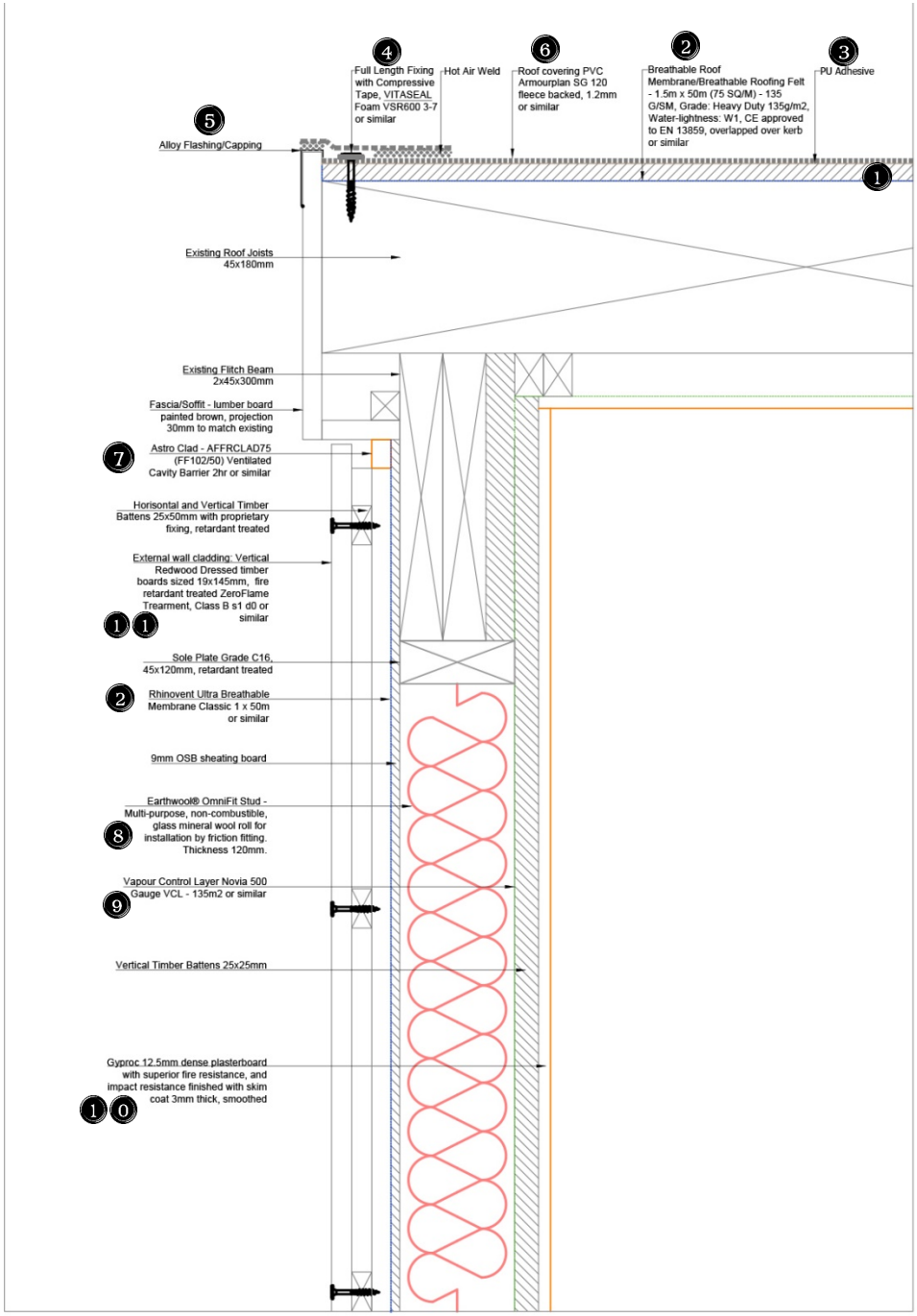
Typical Detail – Single Ply Flat Timber Roof – Timber Stud Wall



Regulation 1 - Structures - System outline

TIMBER SPECIFICATION:

1. All timber to be in accordance with BS 5628, and a minimum grade of C16, unless noted otherwise.
2. Moisture content of all timber should be 18% or less.
3. All structural timber should be pressure impregnated with preservative in accordance with BS 5628-5, Table 4.
4. Special attention should be payed to ensure that the cut surfaces of all timber are suitably protected with preservative as required.

TIMBER FRAME:

1. All limber to be in accordance with C+R's timber specification.
2. Timbers to be class C 16 with maximum moisture content of 18% unless shown otherwise.
3. External timber frame wall panels to be constructed from 45 x120mm C16 studs at a maximum of 600mm centers.
4. Any beams, multiple trusses or trimmer joists should have cripple studs provided below them. The number of cripple studs should ensure the member above has a full bearing.
5. Wall ties to be CULLEN FT-SO or equal approved at a minimum average density of 3. 70 per square metre.
6. Refer to Nailing Schedule and Racking Panel Summary Schedule for fixing details of panels.
7. OSB/3 or OSB/4 fixed to inside of studs in accordance with Nailing Schedule and Racking Panel Summary Schedule.

Regulation 2 - Fire - System outline

Clause 2.4.1 (Cavity Barriers)& 2.6.1 (Fire Resistance of External Wall): Every cavity within a building - annex 2.D - Factory and Storage Building, No more than 1m from the boundary, No Fire Suppression System should have cavity barriers with at least medium fire resistance duration installed around the edges of the cavity. A cavity barrier should also be installed between a cavity and any other cavity such as at the wall-head between a wall cavity and a roof space cavity.

CAVITY BARRIER

1. Astro Clad - AFFRCLAD75 (FF102/50) Ventilated Cavity Barrier 2hr or similar, where specified on the drawings to BS476: Parts 20 and 22, EN1363-1: 1999.

Clause 2.6.2 External wall and Cladding should have at least medium fire resistance duration (60 min) where the external wall of a building is not more than 500mm from the boundary and there should be no unprotected area, other than any wallhead fascia, soffit or barge board, or any cavity vents or solum vents.

FIRE RETARDANT TO TIMBER ELEMENTS

1. Fire retardant ZeroFlame Trearment, system for the fire protection of hardwoods, softwoods and other cellulose based substrates. Tested to BS EN 13823 & BS EN 11925-2 Single Burning Item Euroclass B-s1-d0 (sl: Smoke Production, d0: Flaming Droplets) (Equivalent to UK "Class 0" BS 476 Part 6/7) NT 053 & NT 054 Accelerated weathering of fire retardant wood for fire testing. Euroclass C (Equivalent to UK Class 1) for plywood. Natural. Can be overcoated with certain stains, varnishes and paints. Clear water borne liquid, moisture resistant and unaffected by humidity, suitable for interior and exterior use, unaffected by wear, applicable by brush, roller or spray, non-toxic and non-allergic, biologically and ecologically safe, colourless and odourless, non-leaching, maintenance free, does not require overcoating except for decoration. Please see Product Data Sheet.

Regulation 3 - Environment - System outline

Clause 3.10.6 (Ventilation of wall cavities): To reduce the amount of interstitial condensation to a level that will not harm the timber frame or sheathing, a cavity of at least 50mm wide is being provided between the sheathing and the cladding. Cavity measured between the sheathing and the inner face of the cladding.

As specified on the drawings vertical battens and horisontal counterbattens sized 25x50mm provide required minimum vented cavity for cladding. Other moisture consent elements:

1. Rhinovent Ultra Breathable Membrane Classic 1 x 50m or similar as specified on the drawings to BS EN 13859-1 : 2010
2. Vapour Control Layer Novia 500 Gauge VCL - 135m2 or similar as specified on the drawings to BS EN 13984
3. Visqueen Polyethylene Damp Proof Course 500mu - 600mm x 30m or similar, to BS 6515