

45 Pilgrim's Lane, London NW3 1SR

Outline Structural Scheme

1.0 Brief

This statement is submitted in support of a planning application for the construction of new 6-storey block of apartments to replace the existing 4-storey building.

2.0 Existing Structural Summary

The existing building is likely to comprise loadbearing brickwork walls on strip footings with timber floors and a timber mansard roof. Based on the geological maps and also data obtained from a previous site investigation at nearby Denning Road, the ground consists of London Clay and Claygate Beds to a depth of approximately 33m, Woolwich and Reading beds to 38m, Thanet Sands to 41m and Chalk at 55m.

3.0 Proposals

It is proposed that the existing building is demolished and replaced with a 6-storey building. A new sub-basement will be created at the front part of the building footprint. A reinforced concrete wall will be constructed either using a bored pile solution or temporary trench sheeting with an RC liner wall supported on an RC raft foundation.. The new building can be constructed using traditional loadbearing masonry with timber floors for the upper 5-storeys. Larger floor spans will be broken up using steel beams. Alternatively loadbearing masonry walls could be combined with precast concrete planks or the building could be constructed as an in-situ RC frame.

It is envisaged that the building will be supported on deep strip footings or on piled ground beams in the areas where there is no basement present. In due course a full site investigation will need to be undertaken to determine the actual site soil conditions and foundation design parameters.

4.0 Impact of Excavations on surrounding buildings

Prior to commencing the piled wall construction or temporary sheeting, condition surveys will need to be carried out on the adjoining properties and monitoring points to the elevations will be installed with prior agreement. The elevations will be surveyed to provide a base reading.

The piled wall/trench sheeting will be installed from ground level. When complete, the ground bounded within the walls will be excavated in sectional depths. Temporary works will be installed as the excavation progresses downwards and the walls will be propped against each other for stability. Alternatively, the basement walls could be designed to cantilever to reduce the temporary works requirements. At agreed regular intervals, the adjoining properties will be monitored for any excessive movement.

Excavations for any deep trench footings will be propped as it progresses downwards to maintain the stability of the excavated walls and the stability of the adjoining buildings.

With a suitable monitoring and excavation regime in place, combined with adequate temporary propping, there should be little or no movement experienced by the adjoining buildings.

Prepared by: 1st Issue – 19MAR2010
Gilbert Goh