

HORWITZ ASSOCIATES

Underpinning Method of Statement

Rev. B

10th Feb 2023

1. SCOPE OF WORKS

This method of statement applies to the scope of underpinning works.

All works have to be performed in accordance with Horwitz Associates drawing 8149-F02 and Client nominated Specialist Underpinning Contractors drawings, specifications, design, and details.

This drawing 8149-F02 shows the design for the underpinning works.

The site lies within private land, within boundaries to the public highways and Jack Straw' Castle, North End Way, and Heath Brow.

2. GENERAL

- 2.1 The site is accessed from Heath Brow, through the existing parking entrance.
- 2.2 Site working hours are tbc. Cleaning and maintenance may be carried out outside normal working hours.
- 2.3 All plant and equipment will have current test certificates in accordance with the relevant statutory regulations.
- 2.4 Work permits and all approvals to be in place prior to commencement.
- 2.6 All training certificates, lifting device certificates, and excavator certificates are placed in the cab of the machine and are available upon request to the foreman.
- 2.7 Schedule condition is to be prepared for the affected area of the works and building prior to and after completion of the works.

3.0 TEMPORARY WORKS DESIGN

- 3.1 The Contractor is to be responsible for the stability for the existing structure during the underpinning operation and is to provide all necessary shores and props he considers necessary to ensure and safeguard that stability.
- 3.2 All the temporary propping system to enable the underpinning works is to be to the Contractor's design allowing for the strength of the existing masonry and a lateral force of 60kN/m. The preloading of the props and any jacking required must also make allowance for these factors.

Prior any works commencing on site the contractor must produce a detailed design of all temporary works, which must be presented to Horwitz Associates for their comments.

- 3.3 The contractor must carry out the temporary works without exceeding the allowable safe ground bearing capacity of the soil (150kN/m²) and without resulting in damage to the structure over from differential settlement.
- 3.4 The contractor is to maintain a level of £5 Million pounds professional indemnity Insurance in this respect and enter into any collateral warranties as required by Albany Homes Ltd.

The Contractor has to follow the work sequence as shows in Horwitz Associates drawing 8149-F02. Any variations from this drawing are to be reported to Horwitz Associates and to be agreed in writing prior to commencement of work on site.

4.0 CONCRETE MIXES

Concrete mixes need to be approved by Horwitz Associates before any work commences on site. The proportions of aggregate and cement shall be measured by weigh batching.

Ready-mix concrete may be used in accordance with BS 1926 with the Engineer's prior approval.

The mix proportions and minimum strength requirements shall comply with BS 8110 and BS 5328.

5.0 CONSTRUCTION METHOD

5.1 Underpinning work should be undertaken in the following sequence: -

1. Excavated underpinning section to be maximum 1.0m long or to suit condition and nature of existing brickwork, i.e., make allowance for point loads on foundations due to piers, etc and provide all necessary props, shores, or needles to deal with any problems.

2. It is recommended that no greater than 3 of pins sections is excavated and left open at any one time of the existing foundations fully supported to act as temporary foundations and never excavate adjacent sections until 48 hours after dry packing has been placed.

3. Once the excavation is complete thoroughly clean off the underside of the existing footing to remove all soil and loose material and cast concrete underpinning section as soon as possible to avoid deterioration of the bearing strata and undue stress on unsupported superstructure. After 24 hours replace dry pack between new section and existing foundation *and allow a further 24 hours before reintroducing load back onto this section of work.*

5.2 The underpinning work shall be carried out in accordance with Horwitz Associates drawing and approved Contractor drawings. Any variations from these details are to be reported to the Engineer prior to commencement of work on site. The site soils conditions are also to be considered by the contractor in relation to the above.

5.3 Details of the existing foundations are assumed. Should any variation be found from the detail shown on Horwitz Associates drawing, then Horwitz must be contacted immediately before work proceeds further. Also, if damage is found to existing footing or brickwork foundations, Horwitz is to be informed before work proceeds further.

5.4 The bearing strata for the underpinning stools have a safe bearing capacity of 150kN/m².
Should any soft pockets be encountered they are to be removed and backfilled with C20 mix concrete. Should the bearing strata not be suitable then the Engineers shall be informed before work proceeds on site. All underpinning stools are to be inspected by the appointed building control and concreted immediately after formation has been approved. If it is not possible to concrete immediately, then a 50mm concrete blinding should be placed to preserve the bearing strata in a suitable condition.

5.5 The dry pack is to be sand/cement dry mix, 1:3 may be used providing it does not impair compaction or placing. The mix shall be such that it can be properly compacted by ramming

horizontally with a club hammer and caulking tool. Dry pack is to be placed so as to ensure complete contact between new and existing work.

- 5.6 Unless noted otherwise, the condition of the existing concrete is assumed to be good enough for this concrete to act as a load transfer material. If it is found during excavation that the concrete is of poor quality then Horwitz shall be informed prior to further work being carried out.

6.0 SITE SAFETY SHALL INCLUDE AND NOT BEING LIMITED TO THE FOLLOWING

- 6.1 Safety Helmets will be worn at all times.
- 6.2 Waterproof, oil resistant gloves (model 3611) and safety spectacles/goggles will be provided and worn by the operatives as necessary.
- 6.3 Ear defenders are to be worn within 10 metres of any operational piling rig, concrete pump or mixer drum.
- 6.4 Safety footwear will be worn on site at all times that provides protection to toes and soles. Safety wellingtons will be provided.
- 6.5 High visibility garments will be worn at all times.
- 6.6 Safety harness and restraints will be used for all work at height where the operative's feet are 1.5 metres or more above ground. Exceptionally this is not required for working from a totally fenced platform, or short-term work from a secured, inclined ladder.
- 6.7 All heavy plant movement will be directed by an appointed and suitably trained banksman.
- 6.8 All reversing HGV's and Concrete Wagons will be directed by a banksman.
- 6.9 No substance will be used without CoSHH assessment, and the user(s) being made aware of the requirements by the piling foreman. See attached CoSHH assessments for information.
- 6.10 Machine drivers will accept only Emergency Stop Signals from persons other than the banksman for the particular operation.
- 6.11 Spill kits are situated in the container in the event of any diesel or hydraulic oil spills.
- 6.12 At the end of each day, the machine is to be either packed away ready for transport (as per the operating manual) in the event of high winds during non-operational times (night and weekends).
- 6.13 In the event of any accident or incident, the main contractor will be contacted on site, and the relevant authorities will be contacted, in addition Health & Safety personnel as set out by Specialist Underpinning Contractor.
- 6.14 Where it is known that existing surface water and foul drainage is indicated on the plans, care should be taken by the Main Contractor to ensure that drainage is not damaged when excavations are carried out since it is not always certain of their locality. It should also be noted that care should be taken to avoid damaging other services, again not necessarily noted on the drawings, i.e. telephone, gas, electricity and water. Should any services be damaged by excavation it is the Contractors responsibility to reinstate such service to its original and acceptable condition. When drainage is indicated on the drawings, it shall be the Contractors decision as to whether or not it is necessary to remove this drainage to carry out the work or

leave it in position and work around it. If the Contractor decides to remove the drainage, then it should be replaced in a satisfactory condition in accordance with the Building Regulations and to the satisfaction of the Local Authority. If the Contractor decides to work around the drainage, then suitable care must be taken and adequate supports provided in the drainage should it be required to span openings, etc. On completion of the works the Main Contractor shall test the drainage to prove that it is still to a satisfactory standard.

Note: Notwithstanding above the contractor is to adhere to all H&S regulations and contract constructions particulars as provided by the principal contractor and contractor administrator.