



PART A FOUNDATIONS
Concrete strip foundation to new cavity walls 600mm x 200mm minimum. Ready mixed concrete in foundations to comply with B.S. 5328: 1992 not less than 25 N/mm2 minimum cement content 220 Kg/m3, 20 mm maximum aggregate. Depth to be to same level invert of drain currently running through extension, approx 1000mm. foundations should be minimum 1000mm deep onto virgin ground this depth may be reduced to 750mm providing onto solid ground as Main sewer is to be diverted around extension. Stepped foundations to have minimum overlap 300 mm. Steps not to exceed 150 mm.

CAVITY WALLS
Below d.p.c. 7 N/mm2 dense concrete blocks in cavity walling up to d.p.c. level, 100mm Hyload (Ruberoid) or similar DPC on internal wall and external leaf of cavity walls and 150mm minimum Hyload (Ruberoid) or similar on internal leaf of the cavity walls minimum 150mm above ground level. Cavities to be filled with weak mix concrete up to 215mm below the lowest dpc.

External cavity wall to be 300 – 310mm overall thickness comprising outer leaf 100 dense concrete blocks 40mm clear cavity, 60mm celotex fixed to inner leaf with retaining clips fitted as per manufacturers instruction inner leaf 100 dense concrete blocks to achieve U value 0.28 W/m2K.Wall ties to be positioned at 450 centres vertically and maximum 750 mm horizontally. First row of ties at d.p.c. level. At reveals ties to be at every course. Wall ties to be B.B.A. Certificated double drip type to B.S. 1243. Drip bead at damp proof course level and smooth K Render dash finish to clients specification below this area.

New masonry walls connected to existing property using furfix wall starter kits or similar approved product. New strip should be cut up existing Solid wall of property and vertical damp proof course inserted as indicated on plan.

Thermabate flexible high performance insulated d.p.c. to all door and window jambs, or equal approved insulating cavity. Lintels to house extension to be as follows;

Spans up to 1800mm
* Armstrongs Pre Stressed lintels 150mmx100mm, or Catnic CG90/100 (standard duty lintel)

Spans over 1800mm and up to 2700mm
* Armstrongs Pre Stressed lintels 225mmx100mm or Catnic CG90/100 (standard duty lintel)

all to have Minimum 150 end bearing.

Structural engineers input required for following aspects
– Steel beams supporting first floor extension
– Valuted roofs to both ground floor kitchen dining area and first floor valuted roof
– first floor openings where making opening larger to access first floor extension

INTERNAL WALLS
Stud partition formed using 100mm x 50mm C16 timbers. The First to position should be the head timber fixed up through ceiling joist. Use plumb line to mark position of single sole plate, fix sole plate using screws into timber floor at 600 ctrs. Verticle studs to be cut to length and fitted between head and sole plate, staggering centres as per indicated on plan. Cables switches and sockets can be "built in" to the wall void by drilling the correct holes through stud noggins. 75 mm thick sound deadening quilt , minimum density 10 kg/m3, between studs, and one layer of 12.5 thick British Gypsum "Wallboard 10" each side.

GROUND FLOOR
100mm concrete slab on 500g vapor barrier on 80mm Celotex incorporating 25mm celotex edge insulation on 100mm concrete slab on 1200g viqueen linked and stepped as indicated on section, on sand blinding on 150mm Well compacted hardcore. Hardcore should be no greater than 600mm, where areas exceed this dimension it should be reduced first using lean mix concrete.

INTERNAL CEILINGS
new ceilings to have one 12.5mm Gypsum plasterboards and skim.
Where steel beams are present either 2 x 12.5mm Gypsum plasterboards or 1 x 15mm Fire fireline plasterboard and skim to achieve 30 minutes fire protection.

ROOF
Roof Tiles to be Marley double roman Anthracite grey in colour (or other suitable for proposed roof pitch) on 50 x 25 treated softwood battens on Proctor breather roofing membrane laid over Roof Designs provided from Structural Engineer, assumed 220mm x 47 C16 timbers for pricing purposes, specification will be amended to suit after engineers input. Full roof design will be need to be provided to Copeland Building control from builder before this area of work commences.

All rafters should be Birds mouthed onto plate not exceeding notch of a third of the rafter depth with minimum 2 no nail fixings per rafter.
100 x 47 mm softwood treated wall plate anchored at centres not exceeding 2 m with galvanised restraint straps 1200mm long x 30 x 5.
Provide lateral restraint at gable wall using 30 x 5 mm galvanised steel straps built into inner leaf. Straps to be at roof and ceiling level. Fixed to at least two joists with noggins between.

Flat sections of roofs where celings required shoul have 300mm rockwool insulation should be cross layered at celing level to first floor and 200 mm rockwool installed between floor joists.

Sloping Roofs to have 170mm Celotex between rafters.
All details to be carried out in strict accordance with LSA guidance and details in particular lead valleys and gutters Lead in lengths not exceeding 1.5 m in accordance with LSA guidance. (min code 4, 1.5m lengths, 150mm lap)

Cavity trays should be provided where single storey extension abuts two storey including weep holes, flashings and stop end fitted in accordance with manufacturers literature.

Rafters should be doubled up and trimmed accordingly around velux windows, making sure velux are fitted in accordance with manufacturers literature and all flashing kits.

SMOKE DETECTION
Mains operated smoke detectors which comply with B.S. 5446: Part 1, Alarms to be interlinked and wired independently. Alarms to be located within 7.5 metres of all habitable rooms on each level (smoke/Heat detectors as per indicated on the plans).

PART B2 – INTERNAL FIRE SPREAD
Cavities at roof (wall plate and up gables) to be closed off with mortar bedded calcium silicate board.

PART C1/2/3 – SITE PREPARATION AND CONTAMINANTS
The site should be stripped of all turf and vegetable matter prior to the excavating strip foundations. Any requirements of your environmental officer will be noted and the client given the option to incorporate them into the scheme.

PART C4 – RESISTANCE TO MOISTURE WALLS
Hyload dpc bedded in cement mortar and set minimum of 150 mm above finished external ground level.

WALL OPENINGS
Thermabate flexible high performance insulated dpc to all door and window jambs, or equal approved, insulated cavity closer, with stepped dpc / cavity trays above all openings (doors and windows) with weep holes at 450mm centres and below all cills.

PART F1 – VENTILATION
Rapid Ventilation: Opening casements equivalent to 1/20th floor area of all rooms. Background Ventilation: Trickle ventilators to habitable room providing 8000 mm2 per room. Trickle ventilators to non-habitable rooms provide 4000 mm2 per room. Mechanical Extractor Fans: Bathroom at Ground & first floor to have fan extracting at 30 L/sec with 15 minute overrun linked to light. Utility Room to have fan extracting at 30 L/sec. Kitchen to have fan extracting at 30 L/sec if above hob or alternatively elsewhere in the room should be 60 L/sec. All fans to dishcharge to external air.

PART H1 – FOUL WATER DRAINAGE ABOVE GROUND
First Floor bathroom to connect into new 100mm svp as indicated on plan. All drainage should have fixings which allow rodable access. Refer to drawing for location of svp's. Drain invert to vertical soil stack to be min. 450 mm below lowest connection point (large radius 90 bend). Stacks to be ventilated at head of drain and terminated above the roof line, via lead slate 900 mm above any opening within 3m, and finished with a cage or cover which does not restrict the flow of air. incorporate air admittance valve to one of stacks in new first floor bathroom.

Waste and sanitary appliance branch lines in excess of lengths in Diagram 3 Part H, to be provided with a branch ventilating pipe in accordance with Diagram 4 Part H. Rodding points to be provided to any length of waste pipe which cannot be reached by the removal of traps.

Minimum 100 mm trap to W.C. with 75 mm re-sealable traps to other fittings. Bath, shower and sink washbasin wastes to be minimum 50 mm dia. Waste pipe gradients to meet requirements of Regulation H1

BELOW GROUND
Provide new drain connections as shown on plan into existing drainage run. All new underground drainage in 110 dia Marley up drainage pipes and fittings, or equal approved, to B.S. 4660: 2000 and installed in accordance with B.S. 5572: 1978 and B.S. 5955: 1980 to minimum fall of 1/60. Bedding (pea gravel) and protection (concrete encasement) to shallow pipework or below traffic loadings to be confirmed on site with Building Control, all gullies to be trapped and rodable.

Where passing through walls pipes are to be bridged over using concrete lintels. A combined drained system is to be used into the existing combined drainage system at the bottom of the plot then. All drainage work is to be confirmed on site with Building Control.

Main Sewer is currently running under existing property, It is proposed to re-route the drain on the outside of the proposed extensions providing inspection chambers as per indicated. Further information will be provided upon consulation with unities.

PART H3 – RAINWATER
Rainwater gutters to be Marley "Deepflow" or "Premier" White UPVC half round eaves gutter system with 68 mm dia circular down pipe connecting directly into gullies. New roof water to discharge into existing combined drain.

PART J – HEAT PRODUCING APPLIANCES
The heating contractor is to provide a report confirming that materials and components appropriate to the intended application have been used, and that flues have passed appropriate tests in accordance with the condition of combustion installations at completion. A copy of the report should be handed to the client. (Approved Document J, Paragraphs 1.53 to 1.55.)

The gas fired central heating installation must be carried out by a Gas Safe registered gas installer and strictly in accordance with the manufacturer's instructions, 'Domestic Lighting & Services Guide' and all relevant British Standards.

OPENINGS
Thermabate vertical insulating d.p.c. to all door and window jambs, or equal approved. Catnic insulated steel lintels to all window and door openings.

Ensure continuous sealing strip of fixing plaster to edges of openings and at junctions with walls, floors and ceilings.

Provide draught-stripping to frames of opening elements of windows, doors.

Ensure sealing around boxing to concealed services, floors, walls, openings and service penetrations.

HEATING
The central heating system is to be inspected on completion, and fully commissioned by the heating contractor, and a commissioning certificate is to be made available to the client and Building Control, in accordance with Approved Document L, Paragraphs 1.47 to 1.50.

Copies of all relevant manufacturers' operating and maintenance instructions are to be handed to the client following commissioning of the heating and hot water systems.

Hot water supply to baths not to exceed 48 degrees C by use of inline blending valve or other appropriate temperature controls.

All water carrying pipework running in ground and all unheated areas are to be insulated in accordance with B.S. 5422: 1990.
100% of all lights are to be energy efficient

PART K – SAFETY GLAZING
Glazing in windows / doors under 800 mm – 1500 mm above floor level is to be glazed in safety glazing to B.S. 6206:1981 in either toughened or laminated glass.

PART P – ELECTRICAL SAFETY
All electrical work required to meet the requirements of Part P (Electrical Safety) Must be designed, installed, inspected and tested by a person competent to do so. Prior to completion the Council should be satisfied that Part P has been complied with. This may require an appropriate BS 7671 electrical installation certificate to be issued for the work by a person competent to do so.

WINDOWS AND DOORS
Windows and doors to be white pvcu high performance specification with 28mm double glazed units incorporating Low E glazing to achieve a U value of 1.6 and be toughened in doors and side screen areas, to BS 6206. Glazing to window to be to BS 6399
All windows and doors designed to comply with PAS 24 security standard.

Bi-fold doors to be grey Aluminium to same specifiaction as per above

Windows to first floor bedrooms should have an openable area of at least 450mm wide And 450mm high and achieve at least 0.33m2. The bottom of this openable area should be between 800mm and 1100mm from finished floor height.

Velux to kitchen/dinning area roof to be 1180mm x 780mm
Velux to first floor bedrooms to be 780mm x 530mm

All new lighting to be energy efficient type.

FIRST FLOOR
New Floor to fish flush with existing floor level throughout allowing for 22mm wyeoc flooring . 170mmx47mm C24 timbers at 400 centres with 200mm rockwool between joists. Floor joists specification the smoe for both new extension and infill section where removing stair case

all fixed via joist hangers to 220mmx47mm C16 wall plate bolted to wall at 600 Ctrs staggered with chemical fixings. Moisture resistance boarding to be used in all rooms where there is a risk of water spillage.

TIMBER FLOORS – Strutting (Domestic)
Provide strutting along the length of joists at intervals recommended in TRADA Technology's span tables document or Building Regulation documents. These figures should be regarded as minimum provision. Ensure end blocks are fitted both ends of strutting line.
Up to 2.5m : None
2.5 – 4.5m: 1 at mid span
over 4.5m: 2 at 1/3 points

All dimensions should be checked by builder on site

Position and style of new lighting and radiators to be agreed with client before commencement. all new light fittings to be energy efficient type.

CDM 2015
The client is to ensure that a suitable principle contractor is appointed and must agree the transfer of jis duties under CDM 2015 to the appointed principle contractor who will become responsible for compliance with the clients duties as well as his own.

Isolate and make safe existing services from all working areas of extension before commencing excavation work.
Ensure full support is provided to all retained strutral elements and seek advice from structural engineer if unsure of requirements.
Provide suitable equipment for lifting and placing steel beams and trussed rafters into place.