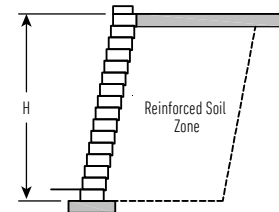


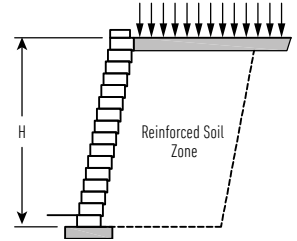
# Estimating Chart for Geosynthetic Reinforcement with Diamond® Series, Highland Stone® & Sterling® Wall Retaining Wall Systems

## No Slopes & No Surcharges



	CLAY & SILT SOILS $\phi = 26^\circ$ $\gamma = 120 \text{ pcf (19kN/m}^3\text{)}$	SILTY/CLAYEY SAND SOIL $\phi = 30^\circ$ $\gamma = 120 \text{ pcf (19kN/m}^3\text{)}$	CLEAN SAND AND GRAVEL SOIL $\phi = 34^\circ$ $\gamma = 120 \text{ pcf (19kN/m}^3\text{)}$
4'-0" (1200mm) 8 courses	<p>4.5-FT (1350mm) 4.5-FT (1350mm) 4.5-FT (1350mm) 4.5-FT (1350mm)</p>	<p>4.0-FT (1350mm) 4.0-FT (1350mm)</p>	<p>4.0-FT (1350mm) 4.0-FT (1350mm)</p>
6'-0" (1800mm) 12 courses	<p>6.5-FT (1950mm) 6.5-FT (1950mm) 6.5-FT (1950mm) 6.5-FT (1950mm) 6.5-FT (1950mm) 6.5-FT (1950mm)</p>	<p>5.0-FT (1500mm) 5.0-FT (1500mm) 5.0-FT (1500mm)</p>	<p>4.5-FT (1350mm) 4.5-FT (1350mm) 4.5-FT (1350mm)</p>
8'-0" (2400mm) 16 courses	<p>7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm)</p>	<p>6.0-FT (1800mm) 6.0-FT (1800mm) 6.0-FT (1800mm) 6.0-FT (1800mm)</p>	<p>6.0-FT (1800mm) 6.0-FT (1800mm) 6.0-FT (1800mm) 6.0-FT (1800mm)</p>
10'-0" (3000mm) 20 courses	<p>8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm)</p>	<p>7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm)</p>	<p>7.0-FT (2100mm) 7.0-FT (2100mm) 7.0-FT (2100mm) 7.0-FT (2100mm) 7.0-FT (2100mm)</p>
12'-0" (3600mm) 24 courses	<p>8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm)</p> <p>WALL DESIGN TO BE PERFORMED BY A PROFESSIONAL ENGINEER</p>	<p>8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm)</p>	<p>8.0-FT (2400mm) 8.0-FT (2400mm) 8.0-FT (2400mm) 8.0-FT (2400mm) 8.0-FT (2400mm)</p>

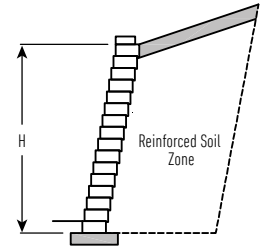
# Estimating Chart for Geosynthetic Reinforcement with Diamond® Series, Highland Stone® & Sterling® Wall Retaining Wall Systems 250 PSF Surcharge



	CLAY & SILT SOILS $\phi = 26^\circ$ $\gamma = 120 \text{ pcf } (19\text{kN/m}^3)$	SILTY/CLAYEY SAND SOIL $\phi = 30^\circ$ $\gamma = 120 \text{ pcf } (19\text{kN/m}^3)$	CLEAN SAND AND GRAVEL SOIL $\phi = 34^\circ$ $\gamma = 120 \text{ pcf } (19\text{kN/m}^3)$
4'-0" (1200 mm) 8 courses	<p>6.0-FT (1800mm) 6.0-FT (1800mm) 6.0-FT (1800mm) 6.0-FT (1800mm)</p>	<p>5.0-FT (1500mm) 5.0-FT (1500mm)</p>	<p>4.0-FT (1350mm) 4.0-FT (1350mm)</p>
6'-0" (1800 mm) 12 courses	<p>7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm)</p>	<p>6.0-FT (1800mm) 6.0-FT (1800mm) 6.0-FT (1800mm)</p>	<p>5.0-FT (1500mm) 5.0-FT (1500mm) 5.0-FT (1500mm)</p>
8'-0" (2400 mm) 16 courses	<p>8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm)</p>	<p>7.0-FT (2100mm) 7.0-FT (2100mm) 7.0-FT (2100mm) 7.0-FT (2100mm)</p>	<p>6.5-FT (1950mm) 6.5-FT (1950mm) 6.5-FT (1950mm) 6.5-FT (1950mm)</p>
10'-0" (3000 mm) 20 courses	<p>WALL DESIGN TO BE PERFORMED BY A PROFESSIONAL ENGINEER</p>	<p>8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm)</p>	<p>7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm) 7.5-FT (2250mm)</p>
12'-0" (3600 mm) 24 courses	<p>WALL DESIGN TO BE PERFORMED BY A PROFESSIONAL ENGINEER</p>	<p>9.5-FT (2850mm) 9.5-FT (2850mm) 9.5-FT (2850mm) 9.5-FT (2850mm) 9.5-FT (2850mm)</p>	<p>8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm) 8.5-FT (2550mm)</p>

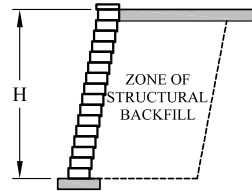
# Estimating Chart for Geosynthetic Reinforcement with Diamond® Series, Highland Stone® & Sterling® Wall Retaining Wall Systems

## 3:1 Crest Slope



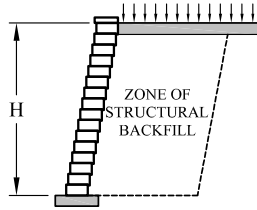
	CLAY & SILT SOILS $\phi = 26^\circ$ $\gamma = 120 \text{ pcf } (19 \text{ kN/m}^3)$	SILTY/CLAYEY SAND SOIL $\phi = 30^\circ$ $\gamma = 120 \text{ pcf } (19 \text{ kN/m}^3)$	CLEAN SAND AND GRAVEL SOIL $\phi = 34^\circ$ $\gamma = 120 \text{ pcf } (19 \text{ kN/m}^3)$
4'-0" (1200mm) 8 courses			
6'-0" (1800mm) 12 courses			
8'-0" (2400mm) 16 courses			
10'-0" (3000mm) 20 courses			
12'-0" (3600mm) 24 courses			

# Estimating Chart for Structural Backfill Using Grid with Diamond® Series (6") Highland Stone® & Sterling® Wall Retaining Wall Systems No Slope / No Surcharge



	Clay and Silt Soils $\phi = 26^\circ$ $\gamma = 120 \text{ pcf (19 kN/m}^3\text{)}$	Silty / Clayey Sand Soil $\phi = 30^\circ$ $\gamma = 120 \text{ pcf (19 kN/m}^3\text{)}$	Clean Sand and Gravel Soil $\phi = 34^\circ$ $\gamma = 120 \text{ pcf (19 kN/m}^3\text{)}$
4'-0" (1200 mm) 6 Courses	<p>1'-0" [300 mm]</p> <p>0.22 x Wall Length = CY of Structural Backfill</p>	<p>1'-0" [300 mm]</p> <p>0.22 x Wall Length = CY of Structural Backfill</p>	<p>1'-0" [300 mm]</p> <p>0.33 x Wall Length = CY of Structural Backfill</p>
6'-0" (1800 mm) 9 Courses	<p>1'-6" [450 mm]</p> <p>0.44 x Wall Length = CY of Structural Backfill</p>	<p>1'-0" [300 mm]</p> <p>0.33 x Wall Length = CY of Structural Backfill</p>	<p>1'-0" [300 mm]</p> <p>0.33 x Wall Length = CY of Structural Backfill</p>
8'-0" (2400 mm) 12 Courses	<p>2'-6" [750 mm]</p> <p>0.89 x Wall Length = CY of Structural Backfill</p>	<p>2'-0" [600 mm]</p> <p>0.74 x Wall Length = CY of Structural Backfill</p>	<p>2'-0" [600 mm]</p> <p>0.74 x Wall Length = CY of Structural Backfill</p>
10'-0" (3000 mm) 15 Courses	<p>3'-0" [900 mm]</p> <p>1.30 x Wall Length = CY of Structural Backfill</p>	<p>2'-6" [750 mm]</p> <p>1.11 x Wall Length = CY of Structural Backfill</p>	<p>2'-6" [750 mm]</p> <p>1.11 x Wall Length = CY of Structural Backfill</p>
12'-0" (3600 mm) 18 Courses	<p>4'-0" [1200 mm]</p> <p>2.00 x Wall Length = CY of Structural Backfill</p>	<p>3'-0" [900 mm]</p> <p>1.56 x Wall Length = CY of Structural Backfill</p>	<p>3'-0" [900 mm]</p> <p>1.56 x Wall Length = CY of Structural Backfill</p>

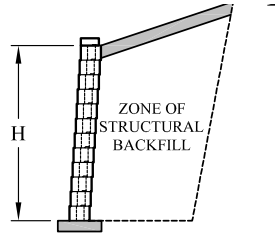
# Estimating Chart for Structural Backfill Using Grid with Diamond® Series (6") Highland Stone® & Sterling® Wall Retaining Wall Systems 250 PSF Surcharge



	Clay and Silt Soils $\phi = 26^\circ$ $\gamma = 120 \text{ pcf (19 kN/m}^3\text{)}$	Silty / Clayey Sand Soil $\phi = 30^\circ$ $\gamma = 120 \text{ pcf (19 kN/m}^3\text{)}$	Clean Sand and Gravel Soil $\phi = 34^\circ$ $\gamma = 120 \text{ pcf (19 kN/m}^3\text{)}$
4'-0" (1200 mm) 6 Courses	<p>2'-6" [750 mm]</p> <p>0.44 x Wall Length = CY of Structural Backfill</p>	<p>1'-6" [450 mm]</p> <p>0.30 x Wall Length = CY of Structural Backfill</p>	<p>1'-0" [300 mm]</p> <p>0.22 x Wall Length = CY of Structural Backfill</p>
6'-0" (1800 mm) 9 Courses	<p>3'-6" [1050 mm]</p> <p>0.89 x Wall Length = CY of Structural Backfill</p>	<p>2'-0" [600 mm]</p> <p>0.56 x Wall Length = CY of Structural Backfill</p>	<p>1'-0" [300 mm]</p> <p>0.33 x Wall Length = CY of Structural Backfill</p>
8'-0" (2400 mm) 12 Courses	<p>4'-0" [1200 mm]</p> <p>1.33 x Wall Length = CY of Structural Backfill</p>	<p>2'-6" [750 mm]</p> <p>0.89 x Wall Length = CY of Structural Backfill</p>	<p>2'-0" [600 mm]</p> <p>0.74 x Wall Length = CY of Structural Backfill</p>
10'-0" (3000 mm) 15 Courses	<p>Wall design to be performed by a professional engineer</p>	<p>3'-0" [900 mm]</p> <p>1.30 x Wall Length = CY of Structural Backfill</p>	<p>2'-6" [750 mm]</p> <p>1.11 x Wall Length = CY of Structural Backfill</p>
12'-0" (3600 mm) 18 Courses	<p>Wall design to be performed by a professional engineer</p>	<p>3'-6" [1050 mm]</p> <p>1.78 x Wall Length = CY of Structural Backfill</p>	<p>3'-0" [900 mm]</p> <p>1.56 x Wall Length = CY of Structural Backfill</p>

# Estimating Chart for Structural Backfill Using Anchorplex System with Diamond® Series (6") Highland Stone® & Sterling® Wall Retaining Wall Systems

## 3:1 Crest Slope



	Clay and Silt Soils $\phi = 26^\circ$ $\gamma = 120 \text{ pcf (19 kN/m}^3\text{)}$	Silty / Clayey Sand Soil $\phi = 30^\circ$ $\gamma = 120 \text{ pcf (19 kN/m}^3\text{)}$	Clean Sand and Gravel Soil $\phi = 34^\circ$ $\gamma = 120 \text{ pcf (19 kN/m}^3\text{)}$
4'-0" (1200 mm) 6 Courses	<p>2'-0" [600 mm] 0.37 x Wall Length = CY of Structural Backfill</p>	<p>1'-0" [300 mm] 0.22 x Wall Length = CY of Structural Backfill</p>	<p>1'-0" [300 mm] 0.22 x Wall Length = CY of Structural Backfill</p>
6'-0" (1800 mm) 9 Courses	<p>3'-6" [1050 mm] 0.89 x Wall Length = CY of Structural Backfill</p>	<p>1'-6" [450 mm] 0.44 x Wall Length = CY of Structural Backfill</p>	<p>1'-0" [300 mm] 0.33 x Wall Length = CY of Structural Backfill</p>
8'-0" (2400 mm) 12 Courses	<p>5'-0" [1500 mm] 1.63 x Wall Length = CY of Structural Backfill</p>	<p>2'-6" [750 mm] 0.89 x Wall Length = CY of Structural Backfill</p>	<p>2'-0" [600 mm] 0.74 x Wall Length = CY of Structural Backfill</p>
10'-0" (3000 mm) 15 Courses	<p>Wall design to be performed by a professional engineer</p>	<p>3'-0" [900 mm] 1.30 x Wall Length = CY of Structural Backfill</p>	<p>2'-6" [750 mm] 1.11 x Wall Length = CY of Structural Backfill</p>
12'-0" (3600 mm) 18 Courses	<p>Wall design to be performed by a professional engineer</p>	<p>4'-0" [1200 mm] 2.00 x Wall Length = CY of Structural Backfill</p>	<p>3'-0" [900 mm] 1.56 x Wall Length = CY of Structural Backfill</p>

LAST REV: 04/06/22