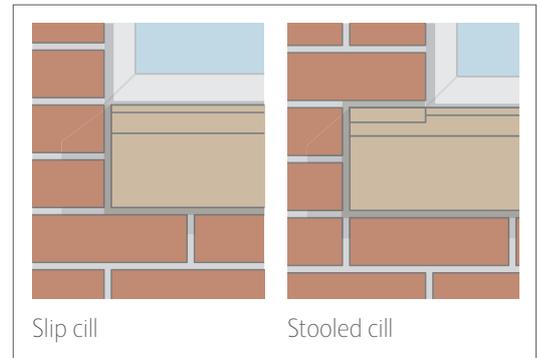




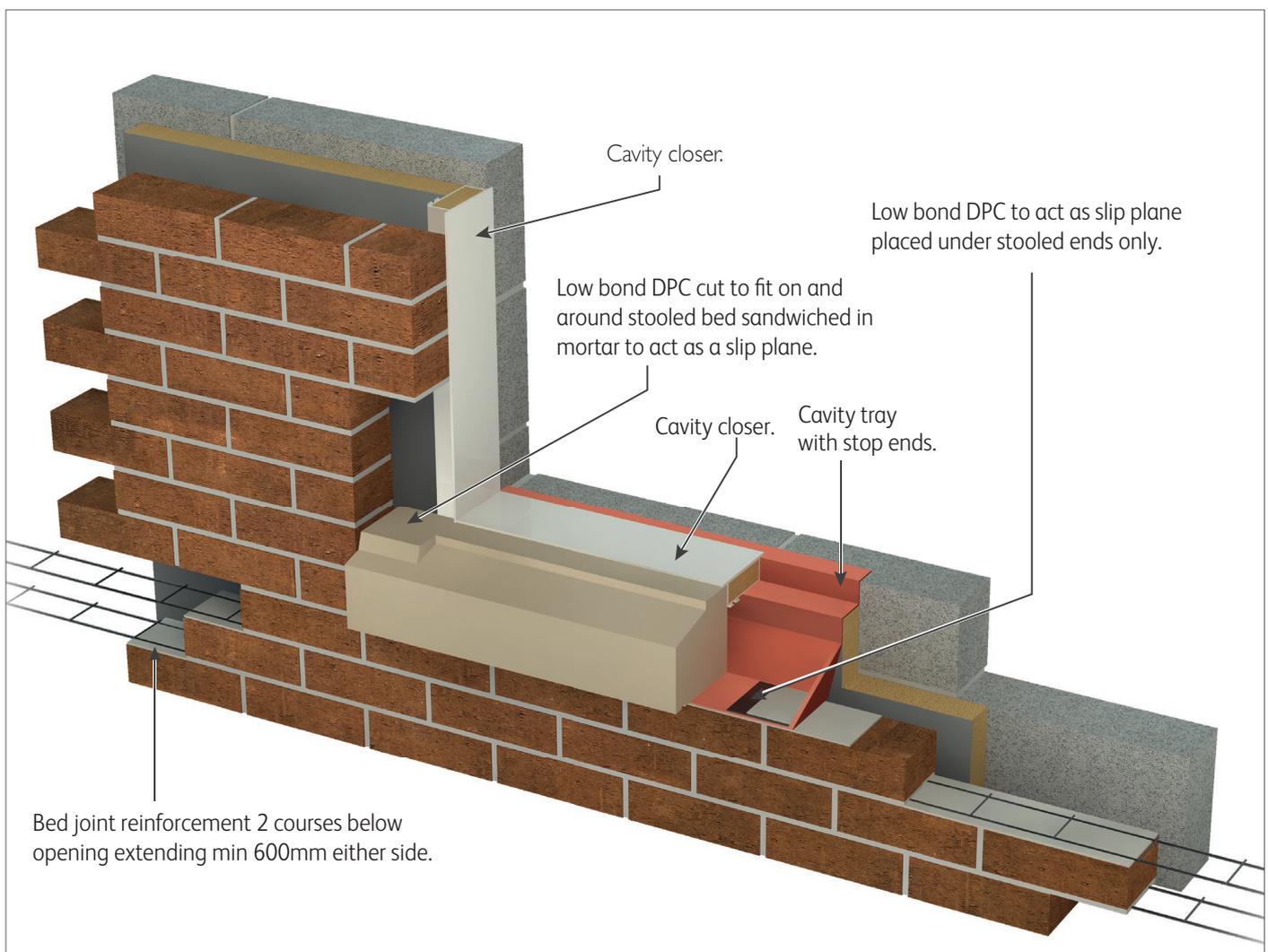
CAST STONE **STOOLED** CILL DETAIL

Cast stone stooled cills are designed so each end appears to support masonry at each side of a window opening. The masonry reveals can then be formed with clay brick, stone block, decorative quoins or jambs.

They are available as one piece units up to 1547mm (dependent on unit height.) Standard stooled cills are fitted as work proceeds and protected from follow on trades however some cills can be retro fitted (see Installation Guide 3).

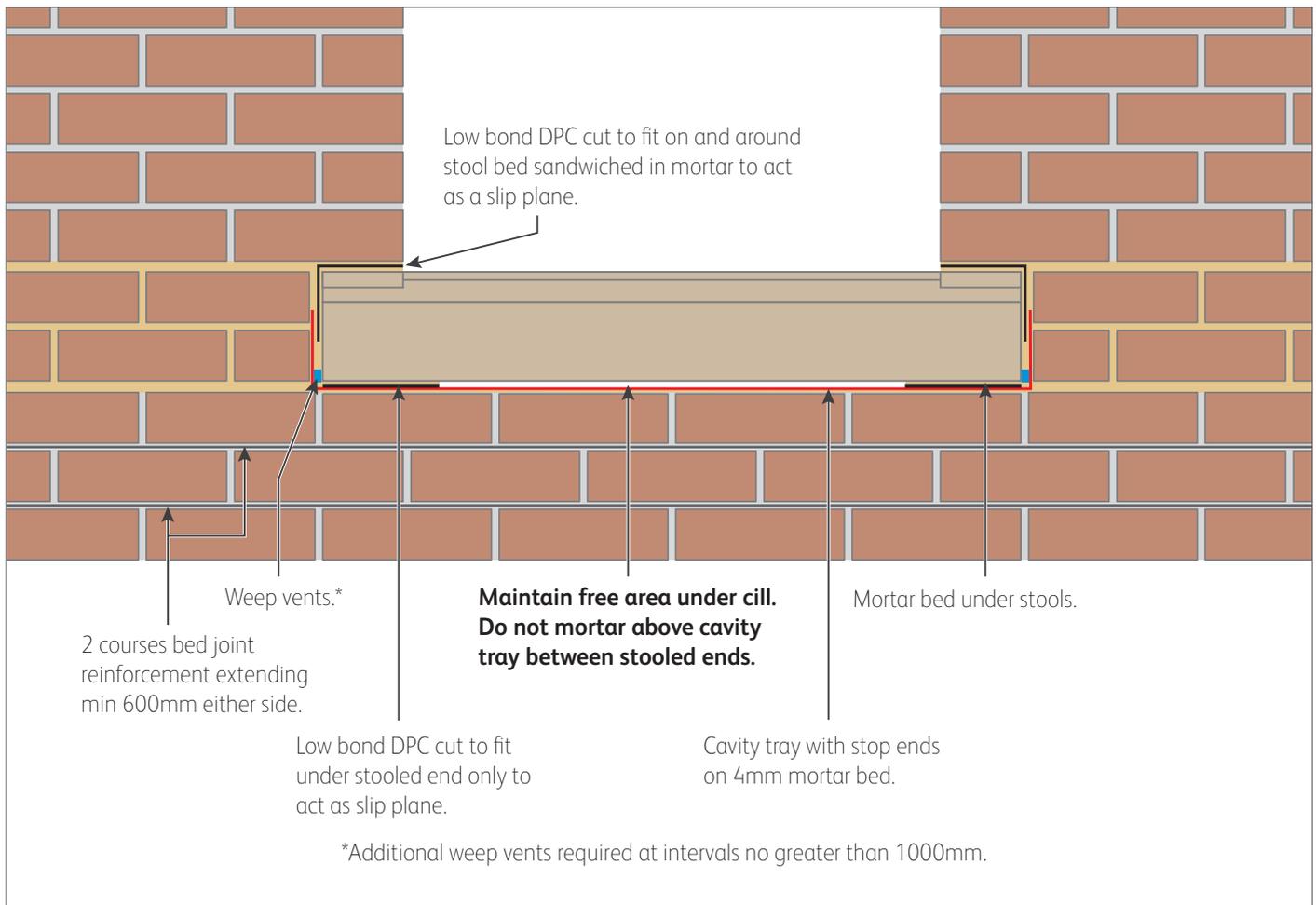


It is crucial that movement of cast stone components is accommodated.





CAST STONE **STOOLED CILL** DETAIL



To avoid stresses from differential movement the cill should be installed to the following guidance.

For one piece cills up to 1547mm;

1. At the window opening sit the cavity tray 20mm wider than cill (with stop ends,) on a 4mm mortar bed. (The window aperture will be narrower than the cill unit).
2. Weep vents should be positioned at each end of the cavity tray.

3. Place a shorter section of low bond DPC material on top of the outer leaf surface of the cavity tray to act as a slip plane. Place at each end under the stooped profile positions only.
4. On top of the second DPC layer place a further 4mm mortar under the stool end only and carefully place the cill in position. (The front of the cill should project 50mm from the facing masonry).





- When forming the masonry reveal above the cill ensure free movement is maintained. To form a slip plane here place a 4mm mortar bed on top of the stool and smooth off. After hardening place a square of low bond DPC cut to cover the mortared stool bed and side of the cill.

Mortar on top of the DPC bed surface only and continue with construction of the masonry reveals ensuring bed joints remain in line and plumb with surrounding.

- At the end of construction insert a compressible backing cord into the gap between bedded stool ends under the cill, and at the ends of the cill above the weep vents.
- When considering an appropriate pointing solution, movement of different materials can be accommodated more effectively with a mastic or flexible joint sealant which would also prevent water penetration caused by mortar shrinkage.

CAST STONE **JOINTED STOOLED CILL DETAIL**

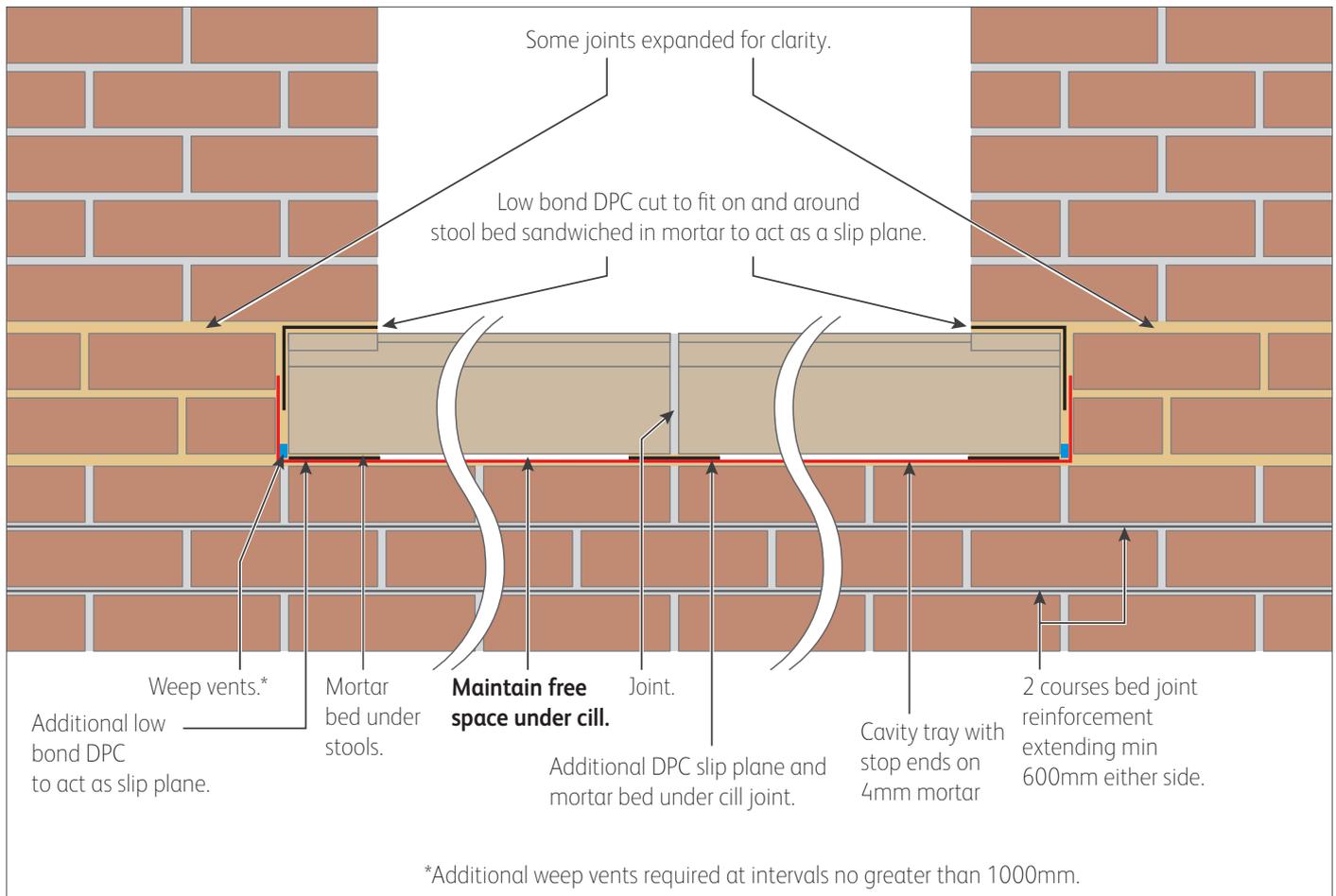
Stooled cills exceeding 1547mm (dependent on height) will be supplied in sections.

- To install follow the general guidance for the one piece unit, however where the jointed sections meet a further section of low bond DPC should be placed on the external leaf of the cavity tray, enough to sit under 150mm of each bearing end of the units and the mortared cill joint/s.
- Place supporting mortar of a stiff consistency to ensure minimal slump.
- Butter one central end of the unit and lay. Carefully insert the second section ensuring the cill is level along the full length.
- Ensure joint/s where cill units meet are fully filled with mortar.
- Place additional weep vents at intervals no greater than 1000mm before inserting backing cord.
- When considering an appropriate pointing solution, movement of different materials can be accommodated more effectively with a mastic or flexible joint sealant which would also prevent water penetration caused by mortar shrinkage.





CAST STONE JOINTED STOOLED CILL DETAIL



Generally, when laying cast stone products mortar strength should not exceed designation (iii), 1:1:5 / 6 cement:lime:sand proportional mix. The use of lime is desirable to accommodate movement. Mortar no stronger than strength class M4 can be specified however movement may be restricted if lime is not a constituent element. Cracking can occur if mortar of a higher strength than recommended is used or if movement of the cill is restricted by mortar pointing.

Refer to Technical Information Sheet 5 for recommended associated materials, Technical Information Sheet 3 for mortar specification, and the Forticrete Sitework Guide for further information.

Note: Whilst PD6697 does not include bed joint reinforcement above and below windows/doors in brickwork (but it does in blockwork), it is now considered good practice by the BDA (Brick Development Association) and brick manufacturers to include it in brickwork. It is for this reason that we include it in our Installation Guides'.

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