

Construction Method Statement Executive Summary

31 Willoughby Road, London, NW3 1RT



Executive Summary – 31 Willoughby Rd - 24.10.24 - DK

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Executive Summary

A Construction Method Statement has been prepared to support the planning application submitted for the proposed subterranean development at 31 Willoughby Road, London, NW3 1RT

The proposals comprise the following:

Construction of a single storey subterranean extension under the partial footprint of the existing building. The basement does not extend under the front or rear gardens of the property – but does extend into the relatively small entrance steps, so that the basement aligns with the front bay window

This application is a re-submission of refused planning application ref: 2020/0927/P. In the compiling of this new application, neighbour concerns have been considered in relation to the previous basement scheme, and as a result, the following changes has been made to the design;

- The construction area of the basement has been reduced from 118.98 square metres (refused planning scheme) to 71.20 square metres (gross structure) which represents a 40 percent decrease in the size of the proposal
- The depth of the excavation has also been significantly reduced as it is no longer proposed to construct piled foundations – a raft foundation is to be employed instead. The foundation design has revised – it is no longer proposed to construct piled foundations – a raft foundation is to be employed instead.
- All external manifestations have been removed there are no lightwell
- The basement does not extend under the front or rear gardens of the subject property apart from a small area under the front entrance steps.
- The proposed basement is now a minimum of approximately 5.7 metres away from the rear elevation of Willow Cottages.

Structural Design

The underpinning of the existing load bearing walls is to be undertaken in a 'hit and miss' sequence – with no adjacent underpins constructed at the same time – which is standard procedure for this type of project. The underpins will comprise a vertical stem which will be immediately beneath the existing wall and will be at least the same thickness as the existing wall. In the case of a party wall, the rear face of the stem will be in line with the face of the wall above so as not to encroach into the adjacent property's space, should they wish to construct a similar basement in the future.

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

The structural proposals and construction methodology for the scheme have been developed with due regard to the existing site constraints, the site specific and local ground conditions, the local amenity and the local highways and comply with London Borough Camden's adopted policy regarding subterranean development.

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A ground investigation has been undertaken and a site investigation report produced by GEA Site Investigations.

The proposed permanent and temporary works and construction methodology have been developed with due regard to the geology and hydrology and have been reviewed and approved by the project engineer – Barker Associates

As stated within the Basement Impact Assessment produced for the project by Card Geotechnics Ltd (CGL), it is considered that water will flow down from south to north, flowing around and below the basement. As a result this analysis, it has been found that the proposed basement is unlikely to significantly impact or raise groundwater levels to the north, in the area of the lower-elevation of Willow Cottages. It is therefore considered that the proposed basement development works are unlikely to detrimentally affect the surface water and subterranean (ground) water regime in the local and wider area.

The reports describe the engineering details of the scheme including proposals for excavation and construction. Drawings, Construction Methodology, Calculations and a Site Specific Ground Investigation are provided as required by the London Borough of Camden.

Movement and Damage

A Ground Movement Assessment has been completed by CGL, and the results indicate that movement of the existing structure is anticipated to be well within 'Category 1' (very slight) with respect to 29 and 33 Willougby Road and "Category 0' (negligible) with respect to Willow Cottages

Burland Scale 'Category 1' is defined as fine cracks which can be treated easily using normal decoration within the BRE Digest 251 Table 1 and CIRIA 580. In the event that planning consent is granted and proposal is implemented, movement of the existing building will be monitored twice weekly during the formation of the basement structure using targets placed to the face of the walls.

With reference to the damage categorisation of the proposed basement, we wish to draw your attention to the fact that the following basement have been approved in London Borough of Camden with a 'Category 1' or 'Category 2' damaged expected, including a basement excavation at Camden's Town Hall – please see table below;

Ref	Listed Building Location	Listed Status	Burland Scale Approved	Listed Building Approval	Planning Approval
				0004/0040/	0004/4005/D
1	3 Hampstead Lane Gardens, Hampstead, NW3 2PH	Grade 2 Listed	1	2021/2249/L	2021/1335/P
2	12 Keats Grove, Hampstead, NW3 2RD	Grade 2 Listed	1	2021/4540/L	2019/5443/P
3	40 Frognal Lane, Hampstead, NW3 6PP	Grade 2 Listed	2	2020/4969/L	2020/4453/P
4	Vine House, Hampstead Square, NW3 1AB	Grade 2 Listed	1	2020/1005/L	2020/0601/P
5	19 Wells Road, Hampstead NW3 11 H	Grade 2 Listed	1	2019/3478/	2018/63/19/P
5		Grade 2 Elsted	•	2013/34/0/2	2010/0343/1
6	23 West Heath Road, Hampstead, NW3 7UU	Grade 2 Listed	1	2018/1114/L	2020/4262/P
7	Studio House 1 Hampstead Hill Gardens, Hampstead, NW3 2PH	Grade 2 Listed	1	2017/6951/L	2017/6381/P
8	12 Lyndhurst Gardens, Hampstead, NW3 5NR	Grade 2 Listed	1	2019/3290/L	2019/3147/P
0	9 St Martins Alms Houses Bayham Street NW/1 0BD	Grade 2 Listed	1	2017/4721/1	2017/4287/P
9	o St Martino Aino Houses Dayndill Street, NWT ODD	Graue 2 Listeu		2017/4721/1	2017/4207/F
10	Camden Town Hall Judd Street, WC1H 9JE	Grade 2 Listed	1	2019/2257/L	2019/2238/P

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Flood Risk

CGL consider that existing surface waters will join the existing drainage infrastructure, with negligible changes in peak drainage outflows anticipated from the site. In addition, the site lies outside of any EA designated Flood Zone for rivers or the sea, as well as surface water flooding (although noting that Willow Cottages are shown to be at risk from surface water flooding). Given that the new basement will be constructed beneath the existing property (including existing semi-basement), and will therefore not increase the proportion of hard surfaced/paved external areas, it is considered that the development will have a negligible impact on surface water flow and flooding.

Conclusion

The scheme has been reduced by 40% in response to neighbours' concerns regarding construction intensity and substructural concerns arising from the implementation of the proposed development

It has been demonstrated that the revised foundation design and reduced basement area respond to neighbours' concerns regarding any perceived impact upon the Listed cottages and the associated retaining wall, via the ground movement assessment and groundwater flow analysis undertaken by Card Geotechnics Ltd.

In response to objectors concerns the proposed basement location has been revised so that it is now approximately 5.7m (18'6") distant from the rear elevation Wall of Willow Cottages.

Finally, The Construction Method Statement and Engineers' Design Philosophy and Basement Impact Assessment demonstrate that the works can be executed in a safe manner while minimising the impact on the neighbouring properties