8 Templewood Avenue
London, NW3 7XA

Basement Engineering Method Statement

Construction Method Statement

Client: Mr E Willems

Document details:

Project number:	2099
Issue date:	03rd October 2011
Written by:	Brendan Hogan
Reviewed by:	RH Horwitz Associates
Revisions:	

Contents:

Appendices:

1.00 Introduction

1.01 This Method Statement has been prepared for Mr E Willems in connection with the construction of a proposed Basement at Flat 1, 8 Templewood Avenue, London NWS 7XA.

1.02 This Method Statement is based upon drawings submitted for Planning approval to The London Borough of Camden (LBC) Council produced by Cranbrook Basements for the Client, references :

2099/100/101/102/103 and 2099/200/201/202/251.

1.03 The Structural and Technical Details relied upon have been produced for the Client by RH Horwitz Associates.

1.04 A copy of the Structural Engineering Calculations will be issued in due course.

2.00 Project Overview

2.01 The subject Property is located within a quiet London street with access for vehicular traffic.

2.02 Parking bay restrictions exist outside the property by way of designated parking bays, accessible by 'Permit Badge' holders only. An appropriate application for Suspension will be made to LBC Council.

2.03 The Property has been constructed with Part Lower Ground, Ground, First and Loft Space floor levels and is of fair-faced brick construction with tiled pitched roof construction over.

2.04 An application will be required to LBC Council for Storage of materials and appropriate Enclosure Licenses to execute the works.

2.05 Party Wall Notice's will be served upon relevant parties.

2.07 There are no obvious structural defects visible upon initial inspection. The Property is in a good general condition as would be expected given its age and construction.

3.00 Site Investigation

3.01 A detailed site investigation has been carried out by Chelmer Site Investigations.

3.02 Tests indicate made ground consisting of moist, very silty clay with concrete and brick debris to a depth of 1.4m.

3.03 From 1.4m to 3.8m ground conditions are generally Firm to Stiff mid brown clay (specific details can be found in the report).

3.04 Based on the soil report findings, water is expected to be encountered based on the report. A suitable solution has been allowed for this in section 7.0.

4.00 Site Preparation & Enabling Works

4.01 The property is to be occupied during the construction period. Applications will be made to LBC Council for permission to site a builders hoarding to the front of the property.

4.02 The hoarding is to have an overall height of 2.4m and to be painted white.

4.03 Electrically operated lights are to be fitted to the perimeter of the hoarding together with chevron highway reflectors so that it is clearly visible during the hours of darkness.

4.04 A metal skip container is to be located within the hoarding structure for temporary storage of waste material pending its removal and clearance from site.

4.05 Temporary water supply and electrical services are to be provided to the hoarding zone and will be retained in a safe condition for the duration of the contract period.

4.06 Form temporary access via front garden for the location of electrical conveyor system.

4.07 Install electrically operated 450mm wide conveyor belt to provide mechanised removal of spoil from proposed basement zone. Initially the conveyor is to be located at floor level and inclined not exceeding 40° to the appropriate discharge height located directly over a metal waste container / skip.

4.08 Provide proprietary 110 volt power supplier complete with associated cut out fuse and the like to the conveyor belt.

4.09 Provide flexible dust sheet protection to the discharge point on the proposed conveyor.

4.10 As the work extends to the deeper sections of the basement provide elongated conveyor sections suitably restrained to provide mechanised spoil removal from the deepening excavation.

5.00 Demolition and Strip Out

5.01 Provide twin layer dust resistant screening at first floor level to reduce the impact of site works on the unaffected areas of the first floor.

5.02 Isolate existing gas, electrical and water mains which may be running through ground floor structure.

6.00 Underpinning

6.01 Excavate for underpin bases. Individual bases are not to exceed 1.2m in width and no two adjacent sections are to be excavated simultaneously. Excavation sequence to pin's = 1,4,2,5,3.

6.02 At the prescribed level form the toe section to the proposed underpin installing fabric and general reinforcement as specified on Structural Engineers details. Minimum concrete cover to reinforcement to be 50mm.

6.03 To the exposed face of the excavation provide temporary propping which is to be propped back directly to the face of the retained unexcavated central soil mound.

6.04 In circumstances where the excavated face of the vertical pin section is deemed unstable provide temporary propping back to central soil mound.

6.05 Commence dry packing to top of vertical pin sections a minimum of 48 hours after concreting. Dry packing shall not exceed 75mm thick and shall only be placed after the underside of the existing foundation has been cleaned and regularised.

6.06 The central spoil mound is to be retained during excavation to provide suitable resistance against lateral movement in underpin wall sections.

6.07 Following completion of all underpin bays excavate remainder of central soil mound whilst introducing temporary lateral propping to concrete wall sections.

a) underpin bases and vertical sections are to be connected via steel reinforcement starter bars which are to be chemically anchored using proprietary fixing resin to the adjacent concrete underpin at 300mm centres.

6.08 Lay fabric mesh reinforcement to form basement slab all strictly in accordance with Engineers Designs with a minimum of 50mm concrete cover to steel work. Pour concrete slab forming basement concrete floor.

6.09 Introduce structural steel framework at ground floor level complete with column sections located over thickened slab areas.

7.00 Dewatering

7.01 In view of natural topography of the site and enquiries made of the Local Authority it is likely that water will be encountered during the excavation phase.

7.02 The project has been discussed with the Building Control Department who have confirmed that standing ground water is likely to be encountered.

7.03 In the event that ground water is encountered during the course of excavation a localised excavated sump of size 1m x 1m x 1m is to be formed at a level lower than the progressive base of excavation being carried out.

7.04 A timber perforated plywood shell is to be constructed to support the perimeter of the temporary working sump and placed within the excavated zone.

7.05 Any ground water which is present will naturally pull within the sump area and at this point a 50mm diameter semi trash water pump unit is to be introduced with a 50mm diameter discharge hose.

7.06 Once located adjacent to the excavation level sump the solids pump hose is to be routed to the nearest adjacent manhole for discharge.

8.00 Conclusion

8.01 A visual inspection of the original property reveals that it is generally in good order.

8.02 Given the significant depths to which this basement is being constructed it is essential that intermediate lateral propping is maintained until such time as the basement floor slab is constructed to ensure that movement in the underpinned sections does not occur.