

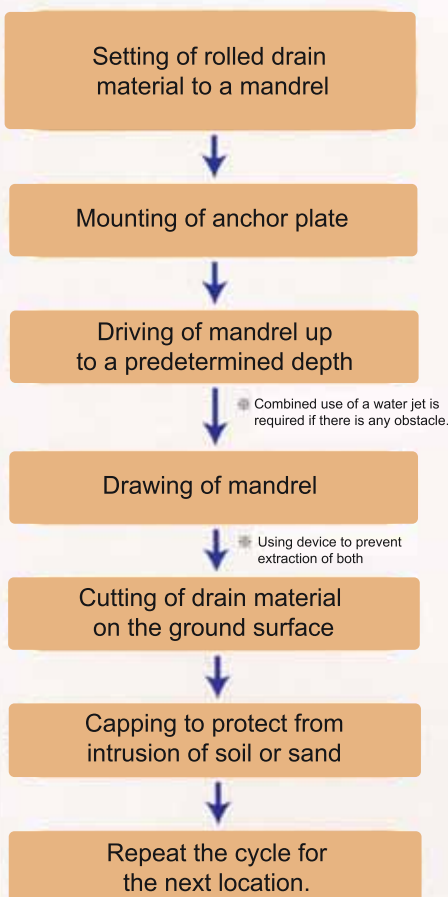
# Grid Drain Method

The Grid Drain Method aims to prevent ground liquefaction by driving drain material into the ground which easily liquefied and quickly dispersed excess ground pore water pressure resulted from earthquake. Rectangular plastic board drains are used as drain material.

## Features

- ★ Low noise and vibration during construction since it involves only the driving of drain material
- ★ Easy handling of rolled drain material and can be driven continuously
- ★ Work can be executed even at adjacent area of an existing structure and removal of surplus soil will not be required since no excavation work will be carried out.

## Working Procedure



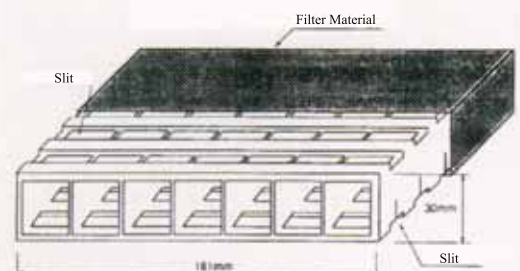
## Equipment to be Used



Drain Material Driver



Driven Drain Materials



Example of Drain Material  
161mm (w) x 30mm (t)

## Completed Projects Record

Project Name	Duration	Project Site	Client	Objective	Improvement Area / Depth / No. of Drains
Chiba Port Funabashi West Area Quaywall Improvement Work	89.12~90.3	Chiba	Transport Ministry	Counter measure for liquefaction behind of revetment	2,500m <sup>2</sup> /15.4m/7,600 pieces
Chiba Port Funabashi West Area Quaywall Improvement Work	93.11~94.3	Chiba	Transport Ministry	Counter measure for liquefaction behind of revetment	2,850m <sup>2</sup> /6.5m/7,900 pieces
Kisarazu Port South Area Quaywall Work	94.7~95.3	Chiba	Transport Ministry	Counter measure for liquefaction behind of revetment	3,700m <sup>2</sup> /8.7m/5,300 pieces
Hachinohe Revetment Improvement Work	96.5~96.12	Aomori	Defense Facility Bureau	Counter measure for liquefaction behind of revetment	530m <sup>2</sup> /8.3m/1,800 pieces