1. Foundations to be a min 180cm deep to full length of rear wall and otherwise as specified. (see design notes based on NHBC standards 2008, section 4.2, 'Building Near Trees'). x 0.45m wide. Mass filled with sulphate resisting concrete, 6:1 mix using 20mm ballast. Final foundation depths are to be agreed on site with the Council Building Surveyor.

2. New walls: Below DPC to be of brick or suitable non-aerated blockwork laid using sulphate resisting mortar. Solid fill cavities to a maximum of 225mm below DPC levels. All external wall DPCs levels to be set a minimum of 150mm above finished exterior ground levels. General wall construction to be 100mm blockwork Celcon Standard or Toplite Standard outer skin 85mm full fill cavity,using Earthwall Dri Therm 37Standard or Earthwall Cavity Slab (Rock). Inner skin 100mm Celcon Solar or Thermalite Turbo or Durox Supablock and min 13mm lightweight plaster skim Build in stainless steel wall ties at max 700mm horizontal and 450mm vertical spacing, 450mm horiz and 225mm vertical around all aperture reveals. Use proprietary approved insulated dpc cavity closures fitted at all reveals. No cold bridging at reveals.
All exterior wall faces 2 coat min18mm thickness cement (with integral waterproofing) rendering, sealed and 2 coat Weathesheild painted. Complete new wall to achieve min U=0.28W/m²K.

3. Use Furfix or similar stainless steel profiles at all new/old wall junctions.

4. DPC's Extension Link new wall and floor DPC's to the existing wall and floor DPC's as appropriate.

5. New ground floor : Use 'Bison' or 'Milbank' beam and block suspended flooring. See floor calculations sheet.
Use 7.0N/mm² infill blocks, DPC 1200g Visqueen (or similar), 75mm Celotex FR5000 insulation, 500g Polythene separating membrane, 75 mm screed with mid depth A98 reinforcing mat. Ensure 230mm ventilating gap from underside of floor element to top of oversite. U value obtained 0.18 W/m² K.

6. Telescopic ventilation ducts with cavity trays over to be fitted at 1.5m centres to all elevations providing underfloor cross venting. Min void, 200mm from oversite to underside of floor joists. Ensure existing house underfloor venting is not compromised.

7. ROOF RESTRAINTS Where walls run parallel with roof, floor or ceiling joists, use 30mm x 5mm galvanised steel straps to be provided at 1 .8m crs built into wall and taken over 3 No. Joists with solid noggins between. Where walls run at right angles to the joists 30mm x 5mm holding down straps to be provided at 1 .8m c/c. Solid noggins between joists at ⅓ span positions.

8. ALL NEW WINDOW & EXTERNAL DOOR UNITS to be UPVC double glazed, min 20mm glass cavity low 'E' and of same opening pattern style as existing house windows. The total opening area of windows for any habitable room to be a minimum of 1/20 of that room floor area. Trickle ventilators incorporated in the head of all window units. PVC-U or timber window(installed vertically) or fully glazed doors should have a Window Energy Rating (WER) of band C or better.

- Alternatively, the window should have a U value of 1.6 W/m²k or better.
- All doors should have a U value of 1.8 W/m²k or better.
- Doors with 50% of their face area glazed should have an overall U value of 1.8 W/m²k.

All new windows including the Velux type and the flat roof sky lights to achieve U value of less than 1.60 W/m.sq K.
Safety glazing to be fitted in all critical door and window locations as specified in approved document Part N 2000.

9. ELECTRICAL WORK

All wiring and electrical work will be designed, installed, inspected and tested in accordance with the requirements of BS7671, the IEE 17th edition wiring guidance and Buildinq Regulations Part P (electrical safety) by a competent person registered with an electrical self-certification scheme authorized by the secretary of state.

The competent person is to send to the Local Authority a self certification certificate within 30 days of the electrical works' completion. The client must receive both a copy of the self certification certificate and a BS7671 Electrical Installation Test Certificate.

ENERGY EFFICIENT LIGHTING 75% of all new light fittings to be of the low energy efficient type.

10. All plumbing to be strictly to BS5572. Gas installation work must be carried out by an officially registered-licensed Gas Safe person. Commissioning certificates for the installation of all heating appliances must be supplied within 5 days of the completion and start of use.

11. Provide mechanical ventilation with required service ducting to outside atmosphere to: new kitchen and the small toilet/shower area marked thus ⊛ to give 60 ltrs/min extraction, and fitted with screened external terminal. To be automatically initiated from relevant lighting circuit and giving 20 mins adjustable time overrun.

12. Make good - All in process damage to all surfaces ensure the integrity of all dpc's. Second fix, o n completion and drying out of plasterwork fit matching skirting board, architraves in all required locations throughout the whole project Consult with the Owner prior starting on this work and obtain specific instructions on the level of decorative finish required.

13. Internal stud partition walls(unless otherwise noted) f rom 50xl00mm timber studwork at 400mm centres, build on sole plate and provide solid noggins within wall at 900mm high..
Use double 50x100 timber lintels over door aperture. Where wall is positioned on timber joisted floors provide double floor joists and or noggins at 400mm crs under centre of the stud wo.ll. Fill cavity with compressed mineral wool for sound insulation, line with 12.5 mm plasterboard (cement shower board in areas containing shower installation) and plaster skim.

15. Guttering to be black UPVc ½ round section, downpipes 65 dia and all to replicate existing house fitments. Fit downpipes with brackets at 1.5mm spacing.

16 Flat roof covering: to be two ply specialist GRP sheeting with pre-formed corners, upstands, spills and drips, finish with gel coat of dark grey to give lead appearance.
Alternatively use three layers High performance built up roofing felt to BS74 7: 1977 comprising first layer of Andersons Thermovent base layer partly bonded, second layer of Andersons's HI 125 sanded underlay fully bonded, and third (cap sheet) layer of Anderson's HI 350 Mineral surface sheeting fully bonded, all laid in accordance with the recommendations of CP144:Part 3 1970. Roof deck to be 18mm WPB plywood with joints taped with Anderson HT125 taping strip. on firrings to provide fall to flat roof of I in 40.

17. New foul drainage must comply with guidelines in Approved Document H1 Regulation 14 Use 110mm UPVC Terrain or similar. Construct, Pressure test the complete run before any boxing in. Ensure all runs can be rodded and connect new system into existing inspection chamber via new underground run. New underground drains runs for both foul and rainwater to be constructed in UPVC set to fall Min 1:50 gradient, set pipe in 150mm all round pea shingle, Pressure test prior to covering. Suggested drainage layout as drawn but Local Building inspector to agree layout, prior to finalising.

Note! The Building Contractor must establish and verify all site, building dimensions, levels, and drain inverts, location of water, electrical and gas services. Ensure foundations are designed to accommodate existing and new drain falls. It is entirely the Building Contractor's responsibility to ensure that all building work complies with the current pertaining Local Building Regulations irrespective of details or specifications stated or implied on this drawing.

Note ! This drawing and specification is for building work only; includes for all built in wiring and basic plumbing, all doors windows, hardware, skirtings / architraves fitted, all surfaces left fully finished ready for final decorating. It does not include detail or specification for extending the central heating heating system, kitchen, utility room, bath/shower room special fitments and special lighting arrangements / fittings. All fitments, specification and costing etc must be discussed and agreed with the owner / client prior to start of work and procurement of materials.

Proposal for a rear kitchen/living room extension to the bungalow at:
21 Kingswell Ride Cuffley Herts EN6 4LH

Scale : 1:100 and as noted. (A3) Date : Aug 2017 Laurie Reynolds 01707 652794

Revision:
10th Oct 2017 Re-issued BR with building regs detail.

DRG 138 -17BR sheet 8 of 8