

**SPECIFICATION.**

**GENERAL:-** Single storey rear extension. Where building to boundaries the adjacent owner is to be informed under the terms of the Party Wall Act 1996 and its provisions followed. All dimensions must be checked on site and not scaled from this drawing. Any dimensions given are in millimetres.

**1. EXTERNAL WALLS AND FOUNDATIONS:-** The external walls are to be in a facing brick to match existing comprising of 103mm brickwork to the external leaf with 1:1.6 cement/lime/sand. 100mm cavity with 100mm Rockwool 'Full-fill' Dritherm or other approved insulation material. 100mm thermal insulating blockwork Celcon or Thermalite on the inner leaf with mortar as before, 13mm thickness British Gypsum plaster, all to achieve a 'U' value of 0.28. Cavity wall insulation carried below DPC and overlapped by 150mm with floor insulation and to meet with roof insulation at top of wall. Cavity insulation carried the full extent of gable walls. Cavity must not be closed at eaves with blockwork. All cavity closers to be insulated. All external and internal leafs are to be securely retained by approved stainless steel wall ties to BS1243 positioned 450mm apart vertically and 750mm horizontally. Wall ties at openings spaced not more than 300mm vertically provided within 225mm from sides of openings at unbonded jambs. Lean mix cavity fill to all cavity walling terminating min. 225mm below lowest DPC level. Cavity insulation to finish at same level as floor slab insulation. Below ground level both leaves shall be built in trench-blocks or class 'B' engineering brickwork. All external walls adjoining timber floors should have airbricks to BS493 ensuring that vent. air will have a continuous path between opposite sides of all sub-floor voids. The air bricks shall allow the passage of 3000mm<sup>2</sup> for each metre of running wall. Any trunking or pipes needing to carry ventilation air should be min. 100mm dia. Foundations in accordance with BS8004. All foundations subject to ground conditions to have at least 750mm cover below ground level. Minimum foundation depth in clay soil to be 900mm. Foundations shall be extended below pipe or ductwork penetrating walling. Oversite concrete will be level with or above the finished ground level. Oversite concrete to be grade ST2 or GEN 1 concrete to BS 8500-1. Foundation design must be approved by the BC officer subject to site investigation. Unsuitable load bearing strata will necessitate separate structural design.

(a) Concrete trench fill founds to all load bearing cavity walls to be min. 600 x 1000mm deep. Use concrete grade ST2 or GEN 1 to BS 8500-1.

**2. DAMP PROOF COURSES:-** Horizontal and vertical DPC's will comply with BS743 (pitch polymer) and be incorporated:

(a) min. 150mm above ground to all load bearing walls, lapped with floor damp proof membrane.

(b) Vertically built into jambs of all external openings.

(c) Horizontally stepped to all external openings.

**3. DRAINAGE:-** The existing drainage system is assumed to be a single line combi system (to be confirmed on site). UPVC fittings to BS 4514, BS 5255. Baths, sink units, showers - 42mm dia. wastes via 75mm traps. WC pans - 100mm dia. with 100mm traps. Where WHB waste exceeds 1.75m length or Bath/Shower exceeds 2.3m anti-siphon traps to be fitted. Safe operation of all types of hot water systems are required to prevent scalding, so the temperature does not exceed 48 degree celsius through taps or 100 degree celsius where held in storage, (i.e. by use of temperature relief valves). Reasonable provisions must be made by the installations of fittings and fixed appliances that use water efficiently for the prevention of undue consumption of water. Below ground drainage to comprise Marley UPVC pipes to BS 4660 & BS5481 or similar. Laid on granular bed material to BS 882 table 4. The selected fill should be free from stones larger than 40mm clay exceeding 100mm, timber, vegetable matter or frozen material. Where rigid pipes of less than 150mm dia. have less than 300mm cover, or rigid pipes of 150mm or more have less than 600mm of cover the pipes should be encased in 150mm concrete.

Where flexible pipes are not under a road or have less than 600mm cover they should be encased in 150mm concrete. Where drainage runs within 1.0m of any foundation and the level of the drain is below the level of the foundation then the drain trench should be backfilled to the found level with concrete. Any pipe penetrating through a structure below ground level should have a lintel above opening (or use of rocker pipes) and a settlement gap of 50mm corkpack or similar flexible material should be inserted to provide protection to the drain. Pipe to be either rocker type or hole around fitted with compressible material. All gravity drainage should have a min. fall requirement of 1:40 to provide self cleansing velocities. All gullies will be back inlet trapped gullies with rodding facility unless otherwise stated. Inspection chambers of up to 900mm depth may be of a UPVC or GRP material or constructed of 150mm concrete base slab with benching formed in 1:2 cement mortar to 1:12 gradient trowelled smooth with all channels, branches and connecting bends. The walls are to be 225mm, class 'B' engineering brick to BS 3921 to the required invert depth. 150mm concrete cover slab with haunching forming the cover level complete with frame and lid. Where foul and surface water are available on site connections must be proved. Priority order for surface water is 1. Soakaway which must be designed to comply with BRE 365 and BS 8301:2000. Soakaways to be at min. 5.0m away from any building (foundations). 2. A watercourse or 3. A sewer. Rainwater connections to foul sewers may only be made where soakaway and watercourse cannot be used. On completion the system is to be water pressure tested and cleansed.

**4. SUSPENDED TIMBER FLOORS:-** 18mm tongued & grooved flooring grade chipboard (V313 grade water resistant to kitchens, utilities and bathrooms) on 120x47mm SC3 softwood treated floor joists laid at 400mm c/c with 120mm Celotex XR3120 laid between joists. Joists set on 100x47mm SC3 softwood treated wallplate on Hyload DPC, 103mm class 'B' engineering brick honeycomb sleeper walls at max. 2.0m c/c with continuous opening to allow 3000mm<sup>2</sup> per metre ventilation. External walls adjoining timber floors should have airbricks to BS493 ensuring that vent. air will have a continuous path between opposite sides of all sub-floor voids. The air bricks shall allow the passage of 3000mm<sup>2</sup> for each metre of running wall. 125mm thick oversite concrete (grade ST2 or GEN 1 to BS 8500-1.) providing min. 175mm airspace between concrete surface and underside of joists, 1200 gauge DPM, on 25mm sand blinding on min. 150mm clean consolidated hardcore fill. All to give 'U' value of 0.22.

**5. TIMBER PARTITIONS:-** 100x47mm SC3 vertical softwood studs at 600mm c/c secured to 100x47mm SC3 head and sole plates. Noggins at 600mm intervals. 12.7mm Gyproc plasterboard and skim finish to both sides. Provide 25mm Isowool APR 1200 sound insulation to partition voids at bathrooms and around bedrooms to comply with E2 requirements for sound deadening. Floor joists to be doubled up when running parallel with and under timber partitions.

**6. LINTELS:-** Unless otherwise stated lintels to be Catnic combined steel to BS5977 (sizes as recommended by manufacturer). Provide min. 150mm end bearing where bearing is less than 150mm concrete padstones are to be provided (sizes to suit load and detail). All lintel backs and soffits to have min. half hour fire resistance and be insulated to prevent cold bridging where necessary. Where steel beams are used they are to be braced together 350mm from each bearing point and at mid span and set to concrete padstones each end as per drawings and details. Half hour fire protection to steelwork as above.

**7. LATERAL RESTRAINT TO FLOOR AND ROOF:-** All floors and roofs to be anchored by Bat or Catnic metal anchors (30 x5mm mild steel). Straps to be secured to timber elements and walls min. 1.0m long at max. 1.2m c/c (1.8m c/c in single storey construction).

**8. FLAT ROOF CONSTRUCTION:-** Three layers of built up roofing class 3 to BS.747. The top layer to be mineral surfaced bituminous fully bonded to glass fibre based underfelt layer. Type 3G bottom layer to be partially bonded to 126mm Celotex TD3000 roofboards over joists or other equal approved insulation to provide a 'U' value at 0.18 or better.

Vapour barrier on 19mm WBP plywood to BS 1088 all laid to falls via softwood firings. Softwood treated timber flat roof joists as specified by S.Engineer with min. 100mm end bearing. 12.7mm Duplex Gyproc plasterboard and skim finish ceiling internally. Set to new and existing either via Catnic type joist hangers or 100x47mm SC3 wallplates.

**9. FRAMES, CASINGS, SKIRTINGS, ARCHITRAVES :-** New external doors and windows to be UPVC and double glazed. Internal door linings shall be 100 x 38 with planted stops. Skirting boards shall be 100 x 19mm. chamfered. Architraves shall be 75x19 chamfered. All new internal doors to have min. undercut of 10mm above the fitted floor finish surface. Window frames to be double glazed with safety glazing to all doors, side panels, and all areas extending below 800mm from floor level. New or replacement windows double glazed with 16mm air gap or 12mm argon filled gap and a both finished soft low 'E' coating to achieve U-value of 1.60 and to have window energy rate - Band C or better. New external doors to have a U value of 1.80. Installed either by Fensa registered installer or compliance via certificate from L.A. Building control (fee Payable). Max. area of windows, doors and roof lights should not exceed 25% of floor area of the extension.

**10. ELECTRICAL INSTALLATION and PART P BUILDING REGULATIONS**

**ELECTRICAL SAFETY:-** Where electrical work is required to comply with Schedule 1 of the Building regulations it will either:

- a. Be installed, by electrician who is registered as Part P approved by an authorised body (a completion certificate/certificate of compliance will need to be obtained from their authorised body (NICEIC, ELECSA, NAPIT etc.).
- b. Any other electrician will require and Electrical Safety Building Notice application.

The proposed electrical installation, earthing and bonding to be installed to current IEE regulations & to comply with Part P requirements of the Building regulations. Inter-linked, self-contained smoke alarms shall be provided in the circulation areas of the dwelling. The smoke alarms shall be mains operated in accordance with Section 1 of Approved Document B Volume 1. Fixed fitting taking only lamps having a luminous efficiency of 40 lumens per circuit watt shall be used at one per 25 m<sup>2</sup> of floor area or three of four or 75% fittings whichever is the greater. Fixed external lighting shall be either lamp capacity not exceeding 150w per light fitting that switches off automatically or fittings taking only lamps of 40 lumens per circuit watt.

**11. GAS INSTALLATION & HEATING:-** The proposed gas installation shall be designed and installed by GASSAFE registered person and a relevant certificate provided to Building Control pre-completion. Extend existing central heating to new areas to client's instructions. Where new or replacement boilers are installed must be a condensing boiler and must have a SEDBUK rating of Class A or B and the condensate outlet must be taken to the foul drainage system. New radiators fitted with thermostatic type valves with pipework insulated to non heated locations.

**12. NATURAL AND MECHANICAL VENTILATION:-** Prior to completion details of commissioning and testing of mechanical systems for extracts to be deposited with building Control to show compliance with F1 (2).


- a) Habitable room:
  - Rapid ventilation - 1/20th of floor area - for a hinged or pivot window that opens 30° or more, or for sliding sash windows. 1/10th of floor area - for a hinged or pivot window that opens less than 30°.
  - Background ventilation - 8000 mm<sup>2</sup>

**THE CONTRACTOR SHALL ALLOW FOR MAKING GOOD OF ALL DISTURBED WORKS.**

**Other Notes, Alterations.**

Notes:

- 1. All existing foundations, beams and/or lintels accepting additional load, are to be exposed, if necessary, for consideration by the Building Control Surveyor and upgraded if found necessary.

DRAWING STATUS		CONSTRUCTION	
REV.	DATE	NAME	DESCRIPTION
<p><b>DISCOUNT PLANS LTD</b>                  PLANNING AND DESIGN SPECIALISTS</p> <p>HEAD OFFICE                  68 RAGLAN AVENUE                  WALTHAM CROSS                  HERTFORDSHIRE                  EN8 8DD      07838135957</p> 			

**GENERAL NOTES:**

any dimensions shown are indicative only and are subject to verification on site. The contractor to set out, check and co-ordinate all dimensions on site during the course of the works and prior to setting out on site. This drawing to be read in conjunction with all other Architect's and Engineer's drawings, Structural Engineers calculations and any specialist supplier's drawings.

Prior to commencement of building works the contractor/owner should:-

1. Ensure that all working drawings and calculations are approved by Building Control or Planning Departments & that they are the current revised drawings before any works start on site.
2. Inform the Building Control department that the works are about to commence on site after receiving an approved decision from building control in writing.
3. Verify boundary lines & ground conditions including checking positions and connections of all gas; electrical, water & other services drainage ect. within the site prior to the commencement of excavations. Owner is responsible for establishing own boundary lines as DPL are not responsible for checking land ownership even if drawings have been approved by the planning and building control departments. If uncertain a land search should be carried out by the homeowner/contractor.
4. DPL are not responsible for builders changing design methods from proposed works. The client is responsible for works being carried out on a building notice.
5. Owner is responsible for purchasing additional materials and covering extra engineering design costs for any additional structural design change on site from the start to end of building works requested by building control or any other third party's instruction during building works.
6. Request a copy of the Party Wall Award where works affect party wall or involve excavations within 3 meters of adjoining buildings.
- 8a. All drainage connections is assumed & is subject for checking by builder, Thames water & building control, foul and surface connections should be approved by Thames water before works commence.

7. Where works involve demolition to ensure that all elements of the building and adjoining structures are accounted for and that all necessary propping and temporary supports are in place.
8. Works carried out under a building notice or prior to approval of drawings are at the contractor's/owners risk. (all DPL drawings must be approved before works commence) Builders building without plans being approved by planning & building control departments are fully responsible for the likelihood of condemned works.
9. Any discrepancies, either between written and site dimensions or between this drawing and other consultant's or suppliers drawings, should be brought to the immediate attention of DPL before executing the structural, drainage, mechanical and electrical works. This includes types of materials if materials shown on drawings do not match which is on site then this will need to be brought to DPL attention straight away before works commence so an alternative design can be rechecked and approved by building control before works can commence.
10. All of DPL structural designs are subject to footings being 1m deep, if however the existing foundation is different a trial-hole will need to be dug to establish the existing foundation type and building control will need to advise on a different method of construction.
11. All wall/s which have been designed to be removed on plans are to be checked on site by building control inspector/builder for load bearing or non-load bearing status before purchase of steel/s. If non-load bearing then steel/s should not be ordered. No refund or claim can be given against DPL on the design/materials charged for these steel/s.

**PLANNING NOTES:**

1. All new proposed roof and wall finishes on this drawing to match existing materials.
2. All new proposed skylights shown on this drawing will be designed not protrude more than 150mm from the existing roof profile.
3. All new proposed windows shown on this drawing which overlook other property's are designed to be non opening and of obscure glazing.
4. For a permitted development loft design the dormer designed on this drawing is set back from the eaves by 200mm, this note is a confirmation that it is.
5. All works to be carried out in accordance with the latest appropriate codes of practice and to comply with current building regulations.

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SITE ADDRESS	
6 HILL RISE, POTTERS BAR, HERTS, EN6 4EE	
DRAWING TITLE	
SPECS.	
DRAWN AT	DRAWN BY
HEAD OFFICE	
SCALE	DATE 27. JANUARY. 2016
DRAWING No.	REVISION
DPL.08.	-