

# GENERAL CONSTRUCTION NOTES

## **PROPOSALS**

It is proposed to construct a detached single storey building for use as a garage with garden store/workshop room and W.C facility and to include attic storage space above.

## **FOUNDATIONS**

All cavity walls shall be constructed off 600mm x 225 concrete strip foundations laid to approximately 700mm depth. The concrete shall be to grade Gen. 3 or equivalent standard.

### **EXTERNAL WALL CONSTRUCTION**

The external walls are to be constructed of 100mm internal blockwork with pointed up joints, a 100mm insulated cavity and 102mm faced brickwork in a style, colour and bond similar to the existing bungalow. The cavity is to be insulated with 100mm Dritherm 37 insulation.

## **INTERNAL SINGLE SKIN NONE LOAD BEARING WALLS**

Either 100mm lightweight blockwork constructed off a thickened floor slab or 100mm stud partitions finished both sides with 12.50mm plasterboard and a plaster skim finish or 100mm stud framing with 12.5mm plasterboard to either side. Stud walls may be sound insulated with 100mm fibreglass with a minimum density of 10kg/m³ (optional)

### **WALL TIES**

Stainless steel conforming to BS 1243:1978 positioned at 750mm horizontal centres and 450mm vertical centres. Near unbonded returns the vertical spacing should be reduced to every block course (225mm centres). The wall ties shall also be positioned within 225mm of any opening.

## **VERTICAL DAMP PROOF COURSE**

To all vertical returns an insulated damp proof course such as Damcor or Thermabate may be used to reduce the risk of cold bridging. All windows and door frames are to be set back in reveal sufficient enough so as to cloak the vertical insulation by at least 30mm to reduce the risk of cold bridging and mould growth forming.

# **HORIZONTAL DAMP PROOF COURSE**

Visqueen 2000 reinforced plastic laid continuously 150mm above the ground floor.

### **FLOOR CONSTRUCTION**

50mm screed on 100mm concrete on 1200 gauge DPM on 150mm of well compacted crushed limestone hardcore. The ground floor garden store room and w.c may be insulated with 150mm of Jablite flooring grade insulation.

# LINTELS

Catnic, Supergalv or I.G pressed steel. Minimum end bearing of the lintels shall be 150mm or as recommended by the lintel manufacturer. Where required a cavity tray will be provided over the lintels together with stop ends and weep holes.

## **DOORS AND WINDOWS**

White plastic uPVC fitted with double glazed low E sealed units achieving a 1.4 W/M²K and trickle ventilation achieving 5000mm square of ventilation per room. Minimum opening areas shall be 1/20 the floor area of each room.

# SAFETY GLAZING REQUIREMENTS

All glazing in critical locations i.e. where there may be a risk of personal injury from coming into contact with the glass by falling against etc. shall conform to the requirements of the Approved Document N of the Building Regulations 2000. And shall also conform to BS6206 toughened safety glass standard.

## **FOUL DRAINAGE**

New foul drains are to be constructed from 100mm dia Polydrain or similar plastic type underground drainage pipes and fittings laid to a 1:40 fall on a smooth firm trench bed and surrounded in 150mm pea gravel for protection.

Where any new pipes have to pass through walls then a 50mm clearance should be left around the pipes. The opening in the wall should be protected with a ridged material and concrete pre-stressed lintels placed over the opening to support the brickwork/blockwork above. The opening around the pipe is to be filled with fibreglass.

New inspection chambers are to be of plastic construction and fitted with suitable steel covers and frames, which must be so designed, that children cannot gain access to the chambers. Size of the inspection chambers will be dependent on the depth to invert but in most cases will not be less than 430mm diameter.

A soil vent pipe is to be provided at the head of the drain run.

The drains shall discharge to the existing mains system currently serving the bungalow.

#### **WASTE PIPES**

The following sizes of waste pipes are to be used during construction:-

Hand basin 32mm diameter up to 1.700M maximum length, 40mm diameter up to 4.000M maximum length. W.C waste 100mm diameter up to 6.000M maximum length.

All appliances shall be fitted with 75mm deep seal traps. All gullies shall be trapped

# **SURFACE WATER DRAINAGE**

For all underground pipework 100mm dia Polydrain or similar plastic pipes are to be used. Laid to a 1:40 fall and on a smooth firm trench bed. The pipes are to be surrounded in 100 mm of pea gravel for protection.

New soakaways shall be sited at least 5.0 metres away from any building.

There is ample ground available to allow for adequate construction of new soakaways.

## PITCHED ROOF CONSTRUCTION

Double roll concrete interlocking pantiles on tile battens sized and spaced to suit the tiles on Tyvek breathable membrane on gang nailed attic style trussed rafters. The trusses shall be designed and braced to BS5268 Part 3: 2006 (*Truss details are to be supplied to the Local Authority Building Control or Approved Inspectors for approval at least 21days prior to erection on site)* spacing of trusses to be at 600mm centres. Allowance shall be made for the inclusion of roof windows. Pitch of roof 40 degrees.

The wall plate is to be secured to the internal leaf by the use of 30x5x1000mm long lateral restraint straps spaced at 2.000M maximum centres.

Lateral restraint straps are to be provided at rafter and ceiling joist level. Spaced at 2.00 metre maximum centres and are to span at least 3 number trusses. Each strap is to be secured to the inner leaf blockwork and be supported with 38mm wide timber noggins. Each noggin to be at least ½ the depth of the rafters and ceiling joists.

If insulation is provided, then where the ceiling will follow the line of the rafters the insulation shall consist of 100mm Kingspan located between the rafters with a further 40mm Kingspan fixed across the face. (Warm roof construction) A further layer of 150mm fibreglass shall be placed between the ceiling joists.

Ceilings if provided shall be constructed of 12.5mm plasterboard with all board edges adequately supported. All joints shall be scrim taped before plaster skimming is applied.

## **FIRST FLOOR CONSTRUCTION**

18mm or 22mm moisture resistant flooring grade chipboard laid on the attic style gang nailed trussed rafters.

A loft hatch shall be incorporated to allow access to the attic roof area.

## **RAIN WATER GOODS (WHITE PLASTIC TYPE)**

100mm box section guttering supported at 1.000M centres and 65mm box section downpipes.

### **FLASHING**

Code 4-lead flashing is to be used where required to form an effective weather seal.

## **HEATING AND HOT WATER SUPPLY**

The w.c and garden store/workshop room may be heated with electric panel heating thermostatically controlled.

A small instantaneous water heater shall be fitted over the hand basin. A suitable water supply shall be provided which shall be sufficient to both flush the toilet and provide a wholesome supply of water to the hand basin.

## **MECHANICAL VENTILATION**

In the w.c room provide an extractor fan capable of achieving 15 litres per second extraction rate and operated by the light switch with a 15minute overrun facility.

## **ENERGY SAVING REQUIREMENTS**

All light fittings shall be designed so that they will only accept energy efficient light bulbs (LEDs preferred).

## **FIRE SAFTEY (OPTIONAL REQUIREMENT)**

It is advisable to provide a mains powered smoke alarm on the ground floor that may be heard in the roof space. Roof windows shall be designed as alternative means of escape with unobstructed openings of at least 450x750 situated between 800mm and 1100mm above the attic floor level.

## **ELECTRICAL WIRING**

All electrical work required to meet the requirements of Part P (Electrical Safety) will be designed, installed, inspected and tested by a person competent to do so. Prior to completion the council should be satisfied that Part P of the Building Regulations 2000 has been complied with. To satisfy this requirement, a person competent to do so shall issue an appropriate BS7671 electrical installation certificate for the work.

New consumer units shall be fitted with child-proof covers or installed in a lockable cupboard they should ideally be situated between 1350mm and 1450mm above the finished floor level.

For additional construction notes please refer to drawings.