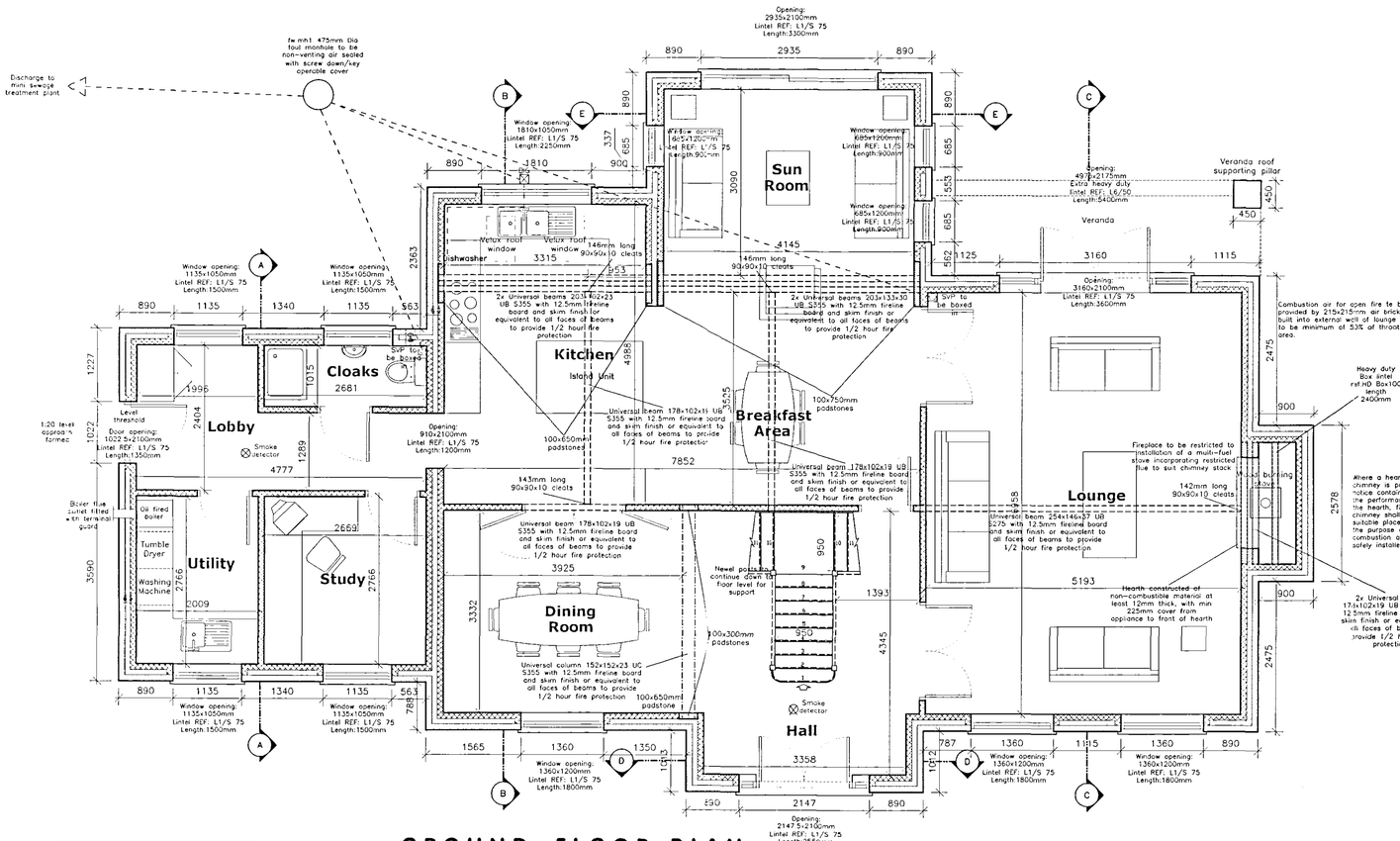
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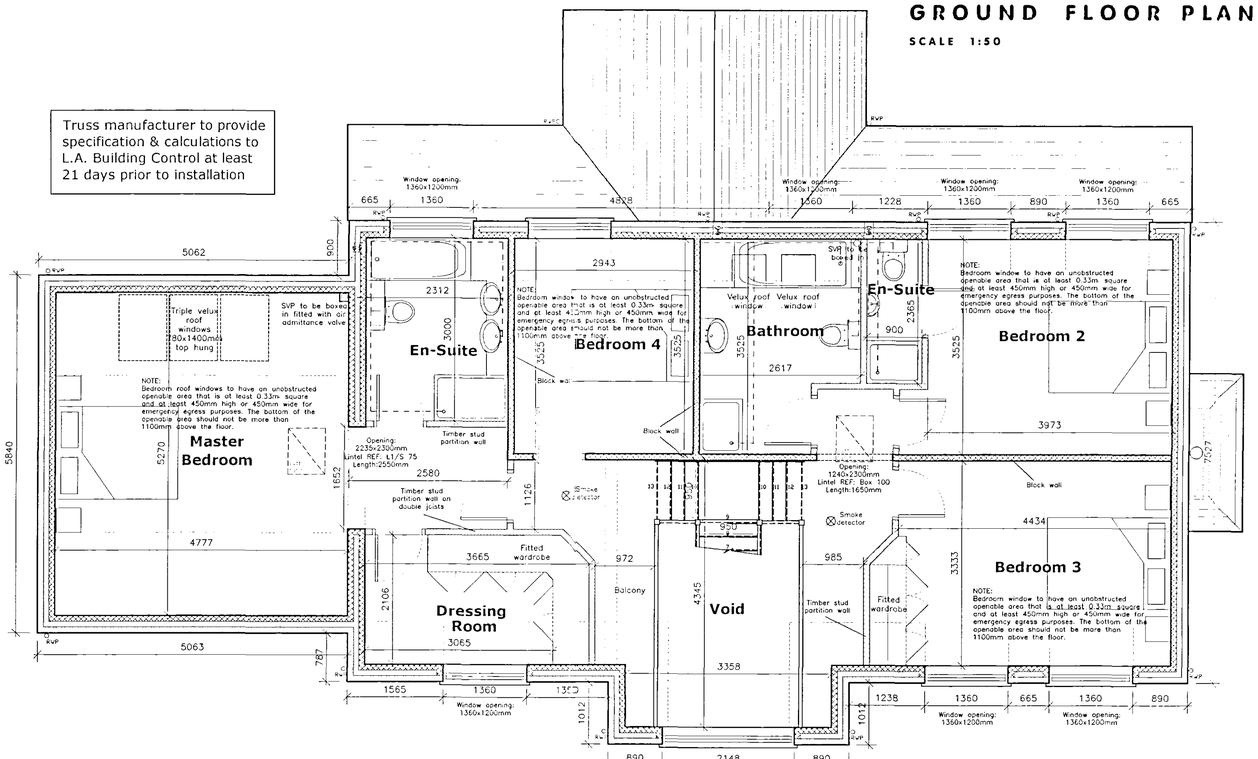
LEGEND / NOTES COLUMN : Rev A 07/10/2005– SDR Rear dormers enlarged, kitchen window enlarged.
Rev B 13/01/2006– SDR Minor changes for building regulations
Rev C 22/08/06– SDR Minor layout changes, joists/steels changed.



GROUND FLOOR PLAN

SCALE 1:50

Truss manufacturer to provide specification & calculations to L.A. Building Control at least 21 days prior to installation



FIRST FLOOR PLAN

SCALE 1:50

A1

CONSTRUCTION NOTES

Foundations
All foundations to be positioned centrally under walls. Depth of foundations to be in accordance with the drawings and the Local Authority's requirements, minimum 900mm and 1000mm if in clay subject to results of soil investigation. Details of footings are based on an assumed ground bearing capacity of 70kN per metre square and are subject to site inspection during the excavation of the works.
Possibility of pile foundations to be considered.
600 x 225mm continuous mass strip foundations to cavity walls.
450 x 225mm continuous mass strip foundations to 100mm loadbearing internal walls.
Non-loadbearing walls to be built off thickened out floor slab 450 x 225mm deep.

Suspended Concrete Ground Floor
Minimum 65mm thick light mesh reinforced sand/cement screed on minimum 50mm Celotex GA3000 insulation boards (Thickness to be determined by floor perimeter/area ratio) Insulation to be laid over 1200 gauge dpm linked with wall dpc. External perimeter insulation upstand of thickness to achieve minimum thermal resistance path of 0.75m2K/W. Floor structure to be pre stressed precast concrete 'T' beams infilled with standard walling blocks of 7.0N/mm2 strength blocks or 3.5N/mm2 with a transverse point load capacity of 3.5kN on a 420mm span. Layout to be designed by Specialist Supplier to suit spans and ground floor layout. Floor beams to be laid on DPC. Minimum 225mm clear cavity below dpc level. Telescopic ventilators to under floor void to provide equivalent to 1500mm2 for each metre run of wall or 500mm2 per square metre of floor area. Ventilators to be spaced at not more than 2.0m centres and within 450mm of each end of any wall. Cavity trays over ventilators. Ground floor structure to achieve 'u' value 0.25m2K or better. Minimum 150mm void below floor beams, vegetable soil to be removed and soil to be treated with weed killer.

Drainage
100mm diameter upvc pipes to BS 4660 with flexible joints laid to minimum 1:60 falls. Pipes to be bedded and surrounded with pea gravel. Inspection chambers to be 225mm Class B engineering brickwork laid in cement mortar on 150mm concrete base or alternatively access inspection chambers to be upvc to suit upvc drainage system. Inspection chamber covers to be non-ventilating and be secured ie. key operable. Rainwater drains to be pvc system minimum 1 in 80 gradients with pvc system roodring eyes and inspection chambers. Guttering to be 112mm and downpipes to be 68mm. Drains beneath the building to be encased in 150mm pea gravel. Drains passing through walls to have 150mm pea gravel surround extending 900mm on each side of wall and lintel over. Rigid sheet material to mask 50mm clearance around drain opening and wall. 32mm diameter waste pipe to wash hand basins, 40mm diameter waste pipes to sink, bath & shower. All waste pipes connected to soil stacks to have 75mm deep seal traps. 100mm diameter upvc soil vent & waste pipe with built in grating at terminal. Drains with less than 600mm cover to be protected with 75mm concrete. Vent pipes to terminate 900mm above window/door openings when within 3.0m.

Packaged Treatment Works
The discharge from the wastewater treatment plant should be sited at least 10.0m away from buildings. Treatment unit to be type tested in accordance with BS6297 or notified body. Power to the unit to enable adequate function without power for up to 6 hours or have an un-interruptable power supply. A Notice should be fixed within the building describing the unit and the necessary Maintenance.

External Wall
102.5mm facing brickwork, 85mm cavity with 85mm Dritherm cavity wall insulation built in as work proceeds in accordance with the manufacturer's recommendations, 100mm lightweight loadbearing insulating block inner leaf. U value to be 0.35 W/metre square K or better. Internal walls of class B 3.5N/mm square blockwork with 13mm render & skim finish to both faces. External wall cavities to be closed at window reveals, jambs and cills with cavity closer by Thermabate or equal, with insulation to avoid cold bridging to achieve minimum thermal resistance path of 0.45m2K/W and incorporating dpc. Wall insulation to overlap level of floor insulation by minimum 150mm. Stainless steel wall ties 225mm long at 450mm centres vertically and 750mm centres horizontally staggered, and at 225mm centres around openings. Textured polythene dpc to suit width of masonry, 150mm minimum above ground level. Provide IG lintel type 100mm, internal type lintels to all internal openings in 100mm blockwork. Openings to cavity walls to receive IG lintel type L1 S/75, standard insulated type with dpc cavity tray dpc over overextending 100mm each end. Note heavy duty loading type lintels to be used over openings below roof level to accommodate any point loads from girder trusses within roof layout. Minimum end bearing for lintels spanning up to 1200mm to be 100mm and spanning over 1200mm to be 150mm end bearings. Provide weak mix cavity fill leaving a minimum of 225mm cavity below dpc level. Sub structure walls to be built in solid Class A blocks in 1:4 cement:sand mortar.

Windows & Doors
To be UPVC frame with double glazed units to provide 'U' value of 2.0W/m2K or better. Windows to give 1/10th daylight and 1/20th ventilation of floor area. Area of windows, doors & roof lights together not to exceed 25% of floor. Escape to be provided to habitable rooms on ground and first floor by sash to open to give minimum 0.33m2 opening, minimum 450mm high and wide, bottom of opening to be maximum 1100mm from floor level. Provide mastic pointing on plastic foam backing to window/door frames and brickwork externally. Windows and doors to be set back in reveal so that cavity closers are overlapped by minimum 30mm. Any glazing below 800mm above floors to all windows and all glazing to doors and sidelights to be toughened safety glass and to comply with BS 6206, and Building Regulations Part N. Overridable window opening restrictors to be provided to opening sashes within 800m of floor level to leave max 100mm gap. To limit infiltration, all doors, windows, loft hatches and other openings to be sealed with draught seals or similar.

Stairs
To be standard stair 2600mm finished floor to finished floor, 13No. rises @ 200mm, 12No. goings @ minimum 220mm. Handrails to stair flight to be minimum 900mm and maximum 1000mm, measured vertically from pitch line. Headroom to stair to be minimum 2000mm. Gaps within balustrade not to allow tire passage of a 100mm diameter sphere. Landings to be no less than width of stair. Maximum pitch of stair to be 42 degrees. Handrails to landings to be not less than 900mm above floor.

Flues
Fireplace opening up to 500x550mm to have minimum 200mm diameter clay flue liners to BS 1181 with sockets uppermost and fully bedded in cement mortar in brick/blockwork chimney with void filled with weak mix mortar. Code 4 flashings and apron at abutment of chimney/roof.
Durable notice to be provided affixed in a suitable place in the building containing information on the performance capabilities of the hearth, fireplace, flue & chimney for the purposes of enabling combustion appliances to be safely installed. Combustion air to fireplace to be provided by air brick in external wall to provide minimum 50% of cross sectional area of flue. Non-combustible hearth to be provided to project minimum 500mm and extend minimum 150 mm each side of fireplace recess. Free standing solid fuel appliances to have minimum 840x840mm non-combustible hearth.

Timber First Floor
To be sized as per drawings C16 and C24 floor joists spaced at 400mm centres with 18mm t & g chipboard floor boarding with min.10kg/m2 mass per unit area 12.5mm plasterboard (Gyproc wallboard 10 or equal) and skim ceiling below. Joists between 2.5 and 4.5m span to receive herringbone strutting at mid span point. Joists more than 4.5m span to receive 2No. rows of herringbone strutting at 1/3 span positions. Joists to be doubled up under stud walls and point loads of both. 30 x 5 x 1500mm long galvanised mild steel lateral restraint straps with 100mm turn down fixed to blockwork and fastened to 2No. floor joists where running parallel to external wall at maximum 2000mm centres. 50mm wide noggins beneath straps between joists to be half depth of the floor joists. 100mm mineral wool of minimum density 12kg/m3 between floor joists.

First Floor Walls
To be lightweight loadbearing block or softwood studwork (as specified) partitions where indicated using 50 x 75mm noggins, plates and studs at 400mm centres. Min. mass per unit 10kg/m2 12.5mm plasterboard (Gyproc wallboard 10 or equal) and skim both sides. 75mm Dritherm between studs.

Main Roof – pitch as drawing
Roof tiles on 38 x 25mm tanalised softwood battens on Tyvek Supro(or equal) breathable roof felt (felt to be allowed to 'drape' 25mm between rafters to allow drainage path below roof battens) on trussed rafters at maximum 600mm centres with binders and wind bracing to comply with BS 5268, Part 3, 1985. Details of trussed rafters and calculations to be submitted for approval before manufacture. Truss clips to be used to fix trusses to wallplate as directed by truss manufacturer. 25 x 100mm longitudinal, diagonal and chevron wind bracing as directed by truss manufacturer. 50 x 100mm preservative treated softwood wallplates, fastened to inner leafs with 30 x 2.5 x 1000mm long galvanised mild steel straps at maximum 2000mm centres with 6No. fixings into blockwork. 30 x 5 x 1500mm long galvanised mild steel lateral restraint straps with 100mm turn down fixed to blockwork and fastened to rafters and ceiling joists of 2No. trusses at gable walls at maximum 2000mm centres supported with 50 x 100mm noggins beneath straps between rafters and joists. 12.5mm plasterboard and skim ceilings. Provide all necessary noggins and scrim cloth at board edges and ceiling perimeters.
Note: Un-vented hot water cylinder to be located within loft area, roof timbers to be strengthened to support additional load.
10mm continuous ventilation strips under eaves tiles fixed to top of brickwork.
100mm mineral fibre insulating quilt laid between horizontal ceiling joists with 150mm mineral fibre insulating quilt cross-laid over joists to give U value of 0.16W/m sq.K or better. Insulation kept back at eaves by using rafter trays to allow cross ventilation of roof space.
Mono-pitched roofs to receive 5mm continuous vented roof/wall abutment and 10mm continuous vented eaves. Room in roof type trusses to receive 5mm continuous vented ridge and 25mm eaves ventilation.
Raised tie type roof construction to receive 5mm continuous ridge ventilation and 25mm eaves ventilation.
Ceilings where following line of roof pitch to have 95mm Kingspan TP10 or equal rigid board insulation between rafters maintaining 25mm air gap over to allow Tyvek to 'drape' battens plonted to underside of rafters (minimum 125mm overall rafter/batten depth). Ceiling to comprise Kingspan Thermawall TW55 (plasterboard/25mm insulation laminate) to underside of rafters all to give 'U' value of 0.20W/m2K or better.

Dormer Roof
Code 5 lead covering on 12mm exterior quality plywood decking on cambered firrings or 50x125mm C16 roof joists at max. at 400mm centres. 75mm Kingspan TP10 insulation boards between joists with 30mm TP10 to underside joists with taped joints with 12.5mm plasterboard and skim ceiling.
Code 5 lead covering to cheeks on 12mm exterior quality plywood on 50x100mm studding with studs at max. 400mm centres. 95mm Kingspan TP10 rigid board insulation or equal between studs. 1:20 gauge breather membrane behind 12.5mm passerboard or 12.5mm foil backed plasterboard with skim finish.

Ventilation
Minimum 8000mm sq. background ventilation to main rooms and 4000mm sq. to Kitchn, WC, Bathroom, Ensuites and Utility provided by controllable window ventilators. Rapid ventilation to Kitchn provided by extractor fan ducted to external air extracting minimum 60 litres per second or 30 litres if positioned adjacent to hob. Extractor fan in Bathroom, Ensuite and Utility to be ducted to external air, extractor to Utility to give 30 litres per second extraction, extractor to Bathroom and Ensuite to provide 15 litres per second.
Extractors serving Bathrooms and Ensuites without windows to be operated by light switch to give extract of 6 litres/second and be fitted with 15minute over-run facility. Air input to be provided by ensuring 10mm gap under door.

Smoke Alarms
Smoke alarms to be mains fed to be interconnected and to be positioned as indicated on plan. To be fitted in accordance with manufacturers instructions and to BS5446 Part 1. Detectors to be minimum 300mm away from light fittings to be maximum 7000mm from Kitchen and/or Living Room door horizontally and maximum 3500mm from any bedroom door.

Heating System
Oil fired condensing central heating system with balanced flue boiler of minimum SEDBUK rating of 85% with zone control ie. living areas and sleeping areas controlled independently. Programmer to enable operation of heating to separately zone areas of dwelling to all rooms controlled by room thermostats and/or thermostatic radiator valves with Bypass within system. Boiler interlock to switch boiler off when no heat is required.
Hot water to be provided by boiler, stored in minimum 35mm foam insulated(minimum density 30kg/m3) un-vented hot water cylinder with immersion for seasonal use, located in main loft area on timbers designed to suit additional load.
Pipes between boiler and cylinder to be insulated in accordance with BS5422:2001.
Oil supply pipe work to be resistant to the effects of fire and fitted with a proprietary fire valve system in accordance with the relevant recommendations in BS 5410-1:1997, Sections 8.2 and 8.3. Siting of oil storage tank and provisions to prevent oil pollution as Approved Document J of the Building Regulations to be positioned at least 1800mm from building and at least 760mm from boundary.

Lighting
Internal-one in three habitable rooms (hall, Landing & stairs counting as one habitable room) to have energy efficient lighting points to be provided where lighting can be expected to have most use to comprise fixed lighting (comprising either basic lighting outlets or complete luminaires) that only take lamps having a luminous efficacy greater than 40 lumens per circuit-watt (ie fluorescent tubes and compact fluorescent lamps). Not GLS tungsten lamps with bayonet cap or Edison screw bases.
External-lighting, excluding garage, to have effective controls ie extinguish when there i enough daylight and when not required at night and have sockets that can only be used with lamps as described above.

Electrical
All electrical work required to meet the requirements of Part P (Electrical Safety) must be designed, installed, inspected and tested by a person competent to do so. Prior to completion the Council should be satisfied that Part P has been complied with. This will require an appropriate BS 7671 electrical installation certificate to be issued for the work by a person competent to do so. Switches and sockets for lighting and other equipment within habitable rooms to be located between 450mm and 1200mm above finished floo level.

Dwelling Access
Main entrance door to have level threshold (maximum 15mm upstand) Main entrance door leaf to provide minimum 775mm clear opening width, width measured from door leaf face to frame/doorstop on either side of opening, main entrance to be provided with approach from where a visitor would alight from their parked vehicle with max. 1in 20 gradient, minimum 900mm wide and of firm surface.

Dwelling Entrance Storey door widths
Internal doors to provide minimum 750mm clear opening width (838mm door leafs/910mm structural openings) width measured from door leaf face to frame/doorstop on other side of opening. Minimum 1050mm wide corridors when using 838mm door leafs providing 775mm clear opening when approach not 'head on'.
Disabled WC on entrance storey to be provided with outward opening door.

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Chartered Architects • Architectural Technologists
Designers • Building Engineers • Project Managers
Planning Supervisors • Party wall Surveyors • Access Consultants

Client: Mr & Mrs Naylor

Scale: 1:50

Project: Proposed Development Opposite 109 Six House Bank West Pinchbeck Lincolnshire

Date: Aug '05

Drawn by: SDR

Drawing No.: B1676–01

Title: Proposed Plans

Revision: C