

# HDPE Geogrid Reinforced Fill Slope & Wall

## Applications

- Retaining Wall
- Abutment construction
- Embankment enlargement
- Site formation with steep inclination
- Debris flow, rockfall barrier, and noise barrier
- Temporary construction platform
- Ground consolidation surcharge

*T-Block System  
Mechanical  
Stabilized Earth  
Wall (MSEW)*



## Vertical Surcharge (Wrap Back System)



Surcharge Bund at Residential Development at Wo Shang Wai, Yuen Long, 2012



Surcharge Bund at Tseung Kwan O South Station (MTRC617), 2007

## Reinforced Fill Wall (MSEW)



MSEW at NENT Landfill, 2004



Vertical river embankment along Shenzhen River, 2003

## 68° Reinforced Fill Slope (Wrap Back System)



Embankment at NENT Landfill, 2005



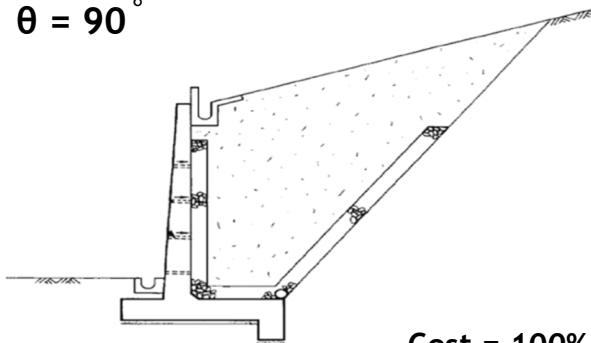
G-Block



Embankment at HKZMB BCF Vehicle Clearance Plaza, HY/2013/03, 2017

## Retaining Wall (Conventional Construction)

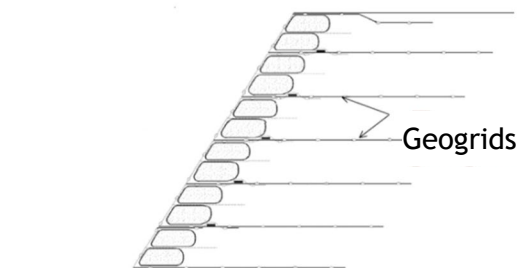
$\theta = 90^\circ$



Cost = 100%

## Reinforced Fill Slope (Wrap Back System)

$\theta = 70^\circ$



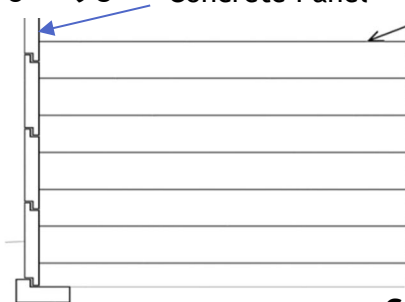
Cost = 40-50%

## Reinforced Fill Wall (Panel System)

$\theta = 90^\circ$

Concrete Panel

Geogrids



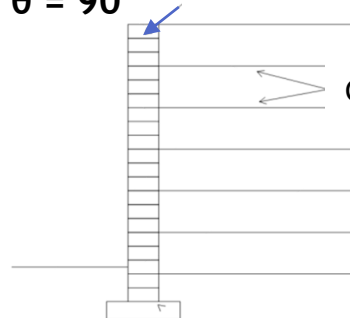
Cost = 70-80%

## Mechanically Stabilized Earth Wall (MSEW)

$\theta = 90^\circ$

Concrete Block

Geogrids



Cost = 50-80%

### Advantages

- ❖ 20% to 60% cost saving
- ❖ Time saving on construction
- ❖ Fast and easy construction, no steel & heavy foundation
- ❖ Sustainable construction
- ❖ Architectural & vegetation aesthetic facing
- ❖ No maintenance

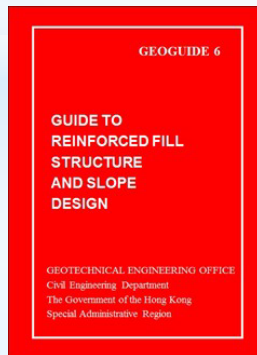
### Our Services

- ❖ Preliminary design & budget
- ❖ Design & calculation
- ❖ Submission for approval
- ❖ Method statement & drawings
- ❖ Block and panel fabrication
- ❖ Installation technical support
- ❖ Conformance testing
- ❖ Earthwork subcontracting
- ❖ ICE / Supervision

### Recognized Specifications



ETWB Technical Circular No. 24/2003  
on design with RE Construction



## REINFORCED FILL PRODUCT DESIGN DATA SHEET No. RF 1/2025 & RF5/2025

Geotechnical Engineering Office, CEDD

GEO Office  
Geoguide 6  
Guide to Design  
RE Structure &  
Slope



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