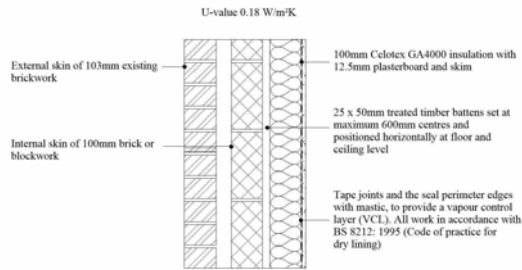


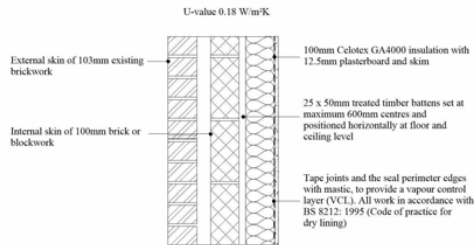
UPGRADING EXISTING CAVITY WALL



DRY LINING EXISTING CAVITY WALL

To achieve min U-value 0.18 W/m²K
The existing external walls must be checked for stability and be free from defects, as required by Building Control.
Insulate existing wall on the inside using 100mm Celotex GA4000 insulation board fixed to 25 x 50mm battens at 600mm centres to provide a nominal 25mm cavity between the masonry and insulation (50mm cavity to be provided if required by Building Control).
Fix a vapour control layer on the warm side of the insulation.
Finish with 12.5mm plasterboard with a plaster skim.
An injected DPC may also be required to the wall if one is not already present and working.
New DPC to be made continuous with floor DPM.
All work to be in accordance with BS 8000-8:2023
Design and installation of dry lining systems.
A lesser provision of insulation may be appropriate where meeting such a standard would result in a reduction of more than 5% in the internal floor area of the room.

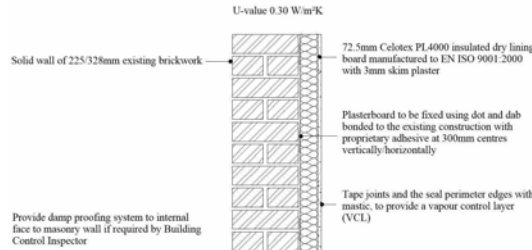
UPGRADING EXISTING CAVITY WALL



PARTIAL FILL CAVITY WALL

To achieve minimum U Value of 0.18 W/m²K
Provide 103mm suitable facing brick. Ensure a 50mm clear residual cavity and provide 85mm Celotex CWV4000 insulation fixed to internal leaf.
Inner leaf constructed using 100mm, 0.15 W/m²K lightweight block, e.g. Celcon solar, Thermalite turbo. Internal finish to be 12.5mm plasterboard on dabs.
Walls to be built with 1:1.6 cement mortar.

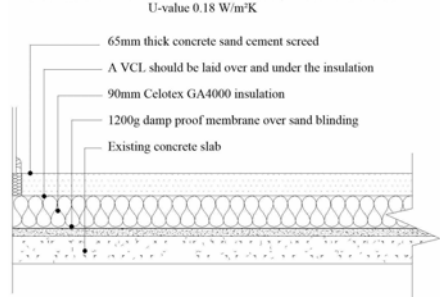
UPGRADING EXISTING SOLID WALL



UPGRADE OF EXISTING SOLID WALL

To achieve min U-value 0.30 W/m²K
Existing garage wall to be exposed and checked for its suitability.
Provide a suitable damp proofing system with current BBA certificate to existing walls and floor (manufacturer's details to be given to Building Control).
Dry-line existing wall with 72.5mm Celotex PL4000 insulated plasterboard.
Finish with 3mm plaster skim.
Plasterboard to be fixed using dot and dab method, by bonding to the existing construction with proprietary adhesive at 300mm centres vertically/horizontally and in accordance with manufacturer's instructions.
Tape joints and seal perimeter edges with mastic, to provide a vapour control layer (VCL).
An injected DPC may also be required to the wall if one is not already present and working.
A lesser provision of insulation may be appropriate where meeting such a standard would result in a reduction of more than 5% in the internal floor area of the room.
All work to be in accordance with BS 8000-8:2023 Design and installation of dry lining systems.

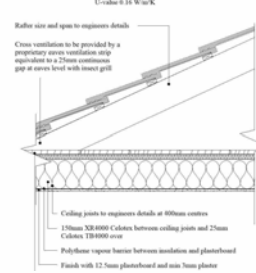
UPGRADE OF GROUND FLOOR



UPGRADING EXISTING SOLID FLOOR

To meet min U value required of 0.18 W/m²K
The existing solid floor slab must be checked for stability and be free from defects, as required by Building Control.
The existing floor will need upgrading to ensure adequate damp protection and to prevent heat loss.
Provide 1200 gauge polythene DPM or 3 coats RIW over existing concrete slab (if required).
DPM to be lapped in with DPC in walls. Floor to be insulated over slab and DPM with min 90mm thick PIR insulation, e.g. Celotex GA4000, 25mm Celotex insulation to continue around floor perimeters to avoid thermal bridging.
A VCL should be laid over the insulation boards and turned up 100mm at room perimeters behind the skirting, all joints to be lapped 150mm and sealed.
Finish with 65mm sand/cement finishing screed with light mesh reinforcement.
Care should be taken to ensure any existing airbricks for the main house are not obstructed by this work. If so, they should be extended through the new floor to external air.
Where drain runs pass under floor provide A142 mesh 1.0m wide and min 50mm concrete cover over length of drain.
A lesser provision may be appropriate where meeting such a standard would create significant problems in relation to adjoining floor level.

UPGRADE OF PITCHED ROOF



UPGRADE OF EXISTING PITCHED ROOF

To achieve U value of 0.16 W/m²K
The existing roof must be checked for stability and be free from defects, as required by Building Control. Provide 150mm XR4000 Celotex between ceiling joists with a further 25mm over joists, cross laid at right angles.
Provide opening at eaves level at least equal to continuous strip 25mm wide in two opposite sides to promote cross ventilation.
Mono pitched roofs to have ridge/high level ventilation equivalent to a 5mm gap via proprietary tile vents spaced in accordance with manufacturer's details. Finished internally with 12.5mm plasterboard and min 3mm thistle multi-finish plaster.
Provide polythene vapour barrier between insulation and plasterboard. Note:
Some pitched roofs are constructed using breathable roofing felt and do not require ventilating if installed in strict accordance with their test certificate.
Loft hatches should be suitable designed and installed to ensure optimum air tightness.



STEEL BEAM DETAIL:

305mm x 257mm steel beam on 415mm x 215mm PADSTONE.

TBC WITH STRUCTURAL ENGINEER PRIOR TO STARTING THE PROJECT.

CORNER FOUNDATION PADS:

DIG OUT EXISTING WALLS FOUNDATION ON BOTH CORNERS OF EXISTING GARAGE WALLS TO EXPOSED GROUND.

NEW 1000mm X 1000mm X 400mm CONCRETE SLAB FOUNDATION PADS TO SUPPORT NEW CORNER PILLARS AND NEW STEEL BEAM.

TBC WITH STRUCTURAL ENGINEER PRIOR TO STARTING PROJECT.

STEEL LINTELS

Lintel and lintel installation to be in accordance with BS 5977-1 Lintels.
Method of assessment of load and BS EN 845-2 Specification for ancillary components for masonry.
Lintel to be galvanised steel, powder coated lintel, such as Catnic, with a built-in damp-proof course.
The lintel to be wide enough to provide adequate support to the walling above, to be installed with a nominal 150 mm bearing area at each end and be fully bedded on a solid bed of mortar.
Only full bricks or blocks to be part of the bearing area - lintels not to be placed directly onto part bricks. Padstones and spreaders to be provided under the bearings, where required. Installation to be in accordance with manufacturers recommendations.
Overhang of any masonry to be a maximum of 25mm and lintel toe to project beyond window head externally.
Risk of condensation at potential cold bridges to be minimised.
wall insulation should abut the head of the window frame and insulation to be provided at the underside of the lintel unless the manufacturer produces an alternative.
(In severely exposed locations or where the lintel does not offer a built-in DPC, a separate membrane to be fitted, turned up at the edge to ensure the water is not directed into the cavity.
For coastal areas, the use of soffit cladding to also be considered to provide further protection).
Unless only supporting a roof, lintels to be encased in 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance. All fire protection to be installed as detailed by specialist manufacturer.

NOTE - For uniformly distributed loads and standard 2 storey domestic loadings only
Lintel widths are to be equal to wall thickness. All lintels over 750mm sized internal door openings to be 65mm deep pre-stressed concrete plank lintels.
150mm deep lintels are to be used for 900mm sized internal door openings. Lintels to have a minimum bearing of 150mm on each end.
Any existing lintels carrying additional loads are to be exposed for inspection at commencement of work on site.
All pre-stressed concrete lintels to be designed and manufactured in accordance with BS EN 1992-1-1:2023 Eurocode 2, with a concrete strength of 50 or 40 N/mm² and incorporating steel strands to BS 5896 to support loadings assessed to BS EN 845-2:2013.
For other structural openings provide proprietary insulated steel lintels suitable for spans and loadings in compliance with Approved Document A and lintel manufacturer's standard tables. Stop ends, DPC trays and weep holes to be provided above all externally located lintels.
Independent lintels to have an insulated cavity closure between the inner and outer lintel.



BLOX ARCHITECTURAL LTD
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CODE STATUS SUITABILITY DESCRIPTION PURPOSE OF ISSUE

PROJECT

26 DERWENT AVE

SHEET

CONSTRUCTION DETAIL

CLIENT

MR GRUNDY ADC0001

Date
Issue Date

Project number
Project Number

Scale (@ A3)

Drawn by
Author

DRWAING NUMBER

REV

Checked by
Checker

A108