



Strengthen existing wall adjacent to existing opening and reveal with 5No. bed reinforcing helical bars bent in L-shape as shown. Bars to be spaced approx 300mm apart vertically.

Retain existing modern 50x150 ceiling joists in non shaded areas above bathrooms

Add new 50x225 C24 timber Beam B12 to support new ceiling joists forming lowered floor for new attic landing area

Add new 47x97 floor joists at 400mm centres to form new attic stair landing in cross hatched area. One end supported by joist hangers on new timber beam B12 and other end supported on existing masonry wall

New horizontal Timber Beam B14 from 150x100 C24 timber with one tapered edge as shown on section. Each rafter foot tied to Beam B14 with 30x5 twisted galvanised mild steel strap fixed with 2No 6mm dia screws in each member. Timber Beam B14 fixed to new steel Beams B10 and B11 with M12 bolts. Steel Beams B10 and B11 to have 100x100x10mm thick tabs welded to top flange of each PFC for connection to Beam B14. End of Beam B14 also fixed to gable wall and crosswall with angle plates fixed to timber and masonry.

Each PFC in two parts to aid installation. Joint in each PFC formed with 10mm thick welded end plates and 4No.M16 bolts. PFC joints to be located offset by 300mm from centre on alternate sides to give 600mm lap between the them. Lapped part to be fixed together with 6No. HSF M16 bolts.

Existing non-original 50x150 attic floor joists at 400mm centres. Joists supported on and lapped over top of truss bottom chords. Retain these existing attic joists but resupport via joist hangers fixed to sides of new Beams B01 and B02 from pairs of PFCs. Note fix lapped timbers together with 4No. M10 bolts staggered above and below the centreline.

Each PFC in two parts to aid installation. Joint in each PFC formed with 10mm thick welded end plates and 4No.M16 bolts. PFC joints to be located offset by 300mm from centre on alternate sides to give 600mm lap between the them. Lapped part to be fixed together with 6No. HSF M16 bolts.

New Beam B10 from 2No. 150x75x18 PFCs fixed back to back. Beam set within existing floor depth. Ends with welded cranks to follow ceiling line and gain support from existing wall. PFCs welded back to back but with partially lapped and bolted central connection - see separate details. Floor joists supported on projecting 2mm thick plates welded to underside of PFCs.

New horizontal Timber Beam B15 from 150x100 C24 timber with one tapered edge as shown on section. Each rafter foot tied to Beam B15 with 30x5 twisted galvanised mild steel strap fixed with 2No 6mm dia screws in each member. Timber Beam B15 fixed to new steel beams B10 and B11 with M12 bolts. Steel Beams B10 and B11 to have 100x100x10mm thick tabs welded to top flange of each PFC for connection to Beam B15. End of Beam B15 also fixed to gable wall and crosswall with angle plates fixed to timber and masonry.

Existing Truss B to be retained. Bottom chord projects below first floor ceiling and supports existing modern attic floor passing above.

New Beam B11 from 2No.150x75x18 PFCs fixed back to back. Beam set within existing floor depth. Ends with welded cranks to follow ceiling line and gain support from existing wall. PFCs welded back to back but with partially lapped and bolted central connection - see separate details. Floor joists supported on projecting 2mm thick plates welded to underside of PFCs.

Existing Truss A to be retained. Bottom chord projects below first floor ceiling and supports existing modern attic floor passing above.

**General Notes:**

1. This drawing is to be read in conjunction with all relevant Architects and Engineers drawings and specifications.
2. Do not scale from this drawing. For all setting out dimensions refer to the Architects drawings and specifications. Any discrepancies to be reported immediately to Architect/Engineer.
3. Safety and stability of the works during construction is the responsibility of the contractor who should phase the works and provide temporary supports as necessary.
4. All proprietary items to be installed in accordance with the manufacturers recommendations.

**RISK ASSESSMENT**

<b>RESIDUAL RISKS IDENTIFIED</b>	
1. None identified, 27/10/2021.	
<b>CONTRACTOR'S GENERAL RISK ITEMS</b> (List is not exhaustive but includes commonly raised issues)	
1. Location of all buried/hidden services.	
2. Foundation & drainage excavations: Stability of sides, undermining existing structures, diverting existing drainage or field drains, services etc.	
3. Manual lifting of heavy objects: Steel beams, Columns, Lintels, etc.	
4. Temporary stability of structure during the works.	
5. Falls from height or into excavations.	
6. Security: Keep site secure from members of the public. Maintain public safety when accessing site.	

Rev	Description	Date
P4	Revert back to new steel beams to support floor	26/02/22
P3	Helical wall strengthening added. Section changed to DD.	08/11/21
P2	Truss support changed to flitch.	03/11/21
P1	First Issue	27/10/21

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**PROJECT**  
Ivy Cottage  
32 High Street  
Bodicote  
OX15 4BP

**CLIENT**  
H Smart

**TITLE**  
First Floor Plan Showing  
Proposed Modifications to  
Structure of Attic Floor Above

**PURPOSE OF ISSUE**  
PRELIMINARY

<b>DRAWN BY</b> CT	<b>CHECKED BY</b> NV	<b>DATE</b> 27/10/2021
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<b>SCALES (@ A3)</b> 1:50	<b>PROJECT NUMBER</b> VE21088
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<b>DRAWING NUMBER</b> 21008/10	<b>REV</b> P4
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**First Floor Plan Showing Structure in Floor Above**  
Scale 1:50