Notes

GARAGE

The existing garage has been built off a concrete slab and it is proposed to retain the back wall of the garage and pvcu access door. At this stage it is assumed that there are conventional footings to support the walls and roof loads. The section of slab from the garage up to the boundary is assumed to have been constructed as a conventional slab with no footings. Therefore, before demolition proceeds, the footings should be exposed for Building Control to inspect and confirm adequacy of both the slab and footings. In the event that both the slab and footings do not meet Building Regulations, then as well as the garage being demolished, the slab will need to be broken up completely and removed, and the existing pvcu access door set aside for refitting. Roof of garage consists of corrugated sheeting that may contain asbestos. Sample to be taken and tested by approved company and if positive, removed in accordance with health and safety requirements.

FOUNDATIONS

Foundations to be ST4 grade concrete and 360 wide x 230 deep.

Foundations to be taken down to a firm load-bearing strata, a min. of 1.0m, but in accordance with Local Authority Building Control.

FLOOR CONSTRUCTION

150mm concrete slab sheet of A142 steel mesh at top to prevent cracking; 1200g polythene damp-proof membrane, dressed up wall to link with dpc of bungalow, and lapped up to and over dpc to walls; 50mm soft sand blinding; 150mm clean and well compacted hardcore.

Depending on the levels between the front edge of the concrete slab and the existing paved driveway, concrete to fall away at the front of the garage to allow rainwater to flow away from the garage. Alternatively, build in a water bar across the front of the garage.

WALL CONSTRUCTION

Below Ground

To be 100mm Class A concrete blocks with min. 3 courses of facing bricks up to dpc level. Blocks to be cut and laid to suit size of piers as shown on drawing.

Above Ground

Walls and piers to be constructed in facing bricks to match existing bedded and pointed in sand/cement mortar and built off dpc.

ROOF

Roof to be covered with concrete tiles to match existing on 38 x 25mm tanalised battens on one layer of approved breathable underlay on 100 x 50mm rafters (or as required by BCO) at 450mm centres 225 x 63mm purlins, all built off 100 x 50mm wall plate strapped to wall at 2.0m max. centres, and 125 x 50mm ridge board bolted to gable end wall of bungalow. New ceiling joists to be 170 x 50mm with binders, and 150 x 50mm hangers. Gable wall to be strapped at max. 2.0m centres using 30 x 5mm galvanised MS straps. Noggins to be positioned between rafters to support metal strap along its whole length.

All timberwork to be C16 structural grade.

LINTELS

The roof structure over the garage door is to be supported on a Catnic CN81C heavy duty lintel installed to manufacturers specification with lintel stop end and 150mm min. end bearing. This lintel will allow a brick soldier course to match those over the existing windows of the bungalow. Brick and blocks can be tied in above the wall plate and front section of the lintel to support the roof edge detail.

The existing concrete lintel over the access door can be reused when the door is repositioned in the back wall of the garage.

VERGE

The line of the verge will fall in line or just inside the existing property boundary with no overhang. The detail can either match the narrow verge at the opposite (kitchen) end of the bungalow, or the existing UPVC barge board and soffit reused at the gable end of the new roof.

ROOF DRAINAGE

Rainwater drainage to the front of the garage is to be continuous with the existing UPVC guttering. The existing UPVC fascia and soffit it to continue along the front elevation of the garage, although it is not a requirement for the soffit to be ventilated. The rainwater run-off from the front of the garage will discharge to the existing system at the front elevation of the bungalow. Rainwater run-off from the rear of the garage will dischargeto new UPVC guttering and downpipe at corner of garage and then to a soakaway a min. 5.0m from the buildingas follows:
Excavate 1200 x 1200mm deep, backfill with brick rubble to 300mm below ground level, lay in sheet of polythene and make up with vegetable soil.
All drainage items to be installed in accordance with manufacturers instructions.

ELECTRICAL INSTALLATION

Electrical services within the garage i.e. power sockets, isolators and lighting, are to be installed by an electrician registered with NEIEIC, ECA or NAPIT. The electrician is to issue a design, installation and test certificate under BS 7671 upon completion of the works.

EXTENSION

FOUNDATIONS

Foundations to be ST4 grade concrete.

For 300mm wide walls, foundations to be 700 x 230mm.

Foundations to be taken down to down to a firm load-bearing strata, a min. 1.0m and in accordance with the requirements of the Local Authority Building Control Dept. and in accordance with any NHBC guidelines where appropriate. A site soil survey may be appropriate in respect of foundations to establish specific site conditions before foundation work is undertaken.

FLOOR CONSTRUCTION

Ground

75mm sand cement screed reinforced with chicken wire mesh.
1200gauge polythene separating membrane.
90mm Celotex fast-R FF3000 floor insulation.
120mm oversite concrete.
1200 gauge polythene damp-proof membrane lapped with dpc in walls.
25mm sand blinding.
100mm min. compacted hardcore. Where a greater depth is required, up to a maximum of 600mm, it is to be laid and compacted in layers not exceeding 150mm. If the internal partition wall is to be of solid construction and built off the floor slab, , the slab is to be thickened out to a min. 250mm for a min. width of 500mm.

WALL CONSTRUCTION

Below Ground

To be 100mm Class A concrete blocks with min. 3 courses of facing bricks (to match those of extg. dwelling) below dpc level. Cavity to be filled to 225mm below lowest dpc level with lean mix concrete.

Above Ground

To be 300mm o/a constructed as follows:

External wall of facing bricks to match existing.
50mm cavity.
50mm Celotex CW4000 insulation.
100mm load bearing insulation blocks i.e. Tarmac Topblock Supablock, k = 0.11.
New walls to be tied to existing with Furfix wall extension profile or other approved system.

All to be tied together using stainless steel wall ties positioned at distances not exceeding 750mm horizontally, 450mm vertically, 300mm at or near jambs, and staggered. To be at every block course vertically at all returns and reveals.

Internal finish to be 15mm render with gypsum plaster skim finish to give a 'U' value of 0.22 W/mK.

Internal Wall

100 x 50mm timber stud partitioning frame work, 100mm approved sound insulation between plasterboard sheets and with plaster skim finish or 100mm blockwork constructed off a dpc off a foundation/floor beam as indicated above.

DPC in Walls

To be a min.150mm above finished ground level. An insulating vertical cavity closer and dpc, i.e Thermabate, is to be provided to all cavity closures. A cavity tray, stepped as applicable, is to be constructed within the wall immediately above an abutment.

ROOF

Roof to be covered with concrete tiles to match existing on 38 x 25mm tanalised battens on one layer of approved breathable underlay on 125 x 50mm common, jack and cripple rafters (or as required by BCO) at 450mm centres.
100 x 38mm ties,
100 x 50mm struts,
150 x 50mm purlins,
125 x 50mm binders
100 x 50mm main ceiling joists
175 x 32mm ridge board.
225 x 25mm valley boards
Gable wall to be strapped at max. 2.0m centres using 30 x 5mm galvanised MS straps. Noggins to be positioned between rafters to support metal strap along its whole length and strap turned over uncut block.

Roof to be insulated with Rockwool or Fibre glass blanket insulation 100mm laid between joists and 170mm min. laid over joists (min. 270mm thickness). 50mm gap to be maintained between insulation and underlay.

LINTELS

1. New door opening in bedroom wall – 2 no. Catnic BHD100 combined box lintels or similar and 1200mm long.

2. New window – CG50/100 or similar and 1500mm long.

If internal wall is to be in blockwork, use 1 no. BHD100 combined box lintel or similar and 1200mm long.

Lintels to be installed to manufacturer's specification with lintel stop-ends, cavity tray and 150mm min. end bearings and to be protected with min. 15mm gypsum plasterboard and skim finish to give a min. half hour fire protection.

WINDOWS & DOORS

Window to new en-suite shower room to be purpose made UPVC to match the window fitted to the bathroom of the dwelling, double glazed using glass having a soft low E coating with an emissivity value of 0.05 with min. 16mm air gap to sealed unit, and weather stripped. 'U' value of double glazing to be 1.6W/m2K. Background ventilation is to be provided by a trickle vent set within the construction of the window. The area of the trickle vent to be a minimum 2500mm². Double glazed manufacturer's certificate to be provided to prove compliance of the glazing to that specified.

All internal doors are to be 838mm wide.

DRAINAGE

Window to new en-suite shower room to be purpose made UPVC to match the window fitted to the bathroom of the dwelling, double glazed using glass having a soft low E coating with an emissivity value of 0.05 with min. 16mm air gap to sealed unit, and weather stripped. 'U' value of double glazing to be 1.6W/m2K. Background ventilation is to be provided by a trickle vent set within the construction of the window. The area of the trickle vent to be a minimum 2500mm². Double glazed manufacturer's certificate to be provided to prove compliance of the glazing to that specified.

Surface

Rainwater from new roof will discharge to UPVC guttering to match existing and fall to UPVC rainwater downpipes at the front corners of the extension. One downpipe will discharge to an existing soakaway, whilst the other will discharge to a new soak away, similarly to that described for the garage. Fascia, soffit and barge board to extension are to match the existing. Soffit boards to be ventilated.

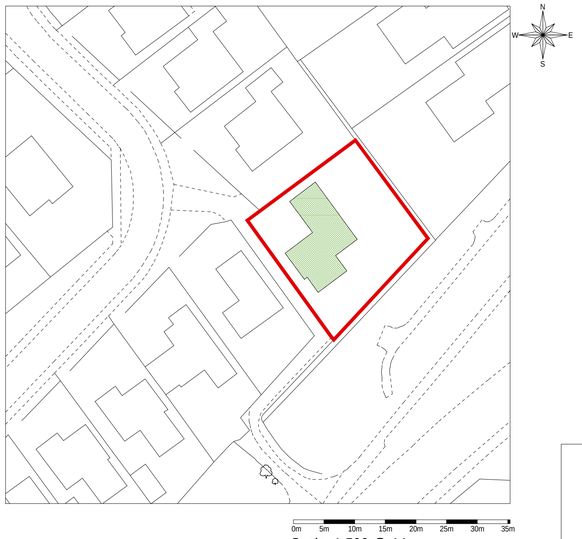
Foul

Foul water from the dwelling is discharged to a chamber adjacent to the bathroom and is 600mm long x 460mm wide. It is located approx. 1.0m from the dwelling. The invert level is -0.36, which is insufficient to achieve a fall of the foul water drainage pipe of 1:40. The waste from the en-suite is therefore to be discharges to the next downstream chamber located in the back lawn adjacent to the conservatory.

Waste water from the en-suite shower room will discharge to a 100 dia. stub stack. The new wash hand basin and wc pan will connect to the stub stack above finished floor level. The waste pipe from the level access shower tray to be laid in the floor finish with the correct fall, and connected to the stub stack below the finished floor level.

Where the 100mm drainage pipe passes through the wall of the extension, it is to be protected by the use of a lintel over. Both sides of the wall to be masked with rigid sheet material with 50mm clearance of the pipe and the void compressible material to prevent entry of sewer gas.

Excavate a trench from the extension up to the existing inspection chamber, bed and surround the new UPVC 100mm drainage pipe with suitable granular material (pea gravel), ensuring at least 100mm between pipe and bottom of trench. Fill over crown of pipe with 75mm of granular material (pea gravel) and lay concrete paving slab above pipe, and backfill with excavated material. Drainage pipe to discharge to inspection chamber by Drop Shaft or Back Drop Connection. BCO to check stages of new drainage pipe installation.



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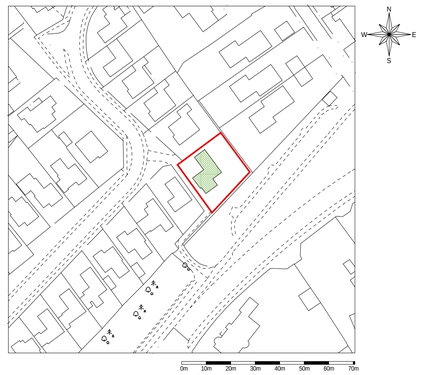
Block Plan



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Site Plan

VENTILATION

The en-suite shower room is to be mechanical ventilated direct to external air. The capacity of the extractor is to be 15 litres/sec. The door to the en-suite is to have a gap at the bottom of 10mm above floor finish.

EN-SUITE

Fittings

Style and design of wc pan and wash hand basin to be selected by client.
WC suite to consist of vitreous china close coupled pan and cistern.
WC pan to be screwed to floor and 6 litre cistern plugged to wall. Cistern to be fitted with an internal overflow. WC pan to be connected to stub stack.
Vitreous china wash hand basin to be either on brackets or pedestal, and fitted with quarter turn lever style taps. Plastic trap to be fitted to basin with 32mm pipework connected to stub stack. All incoming hot and cold service pipework en-suite fittings to be fitted with proprietary isolating valves.

Shower & Shower Tray

Option 1

Shower area to be formed using a 1400 x 900mm proprietary former with a 1:80 gradient and set in floor screed. Install an approved trapped gravity waste outlet (Tuff Form seal trapped shower waste outlet ref: TF75 with a 50 x 45mm solvent weld reducer or similar). A 45mm waste outlet pie to be set in floor and connected to new stub stack.

Option 2

Proprietary curved 'walk-in' shower enclosure with low profile acrylic tray, 1400 x 900mm and height 40mm with an approved trapped shower waste outlet connected to new stub stack as previously described.

Shower

Thermostatically controlled shower unit with anti-scold device fitted, (water temperature not to exceed 43 degrees centigrade), adjustable height shower head on riser bar with extended flexible hose 2.0m in length. Control unit to be served by a mains supply of cold water of a min. pressure of 1.0 bar with an in-line isolating stop tap. All exposed pipework to be in chrome and suitable clipped to wall.

Flooring

Flooring to be slip resistant Altro Aquarius or similar approved with coved skirting and capping. All joints to be fully hot welded to provide a waterproof seal.

Ceilings

12.5mm plasterboard with skim coat of plaster finish.

Internal tiling and decorations to suit client's requirements.

ELECTRICAL INSTALATION

The shower control unit to be electronically wired in accord with I.E.E. Regulations using a double pole 35 amp isolating pull switch and an R.C.C.B. if required.

Lighting in en-suite to be by a suitable vapour-proof fitting.

Rev.	Date	Notes	Initials

Project :
32 Arundel Road
Hartford
Huntingdon
Cambs
PE29 1YW

Drawing Title :
Notes for New Garage and Extension and Site and Block Plans

Scale :	Date :	Drawn :
1:50 @ A1	14-03-2014	

Drawing No :	Rev :