

Met-Therm™ - Espan® 340 on KAHU®

WARM ROOFING DETAILS

STANDARD INSTALLATION DETAILS, IF INTERNAL SPREAD OF FLAME IS REQUIRED REFER BRANZ TEST REPORT AND OPINION. REQUIRES SIGN OFF FROM FIRE ENGINEER

DETAIL LIST		Revision	Date
D 00 / 13	COVER SHEET		
D 01 / 13	RIDGE WITH NON PROFILED APEX	1.0	OCT 2024
D 02 / 13	RIDGE WITH PROFILED APEX	1.0	OCT 2024
D 03 / 13	SAWTOOTH RIDGE	1.0	OCT 2024
D 04 / 13	INTERNAL GUTTER	1.0	OCT 2024
D 05 / 13	FLUSH EAVE WITH EXTERNAL GUTTER BRACKET	1.0	OCT 2024
D 06 / 13	BARGE WITH PROFILED CLADDING	1.0	OCT 2024
D 07 / 13	PARAPET WITH TRANSVERSE APRON	1.0	OCT 2024
D 08 / 13	PARALLEL APRON	1.0	OCT 2024
D 09 / 13	ROOF STEP	1.0	OCT 2024
D 10 / 13	COLD PIPE PENETRATION	1.0	OCT 2024
D 11 / 13	SKYLIGHT PENETRATION 01	1.0	OCT 2024
D 12 / 13	SKYLIGHT PENETRATION 02	1.0	OCT 2024
D 13 / 13	TYPICAL CROSS SECTION	1.0	OCT 2024

PRE-FINISHED RIDGE CAP FLASHING

STOPENDS TO ROOF CLADDING

METALCRAFT ESPAN 340 ROOFING

PRE-FINISHED POP RIVET BEDDED
IN SILICONE OR PRE-FINISHED 8g
WAFERTEK SCREW

METALCRAFT ESPAN™ CLIP
SYSTEM WITH 12G x 25mm
WAFERTEK / HEX HEAD

SECONDARY FLASHING,
DO NOT FIX THROUGH
ESPAN BRACKET

FOAM CLOSURE SEALED TOP
AND BOTTOM WITH BOSTIK
FIRECAULK SEALANT

PRE-FINISHED SCREW WITH
NEOPRENE WASHER

* ESPAN 340 MIN. ROOF PITCH = 3°

FIRE RETARDANT
FOAM INFILL
(EXPANDING FOAM)

MET-THERM® Batten
WITH VENTILATION
HOLES

PRO CLIMA TESCON
NAIDECK TAPE

UNDERLAY FULLY
TAPED REFER NOTE

*PIR BOARD INSULATION
REFER NOTE

METALCRAFT
KAHU ROOFING
REVERSE LAID
AND TAPED LAPS

0.55 BMT STEEL
FLASHING
CONTINUOUS

STRUCTURAL DESIGN BY OTHERS
MINIMUM PURLIN WIDTH = 90mm

AS PER MRM CODE OF PRACTICE

CATEGORY A	CATEGORY B	CATEGORY C	CATEGORY D
LOW, MEDIUM OR HIGH WIND ZONES - ALL ROOF PITCHES VERY HIGH AND EXTRA HIGH WIND ZONES WHERE THE PITCH IS EQUAL TO OR GREATER THAN 10°	VERY HIGH WIND ZONES ROOF PITCH <8° EXTRA HIGH WIND ZONES -ALL ROOF PITCHES	SED WIND ZONES UP TO 60 m/s ALL ROOF PITCH	SED WIND ZONES UP TO 68 m/s ALL ROOF PITCH
X MIN. 130mm	MIN. 200mm	MIN. 200mm	MIN. 200mm + BAFFLE (REFER NZ MRM COP)

*FOR PIR BOARD & UNDERLAY OPTIONS REFER TO BUILDING PRODUCT INFORMATION SHEET (BPIS)
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Roofing
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Met-Therm™ - Espan® 340 on KAHU®

Rev. 1.0

Reference CRMTEP

Date OCT 2024

Scale 1 : 2

Sheet **D 01 / 13**

RIDGE WITH NON PROFILED APEX
WARM ROOFING DETAILS

PRE-FINISHED RIDGE CAP FLASHING

STOPENDS TO ROOF CLADDING

METALCRAFT ESPAN 340 ROOFING

PRE-FINISHED POP RIVET BEDDED
IN SILICONE OR PRE-FINISHED 8g
WAFERTEK SCREW

METALCRAFT ESPAN™ CLIP
SYSTEM WITH 12G x 25mm
WAFERTEK / HEX HEAD

SECONDARY FLASHING,
DO NOT FIX THROUGH
ESPAN BRACKET

FOAM CLOSURE SEALED TOP
AND BOTTOM WITH BOSTIK
FIRECAULK SEALANT

PRE-FINISHED SCREW WITH
NEOPRENE WASHER

*ESPAN 340 MIN. ROOF PITCH = 3°

FIRE RETARDANT
FOAM INFILL
(EXPANDING FOAM)

MET-THERM® Batten
WITH VENTILATION
HOLES

PRO CLIMA TESCON
NAIDECK TAPE

UNDERLAY FULLY
TAPED REFER NOTE

*PIR BOARD INSULATION
REFER NOTE

METALCRAFT KAHU
ROOFING REVERSE
LAID AND TAPED
LAPS

0.55 BMT STEEL
FLASHING
CONTINUOUS

STRUCTURAL DESIGN BY OTHERS
MINIMUM PURLIN WIDTH = 90mm

AS PER MRM CODE OF PRACTICE

	CATEGORY A	CATEGORY B	CATEGORY C	CATEGORY D
	LOW, MEDIUM OR HIGH WIND ZONES - ALL ROOF PITCHES	VERY HIGH WIND ZONES ROOF PITCH <8°	SED WIND ZONES UP TO 60 m/s	SED WIND ZONES UP TO 68 m/s
	VERY HIGH AND EXTRA HIGH WIND ZONES WHERE THE PITCH IS EQUAL TO OR GREATER THAN 10°	EXTRA HIGH WIND ZONES -ALL ROOF PITCHES	ALL ROOF PITCH	ALL ROOF PITCH
X	MIN. 130mm	MIN. 200mm	MIN. 200mm	MIN. 200mm + BAFFLE (REFER NZ MRM COP)

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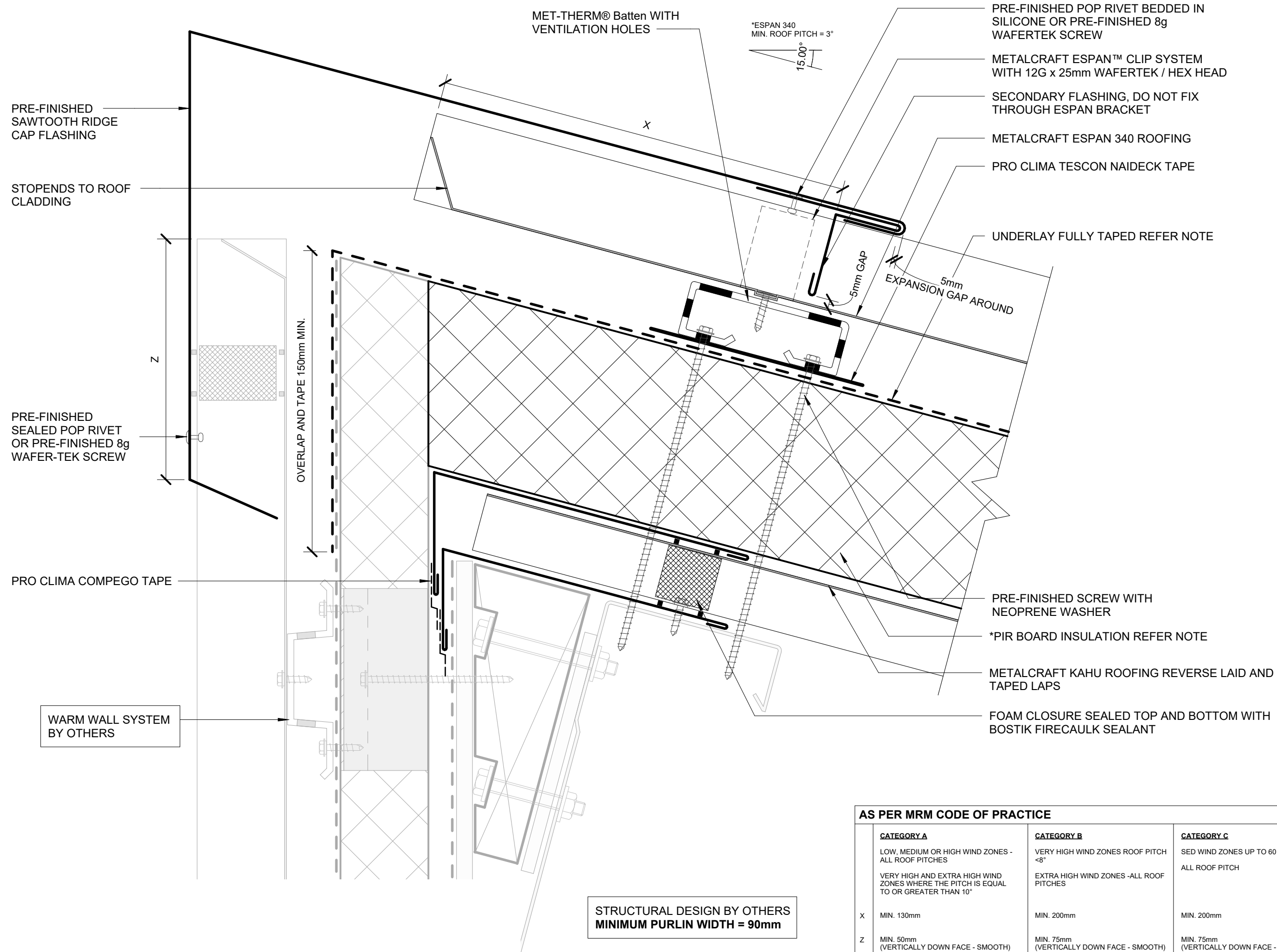
RIDGE WITH PROFILED APEX
WARM ROOFING DETAILS

Reference CRMTEP

Date OCT 2024

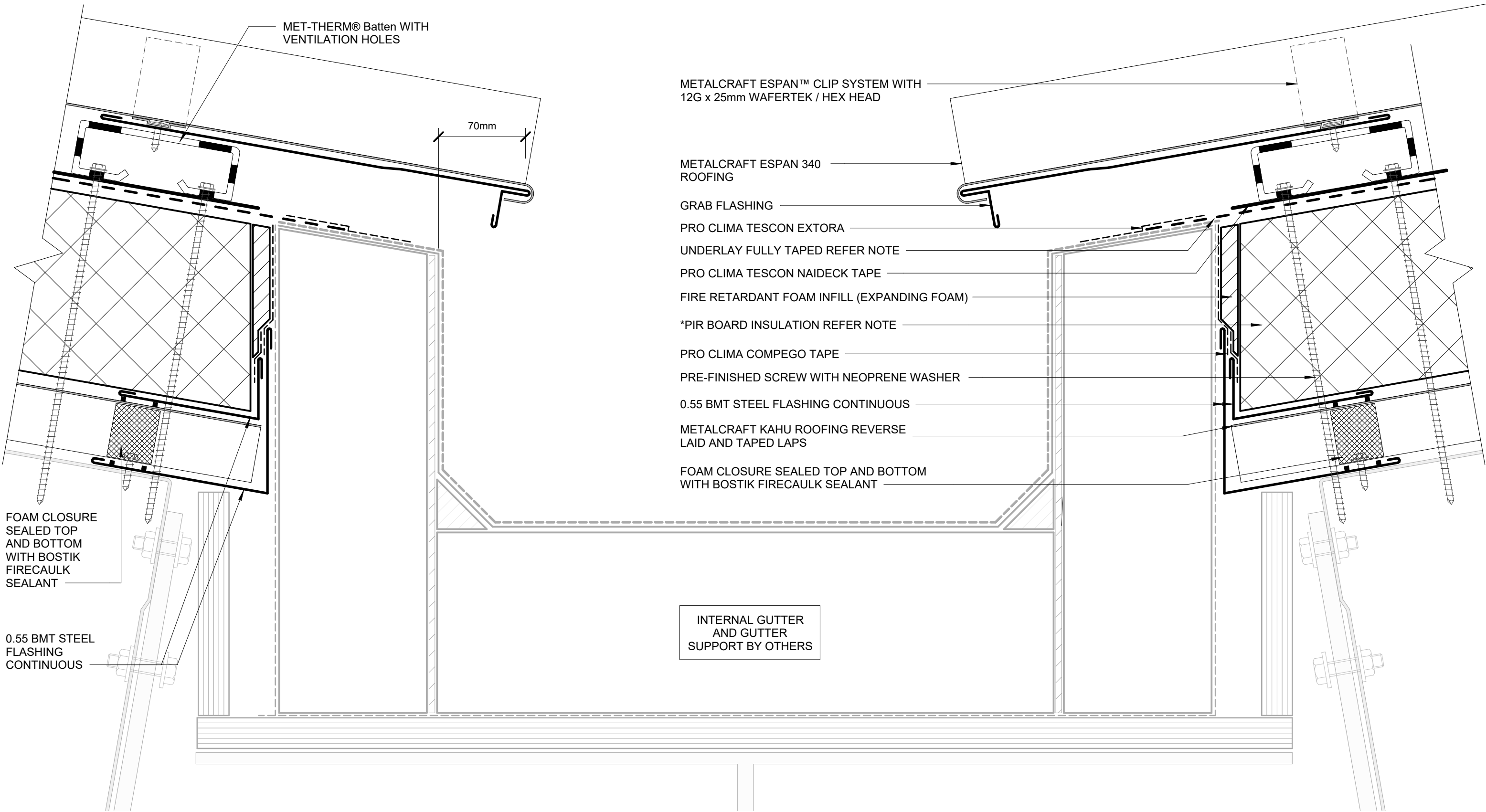
Scale 1 : 2

Sheet **D 02 / 13**



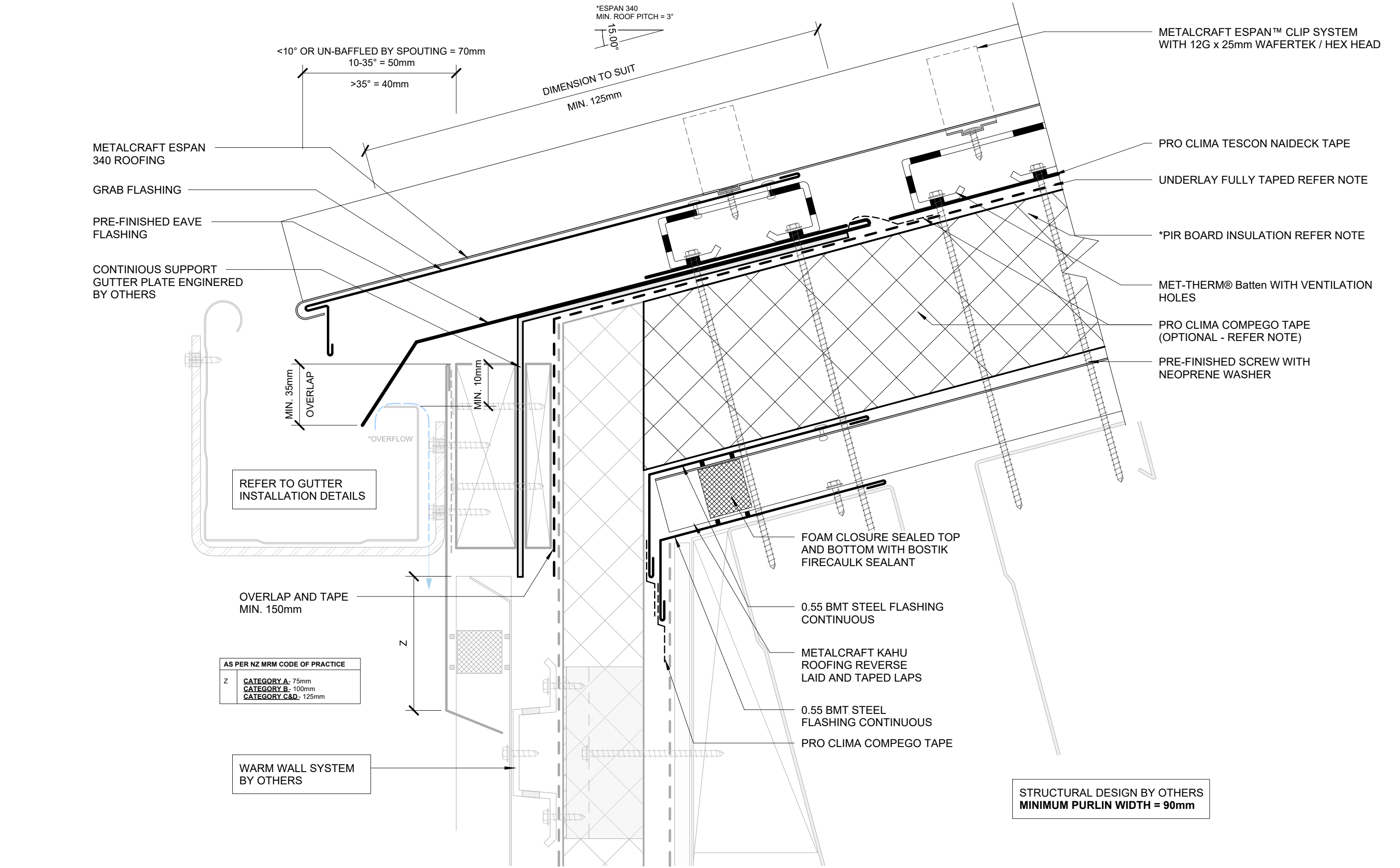
STRUCTURAL DESIGN BY OTHERS
MINIMUM PURLIN WIDTH = 90mm

AS PER MRM CODE OF PRACTICE			
CATEGORY A	CATEGORY B	CATEGORY C	CATEGORY D
LOW, MEDIUM OR HIGH WIND ZONES - ALL ROOF PITCHES VERY HIGH AND EXTRA HIGH WIND ZONES WHERE THE PITCH IS EQUAL TO OR GREATER THAN 10°	VERY HIGH WIND ZONES ROOF PITCH <8° EXTRA HIGH WIND ZONES -ALL ROOF PITCHES	SED WIND ZONES UP TO 60 m/s ALL ROOF PITCH	SED WIND ZONES UP TO 68 m/s ALL ROOF PITCH
X MIN. 130mm	MIN. 200mm	MIN. 200mm	MIN. 200mm + BAFFLE (REFER NZ MRM COP)
Z MIN. 50mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 75mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 100mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 125mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 125mm (VERTICALLY DOWN FACE - PROFILED)

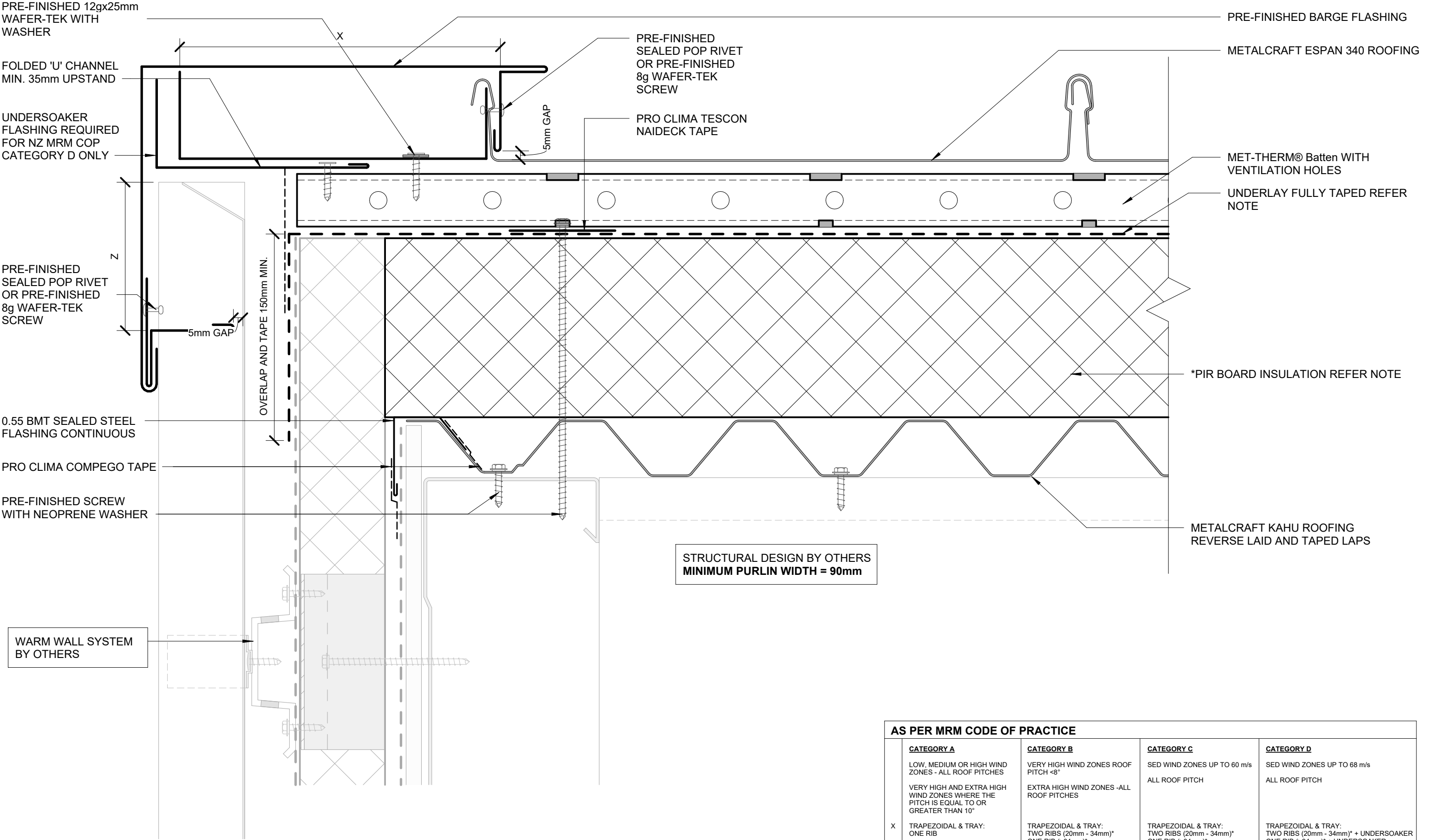


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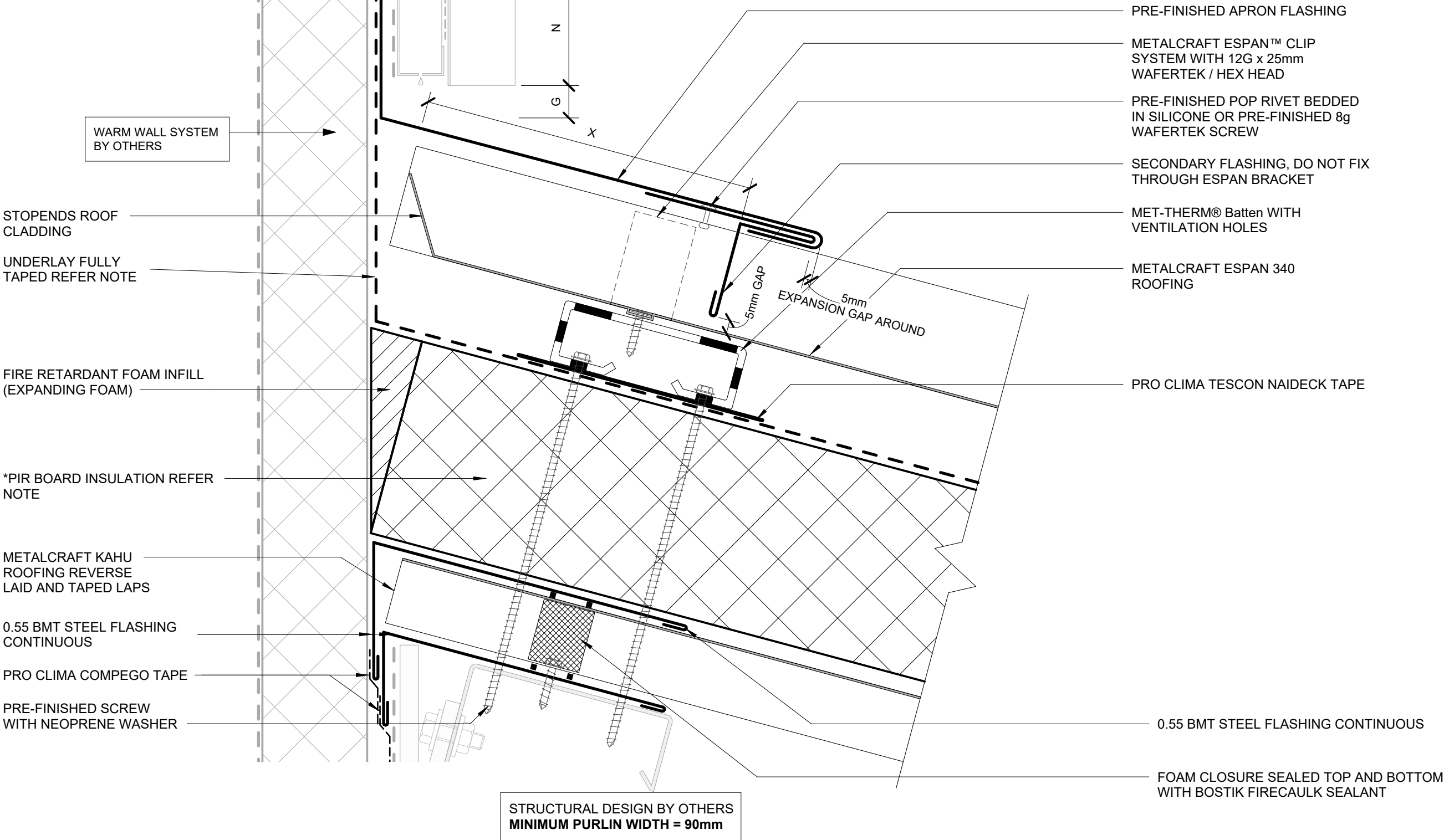
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AS PER MRM CODE OF PRACTICE			
CATEGORY A	CATEGORY B	CATEGORY C	CATEGORY D
LOW, MEDIUM OR HIGH WIND ZONES - ALL ROOF PITCHES	VERY HIGH WIND ZONES ROOF PITCH <8°	SED WIND ZONES UP TO 60 m/s	SED WIND ZONES UP TO 68 m/s
VERY HIGH AND EXTRA HIGH WIND ZONES WHERE THE PITCH IS EQUAL TO OR GREATER THAN 10°	EXTRA HIGH WIND ZONES -ALL ROOF PITCHES	ALL ROOF PITCH	ALL ROOF PITCH
X TRAPEZOIDAL & TRAY: ONE RIB CORRUGATE: 2 CORRUGATIONS	TRAPEZOIDAL & TRAY: TWO RIBS (20mm - 34mm)* ONE RIB (>34mm)* CORRUGATE: 2 CORRUGATIONS	TRAPEZOIDAL & TRAY: TWO RIBS (20mm - 34mm)* ONE RIB (>34mm)* CORRUGATE: 3 CORRUGATIONS	TRAPEZOIDAL & TRAY: TWO RIBS (20mm - 34mm)* + UNDERSOAKER ONE RIB (>34mm)* + UNDERSOAKER CORRUGATE: 2 CORRUGATIONS + UNDERSOAKER
Z MIN. 50mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 75mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 100mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 125mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 125mm (VERTICALLY DOWN FACE - PROFILED)
* RIB HEIGHT OF PROFILE OR TURNUP			

AS PER MRM CODE OF PRACTICE

	CATEGORY A	CATEGORY B	CATEGORY C	CATEGORY D
	LOW, MEDIUM OR HIGH WIND ZONES - ALL ROOF PITCHES VERY HIGH AND EXTRA HIGH WIND ZONES WHERE THE PITCH IS EQUAL TO OR GREATER THAN 10°	VERY HIGH WIND ZONES ROOF PITCH <8° EXTRA HIGH WIND ZONES -ALL ROOF PITCHES	SED WIND ZONES UP TO 60 m/s ALL ROOF PITCH	SED WIND ZONES UP TO 68 m/s ALL ROOF PITCH
G	25mm	25mm	25mm	25mm
N	MIN. 50mm + HEM OR 75mm (VERTICALLY UP FACE - SMOOTH) MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - PROFILED)	MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - SMOOTH) MIN. 100mm + HEM OR 125mm (VERTICALLY UP FACE - PROFILED)	MIN. 100mm + HEM OR 125mm (VERTICALLY UP FACE - SMOOTH) MIN. 125mm + HEM (VERTICALLY UP FACE - PROFILED)	MIN. 100mm + HEM OR 125mm (VERTICALLY UP FACE - SMOOTH) MIN. 125mm + HEM (VERTICALLY UP FACE - PROFILED)
X	MIN. 130mm	MIN. 200mm	MIN. 200mm + BAFFLE (REFER NZ MRM COP)	MIN. 200mm + BAFFLE (REFER NZ MRM COP)

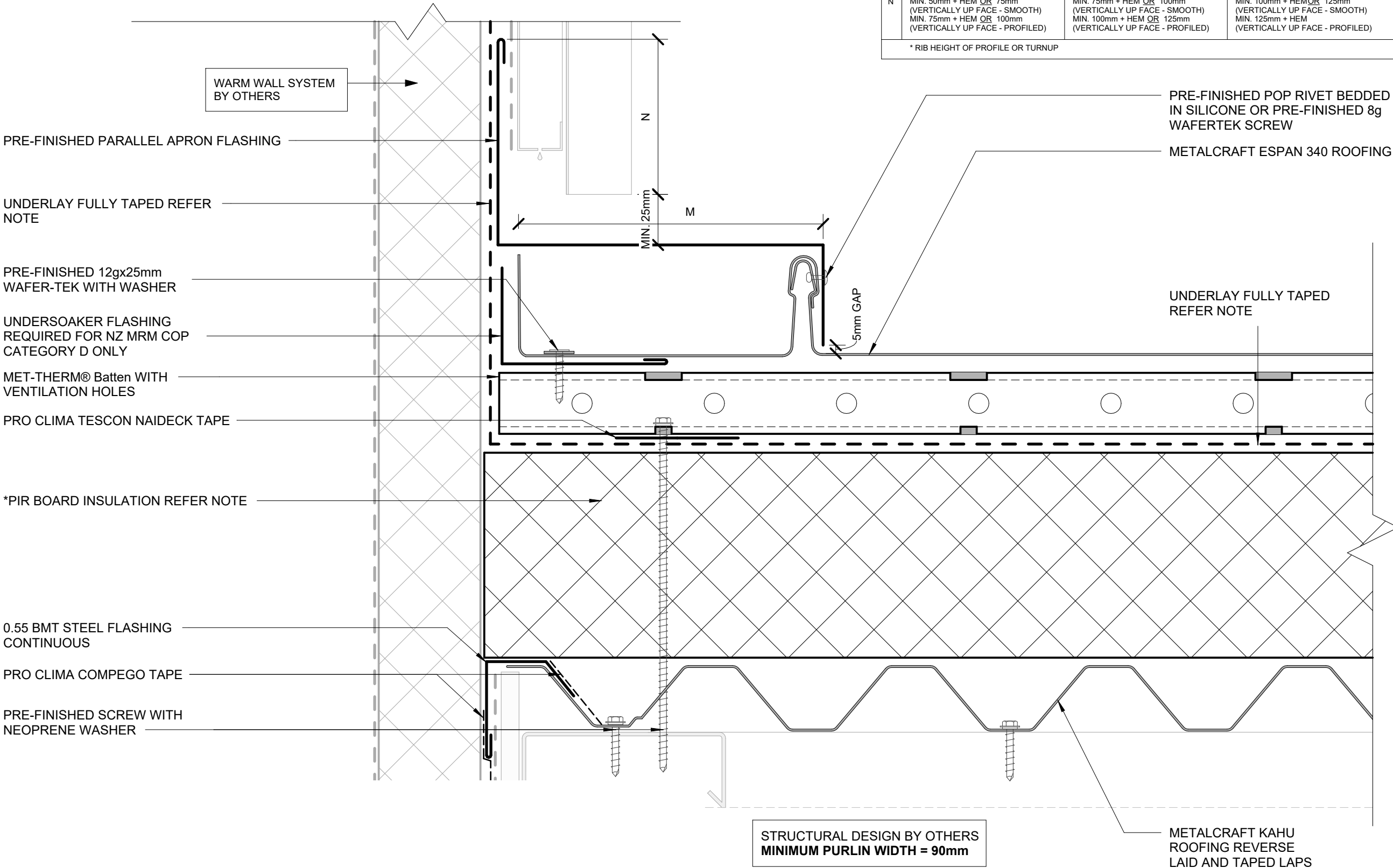
*ESPAN 340
MIN. ROOF PITCH = 3°

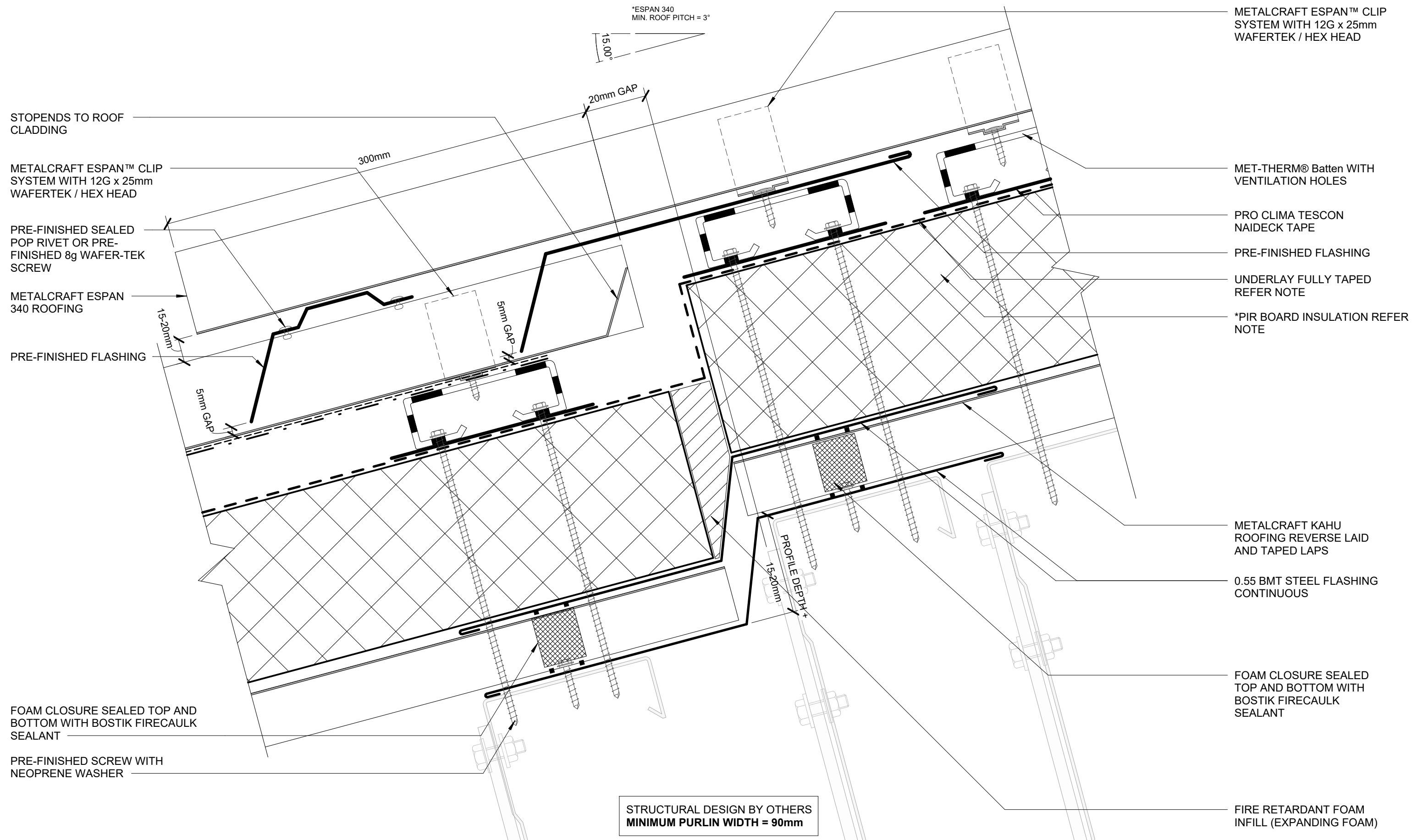


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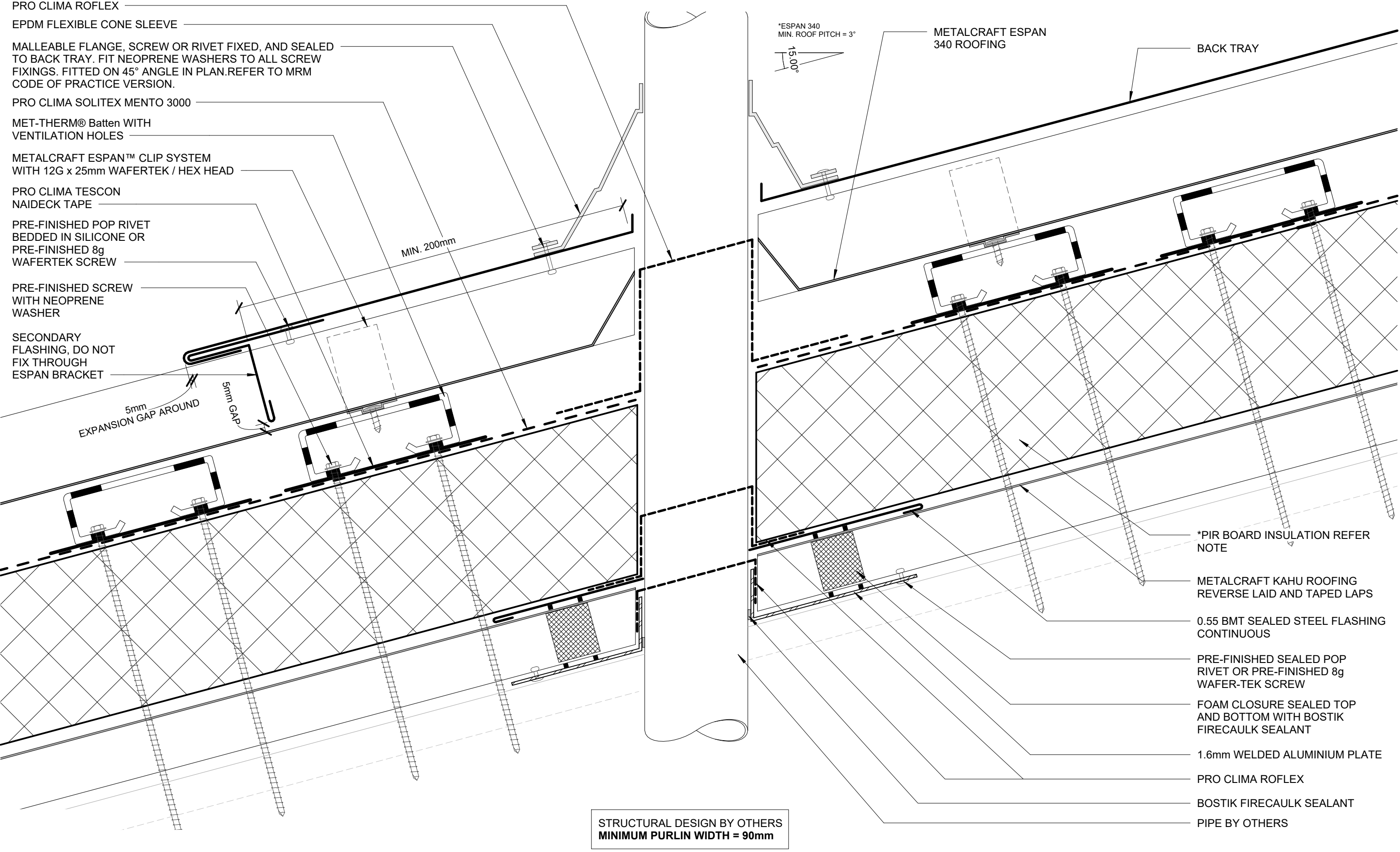
AS PER MRM CODE OF PRACTICE

	CATEGORY A	CATEGORY B	CATEGORY C	CATEGORY D
	LOW, MEDIUM OR HIGH WIND ZONES - ALL ROOF PITCHES VERY HIGH AND EXTRA HIGH WIND ZONES WHERE THE PITCH IS EQUAL TO OR GREATER THAN 10°	VERY HIGH WIND ZONES ROOF PITCH <8° EXTRA HIGH WIND ZONES -ALL ROOF PITCHES	SED WIND ZONES UP TO 60 m/s ALL ROOF PITCH	SED WIND ZONES UP TO 68 m/s ALL ROOF PITCH
M	TRAPEZOIDAL & TRAY: ONE RIB CORRUGATE: 2 CORRUGATIONS	TRAPEZOIDAL & TRAY: TWO RIBS (20mm - 34mm)* ONE RIB (>34mm)* CORRUGATE: 2 CORRUGATIONS	TRAPEZOIDAL & TRAY: TWO RIBS (20mm - 34mm)* ONE RIB (>34mm)* CORRUGATE: 3 CORRUGATIONS	TRAPEZOIDAL & TRAY: TWO RIBS (20mm - 34mm)* + UNDERSOAKER ONE RIB (>34mm)* + UNDERSOAKER CORRUGATE: 2 CORRUGATIONS + UNDERSOAKER
N	MIN. 50mm + HEM OR 75mm (VERTICALLY UP FACE - SMOOTH) MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - PROFILED)	MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - SMOOTH) MIN. 100mm + HEM OR 125mm (VERTICALLY UP FACE - PROFILED)	MIN. 100mm + HEM OR 125mm (VERTICALLY UP FACE - SMOOTH) MIN. 125mm + HEM (VERTICALLY UP FACE - PROFILED)	MIN. 100mm + HEM OR 125mm (VERTICALLY UP FACE - SMOOTH) MIN. 125mm + HEM (VERTICALLY UP FACE - PROFILED)
* RIB HEIGHT OF PROFILE OR TURNUP				





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0.55 BMT STEEL FLASHING CONTINUOUS

METALCRAFT ESPAN 340 ROOFING

METALCRAFT ESPAN™ CLIP
SYSTEM WITH 12G x 25mm
WAFERTEK / HEX HEAD

PRO CLIMA TESCON
NAIDECK TAPE

MET-THERM® Batten
WITH VENTILATION
HOLES

PRE-FINISHED POP
RIVET BEDDED IN
SILICONE OR PRE-
FINISHED 8g
WAFERTEK SCREW

PRE-FINISHED SCREW
WITH NEOPRENE
WASHER

SECONDARY
FLASHING, DO NOT
FIX THROUGH ESPAN
BRACKET

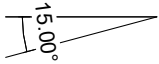
PRO CLIMA
SOLITEX
MENTO 3000

5mm
EXPANSION GAP AROUND

5mm GAP

MIN. 200mm

*ESPAN 340
MIN. ROOF PITCH = 3°



RECTANGULAR AND SQUARE SKYLIGHT AND
SUPPORTING STRUCTURE BY OTHERS

STRUCTURAL DESIGN BY OTHERS
MINIMUM PURLIN WIDTH = 90mm

PRE-FINISHED UNDER-TRAY SOAKER FLASHING
WITH CENTRAL CRICKET TO AID RUN-OFF.
FIXED TO STRUCTURE AS PER E2/AS1

*PIR BOARD INSULATION
REFER NOTE

FOAM CLOSURE SEALED
TOP AND BOTTOM WITH
BOSTIK FIRECAULK
SEALANT

PRO CLIMA
COMPEGO TAPE

0.55 BMT STEEL
FLASHING
CONTINUOUS

PRE-FINISHED SCREW
WITH NEOPRENE
WASHER

METALCRAFT KAHU
ROOFING REVERSE
LAID AND TAPED LAPS

PRO CLIMA
COMPEGO TAPE

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Rev. 1.0

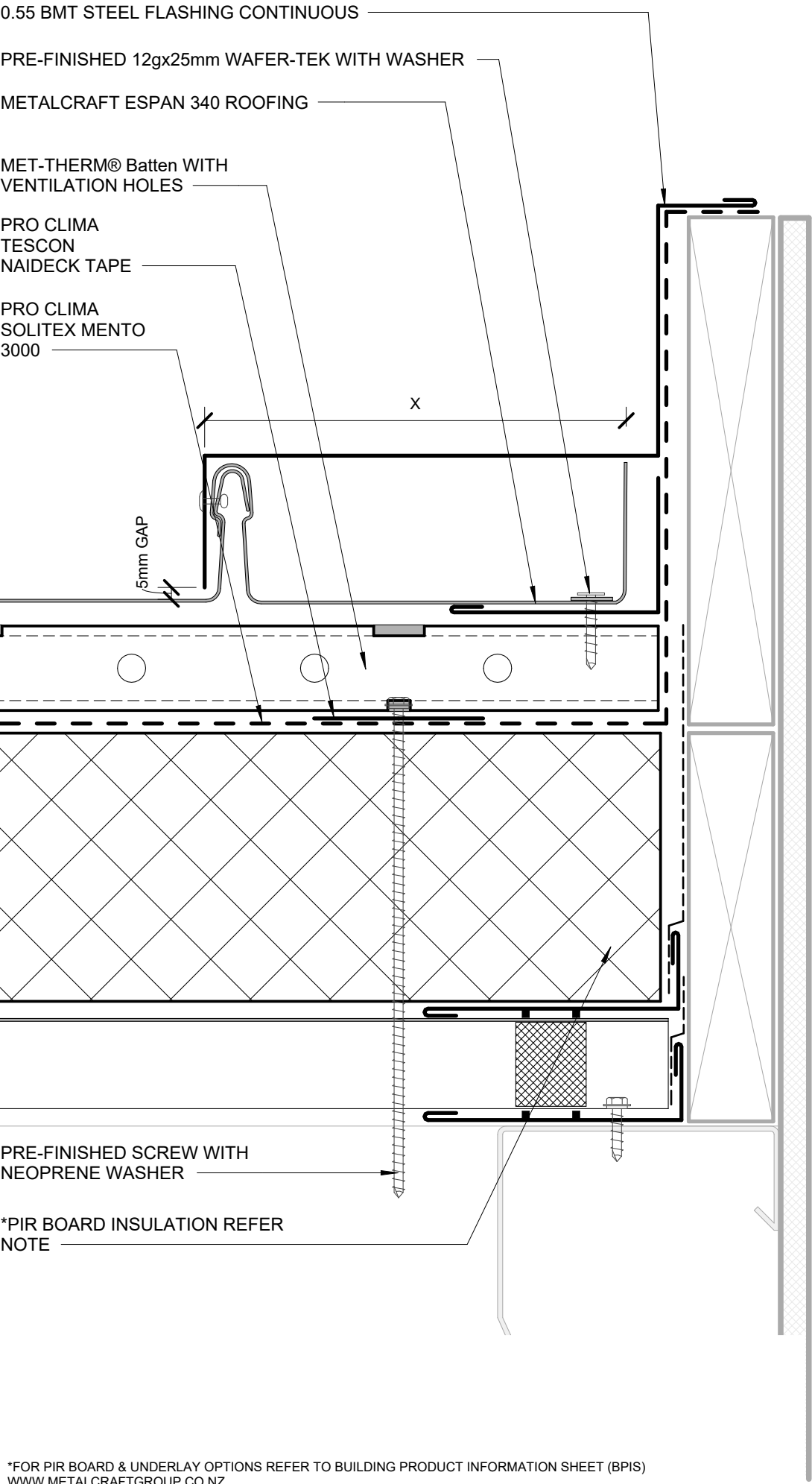
Reference CRMTEP

Date OCT 2024

Scale 1 : 2

Sheet **D 11 / 13**

SKYLIGHT PENETRATION 01
WARM ROOFING DETAILS



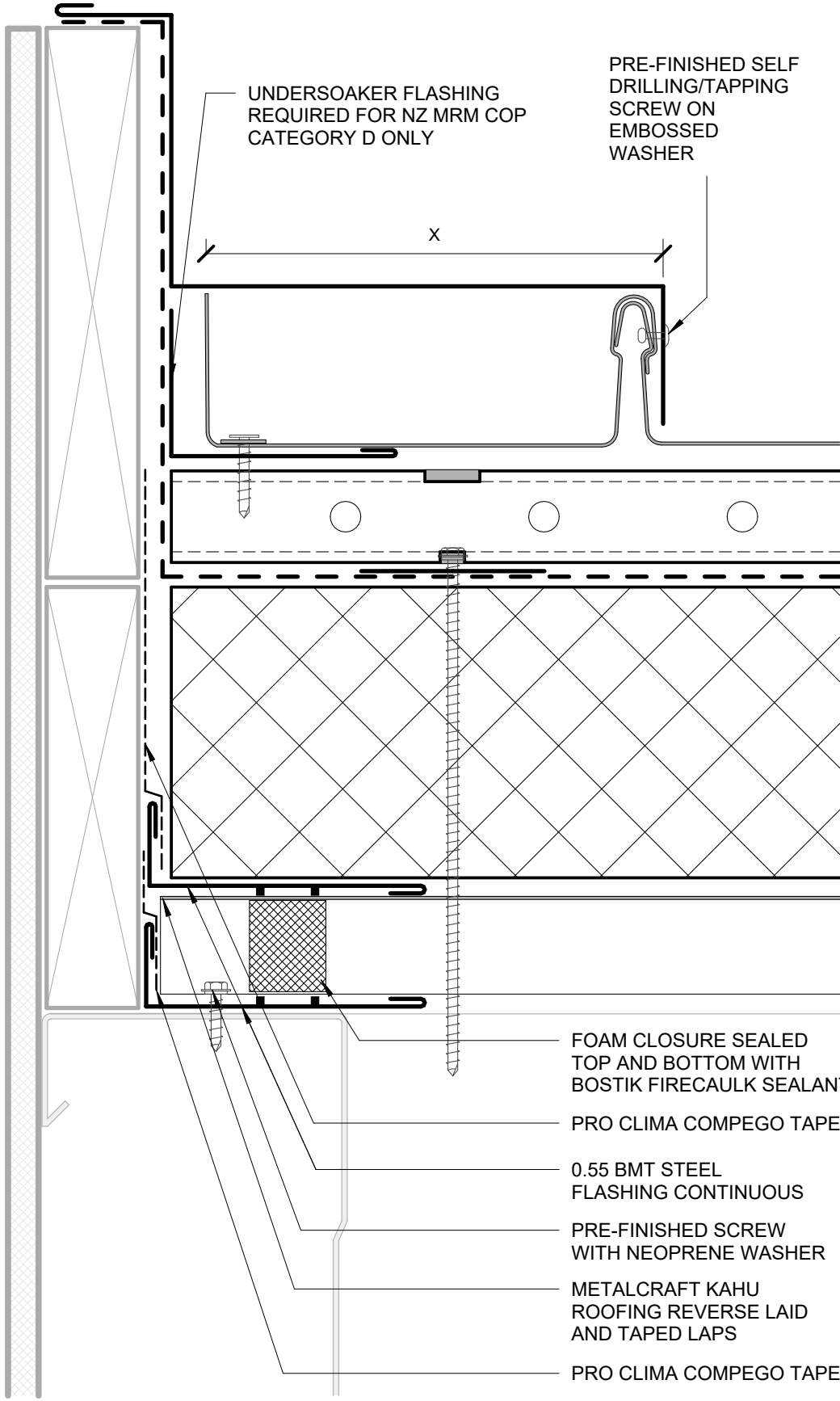
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RECTANGULAR AND SQUARE SKYLIGHT AND SUPPORTING STRUCTURE BY OTHERS

AS PER MRM CODE OF PRACTICE	
CATEGORY A LOW, MEDIUM OR HIGH WIND ZONES - ALL ROOF PITCHES VERY HIGH AND EXTRA HIGH WIND ZONES WHERE THE PITCH IS EQUAL TO OR GREATER THAN 10° X TRAPEZOIDAL & TRAY: ONE RIB CORRUGATE: 2 CORRUGATIONS	CATEGORY B VERY HIGH WIND ZONES ROOF PITCH <8° EXTRA HIGH WIND ZONES -ALL ROOF PITCHES X TRAPEZOIDAL & TRAY: TWO RIBS (20mm - 34mm)* ONE RIB (>34mm)* CORRUGATE: 2 CORRUGATIONS
CATEGORY C SED WIND ZONES UP TO 60 m/s ALL ROOF PITCH X TRAPEZOIDAL & TRAY: TWO RIBS (20mm - 34mm)* ONE RIB (>34mm)* CORRUGATE: 3 CORRUGATIONS	CATEGORY D SED WIND ZONES UP TO 68 m/s ALL ROOF PITCH X TRAPEZOIDAL & TRAY: TWO RIBS (20mm - 34mm)* + UNDERSOAKER ONE RIB (>34mm)* + UNDERSOAKER CORRUGATE: 2 CORRUGATIONS + UNDERSOAKER
* RIB HEIGHT OF PROFILE OR TURNUP	

STRUCTURAL DESIGN BY OTHERS
MINIMUM PURLIN WIDTH = 90mm



SKYLIGHT PENETRATION 02
WARM ROOFING DETAILS

METALCRAFT ESPAN 340
ROOFING

METALCRAFT ESPAN™ CLIP
SYSTEM WITH 12G x 25mm
WAFERTEK / HEX HEAD

MET-THERM® Batten WITH
VENTILATION HOLES

PRO CLIMA SOLITEX MENTO 3000

PRE-FINISHED SCREW
WITH NEOPRENE WASHER

PRO CLIMA TESCON
NAIDECK TAPE

PRO CLIMA COMPEGO TAPE

*PIR BOARD INSULATION
REFER NOTE

PRE-FINISHED SCREW
WITH NEOPRENE WASHER

METALCRAFT KAHU ROOFING
REVERSE LAID AND TAPED LAPS

STRUCTURAL DESIGN BY OTHERS
MINIMUM PURLIN WIDTH = 90mm

METALCRAFT ESPAN 340 ROOFING

METALCRAFT ESPAN™ CLIP
SYSTEM WITH 12G x 25mm
WAFERTEK / HEX HEAD

MET-THERM® Batten WITH
VENTILATION HOLES

*PIR BOARD INSULATION REFER
NOTE

METALCRAFT KAHU ROOFING
REVERSE LAID AND TAPED LAPS

PRE-FINISHED SCREW WITH
NEOPRENE WASHER

STRUCTURAL DESIGN BY OTHERS

PRO CLIMA COMPEGO TAPE

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(STAGGERED LAYERS OPTIONAL - REFER E3 COMPLIANCE REPORT)