abstruct
consulting engineers

168 Eversholt Street
London NW1 1BL
Planning Application
Basement Impact Assessment & Construction Method Statement

Project No. AB1144
Report No. R2

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Monitoring and Contingency Plan

It is proposed to carry out traditional mass concrete underpinning below the side party walls, below the front and rear elevation walls and the internal load-bearing 'spine wall' to extend the founding level of these existing walls to below the new basement slab level. (max. 900mm below existing slab level). Long term settlement of the underpins is expected to be negligible due to the fact that they will be placed in more consolidated London Clay at lower depth.

The rear basement extension will be built by creating a new reinforced concrete 'box' via a reinforced concrete underpinning technique. Ground movement is expected to be minimal and the courtyards are able to accommodate a reasonable amount of movement and are of little concern.

The following monitoring and contingency plan is proposed:

- Monitoring survey points will be installed on the existing building walls at the existing basement level for measuring horizontal and vertical displacements. Please refer to the attached sketch SK02 for locations.

- Readings will be taken every day during the underpinning & process to check for movements.

- The limits for vertical & horizontal movements in the short term during construction stage in these areas are to be kept within the following:

    a. For within the existing basement: Movements of existing walls <1.0mm (Burland Category 1)

    b. For the rear basement extension: Movement of the new basement side and rear walls, rear existing bin store walls <5.0mm (Burland Category 2). Note that any movements to the ground at the rear & side and also the rear neighbours bin/cycle store wall can be repaired easily.

- If vertical and/or horizontal displacements greater are recorded then ABSTRUCT are to be informed immediately to review and advise on course of action.

- Contingency measures may include combinations of any of the following.

1) Site visit by ABSTRUCT to inspect the construction at that stage

2) Reducing the widths of the underpins

3) The depth of the 'scrape' or underpin is to be increased until virgin clay is encountered

4) The sequencing of the underpins to be altered

5) The timing between underpins/ wall constructions is to be increased

6) Additional temporary horizontal strutting and/or walings are to be provided (for the rear basement construction)

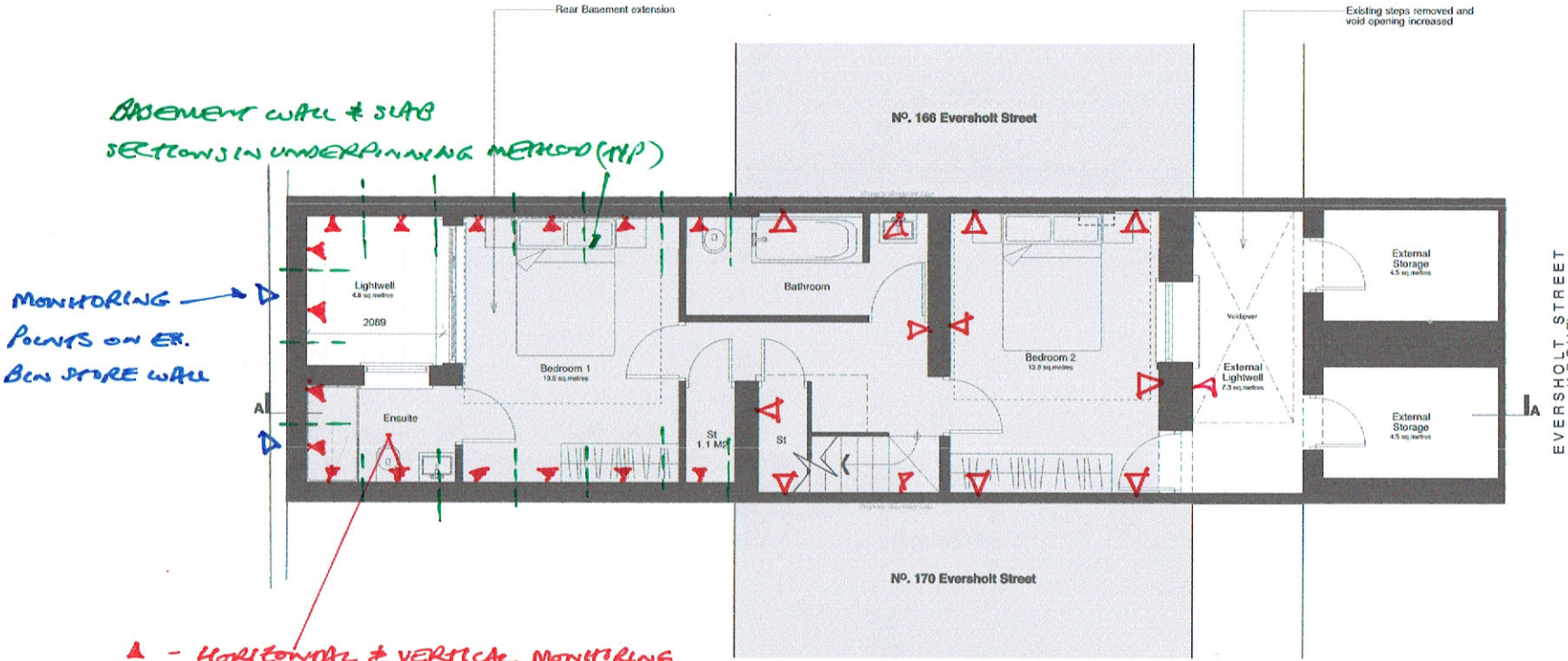
- These contingencies are to be discussed and agreed between ABSTRUCT and the contractor.

Category of damage	**Description of typical damage**	**Approximate crack width (mm)**	**Limiting tensile strain εlim (per cent)**
0 Negligible	Hairline cracks of less than about 0.1 mm are classed as negligible	<0.1	0.0-0.05
1 Very slight	Fine cracks that can easily be treated during normal decoration. Perhaps isolated slight fracture in building. Cracks in external brickwork visible on inspection	<1	0.05-0.075
2 Slight	Cracks easily filled. Redecoration probably required. Several slight fractures showing inside of building. Cracks are visible externally and some repointing may be required externally to ensure weathertightness. Doors and windows may stick slightly.	<5	0.075-0.15

Extract from Burland Damage Category Chart (CIRIA C580)

NEW REAR BASEMENT EXTENSION

EXISTING WALLS TO BE UNDERPINNED



Basement Floor GIA = 48.11 m²
Total GIA (B&G) = 82.38 m²

△ - HORIZONTAL & VERTICAL MONITORING POINTS AT 0.5m BELOW TOP OF WALL & 0.5m ABOVE BASEMENT SLAB LVL (TYP) FIXED TO WALLS AT EACH UNDERPIN.

△ HORIZONTAL & VERTICAL MONITORING POINTS AT ~2.0m ABOVE BASEMENT FLOOR LVL FIXED TO WALLS.

0 1m 2m 3m 4m 5m

PROPOSED BASEMENT PLAN

abstruct
consulting engineers
LONDON + SEVENOAKS

PROJECT NO: 1194

TITLE: 168 EVERSHOLT ST
DISPLACEMENT MONITORS PLAN

Prepared	Date	Sketch No:		Rev	
AS	MAY 14		SK02		

rev.	date	notes

gpad architecture & interior design

CLIENT: WHITEHALL PARK

PROJECT: 168 EVERSHOLT STREET LONDON NW1

TITLE: PROPOSED BASEMENT PLAN

DWG NO: 425(PA)099 REV: A

DRAWN BY: Kags SCALE: 1:50@A2

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