

**SW/C12679    3 Trinity Close, Willoughby Road, London NW3 1SD    April 2012**

**1. Introduction**

1.0    Proposed basement beneath footprint of No.3 Trinity Close, Willoughby Road, London NW3 1SD

**2. Site Information**

2.1    No.3 Trinity Close is a semi-detached two-storey house, currently without a basement, and comprises the eastern part of a converted chapel fronting Willoughby Road to the east. Trinity Close is to the south of the property and a cobbled access road to Old Brewery Mews borders the property to the north. Transition foundations to the neighbouring property are proposed by the structural engineer.

2.2    Geological maps indicate Claygate Member overlying London Clay Formation beneath the site. A well record approximately 30m to the west of the property indicates made ground to 2.1m depth, Claygate & London Clay to 108m depth, in turn overlying Reading Beds, Thanet Sand and Chalk (at -39mOD). A site investigation is proposed to determine the soils beneath the property, the soil properties and groundwater conditions.

2.3    The Claygate Member is classified by the Environment Agency as a Secondary 'A' Aquifer, the underlying London Clay is classified as Unproductive strata. The site is not within the Hampstead Chain Catchment.

2.4    There are no Source Protection Zones within 500m of the property. There are no surface water abstractions, groundwater abstractions or potable water abstractions within 2000m of the site.

2.5    The site is approximately 180m south of the culverted Fleet Brook, flowing to the east.

2.6    The site is at an approximate ground level of 94mOD, the ground around the site falls gently to the south-east. Based on Figure 16 of London Borough of Camden, Guidance for subterranean development November 2010, the area around the site slopes less than 7° and is not likely to affect slope stability.

2.7    Underground services are present beneath Old Brewery Mews, the cobbled roadway to the north of the site. Underground services are also present beneath the pavement of Willoughby Road adjacent the east of the site and Trinity Close to the south connecting to the property.

2.8 Natural hazards sourced from BGS GeoSure Data for an area within 50m of the site has been summarised below.

<i>Natural Hazard</i>	<i>Risk</i>
Shrink-Swell	Moderate (London Clay)
Landslides	Very Low
Soluble rocks	Null – Negligible
Compressible ground	Negligible
Collapsible rocks	Very Low
Running sand	Very Low

2.9 Radon Affected Area: The site is not within a radon affected area as less than 1% of properties are above the 'action' level. The site lies within an area where no radon protection measures are necessary in accordance with Building Research Establishment report BR211 (1999).

2.10 Mining: The site and the area within 75m of the site are not within a coal mining area. The risk of subsidence relating to shallow mining within 150m of the site is negligible. There are no (0) recorded brine affected areas within 75m of the site.

### 3.0 Summary

3.1 The site is currently hard surfaced and will remain the same following the construction of the proposed basement. No significant change is expected to the surface water flows or the surface water quality being received by adjacent properties or downstream watercourses.

3.2 The area around the site slopes at less than 7° and the proposed basement excavation is not expected to initiate any slope instability. The structural engineer is to design transition foundations to support the adjoining property and the boundary walls of the property.

3.3 No trees are to be felled as part of the proposed development, and with the proposed deep foundations the shrinkage-swell potential of the anticipated clay soils would be mitigated.

For and on behalf of Ground Engineering Limited



Simon Weatherley  
B.Eng.(Hons.), F.G.S., C.Geol.,  
Senior Geoenvironmental Engineer