MONIER™

Top Cat in Roofing

ARCHITECTURAL DRAWINGS

MONIER

CSR

CONTENTS

USE OF ARCHITECTURAL DRAWINGS

Monier roofing systems provide contemporary and innovative design solutions that benefit from the time proven effectiveness and sustainability of tiles. This manual contains a broad range of roofing details and applications enabling architects and specifiers to easily access and assess the suitability of design for their client.

MONIER DETAIL DRAWINGS NOW ONLINE

Monier roofing detail drawings are available in multiple CAD formats and as enlarged PDF files at monier.co.nz.

The information provided in the drawings provide reference information on the typical use of the Monier product. The information provided in this reference guide is generic in nature; it does not contain the full details required for construction, nor does it constitute an express statement as to fitness for a particular purpose. Professional advice is required to take into account all site and design specific influences. Designers and specifiers will typically provide details specific to particular projects: these should always be referred to in preference to the default system of drawings. The instructions and details available refer to both concrete and terracotta tiles (except where specifically noted).

MONIER COMPLIANCE WITH THE NEW ZEALAND BUILDING CODE

When installed according to the manufacturers instructions, Monier products will meet the Durability performance requirements of NZBC B2 and E2.
Methods used for verifying compliance with the relevant performances of the New Zealand Building Code, include testing and assessment by a laboratory, ease of installation assessment, assessment of data provided by the manufacturer and the inservice history overseas and in New Zealand. Details are available from Monier.

IMPORTANT INFORMATION FOR SPECIFICATION, PREPARATION & INSTALLATION

This manual has been prepared by Monier to assists the architect, builder and installer to specify, prepare and install roof tiles.
While it is not possible to detail every condition that may be encountered, Monier will assist to advise on any special situations that may occur.
This manual has been written as a working guide for industry, however it is not intended to replace good trade practice and experience essential to obtaining a quality roof installation. Nor does this manual override specific advice received from Monier fixing services.
Architects and specifiers should ensure that the details provided in this manual are followed and determined to their own satisfaction that the job is complete to an acceptable standard of trade practice. All care has been taken in the compilation of this manual. However, Monier accepts no responsibility or liability for the contents of the manual (including any printing or typographical errors) and recommends that all standards and recommendations are independently checked.

SPECIFICATIONS

While information contained in this manual is correct at the time of creation, specifications are subject to change without notice.

DISCLAIMER

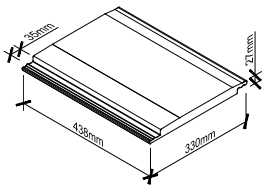
This information is intended solely as a guide for use of Monier products. Before using Monier products you should ensure that the product is suitable for use in the specific application. Nothing in this information constitutes a statement of fitness for particular purpose - appropriate expert advice should always be obtained. Monier makes no warranty regarding the use of this information with non-Monier products.

INDEX OF DRAWINGS BY DETAIL NUMBER

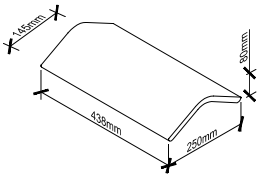
GENERAL DETAILS

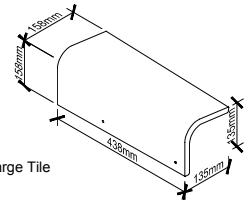
B26 PRODUCT TECHNICAL DATA

Horizon, Georgian,
Madison Profile Roof Tile



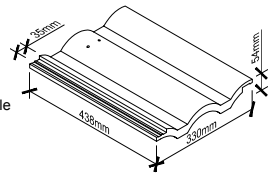
Ridge Tile

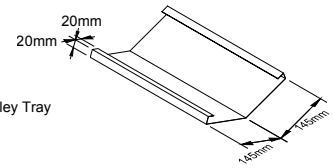




Tapered Barge Tile

Hacienda Profile Roof Tile





Valley Tray

Monier Concrete Roofing Tiles are manufactured in accordance with
NZS 4206: 1992 'Concrete Interlocking Roofing Tiles'

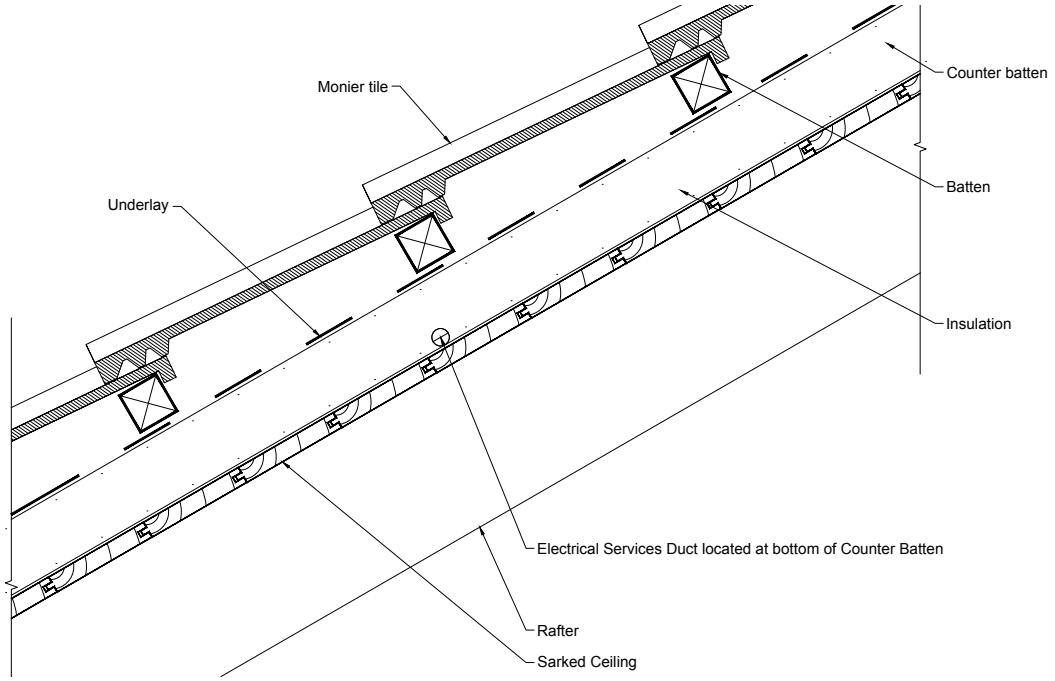
B27 MINIMUM PITCH TABLE

Minimum Pitches for Concrete & Clay Tiles			
Tile Material	Profile Type	With Underlay (Refer Note	Without Underlay
Concrete Tiles	Type I*	15°	20°
	Type II*	20°	-
	Type III	20°	-
Clay Tiles	Type I	20°	25°
	Type II	20°	-
	Type III	25°	-
* Monier Hacienda profile concrete roof tiles conform to the "Type I" profile type. ** Monier Horizon, Georgian, Madison profile concrete roof tiles conform to the “Type III” profile type.			
Type I	Type 1: Double tiles having two distinct watercourses with a minimum watercourse depth of 18mm.		
Type II	Single profile tiles having one watercourse a minimum of 25mm in height		
Type III	Tiles not fitting the Type I or Type II categories, and includes flat tiles and those resembling slated, shakes and shingles.		

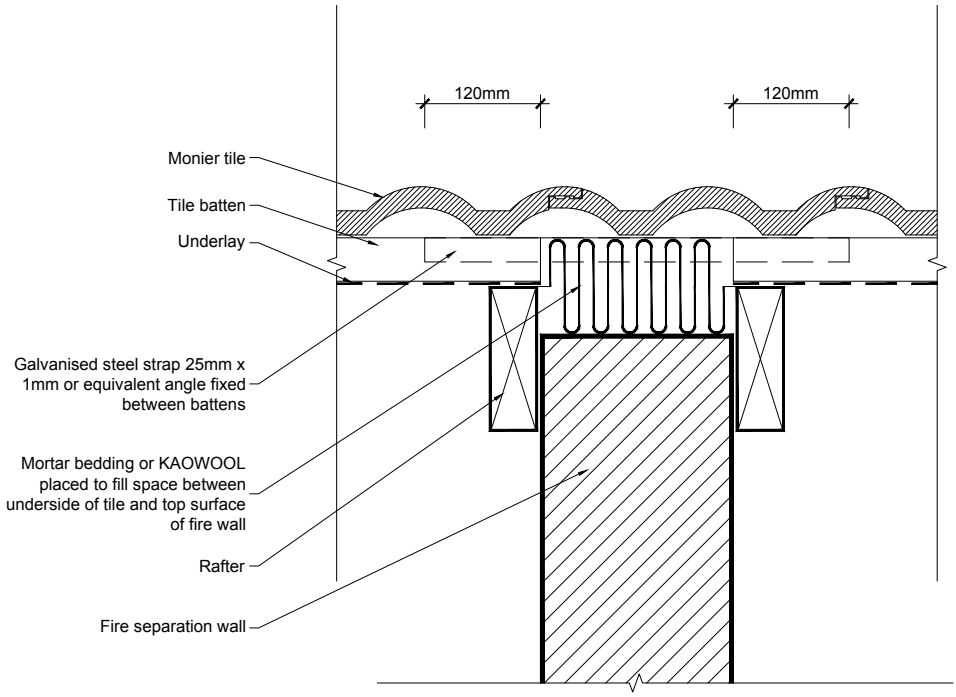
B28 RAFTER LENGTH TABLE

Maximum Rafter Lengths For Concrete Tiles Compared To Roof Pitch					
Hacienda Profile - With Underlay		Hacienda Profile - Without Underlay		Horizon, Georgian & Madison Profiles - With Underlay	
Roof Pitch	Max. Rafter Length	Roof Pitch	Max. Rafter Length	Roof Pitch	Max. Rafter Length
15°	4.5M	20°	4.5M	20°	4.5M
16°	5.0M	21°	5.0M	21°	5.0M
17°	5.5M	22°	5.5M	22°	5.5M
18°	6.0M	23°	6.0M	23°	6.0M
19°	6.5M	24°	6.5M	24°	6.5M
20°	7.0M	25°	7.0M	25°	7.0M
21°	7.5M	26°	7.5M	26°	7.5M
22°	8.0M	27°	8.0M	27°	8.0M
23°	8.5M	28°	8.5M	28°	8.5M
24°	9.0M	29°	9.0M	29°	9.0M
25°	9.5M	30°	9.5M	30°	9.5M
26°	10.0M	31°	10.0M	31°	10.0M
27°	10.5M	32°	10.5M	32°	10.5M
28°	11.0M	33°	11.0M	33°	11.0M
29°	11.5M	34°	11.5M	34°	11.5M
30°	12.0M	35°	12.0M	35°	12.0M
31°	12.5M	36°	12.5M	36°	12.5M
32°	13.0M	37°	13.0M	37°	13.0M
33°	13.5M	38°	13.5M	38°	13.5M
34°	14.0M	39°	14.0M	39°	14.0M
35°	14.5M	40°	14.5M	40°	14.5M

MTØ1 SARKED CEILING – EXPOSED RAFTERS

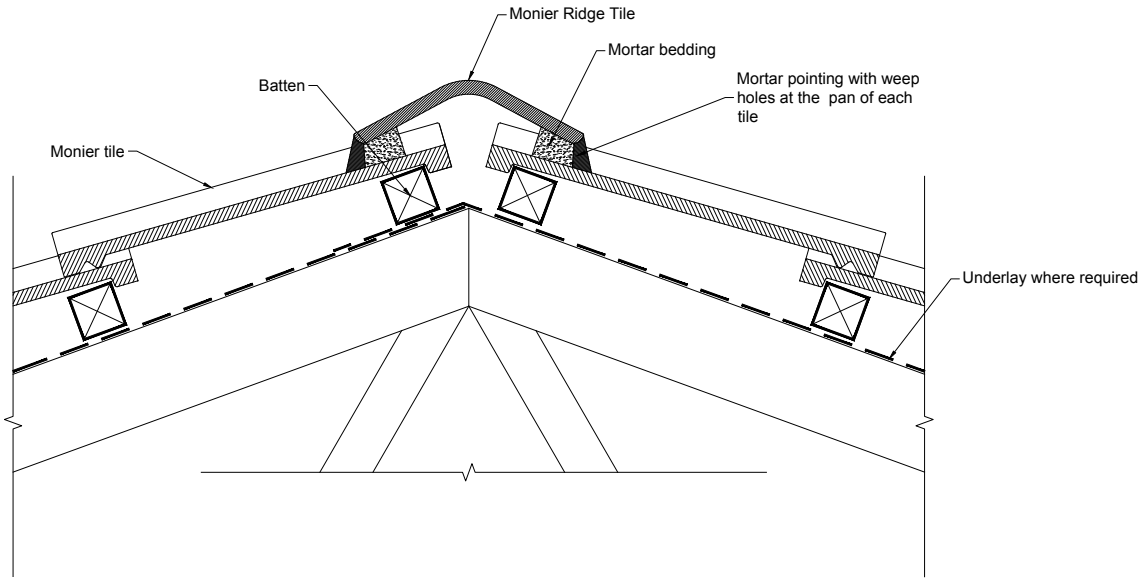


MT25 FIRE WALL DETAIL

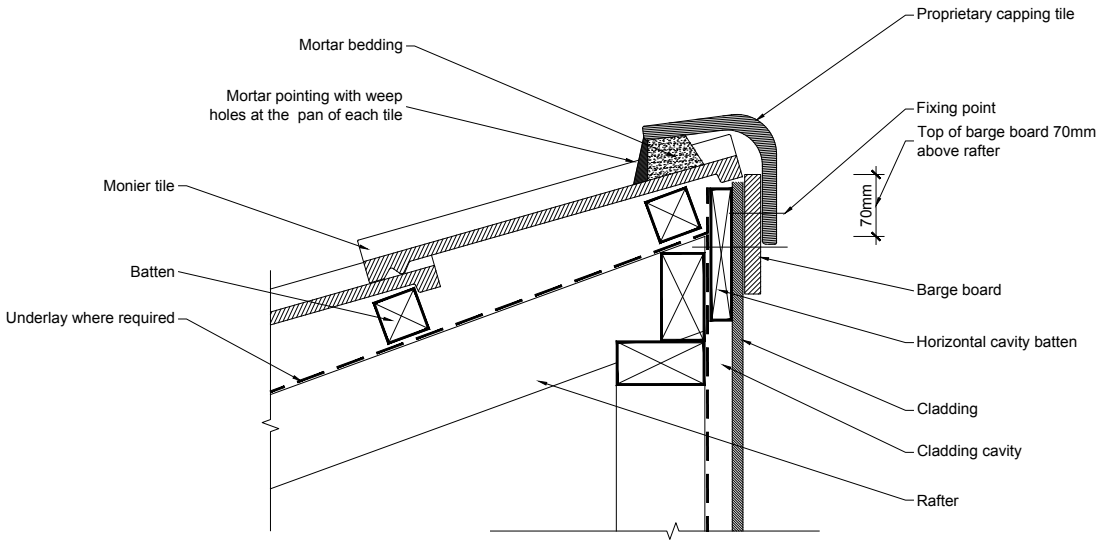


RIDGE DETAILS

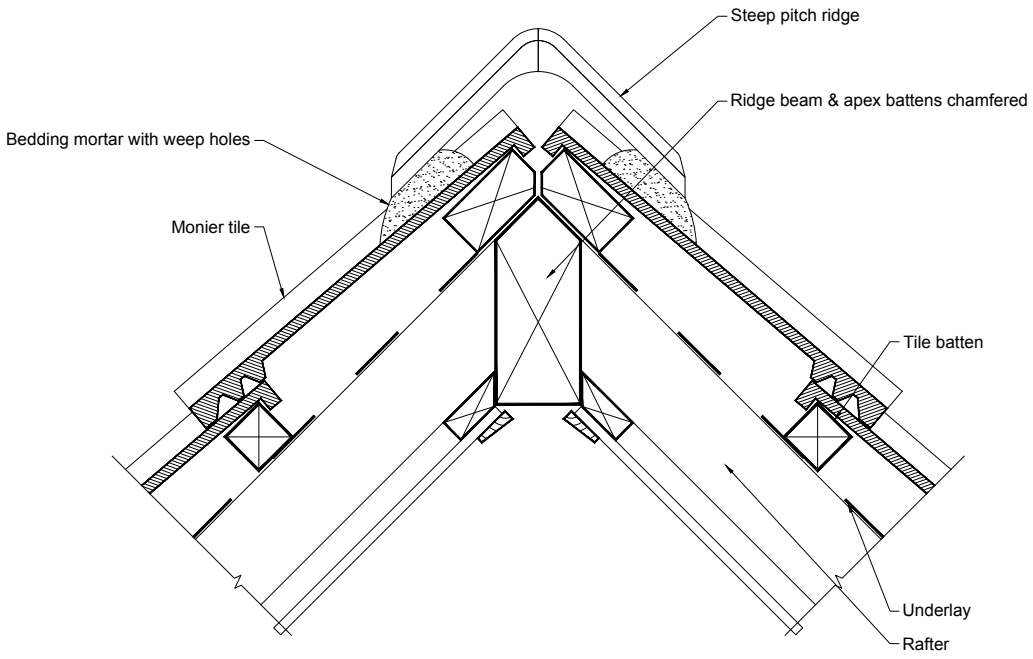
B12 RIDGE DETAIL



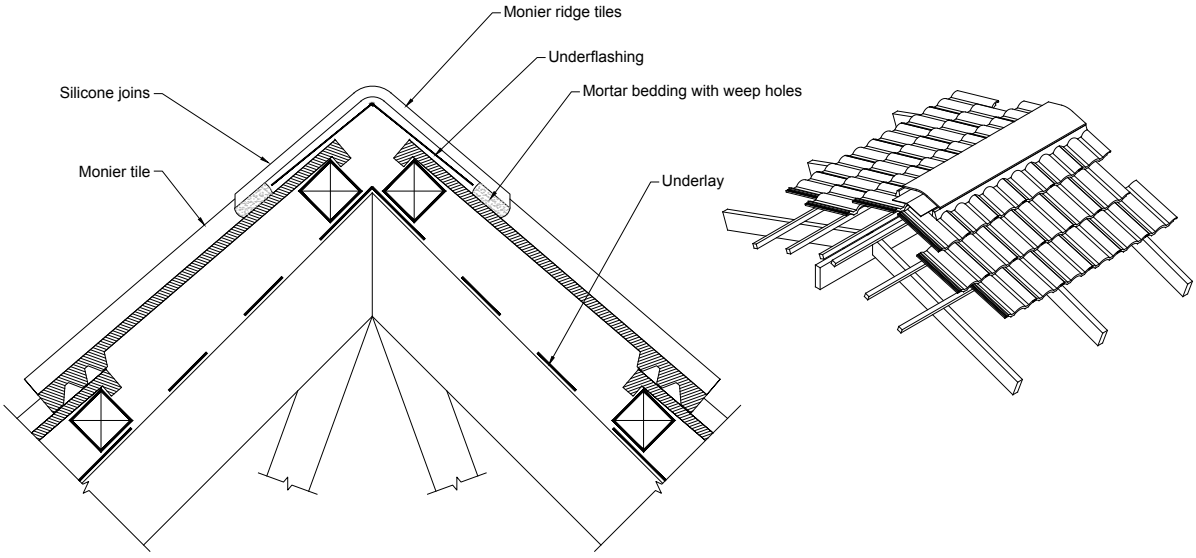
B13 ROOF/WALL RIDGE – DETAIL CLERESTORY



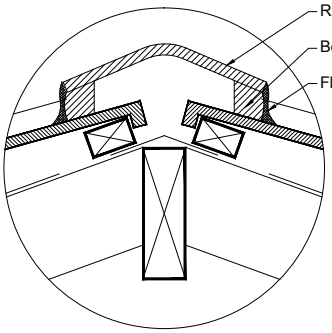
MTØ2 STEEP PITCHED RIDGE



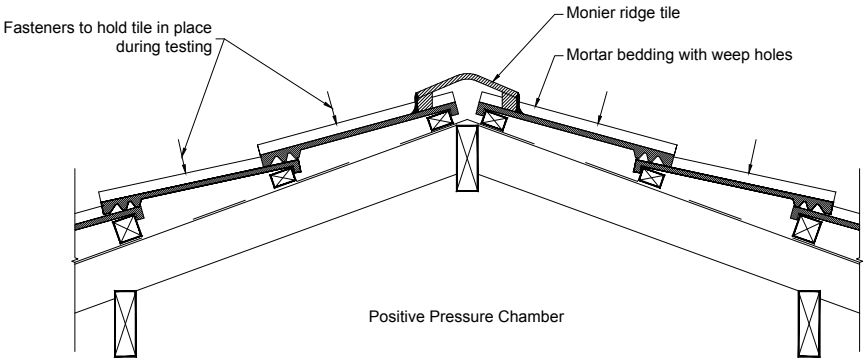
MTØ3 BUTT JOINTED RIDGE



MTØ4 FLEXIBLE POINTING

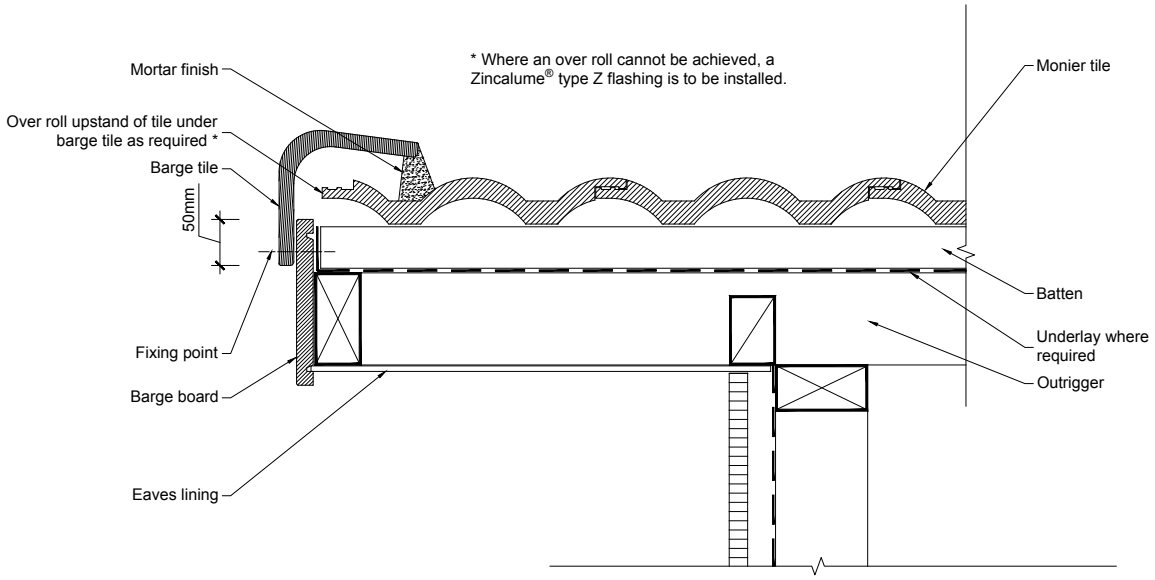


Note:
When mechanical fixing is not used - flexible pointing is required at all times

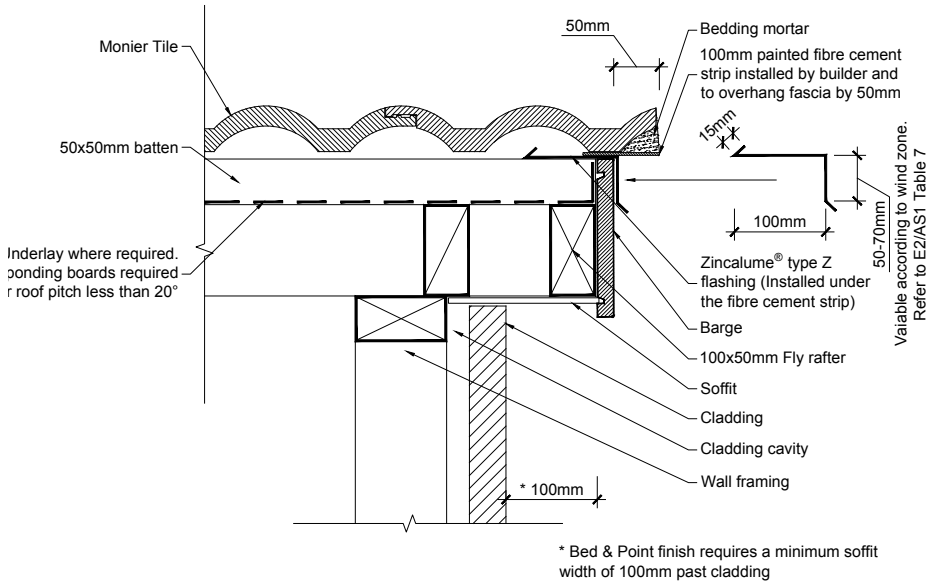


BARGE DETAILS

BØ5 BARGE TILE DETAIL

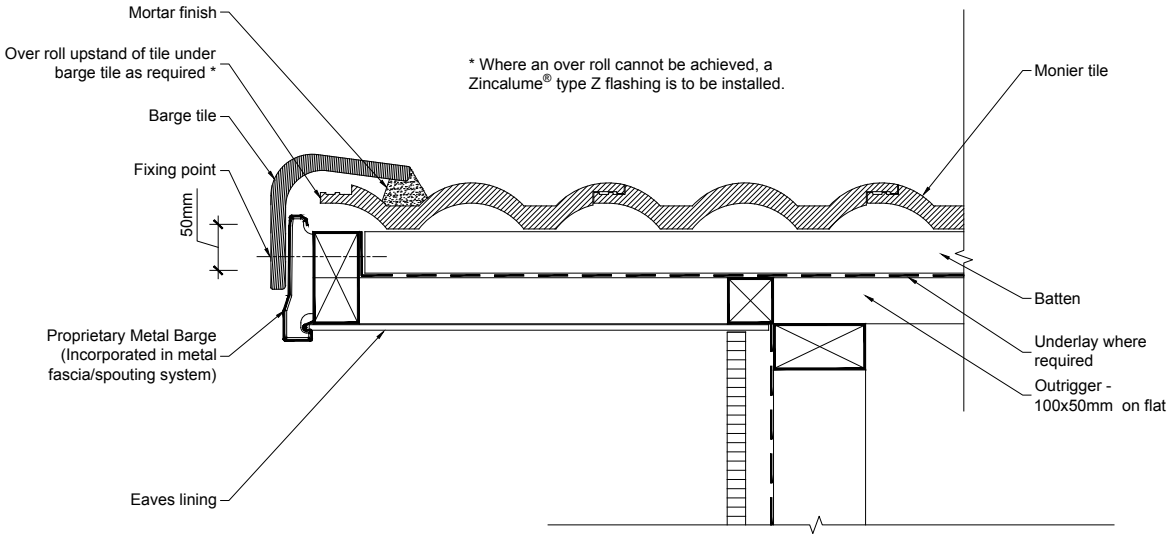


BØ6 BED & POINT FINISH

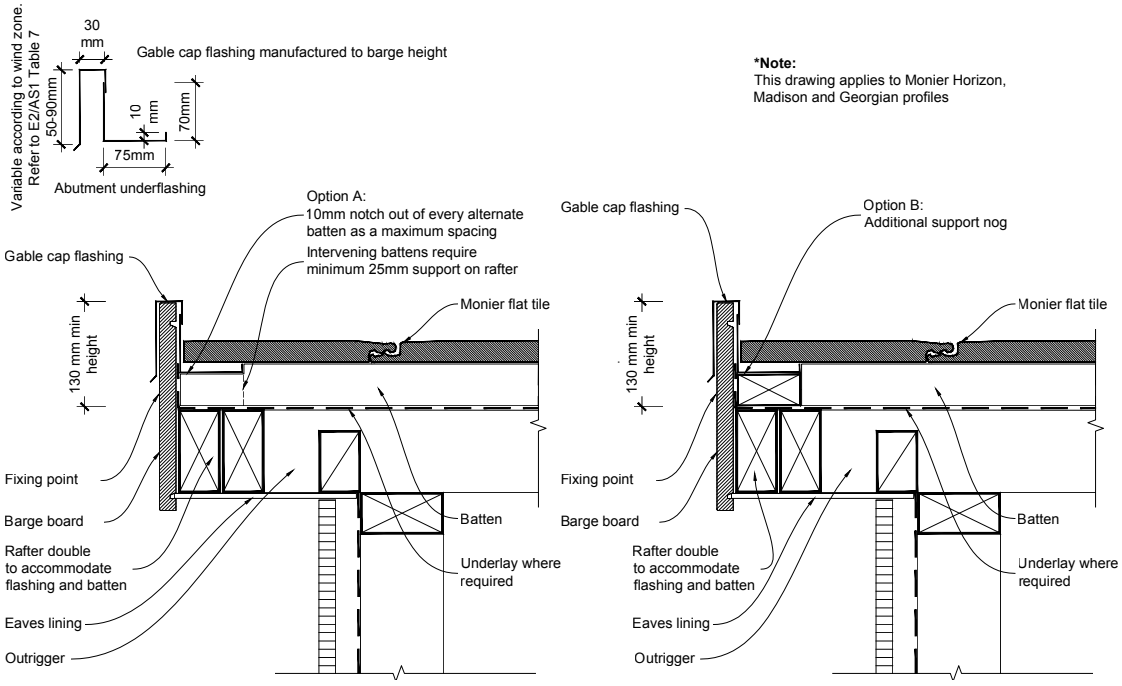


* Bed & Point finish requires a minimum soffit width of 100mm past cladding

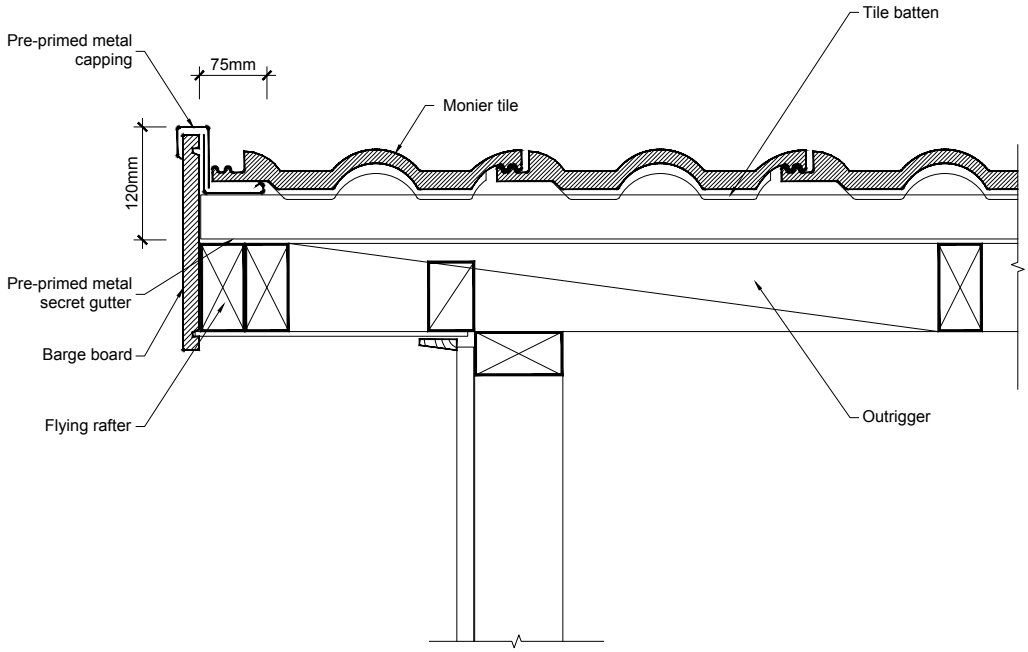
BØ7 SMALL PANEL METAL DETAIL



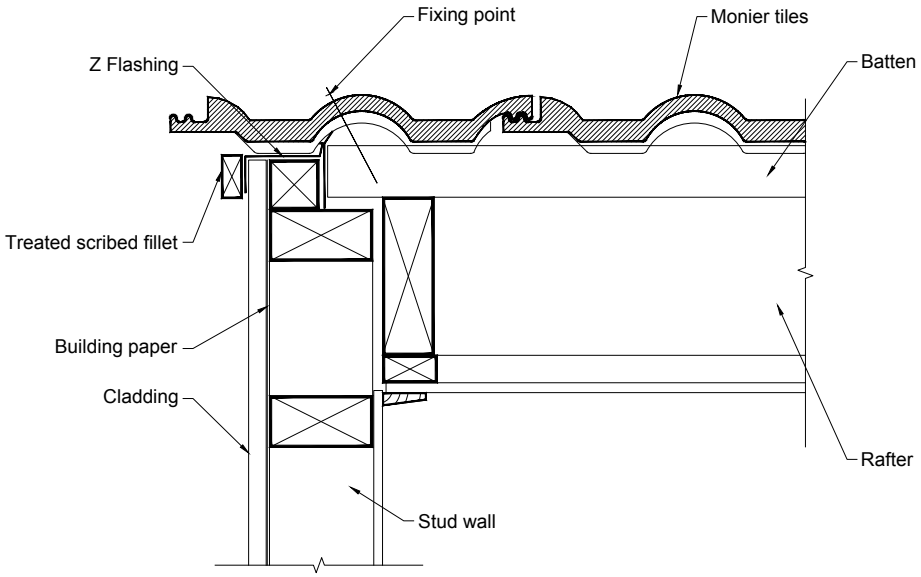
MTØ5 BARGE DETAIL WITH SECRET GUTTER – FLAT TILE



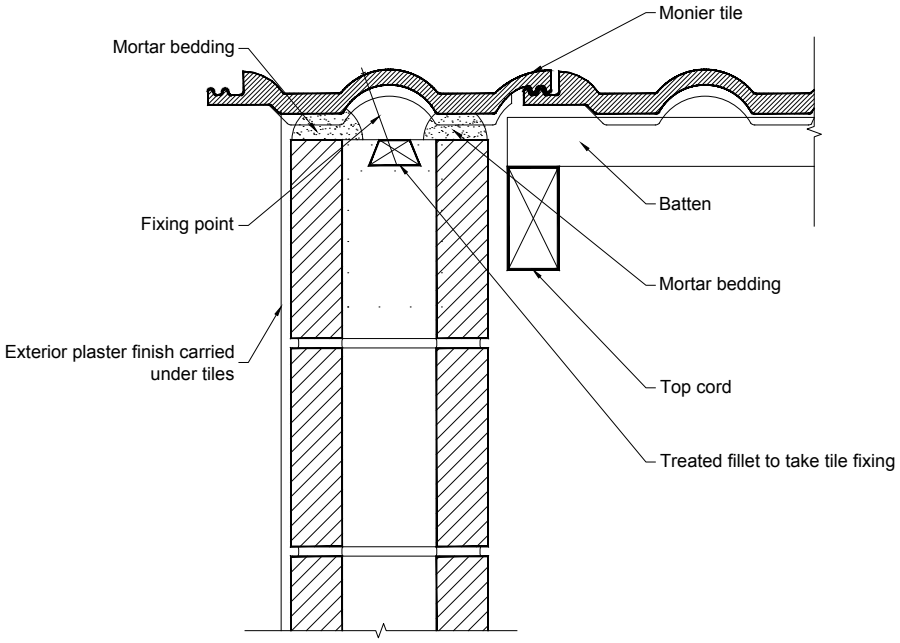
MTØ6 VERGE – SECRET GUTTER



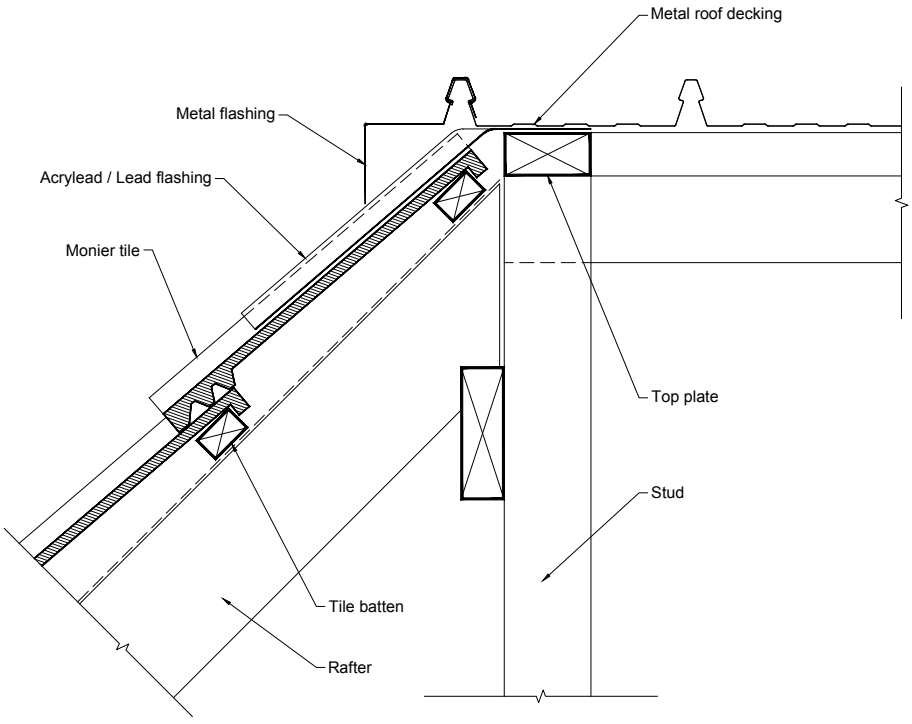
MTØ7 VERGE – NO OVERHANG SCRIBED FILLET



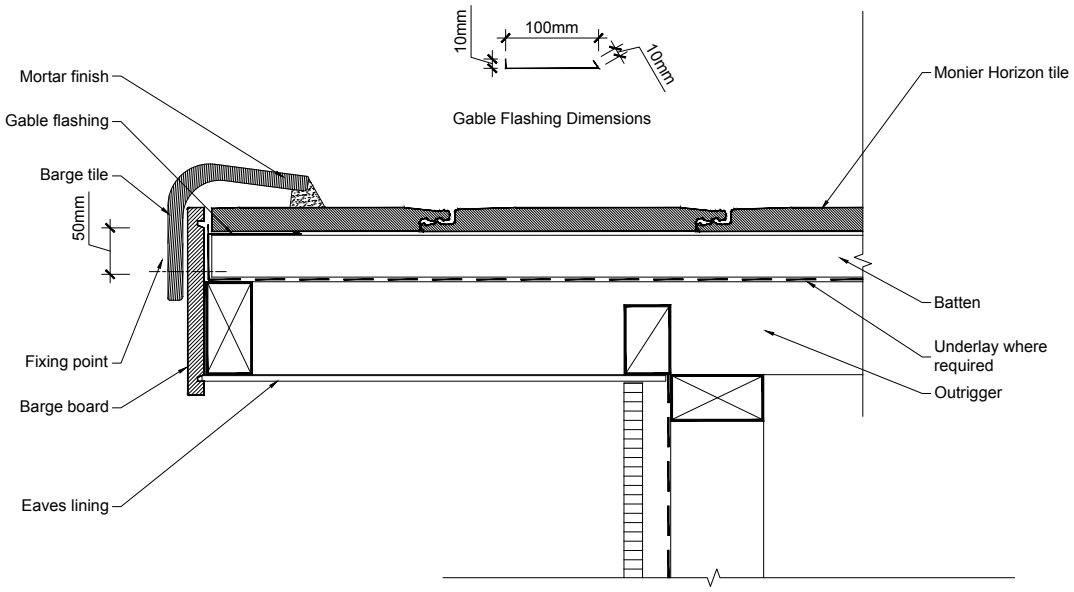
MTØ8 VERGE – NO OVERHANG CONCRETE BLOCK



MTØ9 FLASHING AT JUNCTION OF METAL ROOF & TILE

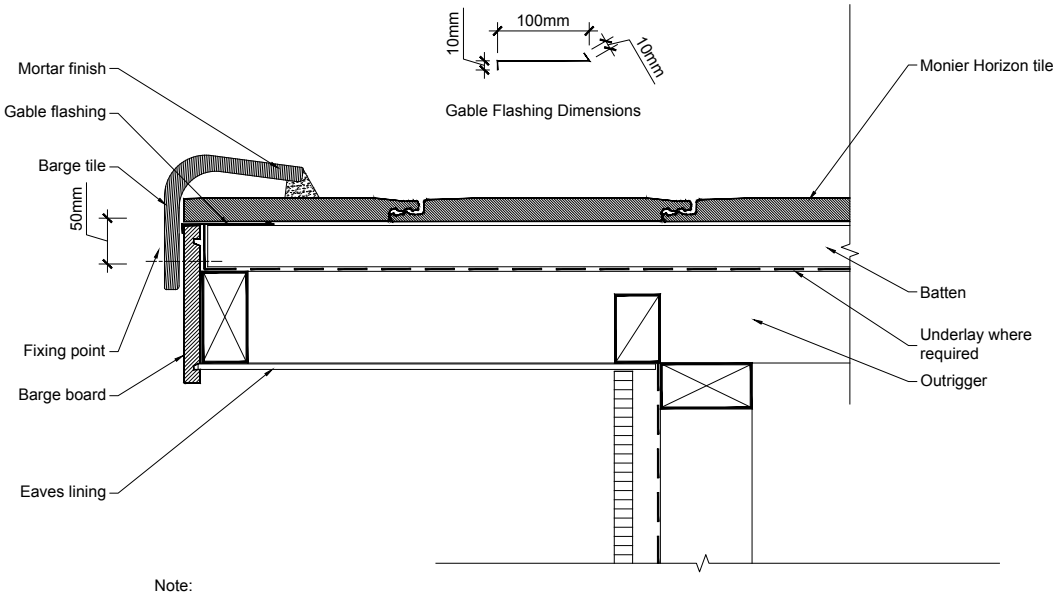


MT11 BARGE DETAIL WITH Z FLASHING – FLAT TILE



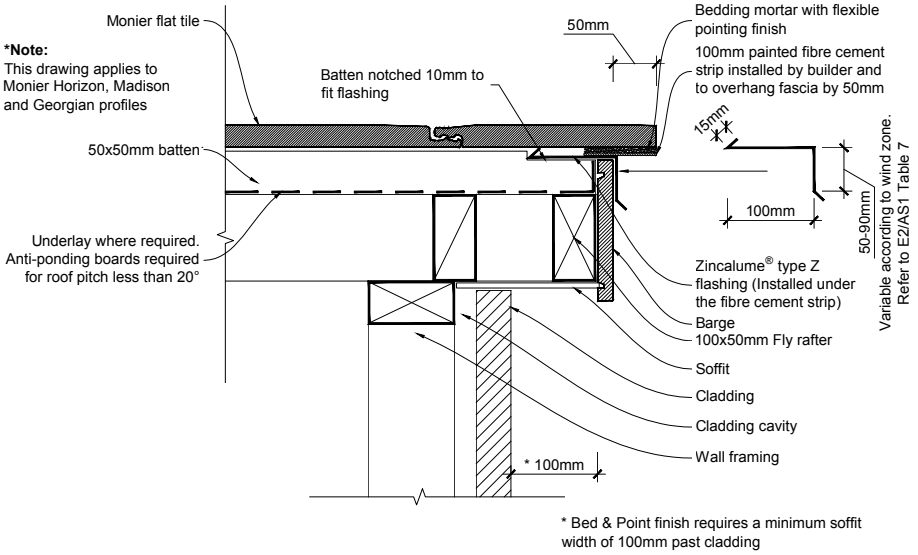
Note:
Use this detail when barge board is above batten

MT12 BARGE DETAIL WITH BANBURY FLASHING – FLAT TILE



Note:
Use this flashing when barge board is flush with batten

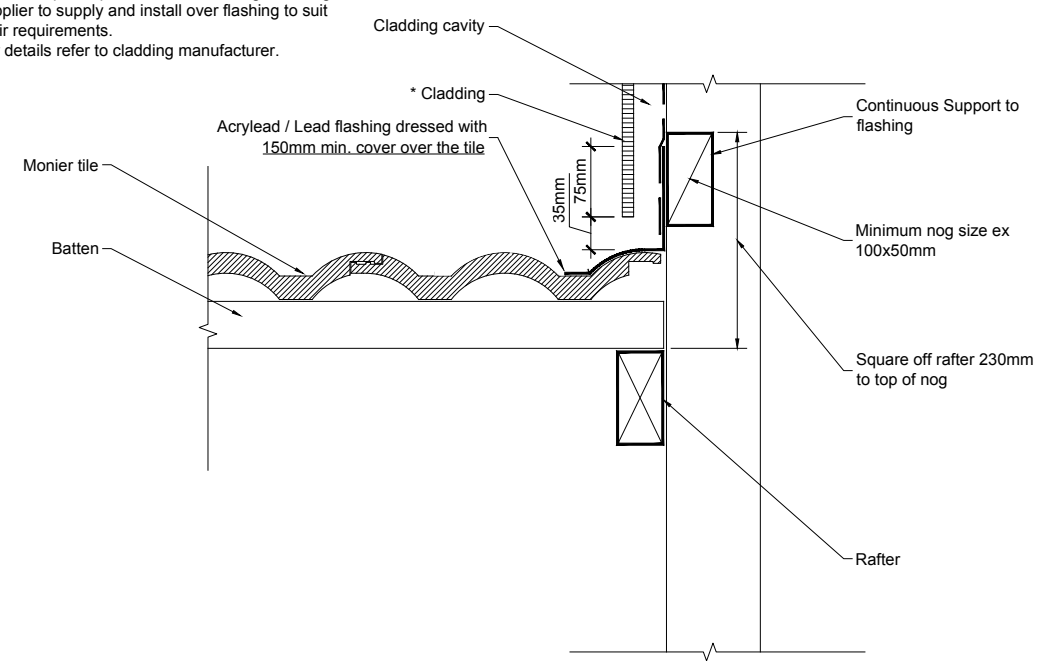
B3Ø BED & POINT FINISH – FLAT TILE



APRON DETAILS

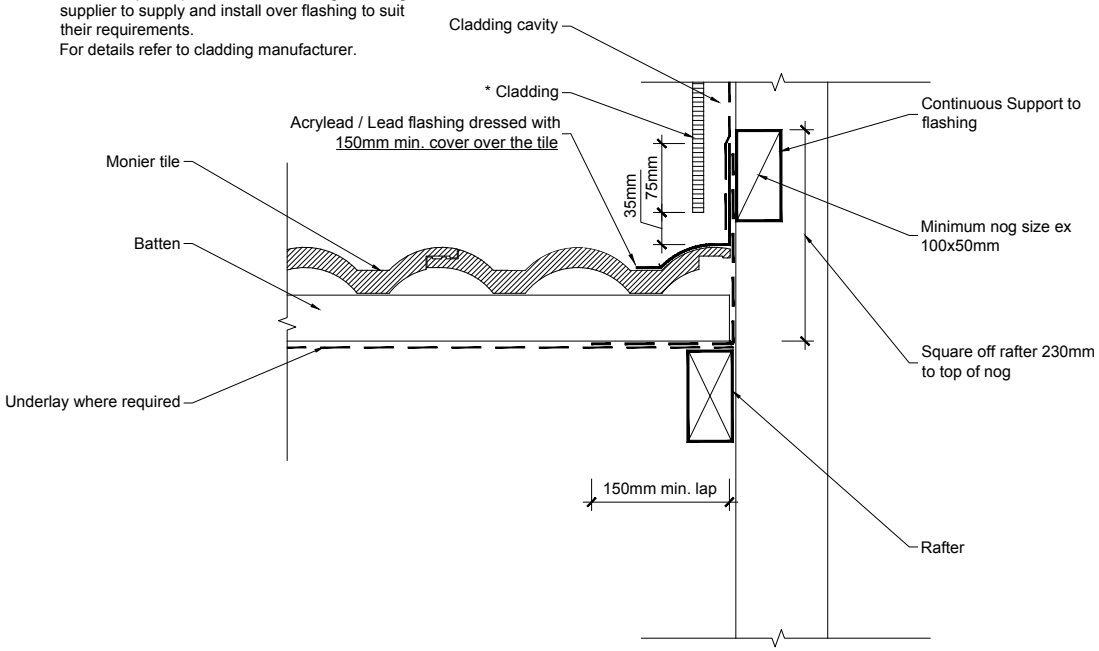
BØ1 APRON DETAILS - PARALLEL FLASHING NO UNDERLAY

* Where cladding manufacturer requires more than 75mm of apron upstand under cladding, cladding supplier to supply and install over flashing to suit their requirements.
For details refer to cladding manufacturer.

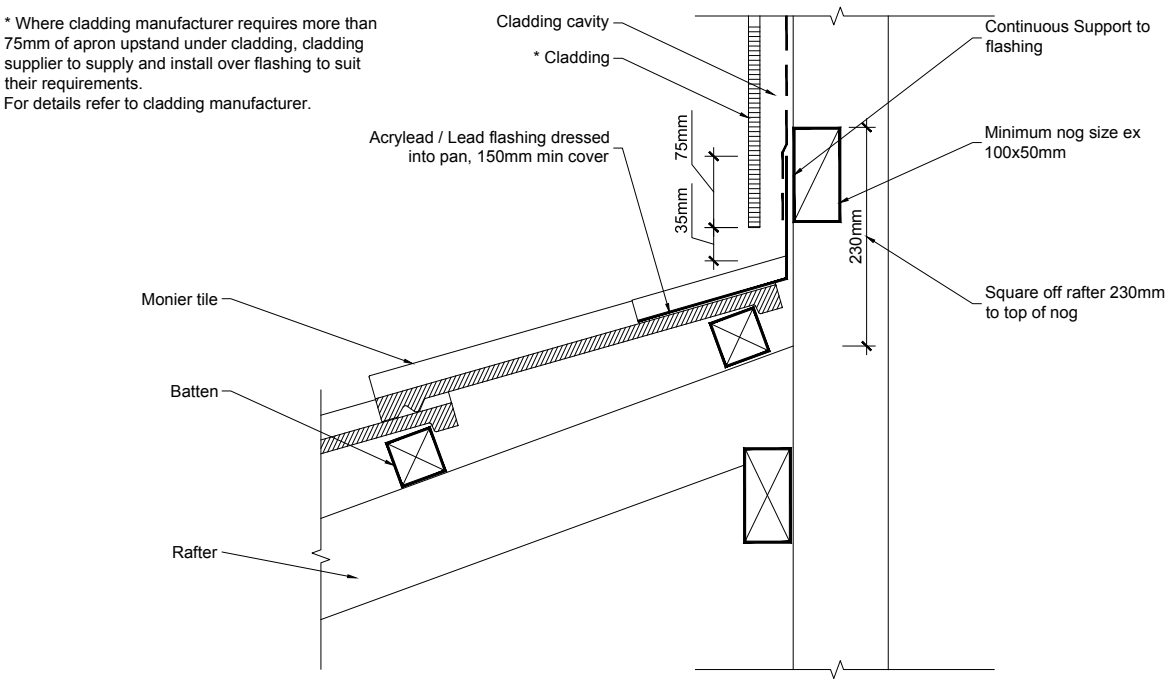


BØ2 APRON DETAILS - PARALLEL FLASHING WITH UNDERLAY

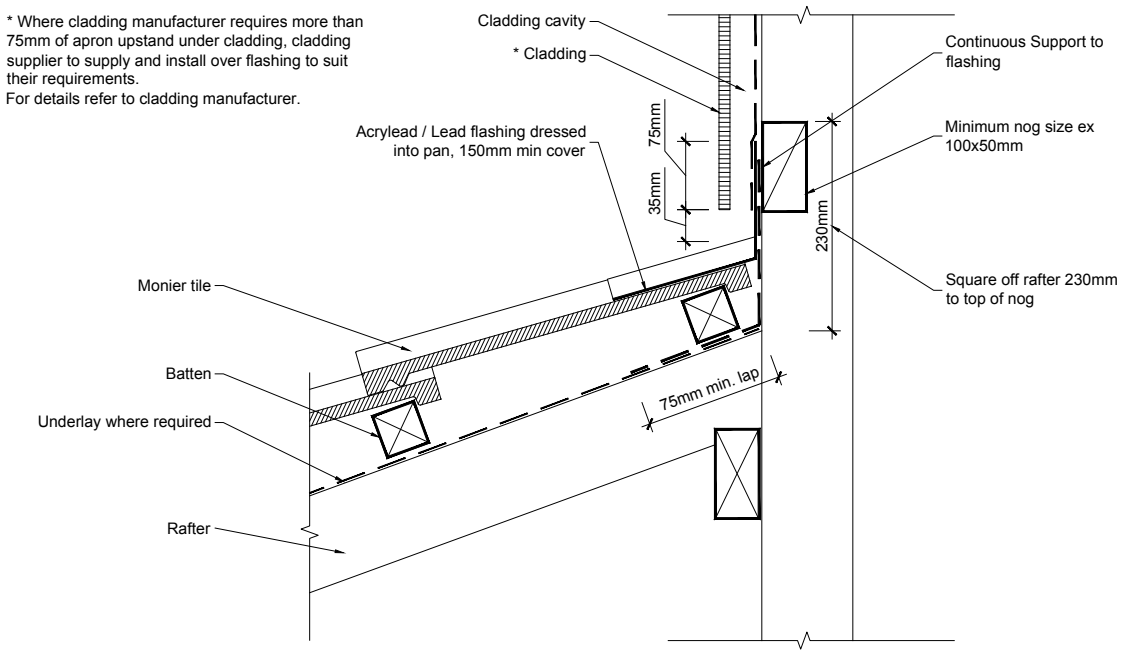
* Where cladding manufacturer requires more than 75mm of apron upstand under cladding, cladding supplier to supply and install over flashing to suit their requirements.
For details refer to cladding manufacturer.



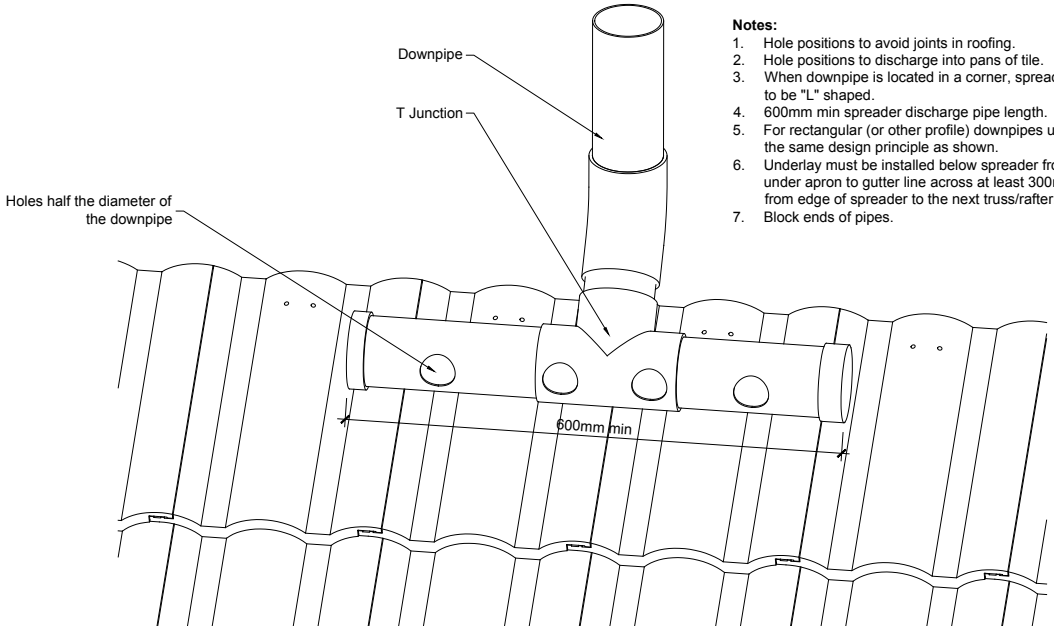
BØ3 APRON DETAILS – TRANSVERSE FLASHING WITHOUT UNDERLAY



BØ4 APRON DETAILS – TRANSVERSE FLASHING WITH UNDERLAY



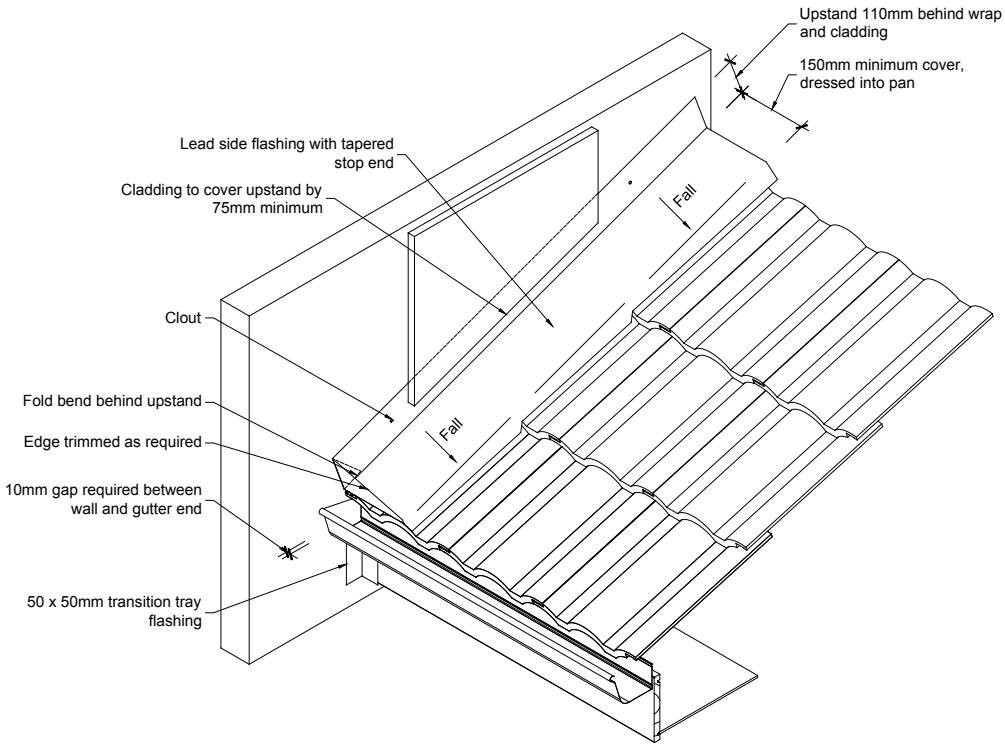
B25 SPREADER FOR ROOF DISCHARGE



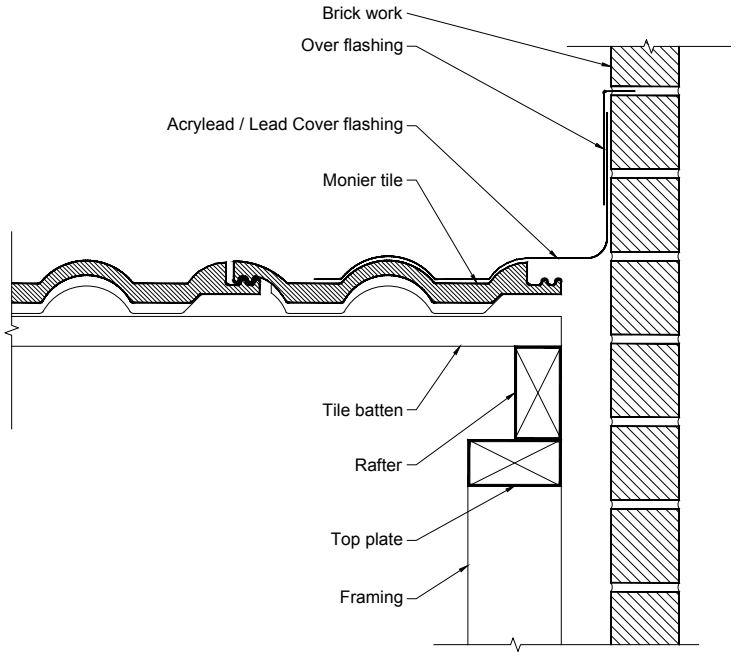
Notes:

1. Hole positions to avoid joints in roofing.
2. Hole positions to discharge into pans of tile.
3. When downpipe is located in a corner, spreader is to be "L" shaped.
4. 600mm min spreader discharge pipe length.
5. For rectangular (or other profile) downpipes use the same design principle as shown.
6. Underlay must be installed below spreader from under apron to gutter line across at least 300mm from edge of spreader to the next truss/rafter.
7. Block ends of pipes.

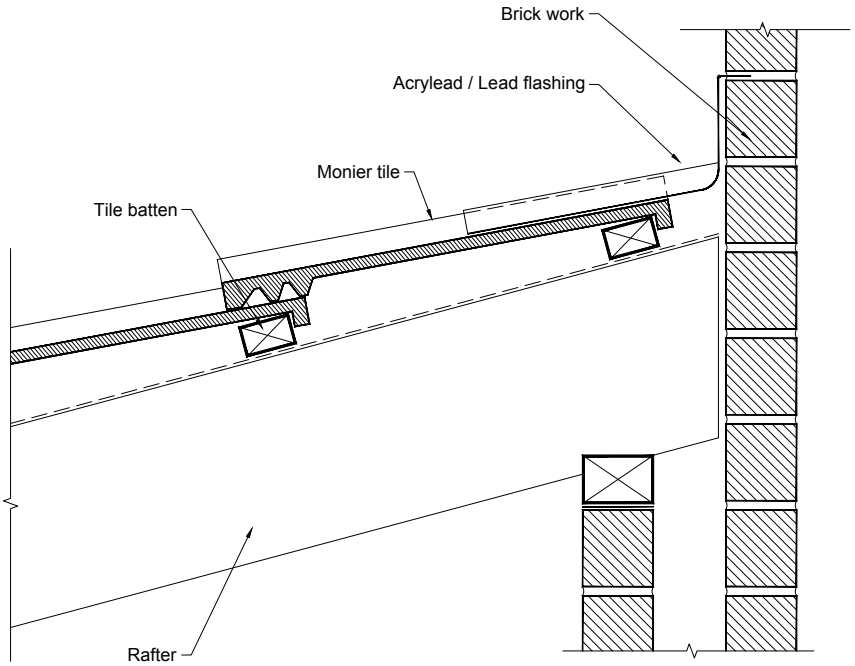
B29 KICKOUT FLASHING



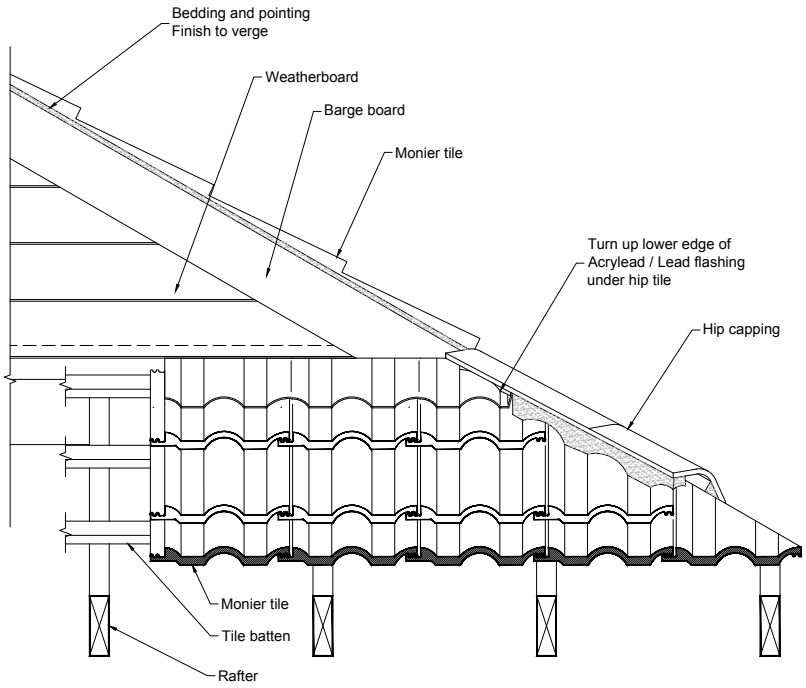
MT13 STEPPED COVER FLASHING



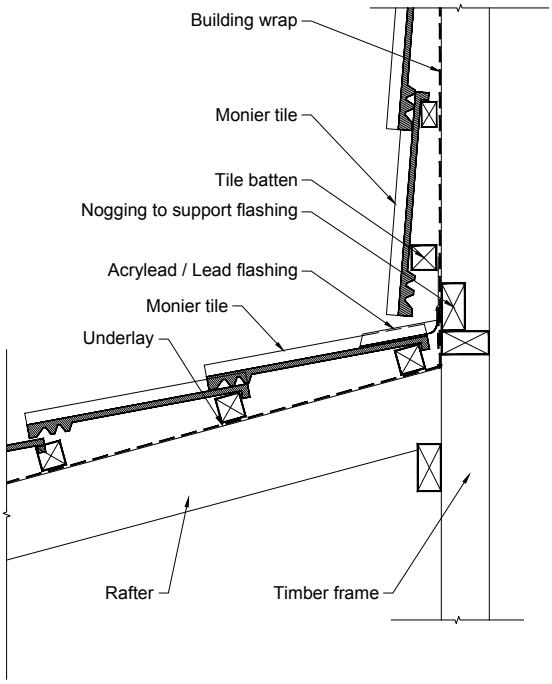
MT14 FLASHING TO BRICK ABUTMENT



MT15 DUTCH GABLE DETAIL

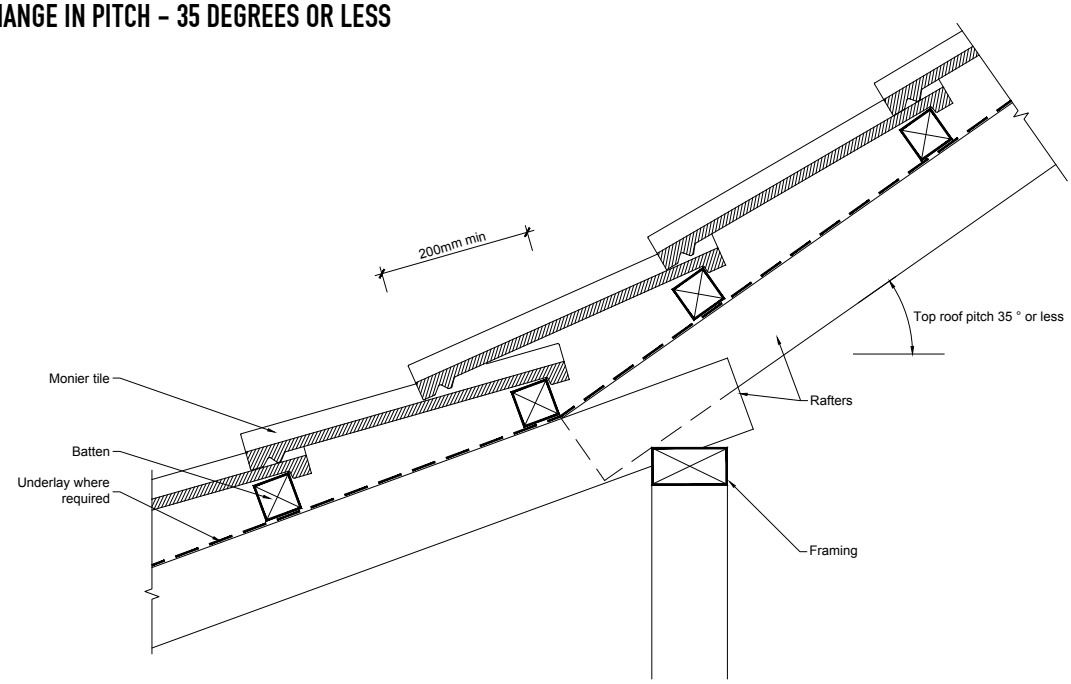


MT16 VERTICAL TILING

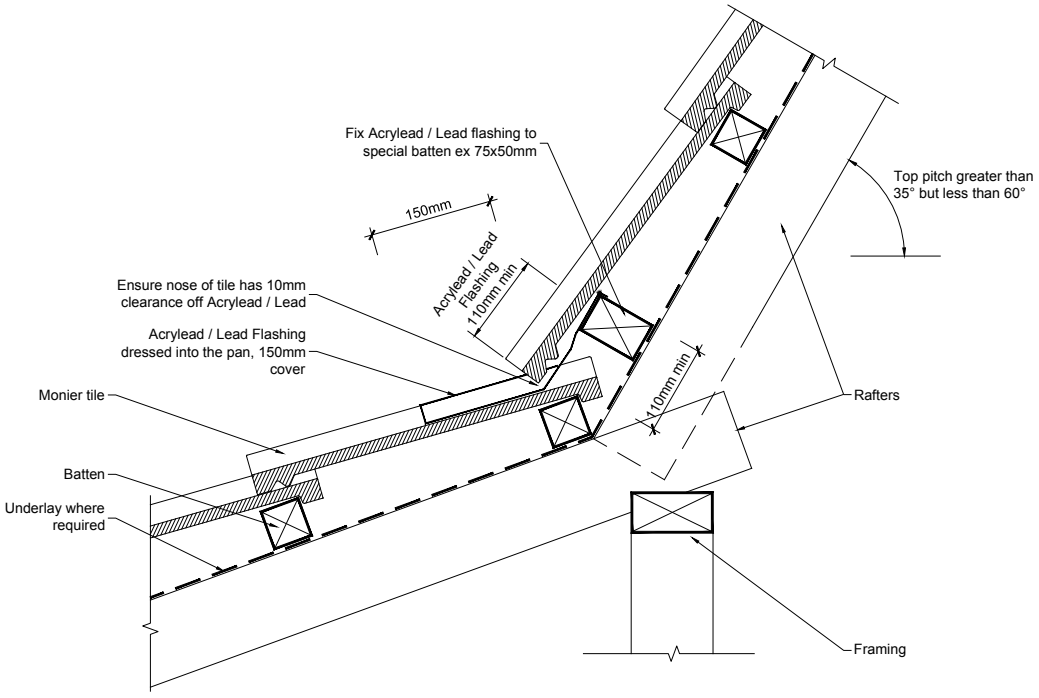


PITCH CHANGE DETAILS

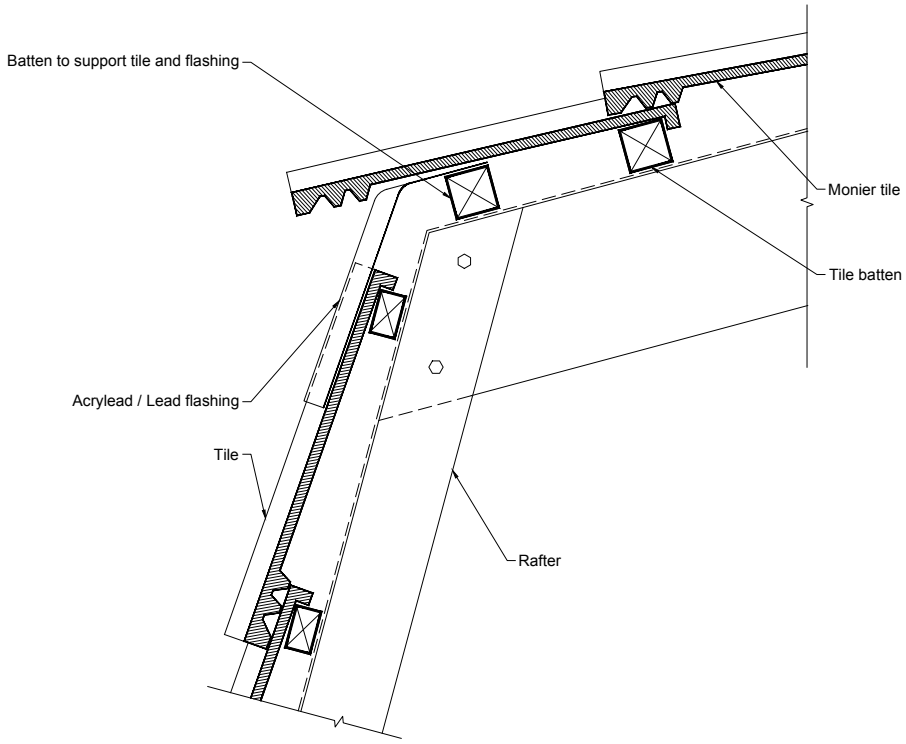
BØ8 CHANGE IN PITCH - 35 DEGREES OR LESS



BØ9 CHANGE IN PITCH - GREATER THAN 35 DEGREES

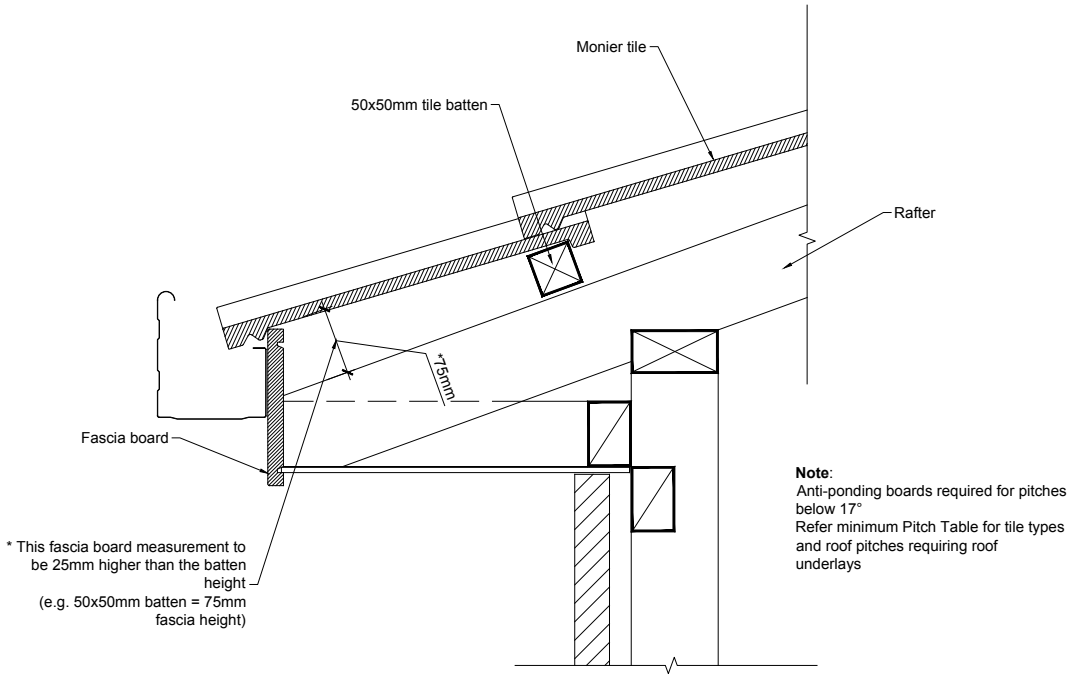


MT1Ø MANSARD DETAIL

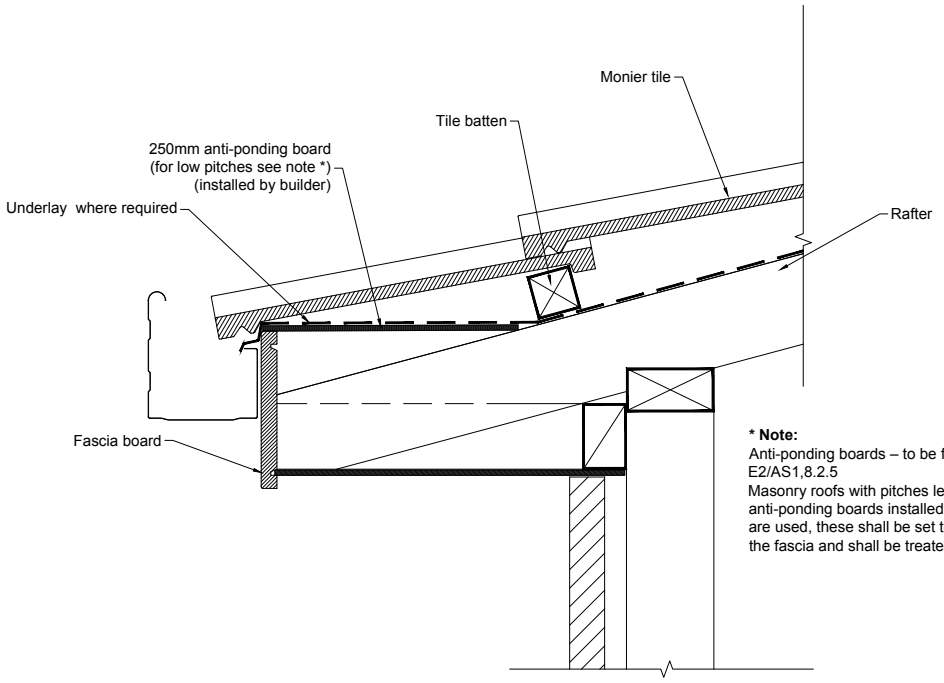


EAVES DETAILS

B19 TIMBER FASCIA EAVES DETAIL – WITHOUT UNDERLAY

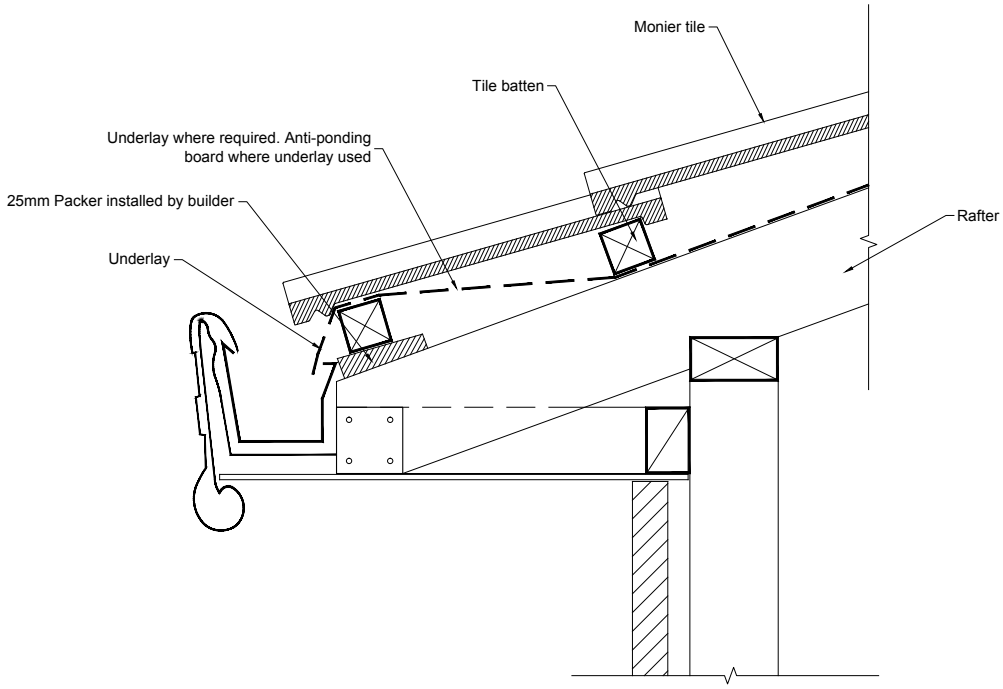


B2Ø TIMBER FASCIA EAVES DETAIL – WITH UNDERLAY

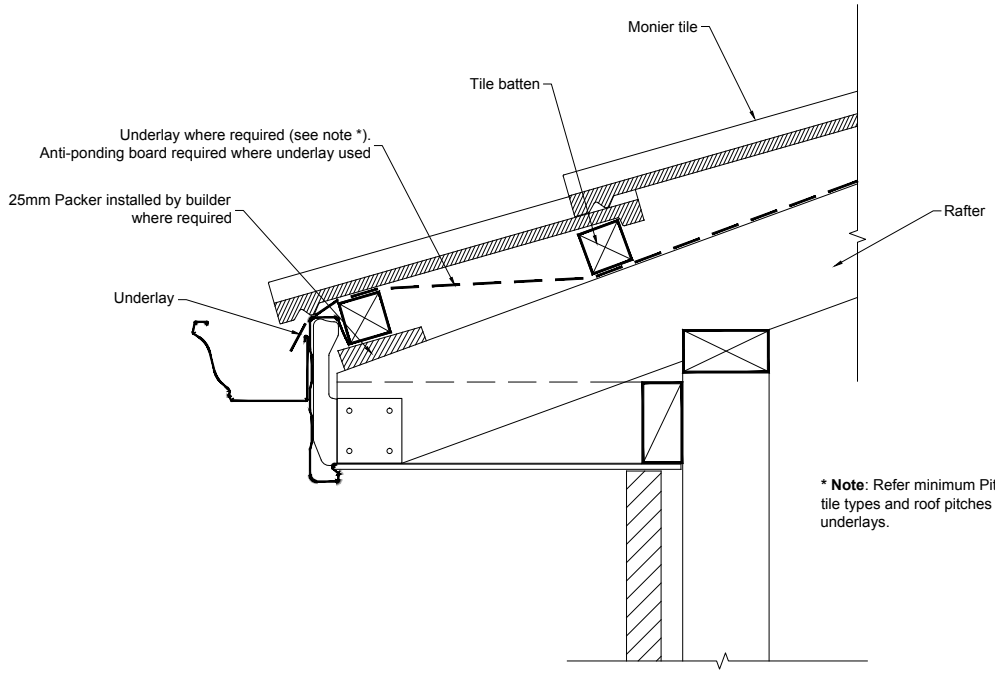


*** Note:**
Anti-ponding boards – to be fitted in accordance with E2/AS1,8.2.5
Masonry roofs with pitches less than 17° shall have anti-ponding boards installed. Where anti-ponding boards are used, these shall be set to a minimum fall of 5° towards the fascia and shall be treated in accordance with NZS 3602.

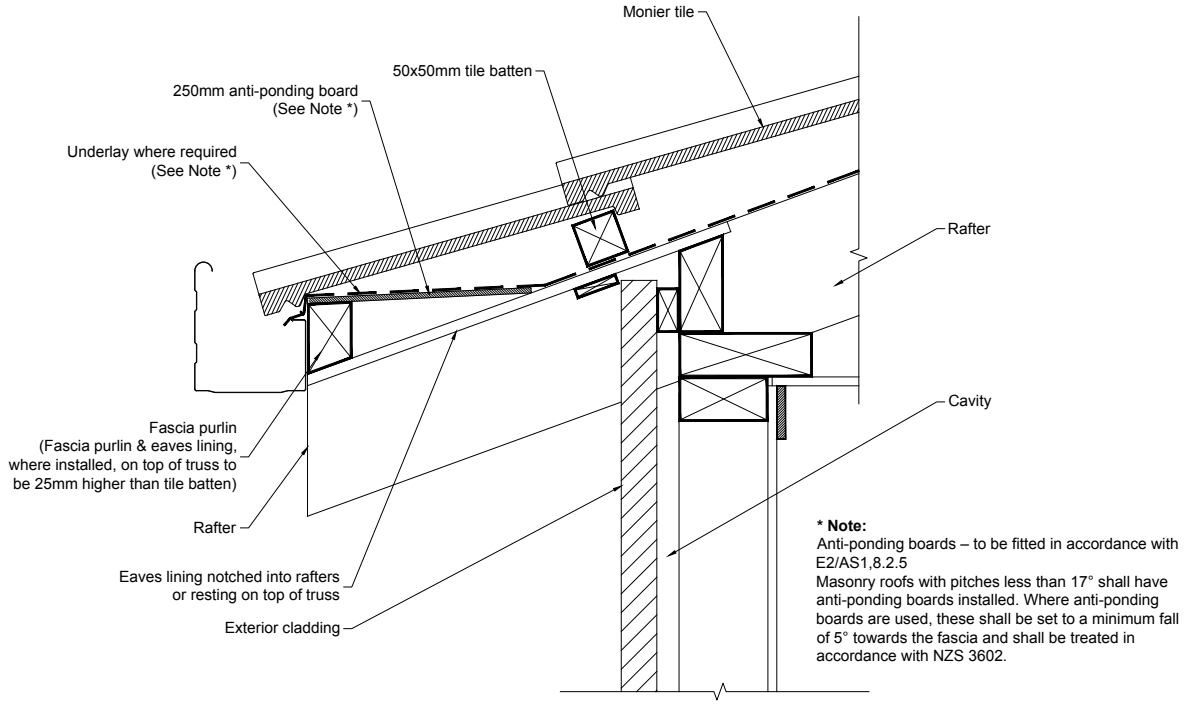
B21 – INTERNAL FASCIA GUTTER DETAIL



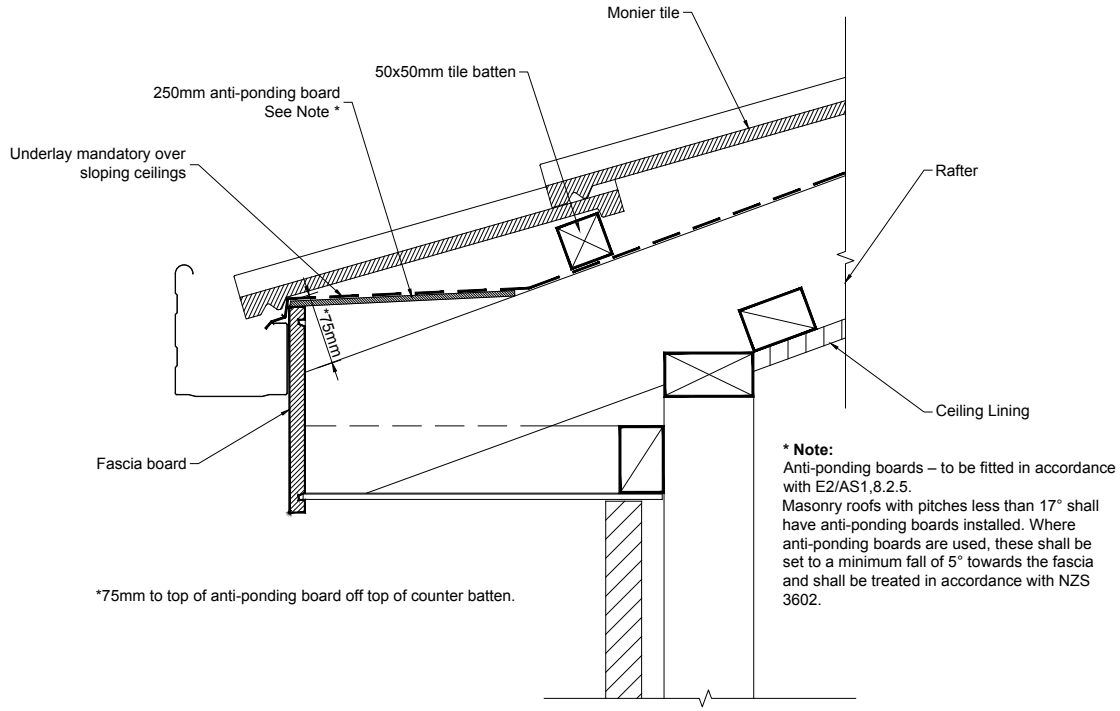
B22 EXTERNAL FASCIA GUTTER DETAIL



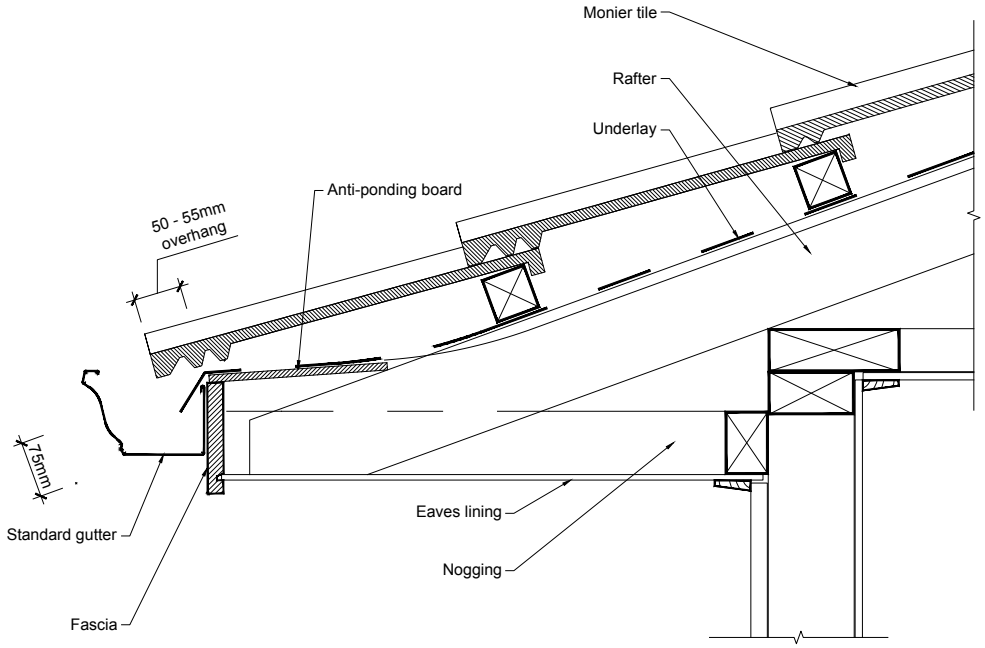
B23 EAVES EXPOSED RAFTERS



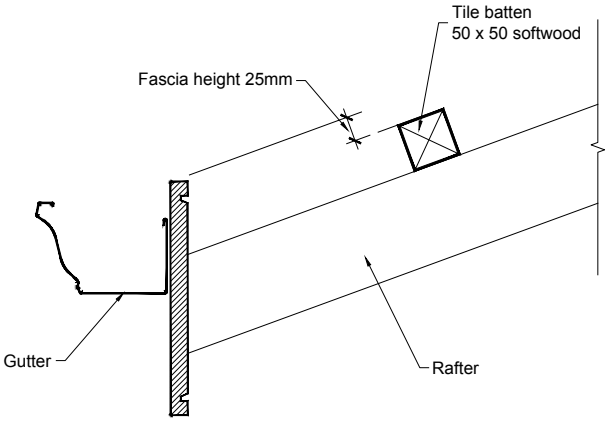
B24 EAVES & RAFTER DETAIL WITH SARKING



MT23 EAVES STANDARD GUTTER

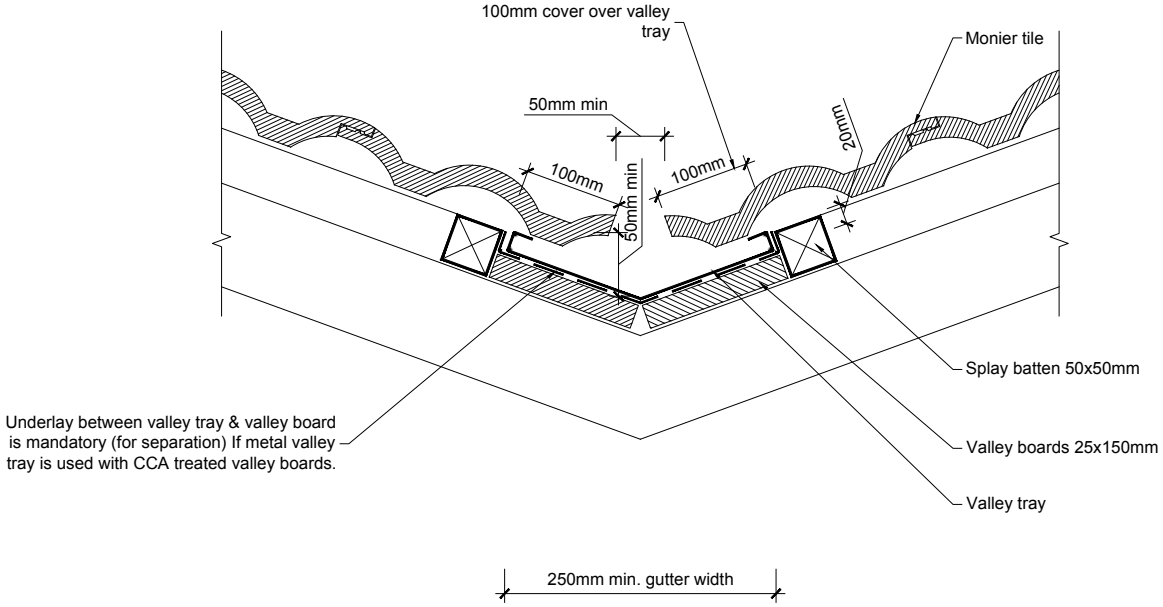


MT24 FASCIA HEIGHT

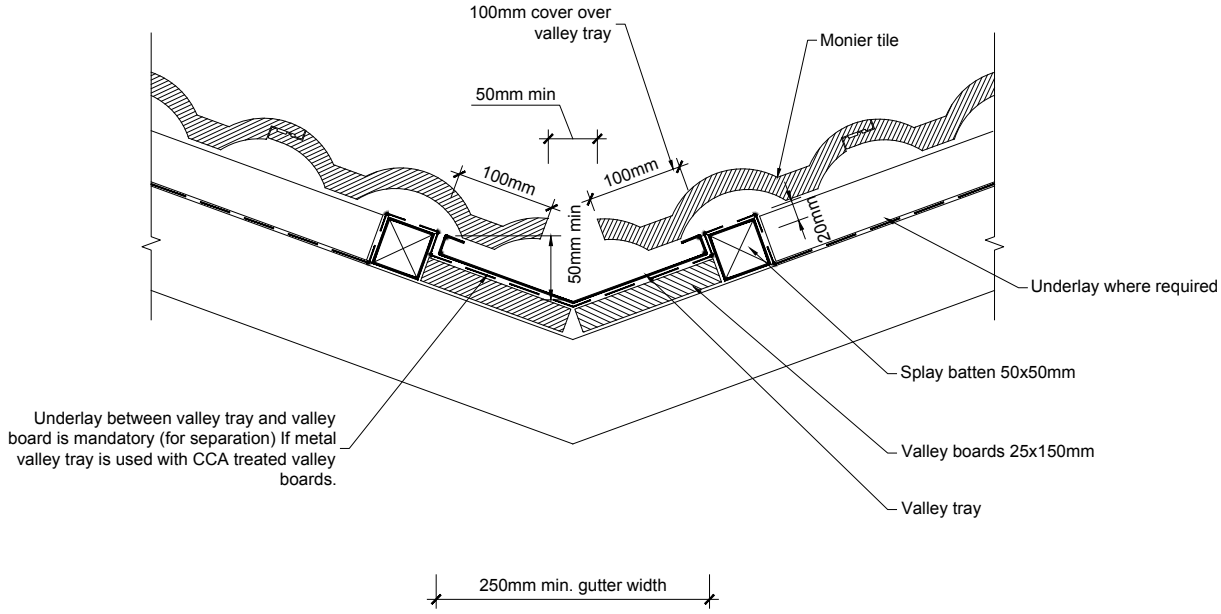


VALLEY DETAILS

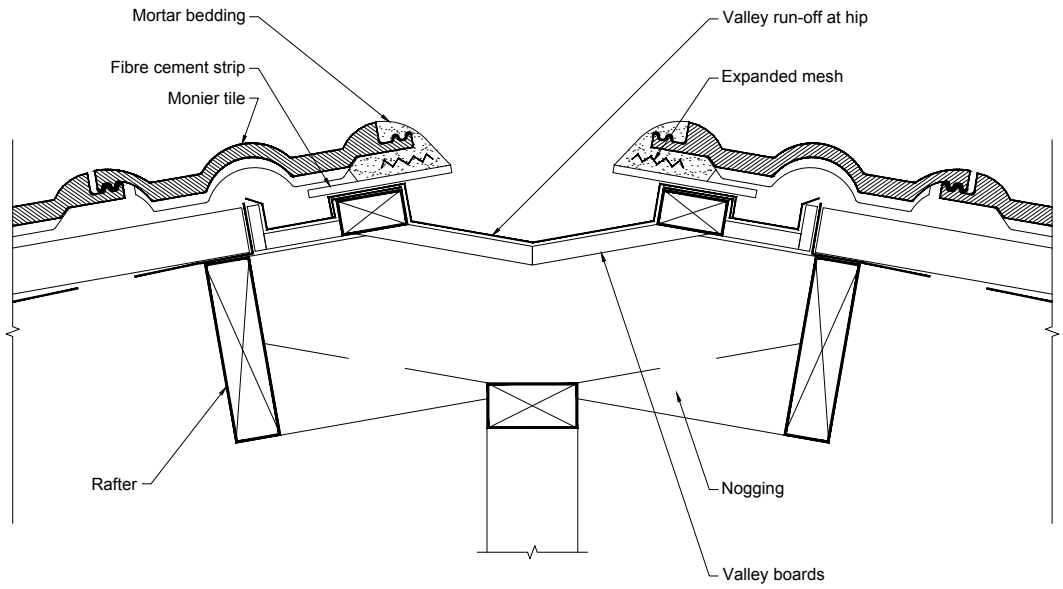
B10 VALLEY DETAIL WITHOUT UNDERLAY



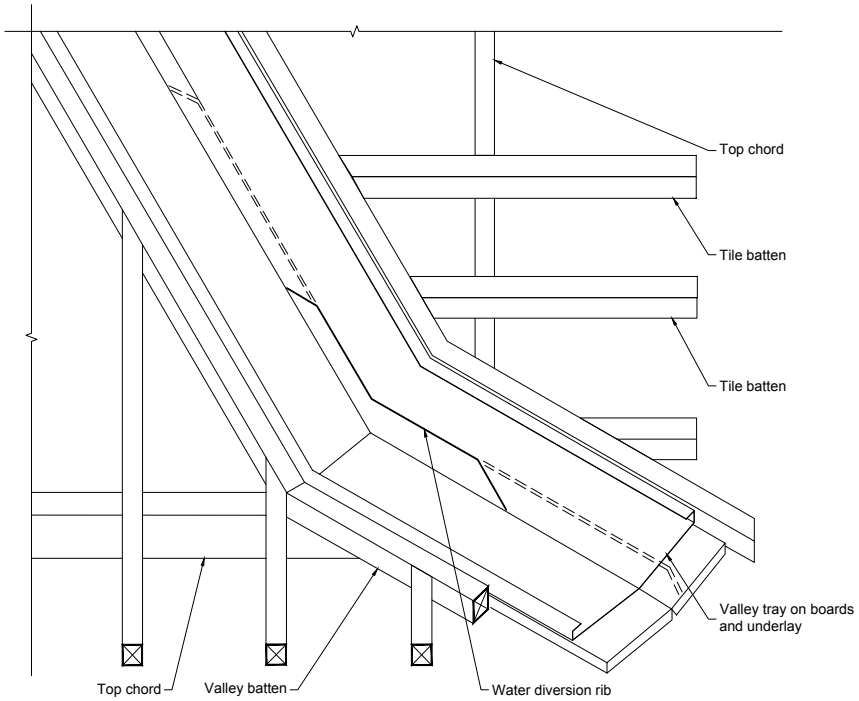
B11 VALLEY DETAIL WITH UNDERLAY



MT21 HIP GUTTER

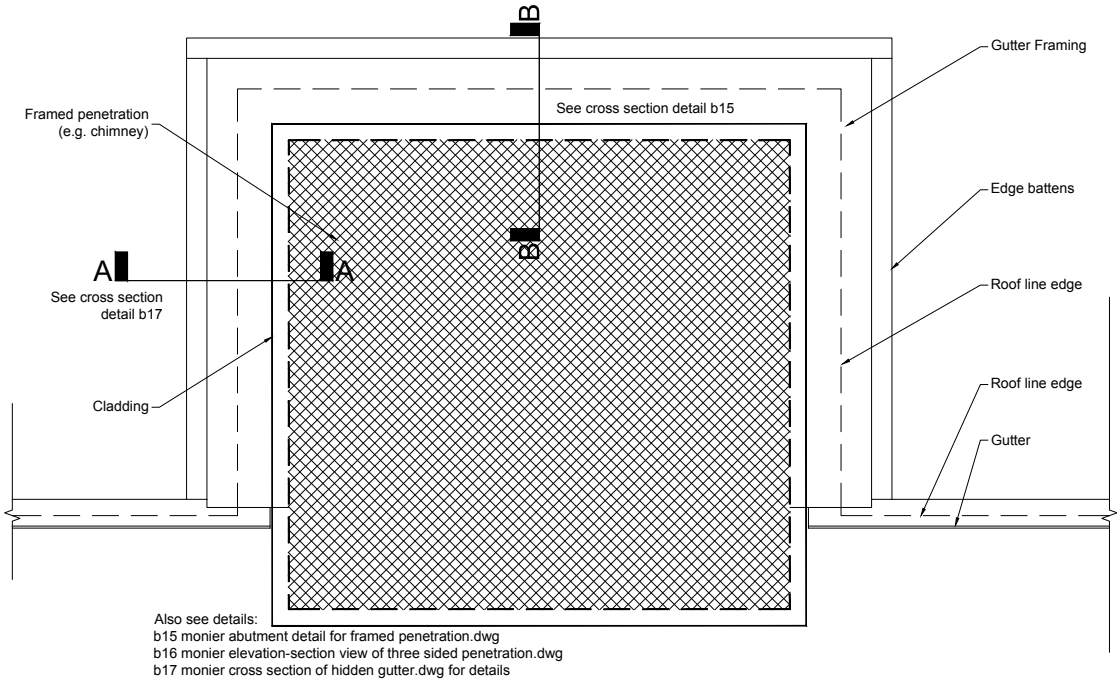


MT22 STEEP PITCH ROOF VALLEY



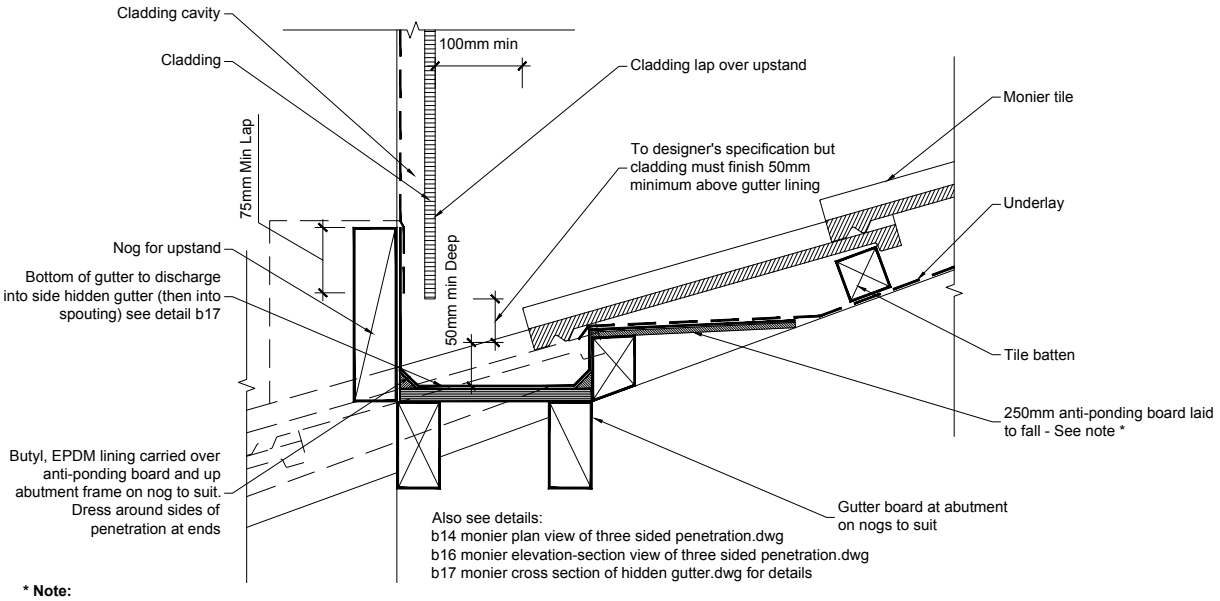
PENETRATION DETAILS

B14 PLAN VIEW OF THREE SIDED PENETRATION



Also see details:
b15 monier abutment detail for framed penetration.dwg
b16 monier elevation-section view of three sided penetration.dwg
b17 monier cross section of hidden gutter.dwg for details

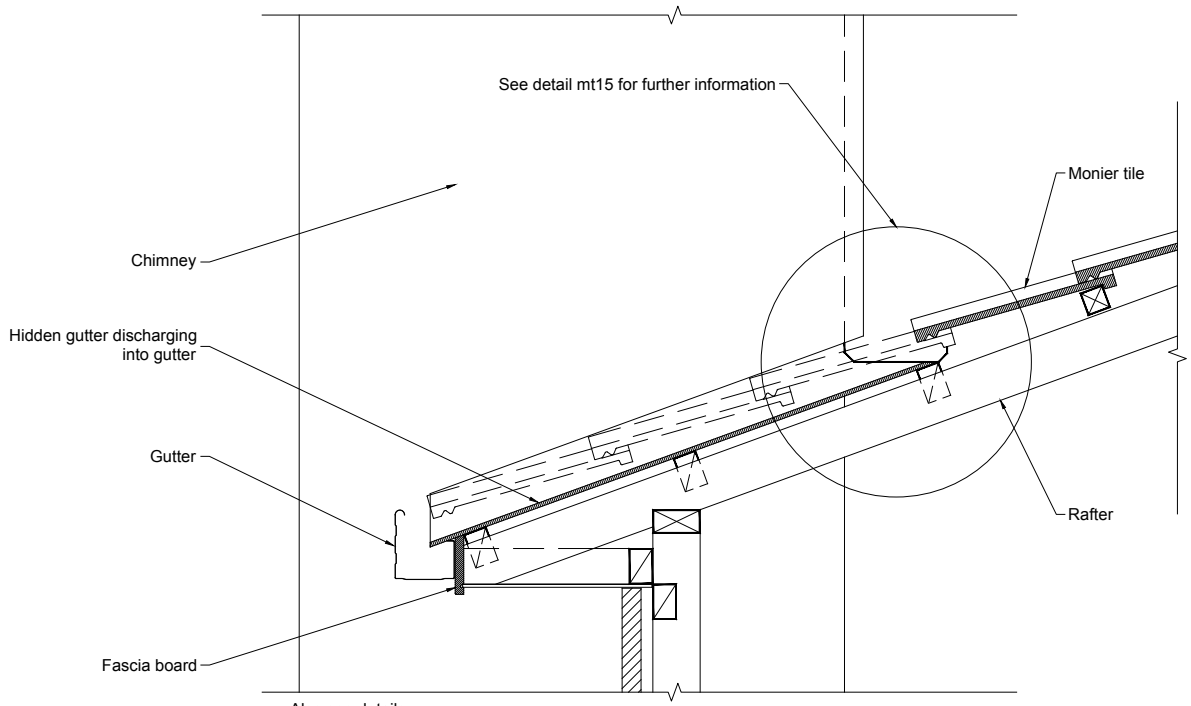
B15 ABUTMENT DETAIL FOR FRAMED PENETRATION



*** Note:**
Anti-ponding boards – to be fitted in accordance with E2/AS1,8.2.5
Masonry roofs with pitches less than 17° shall have anti-ponding boards installed. Where anti-ponding boards are used, these shall be set to a minimum fall of 5° towards the fascia and shall be treated in accordance with NZS 3602.

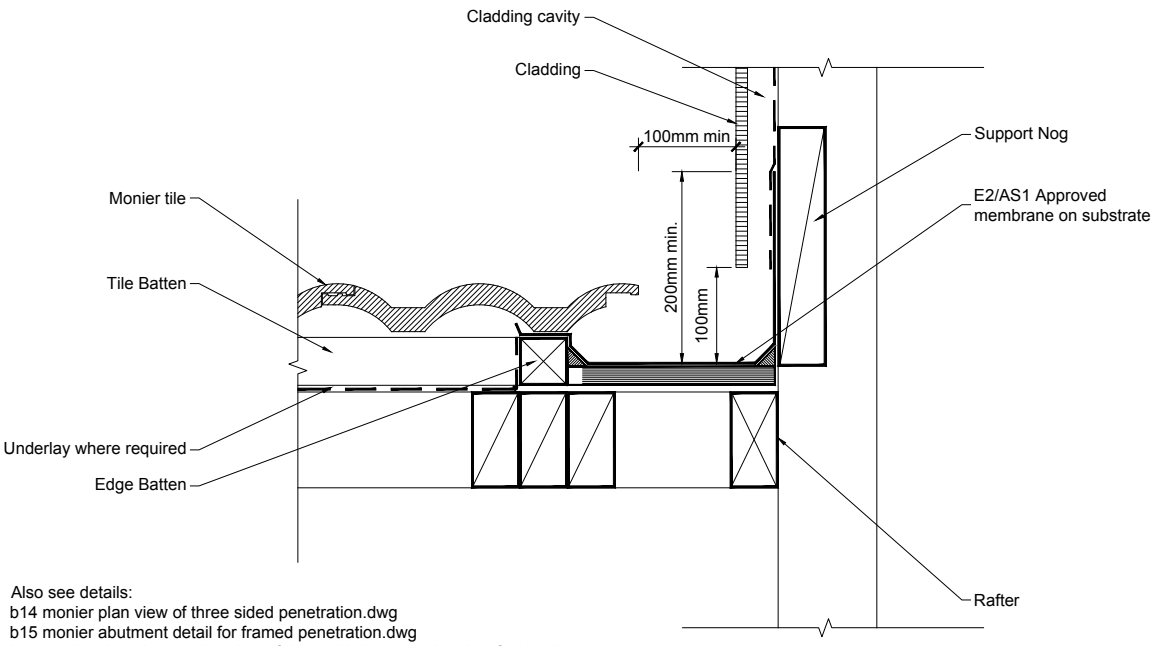
Cross Section BB
(from B14 Monier Plan View Of Three Sided Penetration)

B16 ELEVATION/SECTION VIEW OF THREE SIDED PENETRATION



Also see details:
b14 monier plan view of three sided penetration.dwg
b15 monier abutment detail for framed penetration.dwg
b17 monier cross section of hidden gutter.dwg for details

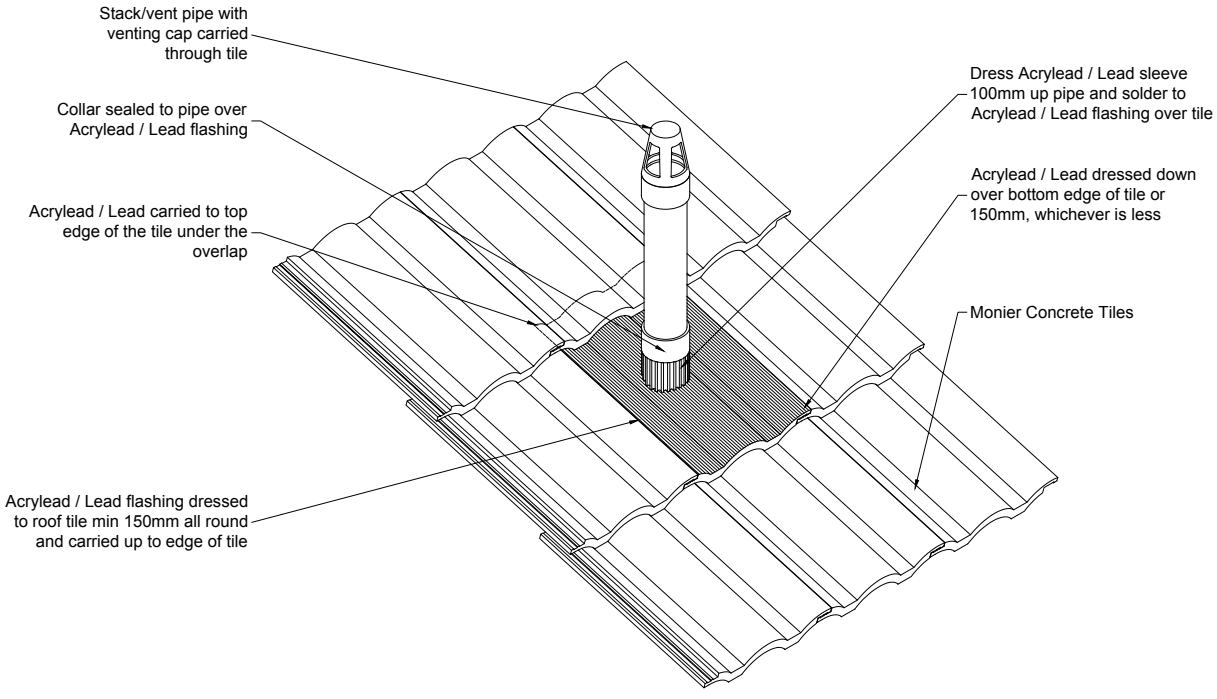
B17 CROSS SECTION OF HIDDEN GUTTER



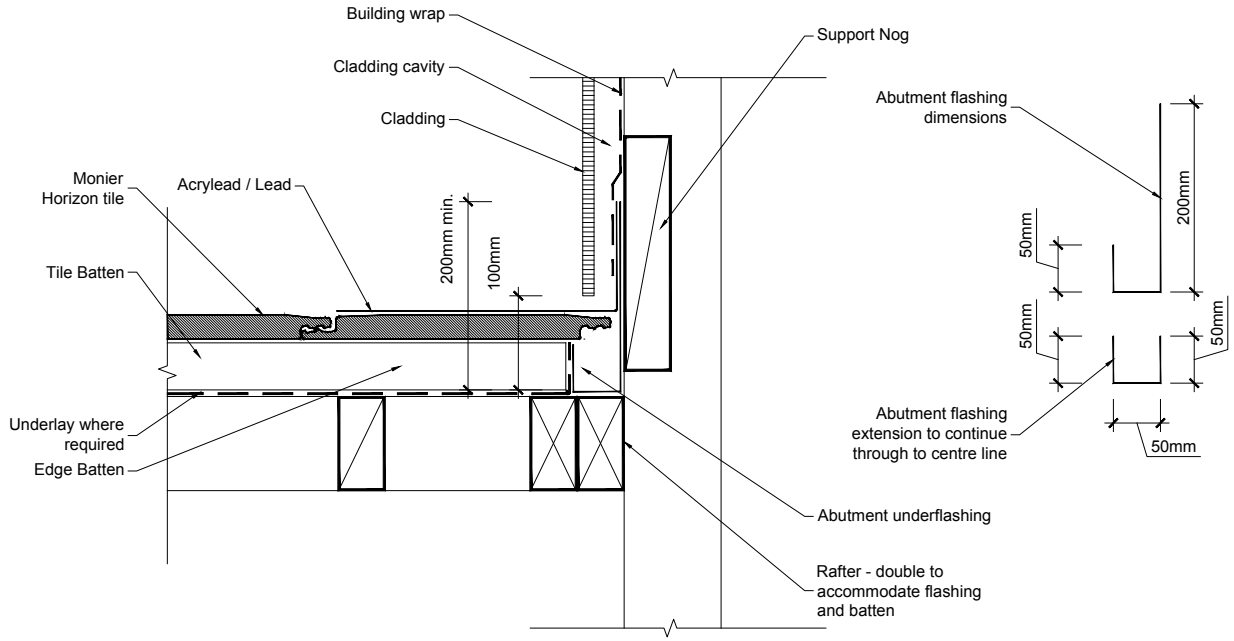
Also see details:
b14 monier plan view of three sided penetration.dwg
b15 monier abutment detail for framed penetration.dwg
b16 monier elevation-section view of three sided penetration.dwg for details

Cross Section A-A
(from b14 Monier Plan View Of Three Sided Penetration)

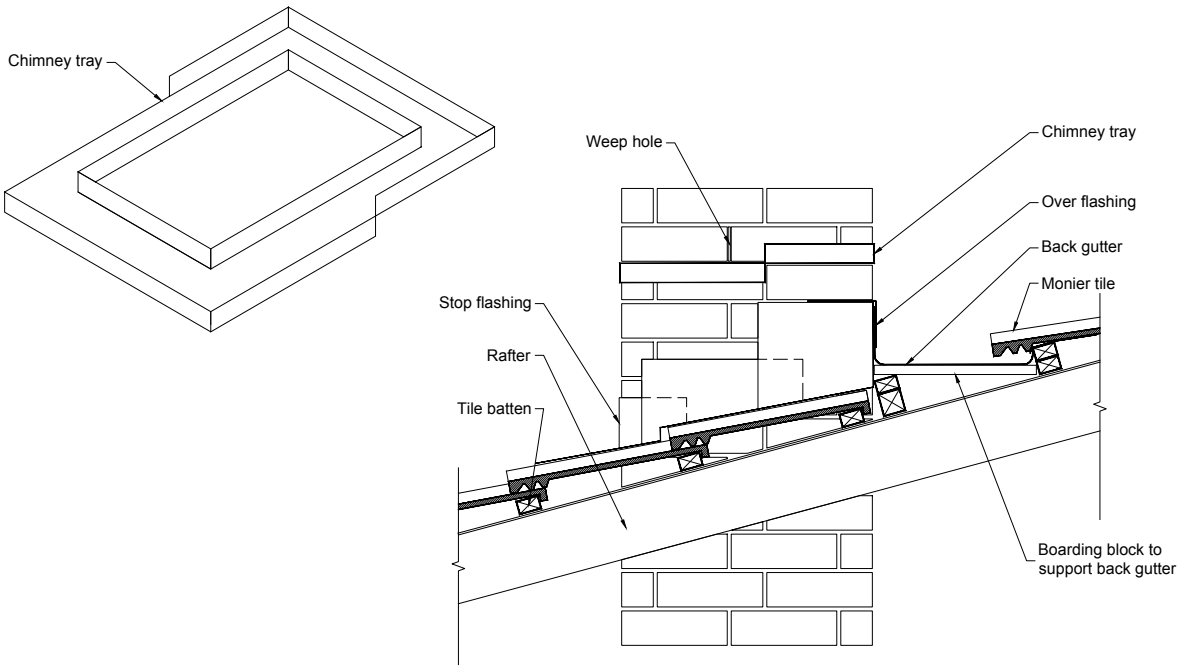
B18 PIPE PENETRATION DETAIL



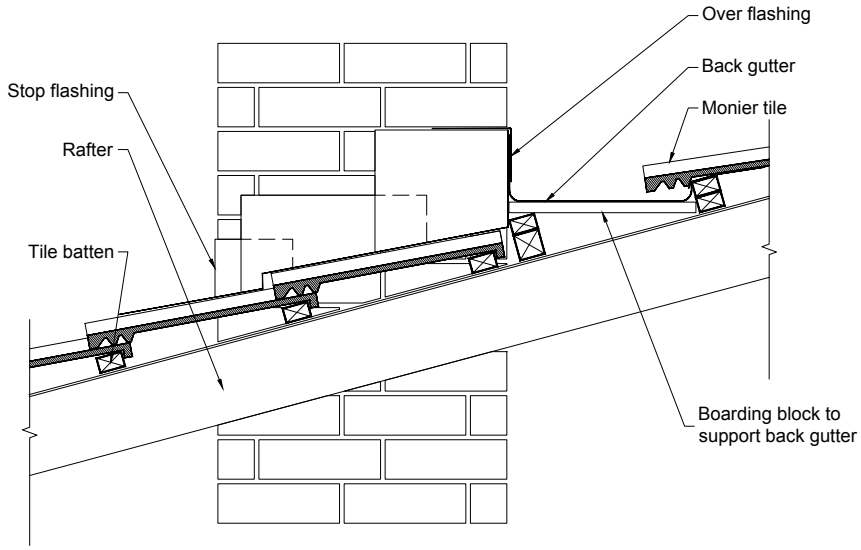
MT17 CROSS SECTION HIDDEN GUTTER – FLAT TILE



MT18 CHIMNEY TRAY



MT19 CHIMNEY FLASHING



MT20 PIPE PENETRATION DETAIL – FLAT TILE