

Modern Yurts Are Viable Options For Societal Facility Needs

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Summary

Social Infrastructure encompasses many aspects, but affordable, functional, and sustainable facilities are prominent in any communities' needs. Modern yurts (gers) are viable options to fulfill these needs. They are affordable and sustainable through their minimal use of materials and ease of erection. They are beautiful, open structures, lending themselves to accessible and diverse functions. Through clever use of high-tech, high-strength materials, they are durable to most environmental challenges. Finally, they are adaptable to different site conditions and can be easily de-constructed and moved to another site.

Keywords: Yurt, yurts, ger, gers, circular fabric structure, nomadic Mongolian shelter

1. Introduction

1.1 Social Infrastructure Definition

Social infrastructure is defined as a system of community social services, networks, and facilities that support people and communities. A prominent community need is shelter. Communities need structures that are affordable, accessible, appropriate, functional, durable, aesthetic, diverse in character and function, and of high quality construction.[1][2][3] This paper will show that modern yurts can fulfill some of these community shelter needs.

1.2 Yurt Definition – What Is A Yurt?

The yurt is a unique structure, typically described as a portable or semi-permanent circular tent. It consists of a cone-shaped roof capped by a domed compression ring connecting rafters to a tension ring band or cable. The tension cable is supported by circular lattice walls, resting on either ground or a raised wooden platform. The outer shell is felted wool, coated canvas, or architectural fabric.

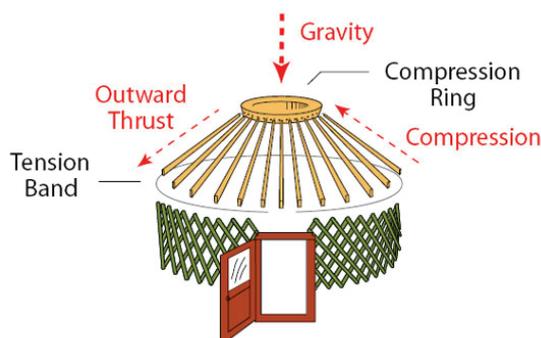


Fig. 1: Yurt Roof Forces Balance [4]

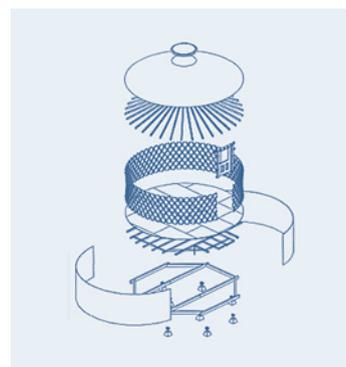


Fig 2: Exploded Isometric View of a Yurt