

SPEARTECH SERVICES LIMITED
CONSULTING CIVIL AND STRUCTURAL ENGINEERS

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STRUCTURAL REPORT

PROPERTY : **BARN ADJACENT TO**
24 STRINGLER HOUSE LANE
EMLEY

DATE OF SURVEY : **11 MARCH 2013**

LOCATION

The detached barn is located approximately 15.0m from No. 24 Stringer House Lane, and ranges from 2.5m to 7.0m from the lane itself.



EXISTING BUILDING

The barn is constructed of 5 steel portal frames with sectional sizes off 200 x 100mm at circa 4.65m centres. The frames are infilled with 200mm wide hollow concrete blocks to a height ranging from 1650mm to 4100mm above floor level. The upper panels are a combination of lightweight corrugated single ply sheeting panels. The floor is a concrete slab of indeterminate depth. The existing structure appears in a good state of repair. There are no visible signs of movement or failure in any part of the structure or floor slab.



PROPOSALS

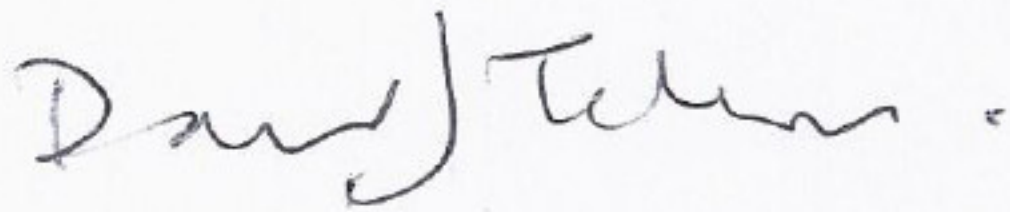
The proposals are to utilise the existing concrete block walls and vertical steel members. It is understood that the rafter sections of the frames will be removed to allow the roof pitch to be raised with new steel rafters and purlins supporting timber spars and battens to facilitate the use of stone slates. The existing block walls will be raised using 100mm blockwork to the eaves level. The external walls will then be covered with a new skin of stonework with a cavity and insulation between. It is proposed to utilise the existing floor slab as a sub-base for a new floor.

RECOMMENDATIONS

In our professional opinion, the proposals are appropriate and workable. The new external stone skin will require a new foundation alongside, and tied into, the existing, which will allow for any strengthening of the original foundations based on the proposed wall first floor and roof loadings. New internal walls and first floors will provide additional stability to the structure.

SUMMARY

The existing barn structure is suitable for the proposals and can be adapted with minimal disruption as suggested to create a residential property.



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