

LEAN TO ROOF:-

WARM ROOF U-value W/m²K 0.18

- 1 "TapcoSlate" (Limestone/Polypropylene) slates, hip caps and dry verge on 50 x 25 'treated' tiling battens • 'Tyvek' Supro breathable untearable roofing membrane and 'Eaves Protection Strip'. Fully boarded 18 OSB board •
- 2 150 x 50 rafters @ 400 centres, rafters doubled to roof window aperture sides. Roof timbering all C16 specification •
- 3 All roof timbers preservative treated to current BS EN335 i.e. VAC-VAC or equivalent double vacuum method, cut ends brush preservative liberally applied •
- 4 Rafters affixed to house wall via 150 x 50 'treated' (raw/bolted to wall plate, with 'Catnic' clips at every rafter/wall plate junction •
- 5 Rafters and ceiling joists restrained to external walls with 'Catnic' 30 x 5 galv ms straps min 1000 length at max 2000 c's, 6g x 63 length galv screw fixed to three rafters/ceiling joists and taken 150 down cavity, nogging between rafters/ceiling joists at right angle to straps, as per NHBC/TRA Specifications •
- 6 100 x 50 or 75 'treated' softwood wall plate strapped down outer face of inner skin of cavity wall with 'Catnic' 30 x 2.5 galv ms straps @ 1200 c's •
- 7 uPVC soffit with treated softwood soffit bearers @ 400 c's •
- 8 uPVC fascia and barge boards •
- 9 32.5 o/a insulated plasterboard and skim ceiling finish •
- 10 "Velux Roof Windows" centre pivot, 3 No. 1340wide x 980 high, fixed to manufacturers specifications •
- 11 Code No 4 lead flashing at abutment of flat roof to existing building, taken up wall a min 150, let in, lead wedged & pointed •
- 12 Cavity tray DPC 'Cavity Trays Ltd' 'Type G' inserted above lean-to roof into existing cavity wall •
- 13 "Kingspan Thermapitch TP10 rigid thermoset insulation board, 150 thickness between rafters, vapour barrier continuous across underside of insulation board and u/s of rafters •
- 14 85 'Earthwool' Dritherm batts in cavity wall continued up to meet 'Styrofoam' insulation in roof to avoid thermal bridge •

EXTERNAL WALLS

300 o/a CAVITY WALL U-value W/m²K 0.28 (16 render-100 blockwork-85 insulated cavity-100 blockwork + 16 plaster)

- 1 20 render two coat cement/lime/sand (1:1:6 mix) with integral water proofer, applied in accordance with BS EN13914-1 on 100 "Tarmac Hemelite Standard" aggregate blocks •
- 2 85 cavity infilled as built with 85 'Crown Dritherm' batts •
- 3 Inner skin 100 'Thermalite' Turbo blockwork •
- 4 16 'British Gypsum Thistle' two coat plaster internal finish or 16 cement/sand (1:6 mix) plus neat 'Gypsum' skim internal finish •
- 5 Skins connected with 'Catnic' stainless steel ties to current BS EN845-1 @ 750 horiz c's and 450 vertical c's, staggered, where reveals occur ties @ 225 vertical c's •
- 6 85 'Earthwool' Dritherm cavity batts continued up to meet roof insulation to avoid thermal bridge •
- 7 'Catnic Procon' or equivalent wall connectors used to tie new masonry walls to extg building walls with sealing strips/sealant to manufacturers specifications •
- 8 Vertical DPC 'Cavity Trays Type B', let in saw cut positioned between wall connectors •
- 9 Horizontal DPC 'Hyload' pitch polymer to current BS743 with 100 laps •
- 10 'Crown Polyfoam Closer' insulated cavity closers to jambs and cills of all openings •
- 11 'Catnic Cougar CG90/105' open backed insulated steel lintel - (140 height: 750-1800 span); (160 height: 1950-2100 span); (180 height: 2250-2400 span); (220 height: 2550-3600 span) •
- 12 'Catnic Internal door Lintels' •
- 13 Minimum 150 bearing both ends of lintel •
- 14 'Catnic Type WV' cavity weep vents at max 450 c's and 'Catnic' lintel stop ends 'Type C90' •

WINDOWS/DOORS/VENTILATION

- 1 Windows to achieve U value W/m²K 1.6 and doors U value W/m²K 1.8
- 2 All windows and doors to be double glazed in 'Pilkingtons K' glass, 24 o/a units •
- 3 Toughened glass to BS6206 to all doors and sidelights and glazing below 800 up from ffl •
- 4 Windows having controllable trickle ventilators to create a total operable area of not less than 4,000 mm² per non-habitable room, 8,000 mm² per habitable room •
- 5 Opening lights to all rooms to achieve min 1/20th of floor area with some part at least 1750 above ffl, for patio doors to count as 1/20th of floor area they must contain a ventilator of 10,000 mm² area •
- 6 All uPVC windows supplied by FENSA approved installer •

INTERNAL WALLS

- 1 Load bearing walls to be 100 'Thermalite' Shield blockwork with 16 'Gypsum' two coat plaster finish both sides •
- 2 Ground floor walls built off horizontal DPC on foundation walls •
- 3 Where double RSJ's are used, they are to be welded together with ms straps to avoid differential movement, all to Structural Engineers calculations •

GROUND FLOOR

SCREEDED SOLID FLOOR U-value W/m²K 0.22

- 1 Minimum 65 thickness floor screed, 1:3 mix •
- 2 100 concrete floor slab, grade 20. A142 mesh reinforcement over all drainage runs and if fill exceeds 600 depth •
- 3 500 gauge 'Visqueen' vapour barrier •
- 4 "Kingspan Thermafloor TF70 insulation board, 80 thickness laid on DPM and taken up perimeter walls to DPC level at 25 thickness •
- 5 1,200 gauge 'Visqueen' DPM, lapped & taped, taken up perimeter walls and linked with DPC to create a continuous barrier •
- 6 Minimum 50 sand blinding on min 150 consolidated hardcore •

SUBSTRUCTURE

- 1 100 'Tarmac Hemelite' block cavity walls from footings to DPC level with outer skin reverting to faced brickwork to three courses below final ground level of external walls •
- 2 Weak concrete cavity fill minimum 150 from DPC level •
- 3 Wall skins tied together with 'Catnic' stainless steel wall ties @ five per square metre •
- 4 Dry vertical joints in brick course above finished ground level @ 900 c's to form weep holes •

FOUNDATIONS

TRENCH FILL FOUNDATIONS

- 1 850 deep x 500 wide concrete, grade 20, trench fill foundations under external and internal walls at a minimum depth of 10000, all subject to approval on site of Building Inspector •

SURFACE WATER DRAINAGE

- 1 All rainwater via 'Marley Flowline' PVC guttering thence and 65 square section RWP with access spigot all connected to drain pipe system •
- 2 Existing downpipe to terminate with shoe discharging onto splash tile bedded onto roof surface •
- 3 100 Ø 'Hepworth Supersleve House Drain' clay drain pipe system, fall 1:40, laid on min 100 granular bed, backfilled with selected excavated material. or plastic pipe work laid on 150 granular bed and completely surrounded with granular filling to 150 above top of pipe work, backfilled with selected excavated material •
- 4 Pipework at soakaway end via 'Aquacell' Silt Trap ending with connection to preformed socket in 'Aquacell' geo-cellular S/A units •
- 5 Soakaway geo-cellular construction to current BBA 03/4018. Sizing (usually 1m³ or 1.2m³) to BRE Digest 365, minimum 5000 from building • 100 bed coarse sand levelled and compacted, geotextile over base and up sides of soakaway excavation, filled with geo-cellular 'Aquacell' units to manufacturers specifications, cover complete structure with geotextile and 100 coarse sand surround compacted, finally 460 topsoil to Ground Level •
- 6 All above ground drainage to approved document H •

SERVICES

- 1 All electrics to comply with Part P of Building Regulations i.e. Prior to completion should be satisfied that 'Part P' has been complied with and that an appropriate BS7671 electrical installation certificate is issued for the work by a person competent to do so •
- 2 All electric sockets, TV points, light switches and cooker control panel heights to comply with Building Regs Part M •

project

PROPOSED GROUND FLOOR EXTENSION
at: CEDAR END, 1 WEST DRIVE, ELMER, PO22 7TS
for: MR and MRS L. COOMBER

scale

NTS

dwg.no.

LC/WDE/4 of 4

date

March 2019

rev.suffix