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SUPPORTING DOCUMENTATION TO ACCOMPANY THE PLANNING & LISTED BUILDING APPLICATION FOR THE PROPOSED ALTERATIONS TO THE EXISTING GARDEN ROOM AT SHEINWOOD MANOR.

PHOTOGRAPH 1 - GENERAL VIEW OF SHEINWOOD MANOR, WITH THE EXISTING GARDEN ROOM ON THE RIGHT.

SUMMARY

This planning and listed building application seeks permission to obtain consent for replacing an existing glazed roof, with a slate roof. The roof is on a garden room which was constructed on the side of a grade 2 listed Georgian Farmhouse in the early 1990's. The roof plan of the existing glazed roof is quite complex, with numerous hips and valleys and this has lead to failure at some of the junctions. The glazed roof sits uncomfortably within the context of the listing building and therefore our proposal is to remove the existing glazed roof and modify the existing walls to enable a new simplified roof structure to be erected which would have a slate finish to match that used on the roof over another 1990's addition on the other side of the house. This would result in a garden room which can be used, without the need for buckets to collect rainwater, and one which relates more sympathetically to its host building.

THE LOCATION

The application site sits in an isolated location by Sheinton Brook. It is accessed along a track which leads off the Sheinton Road between Much Wenlock and the settlement of Sheinton. At the end of the track is Sheinwood Farm, which historically was part of Sheinwood Manor. The access to Sheinwood Manor was originally through the Farm Complex, but as this is now in separate ownership the Manor is now accessed via a driveway which is located to the right hand side of the main track at the gates to Sheinwood Farm. This section of private driveway leads to Sheinwood Manor and Sheinwood Cornmill. The Cornmill was also historically within the ownership of Sheinwood Manor, but was repaired and converted into a residence in 2000.

THE SITE

The main frontage of the house faces North West, and the house is approached form the Eastern side. Upon arrival at the house it is the slate roofed 1990's extension on the North East side of the house which comes into view first. The garden room with its glass roof is located on the South West side of the house which makes it almost hidden from view. As such the proposed alterations to this structure will have very little impact upon wider views of the house from outside the application site due to its position.

HISTORY OF THE PROPERTY

A copy of the Listed Building Description is contained within 'Appendix B'. The property is described as dating from the late eighteenth century with later additions. Sheinwood Manor was originally the centre of a complex which consisted of the House, Farm Complex and Corn Mill. The Farm and the Corn Mill are now in separate ownership. The House was listed in 1986. Subsequent to the listing of the property permission was obtained for the construction of two single storey additions, one on either side of the main frontage. It appears that the Garden Room (referred to as a conservatory) was constructed in 1992, and the Dining Room was constructed in 1996.

PRE - APPLICATION CONSULTATION

This should be a relatively straight forward application and therefore no pre-application consultation has been carried out. I am a conservation architect with a degree in 'Building Conservation Technology', which is the preservation and conservation of traditional buildings. I also have over twenty five years experience of preparing drawings and applications for alterations and extensions to traditional buildings. I have an extensive knowledge on vernacular architectural styles and therefore use this knowledge when undertaking works such as the scheme which is being proposed as part of this application. The only reason for submitting a pre-application enquiry would be to establish which additional reports would be required to accompany the application. No such reports will be necessary to accompany this application and the proposed works are not considered to be contentious in any way so a pre-application enquiry was not considered to be necessary. The only query with this application is whether the works require Planning Permission, or whether the works can be carried out just under Listed Building Consent. We have submitted a Planning & Listed Building Application and will expect the council either not to request payment of the planning fee, or to refund it if the fee is taken up front, but it is then determined that a Planning Application is not required.

ECOLOGY ISSUES

If the existing works were to affect an existing slate or tiled roof structure then a Preliminary Roost Assessment (PRA) would be requested to establish the presence or absence of bats. As the existing roof is glass and no other roofs are being affected then there is no need to provide a PRA as a glass roof does not provide a suitable habitat for bats.

DESCRIPTION OF THE PROPOSED WORKS

The existing glass roof has a very shallow roof pitch and consists of numerous hips and valleys. As such the complexity of the roof has lead to the ingress of water as the junctions have started to fail. The roof is in need of attention. The options were either to replace the existing glass roof on a like for like basis or to explore the option of replacing the glass roof with a solid roof. The existing glass roof does not sit comfortably within the context of the listed property. This combined with the ingress of water resulting from the failure of some of the junctions, resulted in the conclusion that its replacement on a like for like basis was not considered to be a sensible option. Therefore we started to look at the feasibility of replacing the glass roof with a solid roof.

Due to the shallow pitch of the glass roof, a straight forward replacement on a like for like basis could not be achieved. This is because a glass roof can be set to a very shallow pitch such as 10 to 15 degrees, whereas a pitched roof using a natural material has to have a minimum roof pitch of 22.5 degrees. I therefore looked at the fabric of the existing structure to see if there was a way of altering the roof to achieve the necessary pitch. The presence of windows on the first floor, meant that to avoid the cills of these

windows that the ridge height of the roof structure could not be increased. Therefore I had to look at what could be achieved in terms of lowering the eaves height to create a suitable increase in the roof pitch. It turns out that the heads of the existing windows within the outside walls of the garden room were set relatively low within the wall, and a number of courses of the brickwork above these windows could be removed to create the increase in the roof pitch that was necessary. This also improved the aesthetics internally between the head of the windows and level of the wall plate. This reduction in the height of the wall plate also enabled the simplification of the design of the roof to remove the hips which had lead the failure of the previous roof and resulted in the ingress of water. The result is a roof which will prevent the further ingress of water whilst also improving the external appearance of the garden room and helping it sit better in relation to the listed property to which it is attached.

The roof on the core of the main house has a clay tiled roof finish. Natural clay tiles are best suited to being laid above a roof pitch of 35 degrees. As the proposed roof above the Garden Room will be set at 22.5 degrees, natural slates will need to be used. The roof above the single storey Dining Room extension on the left hand side of the front elevation already has a natural slate roof finish. Therefore the use of natural slates to the modified roof above the Garden Room will help balance the front elevation, with natural slates used on the two single storey extensions to either side of the main body of the house.

STRUCTURAL IMPLICATIONS

Rather than demolish the existing Garden Room and build a new structure this scheme is based upon modifying the existing fabric to retain the existing external walls. As we are changing the roof structure, careful consideration has been given to the structural implications of this proposed change. Within 'Appendix C' there is a set of structural calculations which provide the specification for the steel ridge and valley beams which would be required to support the new roof structure.

HERITAGE IMPACT ASSESSMENT

The use of glass on the existing garden room does not compliment the listed building and the complexity of the roof makes it stand out rather than enabling it to blend in with the listed building. As a result the existing glass roof above the garden room has a detrimental impact upon wider views of the listed building.

The proposed modifications to the fabric of the existing Garden Room will enable the simplification of the profile of the existing roof structure. This simplified profile will sit much more harmoniously with the listed building, whilst the use of natural slates rather than glass will help the Garden Room blend in with the building rather than stand out from it.

The proposed alterations and changes which are being proposed will provide a heritage gain, which will provide a positive heritage impact.

IMPLEMENTATION OF PARAGRAPH 47 OF THE NPPF

Applications affecting buildings set within a rural context quite often need more time than the statutory period designated for the determination of applications set by planning law. Rural and Heritage planning issues are completely different from those experienced within Urban areas and therefore a 'one size fits all' policy does not work. I therefore invoke my right under 'paragraph 47' of the National Planning Policy Framework (NPPF) which came into force on the 20th of July 2021 to agree to a longer period for the consideration of this application. This longer period will allow for discussions to be held between myself and the planning / conservation officer regarding any possible tweaks and amendments and will allow extensions to the determination date if necessary to allow for any revisions to be made to the drawings and submitted for consideration. Now that the government has unfortunately removed the right to a free re-submission for withdrawn or refused applications it is now vital that local authorities do not choose to ignore this.

CONCLUSION

The proposals contained within this application have been carefully considered and designed to help preserve / compliment and enhance the existing grade 2 listed building.

APPENDIX
A
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PHOTOGRAPHIC RECORD

PHOTOGRAPH 2 - GENERAL VIEW OF THE SOUTH WEST ELEVATION WHICH SHOWS THE EXISTING GARDEN ROOM WITH ITS GLASS ROOF.

PHOTOGRAPH 3 - DETAIL OF THE EXISTING GLASS ROOF WITH ITS CONFIGURATION OF VALLEYS AND HIPS.

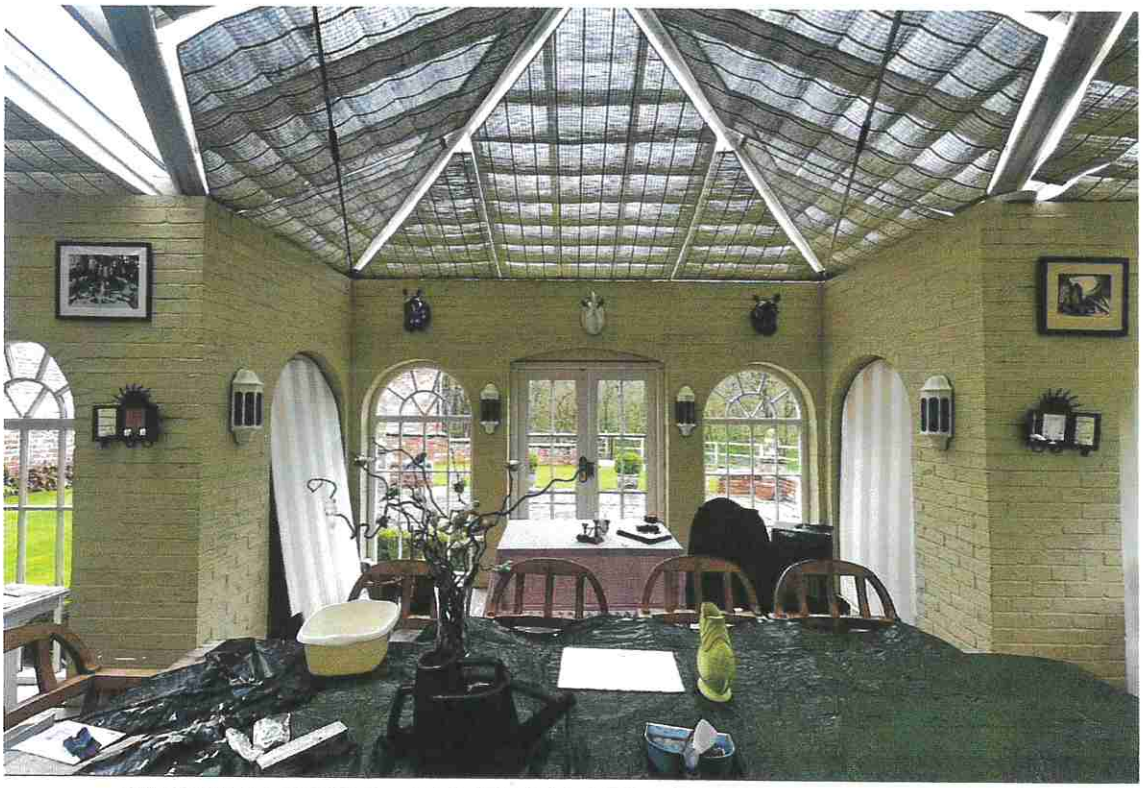
PHOTOGRAPH 4 - DETAIL OF NORTH WEST ELEVATION
OF THE EXISTING GARDEN ROOM.

PHOTOGRAPH 5 - DETAIL OF THE SOUTH EAST ELEVATION
OF THE EXISTING GARDEN ROOM.

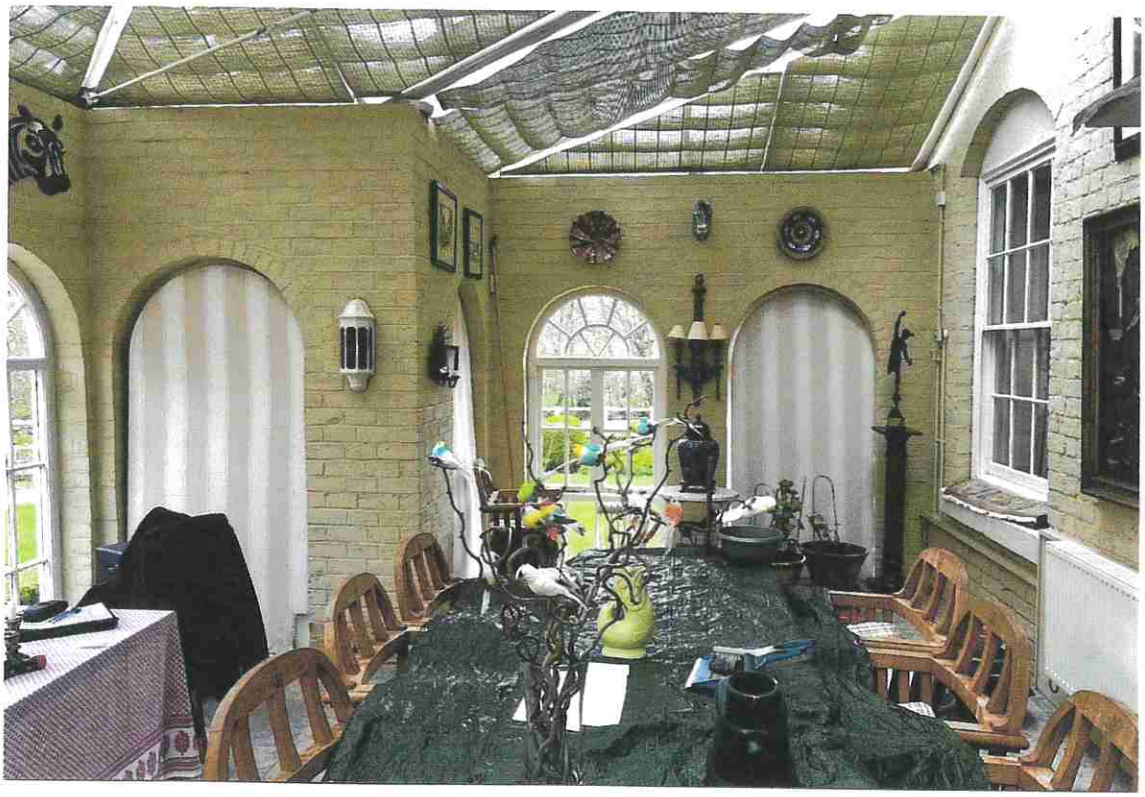
PHOTOGRAPH 6 - DETAIL OF EXISTING GLAZED ROOF
WHICH SHOWS AREAS OF DECAY TO THE INNER HIP.

PHOTOGRAPH 7 - DETAIL OF EXISTING GLAZED ROOF
WHICH SHOWS AREAS OF DECAY TO THE OUTER HIP.

PHOTOGRAPH 8 - GENERAL VIEW OF THE INTERIOR OF OF THE EXISTING GARDEN ROOM LOOKING BACK TOWARDS THE ORIGINAL HOUSE.



PHOTOGRAPH 9 - GENERAL VIEW OF THE INTERIOR OF OF THE EXISTING GARDEN ROOM LOOKING OUT TOWARDS THE GARDEN



PHOTOGRAPH 10 - GENERAL VIEW OF THE INTERIOR OF OF THE EXISTING GARDEN ROOM LOOKING TOWARDS THE FRONT OF THE HOUSE.

PHOTOGRAPH 11 - GENERAL VIEW OF THE INTERIOR OF OF THE EXISTING GARDEN ROOM LOOKING TOWARDS THE REAR OF THE HOUSE.

PHOTOGRAPH 12 - GENERAL VIEW OF THE SINGLE STOREY DINING ROOM EXTENSION ON THE NORTH EAST SIDE OF THE HOUSE WHICH HAS A NATURAL SLATE ROOF FINISH.

PHOTOGRAPH 13 - DETAIL OF THE DINING ROOM EXTENSION AS SEEN FROM THE REAR WHICH SHOWS THAT THE ROOF OVER THIS EXTENSION IS ALSO SHALLOW.

APPENDIX
B
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LISTED BUILDING DESCRIPTION

Sheinwood Farmhouse

A Grade II Listed Building in Sheinton, Shropshire

Description

SHEINTON CP SHEINWOOD
SJ 60 SW
5/117 Sheinwood Farmhouse
GV
II
Farmhouse. Late C18 with later alterations. Red brick, plain tile hipped roof with central well, integral end stack to left and stack behind ridge to right. 3 x 3 bays. Three storeys, dentilled eaves cornice; main front has 16-paned glazing bar sashes with segmental heads; central entrance, pedimented doorcase with wreathed radial fanlight and boarded-over 6-panel door; south-west elevation has casements to first and second floors (some blind and painted in imitation) and central entrance, boarded-over 6-panel door with flat hood supported on stone brackets. Formerly known as Sheinwood Manor.

Listing NGR: SJ6156002623

Coordinates

Latitude: 52.62 / 52°37'12"N
Longitude: -2.5692 / 2°34'9"W
OS Eastings: 361560
OS Northings: 302623
OS Grid: SJ615026
Mapcode National: GBR BS.805L
Mapcode Global: WH9DF.HDSS
Plus Code: 9C4VJCCJ+28

Entry Name: Sheinwood Farmhouse
Listing Date: 24 February 1986

Grade: II
Source: Historic England
Source ID: 1055236
English Heritage Legacy ID: 258904

ID on this website: 101055236

Location: Sheinton, Shropshire, TF13
County: Shropshire
Civil Parish: Sheinton
Traditional County: Shropshire
Lieutenancy Area (Ceremonial County): Shropshire
Church of England Parish: Sheinton
Church of England Diocese: Hereford

APPENDIX
C
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STRUCTURAL CALCULATIONS

CALCULATIONS

OF

STRUCTURAL COMPONENTS

FOR PROPOSED ALTERATIONS

OF GARDEN ROOM ROOF

AT

SHEINWOOD MANOR

SHEINTON

SHROPSHIRE

M B GRIFFITHS C Eng MICE
UPPER WIGMORE FARM
STATION ROAD
HALFWAY HOUSE
SHREWSBURY SY5 9DB

Project:	M B Griffiths C Eng MICE Upper Wigmore Farm Halfway House Shrewsbury SY5 9DB Tel (01743) 884239			
Re: ALTERATIONS TO ROOF AT SHEINWOOD MANOR SHEINTON SHROPSHIRE				
Calculation: ***DESIGN OF STRUCTURAL COMPONENTS***	By ***MBG***	Date ***16/11/23***	Project No	Sheet No ***1***

INTRODUCTION

It is proposed to carry out alterations to the roof at this property which will require the insertion of structural components.

The following calculations are in support of the required components and other details.

DESIGN CRITERIA

Where necessary the following calculations have been carried out in accordance with:-

BS 5628 Code of Practice for use of Masonry

Bs 5950 Structural Use of Steel in Buildings

BS 5268 Structural Use of Timber

The following loads have also where necessary been used in the calculations:-

Live load floor 1.5 kN/m²

Dead load floor 0.5 kN/m²

Live load loft floor 0.5 kN/m²

Dead load loft floor 0.5 kN/m²

Dead load roof 1.00 kN/m²

Live load roof 0.75 kN/m²

Dead load brickwork 102.5 mm thick 2.2 kN/m²

Dead load brickwork 215 mm thick 4.4 kN/m²

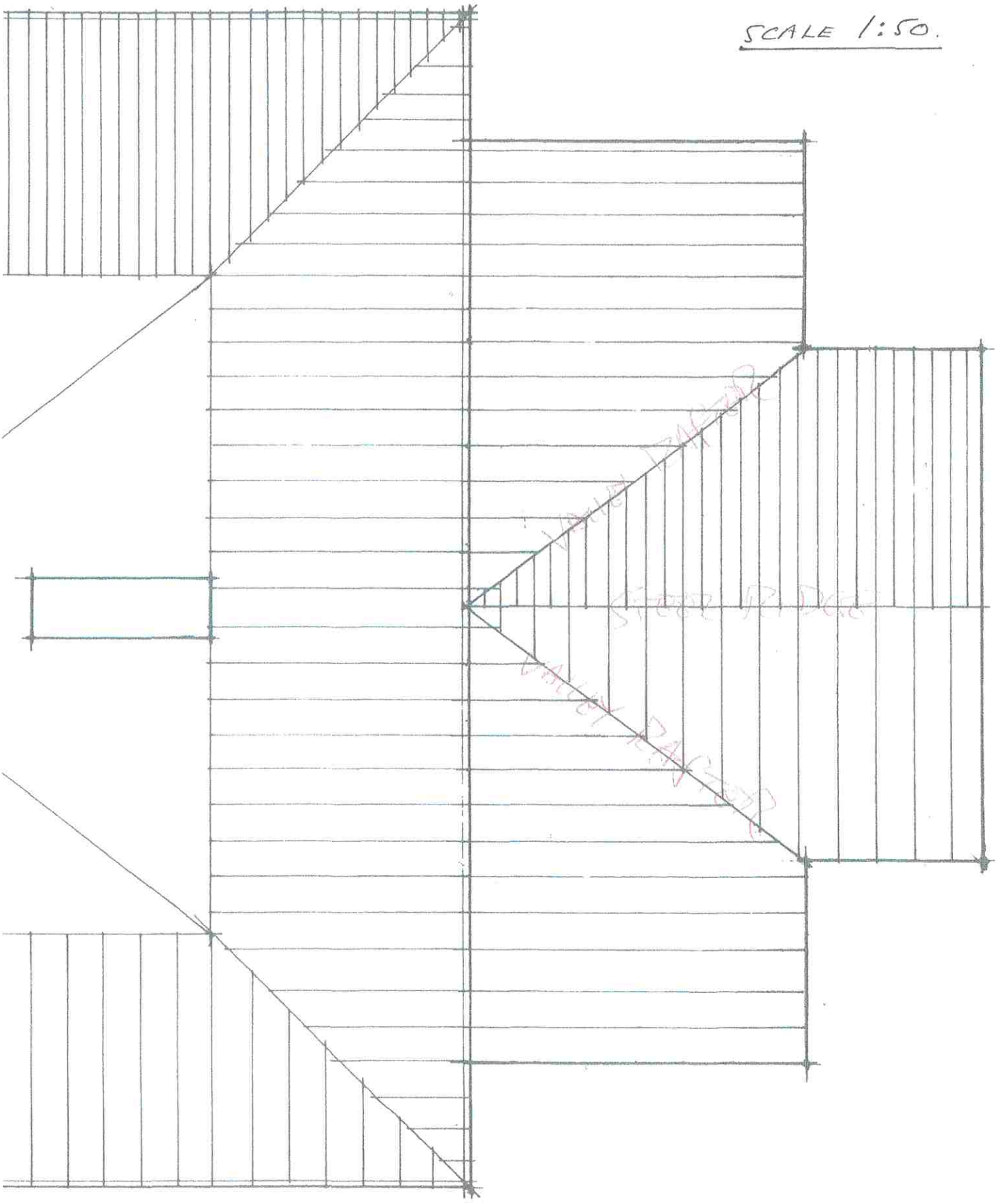
Factors for steel

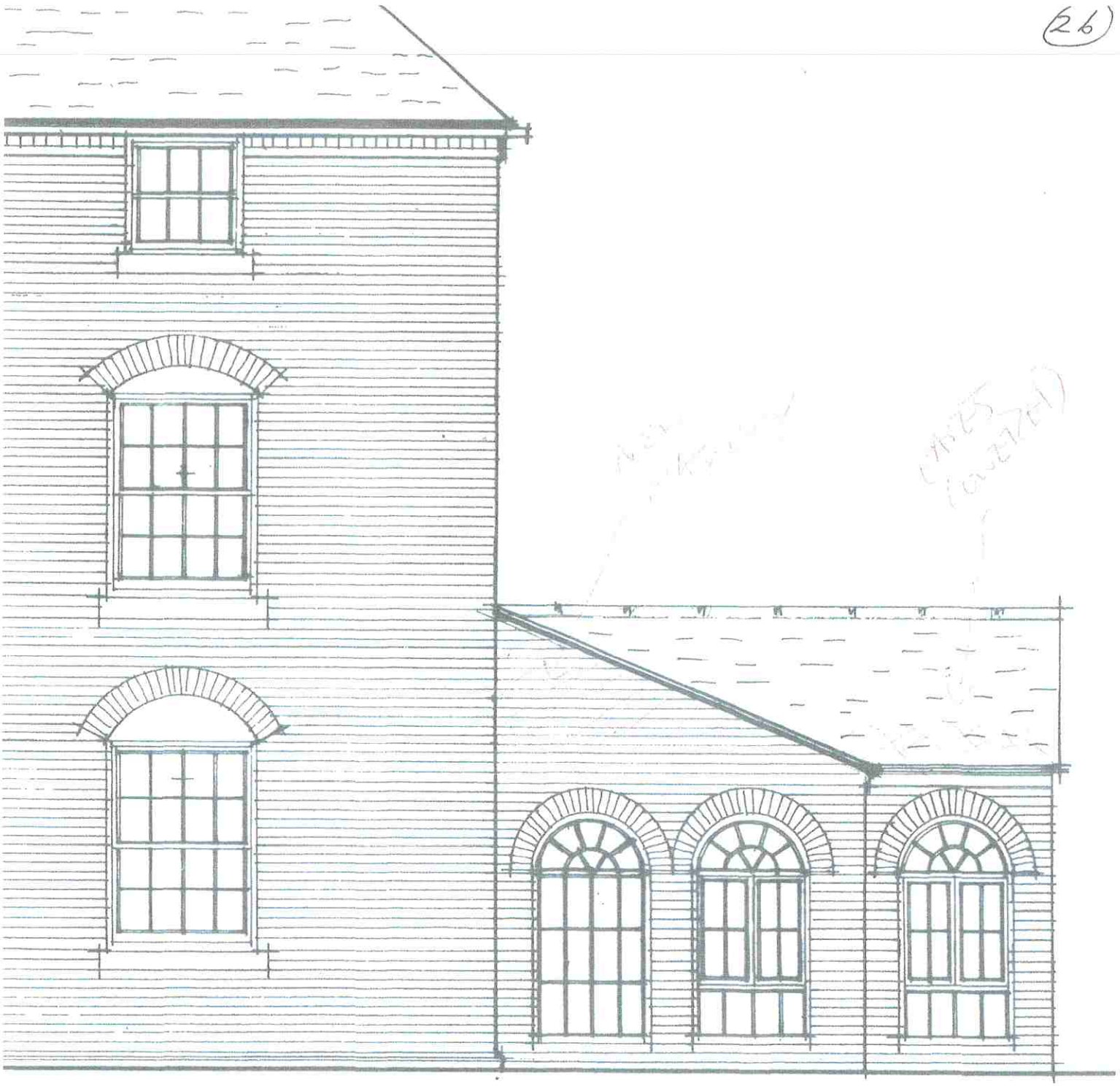
1 4 Dead load

1.6 live load

GARDEN ROOM SHEINWOOD MANOR

SCALE 1:50.





ATION

Project:	M B Griffiths C Eng MICE Upper Wigmore Farm Halfway House Shrewsbury SY5 9DB Tel (01743) 884239			
Re ALTERATIONS TO ROOF AT SHEINWOOD MANOR SHEINTON SHROPSHIRE				
Calculation: ***DESIGN OF STRUCTURAL COMPONENTS***	By ***MBG***	Date ***16/11/23***	Project No	Sheet No ***3***

CHECK ON VALLEY RAFTERS TO PROPOSED ROOF

Maximum span of rafter system =4460 mm (Including bearings)

Load on valley rafter is from:-

Roof with a span of 2000 mm

*Load from roof = 2.0*4.46*(1.6*0.75+1.4*1.0) = 23.19 kN*

*Bending Moment = WL/8 = 23.19*4.46/8 = 12.93 kNm*

TRY 203 MM BY 102 MM BY 23 KG/M UC FOR VALLEY RAFTERS TO PROPOSED ROOF

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Calculation:	By	Date	Project No	Sheet No
DESIGN OF STRUCTURAL COMPONENTS	***MBG***	***16/11/23***		***4***

BEAM SYSTEM FOR VALLEY RAFTERS TO PROPOSED ROOF

Trial beam to be 203 mm by 102 mm by 23 kg/m UB

Effective span of beam = 4460 mm

Maximum Bending Moment to be satisfied = 12.93 kNm

MOMENT OF RESISTANCE OF BEAM

$$\text{Slenderness Ratio} = \frac{nLe}{ry} = \frac{1.2*4460+2*203}{23.7} = 243$$

Torsional Index =22.6

Bending Stress = 80.5.N/mm² and Sxx = 232.0 mm³

*Therefore Moment of Resistance =pb*Sxx = 18.80 kNm*

THEREFORE BEAM SATISFACTORY IN BENDING.

CHECK DEFLECTION

Unfactored load on beam =17.60 kN (UDL)

$$\text{Def} = \frac{5WL^3}{384EI} = \frac{5*17.60*1000*4000^3}{384*205*1000*2090*10000} = 3.43 \text{ mm}$$

THEREFORE DEFLECTION IS SATISFACTORY

CHECK BEARING

Reaction at end of beam = 11.56 kN

Assume bearing length = 200 mm

*Therefore bearing on wall = 11.56*1000/(200*102) = 0.58 N/mm²*

THEREFORE ADOPT 203 MM BY 102 MM BY 23 KG/M UB FOR VALLEY RAFTERS TO PROPOSED ROOF

Project:	M B Griffiths C Eng MICE			
Re:ALTERTIONS TO ROOF AT SHEINWOOD MANOR SHEINTON SHROPSHIRE	Upper Wigmore Farm Halfway House Shrewsbury SY5 9DB Tel (01743) 884239			
Calculation: ***DESIGN OF STRUCTURAL COMPONENTS***	By ***MBG***	Date ***16/11/23***	Project No	Sheet No ***5***

STEEL RIDGE BEAM

Longest span of beam = 5000 mm (Including bearings)

Load on beam is from:-

Roof with a rafter span of 3000 mm

Load from roof = 2(0.5*3.0*5.0*(1.6*0.75+1.4*1.0)) = 39.00 kN*

*Therefore Bending Moment =WL/8 = 39.00*5.0/8 = 24.38 kNm*

TRY 203 MM BY 133 MM BY 25 KG/M UB FOR RIDGE BEAM

Project:	M B Griffiths C Eng MICE	
Re: ALTERATIONS TO ROOF AT SHEINWOOD MANOR SHEINTON SHROPSHIRE	Upper Wigmore Farm Halfway House Shrewsbury SY5 9DB Tel (01743) 884239	

Calculation:	By	Date	Project No	Sheet No
DESIGN OF STRUCTURAL COMPONENTS	***MBG***	***16/11/23***		***6***

Trial beam to be 203 mm by 133 mm by 25 kg/m UB

Effective span of beam = 5000 mm

Maximum Bending Moment to be satisfied = 24.38 kNm

MOMENT OF RESISTANCE OF BEAM

$$\text{Slenderness Ratio} = \frac{nLe}{ry} = \frac{1.2*5000+2*203}{31.8} = 201$$

Torsional Index = 21.5

Bending Stress = 100 N/mm² and Sxx =313.3 mm³

*Therefore Moment of Resistance =pb*Sxx =31.33 kNm*

THEREFORE BEAM SATISFACTORY IN BENDING.

CHECK DEFLECTION

Unfactored load on beam = 26.26 kN (UDL)

$$Def = \frac{5\,WL^3}{384EI} = \frac{5*26.25*1000*5000^3}{384*205*1000*2887*10000} = 7.21 \text{ mm}$$

THEREFORE DEFLECTION SATISFACTORY

CHECK BEARING

Maximum Reaction at end of beam = 19.50 kN

Assume bearing length = 200 mm

*Therefore bearing =19.50*1000/(200*133) = 0.72N/mm²*

Use concrete padstone with a minimum strength of 7.0 N/mm²

THEREFORE ADOPT 203 MM BY 133 MM BY 30 KG/M UB FOR RIDGE BEAM OVER GARDEN ROOM

Project:	M B Griffiths C Eng MICE Upper Wigmore Farm Halfway House Shrewsbury SY5 9DB Tel (01743) 884239			
Re: ALTERATIONS TO ROOF AT SHEINWOOD MANOR SHEINTON SHROPSHIRE				
Calculation:	By	Date	Project No	Sheet No
SUMMERY SHEET	***MBG***	***16/11/23***		***A***

LOCATION	***DETAIL***
Valley rafters to proposed roof	*203 mm by 102 mmm by 23 kg/m UB*
	Bearing length 200 mm
Steel Ridge Beam	*203 mm by 133 mm by 25 kg/m*
	Bearing length 200 mm

Note:

(a) The span of the beams should be checked on site before ordering

(b) It may be necessary to alter the beam sizes once the exact construction details are exposed.