

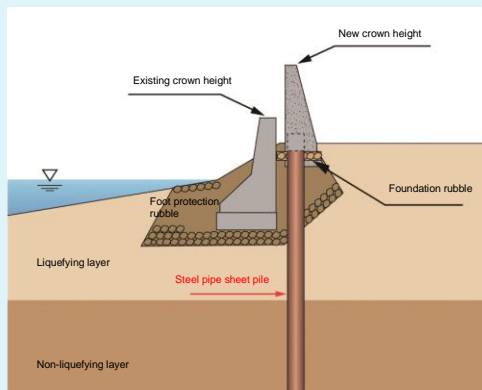
# 21. High tide and tsunami wave control with steel materials

The reinforcement of the existing high tide water barriers, revetments and embankments, as well as levee crown height increase.

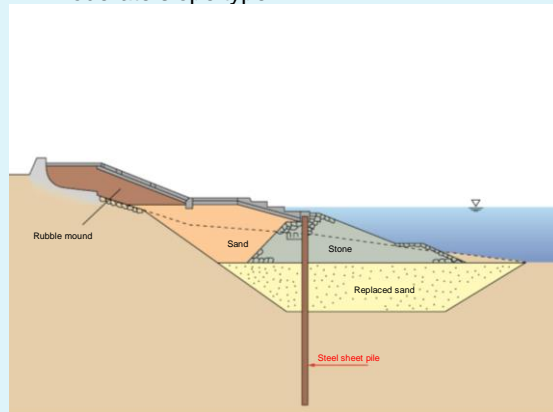
## ■ Merits

1. Work to control tsunami waves in a major earthquake and storm surge in a typhoon can be executed in a short period of time.
2. Levee crown height that had decreased with soil foundation subsidence due to liquefaction, etc., can be restored at an early stage.

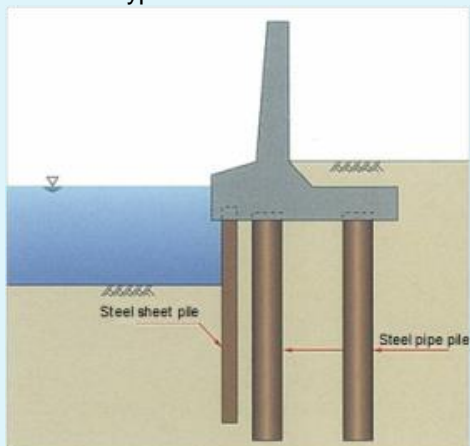
### • Freestanding type



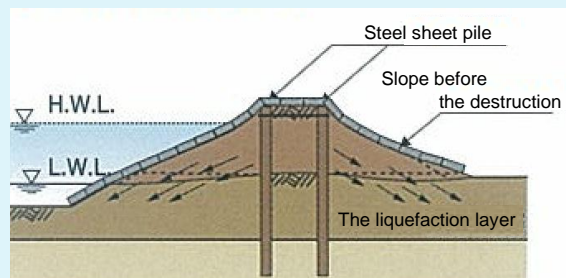
### • Moderate slope type



### • Shelf type



### • Double steel sheet pile type



# Summary from "Storm Surge Control Method Employing Steel Materials," Japanese Technical Association for Steel Pipe Piles and Sheet Piles

## Applicable sector

Seacoast, River structures, Ports, Agricultural structures

## Features

1. Work can be done in areas with space restrictions.
  - Work can be done in a narrow place and occupied space can be reduced.
2. Reduction of the construction period and cost
  - It is possible to shorten the construction period by using steel material.
  - Construction cost can be reduced without major renovation of the existing revetment.
3. Improvement of function.
  - By making use of steel materials, various effects can be attained such as renovation of aged structures recovery and improvement of function of prevention and conservation about disaster and landscape.etc.

## Track Record



Source: Hiroshima Port and Airport Development Office, Chugoku Regional Development Bureau

In Japan : many records (Tokyo metropolitan inside river revetment , Kochi prefecture seacoast, Aichi prefecture reventment et al.)

## Cost

Refer to the under-mentioned contact section about details

## Contact

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