Proposed External Materials
- Matching smooth brown concrete interlocking roof tiles to rear elevation
- Salvaged profiled concrete interlocking roof tiles to front elevation
- Black PVCu soffits & fascias with black half square rainwater goods
- Red facing brick - size & shade to match existing as closely as possible
- White PVCu windows



front elevation 1:50

Roof tiles salvaged from existing roofs fixed to manufacturer's instructions on 50x25mm treated softwood battens on TYVEK SUPRO vapour permeable underlay

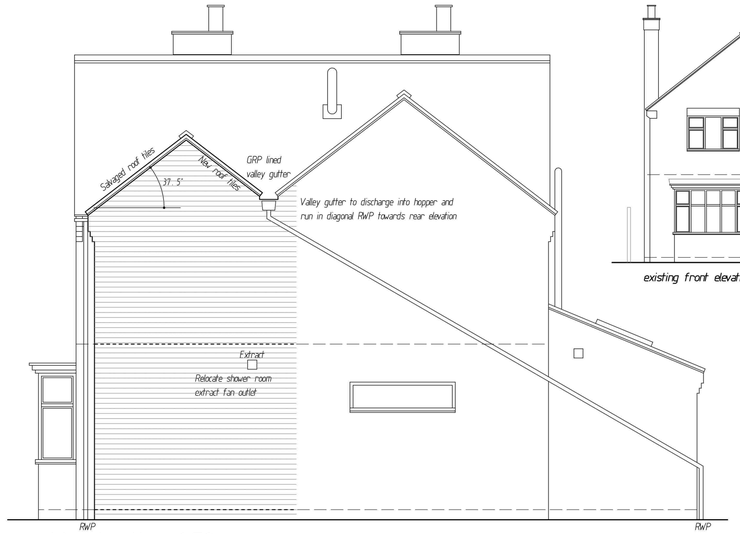
Black PVCu soffits and fascias to project 105mm from face of building with corbelled brick stop-end. 100mm wide black PVCu gutters on fascia brackets with 65mm wide downpipes

Where denoted E-E the window should have an unobstructed openable area that is at least 0.33m2 and at least 450mm high and 450mm wide. The bottom of the openable area should be not more than 1100mm above the floor.

No part of proposed extension to overhang boundary.

IG or similar insulated steel lintel over openings with cavity tray above and perp end weepholes at 900c/c. Windows to be white upvc double glazed draught sealed units with glazing to achieve a U value of 1.4W/m2K. Provide trickle vents to heads.

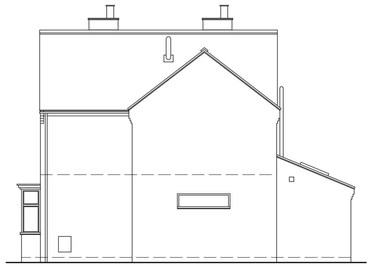
Relocate gas meter from side elevation into new wall mounted box on front



side elevation 1:50



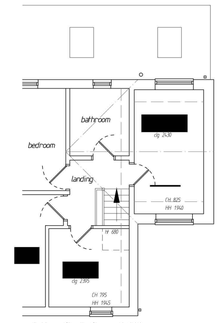
existing front elevation 1:100



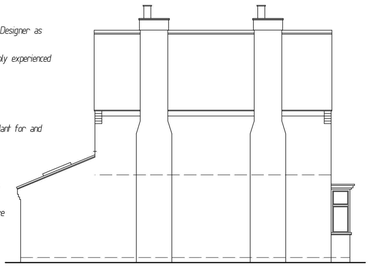
existing side elevation 1:100



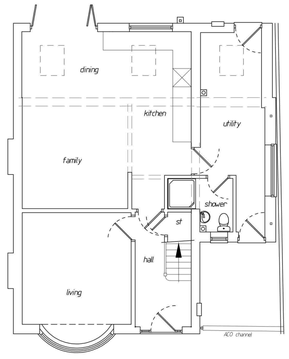
existing & proposed rear elevation 1:100



existing first floor 1:100



existing & proposed side elevation 1:100



existing ground floor 1:100

COM2015 DESIGNER'S PRE CONTRACT INFORMATION

For clarity neither Jon Pilkington or Pilkington Architecture Limited have been appointed as, or are acting as, Principal Designer as defined by CDM2015.
This is a conventional domestic-scale project and as such there are very few hazards outside the scope of a reasonably experienced contractor. It is a previously extended detached house and may contain hazardous substances.

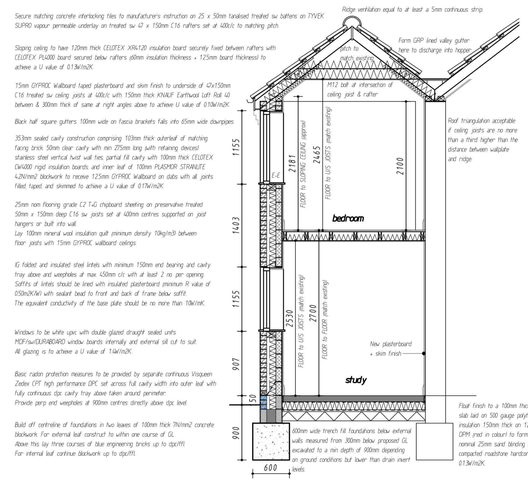
There are some additional residual risks:-

- No problems with ground conditions are expected and the ground appears to be virgin but contractor should be vigilant for and report any concerns, and prepare a method statement and cost for addressing any issues found in groundworks.
- Client has no records for power or gas lines. Contractor should be vigilant for and report as before described.
- Materials storage can only be on the front drive. Contractor must maintain access for occupants into the dwelling.
- Adjacent dwellings are generally occupied. This dwelling contains children and is to remain occupied during the works.
- BT overhead cable on the approach to site.
- The extension is to be constructed immediately adjacent to the neighbours land. As such the Contractor should ensure no materials, elements of building work or scaffolding protrude outside of the site limits and that the site is securely fenced-off at all times.
- To mitigate any risk, foundation excavations should be backfilled with concrete on the same day.
- Large and heavy steel beam required. Contractor to prepare method statement for delivery & installation.

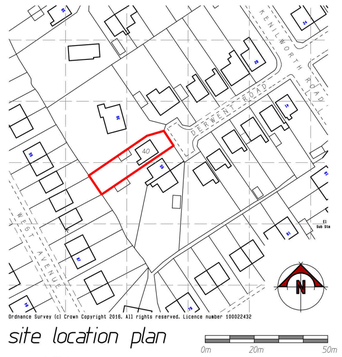
PARTY WALL etc ACT 1996 - no implications.

FIRST FLOOR
to achieve min. 45dB airborne 62 dB impact sound insulation.
25mm nom flooring grade C2 T+G chipboard sheeting (moisture resistant to wet areas) having a minimum mass of 15kg/m2 on preservative treated 50mm x 150mm deep C16 sw. joists set at 400mm centres spanning between walls as indicated. Support on stainless steel full restraint type joist hangers fitted in accordance with manufacturer's instruction or build into neatly saw cut openings with mastic sealant. Provide same size treated sw perimeter/board joint noggins.
Lay 100mm mineral wool insulation quilt (minimum density 10kg/m3) between floor joists with 15mm GYPROC wallboard ceilings.
Where external walls run parallel with floor joists provide stainless steel strapping at mid-span with sw struts in between to form compression members.

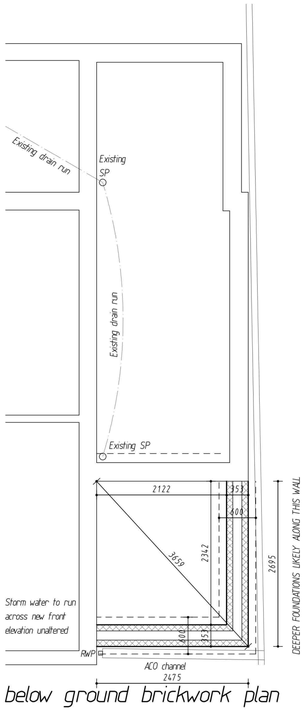
Notches should be not deeper than 18mm for this size joist and should not be cut closer to the support than 0.07 of the span, nor further away than 0.25 times the span.
Holes should have a diameter not greater than 0.25 times the depth of a joist and should be drilled at the joist centreline.
They should be not less than 3 diameters (centre to centre) apart and should be located between 0.25 and 0.4 times the span from the support.



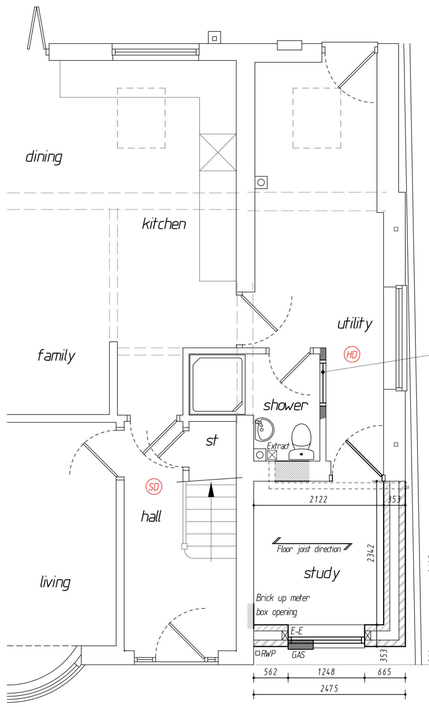
section a - a 1:50



site location plan 1:1250



below ground brickwork plan 1:50



ground floor 1:50

THERMAL STATEMENT :

25% of proposed extension floor area = 2.5m2
+ doors/windows which no longer exist = 3.9m2

= total allowable glazed area of 6.40m2

Proposed glazed area is 2.88m2 therefore this is not a Highly Glazed Extension

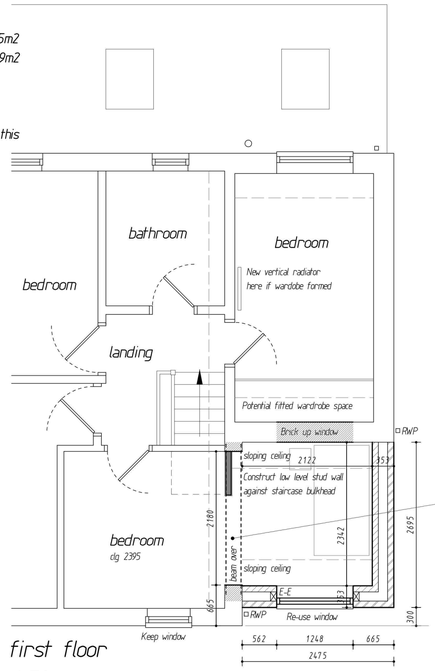
Insert high level fixed glass panel in shower room internal wall to provide borrowed light (750mm wide x 450mm deep)

Brick up existing shower room window and replace external door with new internal door (FD30 fitted with smoke strips)

Relocate shower room extract fan via ducting between or below new floor joists to outlet on side elevation

Where denoted E-E the window should have an unobstructed openable area that is at least 0.33m2 and at least 450mm high and 450mm wide. The bottom of the openable area should be not more than 1100mm above the floor.

Relocate gas meter from side elevation into new wall mounted box on front elevation



first floor 1:50

Low level internal wall constructed in 90mm CLS studs with 125mm GYPROC wallboard & skim

Form new opening into extension with head height to suit existing wallplate level inserting universal beam above with minimum 150mm end bearing each side.
Needle and prop around opening as required.

Where denoted E-E the window should have an unobstructed openable area that is at least 0.33m2 and at least 450mm high and 450mm wide.
The bottom of the openable area should be not more than 1100mm above the floor.

FOUNDATIONS:
Install 600mm wide trench fill foundations below external walls measured from 300mm below proposed ground level excavated to a minimum depth of 900mm depending on ground conditions but lower than drain invert levels.
Where excavating within vicinity of trees ensure foundation depths comply with NHBC Standards Chapter 4.2 'Building Near Trees' in full agreement with Building Control Officer.
Any stepped foundations shuttered in depths of 225mm and lengths of 450mm minimum.
The concrete should have a design sulphate class of DS1 and an aggressive chemical environment of AC-2z should be utilised.

BELOW GROUND BRICKWORK:
Build cft centreline of foundations in two leaves of 100mm thick dense concrete 7N/mm2 blockwork.
For external leaf construct to within one course of finished external ground level.
Above this lay three courses of blue engineering bricks up to dpc/ffl.
For internal leaf continue blockwork up to dpc/ffl.
Lean mix cavity fill to be struck off sloping away to ground level approx 300mm below finished floor level with perp end weepholes at max 900mm c/c.
Visqueen Zedex CPT high performance DPC to be installed across the cavity bedded 150mm above external ground level.

UNDERGROUND DRAINAGE:
All pipework below ground in 110mm dia pvcu laid at 1 in 80 falls (or as otherwise agreed on site with Building Inspector) bedded on granular material of particle size not exceeding 20mm dia.
Connections to be made into preformed 300mm dia polypropylene inspection chamber bases fitted with riser rings to a maximum cover to invert level of 1200mm.
Where drainage trench is within 1m of foundation fill the trench with concrete around the pipe to the lowest level of the foundation.
Storm water to run in existing ACO channel across new front elevation into existing drainage system.

GROUND BEARING CONCRETE FLOOR:
Float finish to a 100mm thick plain concrete ground bearing slab laid on 500 gauge polythene vapour control layer.
Below this the floor insulation shall be CELOTEX XR4150 rigid insulation board 150mm thick fixed in accordance with manufacturer's recommendations.
Below this lay 1200g Visqueen Radon Barrier (lamp proof membrane (red in colour) to form basic radon protection with joints taped with double sided sealing tape (minimum 150mm lapped & sealed) which is to be taken up the outer face of the perimeter insulation and continuously linked into dpc of outer leaf. Lay on nominal 25mm sand blinding.
Secure 25mm thick cuttings of the same insulation board around the perimeter of the floor slab to prevent cold bridging with vapour control layer sandwiched between perimeter insulation and external wall.
Lay all this on minimum 150mm maximum 600mm well compacted roadstone hardcore free from deleterious material. This specification gives a U Value of 0.13w/m2K.

BASIC RADON PROTECTION MEASURES are to be provided as follows:
Separate continuous Visqueen Zedex CPT high performance DPC to be set across full cavity width into outer leaf with fully continuous dpc cavity tray above taken around perimeter.
Provide perp end weepholes at 900mm centres directly above dpc level.

LINTELS:
IG folded and insulated steel lintels with minimum 150mm end bearing and cavity tray above to all external openings sized by manufacturer.
Provide weepholes at max. 450mm c/c with at least 2 no. per opening.
Soffits of lintels should be lined with insulated plasterboard (minimum R value of 0.50m2K/W) with sealant bead to front and back of frame below soffit.
The equivalent conductivity of the base plate should be no more than 10W/mK.

STEELWORK:
Universal beams to be installed in accordance with Consulting Engineer's details and layout.
Construct padstones as specified and all beams to be encased in minimum 2 No layers of 12.5mm GYPROC WallBoard (staggered joints) with skim finish to provide min 30 minutes fire protection.

EXTERNAL WALLS:
To be 353mm sealed cavity construction comprising 103mm thick outerleaf of matching facing brick in 1:1:6 cementlimesand mortar; 50mm clear cavity with min 275mm long (with retaining devices) stainless steel vertical twist wall ties at 450mm c/c vertically, 600mm c/c horizontally.
Decrease vertical c/c to 225mm at reveals.
Partial fill cavity with 100mm thick CELOTEX CW4000 rigid insulation boards closely jointed with insulation starting 225mm below finished floor level.
Cavities and ties must be clear of all mortar snots or droppings and closed at sills & jambs using same insulation as around perimeter of floor screed.
Inner leaf of 100mm PLASMOR STRANJETE 4.2N/mm2 blockwork to receive 12.5mm GYPROC Wallboard on dabs with all joints to be filled, taped, and skimmed.
This wall specification will achieve a U value of 0.17w/m2K.
At gable strap inner leaf to ceiling joists and rafters with 30 x 5mm stainless steel straps at max 2.0m centres taken across at least 3 timbers with 50 x 50 treated sw noggings between them to form compression members.
Windows to be built in with frame to overlap cavity by minimum 30mm.
Continue cavity wall insulation at least 225mm below top of perimeter insulation supported on a row of wall-ties. Ensure continuity of insulation at all corners.

WINDOWS:
to achieve a minimum U value of 1.4W/m2K
All windows to be white upvc double glazed draught sealed unit with sw/DURABOARD window boards internally and external sill cut to suit.
Style to be as indicated on elevations with opening lights to be at least 5% of floor area - part of which must be at least 1.75m above floor level.
Where denoted E-E the window should have an unobstructed openable area that is at least 0.33m2 and at least 450mm high and 450mm wide.
The bottom of the openable area should be not more than 1100mm above the floor.
Windows to be built in with frame to overlap cavity by minimum 30mm.
Cavities closed at sills & jambs using same insulation as around perimeter of floor screed.
All reveals should be lined with insulated plasterboard (minimum R value of 0.50m2K/W)

ROOF:
Secure salvaged or matching concrete concrete interlocking tiles to manufacturer's instruction on 25 x 50mm tanalised treated sw battens on TYVEK SUPRO vapour permeable underlay draped over rafters by 10-15mm fixed along rafter centres with non-ferrous nails or staples at max 300mm c/c.
Horizontal laps to be min 150mm, vertical laps to be min 300mm to occur over a rafter.
Secure to TYVEK Underlay Support Tray (150mm overlap) at eaves with all products installed in full accordance with manufacturer's recommendations.
Secure on treated sw 47x150mm C16 rafters set at 400c/c to same pitch as existing roof.
At gable condition 3 rafters & ceiling joists to be strapped to inner leaf at 2m c/c with noggings in between to form compression member.
100 x 75mm C16 treated sw wall plate to be used generally strapped to inner leaf at 1.2m c/c with straps taken down 1m.

Sections of sloping ceiling have 120mm thick CELOTEX XR4120 rigid insulation board securely fixed between rafters with CELOTEX PL4000 board secured below rafters (60mm insulation thickness + 2.5mm board thickness) in accordance with manufacturer's recommendations to achieve a U value of 0.13w/m2K.
Flat ceiling to be 15mm GYPROC Wallboard taped plasterboard and skim finish to underside of 47x150mm C16 ceiling joists at 400c/c with 150mm thick KNAUF Earthwool Loft Roll 40 laid between and 300mm thick of same at right angles above to achieve U value of 0.10W/m2K.

Eaves ventilation equal to at least a 25mm continuous strip. Ridge ventilation equal to at least a 5mm continuous strip.
Above ground storm water in black half square gutters 100mm wide on fascia brackets laid at falls into existing 65mm wide downpipe. Valley gutter to discharge into hopper and run in diagonal RWP towards rear elevation.

SPACE & DOMESTIC HOT WATER HEATING:
Existing boiler checked for adequacy of serving additional output. Alterations carried out by GAS SAFE registered heating engineer.
Link onto existing system using same controls. New radiators fitted with thermostatic valves.
Hot & cold water services in copper pipework lagged in accordance with Approved Document L1A.
The Benchmark Certificate confirming the commissioning of the heating & hot water services should be made available on site for the Building Inspector.

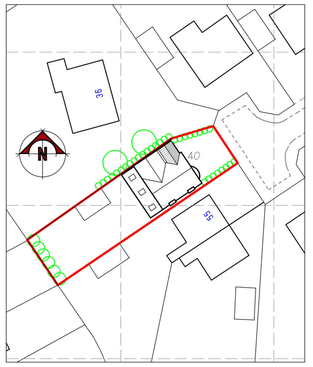
ELECTRICAL:
Electrical layout to be agreed with client on site at later date.
In accordance with Approved Document M all switches and sockets are to be located between 450 and 1200mm above floor level.
A single switch should normally operate no more than 6 light fittings with a maximum total load of 100 circuit-watts.
100% of fixed internal light fittings should have a lighting efficiency of at least 45 lumens per circuit-watt.
Light fittings may be either :
- dedicated fittings which will have separate control gear and will only take low energy lamps: or
- standard fittings supplied with low energy lamps with integrated control gear

All electrical work required to meet the requirements of Approved Document P (Electrical Safety) must be designed, installed, inspected and tested by a person competent to do so.
The BS 7671 electrical installation certificate should be made available to the Building Inspector prior to completion.

AUTOMATIC SMOKE DETECTION:
Provide automatic smoke detectors where shown mains operated and wired to each other but on separately fused circuits and with battery back up. Smoke alarms to conform to BS EN 14604:2005 and to be fixed in accordance with recommendations in BS 5839-1:2002+A2:2008.

VENTILATION:
Window opening lights to habitable rooms must be a size at least 5% of the floor area of the room and part of which must be at least 1.750m above FL.
Windows to have high level trickle ventilators in head capable of a controlled minimum opening of 5000mm2 for habitable rooms (2500mm2 for non-habitable rooms) - or provided by window fasteners that are lockable when window is partially open.

MISCELLANEOUS ITEMS:
Surface of all new walls and ceilings to have Class 1 resistance to spread of flame.



block plan 1:500

REVISIONS	DATE

CLIENT MR. & MRS. S. PEARCE
ADDRESS 40 DERWENT ROAD - RIPLEY
PROJECT PROPOSED EXTENSION
DRAWING PRODUCTION DRAWING
SCALE 1:50 / 1:100 / 1:500 / 1:1250 at A1
DATE MARCH 2023
DWG No. PA/16-020 AL (2-) 101 C

PILKINGTON ARCHITECTURE
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HIGHAM
ALFRETON
DERBYSHIRE
DE55 6EJ
Tel : 01773 843333
jon@pilkington-architecture.co.uk

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Contractors must check all dimensions on site, working only from grid & figure dimensions.
Discrepancies must be reported to the designer before work is done.