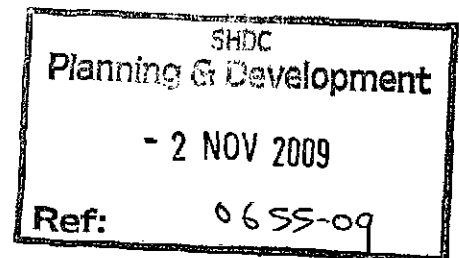
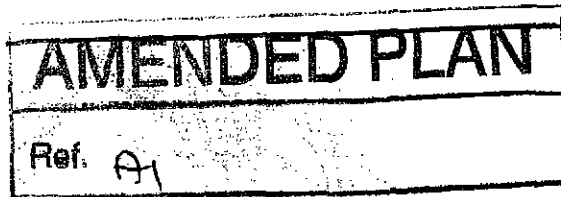




NEIL DOWLMAN | Architecture

APPLICATION FOR APPROVAL OF DETAILS RESERVED BY CONDITION



Application Numbers:
H21/1006/08 & H21/1007/08

AT

Roman Lodge, Mill Lane, Tydd St.
Mary, Spalding PE13 5SB



Applicant(s): Messrs. V. Sheppard & D O'Hegarty

August 2009

Introduction:

Full Planning Permission and Listed Building Consent was received in November 2008 for the 'proposed conversion of outhouses and alterations to existing dwelling' (Application Numbers: H21/1006/08 & H21/1007/08)

A total of ten conditions were attached to the planning permission and 13 to the listed consent and can be referred to in the attached Decision Notices (Appendix A). The details provided below seek the approval of the council to discharge the conditions.

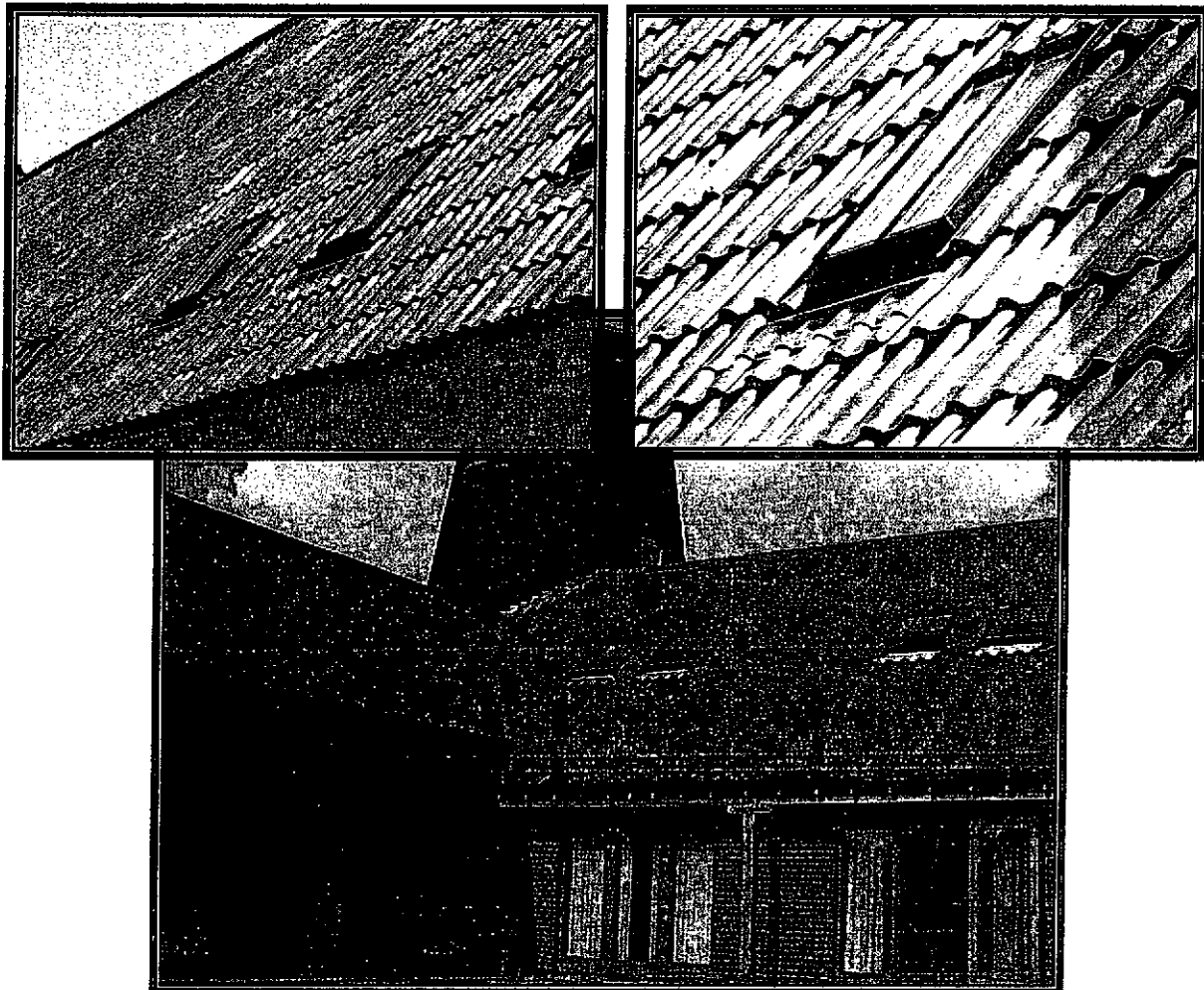
Conditions 1-10 of the Full Planning Consent are largely the same as conditions 1-10 of the Listed Building Consent.

Condition 1-

Time limitation of commencement of work complied

Condition 2 –

The proposed rooflight to be used on the development is a CR-1 conservation rooflight by The Rooflight Company. The clear structural dimensions are 565mm(w) x 725mm(l). The clear viewable dimensions are 385mm(w) x 545mm(l). Further details from the manufacturer's website have been provided within this submission package as Appendix B (Drawing Ref: 11060-32, 11061-35, 11062-36, 11009-125). Photographs (taken from the manufacturer's website) of the proposed rooflight installed in pantiles are provided below.

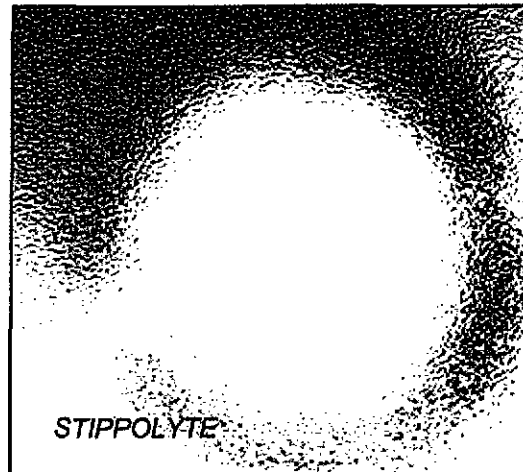


Condition 3 –

Details of the proposed window frames are provided on dwg. no.s B2043-30, 31, 32 and 33. A *preliminary* schedule of ironmongery including means of opening has also been provided on dwg. no. B2043-37. Models will be chosen following consultation with supplier and client.

Condition 4 –

The proposed obscure glazing will be Stippolyte as agreed on site. An illustration has been provided below.



Condition 5 –

Details of the proposed external doors are provided on dwg. no.s B2043-34, 35 & 36.

Close inspection of the lintel over the proposed new lobby door into the barn, indicates that behind the ('black') painted face board is the remains of the head member of the original door frame. This is identified by the cut tenons at each end and in the centre of the member in which a mullion was possibly once located. The lintel to the opening lies behind and slightly above the frame.

The proposal is to insert a new access door to the guest accommodation created within the barn. This proposal, however, is compromised by the proposed layout of accommodation within the barn and so the new door has been changed as shown on dwg no. B2043-34.

The full width of the head/lintel has been utilised in the design to provide a glazed door and to the remainder of the opening a closed timber board arrangement. To add interest to the design the joints of the proposed T&G boarding are to have slimmer battens installed over them giving a staggered appearance. The void behind the timber panel needs to be drained, ventilated and insulated as indicated on the plan.

The concrete floor has been installed in accordance with condition 10 of the planning permission. As such our proposed fenestration to the barn aims to disguise the differences in floor levels by close boarding the lower section of the screens to just above finished floor height. It is proposed that the glazed screens to the Bedrooms should be side hung with limiters that would allow additional ventilation and in case of emergency a means of escape.

Condition 6 –

Slates for the new Utility roof have been agreed on site with the Conservation Officer.



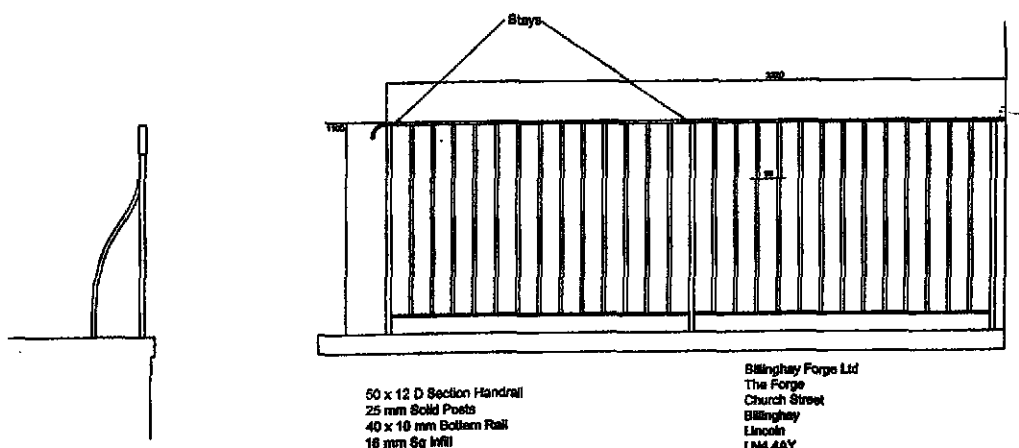
The barn will be roofed with pantiles that have been set aside following removal. Tiles that require replacement will be done so in a tile of matching colour, profile and size. A sample of which will be provided for agreement on site prior to installation. Any new tiles will be installed on the West side of the roof.

Conditions 7 & 8 –

Bricks for the new Utility have been agreed with the Conservation Officer. See Condition 11 (Appendix A) and Engineers' Repair Detail sheet 8 (Appendix C) for further details of making good brickwork.

Condition 9 –

- i. Eaves details for both new/replacement roofs will be simple timber fascias to match the depth and profile of the existing fixed to the face of the bricks as shown on dwg. no. B2043-16A and as shown on the photograph above.
- ii. Verge details for the proposed Utility match the existing Kitchen gable with two courses oversailing and proposed slates bedded on mortar as shown on the photograph above. The Utility structure has been constructed on site and the Conservation Officer has approved the work carried out so far. At her request the verge detail has been amended to match the adjacent gable.
- iii. Taskers' metal contractor has provided a sketch of the proposed railings as shown below:



• Proposed metal railings

Billinghay Forge Ltd
The Forge
Church Street
Billinghay
Lincoln
LN4 4AY

Tel 01826 861176
Fax 01826 861441
Mobile 07970 798672

The railings will be painted black with simple plate and bolt fixings into the masonry. In order to provide a sound base for the railings to fix into, we propose to remove the top five courses (which are loose) of brickwork and re-build them in 215mm brickwork. The brickwork will not protrude above the ground level.

- iv. The original Listed Building Consent allowed for the installation of some ventilation to the basement area. Building Control have indicated that if a calculation was done to work out the ventilated area (provided by air bricks) required to achieve optimum ventilation of a non-habitable basement, then an air brick would be required between each floor joist (i.e. as many as 20no. air bricks either side). Plainly this would not be acceptable and therefore it is proposed that there should only be 3no. 3"x9" black cast iron air bricks each side of the front door on the front elevation. These would be located at the level of the joist seating and whilst not giving the ideal solution, the Building Regulations would be deemed to have been satisfied as the situation would be better than previously existed on the listed building. However there would still need to be further air bricks located at the rear wall and/or gable to allow cross ventilation. It is therefore proposed that cast iron air bricks be placed in the gable to the conservatory, one each side of the chimney and that one air brick is placed on the South West rear wall within permitted distance from the proposed boiler flues. An advantageous flow of air will be evident from the existing external cellar door, the internal access from the Dining Room and the window through to the Butler's Pantry. Furthermore, the source of damp within the basement will have been dramatically reduced by the recent introduction of a French drain extending across the front of the property and the connection of existing downpipes into a new soakaway.

All of the air bricks to the house will be black cast iron with simple vertical slots and ant vermin/insect mesh and brickwork is to be supported by 3no. 60x8 galvanised steel plates each 375mm long chased into the mortar joints and pointed in lime mortar to match the facing brickwork.

In the barn, the floor level is lower than the ground to the front of the house. The barn is therefore to be drylined by installing a stud positioned a minimum of 25mm clear of the existing wall face. Terracotta air bricks will be fixed into the brickwork on the front a minimum 150mm above ground level. There will be 6no. air bricks (3"x9") located 150mm or more above external ground level. A French drain has been installed externally and in order to prevent any damp attacking the stud work of the dry lining, the DPM will be dressed up and attached to the cavity face of the studs. A set of internal aluminium louvred vents are to be placed in the plasterboard finish to ventilate the void behind the DPM and promote a flow of air through the rooms and behind the studwork.

Condition 10 –

- i. We do not propose to carry out any alterations to the existing dining room cellar access other than to lock the door. New access from the hallway will cease the use of the Dining room access door.
- ii. Details of the proposed Basement door (D10) are provided on dwg. no. B2043-36. Following some investigative work on site it was found that once the floor and high level cupboard formerly blocking the cellar access was removed, we only need to make good areas of the wall (in lime plaster) where former bearers to the cupboard were built in. We also propose to install a timber handrail and strengthen the underside of the stairs as necessary using
- iii. A Structural Engineer has inspected the roof of the barn and has identified that the common rafters are largely compromised by wet rot at their feet or by woodworm. These rafters have been removed but the principal rafters, purlins and collars have all

been retained. These timbers are to be treated. The proposed solution is detailed and explained in the separate Structural Engineers' Drawing No. 0377-01.

- iv. Repairs to the cellar chimney breasts are covered in the separate Structural Engineers' Report which is to be forwarded in due course
- v. Details of the proposed internal doors are provided on dwg no. B2043-35 & 36

Condition 11 –

A full schedule and specification of repair for the three items listed on the Listed Building Consent Notice has been prepared as a separate document attached as Appendix A.

Condition 12 –

See separate Engineers Report (to be forwarded in due course)

Condition 13 –

A French drain has been constructed along the NE elevation of the barn which should significantly reduce the amount of moisture passing through the solid wall. As a secondary measure to this we also propose to ventilate the void behind the dry lining as explained in Condition 9 iv) above. A section through the barn has been provided on dwg. no. B2043-16A.

Reference: H21/1006/08 – Planning Permission

Condition 10 – The floors to the proposed Guest Bedroom/Bathroom accommodation will be constructed at least 300mm higher than external levels as instructed by the Environment Agency and agreed with SHDC.

APPENDIX A

CONDITION 11 –

SCHEDULE & SPECIFICATION OF

REPAIR

1.0 Introduction

Condition 11 of Application No. H21/1007/08 states the requirement for us to supply a full schedule and specification of a) repair for the conservatory, b) the area of external wall covered by the flat roof Utility Room to be demolished and c) for making good where pipework and wiring is removed/replaced/inserted.

2.0 Repairs to the Conservatory

Timber

- 2.1 Initially we propose to identify the extent of rot to all timber elements of the existing conservatory. Where the timber is deemed sound it will remain in situ.
- 2.2 The coloured drawings labelled Conservatory Works (previously issued to Liz Mayle) highlight the areas of proposed work. As the key suggests there are items which require complete renewal due to the extent of rot. In these cases original sections of timber or casements will be removed from site and the appropriate replacement will be constructed with matching profiles in the workshop. This includes fascias and other external mouldings.
- 2.3 Likewise splice repairs will be matched to the profile of the adjacent section.
- 2.4 We propose an entirely new hardwood cill which appears to have been damaged mainly by the lack of rainwater drainage.
- 2.5 The two 'front' corners of the conservatory have rotten mouldings which wrap around the corner. Behind these there is a void where you would expect a vertical support. To improve the stability at these locations we propose to install timber posts which will then be clad in mouldings to match those previously removed.
- 2.6 The vent on the top of the conservatory is completely rotten apart from the hardwood finial which we intend to refit to the replacement framework. A new vent will be constructed 'like for like' in timber to match the existing profiles and dimensions.

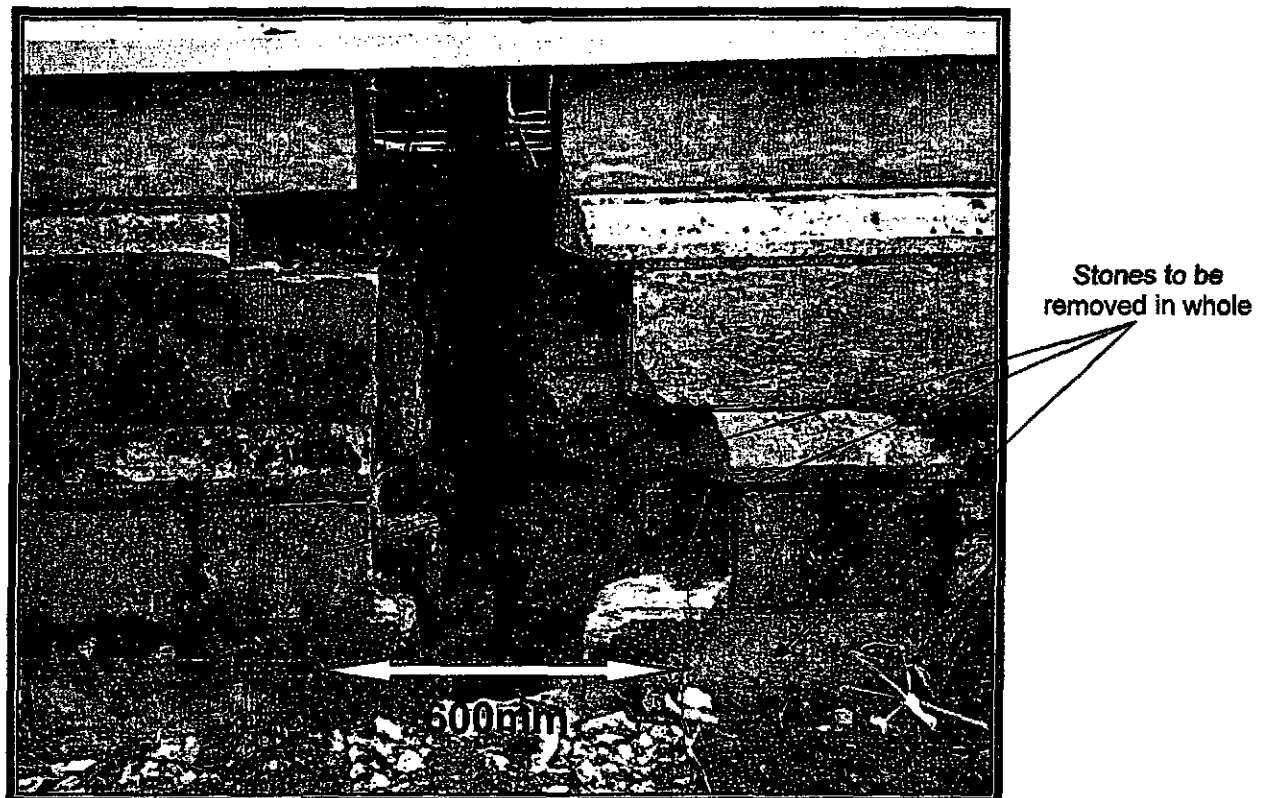
Roof

- 2.7 Following the erection of scaffolding it is proposed that each individual glass panel to the roof structure will be marked and identified on a plan diagram before removal. Each pane appears to be individual to the current location since some glazing bars vary in width and the curve is not uniform. There are also odd shaped pieces to the corners which obviously are made to fit. In addition there is a mix of polycarbonate/Perspex with the original glass (approx. 2/3 glass) which appears to have a stipple textured pattern.
- 2.8 The panes will carefully be removed and set aside for cleaning and re-fitting at a later date. Due to the effect of the glazing bars rusting and replacement panes being poorly installed it is predicted that half of the panes (approx. 180) can be saved. Professional glaziers have taken samples for closer inspection.
- 2.9 All putty will be removed from the glazing bars and they will be thoroughly wire brushed to remove loose debris and identify any potential need for replacing glazing bars. All metal repairs to the steel frame will be carried out by a specialist company nominated by Tasker Builders.
- 2.10 Following the removal of all panes from the roof, all remaining metal work will be coated with Zinc phosphate acrylic primer to inhibit further rust forming.

- 2.11 The existing guttering on the conservatory is black UPVC with an ogee profile. It has been fitted badly and the absence of downpipes is partly to blame for the condition of some of the timber. The existing guttering will be removed as part of the repair schedule and re-fitted with new to match as necessary. A new soakaway will be installed purely for the conservatory downpipe to connect into.

Stonework/Steel Frame

- 2.12 The repairs to the steel frame legs are detailed in the separate Structural Engineers' details Dwg. No. 0377-02. Careful digging within the confines of the stone that has already been removed has revealed that there is not a solid foundation to the steel frame. Instead the bottom of the frame is sat on half a brick and backfilled with soil.
- 2.13 Cracked, spalling stonework caused by movement or corrosion at the frame legs has already been removed and retained on site for re-installation later. When re-fitted each piece will go back in the same location. Where stones have been cracked by movement the replacement stone and mortar will match in profile, colour, texture and composition.
- 2.14 To allow the secondary steel to be installed and the existing steel cleaned down and treated, access from both sides of the frame (i.e. internal and external) needs to be increased to approximately 600mm wide. Internally this will involve the lifting of the existing concrete slabs (to the perimeter of the stone slabs), removal of brickwork, temporary removal of the slate shelving and some hand excavation of soil in the vicinity. Externally this will require some more stone to be removed on the rear garden side of the conservatory. No power tools are to be used for this process. Only hand bolsters will be used to remove the cement mortar and each piece (removed in whole as indicated below) should be set aside for reinstallation following completion of the steel work. Any remaining stone should be propped as necessary whilst the work is being undertaken.



- 2.15 Repairs and support to the frame will be carried out in accordance with the Structural Engineers' details 0377-02. The increased working access area is required for a) the pouring of a new concrete footing b) to allow the existing steel to be cleaned and treated properly and c) to allow the new 'secondary' steel to be positioned and fixed into place.
- 2.16 After repairs have been carried out and the corroded metal has been stabilised then the stonework and brickwork (internally) can be reinstated. Having already been removed the existing stonework must be cleaned and matched to the original location before identifying the need for any new stone. New stone will match the existing, where required, and will be of the same type, quarry, surface finish and profile as the existing and will be approved by the Conservation Officer before being installed. The stone will be laid in matching mortar with joints to the same depth and thickness as existing. It should be noted that the existing mortar is made up of a 3:1 cement mortar composition.

Finish/Decoration

- 2.17 Two full coats of undercoat and two full coats of topcoat will be applied to the roof glazing bars and other metal framework. The proposed colour is likely to be white or an off white. After paint has thoroughly dried, the roof will be reglazed using panes set aside, supplemented with new of same thickness and pattern, as necessary. Reused glass is to be thoroughly cleaned with mild bleach solution and dried before fitting.
- 2.18 We will not apply paint to the vent operating mechanisms but apply a liberal treatment of graphite based grease.
- 2.19 All retained timber frames/doors etc will be reglazed, replacing any broken glass with new to match. All new timber units will be glazed with glass to match existing. Following this we will apply two full coats of undercoat and two full top coats.

3.0 Repairs to External Brickwork

- 3.1 Firstly, it should be noted that the property, as a whole, has been subjected to a variety of brickwork repairs during its life. Some are good and some are bad, being carried out in the incorrect manner with cement render/mortar which contrasts completely with the adjacent original pointing and brickwork.
- 3.2 A careful study of the panel of brickwork exposed by the removal of the old flat roofed Utility indicates that the internal 'exposed' bricks are 50/60mm deep bricks. On the same elevation the lower 1 metre or so of brickwork on either side of the exposed panel is also made up of 55/60mm bricks but above this level the bricks are 70mm deep.
- 3.3 A visual inspection of the rest of the house concludes that parts of the house were re-skinned with the 70mm bricks but the skin was not bonded to the inner brickwork. The removal of the single storey flat roofed Utility left badly scarred brickwork where walls and cast in situ roof had been joined.
- 3.4 The subsequent removal of cement based plaster used in the former Utility, exposed the original brick faces which were badly damaged by bricks being hacked to allow a full key for the plaster. To that effect the builders have removed all of the external skin of bricks in this area.
- 3.5 The builders will carefully remove all cement pointing from the elevation before commencing to break out the window to be formed in the back wall of the Dining Room. This will be carried out carefully using an angle grinder in the middle of each line of mortar taking care



not to cut into brick faces. The ground out channel will then ease the removal of the remaining cement mortar. The damaged brick panel will then require rebuilding.

- 3.6 Two differing brick types need to be agreed to match the smaller (55/60mm) and the larger (70mm) bricks. To that effect samples need to be submitted and agreed before a sample two part brick panel is constructed.
- 3.7 The Structural Engineer has provided a recommendation for the bonding of the brickwork back to the existing (Appendix C).
- 3.8 The new bricks are to be laid to the same guage as the two sizes/types of brick identified in lime mortar and are to be pointed to match the existing panels. Where cement pointing has been removed, the brickwork will be repointed in lime mortar.
- 3.9 The make up of the existing lime mortar is to be analysed and replicated in order to maintain consistency of appearance.
- 3.10 All other brick repairs discussed on site are not covered by the Listed Building Consent and therefore will be covered by a second application.

4.0 Making Good Where Pipework and Wiring is Removed/Replaced/Inserted

- 4.1 The following is a list of what we consider to be the downfalls as far as the existing electrics are concerned:
 - Mains supply cable fixed to the external brickwork
 - Insufficient number of plug points and lighting
 - Wiring cut off and left in situ at various locations
 - Unsuitable consumer unit – particularly for the proposed increase in accommodation

- 4.2 The following is a list of what we consider to be the downfalls as far as the existing heating system is concerned:
- Exposed pipework fixed to the face of skirtings (and cut into it in places)
 - Pipework which has been capped off and remains in situ
 - Combinations of iron and copper pipes
 - Pipework fixed to the external brickwork
 - Poor water pressure
 - Radiators that are not in-keeping with the period of the property
 - Boiler insufficiently ventilated
 - Cylinders (located in Bedroom 3) poorly located to supply proposed Guest Bedroom Accommodation
 - Solar heating system – is in working order but panels unattractive externally
- 4.3 As a result, the clients have requested that all 'legacy' elements are removed completely or wherever not possible capped off and a brand new up to date heating system and electrics installed. This blank canvas provides an array of possibilities for the property which the owners would like to make the most of to make it meet their needs.
- 4.4 Details of the existing heating and electrical installations have been provided on dwg no.'s B2043-20 & 21.

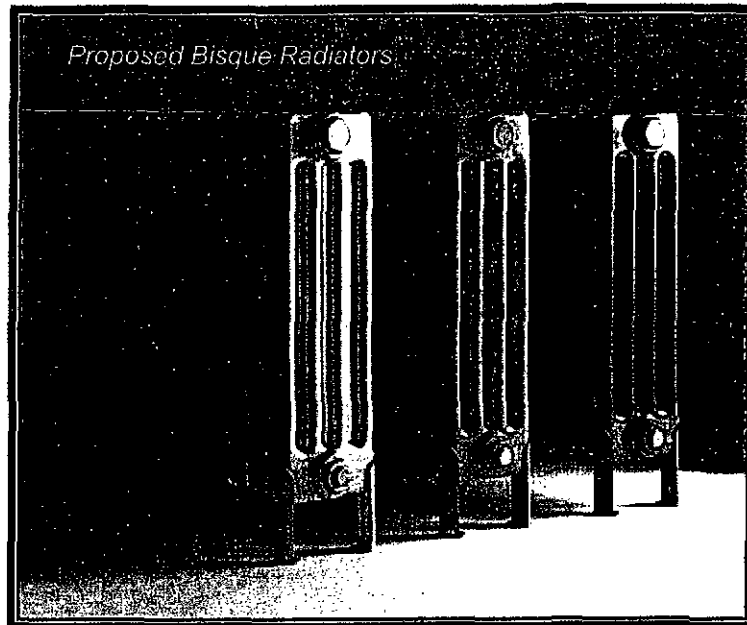
Electrical

- 4.5 First of all we propose that existing wiring is removed and existing conduits are used wherever possible to install the new in order to keep disruption to the walls to a minimum. A majority of the wiring is hidden behind the deep skirting boards with face mounted sockets boxes.
- 4.6 Where new wiring, sockets, and points are required we will use existing conduits wherever possible. Where this is not possible and chasing into the plaster is required the plaster will be reinstated in lime render and skim.
- 4.7 It is proposed that wiring in the basement will be concealed in metal conduits fixed to the underside of the ground floor joists to 'rodent proof' them.
- 4.8 New sockets at low level will be recessed into the skirting rather than using surface mounted boxes which are too prominent.
- 4.9 The electrics to the new parts of the property will be installed at heights determined by Building Regulations. The approved Flood Risk Assessment recommended that all electrical points in the proposed converted barn should be at least 750mm above finished floor level. In order to reduce the impact of the new wiring to the existing property sockets positions etc. will be as existing wherever possible.

Heating System

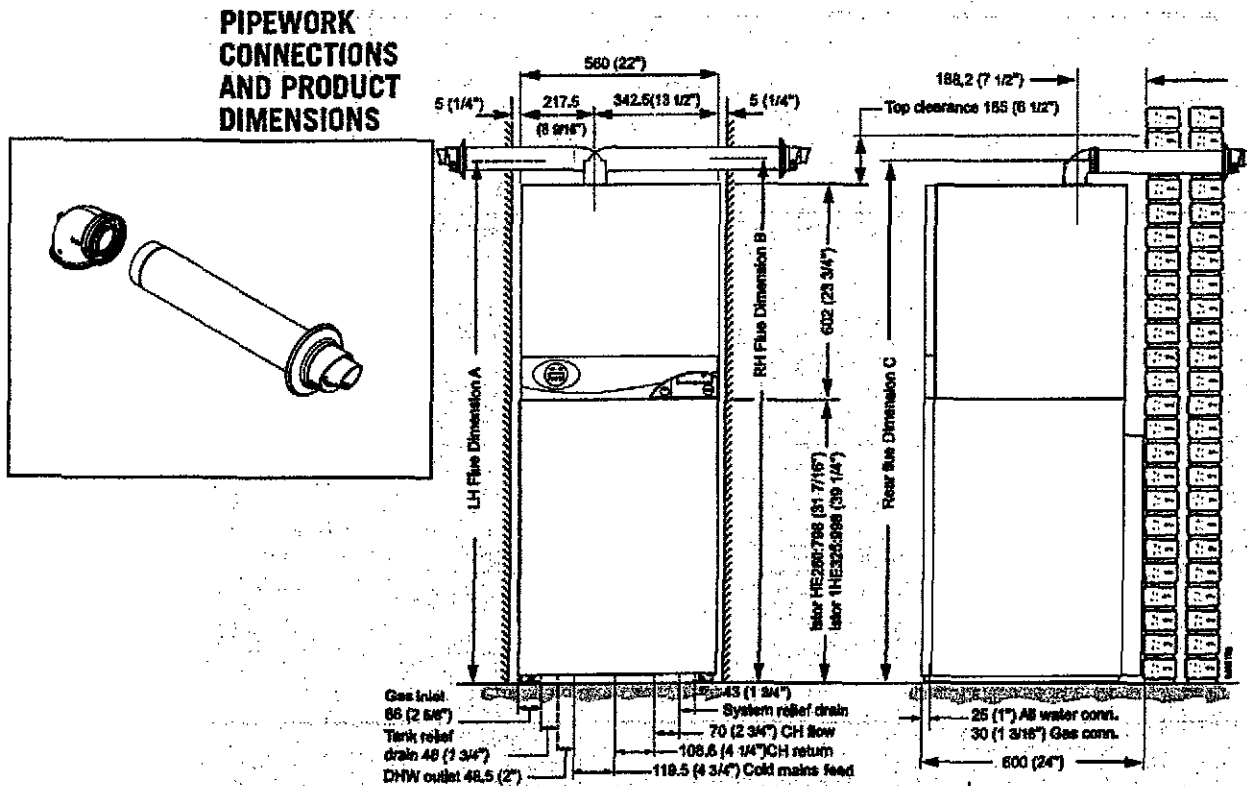
- 4.10 We propose to remove all existing pipework (including the iron pipes which could affect the cleanliness of the water supply for drinking). If the removal of pipework results in damage to skirting or if the pipework was formerly cut into and/or fixed to the face of skirting we propose to replace the skirting board with new to match the size and profile of the existing piece.
- 4.11 We also propose to remove the existing boilers (including the one in basement), cylinders, solar heating system and panels on roof. This will provide a clean sheet in which a new up to date system can be provided without relying upon the quality of previous workmanship or materials.

- 4.12 We propose to provide a fully zoned mains pressure system allowing us to relocate the boilers and cylinder to the basement. There is no need for a tank in the loft space which negates the need for first floor boxing/chasing into the walls. There will be a separate boiler to control the heating of the guest accommodation which will be occupied less frequently. Since Roman Lodge is the owners' second home they would also like a control system that can be remotely operated. More importantly there will be no exposed pipes fixed to the face of skirtings.
- 4.13 The converted barn and new utility will benefit from underfloor heating and the radiators in the property will be from the Bisque classic range.



- 4.14 The removal of the existing stainless steel boiler flue may require some repointing. There only appears to be two areas of fixing directly to the wall. The penetration through the Kitchen roof will require replacement slates to match and patch repairs to the ceiling internally.
- 4.15 Flues from the proposed boilers will be in a more inconspicuous location on the South West elevation. We propose to locate the boilers in the basement where the flues will exit straight through the wall at a much lower height to the existing flue with a simple plastic cowl as indicated on the diagrams on the next page. The owners have indicated that following completion of the works the wall where the proposed flues exit will be screened with vegetation set back the appropriate distance to allow air circulation.
- 4.16 Heating pipework to ground floor rooms will be easily routed to the appropriate location beneath the floor boards. Where they need to be lifted this will be done (by Tasker Builders) with care and attention to ensure that the floorboards are not damaged in the process.
- 4.17 Elsewhere at ground floor level, pipes will need to be buried in the concrete floor of the Dining Room (see dwg. no. B2043-20). There are no original quarry tiles or other surface finish beneath the existing carpets. We propose to excavate a small channel (also to be used for concealing electrical cabling) in the Dining room floor and form a small opening (approx. 150x300mm) beneath the skirting board in the Dining Room wall (adjacent to the steps) to route pipes from the proposed boilers in the Basement to a manifold located in the existing Dining Room cupboard. The opening will be supported with concrete lintels to suit the wall width. Following completion of the installation of pipes the Dining Room floor and skirting will be reinstated and the low level opening blocked up. Within the basement the

opening will also be bricked up around the pipework and a limewash applied to match the surrounding.



➤ Typical Boiler/Flue arrangement

- 4.18 There is a difference in floor level of approximately 600mm between Bedroom 1 & 2 and Bedroom 3. In order to get heating pipes from Bedroom 3 to the higher bedrooms we propose to remove a section of plaster to allow the installation of pipes to go through to the floor void of Bedroom 1 (see dwg. no. B2043-21). Once installed Expomet mesh will be fixed over the pipes to protect the replacement plaster from cracking due to the heat created by the pipes.
- 4.19 Elsewhere at first floor level all heating pipes and water supplies will be concealed beneath the floor boards. By utilising existing notching in the joists our proposal will not further weaken any existing timbers.
- 4.20 The new location of the boilers and cylinder requires the gas and water supply to be re-routed to the basement as indicated on dwg. no. B2043-20. Where the supplies enter the basement they will be located underground. As a result any openings in the existing wall will be covered by the backfilled material. When the supplies have been fitted the brickwork and pointing will be made good.

APPENDIX B

CONSERVATION ROOFLIGHT DETAILS

DO NOT SCALE. IF IN DOUBT ASK. ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE.

38x25 batten.

38x25 counterbatten.

Vapour barrier under insulation is carried through to rooflight and terminates in Thermoliner slot for lining.

Rigid bat insulation over vapour barrier, on rafters.

25mm WBP Ply packer of same height as counterbattens. This sits upon treated sw packer of same height as insulation. Fix both strongly to the head trimmers.

Tilting fillet.

Use hardwood or treated softwood. Make fillet long, enough to give good outward and downward tilt.

Structural support members.

Architrave (by contractor).

Timber lining (by contractor).

Timber packers bring lining board out to correct position to fit into Thermoliner slot. Insert insulation wherever there is space.

Thermoliner decoupled lining subframe (factory fitted).

Roofing felt.

Mortar bedding.

Tile inserts reduce amount of visible mortar and give decorative effect.

Lead flashing.

Code 3 lead sheet to head. In severer exposures use code 4 lead and consider clipping down rooftiles also. Carry flashing up roof 300mm.

50mm

Structural length.

Co-Ord length.

The Metal Window Company Limited
Unit 8, Wychwood Business Centre
Milton Road
Shipton-Under-Wychwood
Oxon OX7 6XU

Telephone: 01993-830-613
Fax: 01993-831-066
Email: info@metalwindow.co.uk
Web: www.metalwindow.co.uk

Please note that this drawing does not constitute a structural support proposal. Sufficiency of structural supports to be checked by rooflight purchaser's structural consultant.

Drawing Ref/No. 11060-32

Title. PANTILE HEAD DETAIL
WARM ROOF CONSTRUCTION

Scale. N.T.S

Date: 04/04/00

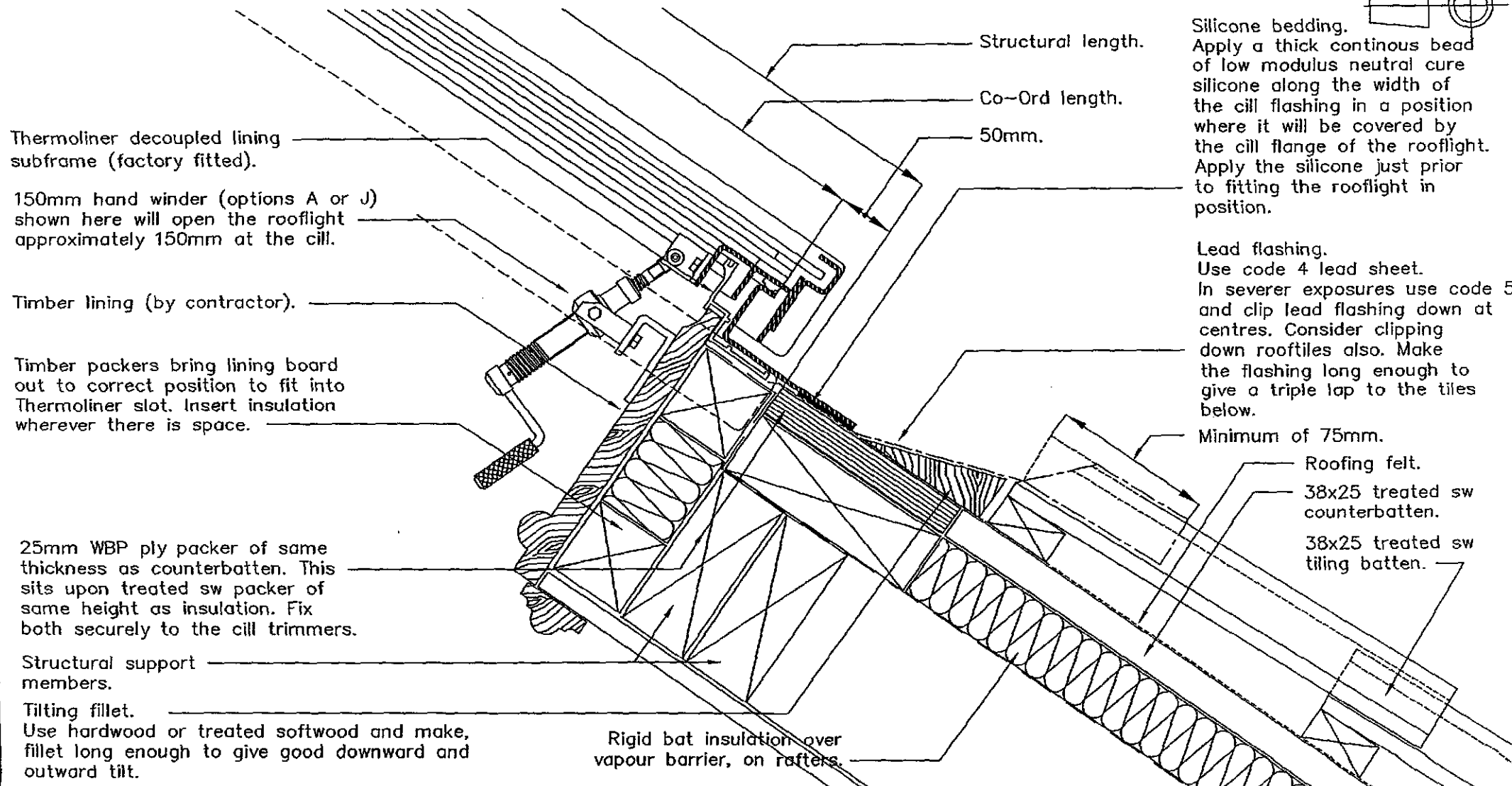
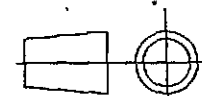
Drawn By: IM

Checked By: IM

Revision No.

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Drawing Ref/No. 11061-35

Title. PANTILE CILL DETAIL
WARM ROOF CONSTRUCTION.

Scale. N.T.S Date: 17/01/02

Drawn By: IM

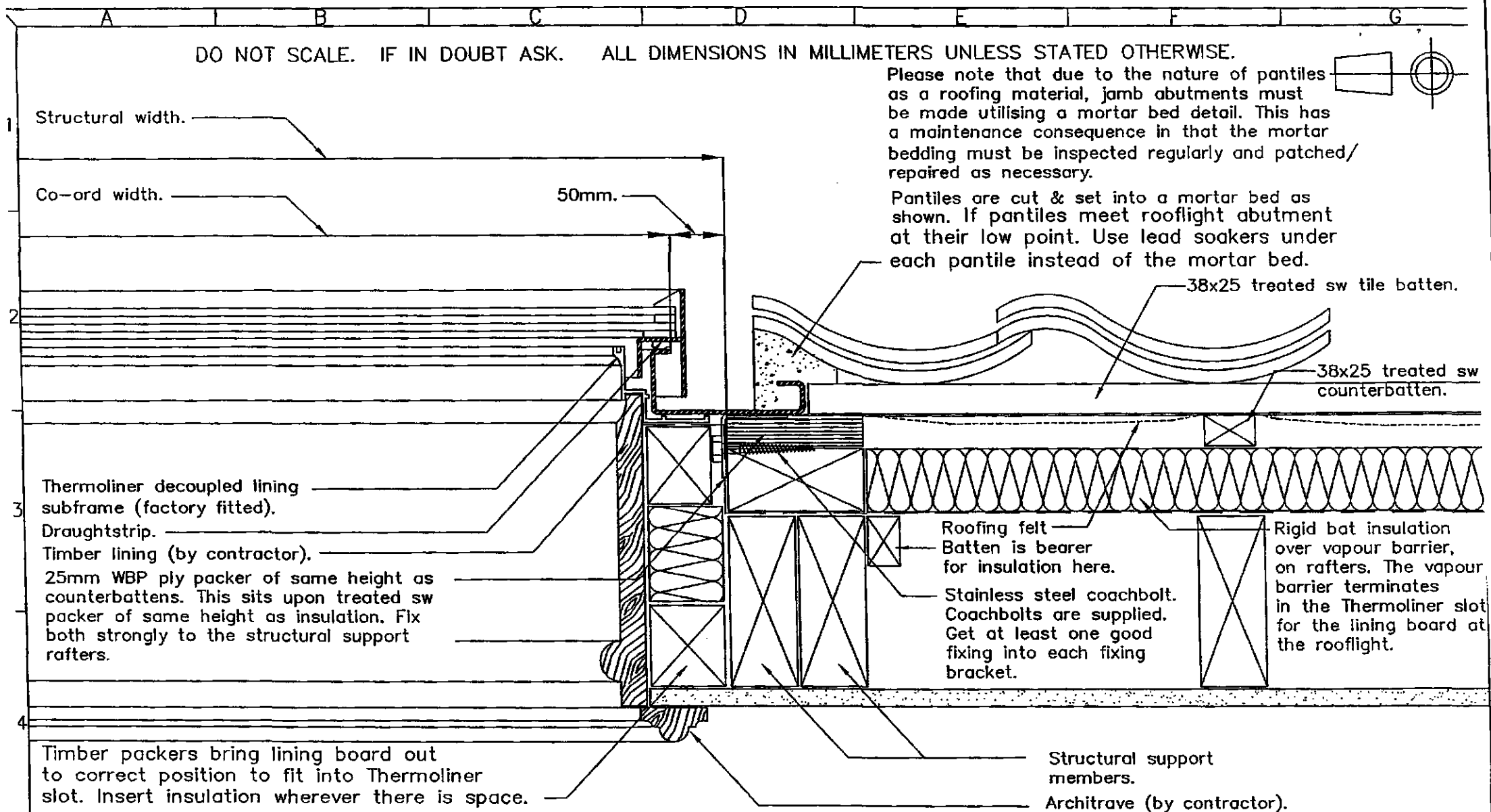
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Please note that due to the nature of pantiles as a roofing material, jamb abutments must be made utilising a mortar bed detail. This has a maintenance consequence in that the mortar bedding must be inspected regularly and patched/ repaired as necessary.

Pantiles are cut & set into a mortar bed as shown. If pantiles meet rooflight abutment at their low point. Use lead soakers under each pantile instead of the mortar bed.



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Web: www.metalwindow.co.uk

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Drawing Ref/No. 11062-36

Title. PANTILE JAMB DETAIL
WARM ROOF CONSTRUCTION

Scale. N.T.S Date: 17/01/02

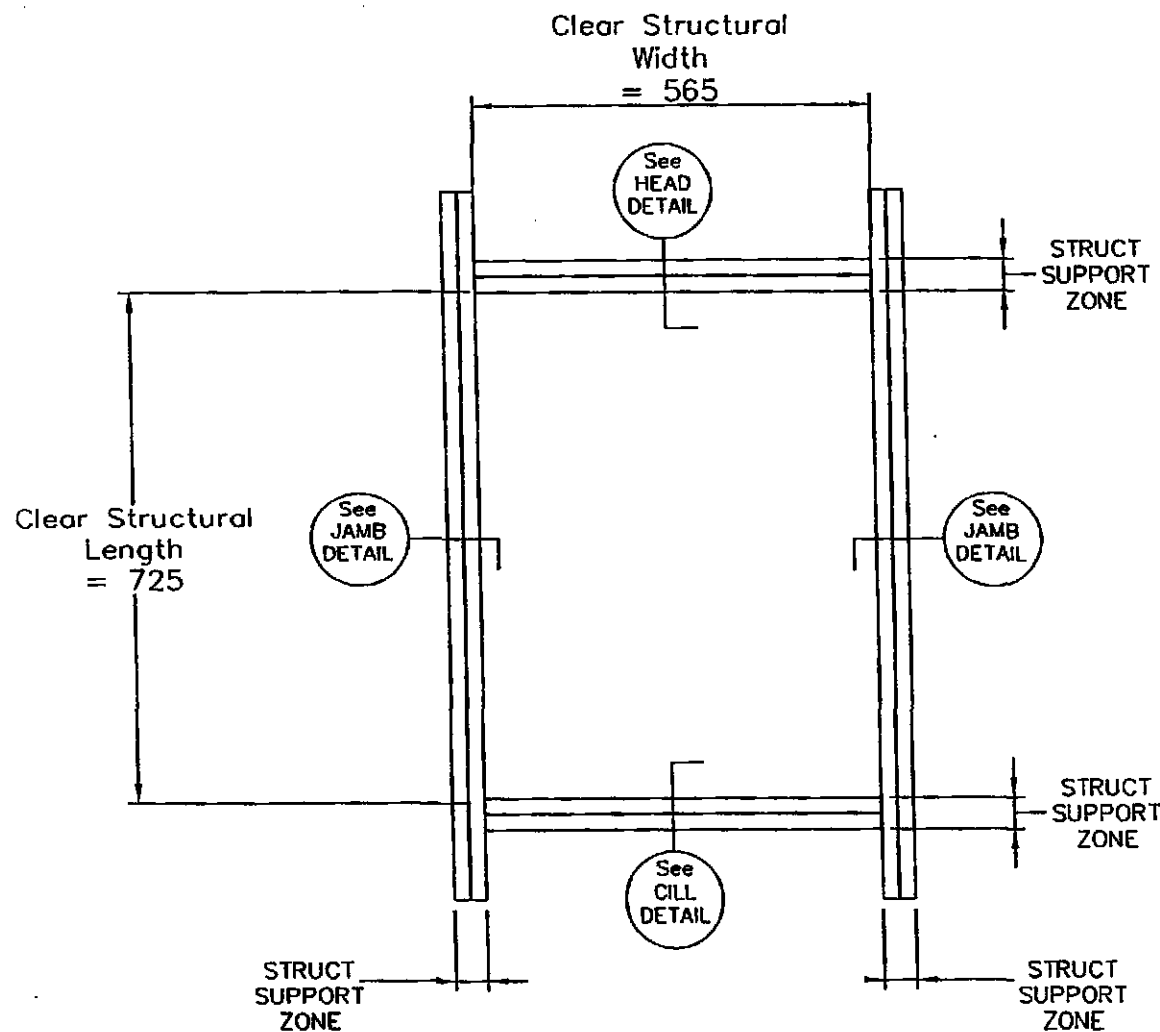
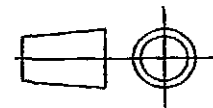
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Revision No.

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Client:

Project:

Drawing Ref/No. 11009-125

Title. Framing Diag. CR1

Scale. N.T.S

Date: 05-06-02

Drawn By: PD

Checked By: PD

Revision No.

APPENDIX C

ENGINEER'S REPAIR DETAIL

SHEET 8

Our Ref : JC/09/07/0377-RD8

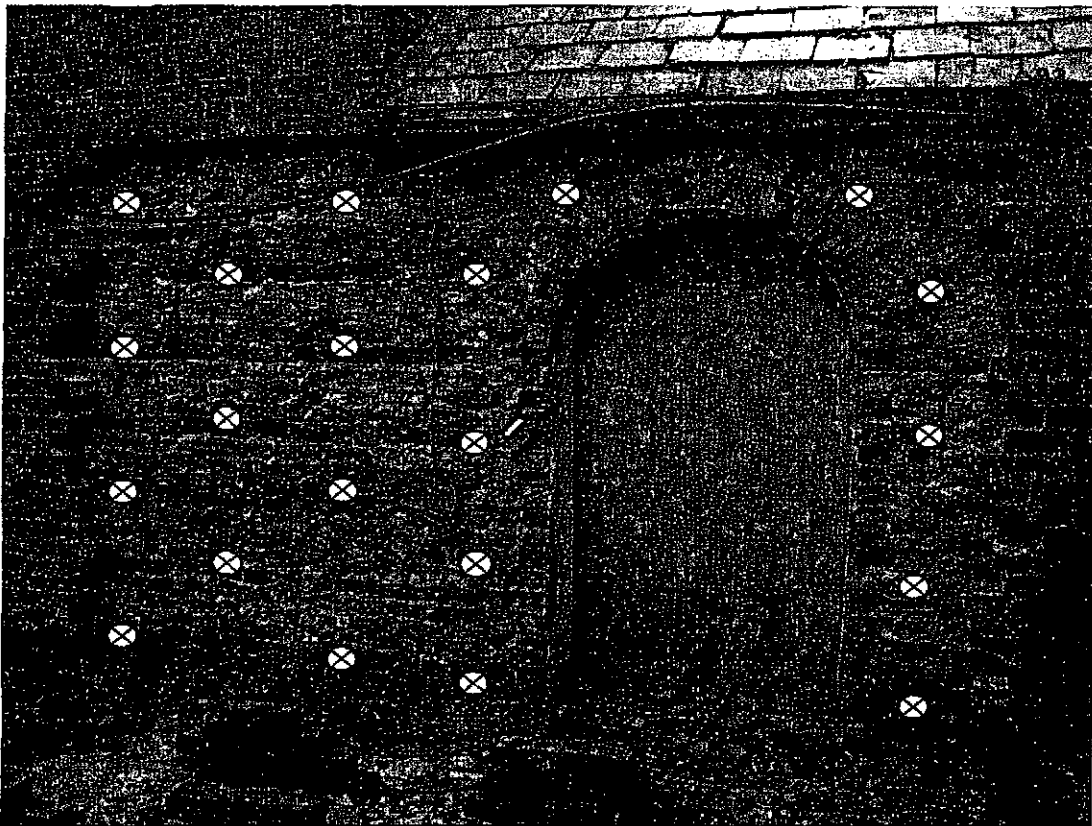
Date : 28th October 2009

RE:- ROMAN LODGE, TYDD ST MARY, SPALDING, LINCOLNSHIRE.

REPAIR DETAIL #8 –

- Rear projection – External Masonry Leaf Replacement.

Install Ancon AC31 Wavy Tail (or similar approved) remedial wall ties (minimum 2.5 ties per square metre) in approximate locations indicated. The wavy tail is to be resin bonded to inner leaf using a 10mm diameter hole, and the triangular end should be located in the bed-joint.



Masonry Units as specified by architect to be used in the reconstruction, laid in English Garden-Wall bond to match existing. Mortar as specified by architect; however we recommend using a hydraulic lime (NHL 2 or NHL 3.5) mixed at a ratio of 1:3 parts lime to sand. Alternatively, a Non-Hydraulic lime putty mortar, mixed at a ratio of 1:3 parts lime to sand can be utilised. Ensure any sand to be used is sharp, well graded, and colour matched as required.

Extract of Ancon Wall Tie Literature attached for Clarity.

Morgan House Gilbert Drive Boston Lincolnshire PE21 7TQ

Directors

J L Hicks BEng(Hons) MSc.

J C Ellington BSc. CEng MStructE FRSA MInstD

Extract of Ancon Wall Tie Literature. –

All ties to be installed in accordance with the manufacturer's recommendations and requirements.

Tel: + 44 (0) 114 275 5224 Web: www.ancon.co.uk

Ancon 63 Mechanical/Mechanical

Used when tying together two leaves of solid materials, this tie has mechanical expanders at each end. Requires 10.5mm holes.

Ancon 63 Resin/Mechanical

For use when the material in the inner leaf is perforated, of low-density or a friable material. A resin fixing may be used to eliminate any imposed stress. Requires 10.5mm or 11mm holes.

Stalifix Resin/Resin

Used where mechanical expanders are unusable. Normally inserted into a 10mm hole, but if test facilities are required, a 12mm hole must be used.

A plastic sieve can be used to retain resin and is particularly useful in perforated brick or hollow blockwork. A 12mm hole is required to fit the sieve.

Stalrib Bar

Stainless steel ribbed bar, resin-grouted into the inner and outer leaves.

Ancon AC 31

Used where bricks are removed then replaced in the outer leaf. The wavy end is resin-bonded into the inner leaf in a 10mm hole. The triangular end sits in the bed joint. Ancon AC 31 can be supplied with a drip or a neoprene ring.

Ancon AC 31C

Similar to the AC 31 but cranked by 25mm to aid fixing to the inner leaf.

Cameron T 47

Used for the repair of mass brickwork with an unbonded brick façade, sometimes built from snapped headers. The T end is built into the bed joint and perpendicular, and hidden when the brickwork is repaired.

Fischer FIS P 380 C Resin

This styrene-free injection resin is quick setting and suitable for a wide range of applications. The two components are safely mixed together inside the nozzle. Automatic mixing ensures an accurate blending of the components and, being mixed only as required, the minimum of wastage. Resin guns and additional mixing nozzles are available.

Setting Times for FIS P

Temperature (°C) in Substrate	Setting Time
-5	360 mins
0	180 mins
+5	90 mins
+20	45 mins
+30	30 mins
+40	25 mins

Ancon MM 63
195mm for 50-70mm cavities
230mm for 71-95mm cavities
290mm for 96-125mm cavities
300mm for 126-175mm cavities

Ancon RM 63
185mm for 50-70mm cavities
230mm for 71-95mm cavities
290mm for 96-125mm cavities
300mm for 126-175mm cavities

Stalifix R/R
180mm for 40-60mm cavities
200mm for 61-80mm cavities
220mm for 81-100mm cavities

Stalrib Bar
Length to order
6.8mm dia.

Ancon AC 31
Lengths 175, 200, 225mm

Ancon AC 31C
Lengths 175, 200, 225mm

Cameron T 47
Lengths 200, 250, 300mm 4.7mm dia.

Ancon
BUILDING REPAIRS

25

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