

Geoweb® System		PERMANENT PROTECTION OF OPEN CHANNELS		
		Recommended Material Types	Applications, Functions, Benefits and Design Considerations	
The Geoweb® Section	Section Length	Six section lengths (covering a range of 12 to 35 ft lengths)	Range of section lengths minimizes field cutting of sections, loss of area and installation effort.	
	Cell Size	Mid (GW30V) or Small (GW20V)	Cell size is governed by channel geometry and design cover thickness.	
	Cell Depth	3, 4, 6, 8 in (75, 100, 150, 200 mm)	Depth is a function of channel geometry and hydraulic conditions.	
	Cell Type	Textured Perforated or Textured Non-perforated for front fascia panels of stacked channel systems.	Maximized interaction between infill and cellular structure. Perforated cells provide in-plane drainage and inter-cell root development where necessary.	
	Cell Color	Black or tan and green color for wall fascia panels.	Material is primarily buried – standard or HALS UV stabilization is incorporated for front fascia of stacked channel systems.	
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 (as required)	Geosynthetics	Geotextiles	Non-woven	Non-woven underlayer functions as a drainage medium, soil separation layer and root-anchorage element.
		Geogrids	Varies by design	Earth reinforcement layers for stacked channel systems.
		Geomembranes	Polymeric or GCL's	Can be employed selectively as infiltration control elements.
	Erosion Control Blankets	Temporary bio-degradable protection	Protects topsoil and seed immediately following installation and provides protection from washout potential prior to vegetation establishment.	
	Turf Reinforcement Mats	Various	More permanent protection of topsoil and seed following installation, and provides protection from washout potential prior to vegetation establishment and longer-term surface flows.	

	Tendons	Kevlar®, PP and PE	Polymer type and design tensile strength depends on geometry, anchorage design and chemical environment.
	The ATRA® Clip/Anchor	ATRA® Clip	Attached to tendons, provides positive transfer of sliding loads to the tendon system.
		ATRA® Anchor	Attached to steel rods, provides positive shear connection and uplift resistance. Anchors resist high hydraulic shear stresses. Project-specific assessment is recommended.
		ATRA® GFRP Anchor	Attached to glass fiber-reinforced polymer stakes, provides positive shear connection and uplift resistance for corrosive environments. Anchors resist high hydraulic shear stresses. Project-specific assessment is recommended.
	Surface Treatments	Various	Application specific including: hydroseeding, emulsion coating, cement grouts, etc.. Manning 'n' values can be increased with aggregate embedded in concrete.
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