

Report Market Street, Hoyland
Client Linton Properties
Project No. 10086
Status DRAFT
Date 15th April 2010

The recommendations made in this preliminary report are based on the findings of the recently completed initial 'look-see' intrusive works. The Client should be aware that the scope of the 'look-see' works does not constitute a full Phase I Desk Study and Phase II Exploratory Investigation for the site. Therefore, BSP Consulting reserves the right to amend our recommendations upon completion of a full Phase I and II Site Investigation.

These comments have been prepared on the understanding that it is currently proposed to redevelop the main body of the site for a commercial end-use. A residential end-use is currently proposed for the northeastern portion of the site.

THE SITE

The main body of the site comprises the site of the former Market Street School, which is defined by metal fencing. The concrete floor slabs to the school buildings and the brick/breeze block bases to suspected mobile classrooms remain. The northeastern portion of the site comprises a predominantly grassed area.

SITE HISTORY

Based on the evidence of historical maps, the site remained largely undeveloped until c1956 when a school building was constructed in the southern extremity of the site. Between c1973 and c2000, further school buildings were constructed within the main body of the site.

A large pond used to be present in the northern extremity of the site between c1893 and c1948. A watercourse/drain used to run through the northeastern portion of the site until c1973. A playground and a few suspected vehicle storage garages used to occupy the northeastern portion of the site between c1973 and c2000.

GEOLOGY

Published geological information reveals the natural stratum underlying the site comprises the Pennine Middle Coal Measures Formation, which typically comprise interbedded mudstone, siltstone, sandstone and coal seams.

COAL MINING ISSUES

The coal mining report for the site states that the site is not affected by past shallow coal workings and on this basis, no coal mining precautions or associated coal mining investigation works are required at the site.

SITE WORKS

Initial 'look-see' works were undertaken on 7th and 8th April 2010 and comprised the following.

- a) Sub-contracted sub-surface utility scan of exploratory hole locations to attempt to avoid buried services during intrusive works.
- b) Advancement of six trial pits (TP1-TP6) and six window sampling boreholes (WS1-WS6).
- c) Installation of 5No. ground gas monitoring points.

The approximate locations of the exploratory holes are indicated on the attached plan (Figure No. 10086/01). Exploratory hole logs are also attached.

GROUND CONDITIONS

Made Ground Surfacing

The surface materials within the main body of the site comprised either tarmacadam overlying sub-base, reinforced concrete (i.e. a former floor slab) or poor quality topsoil. The surface materials within the northeastern portion of the site comprised topsoil.

General Made Ground

Beneath the surface materials, general Made Ground was encountered to variable depths of between 0.30m and 2.90m begl. Made Ground was encountered at depths of up to 2.90m begl beneath the approximate footprint of the proposed building.

The general Made Ground within the main body of the site typically comprised soft to firm (locally stiff) gravelly clay with localised ash and brick fragments. However, Made Ground comprising firm gravelly clay with whole bricks, fragments of concrete plus metal sheeting, carpet and wood together with loose sand and coal gravel was encountered in the central southern area of the site (TP5, TP6 and WS4). The general Made Ground within the northeastern portion of the site included very loose black ash and ashy sand.

A plan showing the depth to the base of the Made Ground at each exploratory hole located is attached (Figure No. 10086/02).

Natural Strata

The Natural Strata generally comprised firm to stiff sandy gravelly CLAY, which graded into a very weak to weak (becoming moderately weak to moderately strong with depth) weathered MUDSTONE with interbeds of weak to moderately strong weathered SANDSTONE and SILTSTONE.

The exploratory holes were terminated within the Natural Strata, at depths of between 2.00m or 3.60m begl.

FOUNDATION DISCUSSION

The Natural Strata underlying the site represents a suitable bearing strata for strip, trench fill or pad foundations. Foundations should be deepened through any Made Ground to encounter the underlying undisturbed suitably competent natural soils.

However, the initial 'look-see' intrusive works have revealed the presence of between 0.70m and 2.90m of Made Ground (below existing ground level) beneath the approximate footprint of the proposed building.

The presence of significant depths of Made Ground and the likely requirement to undertake site regrading works prior to development may preclude the use of shallow foundations and it may become necessary to adopt deeper foundations (i.e. piles or ground improvement, for example).

GROUND GAS PRECAUTIONS

Various on and off-site sources of potential hazardous ground gas (i.e. carbon dioxide and methane) have been identified as part of our works. During the intrusive works, five of the window sampling boreholes were installed with monitoring points to facilitate an initial 2 week programme of ground gas monitoring.

The results of the monitoring will be forwarded as an addendum when completed.

RADON PRECAUTIONS

No radon precautions are required at the site.

BUILDING NEAR TREES

Foundation designs are likely to require adjusting when building near trees due to the presence of cohesive soils underlying the site.

WATER

Water was not encountered within the exploratory holes. Therefore, excavations are unlikely to require dewatering.

STABILITY & EXCAVATIONS

The sides of the exploratory holes were noted to be locally unstable within the Made Ground. The sides of the exploratory holes within the Natural Strata were noted to be stable.

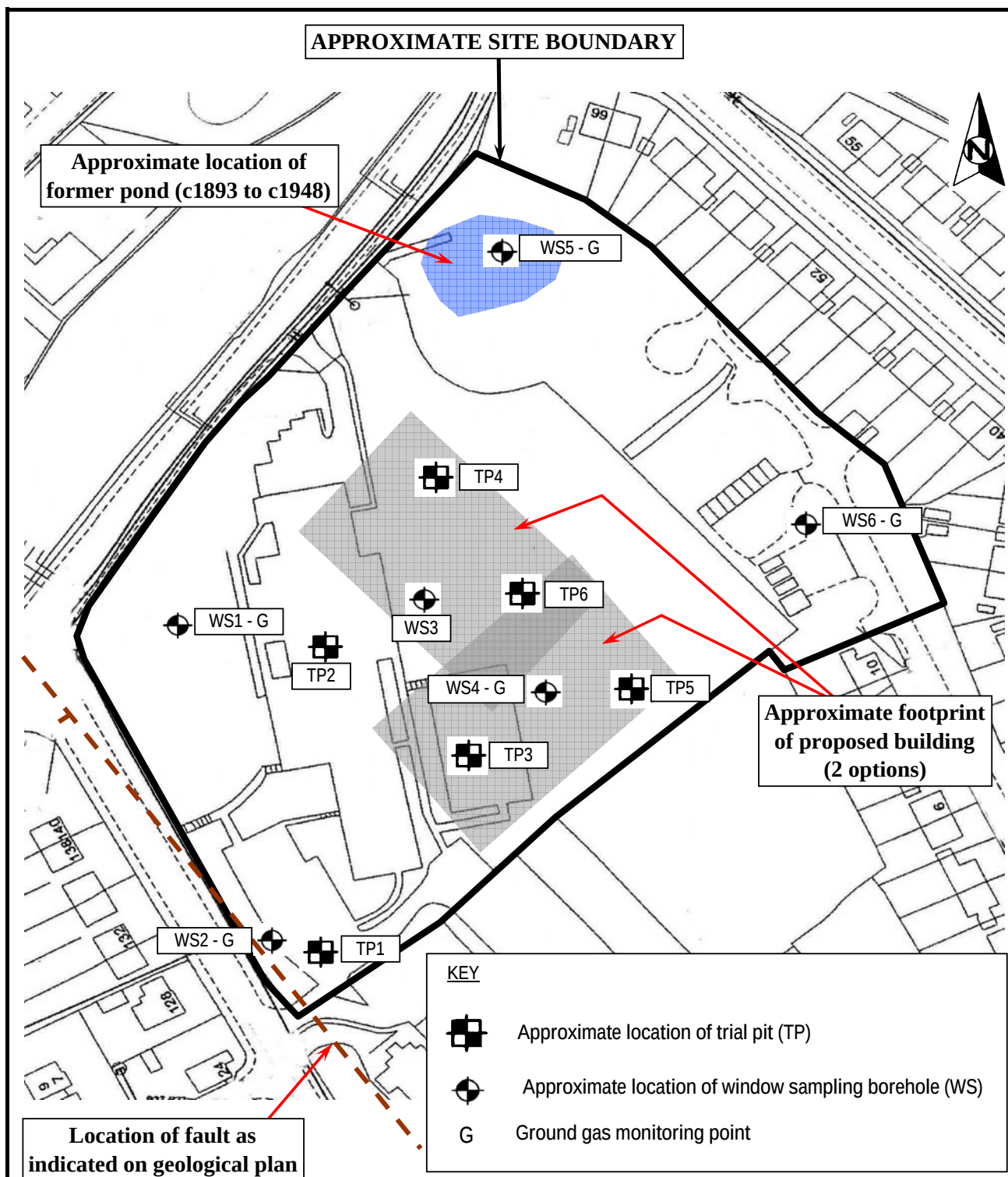
SURFACE WATER DRAINAGE

The use of soakaways is not recommended due to the relatively impermeable nature of the Natural Strata (i.e. the predominant presence of clay/mudstone soils). Therefore, at this stage it is recommended that alternative methods should be investigated.

CONTAMINATION ASSESSMENT

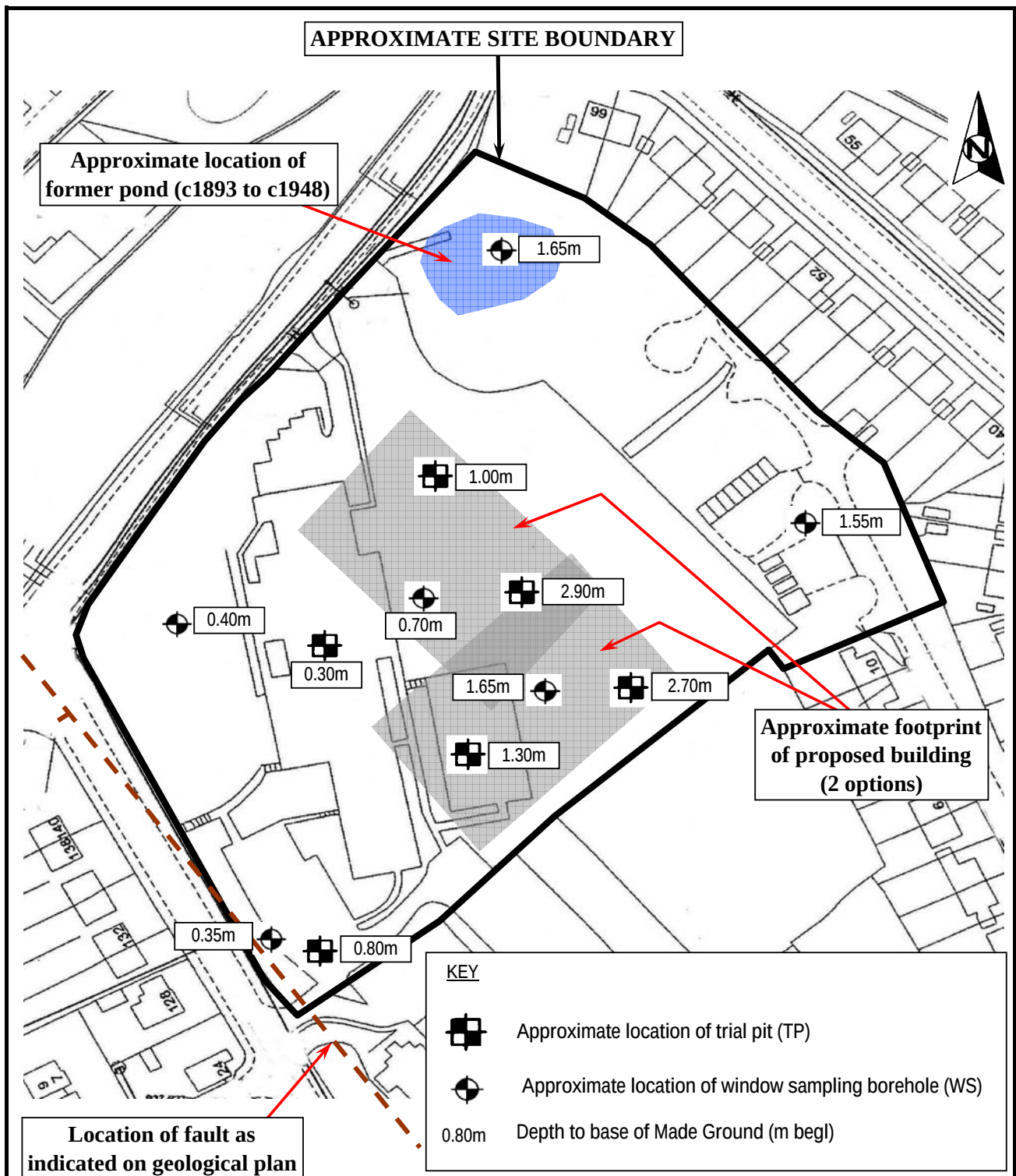
The Made Ground is considered to be visually undesirable due to the inclusions of brick, concrete, wood and ash, for example. A comprehensive chemical soil assessment should be undertaken as part of a full site investigation to confirm the contamination status of the soils beneath the site and confirm any potential remedial measures.

It should be noted that any chemical soil assessment should include the northeastern portion of the site (i.e. the area proposed for a residential end-use) as this represents a more sensitive end-use compared to the proposed commercial part of the site.



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Project No.	10086	Drawn	PK	
Client	Linton Properties	Checked		
Project	Market Street Hoyland	Approved		
		Scale	NTS	
		Date Drawn	14.04.10	
Title	Exploratory Hole Location Plan	Rev.		
		Figure No.	10086/01	



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Project No.	10086	Drawn	PK
Client	Linton Properties	Checked	
Project	Market Street Hoyland	Approved	
		Scale	NTS
		Date Drawn	14.04.10
Title	Plan Showing Depth to Base of Made Ground	Rev.	
		Figure No.	10086/02

