

# GEOWEB®

## Vegetated Retaining Wall SEAWALL / DIKE



### SCHLITT SEAWALL/DIKE Vero Beach, Florida

### Green Sea Walls Offer Natural Aesthetics; Perform as Dike with Salt- water Estuary

#### Project Scope

The soil surrounding a saltwater estuary adjacent to a new office complex development in South Florida contained high moisture content and low shear strength. A retention structure was required to hold back the weak soils and support the surcharge loads imposed by the planned development.

The developer preferred a naturally vegetated wall that would work under the soft soil and water conditions.



#### CONSTRUCTION

Wall layers are infilled with aggregate & topsoil

#### Design Considerations

Several criteria were considered to ensure the solution would be feasible for the unique site conditions:

- Provides long-term protection from negative effects of erosion.
- Resists corrosion caused by the saltwater.
- Accommodates differential settlement caused by highly saturated and compressible banks and subgrades.
- Natural solution with minimal environmental impact.

#### 3D HDPE GEOWEB Solution

The GEOWEB® 3D retaining wall system was chosen for its natural aesthetics and structural properties similar to a MSE wall.

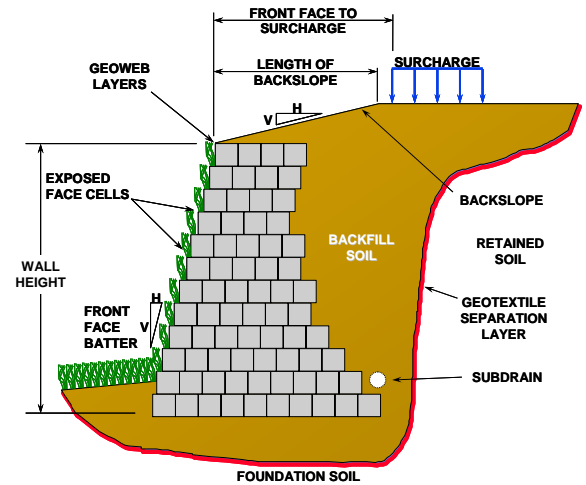
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### Geosynthetic Details

- GEOWEB GW20V Green Fascia.
- Geotextile Separation Layer
- Front Face Batter: 0.5h:1.0v
- Wall Dimensions: 620 ft long x 6 ft high



### GEOWEB® Environmental Benefits

GEOWEB® retaining walls are ideal for areas exposed to soft subgrades and water.

- Allows reclamation of land areas with less-than-desirable soil properties.
- Flexible system tolerates reasonable differential settlement while maintaining structural integrity.
- Resists corrosion and detrimental effects caused by saltwater.
- Open front fascia offers natural environment for vegetation.
- Horizontal terraces maximize rainwater collection, minimize runoff and erosion.
- The impervious cell face eliminates evaporation of soil moisture through the vertical profile of the wall.



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The retaining wall is stable and fully established with dense vegetation.

Project information and material supplied by RH Moore & Associates