

Project No 10-3030

Mr P Ambler
"The Limit"
Old Wood North
Skellingthorpe
Lincoln
LN6 5UA

08 April 2010

Dear Mr Ambler

Re: "Woodend" Old Wood South, Skellingthorpe, Lincoln – Visual Structural Inspection

Introduction

Further to instructions received from Mr P Ambler the author undertook a visual structural inspection at the property "Woodend" on Monday 15th February 2010.

It is proposed to submit a planning application for a new residential dwelling to replace the existing or extending the existing to create more living accommodation. The scope and extent of this letter report is to assess whether the property is structurally capable or not for extending.

This inspection and report is therefore not intended to be a schedule of dilapidations but any pertinent structural considerations are identified.

Building Description

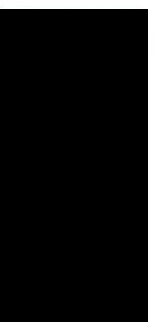
The original timber framed bungalow was constructed in the 1920's and was extended and enclosed in masonry in 1981.

The property is constructed from traditional building materials, the external cavity walls comprise of blockwork inner leaf, 30-50mm cavity and rendered masonry outer leaf. The floors throughout appear to be constructed with a solid concrete ground bearing slab. The roof construction is of timber rafters supported off propped timber purlins and full height blockwork wall within the later extension, all overlaid with concrete tiles.

Ground Conditions

The ground conditions comprise clay of subsoils upon which the building is founded using concrete strip footings. Refer to the trial hole logs and location plan for further details.

There are a number of mature trees to the East and West of the property and also a laurel hedge along the Northern boundary that could be of potential detriment within the vicinity of the buildings.



Observations

Within the Dining and Kitchen area and Lounge there were exposed timber beams supporting the ceiling joists which displayed slight distortions.

All internal walls were of solid masonry construction with the exception of the wall in the Hallway from the Kitchen which was timber studding.

Cracking was noted within Bedroom 2 at the junction between the wall and ceiling and also cracking was evident below the bay window.

Minor cracking was noted within Bedroom 1 at the junction between the wall and ceiling.

The original building had been extended within these areas of cracking with the walls built up off the existing gable walls and Southern wall to support the new roof.

The roof ridge line was unlevel and displayed slight distortions.

Conclusions & Recommendations

The cracking noted is relatively minor and can be repaired as part of any general maintenance planned.

The main cause of concern regarding the existing property is the shallow depth (approximately 500mm) at which the existing footings are founded due to the nature of the subsoils and the close proximity of trees.

Assuming the clay subsoil is of medium shrinkable potential and the trees are of moderate water demand, referring to the NHBC Guideline for Building Near Trees the foundations should be founded at a depth of around 1500mm below ground level. This depth will vary according to the tree species and the actual distance from the foundations.

This guidance would suggest that the existing foundations will be susceptible to shrinkage and heave movement which could cause significant cracking and failure of the foundations and structure.

We would not recommend that these foundations should be subjected to any further loading with an addition of a two storey extension.

Forming a single storey extension at ground floor is an option, the foundation depths would need to be designed in accordance with the NHBC Guidelines. Where adjoining the existing property we would recommend that the existing foundations are underpinned to the required depth and stepped back up to the existing foundations to help alleviate any potential for differential settlement.

Given the fact that the existing structure may need to be partially underpinned, forming the extension may not be become economically viable due to the costs and disruption associated with these works.

We trust that the above and enclosed is satisfactory but should there be any queries or further information required please do not hesitate to contact me.

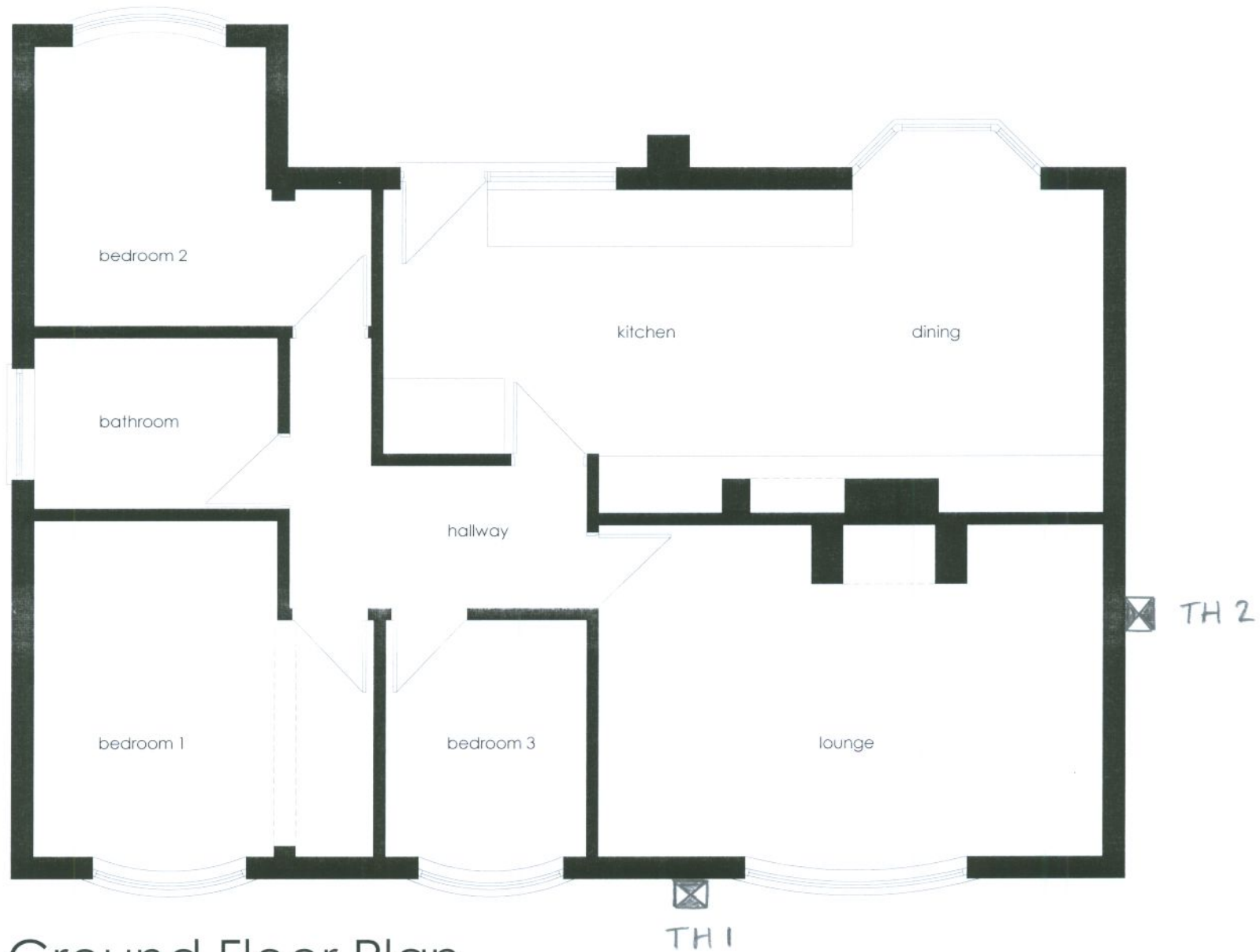
Yours sincerely



Andrew Footitt

I.Eng., AMI,structE

Appendices



Ground Floor Plan



Contract
"WOODEND" OLD WOOD SOUTH
SKELMINGTHORPE

Part of Structure
TRIAL HOLES

Job No 10-3030

Calc. Sheet No.

Drawing ref:

Calculations by
AMF

Date

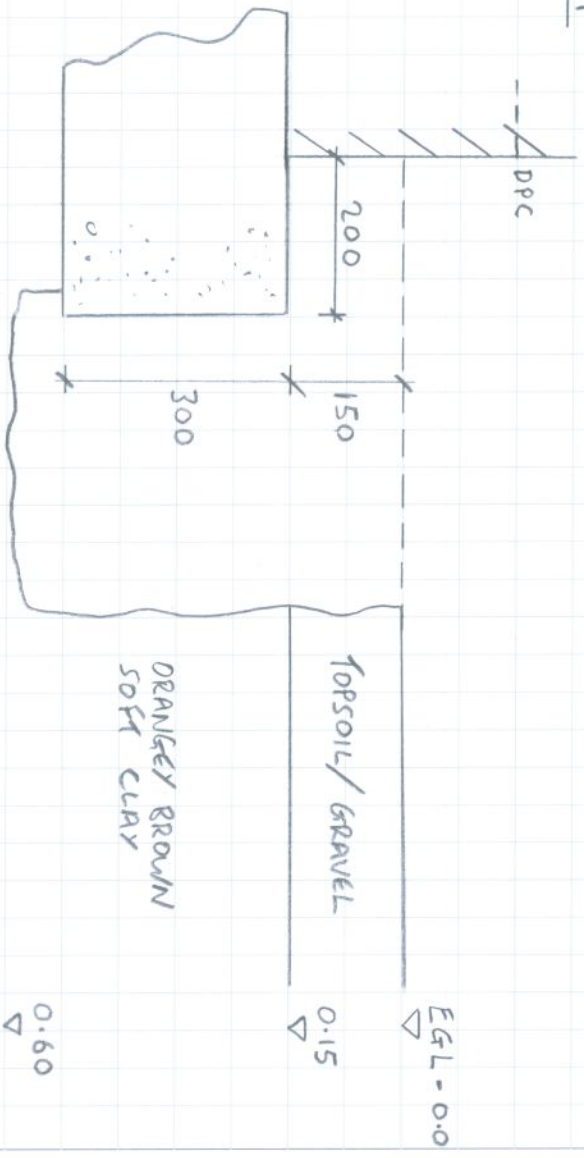
FEBRUARY 2010

Revision

Checked by

CALCULATIONS

TRIAL HOLE 1



TRIAL HOLE 2

