

**22 FROGNAL WAY,
CAMDEN, LONDON**

PROJECT NUMBER: 180401

**STRUCTURAL REPORT ON BOUNDARY WALL
BOUNDARY WITH PERRIN'S WALK**

MARCH 2020

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1.0 INTRODUCTION


This report was written to assist in the discussions between the developer, MY Construction and the local Planning Officer to find a satisfactory solution to the structural defects of the existing boundary wall.

It is understood that the wall is to be retained as a condition of the planning approval and there is statutory protection applied to the wall, as it is within a conservation area

This report should be read in conjunction with Price and Myers Structural Inspection Report dated June 2018.

2.0 OBSERVATIONS AND RECOMMENDATIONS

The following photographs have been provided by MY Construction in March 2020 and demonstrate common aspects and defects of the construction.

Photograph	Comment
	<p>Missing mortar from joints. Diagonal cracking suggests some ground movement. English Garden Wall Bond used in some areas but pattern varies along length of wall.</p>



Some bricks appear pitted. Composition of the bricks should be confirmed before repair as this could be a defect that will worsen over time.



Wall has been extended upwards above the original curved profile. Irregular bond pattern.



Root damage from tree in future likely.

The overall stability of the wall is a concern. The wall is leaning in areas and previous attempts to strengthen the wall with buttresses can be seen on the Frognal Way side of the wall.

The structural defects of the wall are discussed in more detail in the *Price and Myers Structural Inspection Report* which concludes that parts of the wall should be strengthened or rebuilt.

There is a concern that embarking on extensive remedial works to the wall, given its current condition would have a detrimental effect on its stability and will distract from the original character of the wall.

Installation of temporary works to stabilise the wall will cause significant damage to the wall as shores shall be required at close centers, and be required to be fixed through the wall, causing further damage to the wall. Of major concern is the health and safety aspects of installing the temporary works, as there will be a requirement to work in close proximity to the structure, causing vibration and disturbance to an already unstable structure, which we believe is an avoidable risk which we have duty to mitigate.

With regards to remedial works, every aspect of the remedial works necessary will be intrusive and cause a degree of damage to the existing structure. A combination of remedial interventions shall be required including installation of wind posts, bed-joint reinforcement, buttressing and partial demolition and rebuild. The process of chasing in wind posts, constructing new concrete bases and tooth bonding buttresses all cause additional damage to the existing structure, which will, without doubt, undermine and cause further cracking to the existing wall. The addition of new structural steel wind posts, additional masonry buttresses, and sections of newly built masonry will distract from the original character of the wall.

It should be noted that the condition of the wall visible above ground is likely to be better than the sections of wall below ground level that form the retaining section of the wall, which will continue to deteriorate over time. It is expected that the wall will continue to move and crack, allowing the process of deterioration to restart in the remediated sections of the wall. We would not expect the life span of the wall to be significantly increased by remediating the wall.

Given the extent of defects, changes and interventions, the preference would be to rebuild the wall in a high quality to match the surrounding area and the new property on the site of 22 Frognal Way.

3.0 INFORMATION REQUIRED TO PROGRESS DETAILS

Understanding of the planning principles for the site is required to produce a suitable structural solution to the boundary wall problems. The following information is required as a minimum.

- 3.1 Establish the objectives that the planning permission was hoping to achieve by keeping the existing wall in place. Is this the sense of place; style of construction; layout etc? The rebuild proposals will be developed to meet these objectives. It may be necessary to use a number of details along the length of the wall.
- 3.2 Once objectives are established, the redesign can be progressed. Options for the free-standing part of the wall (not retaining) include a wider brick wall built in a traditional manner, masonry buttresses or hidden wind posts. Windposts can only be used if the wall thickness increases as the existing wall is 215mm thick (one brick) at the top.
- 3.3 A complete survey of the existing wall will be needed. This should include ground levels on both sides, level at the top of the wall, wall thickness of the wall over its height, wall layout on plan and the boundary line.

4.0 PRINCIPLES FOR REBUILDING

The new wall should match the building quality of the surrounding area.

- 4.1 Establish the condition of existing brick to quantify amount that can be reused.
- 4.2 Source a similar brick in terms of colour, texture and geometry to replace the defective bricks. New and old bricks should be mixed to create a homogenous finish.
- 4.3 Retaining wall to be formed in reinforced concrete and faced in brick work. This will allow the retaining wall to be formed to comply with current design codes with minimal disruption to the adjoining site.
- 4.4 All of the new wall to be built off new reinforced concrete foundations bearing on suitable stratum.
- 4.5 Root barriers to be installed for trees near the boundary.

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