

CORE DRIVE Installation Guide

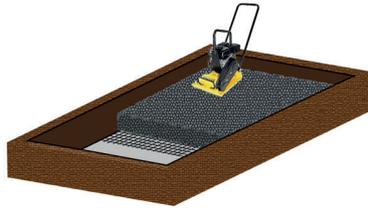
New Drive Construction

STEP 1



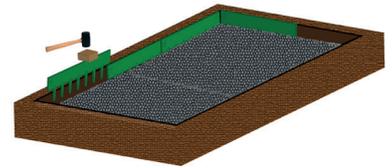
Excavate area for subbase to be installed. *For subbase calculation see overleaf.* Ensure to allow for: 10mm sand bedding layer; depth of grid and the 10-15mm dressing of aggregate when calculating depth from surrounding surfaces.

STEP 2



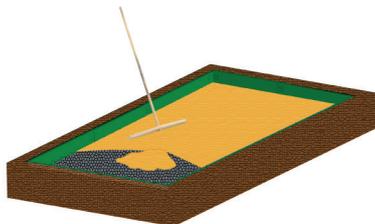
Install membrane and geogrid if required and then the subbase material. Ensure the subbase is well compacted using either a pedestrian roller or vibrating road plate.

STEP 3



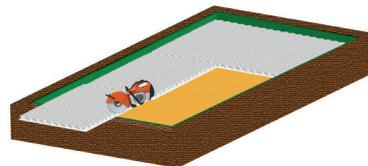
Install a suitable edging around all open sides. This can be a tanalised wooden edging; block pavements; granite setts; concrete path edgings or our very own flexible metal edging (CORE Edge).

STEP 4



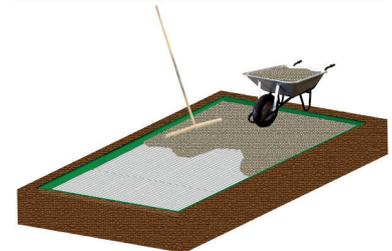
Cover the entire area with a 5-10mm bedding layer of sharp sand and compact. This layer will help to eliminate any minor undulations you may have in your subbase, it also helps to protect the membrane attached to the underside of the grid from the subbase material.

STEP 5



Install the grid starting from one corner and working your way out with the membrane facing down. Ensure to connect all available clips on all four sides of the sheet and to underlap the membrane where possible. Cut to shape using a petrol disc cutter or grinder. Please ensure to wear necessary PPE for the equipment being used.

STEP 6



Fill the grid with your chosen aggregate either using a wheelbarrow or direct from a truck. Ensure the truck does not drive on unfilled cells. CORE Drive is designed to be covered by a 10-15mm dressing layer of aggregate making the grid virtually invisible.

CORE Drive Grid with attached geotextile membrane

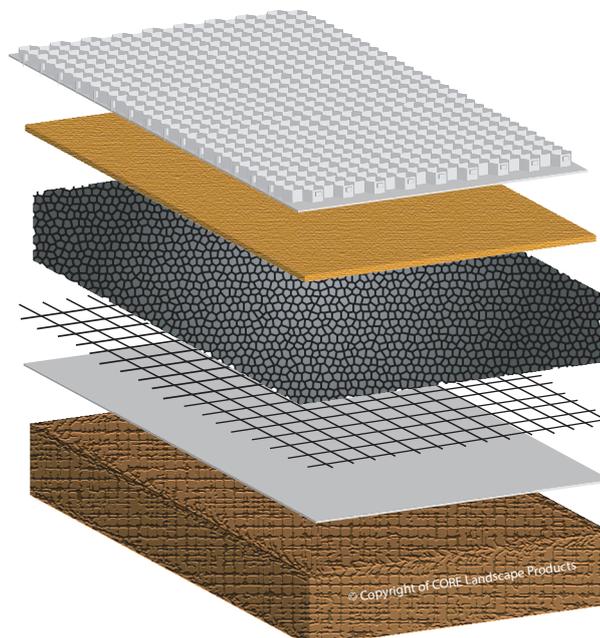
Sharp Sand bedding layer to level any minor dips or bumps (approx. 10mm)

Suitable subbase material for proposed traffic load (for depth see CBR table)

CGSBXG 20Kn Biaxial GeoGrid (optional)

CGSMT1000 Membrane (optional)

Existing Subgrade



STILL UNSURE?



For site specific advice and guidance on optional materials, please give our technical team a call on

0800 118 22 78

CORE DRIVE Installation Guide

Subbase Calculation

STEP 1



Use the table opposite to determine the CBR% value of your subgrade once you have carried out either the tactile, visual or mechanical test.

CBR % VALUE INDICATOR

CONSISTENCY	IDENTIFYING FACTOR			STRENGTH	
	Tactile (feel)	Visual (observation)	Mechanical (test) SPT	CBR %	CU kn/m ²
Very Soft	Hand sample squeezes through fingers	Man standing will sink >75mm	<2	<1	<25
Soft	Easily moulded by finger pressure	Man walking sinks 50-70mm	2-4	Around 1	Around 25
Medium	Moulded by moderate finger pressure	Man walking sinks 25mm	4-8	1-2	25-40
Firm	Moulded by strong finger pressure	Utility truck ruts 10-25mm	8-15	2-4	40-75
Stiff	Cannot be moulded but can be indented (thumb)	Loaded construction vehicle ruts by 25mm	15-30	4-6	75-150

STEP 2



Next, use this table to help you identify your intended traffic load according to vehicle size and frequency.

INTENDED TRAFFIC LOAD

VEHICLE TYPE →	DOMESTIC VEHICLES	COMMERCIAL VEHICLES	HEAVY GOODS VEHICLES
TRAFFIC FREQUENCY ↓			
LOW FREQUENCY < 10 per day	LIGHT TRAFFIC	MEDIUM TRAFFIC	HEAVY TRAFFIC
MEDIUM FREQUENCY 10-20 per day	MEDIUM TRAFFIC	MEDIUM TRAFFIC	HEAVY TRAFFIC
HIGH FREQUENCY > 20 per day	HEAVY TRAFFIC	HEAVY TRAFFIC	HEAVY TRAFFIC

STEP 3



Lastly, use the CBR% value and traffic type you have identified to calculate the depth of subbase required for your project.

SUBBASE CALCULATION

CBR (%) STRENGTH OF EXISTING SUBGRADE	LIGHT TRAFFIC	MEDIUM TRAFFIC	HEAVY TRAFFIC
>6	100 mm	110 mm	120 mm
= 4 < 6	100 mm	125 mm	150 mm
= 2 < 4	135 mm	165 mm	200 mm
= 1 < 2	260 mm	330 mm	400 mm

The table above indicates typical subbase thicknesses required depending on the subgrade CBR value and intended traffic load. Please note this is intended as a general guide in accordance with BS7533.

For further details on permeable paving design please refer to BS7533 Part 13; for installation refer to Part 1. The design for build up should satisfy two parts; firstly to support the intended traffic load and secondly to manage surface water.