

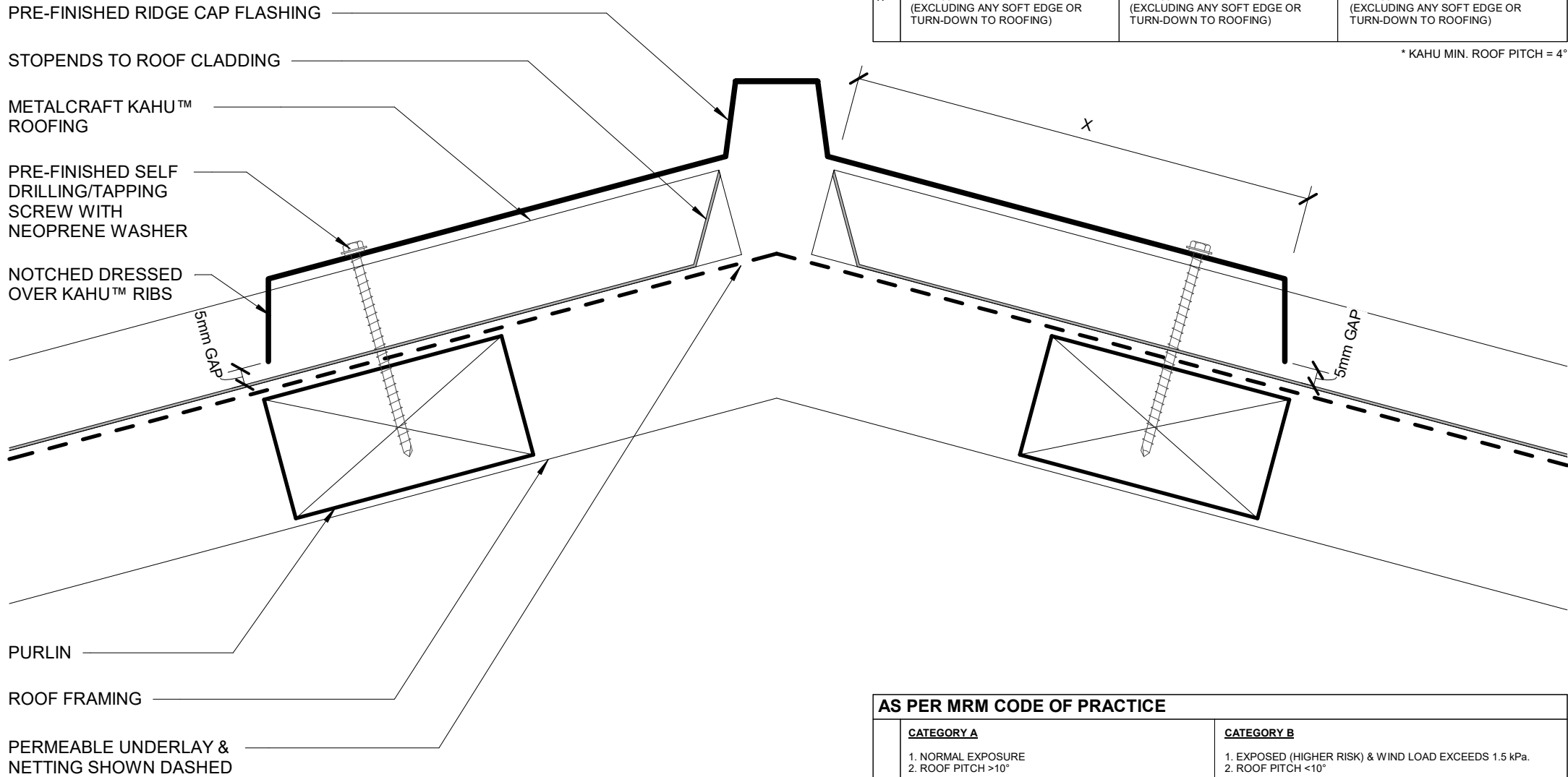
RESIDENTIAL ROOFING

<u>DETAIL LIST</u>	<u>Revision</u>	<u>Date</u>	<u>DETAIL LIST</u>	<u>Revision</u>	<u>Date</u>
A 00 / 29			A 15 / 29		
A 01 / 29			A 16 / 29		
A 02 / 29			A 17 / 29		
A 03 / 29			A 18 / 29		
A 04 / 29			A 19 / 29		
A 05 / 29			A 20 / 29		
A 06 / 29			A 21 / 29		
A 07 / 29			A 22 / 29		
A 08 / 29			A 23 / 29		
A 09 / 29			A 24 / 29		
A 10 / 29			A 25 / 29		
A 11 / 29			A 26 / 29		
A 12 / 29			A 27 / 29		
A 13 / 29			A 28 / 29		
A 14 / 29			A 29 / 29		
COVER SHEET			FLUSH EAVE WITH EXTERNAL GUTTER BRACKET	1.0	JAN 2023
ROOF RIDGE	1.0	JAN 2023	BARGE WITH PROFILED CLADDING	1.0	JAN 2023
ROOF RIDGE (ROUND)	1.0	JAN 2023	BARGE OVERHANG	1.0	JAN 2023
SAWTOOTH RIDGE	1.0	JAN 2023	PARAPET WITH TRANSVERSE APRON	1.0	JAN 2023
SAWTOOTH EAVE	1.0	JAN 2023	TRANSVERSE APRON	1.0	JAN 2023
ROOF VALLEY	1.0	JAN 2023	PARALLEL APRON	1.0	JAN 2023
ROOF VALLEY BAFFLE	1.0	JAN 2023	PIPE PENETRATION DIRECT FIXED BOOT FLASHING	1.0	JAN 2023
INTERNAL GUTTER	1.0	JAN 2023	PIPE PENETRATION BACKTRAK BOOT FLASHING	1.0	JAN 2023
PARALLEL HIDDEN GUTTER	1.0	JAN 2023	3D RIDGE TO BARGE JUNCTION	1.0	JAN 2023
PARALLEL HIDDEN GUTTER (2 PART FLASHING)	1.0	JAN 2023	3D DUTCH GABLE	1.0	JAN 2023
ROOF - CHANGE PITCH	1.0	JAN 2023	3D APRON	1.0	JAN 2023
MANSARD	1.0	JAN 2023	3D OVER 85mm DIAMETER PIPE PENETRATION	1.0	JAN 2023
EAVE WITH METALLINE FASCIA	1.0	JAN 2023	3D CHIMNEY PENETRATION	1.0	JAN 2023
EAVE WITH SNOW STRAP	1.0	JAN 2023	3D RIDGE/BARGE FLASHINGS	1.0	JAN 2023
FLUSH EAVE WITH INTERNAL GUTTER BRACKET	1.0	JAN 2023	3D DUTCH GABLE FLASHINGS	1.0	JAN 2023

AS PER E2/ASI

	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM, HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. FOR ALL ROOF PITCHES IN EXTRA HIGH WIND ZONES
X	MIN. 130mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)

* KAHU MIN. ROOF PITCH = 4°



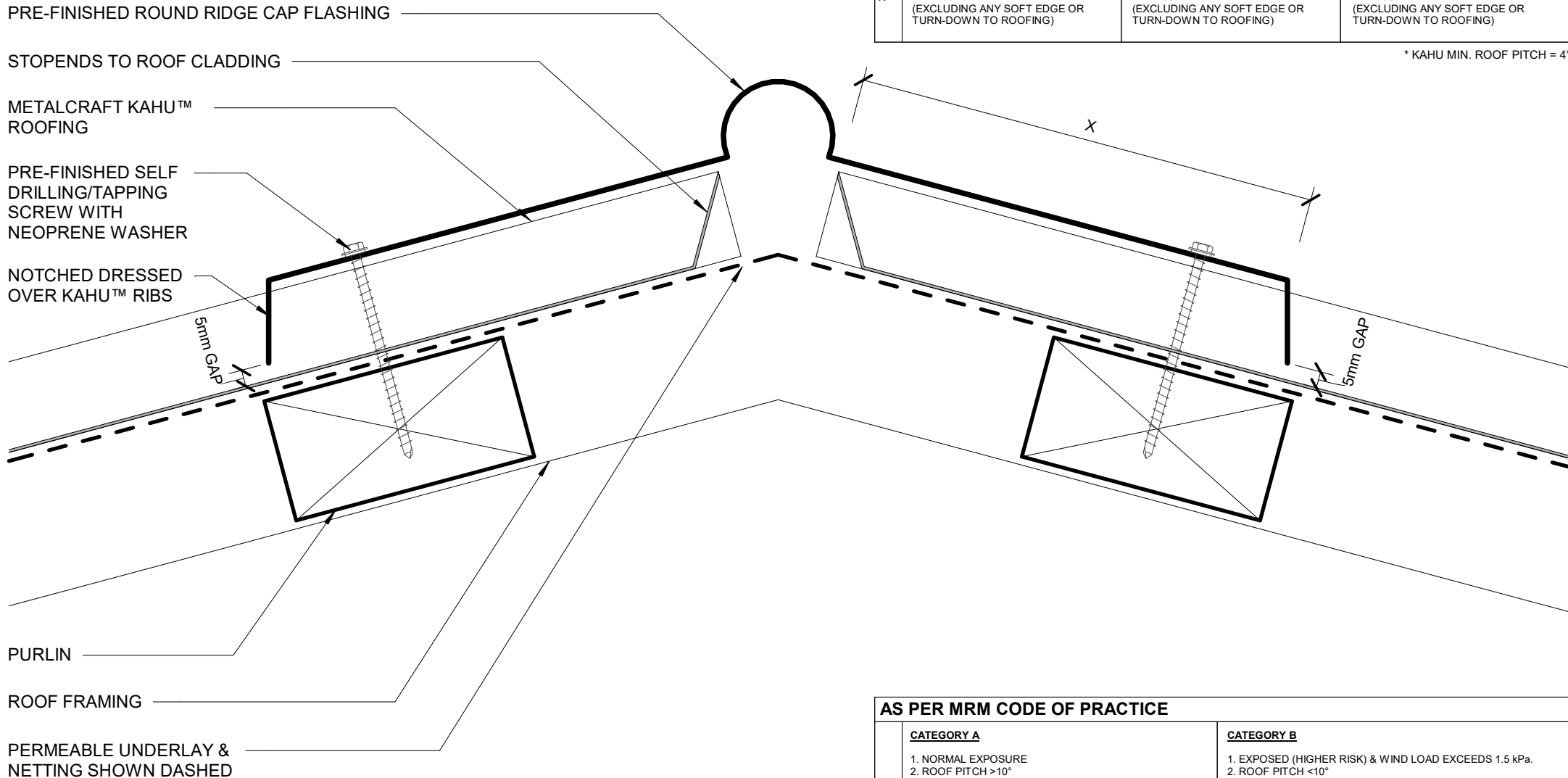
AS PER MRM CODE OF PRACTICE

	CATEGORY A	CATEGORY B
	1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$
X	MIN. 130mm	MIN. 200mm

AS PER E2/ASI

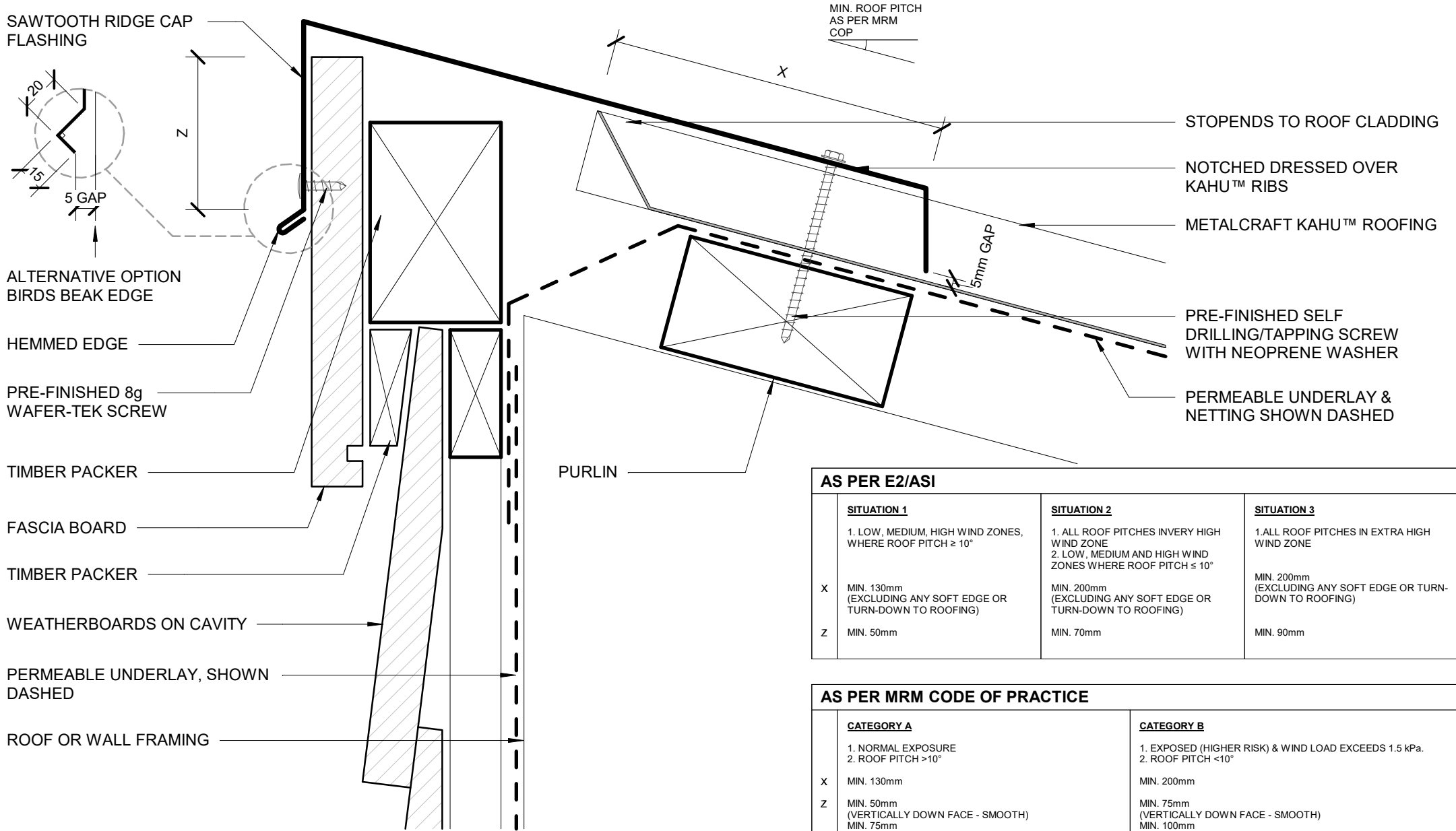
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM, HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. FOR ALL ROOF PITCHES IN EXTRA HIGH WIND ZONES
X	MIN. 130mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)

* KAHU MIN. ROOF PITCH = 4°



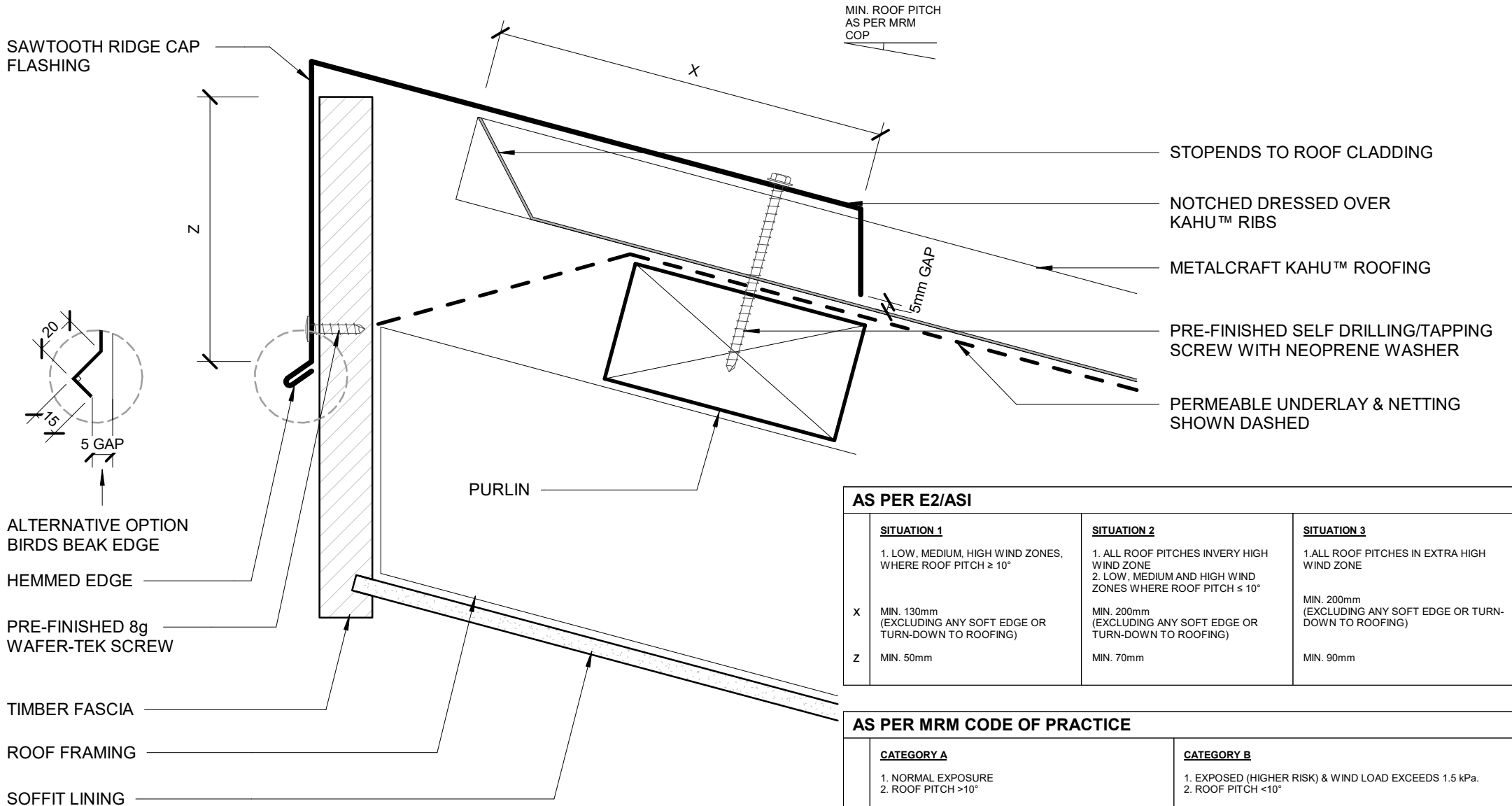
AS PER MRM CODE OF PRACTICE

	CATEGORY A	CATEGORY B
	1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$
X	MIN. 130mm	MIN. 200mm



AS PER E2/ASI			
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM AND HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
X	MIN. 130mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)
Z	MIN. 50mm	MIN. 70mm	MIN. 90mm

AS PER MRM CODE OF PRACTICE			
	CATEGORY A	CATEGORY B	
	1. NORMAL EXPOSURE 2. ROOF PITCH $> 10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $< 10^\circ$	
X	MIN. 130mm	MIN. 200mm	
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)	



AS PER E2/ASI			
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM AND HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
X	MIN. 130mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)
Z	MIN. 50mm	MIN. 70mm	MIN. 90mm

AS PER MRM CODE OF PRACTICE		
	CATEGORY A	CATEGORY B
	1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$
X	MIN. 130mm	MIN. 200mm
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)

METALCRAFT KAHU™
ROOFING

PRE-FINISHED SELF
DRILLING/TAPPING
SCREW WITH NEOPRENE
WASHER

REFER TO NZ METAL ROOF & WALL CLADDING
CODE OF PRACTICE V3.0 FOR MINIMUM
DIMENSIONS

ROOF
FRAMING

PURLIN

VALLEY BOARD

PERMEABLE UNDERLAY CONTINUOUS
UNDER GUTTER IF COPPER BASED
TREATMENTS ARE USED, SHOWN
DASHED

VALLEY GUTTER, MATERIAL AS PER E2/AS1

VALLEY RAFTER

*ROOF PITCH FOR VALLEYS
AS PER MRM CODE OF
PRACTICE VERSION 3.0/2019

METALCRAFT KAHU™
ROOFING

PRE-FINISHED SCREW
WITH NEOPRENE
WASHER

REFER TO NZ METAL ROOF & WALL CLADDING
CODE OF PRACTICE V3.0 FOR MINIMUM
DIMENSIONS

ROOF
FRAMING

PURLIN

VALLEY BOARD

PERMEABLE UNDERLAY CONTINUOUS
UNDER GUTTER IF COPPER BASED
TREATMENTS ARE USED, SHOWN
DASHED

VALLEY GUTTER, MATERIAL AS PER E2/AS1

VALLEY RAFTER

*ROOF PITCH FOR VALLEYS AS
PER MRM CODE OF PRACTICE
VERSION 3.0/2019

METALCRAFT KAHU™
ROOFING

PRE-FINISHED SELF
DRILLING/TAPPING
SCREW WITH
NEOPRENE WASHER

PURLIN

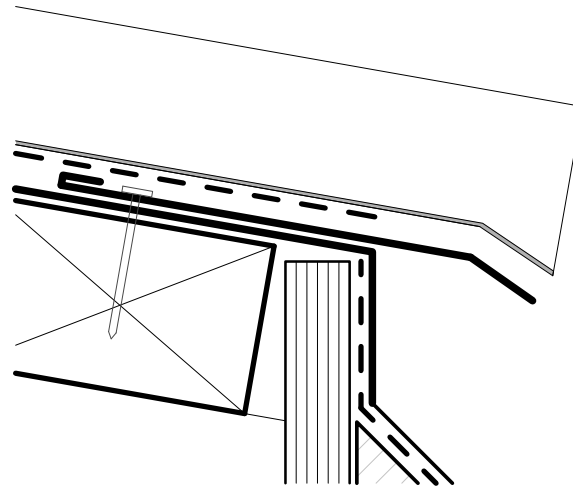
ROOF FRAMING

TIMBER FILLET

GUTTER BOARD

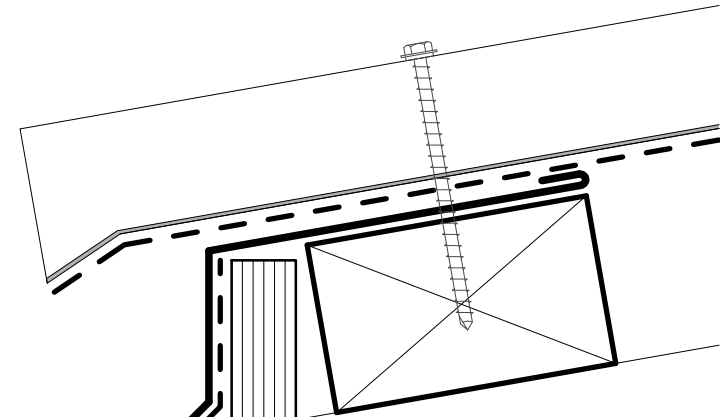
PERMEABLE UNDERLAY CONTINUOUS
UNDER GUTTER IF COPPER BASED
TREATMENTS ARE USED, SHOWN
DASHED

INTERNAL GUTTER, MATERIAL AS PER
E2/AS1 (BY OTHERS)



GUTTER EAVES FLASHING
RECOMMENDED AS SEPERATION
BETWEEN BUTYNOL

REFER TO NZ METAL ROOF &
WALL CLADDING CODE OF
PRACTICE V3.0 FOR MINIMUM
DIMENSIONS



VALLEY RAFTER

Metalcraft

Roofing

www.metalcraftgroup.co.nz

DISCLAIMER:
All details are to be used for indicative purposes only and the designer should consult both the MRM code of practice version 3.0 / 2022, E2 and all other relevant building codes.
Details of the supporting mechanisms are indicative only. Compliance of the supporting mechanisms is the responsibility of the designer. Construction detail can vary for wall cladding. The underlay is detailed as a single line for simplicity and is indicative only. Building paper type and method of installation should comply with underlay manufacturers recommendations and NZBC regulations.

KAHU

Rev. 1.0

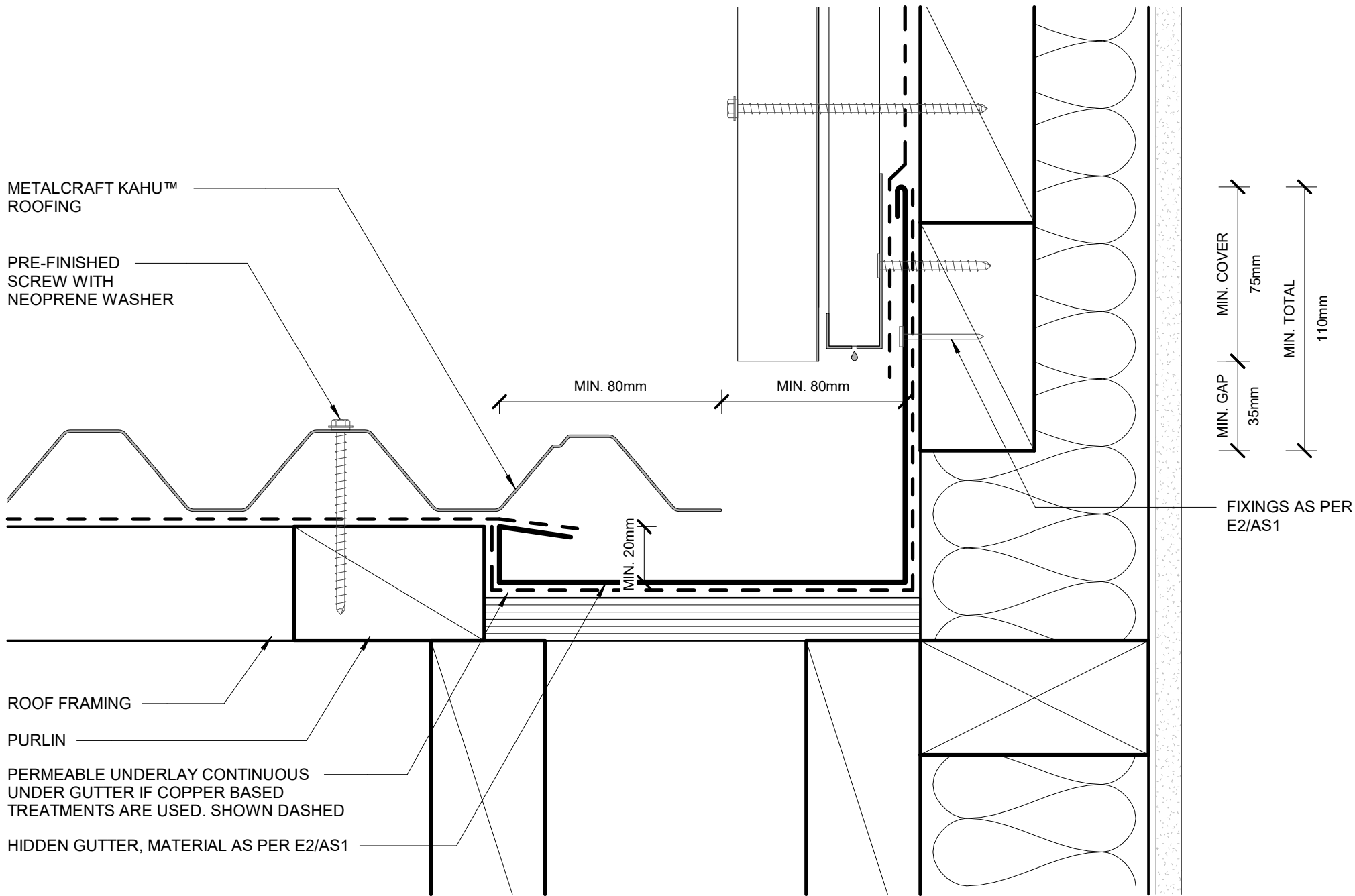
Reference RRKA

Date JAN 2023

INTERNAL GUTTER
RESIDENTIAL ROOFING

Scale 1 : 2

Sheet **A 07 / 29**



METALCRAFT KAHU™
ROOFING

PRE-FINISHED
SCREW WITH
NEOPRENE WASHER

MIN. 80mm

MIN. 80mm

MIN. 20mm

MIN. GAP 35mm
MIN. COVER 75mm
MIN. TOTAL 110mm

FIXINGS AS PER
E2/AS1

ROOF FRAMING

PURLIN

PERMEABLE UNDERLAY CONTINUOUS
UNDER GUTTER IF COPPER BASED
TREATMENTS ARE USED. SHOWN DASHED

HIDDEN GUTTER, MATERIAL AS PER E2/AS1

METALCRAFT KAHU™
ROOFING

PRE-FINISHED
SCREW WITH
NEOPRENE WASHER

SUGGEST 50mm MIN.
75mm MIN. WITHOUT HEM EDGE

MIN. 80mm

MIN. 80mm

MIN. COVER 75mm
MIN. TOTAL 110mm

MIN. GAP 35mm

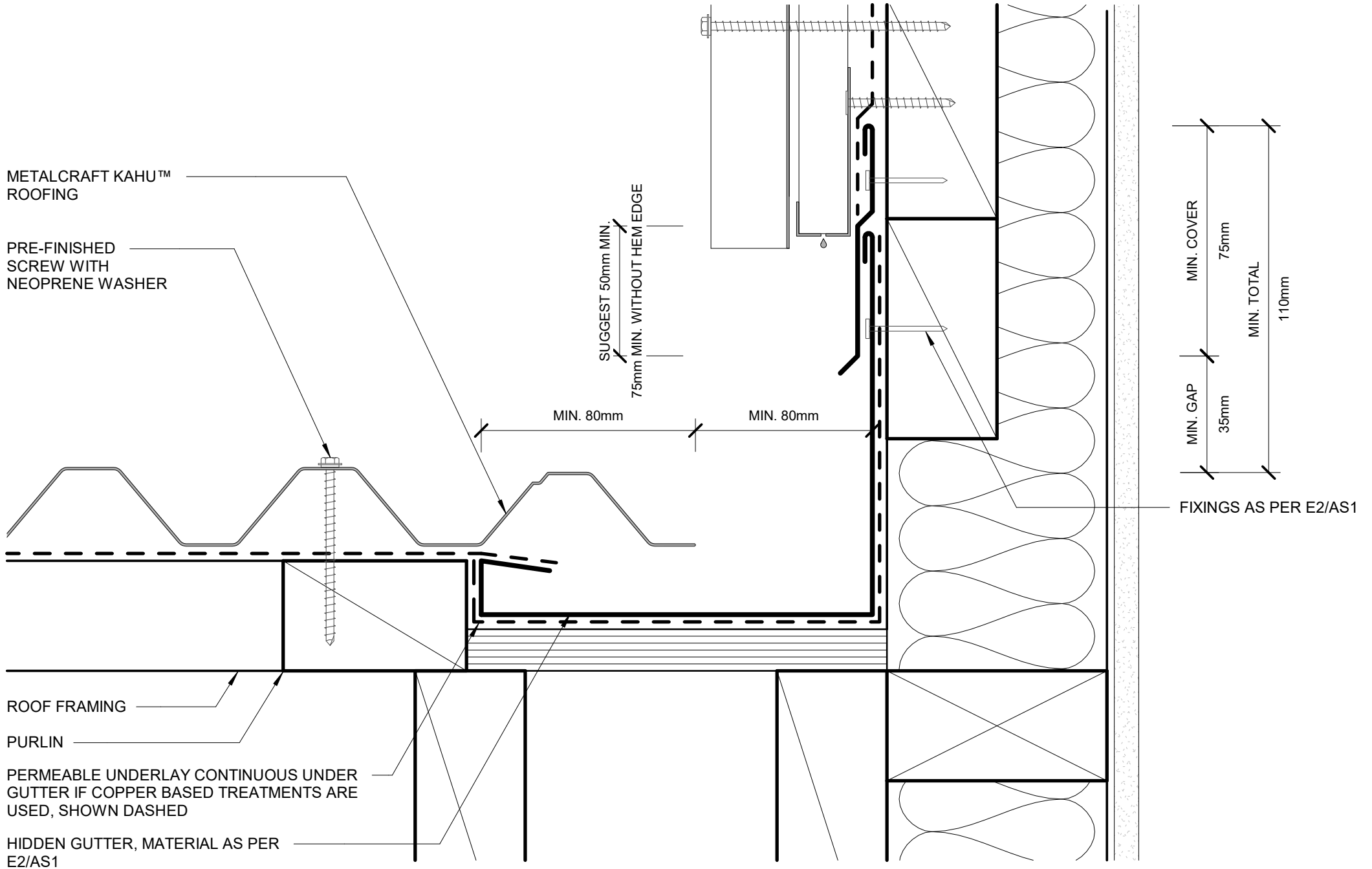
FIXINGS AS PER E2/AS1

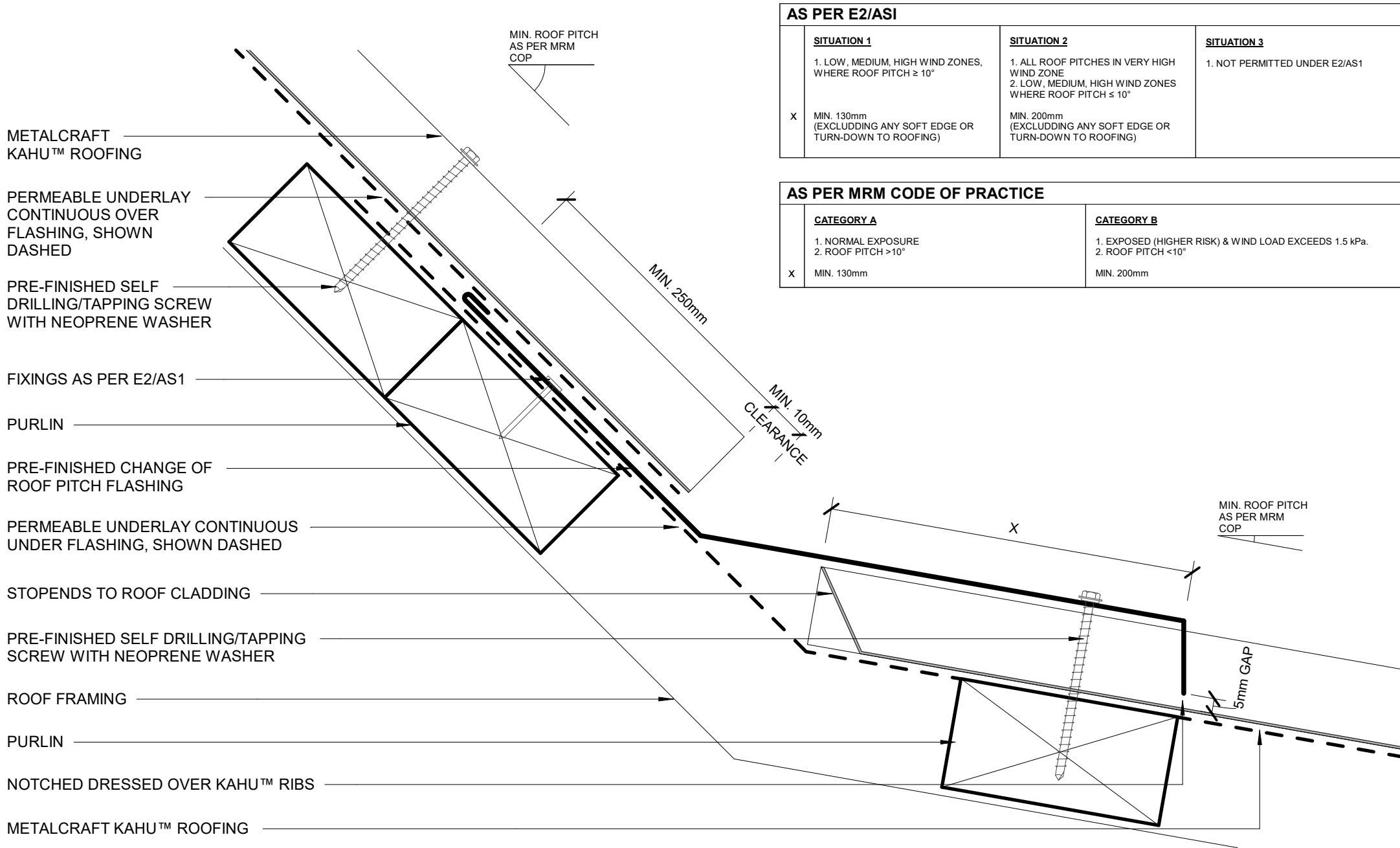
ROOF FRAMING

PURLIN

PERMEABLE UNDERLAY CONTINUOUS UNDER
GUTTER IF COPPER BASED TREATMENTS ARE
USED, SHOWN DASHED

HIDDEN GUTTER, MATERIAL AS PER
E2/AS1





AS PER E2/AS1			
	SITUATION 1 1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	SITUATION 2 1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM, HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	SITUATION 3 1. NOT PERMITTED UNDER E2/AS1
X	MIN. 130mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	

AS PER MRM CODE OF PRACTICE		
	CATEGORY A 1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$	CATEGORY B 1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$
X	MIN. 130mm	MIN. 200mm

METALCRAFT KAHU™
ROOFING

FIXINGS AS PER E2/AS1

PRE-FINISHED SELF
DRILLING/TAPPING SCREW
WITH NEOPRENE WASHER

PERMEABLE UNDERLAY
CONTINUOUS OVER
FLASHING, SHOWN DASHED

PURLIN

PRE-FINISHED CHANGE OF
ROOF PITCH FLASHING

PERMEABLE UNDERLAY CONTINUOUS
UNDER FLASHING, SHOWN DASHED

STOPENDS TO ROOF CLADDING

ROOF FRAMING

PRE-FINISHED SELF DRILLING/TAPPING
SCREW WITH NEOPRENE WASHER

PURLIN

NOTCHED DRESSED OVER KAHU™ RIBS

METALCRAFT KAHU™ ROOFING

MIN. ROOF PITCH
AS PER MRM
COP

250mm MIN

25mm MIN
50mm RECOMMENDED

MIN. ROOF PITCH
AS PER MRM
COP

5mm GAP

AS PER E2/AS1

SITUATION 1

1. LOW, MEDIUM, HIGH WIND ZONES,
WHERE ROOF PITCH $\geq 10^\circ$

X MIN. 130mm
(EXCLUDING ANY SOFT EDGE OR
TURN-DOWN TO ROOFING)

SITUATION 2

1. ALL ROOF PITCHES IN VERY HIGH
WIND ZONE
2. LOW, MEDIUM, HIGH WIND ZONES
WHERE ROOF PITCH $\leq 10^\circ$

X MIN. 200mm
(EXCLUDING ANY SOFT EDGE OR
TURN-DOWN TO ROOFING)

SITUATION 3

1. NOT PERMITTED UNDER E2/AS1

AS PER MRM CODE OF PRACTICE

CATEGORY A

1. NORMAL EXPOSURE
2. ROOF PITCH $> 10^\circ$

X MIN. 130mm

CATEGORY B

1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa.
2. ROOF PITCH $< 10^\circ$

MIN. 200mm

Metalcraft
Roofing

www.metalcraftgroup.co.nz

DISCLAIMER:

All details are to be used for indicative purposes only and the designer should consult both the MRM code of practice version 3.0 / 2022, E2 and all other relevant building codes. Details of the supporting mechanisms are indicative only. Compliance of the supporting mechanisms is the responsibility of the designer. Construction detail can vary for wall cladding. The underlay is detailed as a single line for simplicity and is indicative only. Building paper type and method of installation should comply with underlay manufacturers recommendations and NZBC regulations.

KAHU

Rev. 1.0

Reference RRKA

Date JAN 2023

Scale 1 : 2

MANSARD
RESIDENTIAL ROOFING

Sheet **A 11 / 29**

EAVE FLASHING REQUIRED WHEN ALL OF THE FOLLOWING CONDITIONS ARE MET:
 ROOF PITCH $\leq 10^\circ$
 SOFFIT WIDTH $\leq 100\text{mm}$
 WIND ZONES = VERY HIGH OR EXTRA HIGH
 ENGINEER SPECIFIC DESIGN
 MRM RECOMMENDS TO USE IN AREAS EXPOSED TO CONTAMINATORS SUCH AS SEA SALT OR INDUSTRIAL POLLUTANTS

10° UN-BAFFLED BY SPOUTING
 10-35° = 50mm
 >35° = 40mm

MIN. ROOF PITCH AS PER MRM COP

FOAM CLOSURE USED AS REQUIRED

METALCRAFT KAHU™ ROOFING

PERMEABLE UNDERLAY & NETTING SHOWN DASHED

METALLINE™ QUAD GUTTER

METALLINE™ QUAD GUTTER OVERSTRAP

SPRING CLIP

METALLINE™ FASCIA

FASCIA BRACKET

MIN. 125 mm

MIN. 35mm OVERLAP

PRE-FINISHED SELF DRILLING/TAPPING SCREW WITH NEOPRENE WASHER

PRE-FINISHED EAVE FLASHING

FIXINGS AS PER E2/AS1

TIMBER PURLIN

TIMBER ROOF FRAMING

SOFFIT LINING

EAVE FLASHING REQUIRED WHEN ALL OF THE FOLLOWING CONDITIONS ARE MET:
 ROOF PITCH $\leq 10^\circ$
 SOFFIT WIDTH $\leq 100\text{mm}$
 WIND ZONES = VERY HIGH OR EXTRA HIGH
 ENGINEER SPECIFIC DESIGN
 MRM RECOMMENDS TO USE IN AREAS EXPOSED TO CONTAMINATORS SUCH AS SEA SALT OR INDUSTRIAL POLLUTANTS

$<10^\circ$ UN-BAFFLED BY SPOUTING

$10-35^\circ = 50\text{mm}$

$>35^\circ = 40\text{mm}$

MIN. 125 mm

MIN. ROOF PITCH
 AS PER MRM
 COP

FOAM CLOSURE AS REQUIRED

METALCRAFT KAHU™ ROOFING

PRE-FINISHED SEALED POP RIVET OR PRE-FINISHED 8g WAFER-TEK SCREW

SNOW STRAP AS REQUIRED

METALLINE™ QUAD GUTTER

METALLINE™ QUAD GUTTER INTERNAL BRACKET

PRE-FINISHED 8g WAFER-TEK SCREW

MIN 90mm COVER FLASHING

TIMBER FASCIA

MIN. 35mm
 OVERLAP

PRE-FINISHED SELF DRILLING/TAPPING SCREW WITH NEOPRENE WASHER

PERMEABLE UNDERLAY & NETTING SHOWN DASHED

PRE-FINISHED EAVE FLASHING

FIXINGS AS PER E2/AS1

TIMBER PURLIN

TIMBER ROOF FRAMING

SOFFIT LINING

Metalcraft
 Roofing

www.metalcraftgroup.co.nz

DISCLAIMER:

All details are to be used for indicative purposes only and the designer should consult both the MRM code of practice version 3.0 / 2022, E2 and all other relevant building codes. Details of the supporting mechanisms are indicative only. Compliance of the supporting mechanisms is the responsibility of the designer. Construction detail can vary for wall cladding. The underlay is detailed as a single line for simplicity and is indicative only. Building paper type and method of installation should comply with underlay manufacturers recommendations and NZBC regulations.

KAHU

Rev. 1.0

Reference RRKA

Date JAN 2023

EAVE WITH SNOW STRAP
 RESIDENTIAL ROOFING

Scale 1 : 2

Sheet **A 13 / 29**

EAVE FLASHING REQUIRED WHEN ALL OF THE FOLLOWING CONDITIONS ARE MET:
 ROOF PITCH $\leq 10^\circ$
 SOFFIT WIDTH $\leq 100\text{mm}$
 WIND ZONES = VERY HIGH OR EXTRA HIGH
 ENGINEER SPECIFIC DESIGN
 MRM RECOMMENDS TO USE IN AREAS EXPOSED TO CONTAMINATORS SUCH AS SEA SALT OR INDUSTRIAL POLLUTANTS

<10° UN-BAFFLED BY SPOUTING

10-35° = 50mm

>35° = 40mm

MIN. 125 mm

MIN. ROOF PITCH AS PER MRM COP

FOAM CLOSURE USED AS REQUIRED

METALCRAFT KAHU™ ROOFING

PERMEABLE UNDERLAY & NETTING SHOWN DASHED

QUARTER ROUND GUTTER

QUARTER ROUND GUTTER INTERNAL BRACKET

PRE-FINISHED 8g WAFER-TEK SCREW

MIN 90mm COVER FLASHING

FASCIA BOARD

TIMBER PACKER

WEATHERBOARDS ON CAVITY

MIN. 35mm OVERLAP

PRE-FINISHED SELF DRILLING/TAPPING SCREW WITH NEOPRENE WASHER

PRE-FINISHED EAVE FLASHING

FIXINGS AS PER E2/AS1

TIMBER PURLIN

TIMBER PACKER

PERMEABLE UNDERLAY, SHOWN DASHED

ROOF FRAMING

Metalcraft
Roofing

www.metalcraftgroup.co.nz

DISCLAIMER:
 All details are to be used for indicative purposes only and the designer should consult both the MRM code of practice version 3.0 / 2022, E2 and all other relevant building codes.
 Details of the supporting mechanisms are indicative only. Compliance of the supporting mechanisms is the responsibility of the designer. Construction detail can vary for wall cladding. The underlay is detailed as a single line for simplicity and is indicative only. Building paper type and method of installation should comply with underlay manufacturers recommendations and NZBC regulations.

FLUSH EAVE WITH INTERNAL GUTTER BRACKET

KAHU

Rev. 1.0

RESIDENTIAL ROOFING

Reference RRKA

Date JAN 2023

Scale 1 : 2

Sheet **A 14 / 29**

EAVE FLASHING REQUIRED WHEN ALL OF THE FOLLOWING CONDITIONS ARE MET:
 ROOF PITCH $\leq 10^\circ$
 SOFFIT WIDTH $\leq 100\text{mm}$
 WIND ZONES = VERY HIGH OR EXTRA HIGH
 ENGINEER SPECIFIC DESIGN
 MRM RECOMMENDS TO USE IN AREAS EXPOSED TO CONTAMINATORS SUCH AS SEA SALT OR INDUSTRIAL POLLUTANTS

<10° UN-BAFFLED BY SPOUTING

10-35° = 50mm

>35° = 40mm

MIN. 125 mm

MIN. ROOF PITCH AS PER MRM COP

FOAM CLOSURE USED AS REQUIRED

METALCRAFT KAHU™ ROOFING

PERMEABLE UNDERLAY & NETTING SHOWN DASHED

QUARTER ROUND GUTTER

QUARTER ROUND GUTTER EXTERNAL BRACKET

PRE-FINISHED 8g WAFER-TEK SCREW

MIN 90mm COVER FLASHING

FASCIA BOARD

TIMBER PACKER

WEATHERBOARDS ON CAVITY

MIN. 35mm OVERLAP

PRE-FINISHED SELF DRILLING/TAPPING SCREW WITH NEOPRENE WASHER

PRE-FINISHED EAVE FLASHING

FIXINGS AS PER E2/AS1

TIMBER PURLIN

TIMBER PACKER

PERMEABLE UNDERLAY, SHOWN DASHED

ROOF FRAMING

Metalcraft
Roofing

www.metalcraftgroup.co.nz

DISCLAIMER:
 All details are to be used for indicative purposes only and the designer should consult both the MRM code of practice version 3.0 / 2022, E2 and all other relevant building codes.
 Details of the supporting mechanisms are indicative only. Compliance of the supporting mechanisms is the responsibility of the designer. Construction detail can vary for wall cladding. The underlay is detailed as a single line for simplicity and is indicative only. Building paper type and method of installation should comply with underlay manufacturers recommendations and NZBC regulations.

FLUSH EAVE WITH EXTERNAL GUTTER BRACKET

KAHU

Rev. 1.0

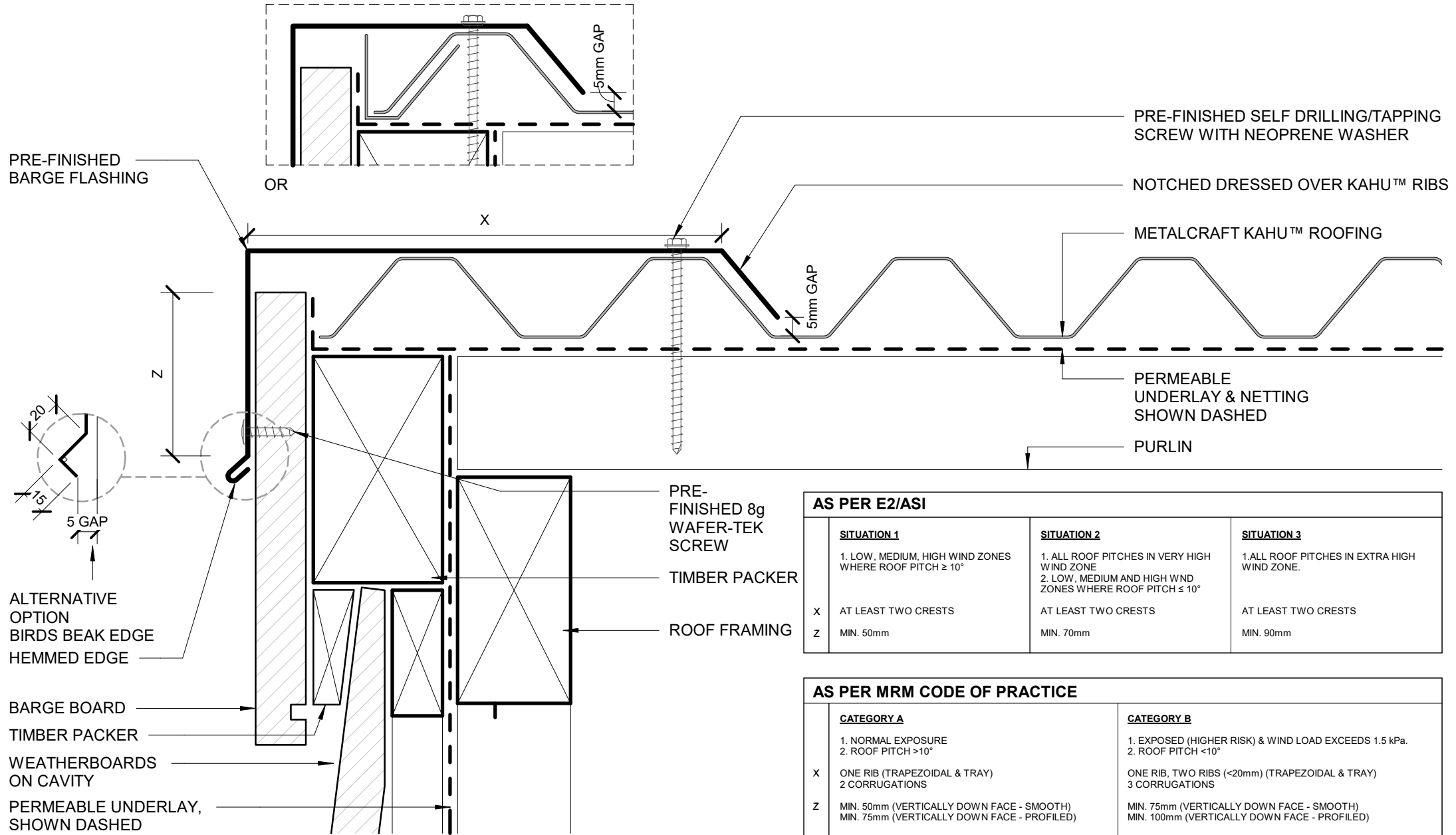
RESIDENTIAL ROOFING

Reference RRKA

Date JAN 2023

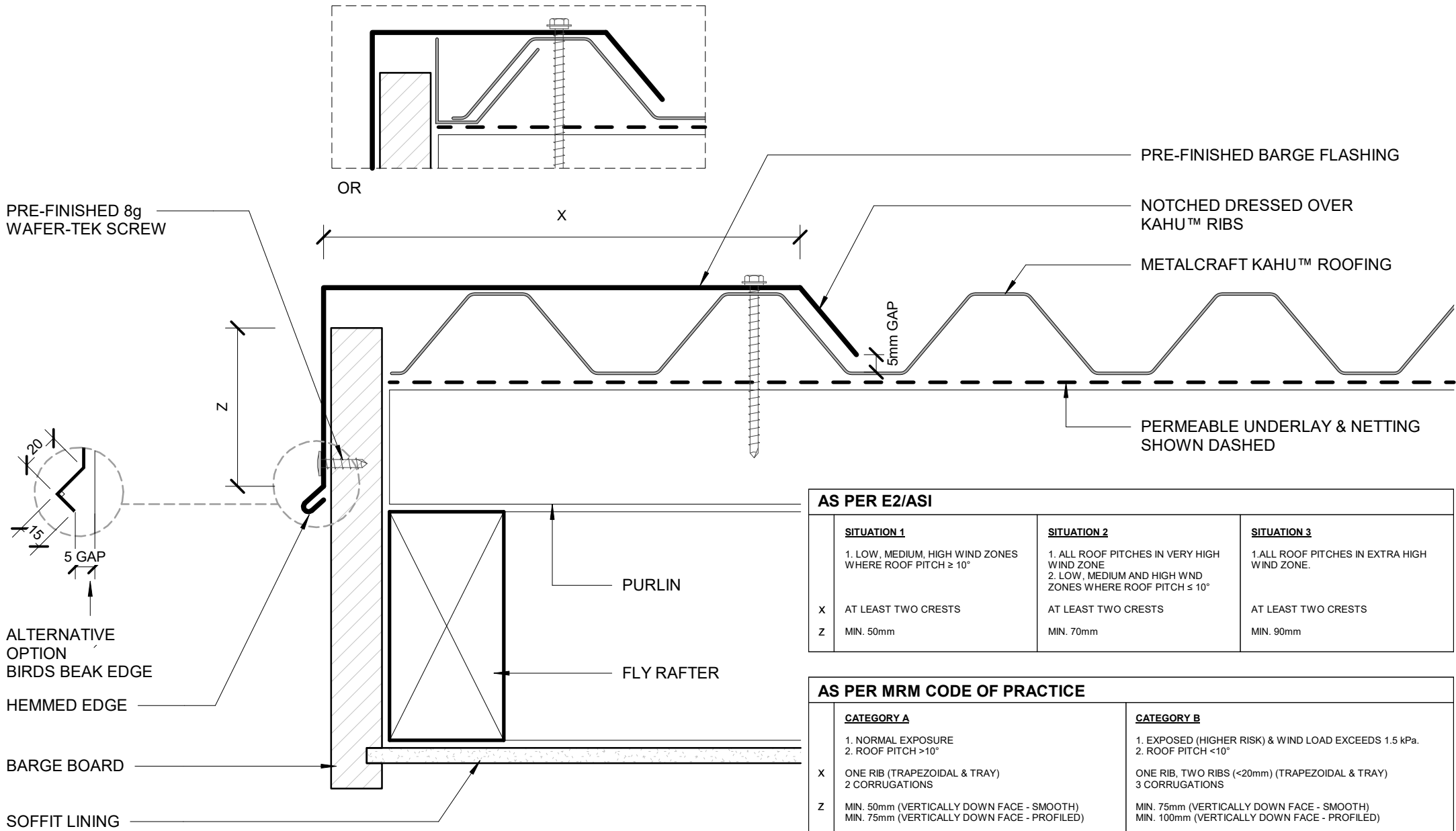
Scale 1 : 2

Sheet **A 15 / 29**



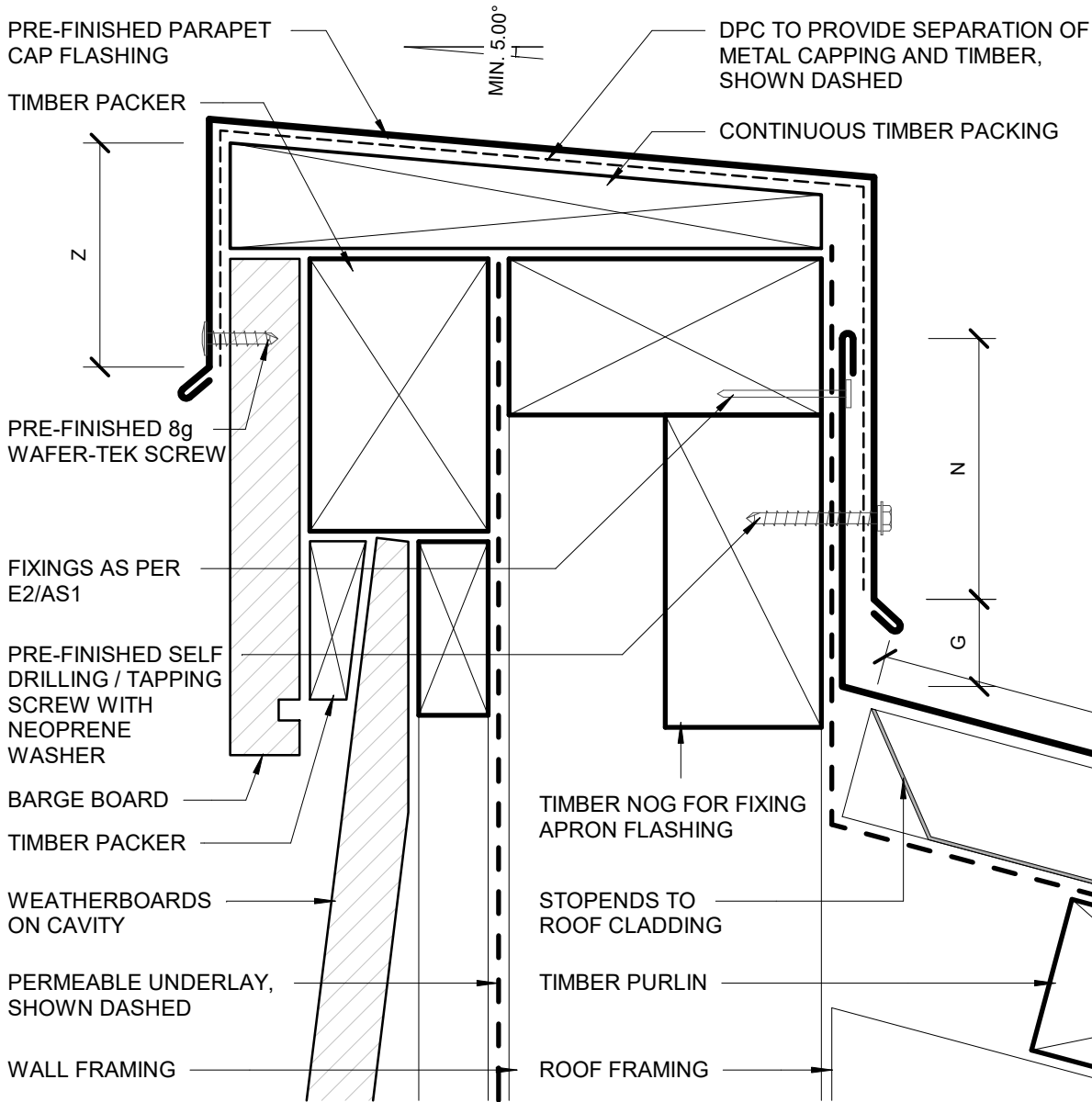
AS PER E2/ASI			
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM AND HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE.
X	AT LEAST TWO CRESTS	AT LEAST TWO CRESTS	AT LEAST TWO CRESTS
Z	MIN. 50mm	MIN. 70mm	MIN. 90mm

AS PER MRM CODE OF PRACTICE		
	CATEGORY A	CATEGORY B
	1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$
X	ONE RIB (TRAPEZOIDAL & TRAY) 2 CORRUGATIONS	ONE RIB, TWO RIBS ($<20\text{mm}$) (TRAPEZOIDAL & TRAY) 3 CORRUGATIONS
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)



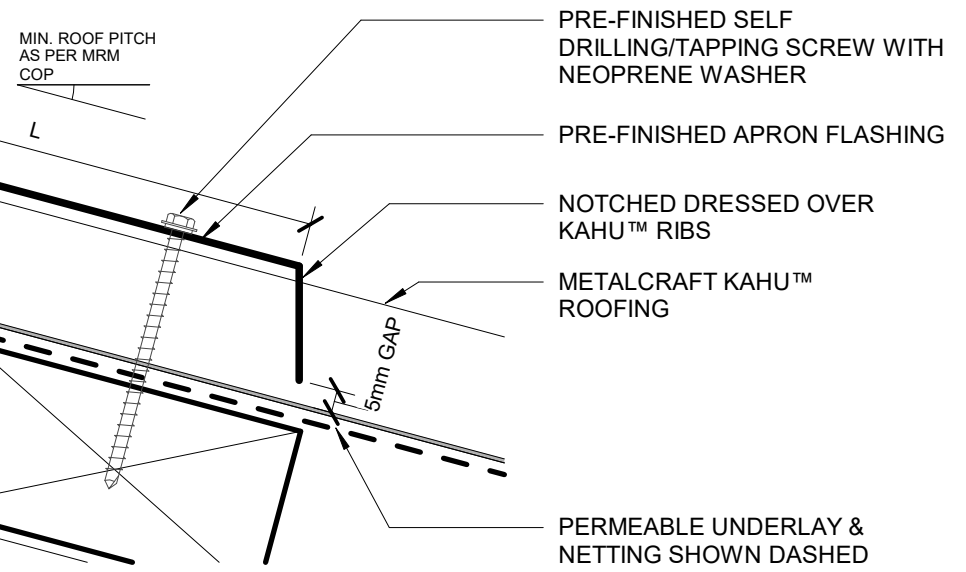
AS PER E2/ASI			
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM AND HIGH WND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE.
X	AT LEAST TWO CRESTS	AT LEAST TWO CRESTS	AT LEAST TWO CRESTS
Z	MIN. 50mm	MIN. 70mm	MIN. 90mm

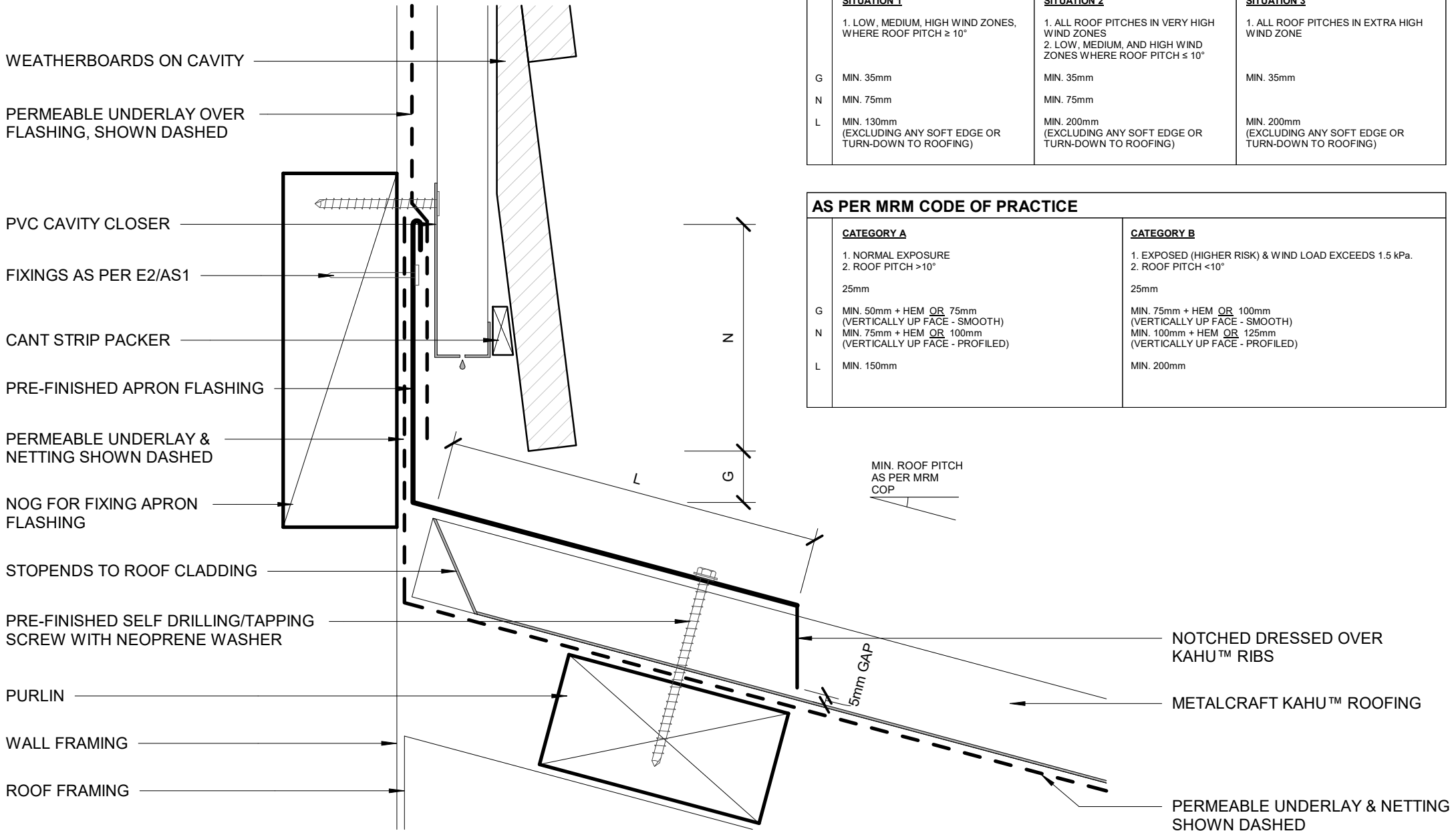
AS PER MRM CODE OF PRACTICE		
	CATEGORY A	CATEGORY B
	1. NORMAL EXPOSURE 2. ROOF PITCH $> 10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $< 10^\circ$
X	ONE RIB (TRAPEZOIDAL & TRAY) 2 CORRUGATIONS	ONE RIB, TWO RIBS ($< 20\text{mm}$) (TRAPEZOIDAL & TRAY) 3 CORRUGATIONS
Z	MIN. 50mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 75mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 100mm (VERTICALLY DOWN FACE - PROFILED)



AS PER E2/ASI			
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM, & HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
G	MIN. 35mm	MIN. 35mm	MIN. 35mm
N	MIN. 75mm	MIN. 75mm	MIN. 75mm
L	MIN. 130mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)
Z	MIN. 50mm	MIN. 70mm	MIN. 90mm

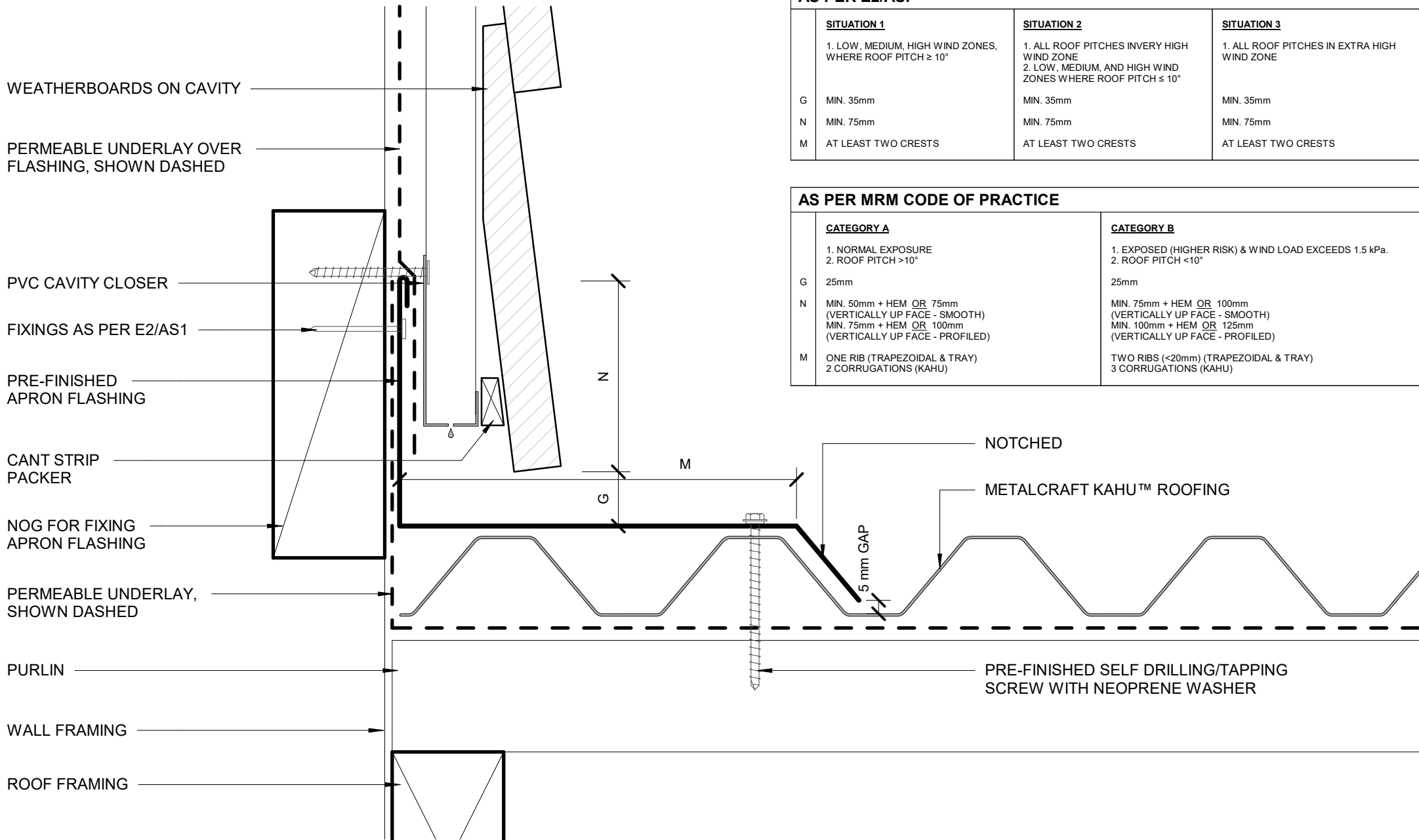
AS PER MRM CODE OF PRACTICE		
	CATEGORY A	CATEGORY B
	1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$
G	25mm	25mm
N	MIN. 50mm + HEM OR 75mm (VERTICALLY UP FACE - SMOOTH) MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - PROFILED)	MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - SMOOTH) MIN. 100mm + HEM OR 125mm (VERTICALLY UP FACE - PROFILED)
L	MIN. 150mm	MIN. 200mm
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)





AS PER E2/AS1			
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONES 2. LOW, MEDIUM, AND HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
G	MIN. 35mm	MIN. 35mm	MIN. 35mm
N	MIN. 75mm	MIN. 75mm	
L	MIN. 130mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)	MIN. 200mm (EXCLUDING ANY SOFT EDGE OR TURN-DOWN TO ROOFING)

AS PER MRM CODE OF PRACTICE	
CATEGORY A	CATEGORY B
1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$
25mm	25mm
G MIN. 50mm + HEM OR 75mm (VERTICALLY UP FACE - SMOOTH)	MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - SMOOTH)
N MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - PROFILED)	MIN. 100mm + HEM OR 125mm (VERTICALLY UP FACE - PROFILED)
L MIN. 150mm	MIN. 200mm



AS PER E2/AS1

	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM, AND HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
G	MIN. 35mm	MIN. 35mm	MIN. 35mm
N	MIN. 75mm	MIN. 75mm	MIN. 75mm
M	AT LEAST TWO CRESTS	AT LEAST TWO CRESTS	AT LEAST TWO CRESTS

AS PER MRM CODE OF PRACTICE

	CATEGORY A	CATEGORY B
	1. NORMAL EXPOSURE 2. ROOF PITCH $> 10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $< 10^\circ$
G	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)
M	ONE RIB (TRAPEZOIDAL & TRAY) 2 CORRUGATIONS (KAHU)	TWO RIBS (< 20 mm) (TRAPEZOIDAL & TRAY) 3 CORRUGATIONS (KAHU)

* MIN. 10° FOR PIPE PENETRATION. DIRECT FIX BOOT FLASHING IS APPLICABLE FOR WHEN LESS THAN 50% BLOCKAGE OCCURS. WHEN EXCEEDING 50% BLOCKAGE, REFER TO BACK TRAY BOOT FLASHING

REFER MRM CODE OF PRACTICE

NEOPRENE FLEXIBLE CONE SLEEVE

METALCRAFT KAHU™ ROOFING

PERMEABLE UNDERLAY & NETTING SHOWN DASHED

PRE-FINISHED SELF DRILLING/TAPPING SCREW WITH NEOPRENE WASHER

TIMBER PURLIN

NEOPRENE FLEXIBLE CONE SLEEVE

METALCRAFT KAHU™ ROOFING

PERMEABLE UNDERLAY & NETTING SHOWN DASHED

MIN. ROOF PITCH AS PER MRM 'COP'

ROOF FRAMING

MALLEABLE FLANGE, SCREW OR RIVET FIXED, AND SEALED TO ROOFING PROFILE. FIT NEOPRENE WASHERS TO ALL SCREW FIXINGS. FITTED ON 45° ANGLE IN PLAN. REFER TO MRM CODE OF PRACTICE VERSION 3.0/2019.

PIPE

MALLEABLE FLANGE, SCREW OR RIVET FIXED, AND SEALED TO ROOFING PROFILE. FIT NEOPRENE WASHERS TO ALL SCREW FIXINGS. FITTED ON 45° ANGLE IN PLAN. REFER TO MRM CODE OF PRACTICE VERSION 3.0/2019.

TIMBER PURLIN

ROOF FRAMING

Metalcraft
Roofing

www.metalcraftgroup.co.nz

DISCLAIMER:
All details are to be used for indicative purposes only and the designer should consult both the MRM code of practice version 3.0 / 2022, E2 and all other relevant building codes.
Details of the supporting mechanisms are indicative only. Compliance of the supporting mechanisms is the responsibility of the designer. Construction detail can vary for wall cladding. The underlay is detailed as a single line for simplicity and is indicative only. Building paper type and method of installation should comply with underlay manufacturers recommendations and NZBC regulations.

PIPE PENETRATION DIRECT FIXED BOOT FLASHING
KAHU

Rev. 1.0

RESIDENTIAL ROOFING

Reference RRKA

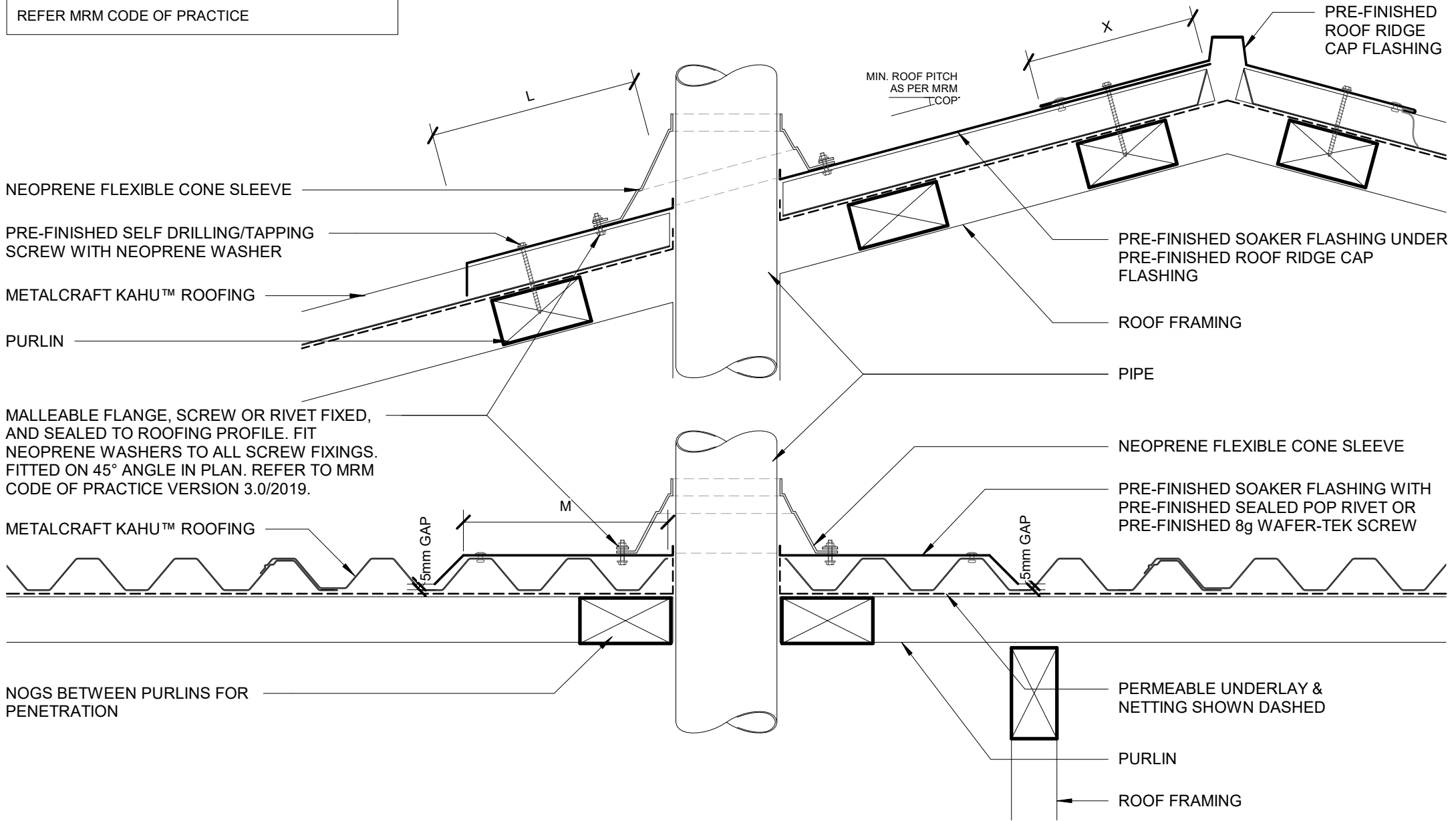
Date JAN 2023

Scale 1 : 5

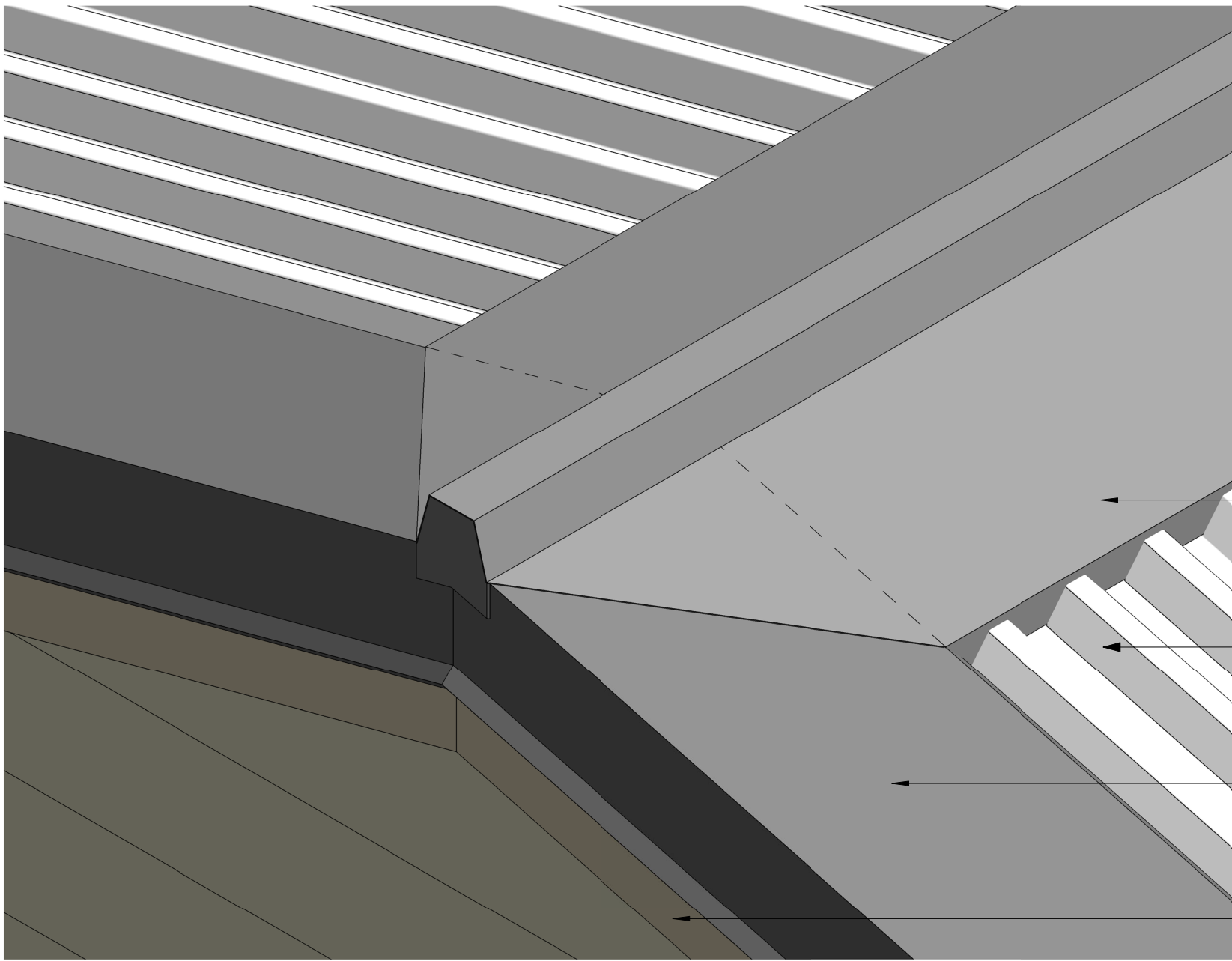
Sheet **A 21 / 29**

* MIN. 3° FOR PIPE PENETRATION WITH A BOOT FLASHING WITH A BACKTRAY.

REFER MRM CODE OF PRACTICE



* PLEASE REFER TO MRM CODE OF PRACTICE VERSION 3.0/2019 AND BRANZ HOW TO ON-SITE GUIDE METAL ROOF FLASHING FOR FURTHER INFORMATION ON FLASHING COVER WIDTHS.



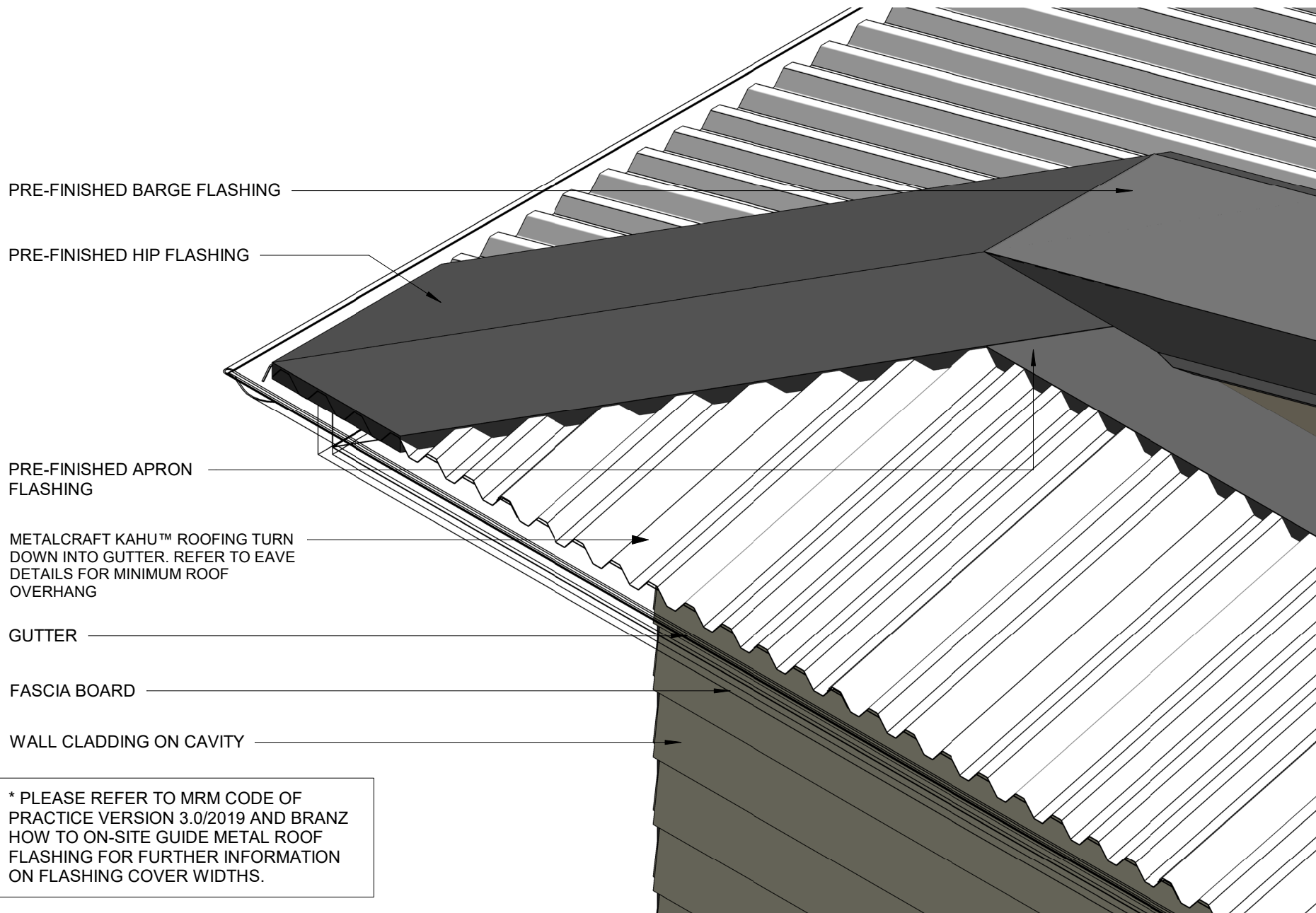
PRE-FINISHED RIDGE CAP FLASHING

METALCRAFT KAHU™ ROOFING

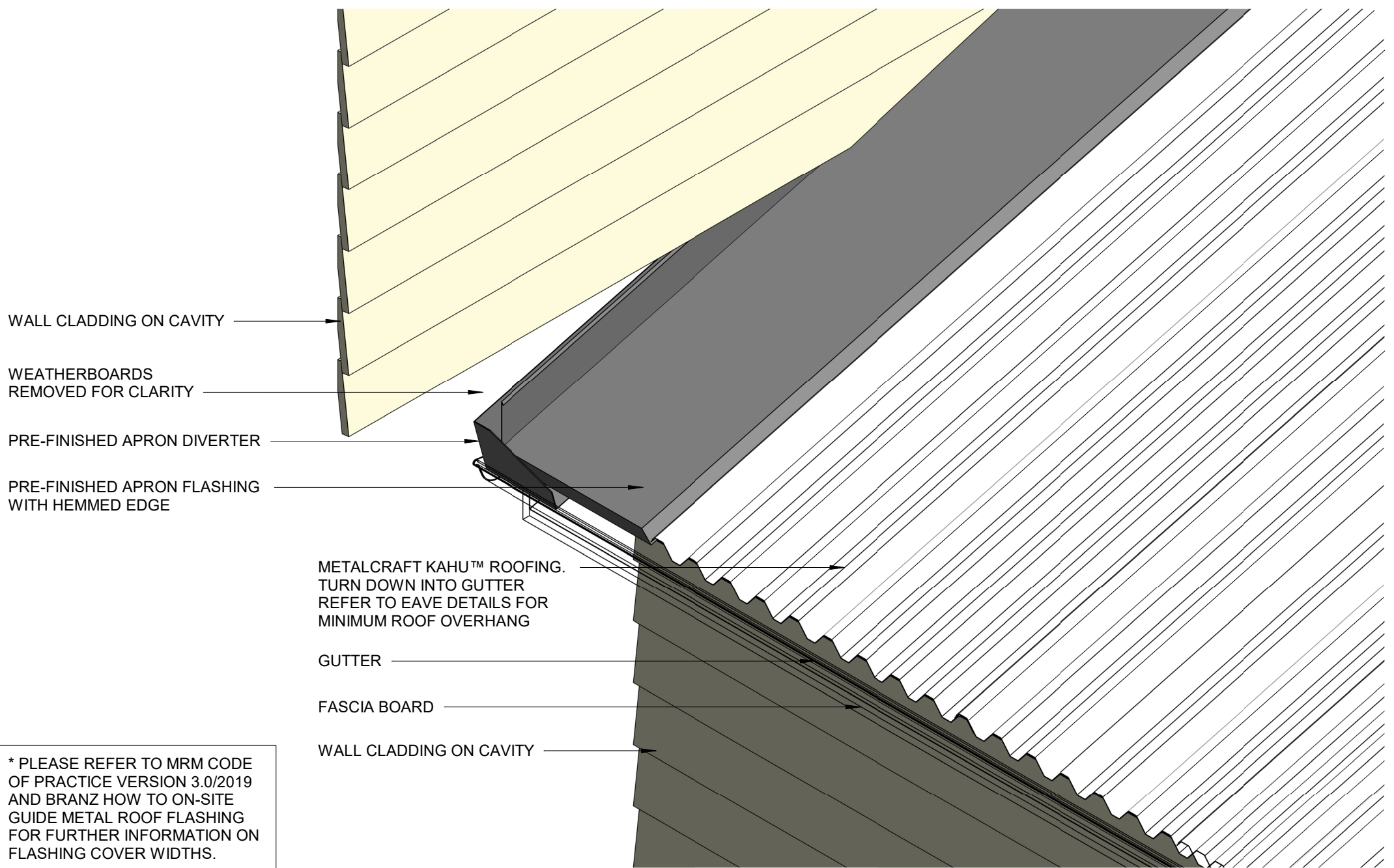
PRE-FINISHED BARGE FLASHING

FASCIA BOARD

3D RIDGE TO BARGE JUNCTION
RESIDENTIAL ROOFING

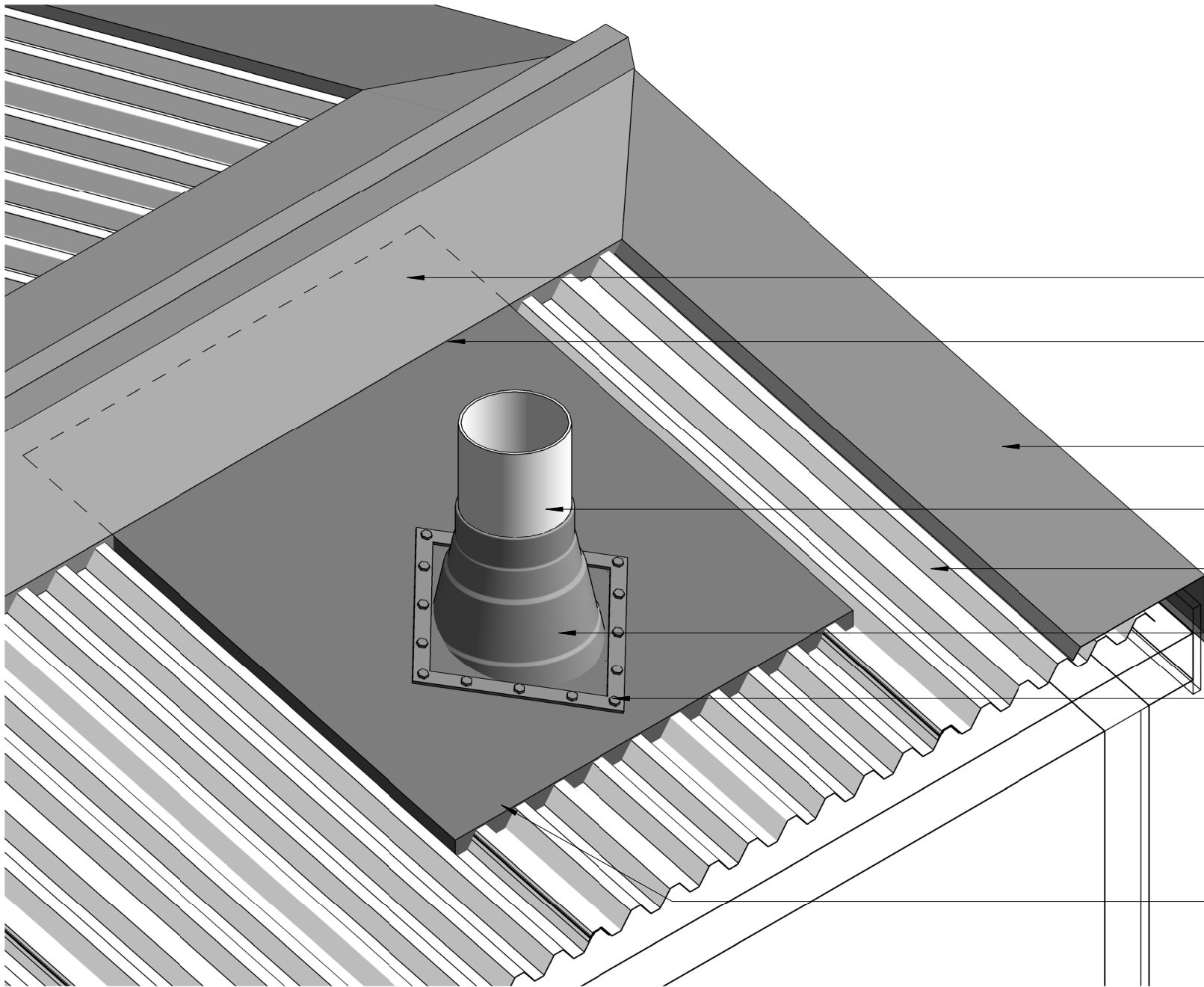


* PLEASE REFER TO MRM CODE OF PRACTICE VERSION 3.0/2019 AND BRANZ HOW TO ON-SITE GUIDE METAL ROOF FLASHING FOR FURTHER INFORMATION ON FLASHING COVER WIDTHS.



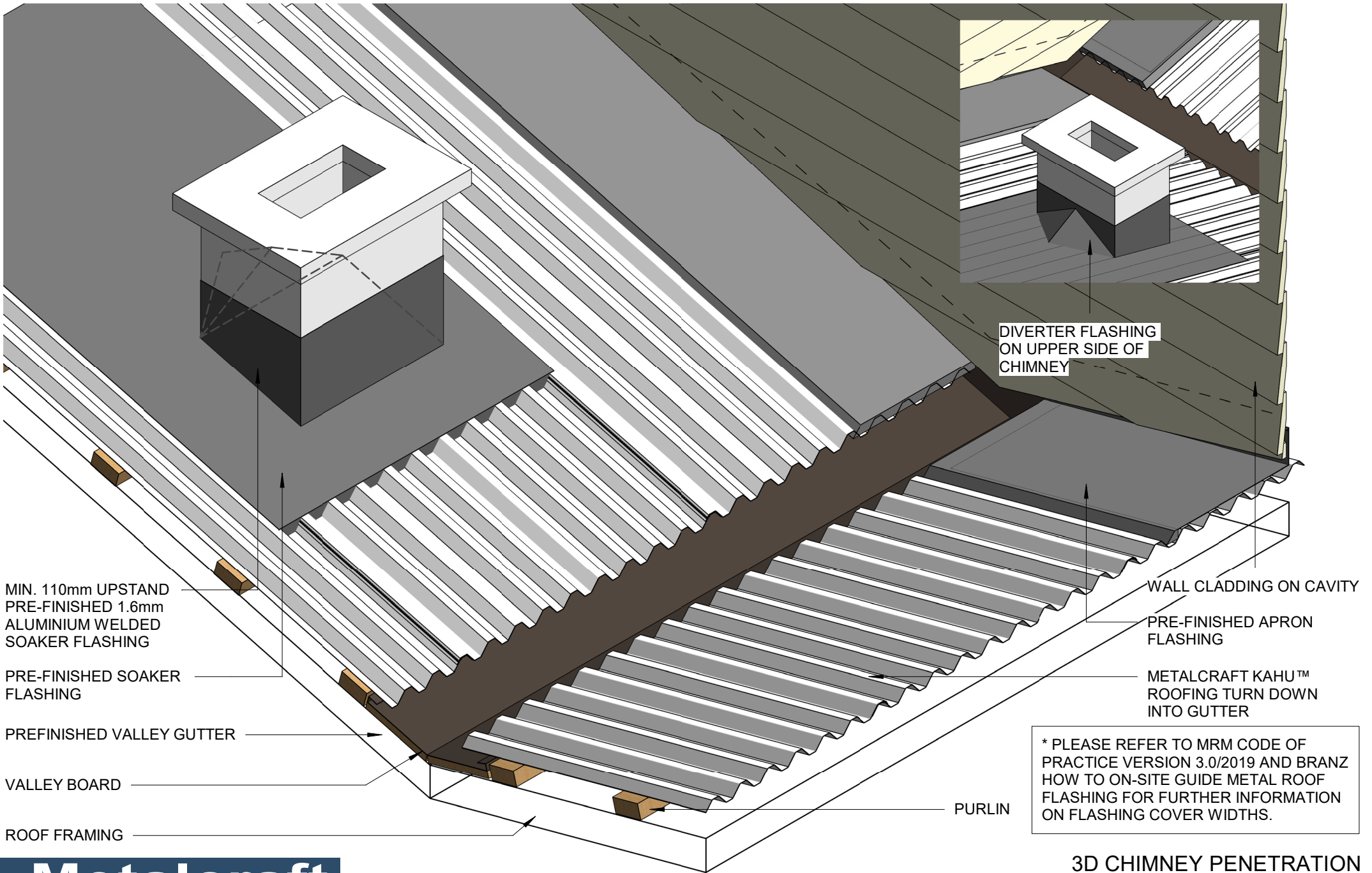
* PLEASE REFER TO MRM CODE OF PRACTICE VERSION 3.0/2019 AND BRANZ HOW TO ON-SITE GUIDE METAL ROOF FLASHING FOR FURTHER INFORMATION ON FLASHING COVER WIDTHS.

* PLEASE REFER TO MRM CODE OF PRACTICE VERSION 3.0/2019 AND BRANZ HOW TO ON-SITE GUIDE METAL ROOF FLASHING FOR FURTHER INFORMATION ON FLASHING COVER WIDTHS.



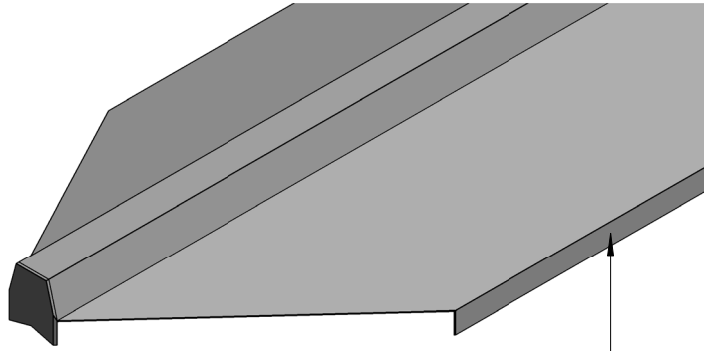
- PRE-FINISHED ROOF RIDGE FLASHING
- PRE-FINISHED SOAKER FLASHING LINE UNDER PRE-FINISHED ROOF RIDGE FLASHING
- PRE-FINISHED ROOF BARGE FLASHING
- PIPE
- METALCRAFT KAHU™ ROOFING
- NEOPRENE FLEXIBLE CONE SLEEVE
- MALLEABLE FLANGE, SCREW OR RIVET FIXED, AND SEALED TO ROOFING PROFILE. FIT NEOPRENE WASHERS TO ALL SCREW FIXINGS. FITTED ON 45° ANGLE IN PLAN. REFER TO MRM CODE OF PRACTICE VERSION 3.0/2019
- PRE-FINISHED SOAKER FLASHING

3D OVER 85mm DIAMETER PIPE PENETRATION



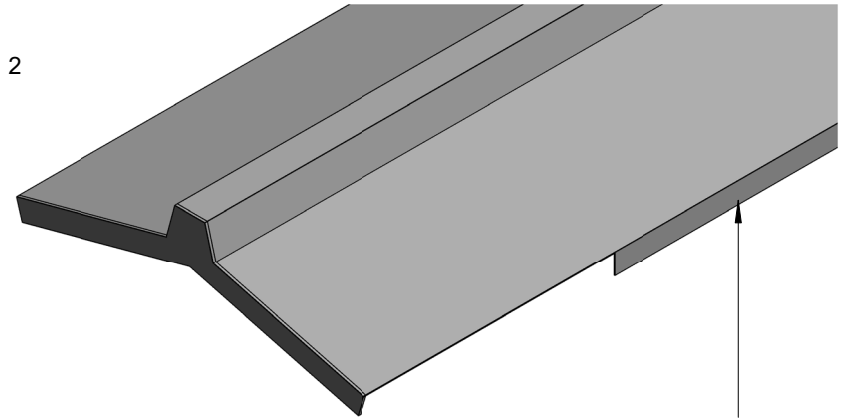
* PLEASE REFER TO MRM CODE OF PRACTICE VERSION 3.0/2019 AND BRANZ HOW TO ON-SITE GUIDE METAL ROOF FLASHING FOR FURTHER INFORMATION ON FLASHING COVER WIDTHS.

OPTION 1

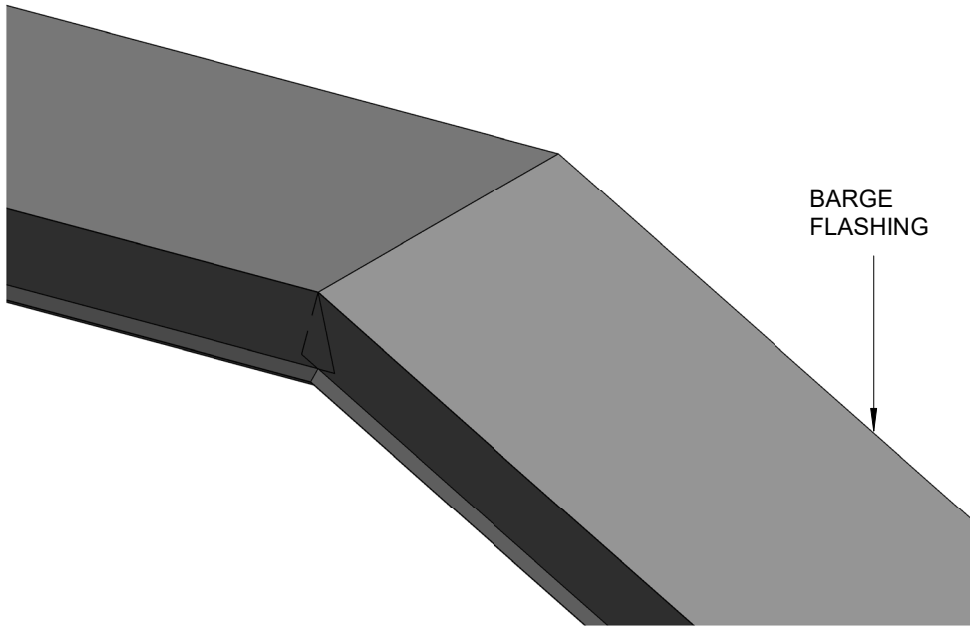


RIDGE CAP FLASHING

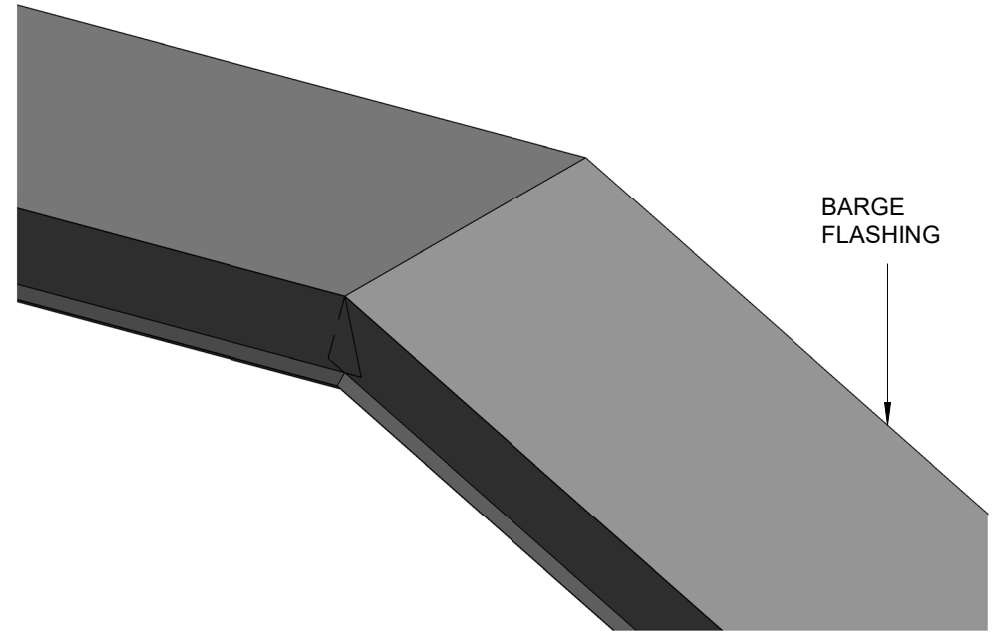
OPTION 2



RIDGE CAP FLASHING



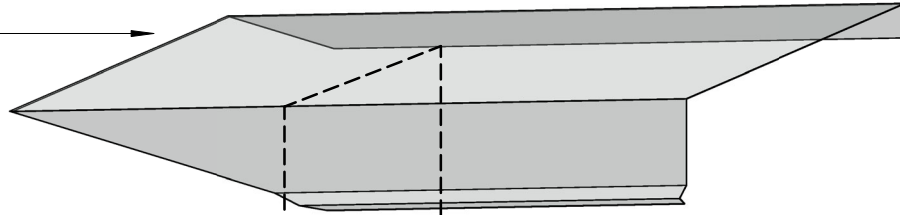
BARGE FLASHING



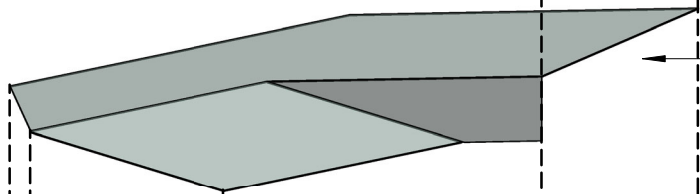
BARGE FLASHING

3D RIDGE/BARGE FLASHINGS
RESIDENTIAL ROOFING

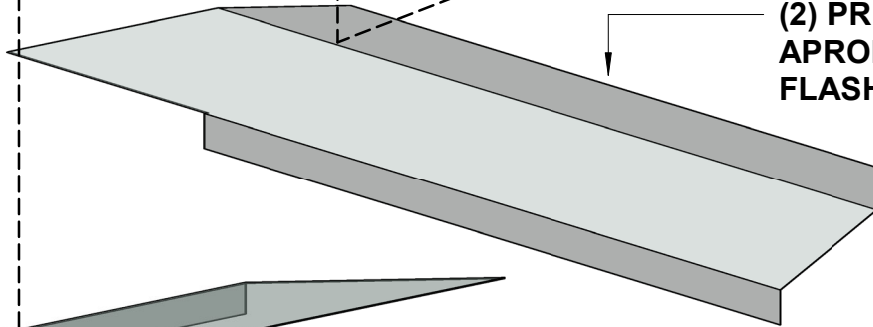
(4) PRE-FINISHED BARGE FLASHING



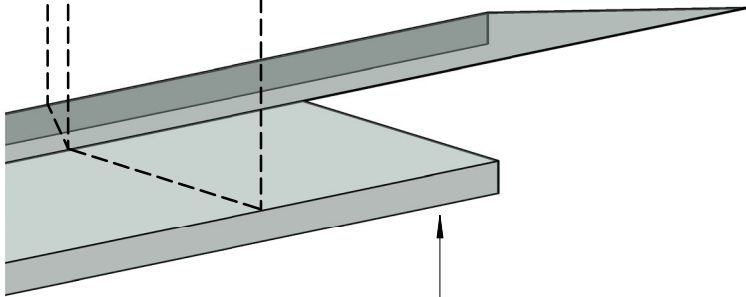
(3) PRE-FINISHED 3D SADDLE FLASHING



(2) PRE-FINISHED APRON FLASHING



(1) PRE-FINISHED HIP FLASHING



* PLEASE REFER TO MRM CODE OF PRACTICE VERSION 3.0/2019 AND BRANZ HOW TO ON-SITE GUIDE METAL ROOF FLASHINGS FOR FURTHER INFORMATION ON FLASHING COVER WIDTHS.

