** – Fizer Standby 36-1.

**d. Remote Control Panel:** The remote control panel will incorporate all necessary switching, indicator lights, auto/manual pressure controls, thermostats and pressure indicators to control the heating, cooling and pressure in the dome. Wind and Snow sensor - System senses wind conditions and snow accumulation.

Note: 4 a, b, c and d above all voltage to suit 3 phase 480.

### 5) AIR STRUCTURE RETENTION:

**a. Retention Channel:** Supply only 1170lf of anodized aluminum channel to be installed by grade beam contractor. Purchaser to supply 1170lf of utility or pressure treated 2" x 4" for grade beam installation and air structure retention.

**b. Restraining Cables:** Not required

**c. Lengthwise Restraining Cables:** Not required

**d. Anchor Plates:** Not required

### 6) OTHER HARDWARE AND SERVICES:

**a. Turnbuckles and Hardware Openings:** Turnbuckles and hardware for all openings for the provided components above is included.

**b. Mechanical Start Up:** Mechanical Start-up is included.