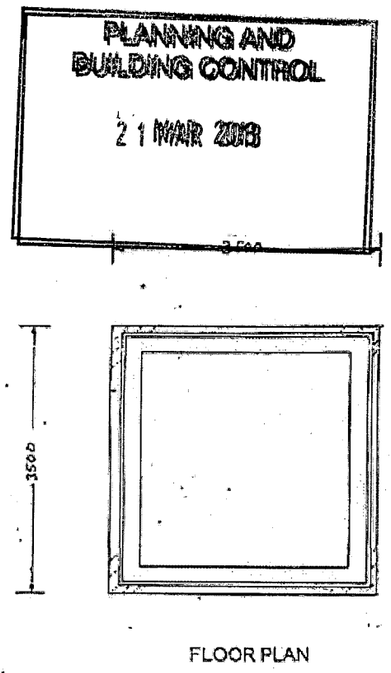
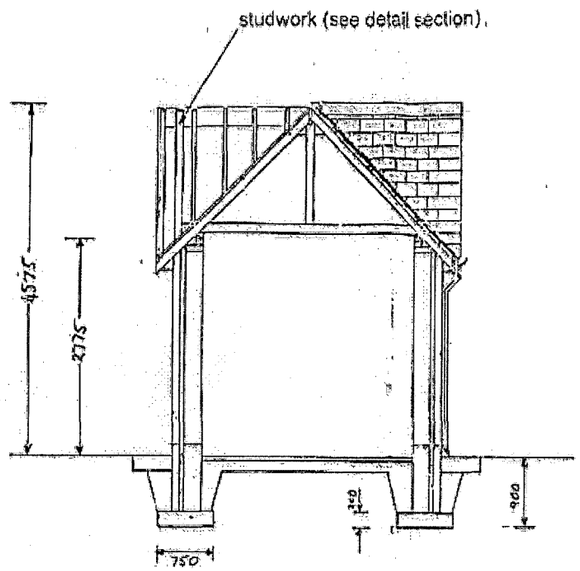
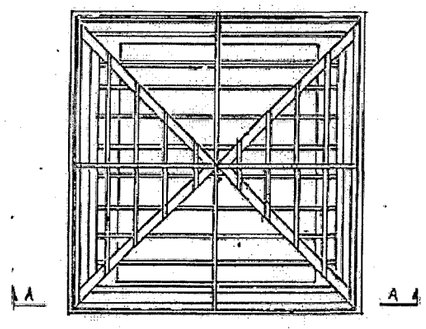
Plan 2 - Bat Barn Design & Specification



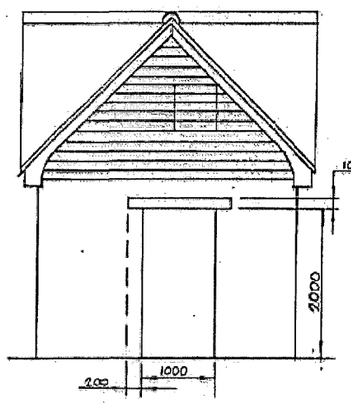
FLOOR PLAN



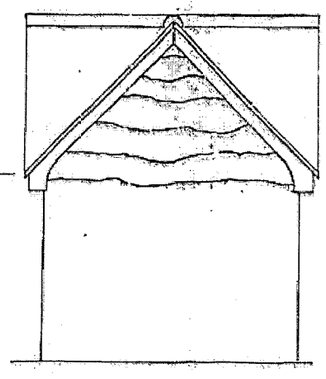
SECTION A - A



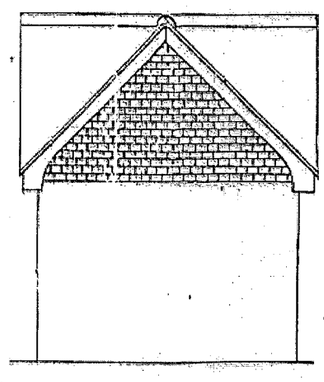
ROOF PLAN



NORTH GABLE END



EAST / WEST GABLE ENDS



SOUTH GABLE END

External Walls: Walls to be faced with reclaimed brickwork built in English bond (bricks to be clean and sound) 365mm overall wall thickness of reclaimed brickwork and hollow concrete blocks (no insulation in 60mm cavity). Wall ties at 900 mm centres every third brick course. New brickwork below DPC. DPC to BS 743. Mortar designation (iii) (1:1:6)

Gable ends: 50 x 50 studwork with 19mm WBP plywood on both sides with 100mm insulation board attached to the inside (Celotex or similar). **North facing**: 125 x 19mm timber shiplap on 38 x 25 mm battens. Form loft access through ceiling between joists. Ceiling to be 6mm Viroc (or similar). **East and West Facing**: Stud work as above but covered in 25mm elm Waney-edge boards. **South Facing**: To have 250mm x 150mm sand faced tiles (brown) on 38x 25mm battens fixed to studwork as above. Barge Boards 150x32mm softwood. Soffit 12mm WBP ply

Foundations: Depth minimum 900mm below GL., 200mm thick 750mm wide strip foundation grade c20/20 concrete.

Ground floor: 600mm sand binding on 160mm hardcore fully compacted.

Drainage: Gravel trench around building 500x200mm deep with 25mm S G stone, 100mm HR gutter and 65mm downpipe

Roof: 150x50mm SC3 rafters at 400mm centres 4 No 150x50mm SC3 ceiling joists bolted at both sides of joists. Provide 38mm diam. Toothed connector plates. 200 x 38mm rigge boards. Joists to be BAT strapped to 100 x 75mm wall plate at 400mm centres. Wall plate to be strapped down to wall at 1800mm centres with 1000x50x6mm Galvanised MS straps screwed to timber and plugged and screwed to brick work. 38x25mm sw tanalised battens on bitumastic/hessian based roofing grade felt (plastic membranes not acceptable). Eternite slates (black) fixed to manufacturers specification with half round ridge tile bedding in cement mortar.

Partitions: Insulating walls to be built beneath all ridgeboards comprising 100mm Celotex or similar. All new timbers to be vac-vac treated or similar with only with chemicals approved by Natural England (Natural England Technical Information Note TIN092: Bat roosts and timber treatment products or subsequent versions).

Note: All the bat roosting areas in gables and in roof and ridges as well as access to hollo walls will be supervised by the bat specialist. Small holes will be created through the various sections to allow bats to move around but not inhibit through draughts. All internal surfaces will need to be rough where bats are to move or hang. Some thin spines will be added to the gable end plywood.