

# ANCHORFAST DESIGN GUIDELINES

HEIGHT	BASE PLATE	TIE-DOWNS	ANCHOR PILES	OTHER
H<6'	OPTIONAL	NOT REQUIRED	NOT REQUIRED	
6' – 9'	REQUIRED	OPTIONAL	NOT REQUIRED	
10' – 14'	REQUIRED	REQUIRED	NOT REQUIRED	
15' – 17'	REQUIRED	REQUIRED	REAR PILE	
H>17'	REQUIRED	REQUIRED	FRONT AND REAR	Geogrid soil anchors or additional tiedowns required.

## AnchorFast Design Guidelines assumptions and supplemental notes for:

- Backfill: SW or GW, medium-dense,  $\phi = 35^\circ$ ,  $\gamma = 125$  pcf,  $C = 0$
- Foundation Subgrade: SW or GW, medium-dense,  $\phi = 35^\circ$ ,  $\gamma = 125$  pcf,  $C = 0$
- Backfill slope behind wall is inclined at not more than about 3.5H:1V
- Drained soil conditions are maintained through installation of drainage system.
- Seismic PGA < 0.4g,  $k = 0.5(\text{PGA})$ , with resultant force applied at 0.6H above base of wall, where H.
- Uniform distributed Live Load of 50 psf is applied extending for distance of 20' behind wall
- Zero embedment of bottom row of blocks. Baseplate is fully embedded.
- Rear Anchor Pile consists of a galvanized hollow core tendon such as DSI R38N or T40 bar, drilled to depth of 8' with minimum factored uplift resistance of 2.0 kips/foot of bonded tendon below base plate. Other grouted pile options can be considered.
- Cable comprises Stainless Steel 5/8" 9x16 welded wire rope.
- The foundations comprise standard 1.8 m wide Anchor Fast base plates.

## Important Limitations:

- The AnchorFast Guidelines stated above are preliminary and do not constitute a formal design.
- Global stability of surrounding soil may govern design, requiring additional elements such as soil anchors, geogrid or longer anchor piles.
- The actual design must be reviewed and approved by an experienced Geotechnical Engineer.
- The exposed retaining wall heights should never be 18' or higher without geogrid, additional anchor piles or other enhancement.
- The Contractor is responsible for building and maintain proper shoring or soil sloping to provide a safe working environment and to protect adjacent properties from damage.