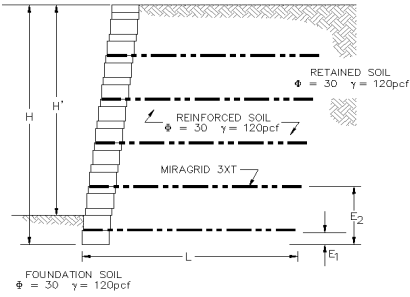
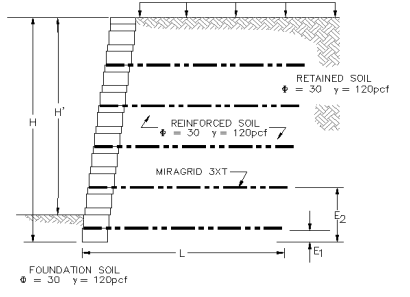
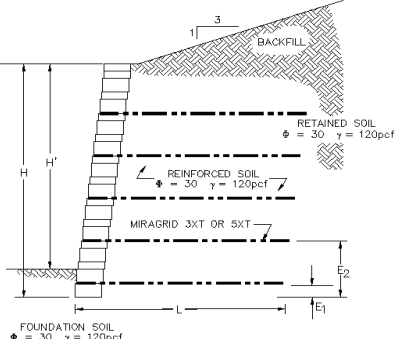


Coventry Wall Plus Reinforcement Charts

Coventry Wall Plus Reinforcement Charts	Exposed Height (ft)	Exposed Height w/cap, H' (ft)	Total Height H, (ft)	Grid Layers	Length L, (ft)	Layer Number - Place Grid at Elevation E _i (ft)									
						1	2	3	4	5	6				
CASE 1 with $\phi = 30$ degrees NO SURCHARGE, NO SLOPE AT TOP OF WALL 	2.4	2.7	3.3	1	4.0	0.6									
	3.0	3.3	3.9	2	4.0	0.6	2.4								
	3.6	3.9	4.5	2	4.0	0.6	2.4								
	4.2	4.5	5.1	2	4.0	0.6	2.4								
	4.8	5.1	5.7	3	5.0	0.6	2.4	4.2							
	5.4	5.7	6.3	3	5.0	0.6	2.4	4.2							
	6.0	6.3	7.5	4	6.0	0.6	2.4	4.2	6.0						
	6.6	6.9	8.1	4	6.0	0.6	2.4	4.2	6.0						
	7.2	7.5	8.7	4	6.0	0.6	2.4	4.2	6.0						
	7.8	8.1	9.3	5	7.0	0.6	2.4	4.2	6.0	7.8					
8.4	8.7	9.9	5	7.0	0.6	2.4	4.2	6.0	7.8						
9.0	9.3	10.5	5	7.0	0.6	2.4	4.2	6.0	7.8						
CASE 2 with $\phi = 30$ degrees SURCHARGE FROM ROADWAY OR PARKING NO SLOPE AT TOP OF WALL 	2.4	2.7	3.3	1	4.0	0.6									
	3.0	3.3	3.9	2	5.0	0.6	2.4								
	3.6	3.9	4.5	2	5.0	0.6	2.4								
	4.2	4.5	5.1	2	6.0	0.6	2.4								
	4.8	5.1	5.7	3	7.0	0.6	2.4	4.2							
	5.4	5.7	6.3	3	7.0	0.6	2.4	4.2							
	6.0	6.3	7.5	4	8.0	0.6	2.4	4.2	6.0						
	6.6	6.9	8.1	4	8.0	0.6	2.4	4.2	6.0						
	7.2	7.5	8.7	4	8.0	0.6	2.4	4.2	6.0						
	7.8	8.1	9.3	5	9.0	0.6	2.4	4.2	6.0	7.8					
8.4	8.7	9.9	5	9.0	0.6	2.4	4.2	6.0	7.8						
9.0	9.3	10.5	5	9.0	0.6	2.4	4.2	6.0	7.8						
CASE 3 with $\phi = 30$ degrees NO SURCHARGE, 3:1 MAX SLOPE AT TOP OF WALL 	2.4	2.7	3.3	2	4.0	0.6	2.4								
	3.0	3.3	3.9	2	5.0	0.6	2.4								
	3.6	3.9	4.5	2	5.0	0.6	2.4								
	4.2	4.5	5.1	3	6.0	0.6	2.4								
	4.8	5.1	5.7	3	6.0	0.6	2.4	4.2							
	5.4	5.7	6.3	3	6.0	0.6	2.4	4.2							
	6.0	6.3	7.5	4	7.0	0.6	2.4	4.2	6.0						
	6.6	6.9	8.1	4	8.0	0.6	2.4	4.2	6.0						
	7.2	7.5	8.7	5	9.0	0.6	2.4	4.2	6.0						
	7.8	8.1	9.3	5	9.0	0.6	2.4	4.2	6.0	7.8					
8.4	8.7	9.9	5	9.0	0.6	2.4	4.2	6.0	7.8						
9.0	9.3	10.5	6	10.0	0.6	2.4	4.2	6.0	7.8					9.6	
Shading denotes Mirafi 5XT geogrid reinforcement.															

Notes:

- Information presented in this chart is to be used for preliminary design and estimating purposes. Final design should be performed by a Professional Engineer qualified in both geotechnical engineering and segmental retaining wall design.
- This sample design chart is applicable to sites where soil conditions meet the following minimum criteria: Angle of Internal Friction, $\phi > 30^\circ$ and moist unit weight, $\gamma < 120\text{pcf}$. Typical for silty sands, poorly graded sands, and well grade fine to medium sands meeting the following USCS classifications: **SM, SP, or SW**.
- Design charts prepared for use with E.P. Henry's Coventry Wall Plus block system with Mirafi's type 3XT & 5XT reinforcing geogrids. Grids **MUST** extend to the front face of the block. Retaining walls in a reinforced earth application must utilize the battered pin position (5/8" setback per course).

- These charts do not reflect any provisions for global stability or other analyses, which may be related to site-specific conditions including relief of excess hydrostatic pressures due to groundwater or springs. All these conditions should be checked and evaluated as appropriate, using site-specific soil and subsurface conditions, as well as any special loading criteria.
- Design Minimum Factors of Safety: 1.5 for reinforcement pullout, 1.5 for external sliding, 2.0 for overturning, and 2.0 for bearing.
- All walls shall be supported on an aggregate foundation and shall have adequate drainage provisions (minimum 12 inches AASHTO #57 Stone) in accordance with E.P. Henry's standard specification guidelines.

- All reinforced soil shall be compacted to a minimum of 95% Standard Proctor (ASTM D698). Maximum reinforced soil lift thickness is 7 inches.
- These tables utilize a minimum embedment of 7 inches and assume a level toe slope condition. Consult E.P. Henry guidelines for toe slope applications.
- To the best of our knowledge, the information presented in this design chart is complete and accurate. However, E.P. Henry Corporation cannot assume any liability or accept any responsibility for the accuracy or completeness of this information. Further, E.P. Henry Corporation cannot assume any liability for damages arising from claims in which construction proceeded without final design drawings prepared by a Professional Engineer registered in the State of construction specializing in both geotechnical engineering and segmental retaining wall design.