

**Propping & Shoring Schedule &
Sequence of Works**

These notes to be read in conjunction with all relevant architectural, engineering and specialists drawings and specifications.

For dimensions refer to Architectural drawings. Contractor to check all dimensions shown on all project drawings and to cross reference them to site dimensions. Any discrepancies to be reported to the Supervising Officer for written instructions before proceeding.

To be read in conjunction with all designers, suppliers and contractors risk assessments.

All work to Party Walls to be in accordance with Party Wall Agreement.

Products used in the construction shall be installed strictly in accordance with manufacturers instructions and to all relevant British Standards and Codes of Practice and in accordance with The Approved Document (Building Regulation) and NHBC Standards.

All metal fixings galvanised and all perforated plates fully nailed or screwed in accordance with manufacturers instructions.

NFM Engineering Ltd
77 Wivenhoe Road
Alresford
COLCHESTER
Essex
CO7 8AG

Tel/fax 01206 823262

Project
47 Arlington Road
LONDON

PROJECT No. 3166
Date March 2011

Propping & Shoring Schedule & Sequence of Works

The proposed temporary propping scheme outlined below is to provide guidance and assistance to the contractor to significantly minimise the risk of adjacent ground movement and hence retain adjacent building stability.

- 1.** Underpin adjacent building in pads no greater than 1000mm wide - no less than 1 in 4 pads to be prepared at any one time. Refer 3166/A3/TW3 and TW4. Backfill to side adjacent to pads once underpinning concrete has hardened with Type 1 granular fill and compact in layers 150mm to 200mm thick. (to prevent lateral movement of base of foundation under lateral earth pressures)
- 2.** Excavate 450 wide trenches as RC sub-structure ground struts, refer to note 5 also, across property and excavate pit in which to install sheet piling, **note** steel sheet piling will be placed on boundary with adjacent property and thus requires the approval of the neighbours under the Party Wall Act. Refer 3166/A3/TW3 and TW4.

- 3.** Concrete in base of steel sheet piling up to formation level and concrete void behind piling profile in infill between steel sheets and vertical earth face, use high slump concrete to ensure compaction behind sheets. Refer 3166/A3/TW4.

- 4.** Provide and form reinforced concrete sub-structure strut on ground across width of property tight between sheet piling and underpinning. Refer 3166/A3/TW3 and TW4.

- 5.** Install RC sub-structure ground struts (note install every other RC sub-structure ground strut and allow to harden for 3 days before installing every other remaining sub-structure RC ground strut) at locations shown and install horizontal waling above retained level (to facilitate RC retaining wall construction) ready to excavate succession trench sheets. Refer 3166/A3/TW3 and TW4.

- 6.** Install diagonal propping between horizontal UC waling and horizontal RC sub-structure ground struts by fixing with steel plate and bolts grade 8.8 or welding.

- 7.** Install remaining trench sheets behind waling by excavating between principle RC sub-structure ground struts in 400mm widths (ie width of trench sheet) to be restrained by concrete pad at sub-structure level allow to harden before excavating adjacent pad to install next trench sheet between principle propping/RC sub-structure ground struts. Refer 3166/A3/TW4.

- 8.** Prepare vertical propping system by installing needles transverse beams props and diagonal bracing to raer opening of main range

- 9.** Remove ground to formation level. Install all new permanent structural foundations and supporting steelwork in accordance with engineers details.

These notes to be read in conjunction with all relevant architectural, engineering and specialists drawings and specifications.

For dimensions refer to Architectural drawings. Contractor to check all dimensions shown on all project drawings and to cross reference them to site dimensions. Any discrepancies to be reported to the Supervising Officer for written instructions before proceeding.

To be read in conjunction with all designers, suppliers and contractors risk assessments.

All work to Party Walls to be in accordance with Party Wall Agreement.

Products used in the construction shall be installed strictly in accordance with manufacturers instructions and to all relevant British Standards and Codes of Practice and in accordance with The Approved Document (Building Regulation) and NHBC Standards.

All metal fixings galvanised and all perforated plates fully nailed or screwed in accordance with manufacturers instructions.

NFM Engineering Ltd
77 Wivenhoe Road
Alresford
COLCHESTER
Essex
CO7 8AG

Tel/fax 01206 823262

Project
47 Arlington Road
LONDON

DRAWING No. 3166/A3/TW1
Date March 2011

Underpinning Sequence

1)

Excavate pin (every 4th Bay maximum 1000mm wide unless noted on the drawings) do not excavate more than one corner of the building at any one time down to formation level.

ENSURE SUITABLE PROPPING AND SHORING TO TRENCHES AND PUMPING IF NECESSARY FOR EXTRACTION OF GROUND WATER - CONTRACTOR IS TO PROVIDE PUMPS ON STANDBY AT ALL TIMES.

Provide sufficient and safe working space all trenches to be temporarily propped and shored at all times.

If any unforeseen ground conditions are revealed then contractor is to cease work and notify the engineer/supervising officer immediately for written instructions prior to recommencing.

2)

Install reinforcement bars 1000 long 16mm dia. 500mm into adjacent soil both sides of trench as necessary (unless end underpinning bay) taking care to protect exposed sharp ends of bars as installation proceeds to prevent physical injury. Lap bars within bay with 1000mm long 16mm dia bars. Once all bars in place and tied together remove protective covers to bars.

3)

Shutter volume to be cast as new underpinning leaving 75mm gap between u/side of existing foundation and top of new underpinning concrete. Ensure temporary shuttering is suitably propped and shored against the weight of wet concrete.

4)

Place underpinning concrete RC35 grade to BS8110 and use poker vibrator for compaction-leave for minimum 24 hours before commencing operation 5).

5)

Pin up tight using a 1:1 sand/20mm aggregate:cement moist pack between new underpinning and existing foundations. Backfill working space:-

a) If inside building use lean concrete or Dtp Type11 granular fill compacted in max 150mm layers to DTp Specification for Highway Works to subbase level of new slab.

b) If outside building backfill in max 150mm layers of suitable as dug material or as a) above if below pavements or vehicular access. Leave for 24 hours before excavating next underpinning bay.

SEE DRAWINGS FOR SEQUENCE. Begin with operation 1) etc. Establish on site the extent of underpinning and prepare a sequence of underpinning to suit

NOTE

Establish location of any existing services in the vicinity of the underpinning works. Care should be taken when initial excavations take place to avoid damaging any existing services. Account should be taken of any drainage existing or new that is located within the underpinning zone and flexible joints/rocker pipes to be employed each side of underpinning foundations.

These notes to be read in conjunction with all relevant architectural, engineering and specialists drawings and specifications.

For dimensions refer to Architectural drawings. Contractor to check all dimensions shown on all project drawings and to cross reference them to site dimensions. Any discrepancies to be reported to the Supervising Officer for written instructions before proceeding.

To be read in conjunction with all designers, suppliers and contractors risk assessments.

All work to Party Walls to be in accordance with Party Wall Agreement.

Products used in the construction shall be installed strictly in accordance with manufacturers instructions and to all relevant British Standards and Codes of Practice and in accordance with The Approved Document (Building Regulation) and NHBC Standards.

All metal fixings galvanised and all perforated plates fully nailed or screwed in accordance with manufacturers instructions.

NFM Engineering Ltd
77 Wivenhoe Road
Alresford
COLCHESTER
Essex
CO7 8AG

Tel/fax 01206 823262

Project
47 Arlington Road
LONDON

Drawing No. 3166A3/TW2
Date March 2011