

Belsize Fire Station,

London NW3 4HD

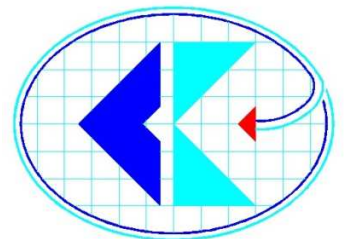
Client – Vulcan Property

Unit 1 Structural Report for Unit 1

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Revision	Reference	Status	Author	Checked	Date
A	17-172-181217-01RP	-	SP	TK	17 December 2018



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Introduction

It is proposed to convert an existing fire station into self-contained flats within the existing structure along with small extensions to the east and west.

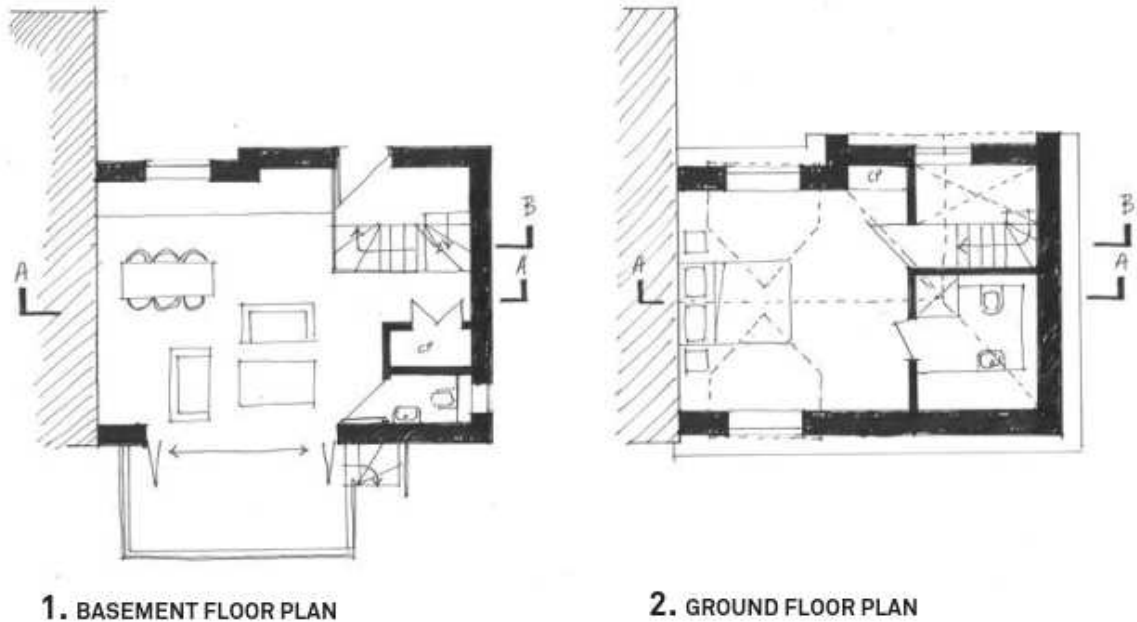


Figure 1: Proposed Unit 1 Flat

This report has been prepared to support the amended planning application for the east extension. The east extension comprises of a separate flat (Unit 1), which will be two storeys in height with the lower level set into the existing ground approximately 1.6m to match the floor level of the existing fire station lower ground level.

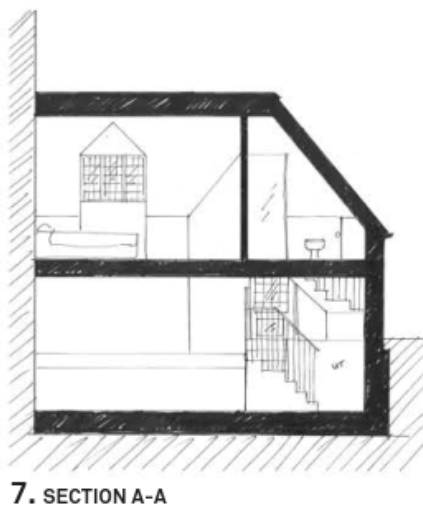


Figure 2: Section thru' Unit 1 Flat

Basement Construction Proposal

The half basement is to be constructed with a 400 thick raft bearing slab with 225 thick cantilevered RC retaining walls. The SSL is to match the floor level of the adjacent existing lower ground within the fire station.

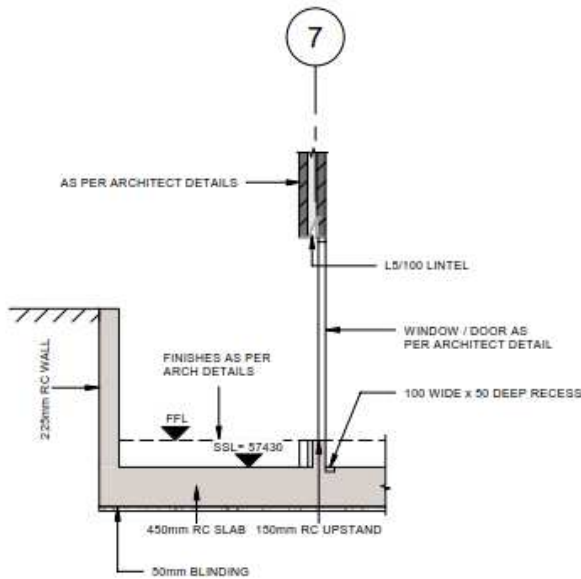


Figure 3: Section thru' Lightwell of Unit 1

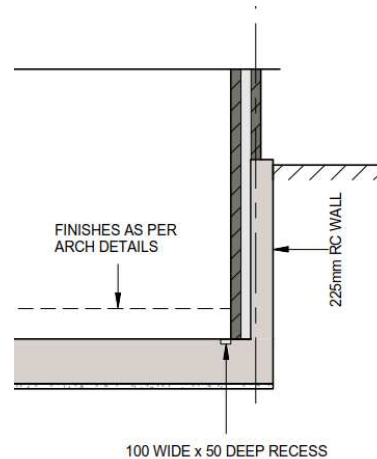


Figure 4: Section thru' Unit 1 (Internal)

Ground Site Conditions

From visual inspection of the light well excavations for Units 2 to 4, the existing ground strata is made up of 500mm of made ground overlying the London Clay Formation, comprising firm to stiff silty clay. No ground water was encountered within these light well excavations but groundwater will be assumed to be 500 below existing ground for design purposes and buoyancy checks.

Alterations to Existing Planning

At present, planning has been approved for the Unit 1 flat consisting of 2 levels, starting from ground level. The amended application requests, for the extension to be lowered into the ground by 1.6m with the addition of a lightwell to the south side with the main structure having the same footprint. This will also allow for increased head heights within the floor levels.

The new drainage system for the site also has a low invert level to accommodate the lower ground levels for Units 2 to 4. Lowering the Unit 1 flat to the same level as Units 2-4 will have no effect on the surrounding areas surface water capabilities.