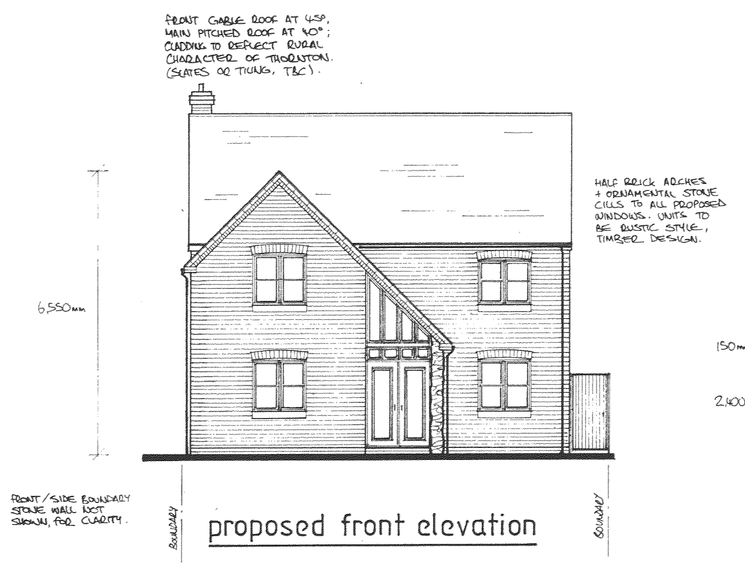
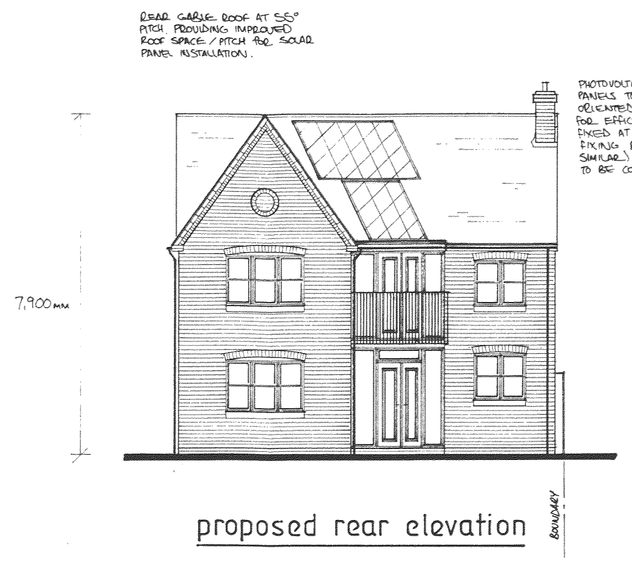


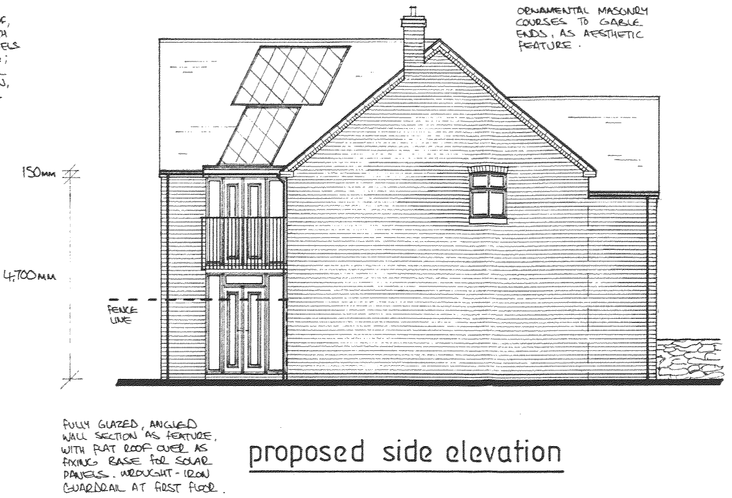
proposed front elevation



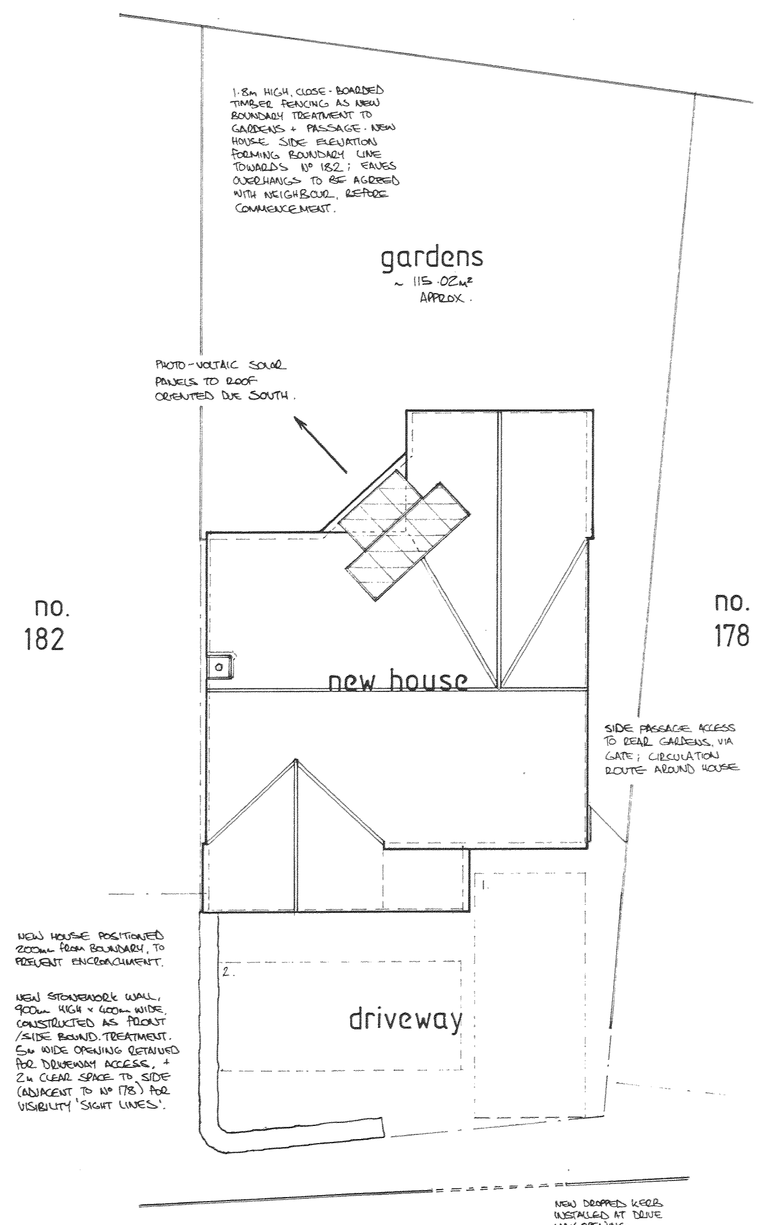
proposed side elevation



proposed rear elevation

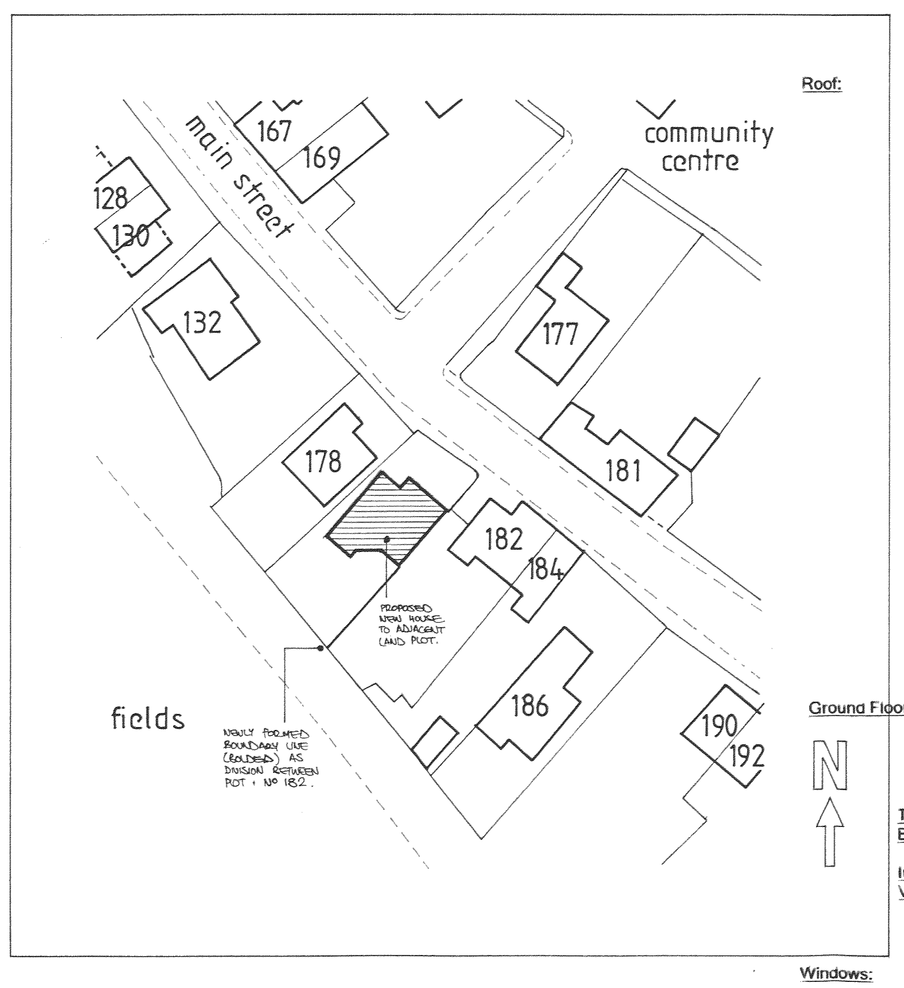


proposed side elevation



main street

proposed roof plan



site plan (1:500)

Foundations: To all new external walls, plus spine wall; mass concrete, 600mm wide and minimum 1000mm below ground level or below invert of drain, whichever greater. Astos DPC minimum 150mm above ground level (+0.15), three courses Class A engineering brickwork under (two above and one below ground level), semi-engineering brickwork down to footings. Additional depth potentially required, subject to soil / vegetation on site. Requirements to be confirmed with Building Inspector.

Walls: External cavity wall construction of 102mm facing brickwork (materials to reflect local character), 100mm cavity, plus 100mm thick concrete blockwork inner leaf (Celcon Hi 7's or similar, having thermal resistance of 0.19 W/mK). Cavity to have 25mm air gap, + 75mm Kooltherm K8 board insulation. Kingspan 'Thermabate' cavity closers at openings. 15mm plasterboard + skim internal finish. Wall ties to be stainless steel at 450mm ccs max and 5no per square metre. Wall ties every block course at door opening. Galvanised steel Catnic lintel over all opening, with minimum 150mm bearings.

Roof: General - roof tiles or slates (to reflect local character), fixed to treated timber battens, on counter battens, over one layer DuPont Tyvek Supra breather membrane, fixed as per manufacturer instructions. Horizontal roof insulation to be 270mm thick quilt, 100mm between ceiling joists and 170mm over at right angles. Sloping soffit sections insulated with 30mm air gap, 120mm Kingspan Thermapitch TP10 between timbers, + 32.5mm Kooltherm K18 linerboard + skim finish. All truss details to be confirmed by manufacturer before commencement.
Main roof - 40° pitch, of preformed 'Attic' trusses at 600mm ccs (providing additional storage space within roof). 600x600mm hatch access to open landing area.
Rear gable - 55° pitch, providing high level ridge (running into main ridge) and sufficient fixing area for 8no solar panels. To be preformed 'A frame' trusses at 600mm ccs, creating open roof; vertical wall section to be 100x50mm timber stud structure, 100mm Thermapitch TP10 between studs + 32.5mm Kooltherm K18 Linerboard over to inner face, + skim. Cold side ventilated to roof space.
Front gable - 45° pitch, of preformed 'A frame' trusses at 600mm ccs. Cladding taken from front gable over Porch roof section at dropped eaves.
Porch roof - 45° pitch, 100x50mm C16 timber rafters at 400mm ccs supported by 100x50mm timber wall plate (supported by steel frame), and 100x50mm timber bearer affixed to front gable external wall (rafters birdsmouthed over by 50mm). Ceiling finish of 15mm plasterboard and skim finish.
Flat roof - formed from steelwork 'triangle.' Lead sheet cladding on suitable underlay, 18mm thick external quality ply decking, softwood firings on 150x50mm C16 timber joists at 400mm ccs (supported by steel framework, oriented perpendicularly to angled wall section). 50mm ventilated air gap + 100mm Kooltherm K7 insulation between joists; 62.5mm Kooltherm K18 linerboard as soffit finish, + plaster skim.

Ground Floor: 65mm sand cement screed, on 125mm concrete bed, 1200 gauge polythene DPM, 125mm Styrofoam insulation, 1200 gauge polythene DPM plus 150mm thick hardcore bed, sand blinded and mechanically compacted in layers. 20mm polystyrene edging to floor slab perimeter, to prevent cold bridging.

Thermal Bridging: All floor joists to be supported on wraparound joist hangers. Cavities closed at jambs and cills with thermal closers

Insulation Values: Not to exceed; Sloping roof soffit .20; Roof .16; Walls .30; Floor .22; Windows 1.8W/m²K

Windows: New windows double-glazed, with hit and miss vents providing 8000mm² vented opening. Glazing in windows below 800mm above FFL and in doors below 1.5m above FFL (and within 300mm thereof) to be safety glazing, to BS6206. Double-glazing min 1.8W/m²K with 16mm air gap (low E En=105). Windows of 4mm K glass, 16mm argon filled panel, 4mm glass internally.
Means of escape - All windows to habitable, first floor rooms to offer alternative means of escape for Fire emergency, with minimum openable area of 0.33m², minimum width 450mm and minimum height 750mm; cill level to be maximum 1100mm above first floor level.
Aesthetics - All windows to feature half-brick arches over, + ornamental stone cills as design feature. Units to be timber design to reflect local character, or timber effect uPVC.

Heating: All new radiators to be fitted with thermostatic radiator valves.

Ventilation: Kitchen to have intermittent mechanical extract (hood type) at 30 litres per second; En Suite and Bathroom mech. extracts to be 60 litres per second, with 10mm air gap under entrance door.

Rainwater: 100mm half round gutters and 65 mm diameter rainwater downpipes, to be cast iron or metal effect uPVC.

Lighting: To be designed for use of energy efficient bulbs.

First Floor: Selected floor finishes over 22mm T&G decking, 175x50mm C24 timber joists at 400mm ccs, supported by steel hangers connected to loadbearing external walls / spine wall / steel beam (4) / double trimmer joist to front gable (A) and stair opening. 100mm quilt insulation between joists. Joists oriented as shown.

Stairwell: Open timber stairwell to first floor at maximum 42 degree pitch, supported by double trimmer joists. Treads to be not less than 220mm, risers not more than 190mm. Minimum headroom 2m (provided by open well), with handrail minimum 900mm above pitch and balusters at maximum 100mm ccs. Total width across strings 900mm. Landing guardrail of minimum 1100mm height.

Steelwork: All dimensional and fixing details to be confirmed by Structural Engineer (see notes (1) - (5)), at least 28 days before commencement. ½ hour fire protection provided by 2 layers 9.5mm plasterboard, 7mm skim and 1.6mm wire binding at 100mm pitch.

New Porch: Formed with vertical steel post and 2no steel beams (also as lateral ties), creating framework for glazed panels, wall plate and stonework wall section. Steel post to be enclosed in stonework, with mass concrete pad foundation.

Glazed Wall: Fully glazed feature wall, with pair access doors to ground floor, and inward opening doors to first floor. Section to be oriented perpendicularly to due south, offering optimal setting for roof-mounted photo-voltaic solar panels. Angle of orientation to be confirmed on site. Glazing secured in place via steel beams ((6) + (7)), masonry 'jambs' and ground floor slab; all glazing details to be confirmed by manufacturer.

Guardrail: Open style, wrought iron barrier, fixed across glazed wall section for safety (fixings to masonry at 'jamb' areas). To be not less than 1100mm above finished floor level (+2.65), balusters at maximum 100mm ccs. Ironmongery to achieve minimum horizontally distributed loadbearing strength of 0.74kN/m and applied loadbearing strength of 0.25kN.

Partitions: *Ground floor* - 100mm thick concrete blockwork.
First floor - 100x50mm timber studs at 400mm ccs, 2 rows noggins at 1/3 height intervals, 100mm quilt infill between timbers, plasterboard sheathing to faces (moisture resistant board used for Bathroom facings).
Spine wall - 100mm thick loadbearing wall (with concrete foundation) of 7N dense blockwork. To provide additional stability + support for first floor / roof structures.

Finishes: 15mm plasterboard and skim ('dot + dab') to walls and ceilings.

Drainage: 100mm diameter drains to falls. Bed surround in concrete 150mm thick where passing under building and through 150mm diameter sleeve where passing through foundations.
Storm - all runs connected to precast concrete ring Soakaway chamber to rear garden (to be minimum 5m from building). On site porosity test to be undertaken by Contractor.
Foul - boxed out 100mm dia. soil and vent pipe connecting bathroom and en suite fittings, plus 2no sealed back inlet gullies fitted; all runs linked to new manhole to front driveway, connected to existing foul sewer to Main Street. To be investigated on site.

Eaves Detail: 150mm overhang to side gable eaves, created with 38x25mm treated timber battens + end roof timbers. Treated timber fascia board, 150mm deep. Gable ends to have 2 course ornamental brickwork below roof cladding + mortar edging. 2 course brick overhang as eaves detail to gable ends.

Smoke Det: To BS 5839, mains connected with battery back-up.

Electrical: Switches and sockets to be located in accordance with Diagram 29 of Approved Document, M between 450mm and 1200mm from floor level. All electrical work to meet Part P (Electrical Safety) requirements; to be designed, installed, inspected and tested by a person competent to do so. Prior to completion, Council should be satisfied that Part P 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.

Energy: *Photo voltaic solar panels* - fixed over flat roof section, at 48° pitch (for maximum efficiency). 8 full size panels, fixed as per manufacturer recommendations. All details to be confirmed.
Solar evacuated tubes - fixed over rear gable and main roof structure, for water heating purposes. Scale of tube provision, fixing and connections to be confirmed.
Appliances - Boiler system and associated flues, plus service connections, to be confirmed in accordance with Client preference and environmental prerogative.

Driveway: To provide minimum 2no full size car parking spaces before front elevation (dimensions 5.6x2.5m). Surface to be primarily paved using sustainable system (including permeable drainage provision); product selection to be confirmed in accordance with Client preference / Planning Dept. requirements. Planting beds to border areas.

FALSE CHIMNEY: CHIMNEY STACK ERECTED ABOVE FIRST FLOOR STRUCTURE AS AESTHETIC FEATURE ONLY; TO BE 450 x 450mm + 1200mm HIGH ABOVE WEATHER SLOPPAGE AT LOWER JUNCTION OF SOLID BRICK CONSTRUCTION WITH LEAD 'POT' PROTECTED CAPPED STACK SUPPORTED ON 2 no 65 x 100mm PCC LINTELS BETWEEN CAVITY + STONE WALL, + STRUCTURED WALLS ALSO (SEE 2993 - 1B). LOFT NO USED AS FLUE.

NOTES

REVISIONS

'A' ~ 12.2.10 ~ SPECIFICATION ADDED. FRONT ELEVATION ALTERED (PORCH GLAZING DESIGN).
'B' ~ 25.2.10 ~ SITE PLAN DIMENSIONS; MINOR ALTERATIONS.
'C' ~ 23.3.2010 ~ CHIMNEY + BOUNDARY AMENDMENTS TO ELEVATIONS, ROOF + SITE PLANS. DRIVEWAY REVISED. CHIMNEY EXPLANATION NOTE ADDED.

DEVELOPMENT SERVICES
29 MAR 2010
RECEIVED

project proposed new house land adjacent to: 182 main street thornton, leicester

drawing proposed elevations, roof plan + site plan

drg. no. 2993 - 2A/B/C

scale 1:100 1:500

date january 2010

drawn by JM

client Mr and Mrs J Fidler

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