DESIGN DETAILS

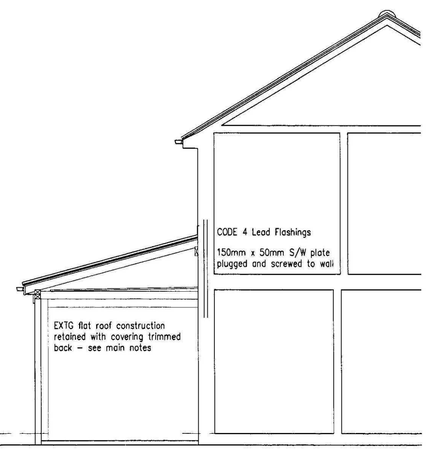
ROOF COVERING
Concrete INTERLOCKING tiles type and colour to match existing (MARLEY or similar) with smooth finish on 50mm x 25mm treated battens on double layer of TYVEK SUPRO underlay (MUST BE TYVEK OR SIMILAR BREATHER TYPE ROOFING UNDERLAY WITH BBA CERTIFICATE) laid and fixed strictly in accordance with the manufacturer's instructions. Double layers to be staggered 50%. Use an eaves guard such as MONARFLEX eaves guard at eaves to support end of underlay and direct run off water into gutter. All roofing work shall be in strict accordance with the manufacturer's instructions and specification and to BS5534

TYVEK UNDERLAY MEMBRANE TO BE USED THEREFORE NO ADDITIONAL ROOF VENTILATION REQUIREMENT

ROOF STRUCTURE
Strip back extg flat roof covering around perimeters and expose timber decking.
Carefully cut back decking for approximately 300mm without damage to the flat roof joists below. Notch out joists approx 50mm deep and fix continuous pole plate over top of joists in 100mm x 75mm softwood. Provide and fix noggings between extg joists to pack from extg top of wall to underside of new pole plate. Increase depth of plate if required to make up levels. Fix GMS vertical restraint straps to pole plates and new wallplate as appropriate at 2000mm maximum centres fixed down and into extg brick walling by a minimum 900mm.

Secure new 150mm x 50mm softwood plate to wall with heavy duty frame anchors at 600mm centres.
Cut and birdsmouth over plates 125mm x 50mm C16 rafters at 400mm centres with hip rafter of 175mm x 50mm.

Provide wrot 175mm x 25mm nominal treated softwood fascias and 190mm x 25mm under fascia where extg joist ends are exposed through brickwork.



SECTION THRO GARAGE

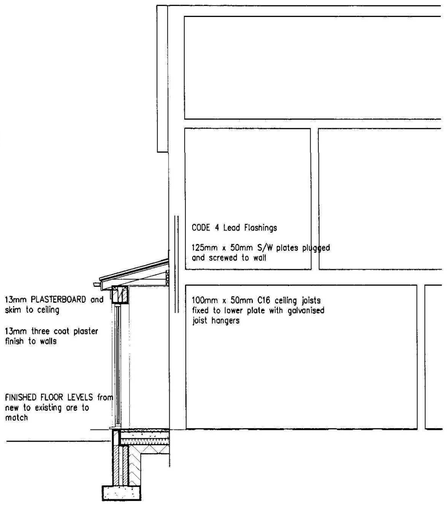
CAVITY WALL CONSTRUCTION
Walls to be 103mm clay facing bricks, 100mm cavity filled with 75mm DRITHERM 32 insulation, 100mm HEMELITE medium density insulation blocks.
Leafs to be tied together with stainless steel wire ties at 900mm centres horizontally and 450mm intervals vertically with every alternate tie course staggered by 450mm. Use additional ties at cavity closures at 225mm vertical centres and within 150mm of the cavity closure.
All masonry work to be to BS5628.

LINTELS
Use BIRTLEY SUPERGALV lintels in galvanised pressed steel of the types indicated on the plan – CB70, CB70HD etc, as appropriate, to be installed in strict accordance with the makers instructions and complete with cavity trays where required.

DAMP PROOF COURSE
Use heavy duty polythene material with embossed face for dpcs, VISQUEEN ZEDEX at 150mm above finished ground level in all leafs of cavity walls and to all internal walls.
Use THERMACOR insulated vertical dpcs in all cavity closures. NOTE: WINDOW FRAMES SHALL CLOAK THE THERMACOR VERTICAL INSULATING DPC BY AT LEAST 30mm. THE WINDOW CILLS WHERE NOT ASSOCIATED WITH A TILE CILL WILL HAVE TO BE AN EXTENDED CILL COMPONENT TO ALLOW THE DRIP TO BE SET IN ADVANCE OF THE WALLING.

SUB-STRUCTURE MASONRY
Blockwork below ground to be in 2no skins 100mm class A dense aggregate blocks laid in cement mortar with 100mm cavity. Use stainless steel cavity ties. Fill cavity with lean mix concrete ST1 up to 230mm below the lowest dpc level.
Use durability designation FL bricks as "splash course" from ground to dpc.

FOUNDATIONS
PROVISIONALLY AND SUBJECT TO DETAILED SOILS INVESTIGATION the foundations to be 650mm wide x 250mm deep min (subject to specific ground conditions) GEN3 mass concrete STRIP foundations down to firm consistent loadbearing stratum not less than existing DWELLING formation, PRESUMED to be around 1000mm below finished ground level.
TRIAL HOLES SHOULD BE EXCAVATED IN THE VICINITY OF THE EXTENSION BUT NOT SO CLOSE AS TO AFFECT THE PROPOSED FOUNDATIONS OR ANY EXISTING ONES. THESE HOLES SHALL BE EXCAVATED TO A DEPTH OF AT LEAST 3.3 metres FOR THE PURPOSES OF REVEALING THE SOIL PROFILE AND SHALL BE EXAMINED AND RECORDED BY A PERSON COMPETENT TO ASSESS THE SOIL PROPERTIES AND ITS ABILITY TO SUSTAIN BUILDING LOADS APPROPRIATE TO THE PROPOSAL.
SHOULD UPON TRIAL HOLE INVESTIGATION THE SUBSOIL CONDITIONS REVEAL WEAK OR INCONSISTENT STRATA WORKS SHALL NOT PROCEED UNTIL A FOUNDATION DESIGN BASED ON A FULL SOILS INVESTIGATION HAS BEEN PREPARED BY A STRUCTURAL ENGINEER AND AGREED WITH THE LOCAL AUTHORITY BUILDING CONTROL DEPARTMENT.



FLOOR CONSTRUCTION
50mm cement/sand screed 1:3 laid level, flat and flush and fully compacted on 110mm GEN4 concrete slab fully compacted on 300 micron thickness VISQUEEN 1200 SUPER DPM with all joints lapped 300mm and taped and turned up at all walls and lapped with dpc in walls. 100mm thickness JABLITE SD flooring grade insulation, with 30mm perimeter upstands to external walls, laid on fully compacted, level and flat sand bed on minimum 150mm thoraughly compacted clean stone hardcore graded 75mm down – no particle size to exceed 75mm in any direction.

SECTION THRO PORCH

WINDOWS AND DOORS
New windows and doors to be in white PVC-U complete with all weatherseals and security locking.
Windows to be glazed with sealed unit double glazing 4–16–4 Low E coated to give 1.8W/m2K. Glass in doors and sideframes or where closer to floor or ground than 800mm is to be in safety glass to BS6206–1:1981.
New window to have top opening vents and trickle vents giving 5000mm2 controllable background ventilation

ELECTRICAL WORKS
New electrical work and any works required for alteration etc to facilitate the new roof and other works of construction shall be carried out by a qualified and competent electrician who shall certify that the works have been designed, installed and tested in accordance with BS7671. A copy of the certificate is to be given to the Building Control Body and the original handed to the client.

INSULATION
Install 2no layers of 150mm fibreglass insulation to whole of new roof void.

RAINWATER GOODS
Gutters and downpipes are to match extg generally in white PVC-U squoreline or squorefio and connected to extg rainwater disposal system.
Any new underground pipework to be in 110mm ø PVC-U underground pipe laid to fall at 1:80 with 100mm bed and surround of peagravel. Connect to soakaway system. Any new soakaway must be at least 5.0metres from all buildings and the highway.
Any new soakaway to be 1.0 metre cube filled with broken brick rubble to 300mm below ground level, layer of TERRAM, backfilled to ground level with topsoil or other surface finish to match extg.

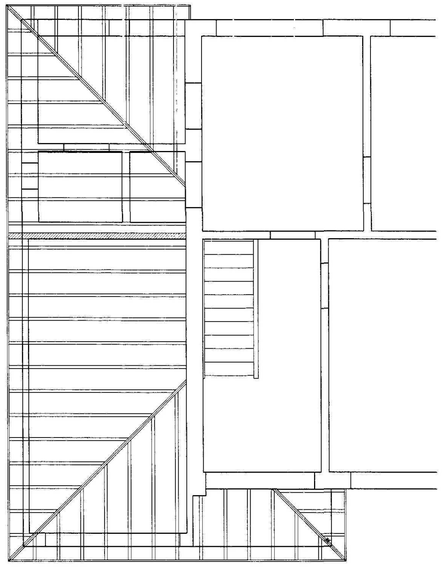
COMPARTMENT WALL
Form fire wall (compartment wall) in roof void over wall that divides the living accommodation from the garage. The wall is to be built up in lightweight blockwork (Tarmac Toplite) or similar from the top of the existing walling to the underside of the roof covering and fire stopped.

ROOF STRUCTURE
Strip back extg flat roof covering around perimeters and expose timber decking.
Carefully cut back decking for approximately 300mm without damage to the flat roof joists below. Form notch in joists end approx 50mm deep x 100mm and fix continuous pole plate to the notch over the joists using 100mm x 75mm softwood. Provide and fix noggings between joists from top of walling to underside of new poleplate to provide solid support. Increase depth of plate if required to make up levels.
Secure new 150mm x 50mm softwood plate to wall with heavy duty frame anchors at 600mm centres.
Cut and birdsmouth over plates 125mm x 50mm C16 rafters at 400mm centres with hip rafter of 175mm x 50mm.

Provide wrot 175mm x 25mm nominal treated softwood fascias and 190mm x 25mm under fascia where extg joist ends are exposed through brickwork.

Provide and install galvanised mild steel vertical restraint straps to ceiling joists to extg garage where new doubled joists are installed.

EXISTING LINTELS
Expose as required and check extg lintels for adequacy to carry slightly increased roof loadings. Allow for lintel reinforcement or replacement as necessary.



ROOF FRAMING PLAN

ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON SITE BEFORE COMMENCING WITH THE WORKS

AMENDMENTS

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01.12.10

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Member of the Chartered Institute of Architectural Technologists

project
Proposed Pitched Roof Over Flat Roof to Existing DWELLING at 43 Laxton Gardens, PINCHBECK, SPALDING, Lincolnshire, PE11 3PR

client
MR + MRS S WILSON

drawing
DESIGN DETAILS
SECTION, ROOF PLAN
AND CONSTRUCTION NOTES

date	scale(s)
FEBRUARY 2010	1:50
drawn by	checked
Peter Lithgow	PSL
job no	drawing no
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