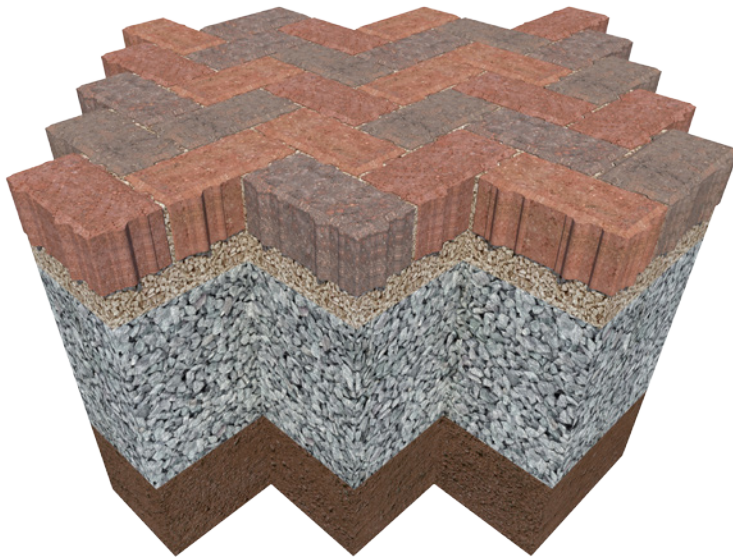


Marshalls Piora: Structural Design of Sub-Base

Load Category 4: Emergency Large Goods



Build Up:

80mm Block

50mm Laying Course

300mm Sub-base (OGCR)

Total Depth = 430mm

This design assumes a CBR of 5% or greater. The following table indicates additional capping layer requirements that should be included when the CBR is <5%:

Subgrade CBR Value	Capping Layer Thickness Type A* & B^ Systems (mm)		Capping Layer Thickness Type C^ Systems (mm)			
	Open Graded Crushed Rock		Open Graded Crushed Rock or MOT Type 1		Capping Material	
	Without M15 Grid	With M15 Grid	Without M15 Grid	With M15 Grid	Without M15 Grid	With M15 Grid
5%	--	--	--	--	--	--
4%	100	--	100	--	150	--
3%	125	100	125	100	225	150
2%	175	125	175	125	350	225
1%	300	175	300	175	600	350

***Type A** System: Full infiltration (water soaks into the ground at source)

^Type B System: Partial infiltration (most of the water soaks into the ground, but some of it is channelled away at a controlled rate)

^Type C System: Tanked (water is attenuated in the sub-base by means of a Marshalls M380 Tanking Membrane, until it is channelled away at a controlled rate)



NB: THIS DESIGN ILLUSTRATES A MINIMUM STRUCTURAL REQUIREMENT BASED ON THE INFORMATION AVAILABLE.

Additional calculations may be required to provide sufficient **hydraulic** capacity.
Marshalls design team can provide a full design based on your data.

Contact your local Marshalls engineer or call the technical team on 0845 302 0606