



Hédinsfjörður Project Siglufjörður and Ólafsfjörður Iceland

CLIENT

Vegagerðin, Reykjavík, Borgartúni 5-7, Iceland

DESIGNER

Mannvit Engineering

Reykjavík, Grensasvegur 1, Iceland

CONTRACTOR

Joint venture Metrostav-Háfell ehf.

Metrostav a.s., division 5, Prague 5, Na Zatlance 1350

Háfell ehf., Reykjavík, Skeifan 11a, Iceland

CONSTRUCTION PERIOD 05/2006 – 09/2010

VALUE 7,598.8 million ISK



Hédinsfjörður Project is 14 km long road project connecting two towns, Siglufjörður and Ólafsfjörður in the North Iceland. Parts of the Project are two double lane road tunnels, one road bridge and roads outside the tunnels in the total length 4 km.

Both tunnels were excavated in lava layers consisting of basalt with sedimentary layers of inter-volcanic sediments, all intersected by dykes and faults. Totally 25,000 m³ of shotcrete were applied, with 500 tons of steel fibres. Total number of bolts was 32,000. For blasting the emulsion explosive was used, in total more than 1000 tons.

Lighting systems with transition zones at all portals are operating, there are in total 13 pairs of jet fan installed for tunnel ventilation, in 250 intervals there are emergency phones and fire extinguishers and all other safety features.

Siglufjörður Tunnel

Total length	3,875 m
Length of tunnel built by drill&blast method	3,650 m
Tunnel profile	52.83 m ²
Tunnel profile in the emergency bay	75.25 m ²
Cut & Cover Tunnel (West portal)	125 m
Uphill drive with 1 % gradient	1,625 m
Downhill drive with 3 % gradient	2,025 m
Cut & Cover Tunnel (East portal)	100 m
Number of emergency bays	6
Excavation volume	200,000 m ³

Ólafsfjörður Tunnel

Total length	7,150 m
Length of tunnel built by drill&blast method	6,925 m
Tunnel profile	52.83 m ²
Tunnel profile in the emergency bay	75.25 m ²
Cut & Cover Tunnel (West portal)	150 m
Cut & Cover Tunnel (East portal)	75 m
Number of emergency bays	12
Excavation volume	380,000 m ³

