Our ref: 0916/L1/ds
Your ref: Chapel - Holbeach Drove

30 Aug 2023

South Holland District Council
Council Offices
Priory Road
Spalding
Lincolnshire
PE11 2XE

For the attention: Environmental Health
Ms Sue Armour
c/o G R Merchant Ltd.

Cc: G R Merchant – fao Sarah & R K Wilson Ltd

Dear Sue

Re:H09-00399-23: Land off Chapel Drove Holbeach Drove Spalding Lincs. PE12 0PT ~ Contaminated Land.

1. Introduction

The captioned site has been proposed for residential development which under current planning requirements, SHDC applied 'Conditions' regarding 'contaminated land'. A Phase 1 Desk Study was completed and issued by a Third Party which recommended further works which were not undertaken – see memo SHDC Mark Simmons to G R Merchant, dated 8 August 2023, specifically the final bullet point on the referred memo that

> "*No chemical analysis was undertaken and there was subsequently no link to the conceptual ground model.*"

This narrative provides a proposed scope of work for a Phase 2 investigation to include chemical analysis of soil samples and interpretative reporting including updating the Conceptual Model & Risk Assessment in the Third Party report.

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19 Palmer Street, Walsham Le Willows, Bury St Edmunds, Suffolk. IP31 3BZ
Tel: 01359 258681

To comply with Planning it is necessary for the Party/Agent whose remit is to manage the project via Planning to submit this document to SHDC [Environmental Health] for their review and approval ***prior to the works being carried out at site***.

The Reader should note that the "Geotechnical Considerations" from the Third Party Desk Study are outwith our remit for the project and our involvement is only in respect of "Land Contamination Risks and Liabilities".

2. Scope of Work

2.1 Fieldwork to comprise [nominally] 9 shallow [approx 1.0m deep, or approx. 0.5m penetration of any Made Ground encountered] exploratory locations, the final positions to be measured in to two fixed points & to be shown on a plan within the accompanying interpretative report. Nominal locations have been shown on the plan, which accompanies this letter. Definitive positions will be influenced by services locations, access etc., together with potential sources of contamination identified in the Desk Study.

2.2 Chemical laboratory testing to [variously] comprise broad suite of determinants ('ENV1 Suite') including metals suite and Speciated PAHs, possible Asbestos I.D., and Soil Organic Matter.

2.3 On completion of the fieldwork and availability of the factual chemical laboratory test results, an interpretative report will be prepared which will describe the fieldwork carried out, the soils encountered at the exploratory locations [logs] including any observations regarding the presence or absence of indicators of potential contamination in the exposed soils, interpretation of chemical laboratory test results, culminating in an updated conceptual model and risk assessment and where appropriate, provide *outline* remedial recommendations. [The Reader should note that to comply with planning, specific remedial works should be included in a Remediation Method Statement.].

2.4 The Reader will note that ground gas assessment has not been included in the proposed Phase 2 investigation at the site. The Reader is directed to Section 3 of this proposal that contains further observations and a revised assessment of the ground gas risk opined by the Third Party Desk Study.

3. Additional Information

3.1 Ground Gas

In preparation of this document this Author has carried out a review of the information contained in the Third Party Desk Study regarding the ground gas regime in the area and its potential effects on the development proposed for the

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site and provide the following observations :~

3.1.1 The Third Party Report states that “limited” sources of ground gas have been identified on site and that it is considered “unlikely” that a “significant” ground gas risk [presumably to “human Health”], exists.

3.1.2 The referred “further assessment” recommended by the Third Party Desk Study is contained within this section of the narrative for the Phase 2 and comprises a review of the available information and the risk assessment in the Desk Study.

3.1.3 The Desk Study [Section 2.1] reports storage of “agricultural machinery” and “hydraulic oil” over concrete surfacing in “good” condition with an absence of surface staining. Hydrocarbons in soils are a documented source of ground gas via the mechanism of microbial degradation. However in this instance no spillage or leakage [staining in exposed surfaces] has been reported and the integrity of the concrete will have protected the underlying soils from hydrocarbon impact and subsequent ground gas generation. Therefore this potential source is not considered to be ‘*plausible*’ and therefore is associated with a ‘*negligible – low*’ risk to human health via ingress in to confined spaces within residential dwellings.

3.1.4 Brick plinth accommodating aboveground diesel storage tank. In this instance no spillage or leakage [staining in exposed surfaces] has been reported and it is understood the tank has been removed off site. Therefore this potential ground gas source is not considered to be ‘*plausible*’ and therefore is associated with a ‘negligible – low’ risk to human health via ingress in to confined spaces within residential dwellings.

3.1.5 A review of the Third Party Desk Study indicated there were no *plausible* ground gas sources within 250m of the site.

3.1.6 It is understood the floor construction detail of the dwellings comprises block and beam with a ventilated subfloor void thus, in conjunction with the preceding points, conferring a ‘*negligible to low*’ risk to human health via ingress of soil-borne ground gas.

On that basis we consider that formal [‘quantitative’] ground gas assessment is not warranted.

In conclusion, on behalf of the offices of R K Wilson Ltd and G R Merchant we thank you in advance for your prompt attention in this matter.

Yours faithfully

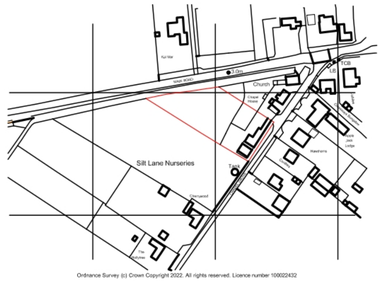
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SITE PLAN
1/ 200.



LOCATION PLAN.
1/ 2500

LANDSCAPING, TREE PLANTING & FENCING SCHEME.

A - 1.8m high close boarded fence.

B - 1.8m high close boarded Demountable Fence

C - 1.2m high close boarded Demountable Fence following removal of the existing bushes/ vegetation along the drain (agreed with IDB).

D - Demountable Lincolnshire post & rail fence to secure boundaries
Existing hedge to remain

E - Silver Birch Tree (Betula Pendula) feathered

F - Magnolia Tree (Magnolia Liliflora) feathered.

G - Slabbed patio and footpaths

H - Low Shrubbery Areas

J - Gravel Drives

K - Gravel Shared Drive & Block Paved Walkway

L - Lawn

All planting to be in accordance with BS 4428:1989 and amendment No. 1 (1991)

All trees to be planted with minimum 0.6m plastic mulch mat and to be staked, tied and tubed.

1/ 3 to ½ bag of peat free tree and shrub planting compost to be incorporated into backfill for each tree hole.

Proposed Exploratory Location

NOTE:-
New Access to be to LCC Highway Specification & Requirements

ref:	revision	date
M	PLOT 4 NUMBER	MAY '2025.
L	10m YEAR BOUNDARY AMENDMENTS	MAY '2025.
K	DIMS ADDED TO PLOT 5 BOUNDARY - B/ IDB	APR '2025.
J	LAYOUT AMENDMENTS	MAR '2025.
H	ROOF CHANGES PLOTS 1&4 GARAGES	MAR '2025.
G	DRIVE AMENDMENT - SHEILDS WILSON PLAN	NOV '2022.
F	PLANNING AMENDMENT	OCT '2022.
E	CHANGES TO PLOTS	OCT '2022.
D	REMOVAL OF 1 PLOT	SEPT '2022.
C	LAYOUT AMENDMENTS	JUNE '2022.
B	LAYOUT AMENDMENTS	MAY '2022.
A	LAYOUT AMENDMENTS	MAY '2022.

G. R. MERCHANT LTD.
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ARCHITECTURAL, STRUCTURAL AND LAND DRAINAGE CONSULTANTS

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12A Park Road, Holbeach,
Spalding, Lincs. PE12 7EE
Tel: 01406 490800
Fax: 01406 425744
E-Mail: gr.merchant@btconnect.com

Project
RESIDENTIAL DEVELOPMENT.
OFF CHAPEL DROVE
HOLBEACH DROVE
SPALDING. LINC'S. PE12 OPT

Client
R K WILSON LTD

Drawing
SITE PLAN - PROPOSED

Job Ref.	Drawing No.
3942-21.	02N.
Date	**Drawn**
APR 2022	SLD.

Scales
AS INDICATED.

DO NOT SCALE FROM THIS DRAWING
This drawing is copyright and may not be altered, traced, photographed or used for any other purpose other than that for which it is issued. The General Contractor is to check all dimensions on site and report any discrepancies to the Architect. All details shown on this drawing including foundations are based upon typical site conditions related to the area. No responsibility can be accepted for abnormal conditions which may be discovered during construction unless reported to the Architect so that design amendments may be considered. Site soil surveys are recommended in respect of foundation design and drainage. This drawing is prepared for the purpose of obtaining Planning Approval only to the amount of information contained and does not purport to contain a full specification of the works. It is solely for the purpose of obtaining Planning / Building Regulation approval. This drawing must not be used as a contract document alone. The works will not be supervised or inspected on site by G.R. Merchant or any representative thereof. It is the client or their appointed agents responsibility to control workmanship, substitution of materials, adherence to specification, variations to contract etc.All materials to be new unless otherwise stated and all components and materials etc. to be used fitted and installed etc. in strict accordance with manufacturers instruction and relevant code of practice. Materials shall conform to appropriate British standard specification or BBA certificate or European code equivalent. The Employer / Client shall ensure that the selected contractor is conversant with and adopts all measures necessary to achieve compliance with Health and Safety legislation for Building sites and Work places. The Employer / Client is advised that should the works need to comply with the Construction Design and Management Regulations an independent Planning Supervisor will be required. The works shall comprise of all that is shown on the drawing and details. Work that may not specifically be shown but may be reasonably inferred as necessary to carry out the works shall be deemed to be included. It is the plot / land owners responsibility to be aware of the Party Wall etc. Act 1996 when building in close proximity to adjoining neighbors boundaries.

4.0 Conclusions & Recommendations

4.1 Land Contamination Risks and Liabilities

Uncertainty and Data Gaps	This assessment is based on desk study information only. No Site specific ground investigation data has made available for review although Site walkovers have been completed in September 2019 and July 2022.
Soils	The risk of the Site requiring widespread remediation to protect end users is considered to be low, although localised remedial measures, for example provision of a clean soil cover for proposed landscaping may be required. Made Ground has been identified at the surface during the Site walkover and the nature and thickness is unknown. As such a limited environmental investigation is recommended to assess the risk to future Site users.
Groundwater	Significant potential sources of contaminated have not been identified from the desktop assessment. The Site is not located within a groundwater Source Protection Zone (SPZ).
Ground Gas	Limited potential sources of ground gas have been identified on-Site. It is considered unlikely that a significant ground gas risk exists at the Site however, a ground gas risk assessment is recommended at the time of any intrusive investigation.
Potential Contaminated Land Development Risks	Widespread contamination is considered unlikely and the preliminary risk assessment has identified a **low** risk of soil/groundwater contamination and hazardous ground gas at the Site. Asbestos may be present within the Made Ground.

4.2 Geotechnical Considerations

Uncertainty and Data Gaps	This assessment is based on desk study information only.
Preliminary Ground Model	Based on the available information, it is anticipated that the Site is likely underlain by a sequence of Topsoil and Made Ground underlain by Tidal Flat Deposits (sand and silt), Till (clay with occasional sand/gravel bands) and bedrock of the Oxford Clay Formation. Given the presence of drains within the surrounding area and information from BGS boreholes, groundwater is expected to be shallow. The Envirocheck Report indicates that the Site has a moderate potential for compressible ground stability hazards and a high potential for running sand ground stability hazards.
Plausible Geo-Hazards	The geohazards listed below have been identified to follow guidance presented in the HE document CD622 'Managing Geotechnical Risk' (2019) which aims to identify and manage the geotechnical risks associated with a scheme throughout its lifespan, from planning to construction to maintenance. The following geohazards are considered to be substantial ground related risks associated with the proposed development. A substantial risk is defined by Delta-Simons in Appendix C. • The underlying clay deposits at the Site may pose a risk to the foundations of the proposed development due to the effects of frost heave and shrink and swell associated with trees; and • The Tidal Flat Deposits, known to contain peat locally and generally be soft/loose in nature, may provide constrains when designing foundations for the proposed residential dwellings.