Consultant's Advice Note – 21 Hall St, New Mills

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Attention **Chris Johnston** **HPBC** **Company Email / Fax**

Structural Vulnerability – HPBC Planning Application HPK/2017-116

At the request of Mrs C Bond, the owner and resident of 21 Hall Street, New Mills SK22 3BR, Sine Aequalis Ltd has carried out a dilapidation survey and desk top study of matters relevant to the proposed 2 storey extension at the adjacent 19 Hall Street. This advice note is a summary of the findings.

CURRENT CONDITION

21 Hall Street was built approximately 100 years ago on steeply sloping ground and on shallow traditional foundations. The main loadbearing walls appear to be traditional rubble fill stone masonry. There is a cellar under the rear half of the property. Externally there are high retaining walls to the rear and side gable. Cracking is evident in various locations throughout the property. It is understood that "Helifix" type ties have been installed to the gable wall in order to control any further movements. Houses of this age and type were often built with limited regard to positive tying of floors, walls and roofs. The dead weight bearing of timber floor decks and roof carcassing was often relied upon for lateral restraint of heavy walls.

Inspection of the subfloor void below the upper ground floor suggests weak / friable lime mortar jointing has been used for the masonry, with some sections of open jointed (effectively "dry stone" joints) walling to the main gable.

Whilst the current owner has kept the property in good repair (recent gable wall repointing, for example), the underlying fundamental structure of the house is best described as "delicate".

GROUND CONDITIONS

The house is founded on the "Pennine Lower Coal Measures" which consist of weak mudstones, siltstones, and sandstones. The geology of the local area is highly variable with frequent folds and fault lines. There used to be an active colliery about 150m to the NW of the house. The nature and extent of any underground workings are not known. The local ground conditions are therefore possibly more vulnerable to instability due to excavation and vibrations than is normally the case.

PROXIMITY AND NATURE OF THE WORKS

Whilst the “final condition” proposed extension works at 19 Hall Street appear acceptable to Mrs. Bond, the predominant concern is **how** the works are achieved. Assurances are requested that suitable ground investigations are carried out prior to commencement of the main works in order to fully assess and define the nature of the new foundations for the extension. It is entirely possible that the works could fall within the scope of the Party Wall Act (1996) – 6 metre rule, especially if piled foundations are deemed necessary / appropriate. Once the implications of the ground conditions are known it is requested that the substructure design is submitted to Mrs. Bond for further comment.

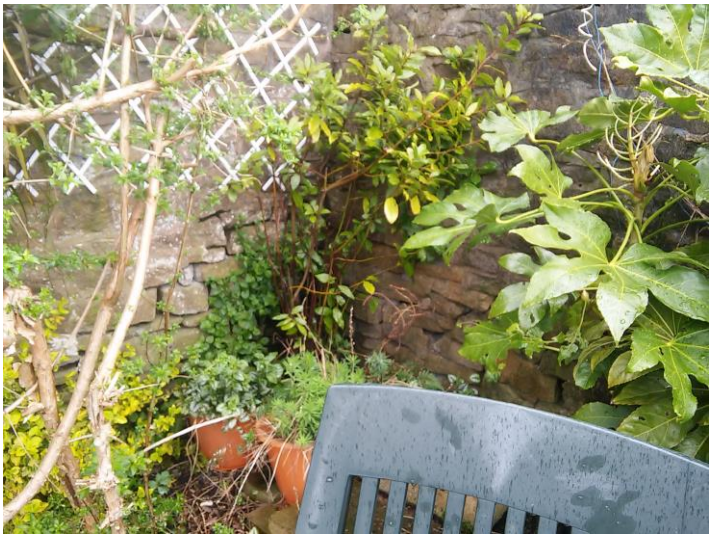
Issues such as site logistics (vehicular access – it is understood that the driveway is privately owned as part of the curtilage of 21 Hall Street, but with a public footpath right of way only), storage of materials, site personnel welfare facilities, noise, vibration and dust control all need to be carefully considered and addressed. It is anticipated that the works are sufficient to warrant application of the CDM Regulations 2015, and that all relevant Health & Safety risks are identified, avoided wherever possible, and minimised if not.

PHOTOGRAPHS

Selected photographs to illustrate the nature of No21 Hall Street and the local environs are appended.

View from SE – 4.5m high retaining walls, steeply sloping ground, “perched” main structure. Side access road in good repair, neatly landscaped and well maintained.
No 19 (out of shot) is to the right of the driveway.

View from NW looking down the driveway (public access by foot only)
Unlike the view above this photograph does not give a true indication of the gradient of the slope.



Open jointed nature of the stone masonry to the secluded rear garden. This is potentially very vulnerable to excessive vibration.

Random jointed stone masonry to the high rear gable wall. Note repointed historic crack repairs.

Internal view of the open jointed masonry beneath the ground floor / gable wall. This is potentially very vulnerable to excessive vibration.