TECHAPPR

Specification Notes for :- 75, Barons Close, Kirby Muxloe, Leicestershire.

April 2011.

Drawings

The drawings are the copyright of Ace Design. The drawings must not be scaled from. The contractor should take and verify all dimensions on site before proceeding with any works. All dimensions shown on the drawings are for Planning purposes only.

General

All works are to be carried out with the relevant current British Standard Codes of Practice and Building Research Digest Papers, and to be to the approval of the local Authority and all Statutory Undertakings. All materials shall be suitable for the purpose intended and shall be used strictly in accordance with the manufacturer's recommendations. All necessary calculation are to be submitted to the Local Authority for approval prior to the commencement of work on site.

Accredited details shall be adopted to prevent cold bridging, air leakage etc., continuity of insulation shall be provided at lintols, floors and all roof and wall junctions by the provision of ventilation trays. All joists are to be fixed galvanised joist hangers. All wall and roof insulation shall be continuous.

It is the owners responsibility to ensure that the property and site is free from any onerous or unusual restrictions, covenants or easements.

Attention is drawn to the Party Wall Act 1996. The client or owner must give notice in writing to neighbours of the intended building operation and excavations and receive approval of same.

Demolitions

Remove existing walls as shown on the drawing, brick up openings as shown, form new openings by carefully existing structure. Provide lintols as necessary.

Foundations

Foundations are to be in accordance with BS 8004: 1986. Provide trial holes to expose existing foundations. Determine whether existing foundations are capable of sustaining further load, if not underpinning may be required. These works are to be agreed with the building inspector.

Excavate for foundations, these are to be at least 1000mm. deep with concrete footings 600mm. wide x 300 mm. deep. These details relate to standard ground conditions, and may require adjustment to suit. All concrete strip foundations are to be 1:3:6.

Foundations are to be located below invert levels of drainage where such drainage passes through walls. All walls above any drainage are to be adequately supported by lintols. The depth of foundation in respect of any trees on site are to be in accordance with NHBC Standards, Drainage pipes passing through the foundations will be provided with a rigid vermin screen.

Ground Floor Construction

Garage.

New floor construction to be 150mm. thick concrete floor slab, (1:3:6), reinforced with A193mesh, with a steal trowel finish, below concrete lay 1200g, Polythene dpm. on 25mm sand blinding, on at least 150mm. Well consolidated hardcore.

Should a gas membrane be required form 1No. radon sump, size 450mm. x 450mm. x 300mm. deep in honeycombed brickwork on 50mm. concrete base with 50mm. concrete slab over. From sump provide a 100mm. diameter upvc duct to terminate externally and be capped off with a vermin proof ventilated cowl. Sump to be positioned centrally. Provide a 2000g. dpm to be lapped with taped joints, to continue across cavity, and cavity tray to be provided with weep holes above.

Garage conversion.

New flooring to be 22mm. s/w t&g boarding on 50mm. x 170mm. s/w joists at 400mm. centres. Provide 90mm. Cellotex GA on 1200g. polythene dpm. on new / existing concrete base.

Wall construction

External Walls

New wall construction to be 3 cos. Blue brick up to dpc. Level, underneath blue bricks use semi engineering bricks, above use 103mm. facing brick outer leaf (min. 5N/mm²), laid in 1:1:6 (cement:lime:sand) mortar, to Local Authority Approval; 85mm. cavity filled with 85mm. 'Dritherm 32'; inner leaf to be 100mm. lightweight insulating blockwork, to BS6073, (2.8N/mm² min.), in 1:6 (cement:sand) mortar, 'Thermalite Turbo' with a 13mm. lightweight plaster finish. The cavity wall shall be filled with concrete to 225mm. below dpc. All cavity walls are to have stainless steel cavity wall ties with a max. horizontal spacing of 750mm. and a max. vertical spacing of 450mm. At reveals the vertical spacings shall be 225mm. Provide hold down straps at plate level, 5mm. x 30mm. x 900mm. long mild steel straps at 1600mm. centres plugged and screwed to walls / rafters. Provide lateral restraint straps at first floor level and any gable end. Provide cavity wall trays to all roof and wall junctions as required and over beams above flashing line at roof abutments. Reveals are to be insulated to achieve a 'U' value the same as the wall; 0.28 W/m²k. by the provision of 'Themabate' insulating dpc. or similar.

Roof construction

New roof.

Take down existing trussed rafter roof and extend by using a 'cut' roof system. New roof construction to be concrete tiles to match existing, laid at approx. 40°, to match existing pitch, on 25mm x 38mm. s/w battens, on Tyvek Supro underlay, on C16, 47mm x 150mm. s/w rafters at 400mm. centers birdsmouthed over 47mm. x 100mm. s/w plate, with no notches in rafters, spanning approx. 3800mm. Hip rafters to be C16, 47mm x 175mm. Provide dragon ties to feet of hips. Provide 100mm. Cellotex roof insulation in between each rafter in roof void, with a further 45mm. Cellotex fixed across the face to give 145mm, total thickness. Provide a 12.7mm. plasterboard with vapour barrier and skim finish. Provide a 30mm. x 5mm. galvanized steel restraint straps every 1600mm. to all rafters and wall plates.

First Floor Construction

Flooring to be 22mm. s/w t&g boarding on C16, 63mm. x 145mm. s/w joists at 400mm. centres spanning a max. of 3200mm. and provide s/w herringbone strutting at least 38mm. x 38mm. at every 1/3rd span. Provide 100mm. fibre wool in floor void. Underdraw ceiling with 40mm. Celotex GA insulation in garage area with one layer of 15mm. Gyproc Fireline board and skim to same area. Provide 2No. layers of 9.5mm. plasterboard and skim ceiling finish elsewhere. Provide 30mm. x 5mm. restraint straps every 1600mm. All workmanship should comply to BS 5268-2:2002, with regard to notches and holes in floor and ceiling joists.

Stairs

Provide new s/w stairs from ground to first floor. Stairs are to be constructed in accordance with Park K of the latest Building Regulations.

Ground to first floor: 12 equal risers in approx. 2300mm. (192mm. max.), with going at 225mm. The going of the tapered thread should measure at least 50mm. at the narrow end. Stairs to have a clear unobstructed width of 800mm. from the handrail. The handrail should be between 900mm. and 1000mm. measured to the top of the handrail from the pitch line or floor. A minimum clear headroom above the line of nosings is to be 2000mm. The width of the landing shall be at least the same as the width of the flight. Provide guarding to the stair below the handrail, and constructed so that a 100mm. sphere cannot pass through any openings in the guarding, and that children cannot readily climb it; it should be able to resist a horizontal force of 0.36kN/m.

Lintols & Beams

Provide 'Catnic' or similar galvanised steel lintols to all exterior structural openings, unless specified otherwise. The reference to all 'Catnic' lintols is as follows :-

275mm. / 285mm. Cavity walls.

Clear span from 750mm. up to 3900mm. Use ref. CG70/100.

Clear span from 750mm. up to 4800mm Use ref. CU70/100.

Closed Eaves. (50-85mm. cavity)

Clear span from 900mm. up to 2700mm. Use ref. CGE50/100.

All lintols are to be insulated. Use 'Stressline' pre-stressed concrete lintols to all interior structural openings unless specified otherwise. All structural steelwork is to be protected by 2No. layers of plasterboard and skim.

DPC's & Flashings.

Provide dpc. 150mm. above ground level and around all openings.

Provide lead No. 4 for all flashings that will be required.

Drainage

Below Ground level

The regulations now establish a priority order in which methods of foul water drainage must be used. In each case the requirement is that the first method on the list below is used it is not 'reasonably practicable' to do so, when the next method must be used.

Order of priority :-

1. A public sewer. **2.** A private sewer. **3.** A septic tank or treatment system. **4.** A cesspool.

All new drains below ground level are to be 100mm. in diameter. Drains to be vitrified clay pipes to S 65 & 540 with flexible joints. Drains under buildings or with less than 600mm. cover are to have a minimumm100mm. concrete slab cover width of trench directly on granular surround. Drains passing through apertures must either use 'Rocker pipes' or the hole around the drain must be filled with compressible material in addition to the rigid sheet material already required each side. All connections are to be made to the Local Authority's complete satisfaction. The specification for the construction of any inspection chambers is to be in accordance with PartH1. Table 14 of the latest building regulations.

Drains connecting into existing pipework (other than a manhole) must use prefabricated units to avoid the use of 'saddles'. Where the use of a saddle us unavoidable, the hole in the existing pipe must be drilled – not broken out. Rodent control must be taken into account using sealed inspection chambers, intercepting traps, specialist rodent barriers and solid metal gulley covers. Where both foul and surface water sewers are available, all connections made on site must be proved to connect to the right one. Minimum fall for drains to be 1 in 40.

The regulations also now establish a priority order in which methods of surface water drainage must be used. In each case the requirement is that the first method on the list below is used unless it is not 'reasonably practicable' to do so, when the next method must be used.

Order of priority :-

1. A soakaway. **2.** A watercourse. **3.** A sewer.

Soakaways need to be designed in accordance with BS EN 752-4 or BRE Digest 365 Soakaway design. They should not be built within 5000mm. of a building or a road or in areas of unstable land.

Rainwater drainage may only connect to a foul sewer if a soakaway or watercourse cannot be used and a separate water sewer is not available.

Above Ground Level

All new drainage is to be 40mm. diameter waste pipes from the wash basin; all new fittings in pvc. are to have 75mm. deep seal re-sealing traps and to have rodding access at right angles. The soil pipe from the W.C. is to be at least 100mm. diameter, with at least a 75mm. trap. The soil and vent pipe in the W.C. is to be provided with an air admittance valve terminated above the highest waste connection. Hot water taps are to be on the left. Plumberwork fittings are to be 'Osma' or similar 110mm. half round pvc gutters; 63mm. diameter pvc downpipes, to match existing. Where box gutters are used and lead lined (lead No.4), these should be stepped down 50mm. in every 1500mm. length.

Solid waste storage

Space should be provided for two containers (one for recyclable waste), an area of 1.2m ². Within 25m.of the collection point and 30m. of the dwelling.

Windows & Glazing

All windows are to be PVC-U double glazed, argon filled with a 16mm. air gap in a sealed unit, glazing to be low-E, E n = 0.05. 1.6 W/m²k. Provide seals to all windows and doors to limit infiltration of cold air from the outside. Any glazing between finished floor level and 800mm. above that level in internal and external walls and partitions; and between finished floor level and 1500mm. above that level in a door, or in a single panel, close to either edge of the door, are to be fitted with either laminated or toughened glass, to part N or local Building Regulations and to comply to BS 6206. All doors and windows are to be set back a min. 68mm. from the face of the wall. All rooflights will be supported by tripling up the rafters on each side of the roof light.

Escape Windows

For all new windows and windows that are being replaced; all habitable rooms above the ground floor and those on the ground floor not opening directly onto a hall, should have an opening window for means of escape purposes. The window should have an unobstructed openable area of at least 0.33m² . and at least 450mm. x 750mm. PVCu windows will require the use of 'fire escape' or 90° hinges. The bottom of the openable area should not be more than 1100mm. above floor level or less than 600mm.

Ventilation

Provide mechanical extraction to the W.C. This is to have at least 1.5No. air changes p/h, (6 litres/sec). Habitable rooms are to have rapid ventilation (opening windows), equal to at least 1/20th of the floor area together with background ventilation with a ventilation opening area of not less than 8000mm^2. This can be provided either by means of trickle vents or air bricks with a 'hit & miss' ventilator. In the W.C. provide background ventilation of not less than 2500mm^2.

Smoke Alarm

Provide a mains operated and interlinked smoke alarm BS 5446 part 1. There should be a smoke alarm in the circulation space within 7500mm. of the door to every habitable room and 300mm. from walls or bulkheads.

Heat producing appliance

Provide a new heating system. Boiler to be wall hung with balanced flue. System to be controlled by zone controls; timing controls; and boiler control interlocks (room stats or radiators with thermostatic valves). All exposed pipework is to be insulated. The new boiler should be a condensating boiler and must have a min. SEDBUK value of 86% if mains is natural gas; 86% if LPG; and 85% if oil. All works to the above are to be carried out by a 'Gas Safe' registered installer.

Electrics

All work on fixed electrical installations to the building fabric after the distributor's meter such as socket outlets, switches, consumer units and ceiling fittings are to be in accordance with BS 7671 : 2001. and meet the requirements of Part P (Electrical Safety); they must also be designed, installed and tested by a person competent to do so.

Main Contractor to check all dimensions before the commencement of any works on site, any discrepancies are to be reported immediately.