

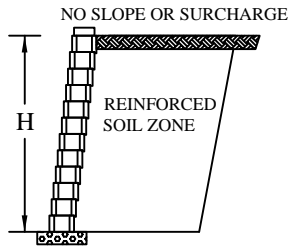
# REINFORCEMENT ESTIMATING CHART

## CLAY AND SILT SOIL

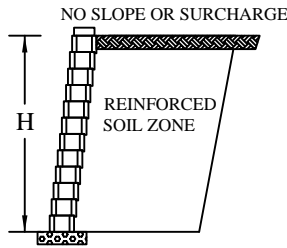
## SILTY/CLAYEY SAND SOIL

## CLEAN SAND AND GRAVEL SOIL

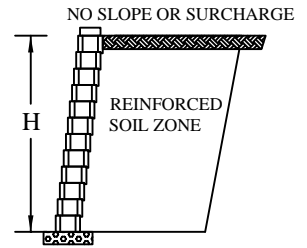
H  $\phi = 26^\circ$   
 $\gamma = 120$  pcf (19 kN/cubic meter)



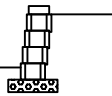
H  $\phi = 30^\circ$   
 $\gamma = 120$  pcf (19 kN/cubic meter)



H  $\phi = 34^\circ$   
 $\gamma = 120$  pcf (19 kN/cubic meter)

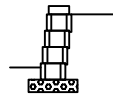


4 COURSES  
 2' 6" - 2' 8"  
 (800mm)



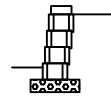
NO REINFORCEMENT  
 REQUIRED  $\leq$  4 COURSES

4 COURSES  
 2' 6" - 2' 8"  
 (800mm)



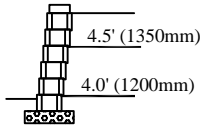
NO REINFORCEMENT  
 REQUIRED  $\leq$  4 COURSES

4 COURSES  
 2' 6" - 2' 8"  
 (800mm)

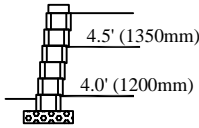


NO REINFORCEMENT  
 REQUIRED  $\leq$  4 COURSES

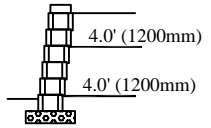
6 COURSES  
 3' 9" - 4' 0"  
 (1200mm)



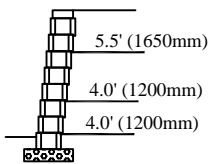
6 COURSES  
 3' 9" - 4' 0"  
 (1200mm)



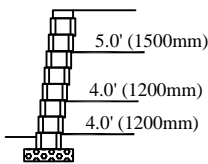
6 COURSES  
 3' 9" - 4' 0"  
 (1200mm)



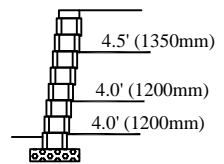
8 COURSES  
 5' 0" - 5' 4"  
 (1600mm)



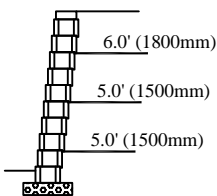
8 COURSES  
 5' 0" - 5' 4"  
 (1600mm)



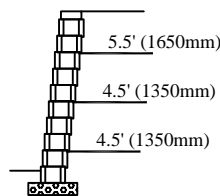
8 COURSES  
 5' 0" - 5' 4"  
 (1600mm)



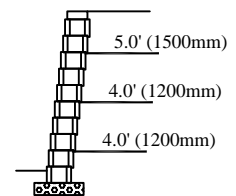
10 COURSES  
 6' 3" - 6' 8"  
 (2000mm)



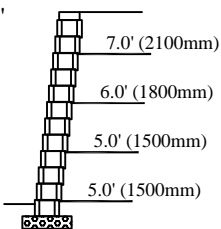
10 COURSES  
 6' 3" - 6' 8"  
 (2000mm)



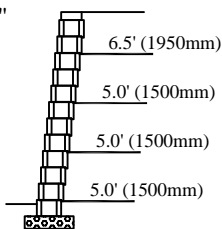
10 COURSES  
 6' 3" - 6' 8"  
 (2000mm)



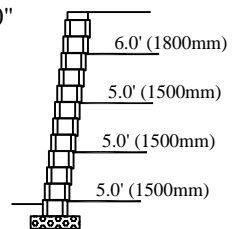
12 COURSES  
 7' 0" 6" - 8' 0"  
 (2400mm)



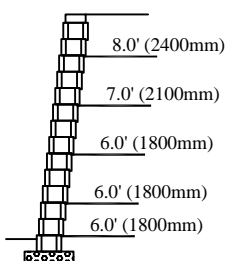
12 COURSES  
 7' 0" 6" - 8' 0"  
 (2400mm)



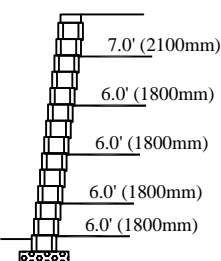
12 COURSES  
 7' 0" 6" - 8' 0"  
 (2400mm)



14 COURSES  
 8' 9" - 9' 4"  
 (2800mm)



14 COURSES  
 8' 9" - 9' 4"  
 (2800mm)



14 COURSES  
 8' 9" - 9' 4"  
 (2800mm)

