

OUR REF: 2/11779 / CC / L01
YOUR REF:

18th December 2024

Mr Nima Gholizadeh
Nexome Ltd

Dear Mr Gholizadeh

33 BAKER STREET, READING RG1 7XX

We have been approached by Bluebird Engineering Ltd to review and comment on the proposed works for the above residential property in Reading.

The proposed works include the formation of retaining walls to the front and rear gardens, and lowering of the ground against the building.

The building is Grade II Listed under No. 1321984, with the Listing Description reading as follows:

BAKER STREET 1. 5128 Nos 33 to 39 (odd) SU 7073 12/403 II 2. Early-mid C19. 2 pairs of semi-detached houses linked by porch annexe. 2 storeys and basement. Each pair is a stucco pavilion with hipped slate roof and 2 ranges of glazing bar sashes. Link block has 2 doors and jettied 1st floor with one window on Doric column. 1 range of plain sash windows each. Nos 33 and 39 have doors to sides.

The building sits within the Russell Street/Castle Hill/Oxford Road Conservation Area

We understand that given the Listed status of the building, the local authority has requested the involvement of a CARE accredited engineer to review the proposals made by the project engineer, advise on impact on the historic fabric, and comment on their suitability for this specific building.

Claudio Corallo, CEng MICE MStructE, Divisional Director for Heritage Engineering at Clancy Consulting, is accredited in Conservation under the CARE scheme, and has reviewed the information and produced this report with the findings and recommendations.

We have received a package of drawings from Bluebird Engineering Ltd, which we have carefully reviewed. We have also received calculations for the retaining walls, and comments to the structural proposals from the Project structural engineer Steve Turner CEng MICE of Marlborough Structural Design. We have also received photographs, and seen the property from google street view, but have not visited site, as deemed not required at this stage.

The extent of our review is limited to the formation of the retaining walls to the front and rear gardens to form the lightwells.

A Planning and Listed Building Consent application has been lodged with Reading Borough Council under references PL/24/0874 and PL/24/0875, which we have reviewed. The applications comprise a very detailed Heritage Statement prepared by

Buildings

Energy

Environment

Infrastructure

Northumberland House
303-306 High Holborn
London
WC1V 7JZ

t: 020 3077 0970

enquiries@clancy.co.uk

www.clancy.co.uk

Offices at:

Birmingham

Glasgow

Leeds

Liverpool

London

Manchester

Newcastle

Norwich

Prestwick

Clancy Consulting Ltd
Registered Office
4th Floor,
Windmill Green,
24 Mount Street,
Manchester,
M2 3NX
Registered in England
3693529

Archway Heritage, and also interesting comments raised by the local CAAC, which would have particular knowledge of the local area.

The existing building comprises basement, ground, and first floor, and we understand is in dilapidated state, and has been subject to water leaks both at the front and rear, at basement level.

The heritage statement confirms that emergency excavation was required at the rear of the property to resolve the leak, and includes a photograph of this area. This shows the existing masonry wall below ground with the exposed brickwork, and the soil excavated back. A concrete underpin is visible at the base of this wall, which would have been required to safely support the rear wall while the excavation reached the required depth. We understand that the defective pipe will be redirected further away from the building. We note from the same photograph the presence of an existing reinforced concrete retaining wall to protect the existing rear lightwell, and adjacent to the rear door.

The proposals include the formation of a similar reinforced concrete retaining wall which will create a wider lightwell to the rear. This has been designed by Marlborough Structural Design under their professional liability, and we are satisfied that the designer appears to hold the required qualifications from the Institution of Civil Engineers. The project engineers have further confirmed that the underpinning has been introduced to stabilise the structure, having ruled out other options such as grout injections, and that this will be limited to the areas of the lightwell.

Upon review, we are satisfied that concrete underpinning is the go-to solution for similar instances of poor/very shallow foundations from proposed finish floor level, and this solution has proved to be effective in addressing the problem. We concur that grout injections would not be appropriate for this building, as difficult to control, and with the potential of causing further damage in other areas by building up the pressure within the already defective masonry.

The project engineer has confirmed that the retaining wall concrete pour will be kept separate from the main foundation and its underpinning with a geotextile membrane. This will be capable of transferring the horizontal force from the retained ground as required, but at the same time will keep a separation between the historic fabric and the new retaining wall, which is appropriate for a Listed building.

The Heritage Consultant has confirmed that the masonry walls below ground will be rendered in a lime-based render, in line with the existing, and other properties in the area. They also confirm that the formation of the lightwell will enhance ventilation, therefore reducing dampness within the existing basement.

We note that given the intention to render these walls below ground level, the same treatment could be used for the retaining wall, i.e. applying render directly to the concrete structure, without the introduction of a brick skin, which would be concealed anyway.

To the front lightwell, a photograph from the comments of the local CAAC shows the front garden excavated to address the water leak in this area and divert services. A similar arrangement of reinforced concrete retaining walls is proposed here, and the same considerations are valid here.

This front lightwell would inevitably be more visible from the public road and pavement, but

we note that the Heritage Statement confirms that other similar lightwells were shown to the same terrace (although not to this property), in the 1877 Ordnance Survey Map. The introduction of the full width lightwell to the front would therefore be in keeping with the surrounding streetscape, and as such of minor impact.

We note from the local CAAC that they do not pose an objection to the formation of this lightwell either, which supports the view that this is not unreasonable in the local streetscape.

We have been asked to comment specifically on the materials (concrete) proposed for the retaining walls. We have already commented to the fact that other concrete retaining walls are present to the rear, and that render is proposed below ground floor level, effectively concealing any alternative material for the retaining walls. An obvious alternative would be brickwork, but given the retained height of 1.7m a brick retaining wall would need to be particularly thick, and would not perform as well in providing an effective waterproofing barrier, also in case of vegetation roots growing near the walls in the future.

We would also note that given the proximity of the pavement to the front lightwell, the retaining wall needs to be designed for the load of an emergency vehicle parked on the pavement, which is quite an onerous requirement in structural terms, and further suggests concrete to be the most appropriate solution in this case.

To conclude, based on the information available, which includes the Heritage Statement, photographs, and design information, it is my considered opinion of Chartered Engineer Accredited in Conservation that the solution proposed by the project engineer is suitable for the engineering problems it aims at addressing, and is also appropriate and respectful of the Listed fabric of the building.

The solution proposed is also reasonable in terms of materials, i.e. reinforced concrete, given the loading, retained height, proposed finishes, and similar lightwell in the vicinity, as highlighted above.

I trust that you will find the above sufficient for your current purposes however should you have any queries please do not hesitate to contact us.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Claudio Corallo'.

**Claudio Corallo CEng MICE MStructE
Conservation Accredited Engineer (CARE)**

[Divisional Director]
for and on behalf of
CLANCY CONSULTING LTD