



Danbury Palace is a Grade II listed building and was originally constructed in 1832 by the then MP of Maldon, Mr John Round.

Monoridge Project, Danbury, Essex

Since then it has been the residence of the Bishop of Rochester, a maternity hospital during the Second World War and in more recent times, a building for Anglia Ruskin University.

The Challenge

This historic property is being converted into luxury apartments and in the grounds of the palace some twenty six new houses are being constructed to be architecturally in keeping with the historic main building.

Taking cues from the complex roof layout of the original palace, the new houses have numerous hips, valleys, box gutters, monoridges and even turrets. The increased levels of thermal insulation required within the roof space meant that the risk of condensation occurring out of sight in the loft voids increased dramatically.

The size and shape of the roofscapes presented many challenges for the contractors. In most instances, the use of traditional roof ventilation products could be used to alleviate the risk of condensation but the monoridge roof detail needed something special to meet the requirements of BS 5250 of 5,000mm²/m along their length.



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The Solution

Brown Roofing Contractors Ltd based in Thorpe Le Soken, Essex turned to Protect Membranes Ltd for their advice.

The solution was **Fulmetal Rediroll** which offers a truly universal dry fix, ventilated ridge and hip system including use with monoridges. The roofing contractor was able to utilise Fulmetal Rediroll on the monoridges, cladding both the top edge of the slates and the vertical edge of the monoridge to provide a ventilated and weatherproof solution. The unique, universal fixing plates and screws provided consistent spacing between the monoridges whilst offering mechanical security. Furthermore, the contractor added additional fixing plates and screws to the back leg of the monoridge providing a 'belt and braces' solution to further securely hold the ridge system in place. This was particularly important as the ridge line was some 12 metres above ground level.

With its innovative, no union design, Fulmetal Rediroll promotes a completely uninterrupted air flow whilst remaining fully weatherproof. With noticeably fewer components than a conventional system, Fulmetal Rediroll is a winner when it comes to ease of installation.

Fulmetal Rediroll is manufactured entirely from aluminium. It will not 'rust' and is unaffected by UV light degradation, a common problem often associated with fabric-based systems. Such systems require union pieces between the ridge tiles to provide both weather and UV protection. The unique ventilation design of Fulmetal Rediroll ensures that the product remains weathertight without the need for union pieces, making it quicker and simpler to install.

This feature makes Fulmetal Rediroll uniquely suited for use with monoridge construction. Having neither unions nor fabric content, Fulmetal Rediroll also offers superior service life when compared to other roll type systems.

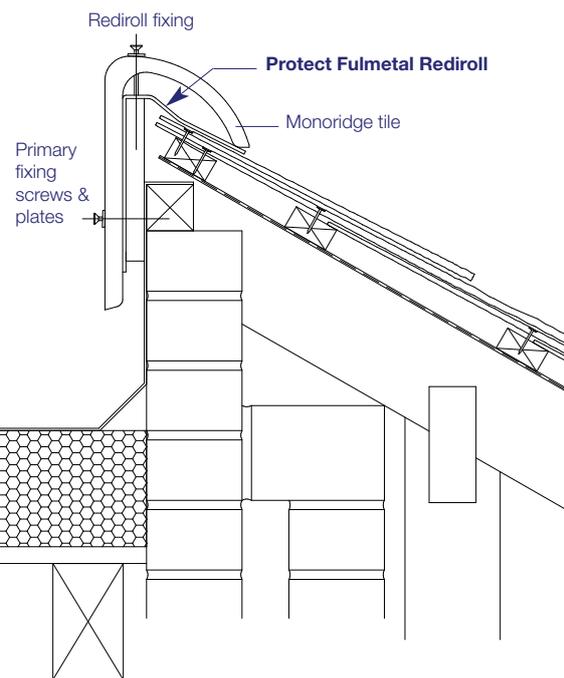
Fulmetal Rediroll is also AA Fire Rated to BS 476, enabling unrestricted use with regard to boundaries – a key regulatory consideration in this type of multi occupancy residential re-development.

Claire Griffin, Internal Sales Supervisor for Protect Membranes Ltd says: "With a design life in excess of 30 years, Protect Fulmetal Rediroll sets the standard for dry fix ventilated ridge and hip systems, and as it fits the majority of ridges, hips and monoridges – it is truly universal."

Stuart Fisher, Contracts Manager at Brown Roofing Contractors says:

"Brown Roofing Contractors Ltd chose Protect Fulmetal Rediroll because having worked with Protect before, we knew that their Fulmetal Rediroll without a union bracket would suit not just the monoridge aspect of the roof, but all the ridge and hip requirements of the roofline. Another major benefit was that with additional fixings available, we were able to apply further mechanical security where required giving the roof full protection against all future weather elements."

Protect roofing accessories are available from roofing and building merchants nationwide, alongside our roofing and construction membranes. For more information and case studies visit our website below.



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