Construction Method Statement

The proposed residential development of
3 Belsize Crescent
London
NW3 5QY

Date: October 2016

Kias Services Ltd
2 Longfield Court, Bedford Road, Letchworth, SG6 4EG
Phone: 0044 (0)1462 483 201, **Mobile:** 0044 (0)7894 541 706.
Email: info@kias.services, **Web**: www.kias.services

Registered in England & Wales
Company Registration No. 09890996

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CMS Prepared by	REVIEW BY:		Authorisation for Issue
Sign: 	Sign:	Sign:	Sign:
Print: Kias Services Ltd Date: 17.10.16	Print: Date:	Print: Date:	Print Date:

1 INTRODUCTION

Kias Services Ltd have been commissioned by XUL Architecture to compile a Construction Method Statement for 3 Belsize Crescent, London, NW3 5QY

The purpose of the Construction Method Statement (CMS) is to outline their approach to managing the construction works. This document includes specific comments on the site establishment, logistics and the process of managing the overall environment surrounding the property. It will also ensure that the construction works cause the minimum disruption to the adjacent residents with a safe working and living environment maintained.

The agreed contents of the Construction Method Statement will form part of the development plan and will be agreed by the Camden Council. The plan will constantly be reviewed and any changes or improvements will be added and agreed with the Council and the Plan revised and re-issued.

These proposals are to enable third parties to understand the nature of the works and the various construction activities associated with the development. Formal approvals and activity methodology approaches will be addressed in detailed submissions to the design team and the client. Liaison with the neighbors and interested parties will continue throughout the project, as information is updated and as the project develops.

2 DESCRIPTION OF PROJECT

The existing building is a 3 storey commercial building with a basement that extends the entire footprint of the structure. The proposal is to change the use of the building to residential and to lower the existing basement slab.

3 NON TECHNICAL SUMMARY *(Concept Consultancy)*

The proposals are to lower the existing basement floor under an existing end terrace house at No. 3 Belsize Crescent by approx. 1m.

A thorough desk study of the site has been carried out which indicates that the site is underlain by the London Clay formation.

A Site Investigation confirms that the site is underlain my some made ground with London Clay below. The water table is below the level of the proposed basement.

The site is not located in within the flood zone for rivers and seas and reservoirs. The site is located within the area for low risk of surface water flooding.

The existing structure is constructed of load bearing masonry walls with timber joisted floors supported on shallow strip foundations. The site investigation has confirmed that the foundations are stepped brick within the London Clay.

The works also include some alterations to the ground floor to remove load bearing walls at ground and first floor.

The existing perimeter walls shall be underpinned and a new basement floor constructed approx. 1m below its current level.

The temporary works will be required in order to limit any movements in the neighboring buildings.

This report demonstrates how all the issues with lowering the basement level have been addressed and where any constraints has impacted on the proposed works to the basement.

4 OUTLINE METHOD OF WORKS

Generally

The proposed site set up plan relating to this outline method of works is detailed upon the Site Plan drawing included in *Appendix A* of this CMS.

Site Establishment

Site entrance will be off Belsize Crescent at the front of the property as illustrated on the Site Set Up Plan in *Appendix A*. It will be kept in a clean and tidy condition throughout the works. Health & Safety Signs will be positioned so it is clearly visible to warn members of the public of any potential hazards surrounding the site.

The site accommodation will be located inside the site boundary as indicated on the Site Set Up Plan in *Appendix A*. The site will be maintained in a safe and tidy manner with the implementation of good housekeeping procedures regularly checked by our Health and Safety Advisor on fortnightly site inspections and be set up with temporary power, water and drainage throughout the duration of the works.

Materials and tools will be stored in two site containers at the rear of the site as indicated on the Site Set Up Plan in *Appendix A*. All containers will be locked and secured at the end of each working day and the keys returned to the site management for safe keeping.

	Name	**Role/Trade**
Personnel Involved:	*TBC by Main Contractor when appointed*	

Soil Conditions

To support this Construction Method Statement a site specific ground investigation has been carried out by Land Science. These confirmed the underlying ground comprises of:

- 0.65m - 0.75m of made ground
- 0.75m - 2m plus London Clay

Underpinning Drawing

See the structural drawings in *Appendix C* for an underpinning sequence to the property and a detailed through section.

Underpinning Works

Tools and equipment to be used:
- Hand Tools
- Concrete pump

Materials:
- Concrete
- Rubble Bags
- Dry pack mortar
- Reinforcement Steel

Sequence of Works:
- Underpinning to be carried out in the sequence shown by drawing in *Appendix C*, in bays 1000mm width max.
- Bays with the same number to be excavated simultaneously with concreting carried out immediately after exposure to avoid deterioration.
- Excavate out by hand all bays No. 1 to the depth & width specified. Ensure that ground is level, clean and rammed if necessary. Should any ground water be encountered this may be pumped out.

- Dowel bars to be inserted into surrounding ground on both sides as required to provide a key for the adjoining base section.
- Pour concrete to 75mm of underside of existing wall.
- The day after concreting fill the 75mm gap with dry pack mortar and backfill excavation.
- Excavation of bays No. 2 of underpinning shall not be commenced until at least 48 hours after previous bay has been dry packed.
- Continue remaining bays as per above until all underpinning is complete.
- Once complete excavation to lower existing basement level.
- Installation of new concrete basement floor.

Potential Impact on nearby assets and structures

The proposed lowering of the existing basement under the existing property will be formed using an underpinning method, constructed in sections each no wider than 1000mm, with no adjacent underpins constructed within a 48 hour period. This method of construction reduces the amount of potential ground movement and so minimizes the effects of settlement of the adjacent structures.

Expected settlement is zero provided that an experienced contractor is appointed who undertakes the works using good practice in accordance with the structural design and follows the agreed method statements

5 CONSTRUCTION SITE MANAGEMENT

The following sections outline the key elements for consideration. This document demonstrates our commitment to manage, control and where possible mitigate our impact on the local community and infrastructure.

Many of the issue identified will be further developed and dealt with in our more detailed site based Method Statements kept in Section 8 of the onsite H & S Plan. Method Statements & Risk Assessments will be prepared and agreed for all major site operations in advance of the relevant works commencing.

IDENTIFIED H&S RISK	SUGGESTED CONTROL MEASURE
Hours of Work	The hours of construction, must be restricted as follows: • Between 8am and 6pm, Mondays to Fridays inclusive • Between 8am and 1pm, Saturdays • No work on Sundays or Public Holidays
Noise and Vibration	Work in accordance with the recommendations of BS 52281, Control of Noise at Work Regulations 2005 and the Noise Service The contractor will consult with adjoining neighbors and agree, if possible, certain times of the day when noisy works is minimized.
Dust	All dust levels are to be kept to a minimum and where possible controlled at source by the use of dust suppression systems. Site operatives are to wear suitable PPE where the levels of dust cannot be controlled ensuring exposure in well within legal limits.
Lighting	The construction lighting will be limited and task specific to the specification in *Appendix B*. All temporary lighting will be directed towards site and only put on when necessary, particularly during winter.

Site Security

All Visitors will be requested to identify themselves, and they will not be allowed on site until a New Build member of staff has greeted them. They will be required to wear a hard hat, hi-vis and boots at a minimum before entering site.
The Site Manager is responsible for ensuring the site is secure at the end of each working day, including the removal or locking down of any access ladders/stairs.

Training for people on site

Prior to any person commencing work on site they will receive a Site Induction (Section 2 of the H & S Site File). The Site Manager is responsible for training all employees under their control plus for sub-contract management/supervision who are thereafter required to induct their workforce.

Tool Box Talks will be given to instruct and train employees and sub-contractors on specific site tasks weekly. These Tool Box Talks will be recorded and filed in Section 18 of the H & S Site File.

Welfare Facilities

Welfare arrangements for this project are as follows:
Canteen/Mess Room
Toilets with basin and hot water

The position of the above is as indicated in the Site Set Up Plan in *Appendix A*
The welfare arrangements are explained to all personnel at Induction training.
First Aid
A suitably equipped First Aid Box, with eye washing solutions, will be available on site at all times together with a trained First Aid provider. First aid facilities will be assessed and provided as per the Health and Safety (First Aid) Regulations 1981 and a suitable First Aider to remain available throughout the contract.

If for any reason the appointed First Aider is not available on site, the Site Manager will make enquiries with the other contractors on site to ascertain if they have any qualified First Aiders.

Fire and Emergency Procedures

Site notice board displayed at appropriate locations will be provided with an Emergency Contacts notice which will provide details of:

- The person responsible for emergency contingencies.
- The procedure for calling Emergency Services.
- The telephone number of the local Hospital, Doctor, Police Station, Gas Board and Electricity Board.
- The name and location of First Aiders.

The Site Manager responsible for Emergency Arrangements and Muster Point arrangements will bring this to the attention of all persons at Induction Training. The company has developed a Site Fire Plan to identify the proposed Fire Escape Routes and how to raise the alarm. Fire Extinguishers will also be provided on site.

Accidents Reporting

All accidents will be investigated and action taken to prevent a recurrence. This includes accidents or incidents involving injury, ill-health and property damage. The depth of the investigation and nature of the report will depend upon the severity and complexity of the accident.

Accident investigation and reporting will be carried out by Site Management: however the Company Safety Advisers will assist if required and will always investigate and report of serious accidents.

Accident records will be kept in Section 13 of the H & S Site File.

Sub-contractors are responsible for investigating and reporting accidents under their control. They will submit to New Build a copy of all RIDDOR Reportable Accidents (F2508 and a full report if requested)

COSSH Assessments

Where harmful substances cannot be substituted with less harmful substances, each sub-contractor will be required to maintain and issue a register containing all harmful substances that they intend to use on this project.

For each hazardous substance or process identified, the sub-contractor responsible shall produce a task specific COSHH Assessment and issue a Material Data Sheet for the substance. These will be maintained within the project office.

When using hazardous substances the sub-contractor must provide evidence that the findings of each COSHH Assessment has been communicated to their operatives and those affected by the use. These records will be maintained within the project office.

For the usual activities involved in the construction projects the company has carried COSHH Assessments which are included in Section 14 of the H & S Site File.

Hazardous Substances: (Attach COSSH Assessments and MSDS)	ie: Lubricants/Solvents/ Flammable Materials/ Refrigerants/ Welding Gases etc						
	 Very Toxic	 Harmful or Irritant	 Corrosive	 Dangerous for the environment	 Oxidising	 Highly Flammable	 Explosive
Applicable:	No	Yes	No	No	No	Yes	No

Traffic Management

There will typically be about 5 construction workers on site, although at times, this will increase to accommodate the work needed on site. To minimise the potential impact of construction workers travelling to the area, a Travel Plan will be implemented to promote and encourage the use of sustainable modes of travel to and from the site and minimise the use of private cars.
Construction workers will be encouraged to share transportation to the site in a van, those that do need to drive will be instructed to find the nearest parking available paying close attention to any parking signs, road markings and/or restrictions.

Delivery Lorries will be directed to access the site from 3 Belsize Crescent,

- They will be unloaded/loaded in the suspended parking bay at the front of the property.
- All deliveries will be timed as to avoid any queuing vehicles as much as possible
- There will be signage placed at either end of the works
- The signage will notify traffic/pedestrians of operations.

Construction vehicle movements will not be permitted at weekends or during public holidays.

Neighborhood Liaison

The contractor will understand the sensitive nature of the site and recognize the importance of the neighborhood liaison role in ensuring the smooth running of site activities and their relation to the local residents and general public's welfare.

During the excavation and construction works he will ensure that all works are carried out safely and in such a manner that it will not inconvenience pedestrians or other road users and with a positive consideration to the needs of the local residents, site personnel and visitors as well as the general public. Footways and carriageways will be kept tidy and in a safe condition.

Hoardings, safety barriers, lights and other features will be maintained in a safe and tidy condition. The site is to be kept clean and in good order at all times, with surplus materials and rubbish controlled within the site and not allowed to spill over into the surroundings

6 SITE WASTE MANAGEMENT PLAN

A Site Waste Management Plan (SWMP) will be prepared that covers the requirements of the Site Waste Management Regulations 2008 and filed in Section 19 of the H & S Site File.

A brief description of what the SWMP includes is listed below:

Management

The Site Manager is responsible for ensuring that the SWMP is implemented and updated

Instruction and Training

The Site Manager will provide on-site briefing via induction of project environmental consideration, risks and actions, appropriate waste separation, handling, recycling, re-use and return methods to be used by all parties and at appropriate stages of the project where applicable.

Toolbox talks will be carried out regularly on environmental and waste issues and all sub-contractors will be expected to attend. This will ensure that everyone feels they are included and that their participation is meaningful.

Waste Minimization

ACTION	RESPONSIBILITY	TIMESCALE
Exploring possibility of reusing the existing and excavate materials on site	Site Manager	First 3 Months on site
Materials particularly timber procured from renewable source (FSC) approved	Site Manager	Ongoing
Where possible all rubbish is to be separated (e.g. Timber, Plasterboard, Brick, general rubbish etc) and a licensed waste carrier to remove from site	Site Manager	Ongoing

All of the above act to reduce the amount of waste and surplus materials, which traditionally would be skipped and sent to landfill. We are continually identifying waste minimization actions and these will be updated in the above table.

Segregation

A specific area shall be laid out and labeled to facilitate the separation of materials for potential recycling, salvage, reuse and return. Recycling and waste bins are to be kept clean and clearly marked in order to avoid contamination of materials. The labeling systems shall be the Waste Awareness Color Coding Scheme. If the skips are clearly identified the bulk of the workforce will deposit the correct materials into the correct skip. Skips for segregation of waste identified currently are:

- Wood
- Metal
- Brick/rubble
- Canteen waste

As works progress and other trades come to site other skips will be placed to enable certain waste to be removed from site. This is likely to include:

- Plasterboard
- Paper and cardboard (bagged up)

Waste Management

Waste materials fall into three categories for management, these are:

- Re-use
- Recycle
- Landfill

Re-used
If surplus materials can be used in the permanent works they are classified as materials, which have been re-used. If they are surplus to requirements and need to be removed from site and they can be removed and used in their present form, they can be removed from site for reuse.

Recycling
If the surplus material cannot be re-used in its present form but could be used in a different form, it is sent for recycling such as 50x50 timber to make chipboard.

Landfill
If either of the above cannot be satisfied then the only option left is to send the surplus materials to landfill. However, landfill is always a last resort.

Monitoring

The skips will need to be monitored to ensure that contamination of segregated skips does not occur. Therefore we will advise regularly on how the waste management system is working.

We will continually review the type of surplus materials being produced and where we can change the site set up to maximize on re-use or recycling and the use of landfill will be the last resort.

The plan will be communicated to the whole project team regularly. Updates will be communicated and discussed at Management and Health and Safety Committee meetings.

APPENDIX A
SITE SET UP PLAN

XUL ARCHITECTURE

Ground Floor Office
33 Belsize Lane
London NW3 5AS

Office: +44 (0) 207 431 9014
s.sandler@xularchitecture.co.uk
www.xularchitecture.co.uk

PLEASE NOTE:

1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE FABRICATION.
2. CONTRACTOR TO REFER TO ENGINEER'S DRAWINGS BEFORE PROCEEDING WITH WORKS.
3. ALL DRAWINGS AND DESIGNS ARE COVERED BY DESIGN RIGHT (INTELECTUAL PROPERTY), AND MAY NOT BE DISTRIBUTED, COPIED OR ISSUE WITHOUT WRITTEN PERMISSION OF XUL ARCHITECTURE.
4. ALL DESIGN CONCEPTS ARE THE SOLE PROPERTY OF XUL ARCHITECTURE AND NO ADAPTATIONS, REPRODUCTIONS OR COPIES MAY BE MADE WITHOUT WRITTEN PERMISSION OF XUL ARCHITECTURE.
5. THESE DRAWINGS ARE SUBJECT TO ANY VARIATION REQUIRED OR RECOMMENDATION BY ANY STATUTORY AUTHORITY, OR FOR THE BETTER CARRYING OUT OF THE WORKS.
6. SAMPLES TO BE PROVIDED BY CONTRACTOR FOR XUL ARCHITECTURE APPROVAL.
7. ALL FINISHES TO XUL ARCHITECTURE SATISFACTION.
8. ALL DRAWINGS TO BE APPROVED BY XUL ARCHITECTURE BEFORE CONSTRUCTION.

ADDITIONAL NOTES:

- Hording
- Site Entrance
- Site Office & Canteen
- WC
- Material Storage

REVISIONS

No	Date	Description Issue For	Issue By
00	24/11/15	Information	CC
00	30/03/16	Planning	YR

Client
PRIVATE CLIENT

Project
3 Belsize Crescent
London NW3 5QY

Title
EXISTING
Location & Site Plan

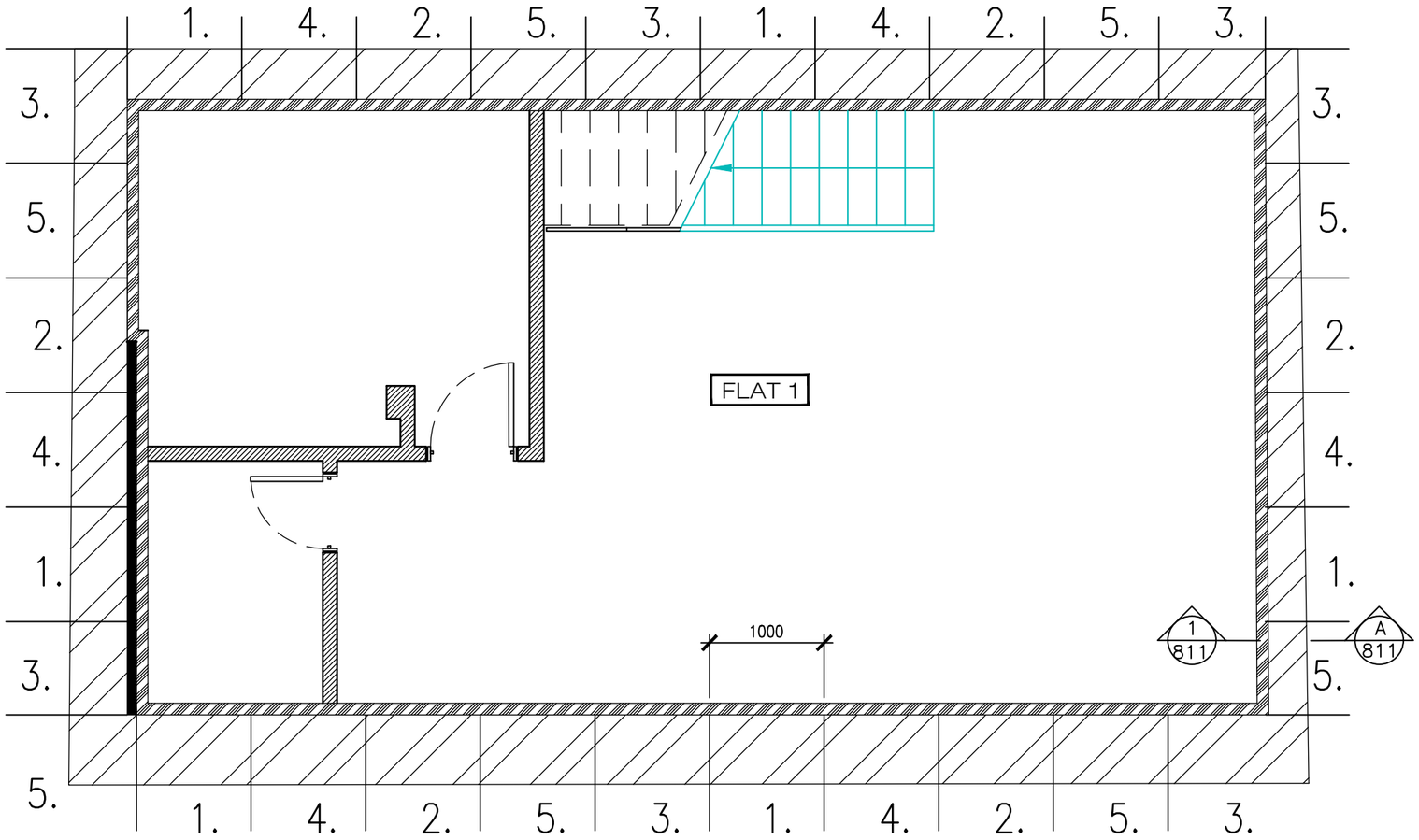
Scale	Dwg. No.	Rev.
1:1250@A3	LP-01	00
Date 30/03/16		
Drawn YR	Project Number 15_09	
Checked CC		

APPENDIX B
CONSTRUCTION LIGHTING

Construction Lighting Specification

			
Mini POD 500W	Festoon Light 30M	Fluorescent Light 2FT	Fluorescent Light 5FT
The Faithfull Site lights will suit both commercial and domestic use. Each lamp is constructed from a die-cast body and is equipped with a metal grille to prevent accidental contact with the hot lens and to protect it against damage. The leads to all lamps are fitted with plugs. These Faithfull Lights are free standing, portable and come in 240 Volt, 110 Volt and with 150 or 500 watt lamp versions. Mounted on a strong tubular steel frame for added stability. A 'tilt and lock' facility, this allows the head to be adjusted to a variety of positions to optimise the powerful light output . 500 Watt 240 Volt	Festoon lighting strings meet the requirements of BS7375: 1996 abd are designed for 110V operation.	Built for demanding construction tasks. Assembled using low temperature cable (-30 to +70 degrees) and Defender plugs and sockets. IP65 rated. Tough polycarbonate lens. Fully powder coated stand.	Built for demanding construction tasks. Assembled using low temperature cable (-30 to +70 degrees) and Defender plugs and sockets. IP65 rated. Tough polycarbonate lens. Fully powder coated stand.

APPENDIX C
PROPOSED UNDERPINNING SEQUENCE PLAN & DETAIL



METHOD STATEMENT FOR UNDERPINNING:

1. Underpinning to be carried out in the sequence shown, in bays 1000mm width max.
2. Bays with the same number to be excavated simultaneously with concreting carried out immediately after exposure to avoid deterioration.
3. Excavate out by hand all bays No. 1 to the depth & width specified. Ensure that ground is level, clean and rammed if necessary. Should any ground water be encountered this may be pumped out.
4. Dowel bars to be inserted into surrounding ground on both sides as required to provide a key for the adjoining base section.
5. Pour concrete to 75mm of underside of existing wall.
6. The day after concreting fill the 75mm gap with 3:1 dry pack mortar and backfill excavation.
7. Excavation of bays No. 2 of underpinning shall not be commenced until at least 48 hours after previous bay has been dry packed.
8. Continue remaining bays as per above until all underpinning is complete.
9. Any discrepancy between details indicated on the drawing and those conditions actually encountered on site should be highlighted by the main contractors site supervisory personnel.

PROPOSED BASEMENT UNDERPINNING SEQUENCE PLAN

CONCEPT CONSULTANCY
STRUCTURAL DESIGNERS LTD
3 Knoll House, 77 Carlton Hill ~ London, NW8 9XD ~ Office: 020 7625 6106
Mobile: U.K. 07955 919824; Ireland 086 8235150 ~ e-mail: info@conceptconsultancy.eu

Client: David Templer

Project: 3 Belsize Crescent
NW3 5QY

Title: Proposed Underpinning Sequence Plan

Revision	Date	Made by	Amendments
A	xx/xx/2016	GW.	xxxxx

Date	Drawn by	Checked	
10-10-2016	GW	CG	
Scales	Job No.	Drawing No.	Revision
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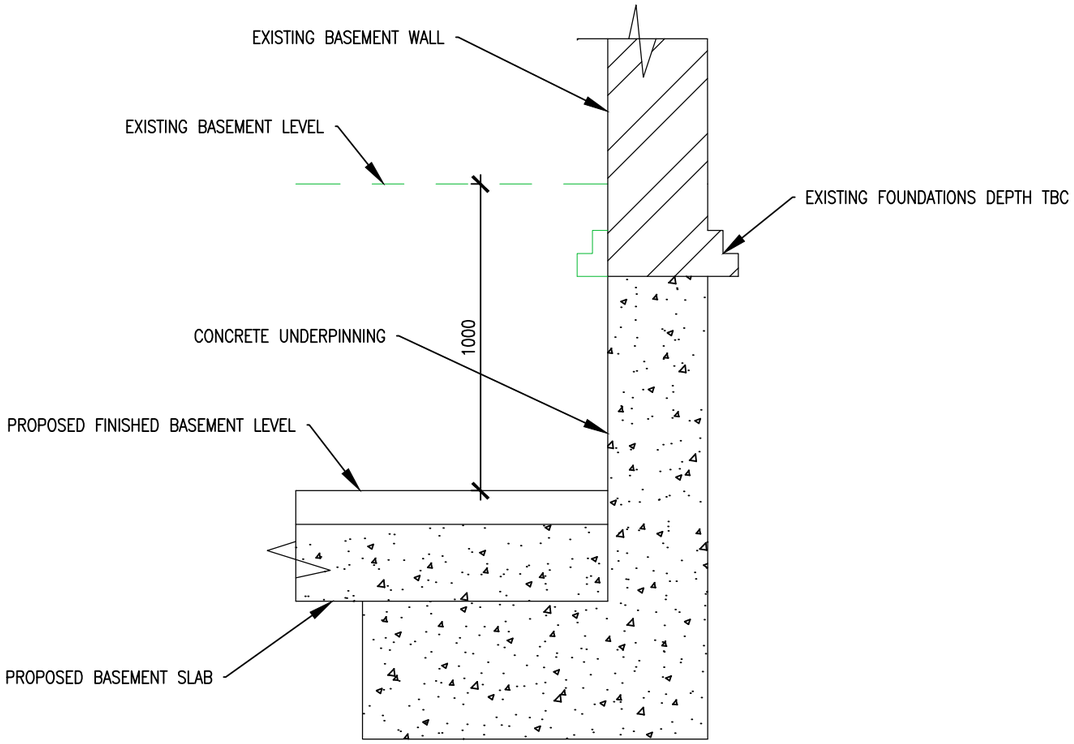

DETAIL 1

CONCEPT CONSULTANCY
STRUCTURAL DESIGNERS LTD
3 Knoll House, 77 Carlton Hill ~ London, NW8 9XD ~ Office: 020 7625 6106
Mobile: U.K. 07955 919824; Ireland 086 8235150 ~ e-mail: info@conceptconsultancy.eu

Client: David Templer

Project: 3 Belsize Crescent
NW3 5QY

Title: Proposed Underpinning
Details Sheet 1

Revision	Date	Made by	Amendments
A	xx/xx/2016	GW.	xxxxx

Date	Drawn by	Checked	
10-10-2016	GW	CG	
Scales	Job No.	Drawing No.	Revision
1:20@A3	2604	811	A