

PRELIMINARY STABILITY REPORT
5 – 9 HUNT STREET, SWINDON, WILTSHIRE

Introduction

The site which extends to approximately 0.1 Ha lies on the Northern side of Hunt Street between a terrace of three Victorian properties to the West and a small warehouse to the East, at the rear of the site is undeveloped council owned land known as Queens Park.

The land slopes away from Hunt Street in a North-North-Easterly direction at an angle of approximately 6° (1 in 9.2) and is split into two by a retaining wall that runs East-West approximately mid-way across the site. This retaining wall is approximately 1.8m high and 1.95m wide. Please see attached site and block plans.

History

In 1886 the site was part of an excavation to form a railway tunnel between Old Town and New Town railway stations (Fig. 8). This work was abandoned and shortly after 1900 the excavation was backfilled, the site has historically been undeveloped as it has been unstable. In 1988 the local Council refused a planning application for residential development on the grounds that:

“The site by virtue of it being an inadequately filled Victorian railway cutting, is extremely unstable and the proposed development (including any works intended to make the site stable) would be likely to lead to landslips on the site or on adjacent land, resulting in danger to on site and adjacent properties and damage to public services.”

Since that time the local Council has installed extensive land drainage on the land below the site and have monitored a number of Inclinometers installed in boreholes above, on and below the site. Copies of the borehole location plan, logs for boreholes 14 and 39 and displacement profiles for inclinometers placed in boreholes 14, 39 and 44 are attached to this report together with a section through the site. The borehole log information has been confirmed by a new borehole, sited between boreholes 39 and 14 on the uphill side of the retaining wall, a copy of this new borehole log and the associated soil test results are also attached.

Analysis

The instability in this area since the installation of the land drainage has apparently been limited to local surface slides with shallow rupture surfaces affecting paths and surface landscaping. The site to be developed is retained to a depth of 1.8m by the above mentioned wall which shows no signs of distress over and above that expected of a wall founded on made ground. There is no obvious distress in the road structure on Hunt Street or evident on this upper part of the site. It is concluded from the information accompanying this report that the upper area of the site is stable, the retaining wall is performing its intended task and that a new dwelling built on bored piles founded into the natural soil at approximately 12m below existing ground level would be stable and safe.