

Geoweb® Cellular Confinement System		PERMANENT PROTECTION OF OPEN CHANNELS		
		Recommended Material Types	Applications, Functions, Benefits and Design Considerations	
The Geoweb® Section	Section Length	Six Available	Custom sections minimize field construction joints and installation effort.	
	Cell Size	Mid (GW30V) or Small (GW20V)	Cell size is governed by channel geometry and design cover thickness.	
	Cell Depth	75, 100, 150, 200 mm (3, 4, 6, 8 in)	Depth is a function of channel geometry and hydraulic conditions.	
	Cell Type	Textured Perforated or Textured Non-perforated	Maximized interaction between infill and cellular structure. Perforated cells provide in-plane drainage and inter-cell root development where necessary.	
	Cell Color	Black or custom colors	Material is primarily buried – standard or HALS UV stabilization is incorporated.	
The Infill	Topsoil & Vegetation	Local soils and vegetation	Structural restraint of topsoil lining. Cellular system confines and protects the root zone when subjected to concentrated hydraulic flow. The development of rills and gullies is prevented. The cellular structure enhances moisture retention and vegetative development in arid climates.	
	Aggregate	Gravels and uniform processed rock	Loose infills can be supported on steep side slopes. Resistance to concentrated surface flows is increased and flanking of the protection is prevented.	
	Concrete	Ready-mix	The Geoweb system functions as a flexible formwork and anchorage system. The hard protective lining is flexible, free-draining, and can be rapidly installed or precast in panels.	
Other Components	Geosynthetics	Geotextiles	Non-woven	Non-woven underlayer functions as a drainage medium, soil filter and root-anchorage element.
		Geogrids	Generally N. A.	
		Geomembranes	Polymeric or GCL's	Can be employed selectively as infiltration control elements.
		Erosion Control Blankets	Temporary bio-degradable protection	Protection of topsoil and seed immediately following installation.

PRESTO GEOSYSTEMS

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	Tendons	PET, PP and PE	Polymer type and design tensile strength depends on geometry, anchorage design and chemical environment.
	The ATRA® Clip	ATRA® Clip restraint pin	Provides positive transfer of sliding loads to the tendon system.
		ATRA® Anchor	Provides positive shear connection and uplift resistance for a range of anchorage systems.
	Anchor Systems	Steel, galvanized, wood and synthetic anchors	Anchor type depends on geometry, environment, and infill type. Project-specific assessment is recommended. Anchors resist high hydraulic shear stresses.
	Surface Treatments	Various	Application specific including: cement grouts and polymeric emulsions. Manning 'n' values can be increased with aggregate embedded in concrete.
Geoweb® Cellular Confinement System		PROTECTION OF ENERGY DISSIPATION STRUCTURES	
		Recommended Material Types	Applications, Functions, Benefits and Design Considerations
The Geoweb® Section	Section Length	Six Available	Custom sections minimize field construction joints and installation effort.
	Cell Size	Mid (GW30V) or Small (GW20V)	Cell size is governed by channel geometry and design cover thickness.
	Cell Depth	75, 100, 150, 200 mm (3, 4, 6, 8 in)	Depth is a function of channel geometry and hydraulic conditions.
	Cell Type	Textured Perforated or Textured Non-perforated	Maximized interaction between infill and cellular structure. Perforated cells provide in-plane drainage and inter-cell root development where necessary.
	Cell Color	Black or custom colors	Material is primarily buried – standard or HALS UV stabilization is incorporated.
The Infill	Topsoil & Vegetation	Local soils and vegetation	Structural restraint of topsoil lining. Cellular system confines and protects the root zone when subjected to concentrated hydraulic flow. The development of rills and gullies is prevented. Vegetated energy dissipation structures are recommended for intermittent, short-duration peak flows only.
	Aggregate	Generally N. A.	
	Concrete	Ready-mix	The Geoweb system functions as a flexible formwork and anchorage system. The hard protective lining is flexible, free draining, and can be rapidly installed. Uplift resistance can be readily increased with an earth anchor array system.

Other Components	Geosynthetics	Geotextiles	Non-woven	Non-woven underlayer acts as drainage medium, soil filter and root-anchorage elements.
		Geogrids	Generally N. A.	
		Geomembranes	Polymeric or GCL's	Can be employed selectively as infiltration control elements.
		Erosion Control Blankets	Temporary bio-degradable protection	Protection of topsoil and seed immediately following installation.
	Tendons		PET, PP and PE	Polymer type and design tensile strength depends on geometry, anchorage design and chemical environment.
	The ATRA® Clip		ATRA® Clip restraint pin	Provides positive transfer of sliding loads to the tendon system.
			ATRA® Anchor	Provides positive shear connection and uplift resistance for a range of anchorage systems.
	Anchor Systems		Steel, galvanized, wood and synthetic anchors	Anchor type depends on geometry, environment, and infill type. Project-specific assessment is recommended. Anchors resist high hydraulic shear stresses.
	Surface Treatments		Various	Application specific including: cement grouts and polymeric emulsions. Manning 'n' values can be increased with aggregate embedded in concrete.
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