



Consulting Structural and Civil Engineers

DoylePartnership

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REPORT ON A
STRUCTURAL INSPECTION AND APPRAISAL
OUTBUILDING/FORMER BARN - STOUPE BROW FARM

NYMNPA
27 AUG 2010

26 August 2010

Our Reference: 10 C 173 vp

DoylePartnership Limited

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**REPORT ON A
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1. INTRODUCTION

- 1.1. Acting on the verbal instructions of architect Mr Russell Lumb, Doyle Partnership has carried out an inspection and structural appraisal of an outbuilding to the former agricultural holding known as Stoupe Brow Farm.
- 1.2. The outbuilding is marked in red as part of 'Barn 1' on the attached copy of the architect's location plan, drawing 01, attached to this report. For convenience the subject building will be described as Barn 1, although it is an independent 2-storey stone built structure adjoining the roofless stone walls of what was formerly a larger barn.
- 1.3. Structural appraisal of the roofless shell of the former barn was strictly outside the scope of the appraisal of Barn 1. Nevertheless, casual inspection showed the old barn walls to be stable and in reasonable structural condition. The loss of the barn roof was most probably associated with neglected repair of the roof and decaying roof timbers – this is conjecture but whatever the actual history of the old barn, neither this nor its present condition adversely affects the strength, stability or serviceability of Barn 1, the subject building.
- 1.4. Inspection was limited to an examination of immediately visible and accessible elements of load bearing structure. Invasive investigation was outside the scope of the appraisal and was not carried out, although no defect or inadequacy was evident that would demand such investigation in order to make a meaningful assessment of structural condition.
- 1.5. The relevant section of Barn 1 is of traditional local stone construction but has been subject to relatively recent remedial work on conversion to a store/workshop.
- 1.6. The barn occupies a steeply sloping site overlooking the North Sea at Robin Hoods Bay and ground surface levels immediately adjacent to its northwest elevation have been lowered by re-grading or by erosion from surface water run-off.

NYMNP/PA

27 AUG 2010



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NYM / 2010 / 0551 / FL

- 1.7. The building has no foundation in the normal sense of this term – the walls have been built straight off the ground – so lowering of the ground surface has exposed the wall base. There was no visible distress associated with this problem at the time of inspection but the northwest elevation is at significant risk of suffering severe differential settlement damage unless remedial foundation underpinning work is undertaken as a matter of some priority.
 - 1.8. Internal inspection showed the original stone walls to have a recently constructed concrete block lining with a first floor and timber roof structure also of relatively recent origin. The visible recent work is generally of a good standard and there was no evidence of distress or structural inadequacy.
- 2.0 CONCLUSION AND RECOMMENDATIONS**
- 2.1 The section of Barn 1 that is the subject of this report is generally in good structural condition and has been subject to relatively recent minor alterations and refurbishment work of a good standard.
 - 2.2 The erosion or re-grading of land at the foot of the northwest elevation has exposed the wall footings, severely prejudicing wall strength and stability. Remedial work must be undertaken as a matter of urgent priority. New foundations must be constructed off stable ground, not less than 600mm below existing ground level. It is advised that a trial hole be first excavated to determine the nature of existing soils in the region of this wall. The trial hole should be excavated as close to the existing wall as it is safe to do so. However, to avoid any risk of further destabilising the structure this hole should be no closer than 600mm from the external face of the wall. In the unlikely event that stable undisturbed soils are not present within 600mm of the existing ground surface, the trial hole should be backfilled and re-excavated further away.
 - 2.3 New foundations would be built in short sections on a 'hit and miss' construction sequence. This is standard foundation underpinning procedure but should be entrusted only to a responsible and competent builder, ideally one with previous experience of this work.

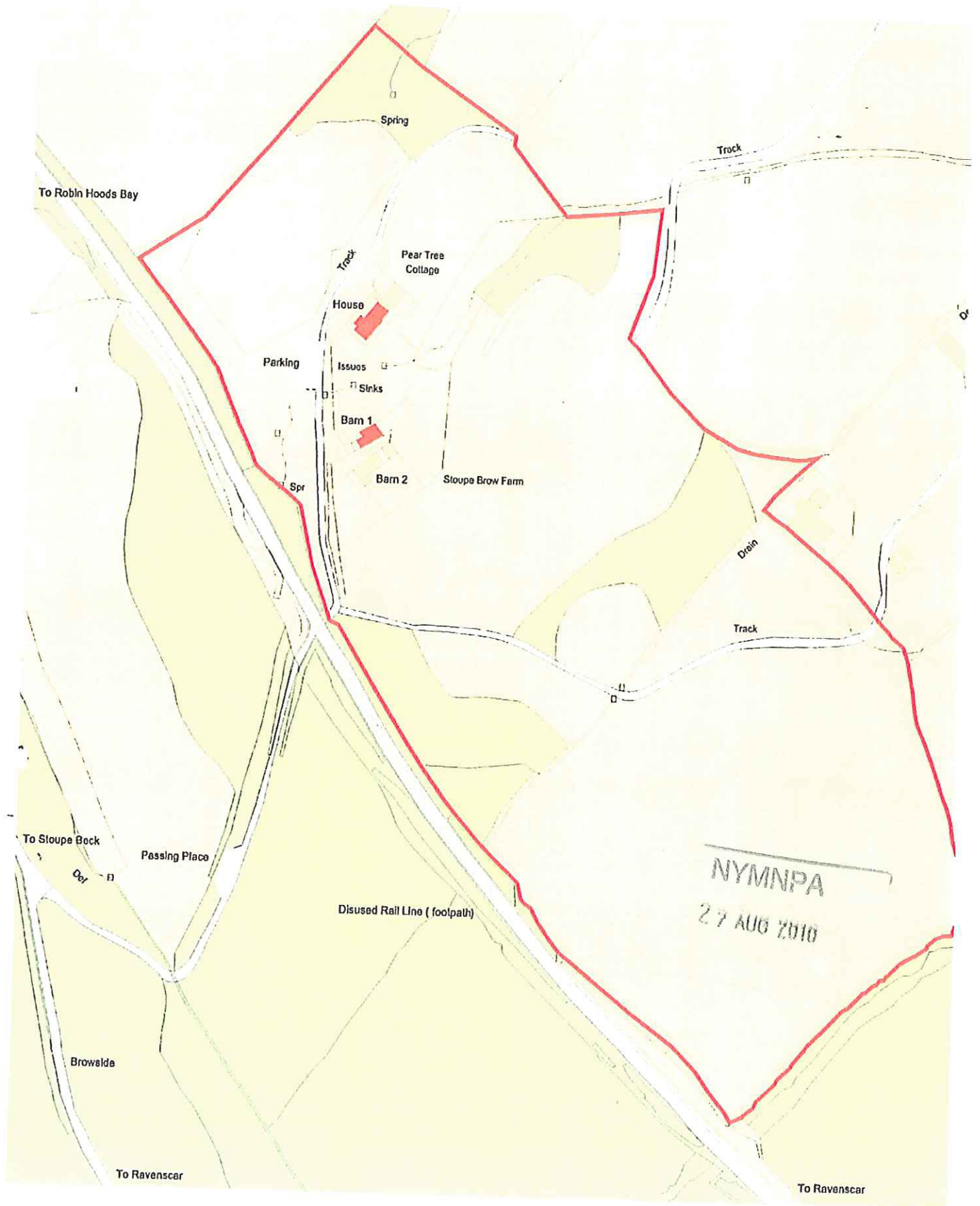
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MR & MRS S TOTT
STOUBE BROW FARM
2009.03 • 01 • LOCATION PLAN
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JULY 2010

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