

SPECIFICATION FOR UNDERPINNING WORKS TO BE USED IN LIEU OF NBS D50

To be read with Preliminaries/General conditions.

- 110 The scope of the work is detailed on drawing 6036/305&306 and all drawings referred to.
- 115 All materials and workmanship are to be in strict accordance with the Structural Engineer's Specification.
- 120 The Contractor must submit for the Engineer's approval, a method statement and underpinning sequence plan at least 14 days prior to the commencement of any excavation.
- 125 Prior to commencing any excavation works the Contractor is advised to carry out a survey to locate the position of all buried services.
- 130 Openings at basement level may need to be suitably propped to restrict any cracking during the underpinning works.
- 135 Excavate accurately with vertical faces and to depths shown on drawings. The underpin blocks are to be excavated in lengths not exceeding 1.0 metre at a time and leaving not less than either:
- i) 2.0 metres of undisturbed footing on either of the open excavation or
 - ii) At least one completed section of dry-packed underpinning on either side of the open excavation.
- At no time should more than 25% of the length of any wall be left unsupported.
- 140 Test existing brick-lime footings for soundness by tapping with a hammer over the whole width. Break out and remove any loose or unsound material to a uniform level soffit.
- 145 Do not excavate beyond the required width of footing at the rear. Do not excavate more working space than necessary at the front.
- 150 Keep the excavations clean and dry. Remove all soil and loose concrete, etc from adjacent completed pins to form a good key.
- 155 Obtain approval of the Engineer or Building Control Inspector before concreting each section.
- 160 Fix plain vertical form-work to the inner face of the underpinning as necessary with joints sealed to prevent loss of grout
- 165 Concrete to be GEN3 as Specification Clause E10/100.
- 170 Place concrete to full height of excavation and compact fully with a vibrator. Leave nominal 75mm below existing footing / underpinning for dry-pack.

- 175 Except where indicated on the drawings, not less than 24 hours after completion of concrete pour, dry-pack gap between underpinning concrete and soffit of footing / existing / stage I underpinning. Dry-pack to be 1:3 (cement: coarse sand) mortar gauged with only just sufficient water to moisten thoroughly.
- 180 Use a wooden ram to hammer mortar hard, in strips not exceeding 75mm deep into gap working symmetrically from the rear toward the face so as to completely fill all space between underpinning concrete and existing footing / underpinning with mortar.
- 185 Leave dry-pack not less than 72 hours before starting adjacent excavation.
- 190 Joggle joints to be incorporated between adjacent underpins.

