

FAO Mrs Jill Bastow  
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NID/EJE/L12540-02  
29<sup>th</sup> September 2023

Dear Jill

**Burleigh Cottage, Robin Hoods Bay – Planning Ref 2023/0525 & 0527**

Thank you for your letter dated 11<sup>th</sup> September 2023 along with the comments received from the Conservation Officer.

Having been through the details and issues raised with the applicants we set out below our response to some of the more fundamental issues and theory behind them.

**Subdivision**

We believe and have evidence to confirm that the property was constructed as two units - the Lower Ground Floor not having a direct connection to the upper floors.

This is dealt with in part within previous statements, however, in addition we set out more specific detail.

Our clients obtained an email (attached) from the previous owners which confirms the current modern stair was inserted to provide the connection to suit their use at the time. It was not a replacement.

Also attached are photographs of the Living Room floor directly above the Kitchen.

It shows that all floorboards are original and do not have a sign of a trimmed out opening that could provide space for an access stair however small.



Photo 1  
Living room adjacent door to lobby

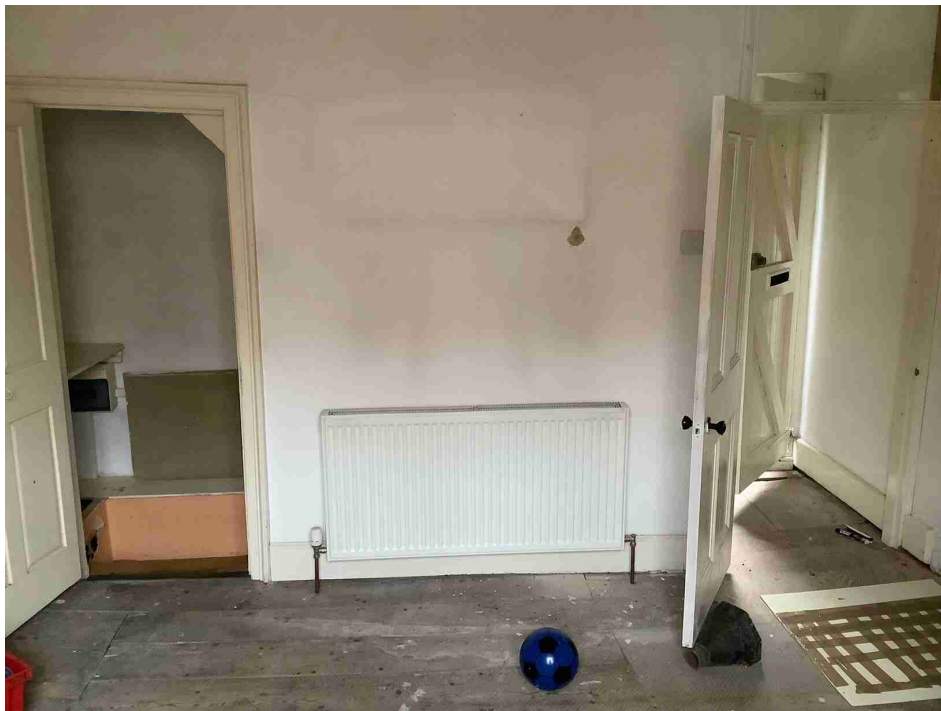


Photo 2  
Stairwell wall to Living room

There is, as you will note, a small 'hardboard' patch but this is not a size that could be used as access.

Also, when you view the layout, it is difficult to see how a stair could be positioned to provide access in any practical manner without negative impact upon the use of existing rooms.

The current stair position is we believe, a former under stairs cupboard.

As required, we will now retain this original feature, ie, the door and historic partition.

#### Lower Ground Water Ingress

As noted, our clients are happy to replace floors with a more historic and traditional construction.

We do, however, require a solution to the below ground rear wall and the ground water issue connected with it.

A percolation membrane is proposed to ensure containment of the water in a neutral manner in relation to the property. It allows the water to run without creating increased pressure or forcing it to add to a rising damp problem.

The wall in question which backs onto Jim Bells Stile is up to 3m below ground. It naturally has high levels of moisture and groundwater within it which will vary during the seasons but will be ever present. This problem will not go away by drying out from within the room which will only be a brief solution.

External solutions are not possible as the path is a Council owned highway,

We agree the lime-based process when linked with a breathable floor is a good and welcome suggestion for the above ground, Ground Floor walls where a more natural breathing construction will work. However, for the rear wall a more fundamental method is required and we believe a percolation membrane will provide this and ensure it does not affect the rest of the building by increasing water pressure or retention.

#### Insulation to External Walls (Inner Face)

The improving of thermal insulation to the building is a requirement which I am sure we would all like to see.

Our clients are already committed to making the initial improvements to the property to achieve this.

They are, as you suggest, removing cementitious finishes from both the inside and outside (pointing) of the building and replacing with breathable lime products to improve the drying out of the walls which in itself improves warmth.

They are also refurbishing all windows to reduce draughts which I know is something you support.

However, the use of a wool/hemp lining to the outside walls (inner face) would improve the thermal efficiency with natural traditional materials and methods, continuing to allow breathability.

While this will require the removal of some skirting boards and window surrounds these would be salvaged and reused where possible or replaced with a matching timber version.

Our clients are very involved in the 'thermal efficiency' industry including its options for use on traditional buildings and they have provided me with good background reasoning/justification.

They have carried out initial performance calculations of the building utilising a dynamic simulation tool IES and concluded;

*The majority of the energy is lost through the walls and they are aware that the thermal losses through the windows cannot be improved due the Grade 2 Listing. (Improvement to the infiltration losses is planned through refurbishment).*

*The Current Stone walls (with a Limecrete Finish (which is an improvement on a basic lime finish) have an Approximate U Value of 1.2 w/m<sup>2</sup>k. (For reference, the Current U value for a refurbishment would be 0.30 w/m<sup>2</sup>k if this was a non-listed building and subject to consequential improvements). As it is listed, we are not obliged to comply with this which we believe that in the UK and global drive to Net Zero isn't ethical.*

*We have considered Wall insulation thicknesses from 100mm to 50 mm and their impact on the operating costs and carbon footprint and have settled on a compromise of an Insulation of 50mm to reduce the impact on the room sizes and possible modifications to calls etc.*

*The proposal is to use sustainable and breathable materials that complement the listing and will allow the building to 'breathe' as it originally would have. (refer to drawings for proposed solution and materials)*

*This proposed solution will provide a U Value for the walls of approximately 0.548 w/m<sup>2</sup>k which is a substantial improvement over the standard Stone & Lime plaster.*

*In addition to the thermal losses it is essential to consider radiant losses based on the surface temperature which is a primary mechanism for Thermal comfort. The surface temperature, drafts and ultimate thermal comfort will be massively improved with our proposal.*

*We believe there is a place for Sustainable listed building and should be supported in creating this first such solution in the Bay.*

*Ultimately this proposed solution could easily be removed should any future tenants not desire to be sustainable and consider the Global carbon footprint of our building.*

Other than these points we appreciate the details provided and will amend drawings etc to reflect your requirements.

I Look forward to your thoughts on the information provided in due course.

Yours Sincerely

Neil Duffield