

CASE STUDY

Pipe System Drains Airport Swamp

Grand Forks, ND

OWNER

Grand Forks Regional Airport Authority,
Grand Forks, ND

ENGINEERS

Ulteig Engineers Inc, Fargo, ND

CONTRACTOR

Ulteig Engineers Inc, Fargo, ND

INSTALLATION DATE

2007-2011

PRODUCTS

18,500' (5638 m) of 18"-60" (450-1600 mm)

Mega Green® pipe

21,000' (6400 m) of AdvanEdge® pipe

DESCRIPTION

As Grand Forks International Airport prepared to build a new 3,300' (1006 m) long runway, a proper drainage system was needed for the swamp-like ground.

Ulteig Engineers designed the drainage system by using Mega Green, a high-density polyethylene pipe made from recycled materials. The use of recycled pipe was chosen as it fits the airport's goal to be as green as possible.

The Mega Green had a pre-drilled perforation pattern to allow the groundwater to enter the system and be conveyed away. 60" (1500 mm) pipe was utilized as the collector pipe and was fed by smaller diameter laterals, which were placed in a herringbone pattern to enhance drainage.

For drainage along the taxiways and runways, AdvanEdge panel pipe was selected. AdvanEdge is able to rapidly collect and remove water from the pavement and surrounding soil. The AdvanEdge pipe was then attached to the collection system to convey water from the site.

