

Design Note 07

project Neath Town Centre Redevelopment
subject Ground Investigation Report Summary Note
job no 031425
date 21.02.2014

Revision	Description	Issued by	Date
00	For Information	RR	24.02.2014

1 Introduction

The ESG Ground Investigation report provides the factual and interpretive. This design note is to be read in conjunction with the ESG Ground Investigation report.

2 General Notes

The report notes the ground gas levels (section 4.7 and 13) which would aid the specification of a gas proof membrane under the retail unit and offices.

The viability of the ground bearing slabs is discussed in section 11.3.4 which should be considered.

3 Piled or Non-piled Foundations

The Interim Summary of Findings report stated that shallow foundations would not be viable and recommended that a piled foundation solution be adopted. This is due to the high concentrated loads from the MSCP and low strength of the made ground and alluvial strata.

The full ESG Ground Investigation report (A3188-13, Draft Feb 2014) maintains ESG's view on shallow foundations but provides further discussion.

The ESG report shows a good correlation between the strata reported in the Earlswood Materials Laboratory report (2000) and the ESG investigation. The 'competent' strata varies in depth below ground level – generally closer to ground at the west of the site.

If a non-piled foundation solution was to be adopted the foundations would have to be very deep to bear onto the competent strata in some parts of the site. This raises issues of health & safety as well as cost. If large pads were to be adopted they might require a high reinforcement rate due to the high loads and bending action of the pads.

If a non-piled foundation solution was to be adopted a new solution for the cantilevered foundations near the Gnoll Brook Interceptor would be required.

Robert Rieder.