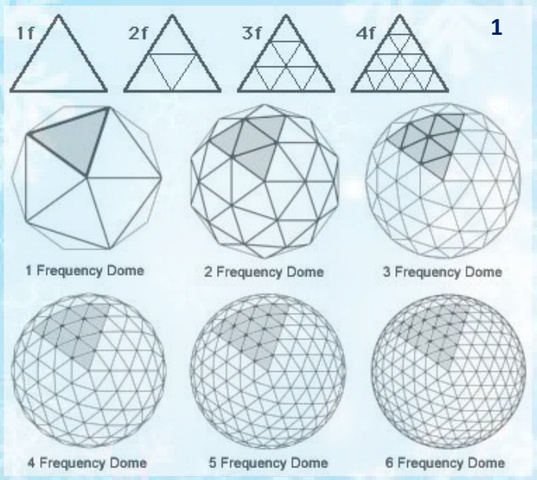
The Snowball

Registration ID: WH-V2018-0000807

The excitement of an 8-year-old boy had at experiencing snow for the first time and wanting to build a giant snowball inspired this design. Paper snowflakes he made in school were the inspired the flakes.

Imagining a way to create the dome, an article about the Expo 67 US pavilion's 50th anniversary inspired the geodesic dome concept. The Snowball is based on a 4-frequency geodesic dome (1) where the triangles are connected only at the corners. The nature of the dome is that the triangles are not entirely symmetrical, just as natural snowflakes.

The base is made of river ice and the dome of plywood. The plywood is painted white with a foil lining on the interior to reflect the light and heat from the fire pit. The holes in the flakes allow daylight to enter and to allow the glow of the fire to radiate from the ball at night.

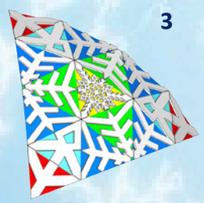


1

The dome is composed of 192 individual triangles (2). There is a repeating pattern of 16 triangles (3), composed of 5 different triangle shapes, rotated around to create a sphere.

Three addition triangle shapes are required for the base of the sphere, so in total there are 8 different individual triangles that make up the 4 different snowflakes designs (4). The colours in images 2 & 3 indicate the various triangles.

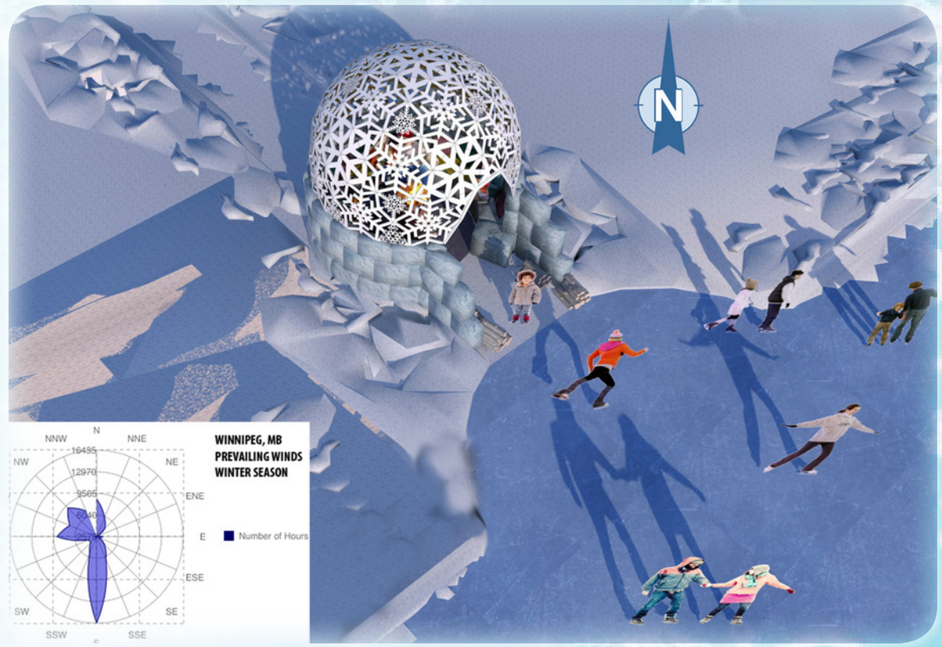
2



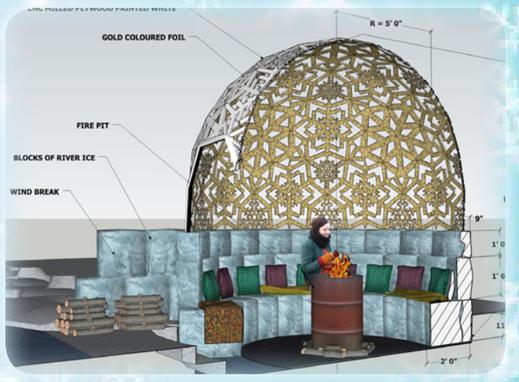
3

4

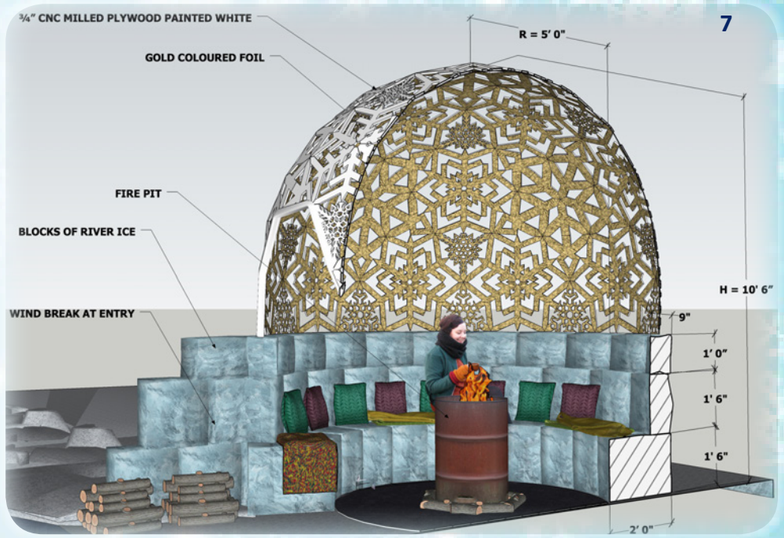
The prevailing winds in Winnipeg for January and February are primarily from the South and the Northwest. The design is similar to an igloo and has wind breaks at the entry. In order to minimize the wind entering the structure, the entry should face Southeast if on the North side of the river and Northeast if on the South side.



The intent was for The Snowball to engage the river by carving the interior space 12" into the river ice, making the interior lower on the inside. The ice carved away would then be incorporated into the base of the snowball. We understand this may be unfeasible, so we have presented the project as if the snowball were installed on top of the river to show that the design works this way as well.



1. Interior view from entry
2. Interior view to exterior
3. Aerial View
4. View from rear of structure
5. View of structure at night
6. Exterior view from skating trail
7. Section through Structure



The structure is 10'-6" high and has a diameter of 5'. The ice base is 4'-0" high to provide a wind break for people sitting inside and the dome itself is 6''-6" tall. There are connectors imbedded in the ice that the dome is then bolted to.

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