



## Cable Supported Pedestrian Bridges in Remote Locations of the Swiss Alps

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### Abstract

Steel cable supported pedestrian bridges are light weight structures. This makes them suitable for

- landmark structures,
- sustainable, material saving “green” structures and
- transparent structures which blend into an existing environment without dominating it too much.

In remote areas the aspect of light weight does not only play a role within the finished structure but also during transport and installation. Experience in operating in mountainous areas as for aerial ropeways helps to take on these challenges with the right partners. The paper describes three pedestrian bridges in remote locations of the Swiss Alps which were realized by the same designer, contractor and rope manufacturer. It shows the challenges and solutions in design, manufacture, transport and installation in the context of functionality, economics and the surrounding landscape.

**Keywords:** pedestrian bridge, prestretched full locked coil rope, rope structure, light weight structure

### 1 Introduction

Switzerland’s picture postcard scenery attracts tourists, adventurers and hobby sportsmen alike. Additionally it has its own mainly rural citizens with their daily needs of living and commuting. Switzerland’s landscape with its mountains, valleys and gorges can be a challenge for mobility by its pure nature for example when travelling

from one village or from one mountain to the next. It is possibly for this that Switzerland has developed a tradition in the fields of aerial ropeways, road bridges, railway bridges and pedestrian bridges. This paper focuses on three spectacular pedestrian bridges which have the same designer, contractor and rope manufacturer.

Due to the limited space of a small country and the uniqueness of its countryside, Swiss decision