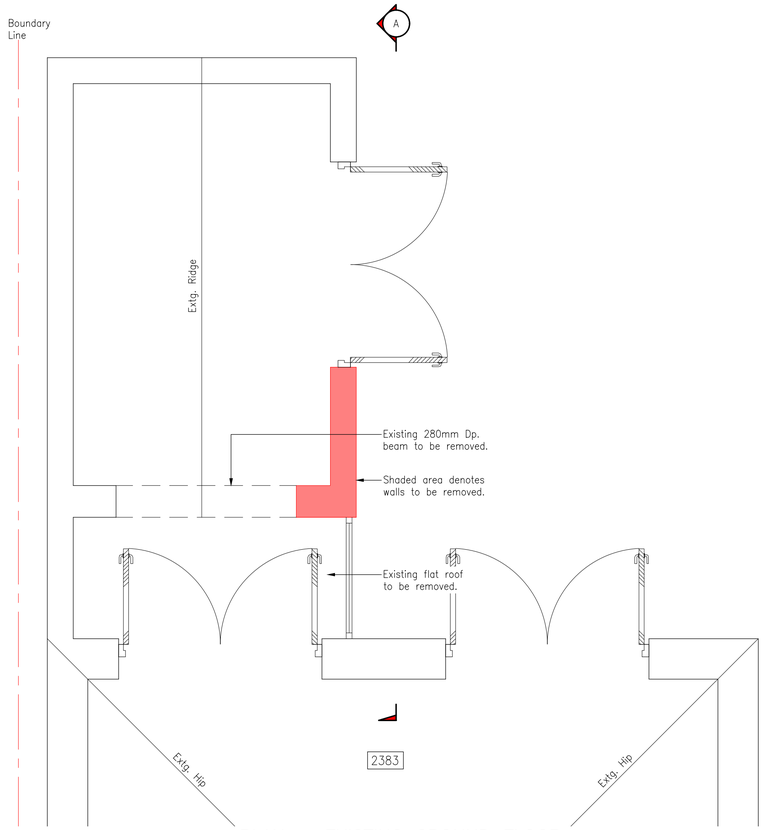
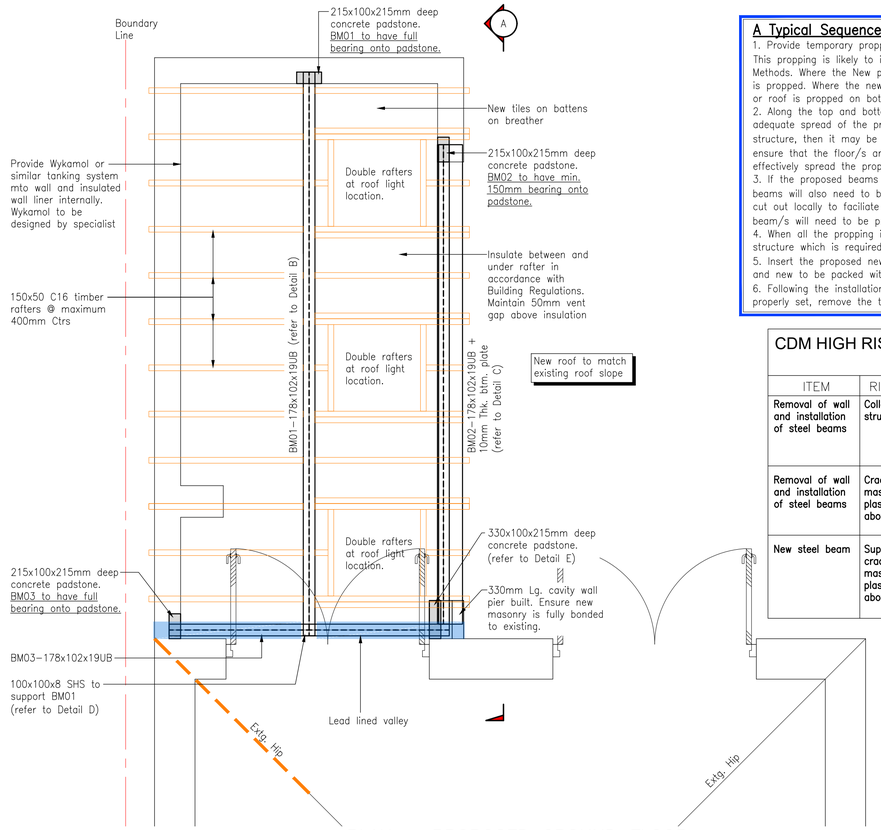



## PLAN – EXISTING GROUND FLOOR
Scale 1:25 @ A1




## PLAN – PROPOSED GROUND FLOOR SHOWING ROOF STRUCTURE OVER
Scale 1:25 @ A1

**A Typical Sequence of Operations for Beam Install**

1. Provide temporary propping at the level where the new beam is to be introduced. This propping is likely to involve Acrows, Acrows with Strongboys or 'Needle Stitching' Methods. Where the New proposed beam supports a wall above ensure the wall above is propped. Where the new steel beam supports floor or roof above ensure the floor or roof is propped on both sides of the proposed beam.
2. Along the top and bottom of the props ensure that spreaders are used to provide adequate spread of the prop loads. If the propping is on top of a suspended floor structure, then it may be necessary to install 'back propping' at the level below to ensure that the floor/s are not overloaded. The aim of the 'back–propping' is to effectively spread the prop loads over multiple floor levels.
3. If the proposed beams are intended to carry existing beams, then the existing beams will also need to be propped temporarily. If the existing beam/s need to be cut out locally to faciliate the installation of the new beams, then the existing beam/s will need to be propped at both sides of the proposed cut line.
4. When all the propping is in place and is secure and stable, carefully dismantle the structure which is required to be taken out.
5. Insert the proposed new structure and 'bed–in' as necessary. Any gaps between old and new to be packed with steel shims or slate pack with non–shrink grout.
6. Following the installation of the new structure, and once all packing/filling grout is properly set, remove the temporary props.

**CDM HIGH RISK ASSESSMENT**

| ITEM | RISK | RECOMMENDATION |
|---|---|---|
| Removal of wall and installation of steel beams | Collapse of wall structure above | Contractor to install temporary propping prior to the removal of any of the load bearing masonry structure. The temp propping must be plumb and properly braced, and maintained until structural works are complete. |
| Removal of wall and installation of steel beams | Cracking to masonry and plaster finishes above | Contractor to inspect the masonry and plaster condition above ground floor for any pre–existing defects and existing condition and to agree in writing with client. |
| New steel beam | Superficial cracking of masonry and plaster finishes above | The steel beams have been designed to limit deflection under the loadings applied in accordance with British Standards and Codes of Practice. However, cracking to the finishes can still occur. |

DO NOT SCALE FROM THIS DRAWING. USE GIVEN DIMENSIONS ONLY. ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY DIMENSIONAL DISCREPANCIES TO BE REPORTED BACK TO HEALEY CONSULTING PRIOR TO PROCEEDING WITH CONSTRUCTION

## NOTES

This drawing is to be read in conjunction with all other Healey Consulting drawings and the relevant Architects and Services Engineers drawings issued for the project.

All dimensions shown are to be checked on site by the Contractor prior to ordering structural member lengths. Do not scale from this drawing.

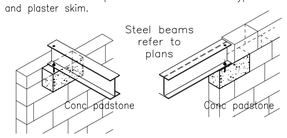
Where the existing structure is to be altered the contractor is to ensure adequate propping is in place and fully secure prior to removing any of the existing load bearing structure. Propping specification to contractors design.

All new steelwork is to be grade S275 to BS5950 and to be provided to site primed with all necessary holes pre–drilled to accept locating bolts at padstone bearings or bolts where connections are required.

Site welding of any connections is not permitted unless agreed in writing with the Engineer. All connections are to have a min of 2No M16 Grade 8.8 bolts fitted.

All steel beams are to be provided to site primed and with 1No 12mm dia hole at the bearings to receive M10 RAWL R–KEM resin anchor into concrete padstone.

All steel beams and columns must have fire protection. This can comprise either intumescent fire paint onto a compatible primer system or the use of fire protective boards, masterboard, Supalux or double 12.5mm plasterboards or 12.5mm Gyproc Fireline and plaster skim.




Typical details of beam bearings on padstones

## NOTE RE PADSTONE SIZES

Padstone sizes as shown are the minimum sizes as required by the Calculations to ensure satisfactory bearing of the steels onto the masonry without causing local crushing of the masonry. These sizes are not necessarily the sizes available from the Builders Yard/Stockist's. The builder should obtain padstones that are as close a match to the sizes as shown

## IMPORTANT NOTES

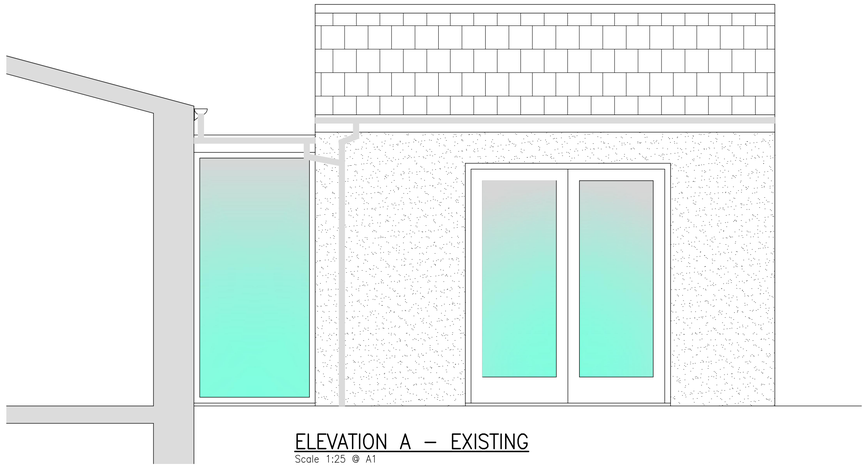
**TEMPORARY WORKS INCLUDING:**

PROPPING, BACK PROPPING, NEEDLE STITCHING, SHORING OF EXCAVATIONS ETC

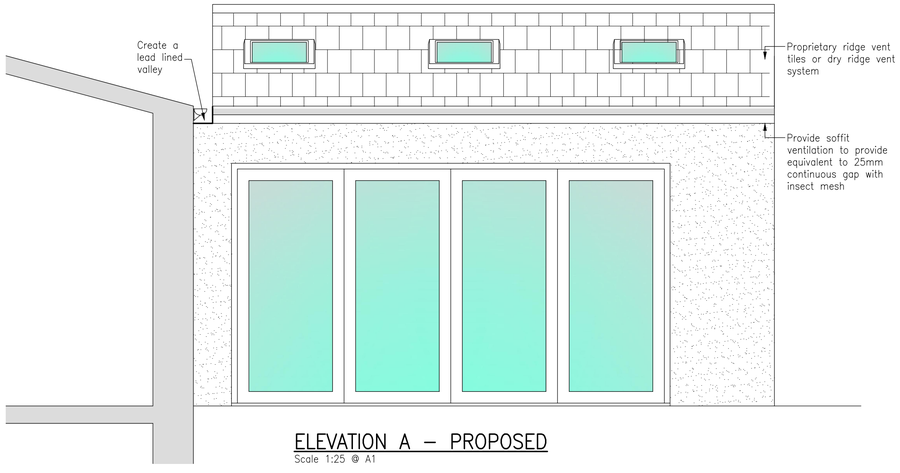
Any works that require the removal of existing structural elements such as load bearing walls, piers, steel beams etc will require temporary propping to be installed prior to the removal of the load bearing elements. It is the clients duty to ensure that a competent contractor is employed whom is familiar and well experienced with this type of works. It may also be necessary for the contractor to employ a temporary works engineer for the design of the temporary works.
Temporary works are to the design of the building contractor or their appointed temporary works designer.

## STEELWORK NOTE

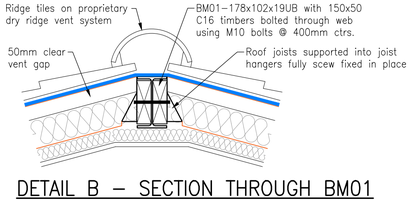
Steelwork noted as Galvanised to be hot dipped in accordance with BS729 to give a min. coating thickness of 85 Microns.



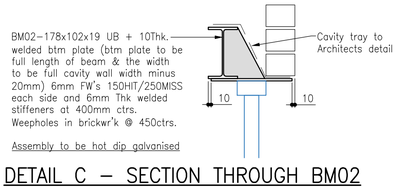
## ELEVATION A – EXISTING
Scale 1:25 @ A1



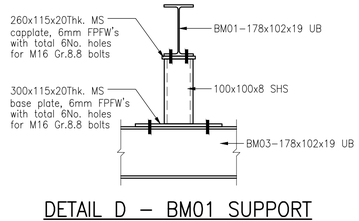

## ELEVATION A – PROPOSED
Scale 1:25 @ A1



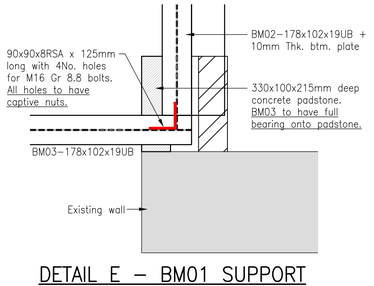

## DETAIL B – SECTION THROUGH BM01
Scale 1:10 @ A1



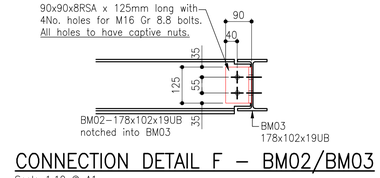

## DETAIL C – SECTION THROUGH BM02
Scale 1:10 @ A1




## DETAIL D – BM01 SUPPORT
Scale 1:10 @ A1




## DETAIL E – BM01 SUPPORT
Scale 1:10 @ A1




## CONNECTION DETAIL F – BM02/BM03
Scale 1:10 @ A1

| REV | DATE | BY | DETAILS OF REVISION |
|---|---|---|---|
| A | 15.04.24 | M.B. | Roof of Extg rear outrigger separated from main dwelling |

ARCHITECT / CLIENT
PAUL BLEAKLEY

PROJECT
122 HILL LANE
MANCHESTER
M9 6PW

TITLE
OUTBUILDING ALTERATIONS
STRUCTURAL LAYOUT

DRAWN BY: JTB
DATE: 06.11.23
SCALE: SHOWN@A1
DRAWING NO.: HC–23490–(60)–01
REVISION: A

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