



### Background

The project involved the construction of avalanche defences at Neskaupstaður, Iceland. These defences comprised a 14m high catching earth dam and 13 No. 10m high breaking earth mounds (splitters) in the run out zone of snow avalanches. The defences formed the first phase of avalanche protection works to the town of Neskaupstaður on the east coast of Iceland.

### Challenge

Reinforced Earth Company (RECo) were initially contacted by the project consultant to assist in developing the design and specification. The project was tendered and subsequently awarded to Arnarfell ehf in 1999.

### Solution

Both the catching earth dam and the splitters comprised a 76° steep face to the upstream side of the mounds. This steep face was formed using RECo's TerraTrel system, a galvanized steel mesh facing utilising galvanized steel high adherence reinforcing strips. Graded rock fill, obtained from blasting operations at the job site, provided the structural fill to the TerraTrel structures.

The TerraTrel system was chosen for these defences because of its speed of erection, robustness and proven ability to withstand significant impact loading.

### CASE STUDY

## Neskaupstaður Avalanche Barrier

### Iceland

#### Reinforced Earth TerraTrel™ Retaining Walls

**Client:** FSR / Ríkiskaup  
**Consultant:** Linuhonnun  
**Contractor:** Arnarfell ehf  
**Construction:** 2000

**System:** TerraTrel™  
**Wall Area:** 7930m<sup>2</sup>  
**Max. Height:** 14m  
**Design Load:** Pedestrian  
**Design Life:** 120 years



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