NOTE: this drawing is to be read in conjunction with the Engineers Structural Calculations

G. R. Sexton C.Eng., MICE

flat roof construction:
Sika Trocal or similar approved single ply membrane laid strictly in accordance the the manufacturers intructions, extended a minimum of 150mm up roof slopes on 18mm external quality WPB plywood on treated sw firrings laid to a minimum fall of 1 : 80 fixed to 45 x 195 C24 flat roof joists at 600mm c/s 150mm Celotex XR4000 insulation board laid between joists having 50mm air gap over and Celotex PL4040 with joints sealed as a VCL fixed to underside of these to provide a 'U' value of 0.15W/m²K, and skim with gyproc multi-finish plaster

provide 30 x 5mm galv'd lateral restaint straps to both ends of flat roof at max' 1.8m c/s fixed to not less than three rafters with solid noggins between them

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glidevale FV250 facia ventilator to provide a continuous air gap of 25,000mm²/m
white permacell pvc-u soffits & facias
110mm H.R. white u-pvc gutters
65mm dia' white u-pvc RWP's

Simpson G5 tile ventilators at 2m c/s to provide a net ventilation area of 10,000mm²/m

catnic CG50/100 lintel

beam 'A'

glidevale FV250 facia ventilator to provide a continuous air gap of 25,000mm²/m
white permacell pvc-u soffits & facias
110mm H.R. white u-pvc gutters
65mm dia' white u-pvc RWP's

catnic CG90/100 lintel

cavity wall comprising two leafs of 100mm thick Thermalite Shield blocks tied together with Ancon double triangular stainless steel ties staggered at 450mm vertical c/s and 900mm horizontal c/s and having a 50mm cavity between them insulated with Celotex CW4000 50mm insulation batts
line inner leaf with celotex PL4025 (25mm insulation +12.5mm plasterboard) on 15mm plaster dabs to provide a 'U' value of 0.18W/m²/K

all new beams to be encased in 15mm gyproc fireline board and skimmed with multi-finish to provide ½ hr fire resistance

cavity wall comprising two leafs of 100mm thick Thermalite Shield blocks tied together with Ancon double triangular stainless steel ties staggered at 450mm vertical c/s and 900mm horizontal c/s and having a 100mm cavity between them insulated with 90mm Celotex Thermaclass Cavity Wall 21 insulation to provide a 'U' value of 0.17W/m²/K

beam 'E'

beam 'C'

catnic CG90/100 lintel

18mm T & G moisture resistant chipboard flooring with glued joints laid on 45 x 195 (C24) joists at 400mm c/s and having 100mm mineral wool acoustic insulation laid between them
finish ceiling with one layer of 12.5mm gyproc plaster board with skim finish

18mm T & G moisture resistant chipboard flooring with glued joints laid on 45 x 195 (C24) joists at 400mm c/s and having 100mm mineral wool acoustic insulation laid between them
finish ceiling with one layer of 12.5mm gyproc plaster board with skim finish

floor joists supported on hangers nailed to 45 x 195 bearers bolted to walls with M10 RAWLOK bolts at 600mm c/s

cavity wall comprising brick outer leaf and 100mm thick Thermalite Sheild block inner leaf tied together with Ancon double triangular stainless steel ties staggered at 450mm vertical c/s and 900mm horizontal c/s and and having a 100mm cavity between them insulated with 90mm Celotex Thermaclass Cavity Wall 21 insulation to provide a 'U' value of 0.17W/m²/K

18mm T & G moisture resistant chipboard flooring on 70mm thick celotex GA4000 floor insulation to provide a 'U' value of 0.23W/m²/K
insulation to be laid on 1200 gauge polythene dpm laid over existing concrete floor

concrete trenchfill foundations, GEN3, minimum 450mm wide x 1.0m deep measured below F.G.L. or such depth as may be instructed by the B.C.O.

Section A.A.
scale 1 : 40

Internal Studwork Walls
45 x 95 C24 studs at 600c/s with 65mm rockwool acoustic insulation between them and covered both sides with soundblock plasterboard having a mass of 10kg/m² & skim

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CLIENT
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23 Salisbury Avenue, Colchester CO3 3DW

PROJECT
TWO STOREY REAR EXTENSION
22 NEW ROAD, MISTLEY, CO11 2AG
SECTION A.A'

Scale 1 : 40
Designed GRS
Drawn GRS
Date January 2024
DRG. No. 2156/09