

## JUSTIFICATION AND METHOD STATEMENT

### **Introduction:**

This Design Justification statement provides the background and detailed rationale behind the proposed scheme for the proposed conversion and forms part of the Detailed Planning and Listed Building Application submitted to Flintshire County Council. Written justifications are included as part of this statement to form an analysis to assess the archaeological history and character of the buildings in conjunction with work proposed and impact on the special character of the listed building.

### **Client Brief:**

The applicants are the present owner of Maes-y-Groes Bella. Having taken early retirement some years ago they are now contemplating an eventual “down-sizing” of their accommodation in their later years. Planning permission has previously been granted on the building, the previous permissions are as follows: Full Planning Permission, Approval No. 041990 and Listed Building Consent No.042009. Please note the planning permission expired in November 2013, however due to a misunderstanding by the client the permission lapsed before commencement of works on site, the client proposes to reside in Dwelling A upon downsizing from the adjacent dwelling whilst Dwelling B is to be developed at a later stage.

The intention is to re-instate the planning permission based on the previous approved scheme with some minor amendments, to convert the building to two self-contained dwellings, of which the applicants occupy one.

### **Historic interest:**

The building is of 17<sup>th</sup> century origin, evidence by the date of 1682, the lettering style is typical of the period, as well as the ogee stops on the upper floor beams of bay 4. The general construction, and the character of the roof timbers, would accord with this dating, apart from the two northern bays of the building which house a kind-post truss of typically early to mid-18<sup>th</sup> century character, suggesting that this portion is a later extension.

From personal investigation on site by AJ Parkinson of the RCAHM, together with the author of this statement, in the early 1980's, it is apparent that Maes-y-Groes Bella started its life as a 3 unit timber framed hall-house in the 16<sup>th</sup> century, and was altered to its present 2 bay, stone built form, in the 17<sup>th</sup> century, by removal of the parlour bay and replacement of timber framing with stone walls and windows. The form of outbuildings at the early date is not clear, and it is

possible that the present buildings replace an earlier range nearer the house, but now lost. However, with a date of 1682, they still hold considerable interest of their own right, and in their relationship to Maes-y-Groes Bella.

The complex is a good example of a farmstead of local gentry status of the 16<sup>th</sup> and 17<sup>th</sup> centuries, socially it attests to the improvements in housing standards and local wealth in farming community of the “Great Rebuilding” from the 15<sup>th</sup> to 18<sup>th</sup> centuries, as well as changes in fashion and economics. Technologically it shows how these changes were both influenced and constrained by the inherent advantages and limitations of locally-available building materials.

#### **Description of the building:**

The building is a range of outbuildings, within the curtilage of Maes-y-Groes Bella, Cilcain, originally consisting of barn and stock accommodation. It has been somewhat altered by new openings and intermediate floors, within the last generation or so and now provides a garage and storage accommodation. Apart from some of the storage, it is now redundant for agricultural purposes. The original walls are local limestone, with brick work restricted to some later brick cross walls and reworking of a small number of window and door jambs. The recently re-slatted roof is supported on new rafters on original purlins, one king-post truss, and three simple trusses consisting of principle rafters supported off a tie beam, with two raking struts between tie beam and principals. Ground floors are generally constructed of modern concrete and first floors a mix of original and new timbers. The building is aligned down a moderate slope, with the roof ridge running South-West to North East, and approximately 16 metres south of the house of Maes-y Groes.

The plan form consists of seven bays of construction, divided by trusses and /or cross walls. The original walls and local limestone, with some later brick cross walls and reworking of a small number of window and door jambs. Reading from north-east to south-west, they are:-

Bays 1 and 2 – animal accommodation on the ground floor in bay 1, divided from bay 2 by a brick wall, with a continuous corn loft with vent slits above the two and divided centrally by an open roof truss. The entrance door to bay 1 is a split “stable door. The corn loft floor is probably late 19<sup>th</sup> or early 20<sup>th</sup> century construction, of boarding on machine cut joists. Bay 2 is entered from bays 1 and 3 and an external door in the south-east long wall. An open truss separates bay 2 and bay3 at first floor level.

A single story extension, probably of 19<sup>th</sup> century origin, with its roof pitched at 90 degrees to the main roof, adjoins the south eastern wall of bay 1.

The north-west, gable, wall contains a number of recesses which would have provided the nesting-holes of a colomendy (pigeon loft), which whilst providing winter relief from salted beef in the diet, would also have marked gentry status of the owner (due to their depredation of corn crops, the right to keep pigeons was restricted).

Bay 3 – open to bay 2 apart from the later insertion of a low brick wall, was originally open to the roof but now has a modern floor inserted, of machine cut joists interspersed between heavy wooden baulks of reclaimed timber, with boarding above. This bay was evidently the original threshing floor, evidenced by the wide winnowing doors in the opposing long walls.

Bay 4 is separated from bay 3 by a stone wall at ground level. The date of 1682 is cut on the north east face of a beam in this wall. This bay is separated from bay 3 at first floor by truss partially enclosed by early rough timber boarding to most of its north east face. The floor above the bay is of early oak joists supported off a central bressumer, all timbers chamfered and with ogee stops to the joists. The style is consistent with this floor being coeval with the 1682 date. The quality of the timbering and the presence of a window, suggest this was possibly a stable; the upper floor may have been either a store threshold for corn, or possibly accommodation from a farm hand or horseman.

Bay 5 is separated from bays 4 and 6 by stone walls on ground and upper levels. It has a modern upper floor, and has been altered with a wide opening in the south west wall to form garaging, with a wide, shallow modern window opening above, therefore, insufficient remains of the original floor and front wall to ascribe an original use or form to this bay. It may have been an extension or may have formed the end of the original building, as the roof of bays 6 and 7 suggests an 18th century date. In the rear, south west, at first floor level a modern wide and shallow opening has been constructed, which together with alterations to the ground floor window, has made changes to the stonework here that obliterate any evidence of work joints which might have evidenced the history of any extension.

Bays 6 and 7, undivided at ground floor level, and separated only by a king-post truss at first floor, form cattle accommodation. The use of king-post trusses in the locality is generally limited to the 18<sup>th</sup> century and later suggesting these bays are an extension, or else a partial re-roofing at that time. Bay 7 has a small extension to the west. In bay 6 as with bay 5, alteration to window openings have obscured any evidence of changes to the rear wall. In bay 7 - 8, there is a loading door at upper floor level in the southeast, gable wall.

### **Structural Condition:**

The building is in generally sound condition. Walls are true and sound, without evidence of any significant movement. There have been repairs and alterations in the past, but these have not caused problems.

The roof has been re-slatted within the recent past, with additional support timbers in the form of secondary purlins where an assessment in 1994 indicated that the originals would benefit from supplementary support, particularly if loadings to Building Regulation requirements were to be catered for. The assessment indicated that the roof was otherwise sound for the proposed conversion. The intermediate floors suffice for their present usage, through a policy of replacement or upgrading is envisaged, for aesthetic as well as practical reasons. This includes retention of the original timbering in bay four, and removal of the floor in bay 3 which was originally the threshing floor and thus open to the roof.

The ground floors are substantially modern replacements which will need renewing, with appropriate damp proofing provided.

Generally, the building is capable of conversion with little change to its structure or character.

### **Design proposal:**

The buildings have been little used in approximately the last 40 years, albeit for storage and garaging on the owners vehicles. Generally the owners have kept the buildings in a good state of repair. The owners have also had the buildings advertised for sale in a period in excess of twelve months with a local reputable estate agent, however there has been little interest in the buildings for a commercial use.

The scheme provides for two dwellings, both of two bedrooms, with their main approach from the south east side, rather than the present north-western approach which would still serve Maes-y-Groes Bella. The present yards to each side would remain undivided by walls or fences, to preserve the open nature of these areas and the buildings visual relationship with Maes-y-Groes Bella.

Windows are predominately located in existing openings, with new openings restricted to situations where lighting, ventilation and fire escape needs cannot be met with the existing openings alone. To aid this, a number of the existing doors are converted to provide a window, or glazed inner door, internally. Whilst retaining the outward opening door on the exterior, giving required light and ventilation whilst retaining the original external appearance when the door is closed.

Conformity with Building Regulations is proposed as far as this can be achieved without harming the buildings character. It may well be that full compliance as regards to ventilation, sound proofing and insulation cannot be achieved without unacceptable compromise with this character, in which case support for appropriate relaxations will need to be requested.

### **Dwelling A**

Bay one is linked by a new opening to the eastern extension, to form kitchen and dining accommodation, with a small east ward addition housing the central heating boiler and a W.C. In the roof of the original single story extension two conservation roof lights have been added to the north elevation to allow more natural light to penetrate the plan.

In bay 3, the original threshing floor, the existing modern ceiling removed, to reinstate the full height of the bay, through with a balcony to the south east and south west, served by a stair, to allow access to the bedroom and en-suite above bay four. Bay one is linked to the eastward extension with a new opening, to provide a kitchen and dining room. The bedroom and linked bathroom above bays one and two are accessed by a stair from bay two, which divides to navigate the lower beam of the truss between the bays.

A new central doorway links bays three and four, with a lounge on the ground floor in bay four, with bedroom and en-suite above. At first floor level the existing doorway between bays four and five is blocked up.

Dividing walls between bays at first floor level are all placed off-centre from the roof trusses, to avoid the necessity to close the openings of trusses originally intended to remain open. The exception is the closed truss between bays three and four.

Conservation roof lights have been added over bays 3 & 4 to provide more natural light to double height space, 2 roof lights are proposed to the east and west elevations respectively.

### **Dwelling B**

Bay five remains a single, uninterrupted space at both levels, with living, kitchen/dining, stair, bedroom 2 and sanitary accommodation fitted into bay six and seven, the 18<sup>th</sup> century extension. At first floor the stair divides to ascend each side of the king-post truss, which remains open to view from the landing.

## **Justification and Method Statement:**

### **External Works - Restoration work to external walls and restoration work / modifications to existing roof:**

#### Outline of Proposal:

- Main Roof – Generally little work is proposed for the roof as the slate is covering is in a good state of repair. Where replacement slates are required replace with re-claimed slates to match the existing. The roof to the new extension, natural slates to match the existing.
- The addition of roof lights will provide more natural light into habitable spaces. The roof lights will be conservation type roof lights with flashing kits suitable for a slate roof covering.
- The walls above ground floor level will be treated with a chemically injected DPC which will be carried out by an approved specialist and treated in accordance with BS 6576.
- Locally rake out defective mortar and re-point with lime mortar.
- New openings within the existing walls.
- The existing rainwater goods will be removed and replaced with cast iron profiles.

#### Justification & general works:

The existing roof appears to be in relatively good condition; however, to meet current building regulations standards for thermal and ventilation requirements, modifications are required. Furthermore, a detailed assessment of the roof timbers needs to be carried out to ensure there are no infestations that could compromise the structural integrity of the roof structure. Should there be any present they will be treated by an out sourced specialist.

Within the existing roof structure a total of 6 light wells will be constructed, which allow natural light into the principal habitable rooms. Four of six roof lights light's will be aligned with the main windows and will be flush fitting conservation roof lights in accordance with the conservation officer's recommendations. Each roof light will be proportionally small in relation to the overall roof to reduce their visual presence, as not to dominate the rear elevation.

The installation of a chemically injected DPC will ensure the building practically meets a habitable standard by repelling rising damp below finished ground level and also protecting the internal floor slab. The treatment will take place at a minimum of 150mm above the finished floor level.

The new openings will improve natural light into the building and visually break up the westerly gable. The windows will improve natural light and will be open able at ground and first floor level. This will allow natural ventilation into the building furthermore the new openings will provide a suitable means of escape out the building at both ground and first floor level to egress out of the habitable rooms in accordance with Part B of the Building Regulations. The window new door and window units will be hardwood.

#### **Internal works, restoration and modification:**

Outline of Proposal:

- Remove all existing floors and re-place with new insulated damp proof concrete floors.
- Thermally upgrade existing walls.
- Thermally upgrade to the underside of the existing roof.
- Restore and strengthen the existing trusses and roof timbers.
- Upgrade the internal first floors with new floors in compliance.
- New stair cases from ground floor levels to first floor levels.

Justification & general works;

As part of the conversion of the buildings the existing floors require upgrading to make it practical for habitable use. The existing concrete floors will require carefully braking up and removing all debris from site. Care should be taken not to undermine the existing walls by ensuring that the level of strata does not go below the levels walls/foundations. The floor levels will be varied in level to represent the fall across the site. The floor build-up will consist of a concrete base, a damp proof membrane, insulation and screed with underfloor heating. The

floor finishes will be carpet, wooden floor coverings and tiles. The upgrade of the floors is required to comply with the current building regulations, Approved Documents L1B and C2.

The thermal upgrade of the existing stone walls will consist of a dry lining system to the internal face of the walls. A timber frame will be constructed inboard of the stone wall minimising any disturbance to the inside face. Between the studs insulation will be inserted and over the inside face a layer of insulated plasterboard will be fixed. The thermal upgrade of the walls is required to comply with the current building regulations, Approved Documents L1B and C2. Note the voids created by the dry lining (the timber frame can be utilised for servicing for electrical cables etc. and pipework significantly reducing the effects of fixing services to the internal faces of the internal faces of the existing stone walls.

Thermally upgrading the existing roof can be achieved by leaving the existing natural slate roof covering in situ. It proposed the internal roof trusses (oak) will be treated were required and strengthened accordingly, refer to the in depth the series of structural calculations which have been submitted with application. The proposal is introduce rigid insulation between the rafters and a layer of insulation plaster board fixed to the underside of the rafters. The thermal upgrade of the walls is required to comply with the current building regulations, Approved Documents L1B. Again the voids created by the dry lining (the timber frame can be utilised for servicing for electrical cables etc. and pipework significantly reducing the effects of fixing services to the internal faces of the internal faces of the existing timbers.

The upgrading of the first floors and omission of the part of the first floors form an essential requirement of the proposal. The proposal is to carefully remove the first floor structure in Bay 3 and re-instate the double height space as per the original layout. Whilst elements of the original floors have been replaced with more modern timbers essentially these do not meet the requirements of Part A for structure, therefore the majority of the existing floors require replacing with new floor joists. The proposal is to carefully remove the existing joists and were possible utilise the existing voids in the on internal face of the existing stone walls to support the new floor joists. The joists will be wrapped in dpm or painted in liquid dpm to prevent the passage of moisture into the new timber. The underside of the joists will be underdrawn with plasterboard with a skim finish and the floor finish will be in tongue and groove boarding. The void between the new floor joists will be filled with quilt insulation to improve the standard of sound insulation. The improvements as outlined above are required to comply with current building regulations, Approved Documents A for structure and E for the passage of sound.

The introduction of stairs in the two new dwellings are proposed to gain access to first floor to access the bedrooms, they have been strategically placed to ensure the existing timber trusses are retained and to be constructed from oak to match the existing oak trusses. The improvements are required to comply with current building regulations, Approved Document K.