



STRUCTURAL ALTERATIONS

GUIDANCE NOTES FOR CONTRACTOR

To be read in conjunction with the drawings (where applicable), calculations, sketch sheets and the Brian Clancy Higby Partnership's guidance notes for the client.

Health & Safety

Domestic projects fall under the remit of the Health & Safety Executive. A main contractor will in most circumstances be responsible for the management of site safety.

Structural Integrity

The structural scheme is designed to maintain the overall stability of the building. The structural adequacy depends upon the interaction between the various structural elements. It is important that the steelwork connections are fabricated as the designed scheme, that wall plates are securely bolted to steel beams and columns supported on foundations.

Materials and Workmanship

It is assumed that the standard of building work will comply with current N.H.B.C. Standards or equivalent and comply with the latest edition of the Building Regulations.

Dimensions and Setting Out

Refer to Architect's drawings for setting out. Contractor is responsible for measuring sizes of openings etc. prior to fabrication of beams.

Steelwork

- Structural Steelwork to be Grade S355.
- Bolts to be Grade 8.8, minimum size M16.
- Beam connections to be minimum 4 No. M16 grade 8.8 bolts through 10mm end plates unless noted otherwise.
- Steel beams to have minimum 100mm bearing on to padstones, where perpendicular to the bearing and 250mm where the beams are parallel with the wall.
- Padstones to be pre-cast concrete, Grade C35 and minimum 340mm long x 100mm wide x 140mm deep, unless noted otherwise.
- Timber wall plates to be bolted to steel beams with M12 bolts at 600mm (max) centres, bolt centres staggered.
- Where steel beams support existing brickwork gaps between to be slate packed and pointed.
- Where steelwork construction involves the connection of a number of beams the contractor is expected to obtain fabrication drawings.
- Structural steel to be fire protected in accordance with Building Regulations Approved Document B. Steelwork forming roof structures is generally exempt.

We are able to provide details for spliced beams. Where these involve top and bottom plates these require high strength friction grip (HSFG) bolts. This is a specialist application requiring the services of a skilled technician for erection purposes.



Concrete

Mass concrete Grade C30.
Reinforced concrete Grade C35.

Timber

Structural timber sizes to comply with requirements of TRADA Span Tables.

Masonry

Piers supporting steel beams to be constructed in concrete common bricks or similar, fully bonded, minimum strength 20N/mm².

Straps and Ties

Floors and roofs to be restrained with galvanized steel straps tied to walls to provide lateral and vertical restraint in accordance with Building Regulation requirements.

Foundations

Where columns are supported on mass concrete foundations, these are to be secured through steel base plates with M16 resin grouted holding down bolts unless noted otherwise. Steel columns to be concrete encased below ground.

Where columns have potential uplift connections to be proprietary holding down bolts (M16) in bolt boxes.

Unless noted otherwise foundation sizes assume a safe bearing strata of 75kN/m² capacity at a depth of 900mm. This could be a firm clay or a compact sand. In the event that this is not present we are able to provide advice as to alternative foundation solutions such as piling.

Removing Internal Walls

Advice and guidance for removing internal walls in older buildings is given in the Building Research Establishment (B.R.E.) Good Building Guide 20. It is advised that work should follow the guidance provided in this document.

Party Wall Etc. Act 1966

If the project involves work to the party wall, building on the boundary or excavating foundations near the boundary then it may fall within the remit of the “Party Wall Act”, in which case it will be necessary to notify neighbours and reach an agreement before the work can proceed. We are able to assist in this matter, if requested, for which an additional charge can be made.

Responsibilities

Unless advised otherwise, our service does not include for site inspections. The building contractor is responsible for the design of temporary works and maintaining the stability of the structure. We are able to advise with respect to the above for which additional charges would be applicable.