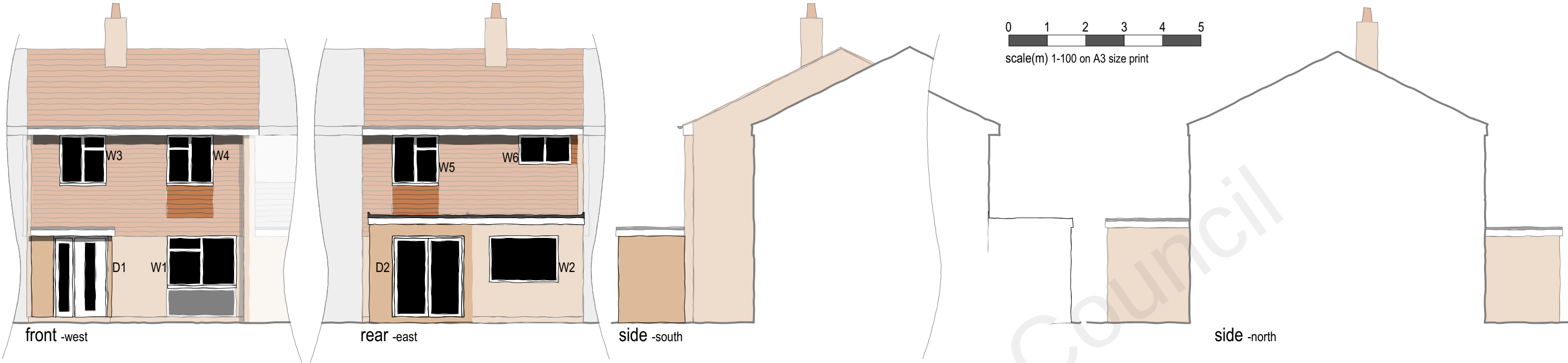




Foundations

Concrete strip foundations to match depth of those for existing house subject to BC inspector approval, and to suit the bearing capacity of the ground. All to BS 8110 and BS8004, concrete mixes to BS 5328 and BS 5573. All foundation work shall be carried out in accordance with "CP2004": Foundations. Oversite shall be excavated to remove vegetable soil and if suitable, deposited in soil heaps for later spreading and levelling as required. Reduced levels shall be excavated as required. The sides of all excavations shall be properly upheld and maintained as required by the soil conditions. All excavation bottoms shall be trimmed, levelled and compacted. Earth backfilling shall be well rammed in 225mm layers to a maximum depth of 600mm. Earth fillings shall be selected excavated material or imported material free from organic matter. Suitable surplus excavated material shall be spread and levelled as required by the site layout. Make levels under ground floor with earth fillings as described or hardcore fillings as required, to BC approval. Backfill foundation trenches internally with earth fillings or hardcore as appropriate. All surplus excavated material shall be taken to suitable approved tips.

Concrete Work

Cement shall comply in all respects to BS 12. Sulphate resisting cement shall comply in all respects with BS 4027. High alumina cement shall not be used. Aggregate shall comply in all respects with BS 882. All concrete construction shall be carried out in accordance with the relevant British Standard Codes of Practice. Particular attention shall be paid to compaction and the formation of construction joints. Concrete exposed to sulphate attack shall be designed in accordance with the recommendations of BRE Digest 363. Steel reinforcing rods and fabric reinforcement shall comply with BS 4449 and 4483 respectively, and shall be free from paint, mill scale, rust, dirt and grease.

Steel Work

See Structural Engineers details and specification for any structural steelwork. All in accordance with BS 5950 using grade 43 steel. Steelwork to comply with BS 4: Part 1 & BS 4848. Surfaces to be given a protective coating system before assembly. Steelwork to be supported on padstones (to Structural Engineers detail) to spread load evenly. Where used in cavity wall, precautions are to be taken to prevent cold bridging.

Walls

All bricks and blocks to be laid on a full bed of mortar and all perpend to be solidly filled. Ties, straps, hangers, brackets, lintels and bed joint reinforcement to comply with BS EN 845: Parts 1-3.

Walls below dpc

To be constructed in concrete blockwork and/or similar FL quality brickwork to 2no. courses below ground level and to Engineer's specification. NB: Fletton bricks not to be used. Cavities filled with lean mix concrete with splayed top falling to outside face at least 225mm below lowest dpc. Dpc's throughout to be BBA Certified co-polymer thermoplastic (see D.1). Mortar to be to Engineer's specification. Bricks below dpc but above ground to be stock facing bricks with weather struck finish to joints and to be FL quality, all to match existing.

Ground Floor

150mm concrete over DPM, 50mm sand blinding and 225mm min. well consolidated hardcore. P/A ratio of extended ground floor = 33/54 = 0.6. 100mm Eurothane GP insulation boards butted together, break bonded and loose laid, 'U' value = 0.2 W/m²k. Insulation at least 20mm thick placed vertically around the perimeter and of a height to cover the insulation and screed over to prevent cold bridging. Overlay boards with 500 gauge polythene as Vapour Control Layer (which will also prevent wet screed penetrating the joints between insulation). Lay min. 75mm cement and sand screed (1:3) to BS 8204 as dry mix as possible reinforced with galvanised mesh with 150mm lapped joints. Screeding to BS and Code of Practice is not to be carried out under weather conditions which could adversely affect the result, should be thoroughly compacted and to be protected and kept continuously moist until sufficient strength has been attained to resist shrinkage stresses. Screeds to incorporate a dust proofing additive. Proprietary service ducts (not timber) to pipe runs in floor as necessary.

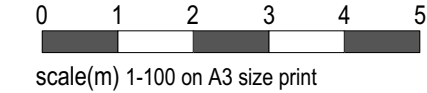
External Walls

Engineer to confirm, All to comply with BS 5628 Code of Practice for use of masonry & BS EN 998 spec. of mortar. 300mm thick cavity walls generally to ground floor extension. Inner skin 100mm Celcon Standard 2.9N/mm2 aerated concrete block or similar equal, to conform BS 6073; Parts 1 & 2. Finished with 12.5mm plasterboard on bonding compound dabs in accordance with manufacturers instructions. 100mm min. wide cavity partially filled with 40mm Kingspan Kooltherm K108 Cavity Board insulation to at least 150mm below top of perimeter floor insulation. 'U' value = 0.25W/m²k. 225mm stainless steel cavity wall ties to accord with BS DD 140: Part 2 and/or wall ties with appropriate measured dynamic stiffness for the cavity width, eg. Ancon ST1 Type 1 tie (suitable for cavities 50mm to 150mm) inclined downwards towards outer leaf. The bottom row of ties to be at 450mm centres, elsewhere ties at 750mm horizontal joints, ties to be at 300mm max. vertically, not more than 225mm from the edge. Type 4 ties not to be used. Ties to be bedded at least 50mm into each leaf. Cavity wall insulation to meet roof insulation at the top of the wall. Brick outer skin to ground floor to be in 102mm Class FL stock facing brickwork to BS 3291 to match existing. Pointing to match existing. Tying in of new and existing walls to be via use of Furfix (Simpson Strong Tie) stainless steel profiles installed into bricks and/or blocks and not into mortar joints, with adjustable anchors at max. 300mm vertical centres. Allow for insertion of vertical d.p.c. into existing wall at junction. Manufacturers proprietary uPVC insulated horizontal and vertical cavity closers to all windows and door openings in cavity walls (eg. Thermabate). Close cavity at roof eaves level with cavity insulation meeting roof insulation. Provide horizontal cavity trays with preformed stop ends or turned up ends over any position where cavity is bridged, eg. Flues/ducts, etc. Weep holes to be proprietary plastic vents @ 450mm c/c's in the brick course immediately above lintels over all openings, with a minimum of 2 holes per opening. All cavities to be kept clear of mortar droppings. Back face of window and door jambs to be set back behind vertical dpc to avoid cold bridging. Provide Hyload similar and approved DPC/cavity trays to BS 743 bedded in mortar to all external walls as per details and where applicable, internal support walls. Trays to extend min. 150mm each side of openings and conform with stopped end requirements to BS 6676: Part II with minimum 2no. weepholes per opening. Proprietary stepped cavity tray at all external wall abutments. (Type X Cavitray or equal).

All DPC's to be min. 150mm above external ground level. Ensure edges do not penetrate into the cavity. Lap min. 150mm; avoid excessive number of laps. Leave edges of DPC projecting 5mm from front face of external walls. Lay on even bed of mortar for DPC and complete the bed to normal thickness and finish smooth; immediately lay one course well bedded in the dpc. DPM's to be lapped and bonded if applicable and project 25mm beyond jamb closer. Where applicable, the horizontal damp proof membrane to be linked, bonded and well lapped with the horizontal dpc's. Where existing openings are reduced the new wall is to be 100x 50mm treated s/w studs aligning with the the adjacent face of inner leaf. with 60mm Eurothane GP insulation against 11mm OSB 3 external sheathing. 25mm Eurothane GP to outside face of sheathing, breathable membrane, battens and tiling to match and align with existing. 'U' value = 0.27W/m²k.

windows, doors, trims etc.

UPVC windows to be "high performance" type to comply with BS 6375, Part 1, Level 5 and of a design shown by test to meet security requirements of BS publication PAS 24: 2012. Windows to be double glazed using sealed unit thermal double glazing 24mm Low E to comply with Approved Document L. Minimun u-value 1.4 W/(m2K). Frames to be mechanically fixed to the structure in accordance with manufacturers instructions. All to comply with ~Approved Document Q. No external beads. Window head trickle ventilators to afford 8000m² vent area with insect mesh to all windows in habitable rooms. 4000m² elsewhere (Titon range or similar). Opening window area to equal or exceed 20% of floor area of rooms. Installation of laminated and safety glass should be in accordance with Approved Document N1 of the Building Regulations (see diagram at the end of this document). Window cills to be 25mm MDF bull nosed cill boards.



lintels

Galvanised steel lintels to BS 5977 and BS EN 10142 with zinc coating type G600 (H3) with a minimum coating of 600g/m² both sides "IG steel or Catnic" or similar. Ensure minimum 150 end bearings. Lintel voids to be pre-insulated by manufacturer. Lintel size to suppliers specification. A flexible DPC should be overlaid with stop ends, and projecting beyond the front toes, with a minimum of 2no. weepholes per opening using proprietary weephole duct. Use precast concrete plank lintels with min. 150 end bearings below ground where services/drains pass through walls. Bourncrete or similar approved lintels to BS 5977, Part 2 and Table 4.8 of BS 8110, Part 1, minimum cement content of 325kg/m³.

flat roof

3mm skim coated 12.5mm plasterboard, 50 x 100 mm C24 timber joists at 400mm c/c (as TRADA table 7.2) & varying battens over to produce 60mm rise from gutter to 1st floor wall abutment, 18mm WBP plywood deck, vapour control layer, 120mm Recticel Powerdeck F insulation fixed to ply with telescopic tube fasteners, fully bonded non-bituminous single ply membrane. U value = 0.18W/m²k. Single ply roofing installation to have 25 year insurance backed guarantee. Treated s/w edge support and uPVC fascia to match doors.

ventilation

Total floor area of extended house: 92 sqm g.i. Background (trickle) ventilators in new window & door frames to achieve 12,000mm² to livingroom / kitchen (AD F1 para. 3.17) Intermittent extract fan in Kitchen to have 30 litres per second extract adjacent to the hob with humidistat control or 60 litres per second extract when located elsewhere. Position of kitchen extract and flue outlet to be min. 300mm horizontally from window openings so as not to prejudice lintel bearing. Manual override to be fitted to vent fans to allow occupant to turn the extract on. Where background vents and individual fans are fitted in the same room they are to be a minimum of 500mm apart. All habitable rooms to have "purge" ventilation by means of opening windows and/or external door that opens 30° or more, equivalent to at least 1/20 floor area.

▶ Timber Framed Wall - ventilated exterior cladding - Insulation Between and Outside Timber Frame

Outside surface resistance	
External Finish	Tile hanging
Ventilated cavity	
Breather membrane	
Recticel outside studs	Eurothane GP 25 mm
Stud depth	100 mm
Use Target UValue (optional)	0.28 W/m²K
Recticel insulation between studs	Eurothane GP 60 mm U-value = 0.27 W/m²K
Clear cavity between studs	
Polythene VCL, 1000 gauge	
Plasterboard	
Inside surface resistance	
U-value = 0.27W/m²K	

CLIENT;

Angela Lemon

PROJECT;

60 Cheyne Walk Meopham DA13 0PG

TITLE;

proposed elevations

SCALE;

1-100

DATE;

Oct. 2022

DRAWN;

GB

DRAWING NUMBER

22-31-05

rev. -

F1

PRIME
FOLIO
01 622 691169