## Acanthus WSM - Joe Keighley

**Subject:** RE: FW: LYH/01 - Catherine's Walk, Barnsley - Grant of Permit

**From:** Elliot Heatherington <ElliotHeatherington@arpassociates.co.uk>
**Sent:** 12 June 2018 17:22
**To:** Joanna Chambers <joanna.chambers@lyha.co.uk>
**Cc:** Peter Wormald <PeterWormald@arpassociates.co.uk>
**Subject:** RE: LYH/01 - Catherine's Walk, Barnsley - Grant of Permit

Hi Joanna

The rotary drilling works on the site were completed yesterday. Please find the following brief update of the findings. Please note that the information is preliminary, and full details will be provided in due course.

In the northwest area of the site only (where the most recent rotary drilling took place):

- The rotary drilling works have identified what is interpreted to be coal mine workings, in the three boreholes.
- The rotary drilling identified a borderline thickness of competent rock cover over potential coal mine workings.

Therefore, if deep strips/trench fill foundations, or piled foundations, are used, then grout treatment of the underlying coal mine workings is likely to be required.

If reinforced raft foundations are used, it is possible that the thickness of competent rock cover over potential coal mine workings could be maintained, and, potentially, that grout treatment of coal mine workings would not be required. The rotary drilling has shown that the thickness of competent rock cover over the coal mine workings is borderline and, therefore, this scenario would be subject to further detailed analysis of the results, which I have not had a chance to do yet.

From tomorrow, I will be away on leave for two weeks. I will therefore look to complete the further detailed analysis of the drilling results upon my return, and will contact you once this stage is complete.

I trust that this is satisfactory for now. In the meantime, however, if you require more information with regards to the assessment of ground stability, then please liaise with Peter Wormald, my department manager, who should be able to assist you.

Kind regards,

Elliot
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