



## Basement Impact Assessment Screening Report

212-214 High Holborn, Bloomsbury Pairs

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## 1.0 Introduction

Partington & Associates Ltd have been appointed as the consulting Structural Engineer in relation to the proposed redevelopment of 212-214 High Holborn. The building is a Grade II listed property.

As part of the redevelopment it is proposed to extend the existing basement at the rear of the building by approximately 8.5m

The purpose of this report is to demonstrate through a desktop study why a full Basement Impact Assessment is not required to support the planning application for the proposed development.

This report has been prepared with reference to London Borough of Camden guidance. At the time of completing this report a full structural design of the proposals has not been undertaken.

In preparation of the report consideration has been given to the following drawings produced by Cassidy & Ashton:

8918 - L01, P01, P03, P04, P05, P06, P08, P10

An inspection of the property was undertaken on Thursday 27th October 2016 by Mr David Ormes **MiStructE**, the author of this report.

## 2.0 Proposals

As part of the redevelopment works of 212-214 High Holborn it is proposed to extend the existing single storey basement to the rear of the building by approximately 8.5m. The area is currently

The extent of the existing and proposed basements are shown in Figures 1 and 2 below;

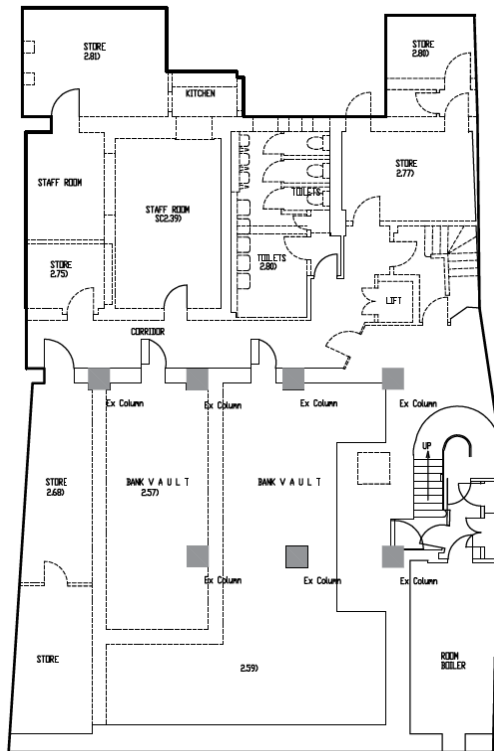


Figure 1  
Existing Basement Outline

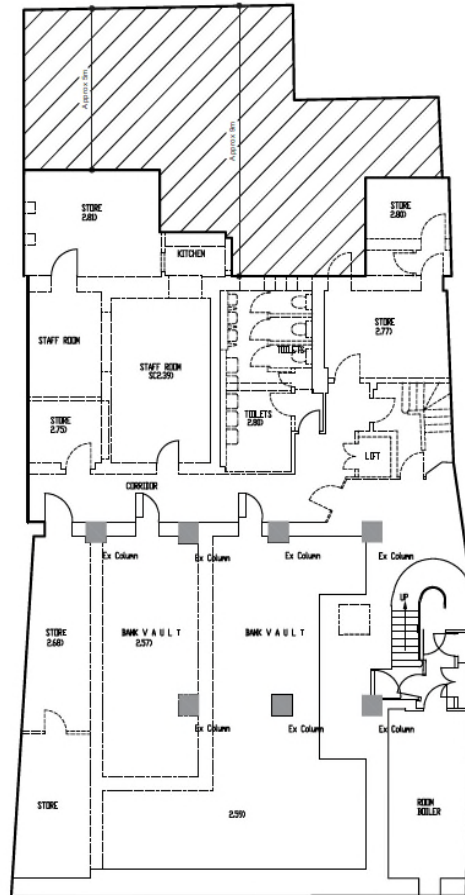


Figure 2  
Proposed Basement Outline

From our desktop study we have ascertained the extent of single storey basements within adjacent buildings. These are shown in Figure 3 below.



- Key**
- 212-214 High Holburn
  - Adjacent buildings basement outline
  - Extent of basement extension to 212-214 High Holburn

Figure 3  
**Adjoining Property Basement Plan**

From Figure 3 (above) it can be seen that the basement extension of 212-214 High Holburn in context of the adjoining basements is notably small in comparison to the adjacent basement areas.

### **3.0 Ground Conditions**

A review of the British Geological Survey and historic borehole information confirms that the site is underlain with a band of gravel (Lynch Hill gravel formation) above London clay. This is also confirmed within the Camden Geological, Hydrogeological and Hydrological Study carried out by Ove Arup.

Trial pit and boreholes excavated within the basement of the adjacent Aviation House show the gravel band to be approximately 1.5m to 2.0m thick. Groundwater was found to lie within the gravel formation at approximately 5m below ground level 1m above the London clays. The ground water within the gravels has been classed as a Secondary A (minor) Aquifer by the Environment Agency.

The level of the basement extension is most likely to be founded in the gravel formation with supporting piles for the building extending into the London clays.

A site-specific ground investigation will be undertaken prior to works commencing however, it is considered that there is sufficient information for the purposes of this report available from historic records to confirm the general ground conditions for the area

### **4.0 Topography**

The general topography of the surrounding area is flat. Therefore, no slope stability issues will arise.

### **5.0 Neighbouring Buildings**

1212 to 214 High Holborn is bounded by 3 No. neighbouring properties:

- Aviation House to the East & South (Redeveloped in 2000)
- Aria House to the South West (Redeveloped in 1999)
- 210 High Holborn to the West (Constructed circa 1900, extended to rear in 1989)

To the north, the site is bounded by the High Holborn road.

The Central Line tube tunnel runs directly underneath High Holborn Road at an approximate depth of 24m below street level. However, as the works to extend the basement are at the furthest point away from the tube tunnels, (approximately 25m) and outside any possible influencing distance on the tunnels

We note that Aviation House, Aria House and 210 High Holborn have existing basements under all or part of the buildings – refer to Figure 4. Due to the size and nature of adjoining buildings, where most are in excess of 5 storeys, it is assumed that they will have significantly large and deep foundations at basement level.

Design and construction of the redevelopment works will give due consideration to the listed building frontage and neighbouring buildings. Construction methods will be planned with the objective of not exceeding Category 2 “slight” damage as defined by Burland and as referred to in CPG4.

Adjacent property owners and tenants will be consulted through the Party Wall etc. Act approvals process prior to works commencing.

## 6.0 Screening Flow Chart

In accordance with the screening criteria presented in London Borough of Camden planning guidance CPG4, we consider that the basement extension to be low risk of impact for the three criteria considered as follows:

**Groundwater flow:** The basement extension is most likely to be founded within the Lynch Hill gavels. Due to the water table being below basement level and the fact that there are significant basements within the adjacent properties we do not consider that the basement extension will have any significant change on ground water flows within the surrounding area.

**Land stability:** There are no significant slopes on the site or within the immediate surrounding areas. There are however adjacent buildings in close proximity to the basement extension. It is noted that the adjacent buildings have all got basements therefore it is unlikely that significant additional support or underpinning will be required.

**Surface water flow and flooding:** The area of the proposed basement extension lies within the current confines of the building outline. Therefore, there will be no change to the existing surface water flows or drainage of the site.

Based on the above we do not consider that a formal Basement Impact Assessment is required for this development as there is very low risk in terms of potential damage to the subterranean environment and neighbouring buildings.

## 7.0 Conclusions & Summary

The redevelopment of 212-214 High Holborn will involve extending the existing basement to the rear by approximately 8m. All adjoining properties are noted to have substantial basements, particularly in the location of the extension.

The building is Grade II listed. The basement extension, due to its position towards the rear of the property is unlikely to have any effect on the listed building fabric.

Through final design of any potential retaining structures, interfaces between adjoining buildings and the Party Wall etc. Act approvals process the impact on adjoining structures will be adequately managed.

With due consideration to the above we do not consider that a full basement impact assessment is required.

**Partington & Associates Ltd**