



# Marshalls

*Creating Better Spaces*

## INSTALLATION DETAILS FOR DRIVEWAY SETTS

### General Information

On delivery, the product should be inspected. If there are any issues, please report them immediately and do not commence installation.

Before installation commences a certain amount of sorting of the product may be required to ensure consistency of colour, texture and dimensional tolerance.

Natural stone products are unique and you can expect colour and veining variances between each unit.

### Health and Safety Information

Safe working practices should be employed at all times during the construction process and all necessary Personal Protective Equipment (PPE) should be worn.

### Pavement Design

For most domestic applications a sub-base of 150mm should prove to be sufficient. However the paving design must be based upon the prevalent ground conditions and type and frequency of anticipated loads.

### Excavation

To allow the paving to be installed correctly, a certain amount of excavation is usually required. The depth of this excavation will be the thickness of the required sub-base plus the mortar bed and the setts. An extremely important factor to consider when working out the depth of excavation is that the finished surface level of the blocks must be a minimum of 150mm below the DPC (damp proof course) to prevent problems with rising damp.

### Edge Restraints

Edge restraints should be sufficiently robust to resist the lateral displacement from imposed loadings placed upon the pavement and are installed prior to the installation of the sub-base. The restraint must provide a consistent vertical face to a level below the laying course material.

For steep inclines or gradients, (greater than 1:20) the provision of intermediate restraints should be considered. Their spacing should be related to the severity of incline and overall area of paving.

## **Sub-base**

### **Material Selection**

Granular sub-base material should be well graded (40mm to dust) Type 1 quality material. Inferior quality material may be liable to failure under loading and be susceptible to frost or moisture movement. Recycled materials such as crushed masonry or concrete can be considered, provided it is well graded and compacts to give a close textured finish. Materials containing organic matter should not be used.

### **Construction**

Sub-base material should be placed in layers not exceeding 75mm in thickness or twice the nominal maximum aggregate size. Each layer should be fully compacted before the next layer is placed. Sub-base tolerance to be +5 -10mm from specified levels. The surface should be clean and suitably close textured to prevent migration of finer material through the construction.

A minimum longitudinal fall of 1.25% (1 in 80) and crossfall of 2.5% (1 in 40) should be incorporated in the sub-layer construction to provide adequate surface water runoff from the wearing course.

## **Laying Course**

### **Materials Selection**

The setts should be supported on a full 'wet' workable mix mortar bed (1:3 cement/sand). The mortar bedding should be laid to give a thickness between 15mm and 30mm; however some adjustment may be necessary to ensure that the units are fully supported and do not rock or move.

## **Joints**

### **Materials Selection**

All joints should be fully filled with a 'wet' mortar mix (1:4 cement/sand). Joint widths should be approximately 8mm to 15mm.

**Under no circumstances should dry or semi-dry sand/cement mixes be brushed into the joints. This practice leads to staining of the paving and does not constitute a true rigid joint.**

The sides of the units may be buttered with mortar prior to placement of the adjacent unit; alternatively, jointing may be carried out as a separate operation on completion of the paving.

In the latter case, the joints should be carefully filled using a proper pointing tool to ensure that the mortar is fully compacted in the joint.

Pointing should only be carried out when the setts are dry and rain is not expected. Any mortar dropping on the face of the setts should be cleaned off quickly as work proceeds with a damp cloth.

## **Cutting**

Cutting may be carried out using a diamond tipped power saw, a block-splitting guillotine, or hammer and bolster. It must however be noted that the aesthetic finish achieved will depend greatly upon the choice of cutting mechanism and level of skill. Specific equipment or blade types should be used when cutting natural stone units as those designed for cutting concrete pavers may blunt easily. Cut

edges on cropped setts will need distressing prior to installation. Cut blocks should be inserted prior to completion of the working period or before the onset of inclement weather. Blocks should be cut such that the resultant joint width remains within the 8 - 15mm tolerance.

### **Inclement Weather**

Installation should be discontinued (and any open work face covered) if weather conditions are such that the performance of the setts may be jeopardised. In adverse weather conditions, units should not be laid on saturated laying course material. The filling of joints is not possible in damp conditions, and should be topped up at the earliest opportunity. All unfinished areas and stockpiles of materials should be covered in the advent of inclement weather to prevent saturation.

### **Further Information**

For technical advice on commercial installations, or when confronted by unusual problems or circumstances, please contact Marshalls Technical Advisory Services on 0370 411 2233, or by email on [advisory.services@marshalls.co.uk](mailto:advisory.services@marshalls.co.uk)