



Our Ref: 2670-L-002 GSA

12 January 2021

Robbie Roskell  
Architectural and Building Consultants  
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Dear Robbie

**Ground Stability Assessment – Proposed Extensions**  
**5 Hammonds Mead, Charmouth, DT6 6LR**

In accordance with your instructions, given on behalf of Mr & Mrs Gordon-Wright, I have carried out a geotechnical desk based assessment and a brief site inspection for the proposed development at the above site, in order to assess how the proposals may affect the stability of the site and surrounding area.

The proposals, shown on your Drawing Nos 20/111/01 to 04, involve the construction of single storey, predominantly flat roofed extensions around the north-east corner of the existing bungalow, together with the construction of a garden room and extended patio on the southern, seaward facing, rear elevation.

The assessment has been based upon a study of various geological and historical records together with my knowledge of the likely ground conditions in the area and a brief inspection of the site on 9<sup>th</sup> June 2020. As the desk based geotechnical assessment has not involved an inspection of the underlying materials at the location of the extension, I am unable to make specific recommendations regarding the required new foundations

The Hammonds Mead housing development lies to the west of Lower Sea Lane, the last development before a grassed field and the coast. Lower Sea Lane runs towards the sea in a north-south direction at the base of the western valley side of the River Char. As such, the ground in the vicinity slopes at a shallow angle of only about 3 to 4 degrees to the south-east. The development was constructed in the late 1990s in the garden of a large house known as Hammonds Mead, which was latterly a hotel and was demolished at the time of the development.

The Hammonds Mead house first appears on the 1929 Ordnance Survey plan and the site of the bungalow is part of the garden. Prior to that, the plans show the area to be just open fields.

The walls of the bungalow are rendered and painted. A cursory inspection of the external wall faces revealed no significant distortion or cracking that could be attributed to current or past slope instability. There were no other features in the immediate vicinity of the bungalow that would indicate active slope instability. Due to the sloping nature of the ground, the floor level at the south-east corner is about 900mm above ground level, whilst at the opposite north-west corner it is near to ground level.

## Geology

The 1:50,000 British Geological Survey plan for the area indicates the site to be underlain by the Lower Lias, Black Ven Marl strata of early Jurassic age, with the overlying Upper Greensand strata of Cretaceous age outcropping much further up the valley side, in the vicinity of Old Lyme Road. The Lower Lias generally comprises clays and mudstones with thin bands of limestone, while the Upper Greensand generally comprises silty fine sands with gravel and cobbles of chert.

The 'solid' geology is usually overlain by a superficial deposit known as 'Head'. It is the Head material that can be prone to slope instability, but this would normally be on slightly steeper slopes further up the valley side. The Head was formed during glacial times and covers the valley slopes in this area. It was created by severe weathering and subsequent downslope movement of outcropping materials under periglacial freeze/thaw conditions. If Head is present at this location it is most likely to be the Lias Clay Head. The geological plan shows the site to be close to geologically recent gravel deposits, which overly the Lias and are interpreted as a River Terrace associated with the River Char. Where slopes are prone to instability, which would normally be on the steeper slopes further up the valley side, significantly increasing, or, alternatively, reducing, the load on the slope could be detrimental as far as stability is concerned. An introduction of an excessive quantity of water into the ground could also be detrimental.

## Conclusions

As mentioned above, I have not inspected ground conditions at the location of the proposed extensions and, therefore, I am unable to give specific recommendations regarding foundations. However, I would anticipate normal trench fill concrete foundations extending to a minimum depth of 1.0m below ground level would be appropriate.

The ground only slopes very gently at the site and the proposals do not involve any significant excavations or filling. The inspection of the site did not reveal any signs of existing slope instability. Bearing in mind the likely nature of the materials beneath the site, I would consider that the construction of the proposed extension is unlikely to affect the overall stability of the site or surrounding area.

The opportunity should be taken, as far as possible, to ensure that the existing drains serving the property are functioning adequately. Soakaways are unlikely to be an appropriate way of disposing of surface water, which should be taken to a piped disposal system.

I trust the above is clear and sufficient for your purposes at present. Should you have any further queries please do not hesitate to contact me.

Yours sincerely

Peter Chapman  
PCRM Consultancy

cc Mr & Mrs Gordon-Wright (by email)