

10 Antrim Grove, Belsize Park, London NW3 4XR
Structural Engineer's Commentary on Proposals to Create Basement Space

These notes are based upon designs shown on drawings numbered 110/a, 111/a, 115/-, and 117/- by Bchitecture which illustrate proposals to create habitable space at basement level beneath the full footprint of the semi-detached dwelling, and beneath the greater part of the front and rear gardens of the property.

- The property is a substantially-built 3-storey semi-detached house, probably built in the first quarter of the 20th century. It is of solid brick construction, timber suspended floors, and with a tiled, timber framed pitched roof. The second storey is situated within the roof space.
- The site is underlain by London Clay (clay, silt and sand). The combined 'surface geology' map, based on British Geological Survey 1:50,000 Map No. 256 is set down in the attached report provided by Envirocheck Geology.
- The ground surface is essentially level, rising only slightly to the rear (north-west) of the plot.
- No underground watercourses have been identified near the property. The historic Fleet River and Tyburn, both arising in Hampstead, are located some distance to the east and west of the site respectively, but are now little more than drains in the Camden area. It should be noted that, depending upon the season and amount of rainfall, perched water may be encountered at any location and will lie on the relatively impervious clay subsoil, and may lead to flooding of unprotected cellars and basements.
- There are a number of ornamental shrubs and small trees around the property. The only tree of significance is situated on adjoining open land (allotments) to the rear, about 2.0m beyond the boundary.
- The scheme entails the excavation of a substantial volume of soil, the construction of foundations, retaining walls and suspended floors, the provision of a reliable waterproofing system, and drainage.
- Based on soil structure interaction considerations, and design by qualified competent practitioners, we see no reason why the scheme as proposed cannot be successfully achieved. The adoption of conventional underpinning of the load bearing walls and the use of contiguous bored piles for the construction of the subterranean habitable rooms for example, would provide the basis of a suitable structural scheme. The employment of an established contractor who is experienced in this type of work is essential for the smooth and timely execution of the project.
- The design team should include specialist advisors as required to deal with such matters as arboricultural advice, dewatering and geotechnical matters, party wall awards and neighbourly liaison.