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SKM Planning & Design

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Structural Specification for – Flag Cottage; Kitchen Alterations

(To be read in conjunction with drawings)

Client: **Mr R Haines**

FOUNDATIONS

Use of existing foundations: A trial hole is to be undertaken before the commencement of works, and if the foundations exposed are inadequate, a scheme for underpinning will be submitted, approved and implemented before the rest of the works are started.

Existing foundations should not be undermined during construction. New footings adjacent to existing foundations are to be constructed in a specified phasing sequence in accordance with Contractor's Method Statement and/or Temporary Works design, with top of new concrete footing to be at least as high as bottom of existing adjacent footing to prevent soil squeezing out from underneath existing footings. Report concerns to engineer.

Positions of site services are to be determined by site survey before commencing excavation. Foundations are to be a minimum of 1.0m below lowest ground level or to a level of adjacent foundations, whichever is deeper.

Concrete in normal (non-aggressive) soil conditions to comprise Portland cement to BS EN 197-1 and 2, with fine and coarse aggregate to BS EN 12620; use 1:4:8 mix of Portland cement, fine aggregate and coarse aggregate. Alternatively, plain concrete foundations in non-aggressive soil can be grade ST2 or GEN1 concrete mixes as specified in BS 8500-2. (Foundation concrete in chemically aggressive soil conditions to comply with BS 8500-1 and BRE Special Digest 1).

STEELWORK

Steelwork to be hot rolled grade S355.
All steelwork is to be tested and fabricated in accordance with National Structural Steelwork Specification 6th Edition.
Bolts (complete with nuts and washers) to be grade 8.8 unless noted otherwise.
All site welds to be certified by qualified welder with weld certification to be provided.
All steelwork to be coated with anticorrosive primer.
Structural steelwork above ground to achieve 60 minutes of fire resistance in accordance with Approved Document B Table A2: Beams to be encased in two layers of 9.5mm plasterboard with 1.6mm wire binding at 100mm pitch and 5mm vermaculite gypsum plaster finish or use intumescent paint (i.e. S707 system by Nullifire) to manufacturer's instructions.
Steelwork sections as specified in supplementary Structural Engineers calculations, subject to BCO approval.
All steelwork bearing onto masonry to be bedded on 50mm thick C32/40 concrete if uneven surfaces prevent full bearing contact.
Steelwork bearing over wall cavities: provide additional 6mm bearing plate at bearing locations, to ensure no transverse bearing dimension on masonry is less than 75mm.

STEELWORK & ROOF COORDINATION

Steelwork bearing onto walls may need to be sniped or cranked to avoid clashing with roof lines, pitches, hips, eaves etc. It is the builder's responsibility to expose, set out and identify such areas prior to fabrication of the steel where it has not been possible to identify these locations during the initial survey and design stages. The designers (architect and/or structural engineer) are to be consulted prior to works proceeding and sourcing of materials.

EXTENSIONS & ALTERATIONS

The initial design survey was carried out when significant parts of the existing structure were concealed. Design proposals are to be verified at commencement of works and any concerns reported to the Structural Engineer.

Drawings not to be scaled. Contractor to check all dimensions on site and report any discrepancies immediately.

All works to be in accordance with current building regulations and codes of practice and to any additional requirements by the local authority building control department.

All works to be carried out by a competent contractor to required levels of workmanship and due consideration to temporary support requirements to both existing and proposed structures.

These specifications are to be read in conjunction with relevant architectural, planning, structural, building control and other relevant drawings forming part of the design. Any discrepancies are to be reported immediately.