# **DEMOLITION:**

The contractor to undertake all demolitions in order to complete the works and make good to all wall, floor and ceiling finishes where necessary. All debris to be removed from site on completion.

# NEW EXTERNAL WALL (render finish):

Painted render externally 100mm external skin of concrete blockwork 50mm free air cavity 80mm Celotex RR insulation boards with plastic retaining clips 100mm Celcon insulated block internally 12.5mm plaster on dabs dry lining

(The U-value of the overall construction to be 0.21 W m2 K)

# NEW EXTERNAL WALL (stonework finish):

100mm external skin of coursed stonework (with facing brick plinth below dpc level and facing brick 'long and short' surround detail to windows and doors to match the existing) 100mm blockwork backing skin 50mm free air cavity 80mm Celotex RR insulation boards with plastic retaining clips . 100mm Celcon Standard block internally (or Thermalite Shield block) 12.5mm plaster on dabs dry lining

(The U-value of the overall construction to be 0.21 W m2 K)

Stainless steel vertical twist type wall ties (to BS 5628) to be provided at 450mm max centres vertically and 750mm max centres horizontally (staggered) with increased ties @ door and window openings in external wall. Weep holes to be provided above and below all openings at every third perpend. Insulated galvanised steel lintols to be provided over all structural openings in the external wall

Cavities in external walls to be closed at the upper level with incombustible material such as 9mm 'Supalux' or low density block

# **NEW MASONRY PARTITIONS:**

construct new 100mm thick blockwork walls as indicated with fair faced finish to garage and moisture resistant plasterboard (with taped joints) on 38x50 treated s/w vertical battens @ 600 centres with 50mm 'Kingspan' Kooltherm K12 framing board insulation between battens to new studio side

GROUND FLOOR CONSTRUCTION (studio/sitting): Floor finish and skirtings to client's choice on 65mm cement: sand screed with light anti-crack fabric mesh reinforcement (A98) on 100mm Klngspan rigid insulation on 1200 gauge dpm with 8mm thick flanking strips around perimeter of floor turned up over finishes and secured with skirting on 15mm levelling screed brushed into joints between beam and block floor system. Note that dense concrete infill floor blocks to be used. Dense concrete slip blocks on dpc to be provided where blocks bear onto external wall at perimeter.

all floors to habitable rooms to be on same level without steps

(The U-value of the overall construction to be 0.18 W sam K)

# GROUND FLOOR CONSTRUCTION (garage):

dense concrete beam and block floor system designed and installed by specialists to sustain garage floor loadings. Note that dense concrete slip blocks on dpc to be provided where blocks bear onto external wall at perimeter and all joints to be filled in accordance with specialists specification

# **EXISTING FLOOR CONSTRUCTION:**

client approved floor finish on 22mm Weyroc high density floor decking on 50x38 tanglised battens @ max 400mm centres with 38mm 'Kingspan' rigid insulation between battens to enhance the existing U-value on 1200 gauge polythene on existing floor construction.

### FIRST FLOOR CONSTRUCTION:

Herringbone strutting to be either 38mm square section treated s/w or Catnic Ref HRB11 galvanised steel herringbone struts.

Joists to be strapped to walls by means of 35x5mm section 'CATNIC' galvanised straps where running parallel to external wall (Provide noggins on line of straps, min noggin depth to be 150mm)

Floor decking to be Weyroc V313 22mm thick T & G high density flooring. All joints to be glued to joists with pva adhesive and to also be nailed with min 50mm (10 gauge) annular ring shank nails

All joists to be 200x50 (unless otherwise specified) SC4 grade s/w @ 400 maximum centres. Min end bearings to be 100mm on walls and 90mm on hangers

2no joists bolted together under new stud partitions at first floor level where joists running parallel to the partition

100mm min thickness of mineral wool sound insulation to be provided between joists

Please note that the new floor levels are to match with the existing levels

# VAULTED ROOF CONSTRUCTION (WARM ROOF):

Roof tiles/slates on 50x25 treated s/w battens on TYVEK breathable roofing felt on treated s/w rafters (specified by the structural engineer) @ 400 max centres to minimum pitch of 17.5 degrees.

Rafters to be doubled up under the new 'Velux' rooflight

50mm clear ventilation zone above 100mm Celotex-R GA3000 or equivalent between rafters. 40mm Celotex T-Break TB3000 or equivalent under rafters with all joints taped. Soffit finished with 12.5mm plasterboard to achieve U-value of 0.15 W/m<sup>2</sup> K.

All wallplates to be tanalised and strapped to the external wall by means of proprietary galvanised straps at centres not exceeding 2.0 metres and lead cavity trays and flashings to be provided at roof abutments

mono pitch section of roof to be ventilated at its upper level by means of either roof vent tiles or continuous abutment vent under lead flashing. General double pitch vaulted roof to be ventilated by means of dry ridge ventilators with continuous 'over-eaves' ventilators in accordance with the building regulations

#### NEW FLAT ROOF CONSTRUCTION: (WARM ROOF DESIGN)

The flat roof to new rear extension to be an unventilated 'Warm Roof' design with a single membrane or GRP finish on 150mm thick rigid insulation with firring pieces laid to fall on 20mm thick external grade plywood or OSB board (all to manufacturer's specification) on treated s/w joists @ max 400cts (to structural engineer's specification) with 12.5mm thick moisture resistant plasterboard and skim to the u/s

The U-value of the overall construction to be 0.18 W/sqm K

#### NEW KITCHEN INSTALLATION:

new kitchen layout, units and appliances to be designed and installed by specialists in accordance with an approved client design and specification (including all necessary hot and cold water/ gas services)

#### INTERNAL STUD PARTITIONS: (12)

new 100mm softwood stud partition with 12.5mm plasterboard + skim to each side (75mm thick sound resistant quilt to be installed between studs and moisture resistant plasterboard to be used in areas of high humidity)

### INTERNAL DOORS:

All new internal doors and door furniture to be in accordance with the client's specification including frames and architraves

#### EXTERNAL WINDOWS:

External windows and doors to be as indicated on the elevations and unless otherwise stated must be constructed from hermetically sealed insulated double glazed units to BS 5713 and FENSA certified.

#### (U-value to be 1.6 W/sqm K)

The specialist window supplier is to ensure that all glazed units are designed to achieve the appropriate exposure rating for the site location and conditions. Trickle vents to be provided to windows in accordance with the ventilation requirements required by the Approved Documents.

Toughened safety glass to be provided within 800mm of FFL and in windows up to 1500mm off FFL where they are within 300mm of a door.

The size and locations of all opening lights to be agreed with client prior to fabrication of windows

### FOUNDATIONS:

All foundations to be taken down to firm ground and to be agreed with the building officer

Dimensions of foundations indicated are indicative only and must be designed and specified by the structural engineer based on ground conditions and the superimposed

# **GENERAL NOTES:**

All openings in external walls to be provided with the necessary vertical and horizontal damp proof courses in the traditional locations to prevent the ingress of water.

(Vertical dpc's to be the insulated type).

Where new masonry walls connect to existing, each skin is to be tied to existing with s/s Simpson Strong—Tie Crocodile C2K Wall Extension profile or similar approved. 100mm vertical slot to be cut in existing wall along line of cavity and 200mm vertical dpc to be inserted and cut and dressed in front of new insulation to prevent ingress of damp.

# VENTILATION:

Windows to habitable rooms to provide ventilation equivalent to 1/20th floor area (8000 sqmm trickle vents to be incorporated)

Kitchen to have extract rates of 30 litres/sec near hob and 60 litres/sec elsewhere

Bathroom/ensuites to have extract rate of 15 litres/sec per bath/shower

#### UNDERGROUND DRAINAGE:

The foul water drainage installation to be in accordance with the Approved Document H of the building regulations or BS 8301: 1985 Code of Practice for Building Drainage

Any pipes passing under building to be surrounded with 150mm min mass concrete encasement and where the crown of the pipe is within 300mm of the u/s of the slab the concrete encasement must be integral with the floor slab

New foundations to be taken down to the invert level of all existing drainage runs

All work to be carried out in accordance with BS8301. New manholes to be constructed with proprietary uPVC chambers/150mm concrete bases and 215mm thick semi-engineering brickwork external wall and sized to suit depth of drains, all as detailed.

The head of all foul drainage runs must be ventilated by means of a soil vent pipe terminating into the atmosphere intermediate soil vent pipes may be terminated by means of a 'Durgo' or other approved air admittance valve

all drainage runs and connections to be agreed on site with Building Control

denotes automatic smoke alarm

- denotes heat detector

# **ELECTRICAL INSTALLATION:**

The electrical installation must be undertaken by an appropriately qualified person and must comply in all respects to the current I.E.E. Regulations. Where necessary the contractor must liaise with the electricity supply Company to confirm the electrical loadings, the nature and location of the supply, its suitability for the installation, the earthing arrangements and the location of any external meters. No conduit or wiring should be exposed and all wires in the roofspace to be clipped to the top of ceiling joists and not covered with insulation. There shall be no conduit or wiring in cavities of external walls.

All new electrical sockets to be located between 450mm-1500mm above finished floor level and light switches to be a minimum of 1.200 above finished floor level

Energy efficient lighting to be installed in accordance with L1 table 4 in accordance with approved document. External lighting to conform to L1 1.57

The contractor to allow for all electrical works required by the alterations and the final scope of work / specifications to be agreed with the client

### PLUMBING/ HEATING INSTALLATION:

The installations must be undertaken by an appropriately qualified person and must must comply in all respects with the current Codes of Practice, Building Regulations and the associated Approved Documents.

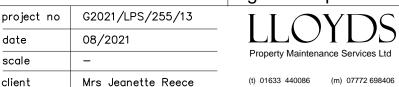
The contractor to allow for all heating and plumbing works required by the alterations and the final scope of work / specifications to be agreed with the client

# STRUCTURAL SCOPE OF WORK:

A detailed structural design will be required for the following elements by a qualified structural engineer and all design details and calculations to be submitted to the Building Control Department of the Local Authority:-

- new steel beams 'A+B' (kitchen area) - new steel beams 'C+D' (kitchen area)
- new steel beams 'E' (dining area)
- new steel beams 'F+G' (sitting area) - new steel beams 'H+J' (external glazing)
- new steel beams 'K+L' (juliette balcony)
- new steel beams 'M+N' (ensuite area) - all padstones and bearings as required
- new vaulted timber roof construction
- all proposed beam and block flooring
- all proposed foundations

# general specification



project

Proposed Alterations:

Sunnyside House: Rudry: Caerphilly CF83.3EB