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Re: Floor Test : 73 Paris Avenue, Westlands, Newcastle, Staffordshire.
Test Ref : 18547 : Dated 26th March 2024.

Further to our recent visit to the above address, we confirm having carried out a visual site inspection, and obtaining a sample of hardcore from the front Dining Area.

External Brickwork

An external inspection shows no evidence of cracking or lateral movement of the brickwork below DPC level due to sulphate action.

Internal Inspection

The floors throughout ground floor level are solid construction. Some evidence of cracking was noted to the concrete floor slab where the floor test was carried out, which is co-incident with Sulphate Action on the concrete. The concrete floor slab was approximately 100mm thick at the test location although less than the average strength, indicating some degrading of the concrete due to sulphate action. There is a 500g polythene membrane between the concrete and the infill. The hardcore sample taken was a red ash / shale type material and was slightly moist.

Attached is the result of the analysis on the hardcore sample showing a Sulphate level of 1640mg SO4/Litre.

This result corresponds to a grading of Class 3 as detailed in the **Communities and Local Government Publication 07BD05094**. Hardcore with a sulphate level of 1640mg SO4/Litre falls within the Class 3 grading 1600mg SO4/Litre to 3000mg SO4/Litre is the limit of Class 3.

Conclusions

Although a 500g polythene membrane is present between the concrete and the infill, some evidence of cracking was noted in places to the concrete floor slab where the floor test was carried out, which is co-incident with sulphate action on the concrete. As the hardcore fill is slightly moist, with this Class 3 Sulphate Level, it is possible that further damage could take place in the future to the floors and walls below DPC to the property if, for any reason, there was an increase in the moisture content of the hardcore infill.

Cont.

We would therefore, recommend all the concrete floors be replaced complying with current Building Regulation Requirements.

NB. The Communities and Local Government Publication 07BD05094 referred to in the report was researched and prepared by the Building Research Establishment.

Please do not hesitate to contact me should you require any further clarification of the points raised in my report.

Yours Faithfully,



ALAN CHARLES.

NB: All sulphate samples are tested at an independent laboratory, it provides only an approx guide to the sub floor sulphate content and the possibility of sulphate attack, the results should therefore be interpreted accordingly. We cannot accept any liability for loss or damage arising from use of any information supplied in this report. It is essential that our report is interpreted in conjunction with the house survey/valuation and is therefore, the surveyor's recommendations that are final. Blythe Building Consultants carries P.I. Insurance.



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Client

Blythe Building Consultants Limited
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Date: 04 April 2024
Site[^] 73 Paris Avenue,
 Westlands,
 Newcastle,
 Staffordshire

Originator: Alan Charles
Our Ref: 71955 / CH / E

1. Sample:

Sample Reference [^]	Description	Sample Weight	Date Received
18547	Sub-base / Fill	1.7kg	28 March 2024

2. Analysis:

2.1 The sample was submitted for the following analysis:

Sample Reference [^]	Testing Requirements
18547	Water soluble sulfate content

2.2 The below is the testing method used in the analysis

Testing	Testing Method	UKAS
Water soluble sulfate	Based on methodology from BS1377 : Part 3 : 2018	Yes


3. Results:

Sample Reference [^]	Date Analysed	Water Soluble Sulfate Content SO ₄ , mg/l
18547	28 / 03 / 2024 - 04 / 04 / 2024	1640

4. Comments:

Comment
Information marked by [^] was supplied by the client
Results apply to the sample as received
Results relate only to the item tested

Authorised By: 
 B Fairweather
 Technical Administrator

Checked & Authorised By: 
 C. Farr
 Chemistry Supervisor

