

Specification



ANNEX 6B COMPENSATORY APPROACH HEAT LOSS - 2020

SINGLE STOREY EXTENSION
'U' Values from column (a) in table 6.5 to clause 6.2.9.

**Proposed House Extension for
Mr Mark Watson
24 Woodside Avenue, Rutherglen, G73 3HY
Doc Ref 369/COMPCALC/1/Rev A**

Guidance: To be used where the existing dwelling's wall and roof u-values are POORER than 0.7 and 0.25 respectively. Adopt 'U' Values from column A Table 6.5

External walls

- 12mm Cedral Composite weatherboarding
- 50x25mm treated cavity barriers
- Breather membrane (BS5250)
- 9mm OSB Board Sheathing
- 100mm mineral wool
- 100x40mm timber studs @ 600crs
- 3.3mm SuperFOIL SF19+
- 50x 38mm cavity
- 12.5mm plasterboard
- 3mm plaster skim finish
- 'U' Value 0.18W/m²K

Pitched Roof

- Existing concrete roof tiles
- Existing Tile battens and counter battens
- Existing roofing felt
- Existing timber sarking
- Existing 125x50 rafters
- Rafter Cavity (min 25mm)
- 75mm Rigid insulation board 0.22m²K/W (between rafters)
- 50x25mm battened cavity
- 11.2mm SuperFOIL SF40 insulation
- 50x50mm battened cavity
- 12.5mm plasterboard
- 3mm plaster skim finish
- 'U' Value 0.15W/m²K

Flat Roof

- PVC Single ply membrane
- 18mm OSB Sheathing
- 50x38mm min furring batten
- 11.2mm Superfoil SF 40 insulation
- 50mm Joist cavity (150mm Joists @ 600crs)
- 100mm Rigid insulation board 0.22m²K/W (between rafters)
- Vapour control layer
- 12.5mm plasterboard
- 3mm plaster skim finish
- 'U' Value 0.15W/m²K

Existing Remaining Roof at Ceilings Level (Not part of Warrant)

Consideration should be given to upgrade

- Remove existing insulation quilt or retai between joists if adequate
 - Fit chicken wire accross u/s of joist at eaves to maintai ventilation
 - 200mm insulation quilt over joist (cross bonded)
- Improved performance 0.14-0.15W/m²K

2.11.1 Fire Detection and Fire Alarm Systems

- Grade D system should be installed in all dwellings, comprising of:
- at least 1 smoke alarm installed in the principal habitable room
- at least 1 smoke alarm in every circulation space on each storey such as hallways and landings
- at least 1 smoke alarm in every access room serving an inner room
- at least 1 heat alarm installed in every kitchen.

3.4 Measurements for Stairs

Proposed Stair

1. 15 risers @ 197mm
2. Tread 241mm
3. Going 223mm
4. Pitch 42°
5. Width over stringers 660mm
6. Width between handrails 623mm
7. Minimum headroom 2000mm
8. Handrail and balustrade above FFL and pitch line 900mm minimum

4.2.6a Accessibility within a storey of a dwelling

9. New ground floor corridor adjacent to new stair to be a minimum of 900mm wide

4.8.3a Cleaning of Windows

10. Top hung Reverting uPVC windows to new dormer 'U' 1.4W/m²K
11. Any window or rooflight, all or part of which is more than 4m above the adjacent ground or internal floor level, should be constructed so that any external and internal glazed surfaces can be cleaned safely from: a. inside the building in accordance with the recommendations of Clause 8 of BS 8213:Part 1: 2004,

4.5 Electrical Installations

12. An electrical installation should be designed, constructed, installed and tested such that it is in accordance with the recommendations of BS 7671: 2008.
13. An approved certifier of construction who has been assessed to have the professional skills and relevant experience, can certify compliance of an electrical installation
14. 4.8.5 Access to manual Controls
Electrical fixtures - outlets and controls of electrical fixtures should be positioned at least 350mm from any internal corner or projecting wall floor level. Light switches should be positioned at a height of between 900mm and 1.1m above floor level.

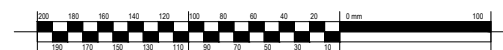
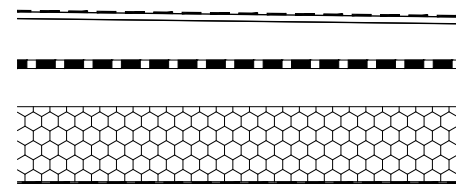
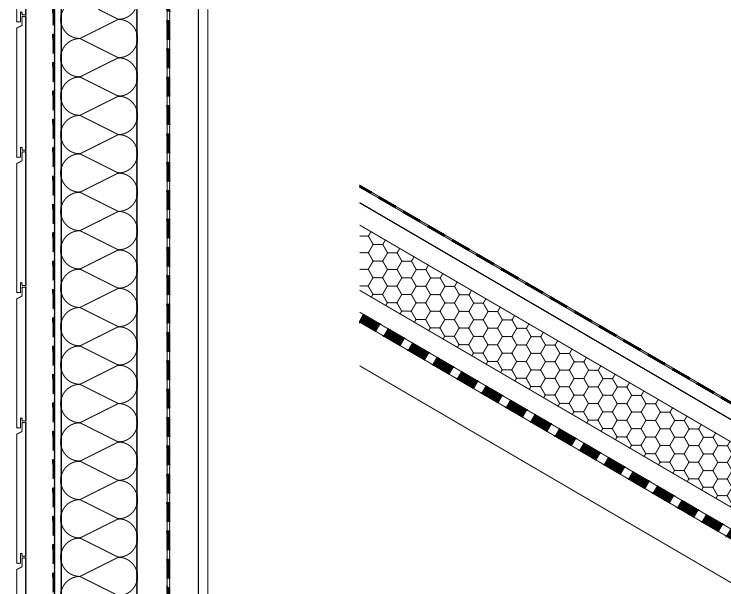
Notional Extension

| Exposed Element | Exposed Surface Area(m²) | U-Value (W/m²K) | Rate of Heat Loss (W/K) |
|---|--------------------------|-----------------|-------------------------|
| External Walls | 14.82 | X 0.17 | 2.52 |
| Dwarf Walls | 4.86 | X 0.17 | 0.83 |
| Flat Roof (Insulation between rafters) | 18.52 | X 0.11 | 2.04 |
| Pitched Roof (Insulation between rafters) | 7.31 | X 0.13 | 0.95 |
| Floor | 0 | X 0.15 | 0.00 |
| Openings (25% floor 24.58m²) | 6.15 | X 1.4 | 8.61 |
| Existing openings built over | 0 | X 1.4 | 0.00 |
| Total Rate of Heat Loss | | | 14.94 |

Proposed Extension

| Exposed Element | Exposed Surface Area(m²) | U-Value (W/m²K) | Rate of Heat Loss (W/K) |
|---|--------------------------|-----------------|-------------------------|
| External Walls | 14.82 | X 0.18 | 2.67 |
| Dwarf Walls | 4.86 | 0.25 | 1.22 |
| Flat Roof (Insulation between rafters) | 18.52 | X 0.15 | 2.78 |
| Pitched Roof (Insulation between rafters) | 7.31 | X 0.15 | 1.10 |
| Floor | 0 | X 0.15 | 0.00 |
| Openings (Rooflights) | 4.70 | X 1.4 | 6.58 |
| Existing openings built over | 0 | | |
| | | | 14.34 |

Proposed extension heat loss acceptable? **YES**



EXTERNAL WALL

PITCHED ROOF

FLAT ROOF

DETAILS 1:5

Rev A 12/2/24 Client amendment



PROJECT
MARK WATSON
24 WOODSIDE AVENUE
RUTHERGLEN, GLASGOW G73 3HY

DRAWING DESCRIPTION
SPECIFICATION

| | | |
|----------------|------------------------|-------------|
| DATE JAN 24 | REVISION A | DRAWN CH |
| SCALE 1:5 | DRAWING No. 369/107 | |

