

Total System Depth (mm)	Bracket / insulation Thickness (mm)	Thermal Performance (W/m <sup>2</sup> K)	Acoustic Performance RW (db)	System Weight (Kg/m <sup>2</sup> )
140	120	0.36	36	10.6
160	140	0.31	38	10.9
180	160	0.27	40	11.2
200	180	0.24	42	11.4
220	200	0.21	43	11.4
240	220	0.19	45	12.0
260	240	0.18	46	12.2

**N14/3 SINUS EXTERNAL PROFILE**  
GAUGE - 0.7mm  
COATING - PROTEX APPROVED

**PROTEX APPROVED - EXTERNAL MAIN FIXING**  
STAINLESS STEEL SELF DRILLING & SELF TAPPING  
PAINTED / MOULDED HEAD  
16mm Ø EDPM WASHER  
**PATTERN**  
SHEET ENDS - EVERY 3 NO. TROUGHS - 5 NO. FIXINGS  
INTERMEDIATE SUPPORTS - EVERY 3 NO. TROUGHS - 5 NO. FIXINGS

**PROTEX APPROVED - EXTERNAL STITCHER FIXING**  
STAINLESS STEEL SELF DRILLING & SELF TAPPING  
PAINTED / MOULDED HEAD  
16mm Ø EDPM WASHER  
**PATTERN**  
SIDE LAP - 600mm CENTRES

**PROTEX APPROVED - SPACER SYSTEM**  
BRACKET DEPTH TO SUIT U-VALUE CALCULATIONS  
MINIMUM DEPTH 120mm  
**PATTERN**  
MAX RAIL CENTRE'S 1800mm  
MAX BRACKET CENTRE'S 1000mm  
BRACKET CENTRE'S TO SUIT LOADING CALCULATIONS  
BRACKET MUST BE PLACED WITHIN 100mm OF MALE END OF SPACER SYSTEM JOINT AND BAR END

**PROTEX APPROVED - GLASS FIBRE INSULATION**  
THICKNESS TO SUIT U-VALUE REQUIREMENT  
MINIMUM THICKNESS - 120mm  
FIRE CLASS A1 RATED TO EN 13501-1  
MANUFACTURED IN ACCORDANCE WITH BS EN 13162  
(SUGGESTED THICKNESS TO BE >10% THAN SPACER SYSTEM DEPTH.)

**N1000L+ INTERNAL LINER PROFILE**  
GAUGE - 0.4mm  
COATING - BRIGHT WHITE LINER

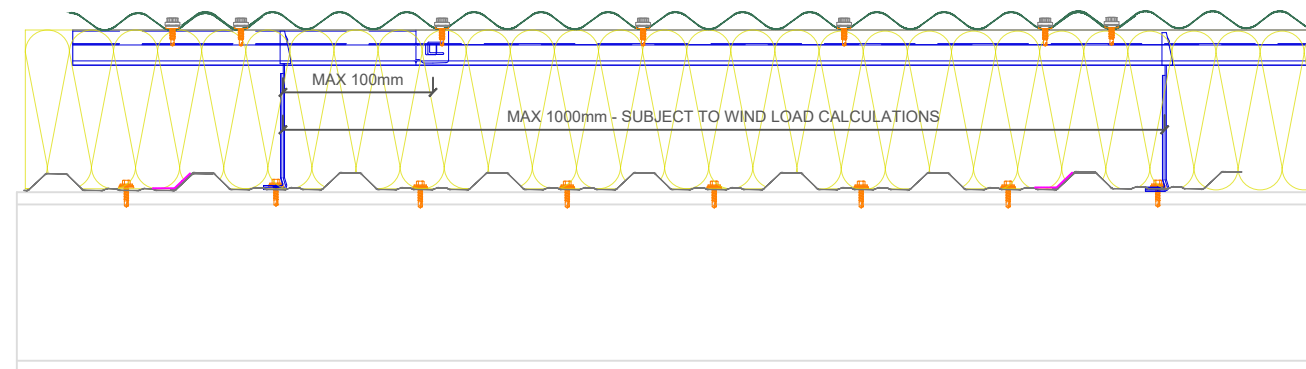
**PROTEX APPROVED - LINER SIDE LAP SEALANT**  
50mm \* 1mm BUTYL TAPE  
**LOCATION**  
1-NO. CONTINUOUS RUN. POSITIONED CENTRAL OVER JOIN

**PROTEX APPROVED - LINER MAIN FIXING**  
STAINLESS STEEL SELF DRILLING & SELF TAPPING  
16mm Ø EDPM WASHER  
**PATTERN**  
SHEET ENDS - EVERY TROUGH - 6 NO. FIXINGS  
INTERMEDIATE SUPPORTS - ALTERNATE TROUGH - 4 NO. FIXINGS

**PROTEX APPROVED - BRACKET FIXING**  
STAINLESS STEEL SELF DRILLING & SELF TAPPING  
16mm Ø EDPM WASHER  
**PATTERN**  
AS PER LAYOUT CALCULATION

DIRECTION OF LAY →

DIRECTION OF LAY →



- INSTALLATION NOTES**
- FLASHING JOINTS SEALED WITH BUTYL
  - FLASHING JOINTS FIXED AT 100mm CENTRES (RIVET OR STITCH)
  - FLASHINGS FIXED AT 450mm CENTRES
  - BRACKET MUST BE POSITIONED WITHIN 100mm OF END OF BAR OR MALE END JOINT
  - NO IMPACT DRIVERS OR CLUTCHLESS DRILLS
  - NO CARBON FIXINGS

REV	DATE	DESCRIPTION



This draft drawing has been supplied by Firth Steels Ltd for guidance purposes only and is provided free of charge. It represents a suggested typical detail and should not be assumed as suitable for any specific project or application. It is essential to read this in conjunction with the Protex System specification documents to ensure completeness of information. Please note, no responsibility is assumed for errors or misinterpretations resulting from the information contained within this drawing. Details depicted are for illustration purposes only, and no liability is accepted for their use. Firth Steels reserves the right to modify details without notice. This drawing is the property of Firth Steels Ltd, any reproduction without explicit written consent is prohibited. Firth Steels is committed to ongoing improvement. The details and data shared in this document are reflective of the current state as of the issue date. It is the duty of the recipients to ensure that the information in this document is still up-to-date at the time of its use.

Drawing Number  
Protex-WS03-1 Side Lap Detail

Drawn by KP	Checked by TO	Date 24/09/2024
----------------	------------------	--------------------

Project Title PRX-WS-03	Size A3	Revision A
----------------------------	------------	---------------

<<< DO NOT SCALE FROM THIS DRAWING >>>

Total System Depth (mm)	Bracket / insulation Thickness (mm)	Thermal Performance (W/m <sup>2</sup> K)	Acoustic Performance RW (db)	System Weight (Kg/m <sup>2</sup> )
140	120	0.36	36	10.6
160	140	0.31	38	10.9
180	160	0.27	40	11.2
200	180	0.24	42	11.4
220	200	0.21	43	11.4
240	220	0.19	45	12.0
260	240	0.18	46	12.2

**PROTEX APPROVED - SPACER SYSTEM**  
 BRACKET DEPTH TO SUIT U-VALUE CALCULATIONS  
 MINIMUM DEPTH 120mm  
**PATTERN**  
 MAX RAIL CENTRE'S 1800mm  
 MAX BRACKET CENTRE'S 1000mm  
 BRACKET CENTRE'S TO SUIT LOADING CALCULATIONS  
 BRACKET MUST BE PLACED WITHIN 100mm OF MALE END OF SPACER SYSTEM JOINT AND BAR END

**PROTEX APPROVED - EXTERNAL MAIN FIXING**  
 STAINLESS STEEL SELF DRILLING & SELF TAPPING  
 PAINTED / MOULDED HEAD  
 16mm Ø EDPM WASHER  
**PATTERN**  
 SHEET ENDS - EVERY 3 NO. TROUGHS - 5 NO. FIXINGS  
 INTERMEDIATE SUPPORTS - EVERY 3 NO. TROUGHS - 5 NO. FIXINGS

**PROTEX APPROVED - EXTERNAL STITCHER FIXING**  
 STAINLESS STEEL SELF DRILLING & SELF TAPPING  
 PAINTED / MOULDED HEAD  
 16mm Ø EDPM WASHER  
**PATTERN**  
 SIDE LAP - 600mm CENTRES

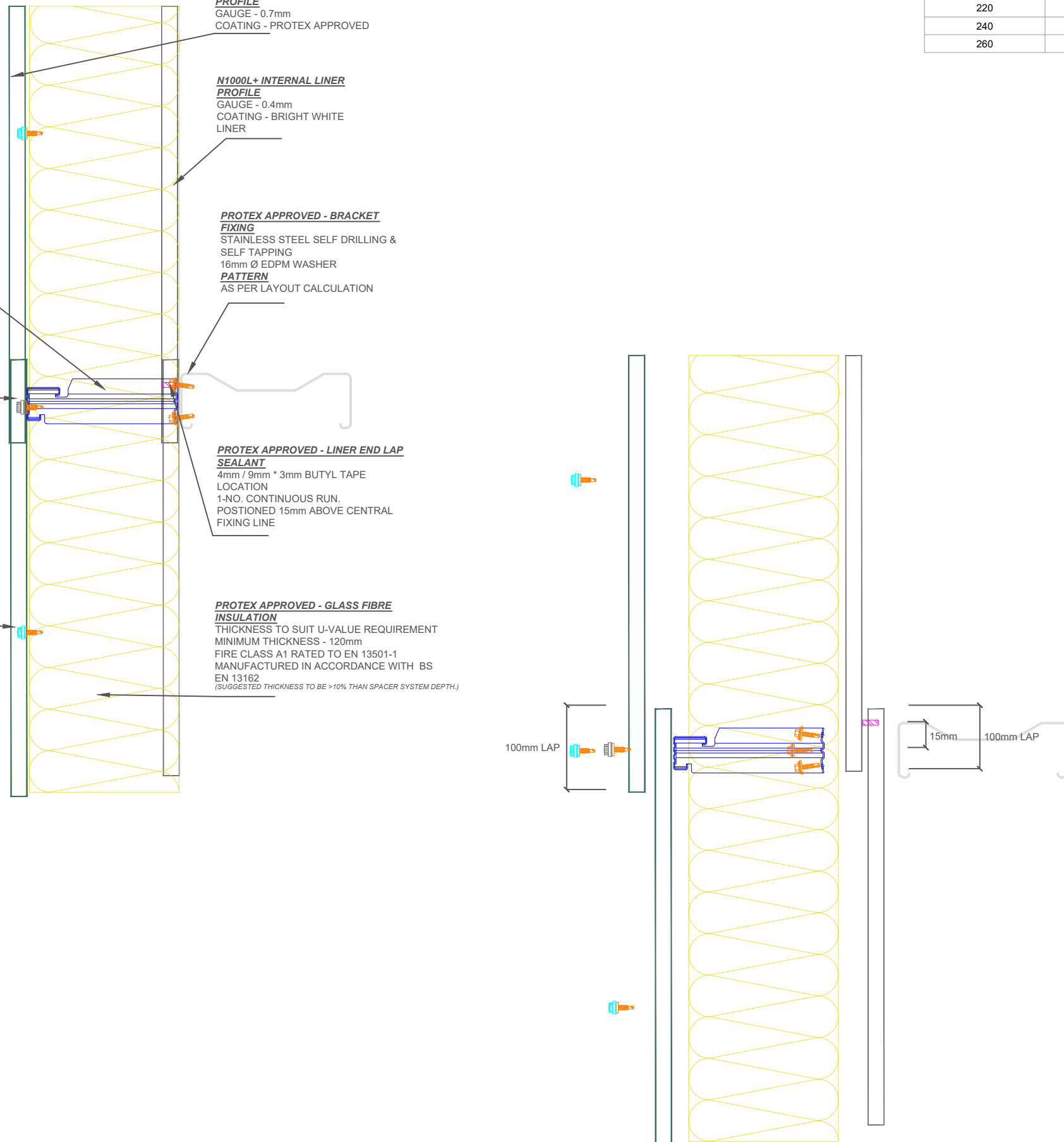
**N14/3 SINUS EXTERNAL PROFILE**  
 GAUGE - 0.7mm  
 COATING - PROTEX APPROVED

**N1000L+ INTERNAL LINER PROFILE**  
 GAUGE - 0.4mm  
 COATING - BRIGHT WHITE LINER

**PROTEX APPROVED - BRACKET FIXING**  
 STAINLESS STEEL SELF DRILLING & SELF TAPPING  
 16mm Ø EDPM WASHER  
**PATTERN**  
 AS PER LAYOUT CALCULATION

**PROTEX APPROVED - LINER END LAP SEALANT**  
 4mm / 9mm \* 3mm BUTYL TAPE  
 LOCATION  
 1-NO. CONTINUOUS RUN. POSITIONED 15mm ABOVE CENTRAL FIXING LINE

**PROTEX APPROVED - GLASS FIBRE INSULATION**  
 THICKNESS TO SUIT U-VALUE REQUIREMENT  
 MINIMUM THICKNESS - 120mm  
 FIRE CLASS A1 RATED TO EN 13501-1  
 MANUFACTURED IN ACCORDANCE WITH BS EN 13162  
 (SUGGESTED THICKNESS TO BE >10% THAN SPACER SYSTEM DEPTH.)



- INSTALLATION NOTES**
- FLASHING JOINTS SEALED WITH BUTYL
  - FLASHING JOINTS FIXED AT 100mm CENTRES (RIVET OR STITCH)
  - FLASHINGS FIXED AT 450mm CENTRES
  - BRACKET MUST BE POSITIONED WITHIN 100mm OF END OF BAR OR MALE END JOINT
  - NO IMPACT DRIVERS OR CLUTCHLESS DRILLS
  - NO CARBON FIXINGS

REV	DATE	DESCRIPTION

**FirthSteels**  
 Firth Steels Ltd, Calderbank, River Street, Brighouse, West Yorkshire HD6 1LU  
 Technical@firth-steels.co.uk +44 1484 405940 Firth-steels.co.uk

SGS, UKAS, PlanetMark

**PROTEX**

UKCA, LPCB, UKAS

LPS 1181 Curt/LPCB ref. 1611a

This draft drawing has been supplied by Firth Steels Ltd for guidance purposes only and is provided free of charge. It represents a suggested typical detail and should not be assumed as suitable for any specific project or application. It is essential to read this in conjunction with the Protex System specification documents to ensure completeness of information. Please note, no responsibility is assumed for errors or misinterpretations resulting from the information contained within this drawing. Details depicted are for illustration purposes only, and no liability is accepted for their use. Firth Steels reserves the right to modify details without notice. This drawing is the property of Firth Steels Ltd, any reproduction without explicit written consent is prohibited. Firth Steels is committed to ongoing improvement. The details and data shared in this document are reflective of the current state as of the issue date. It is the duty of the recipients to ensure that the information in this document is still up-to-date at the time of its use.

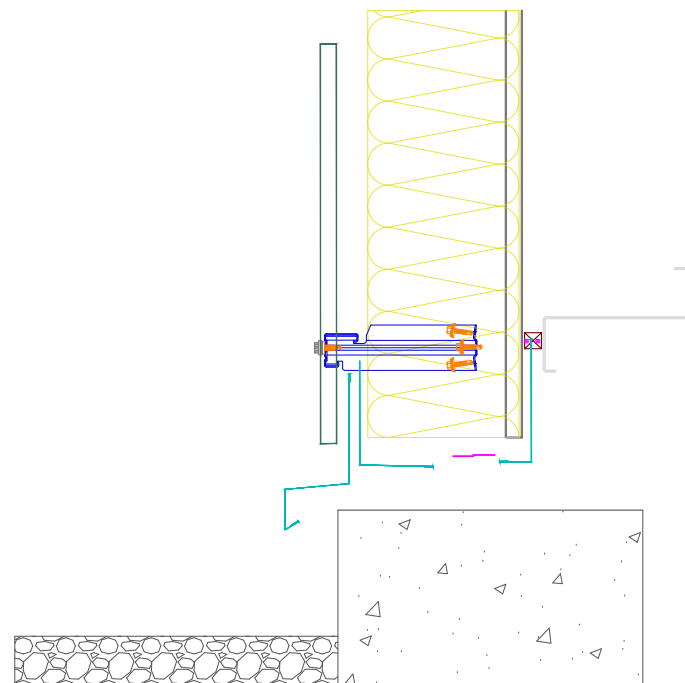
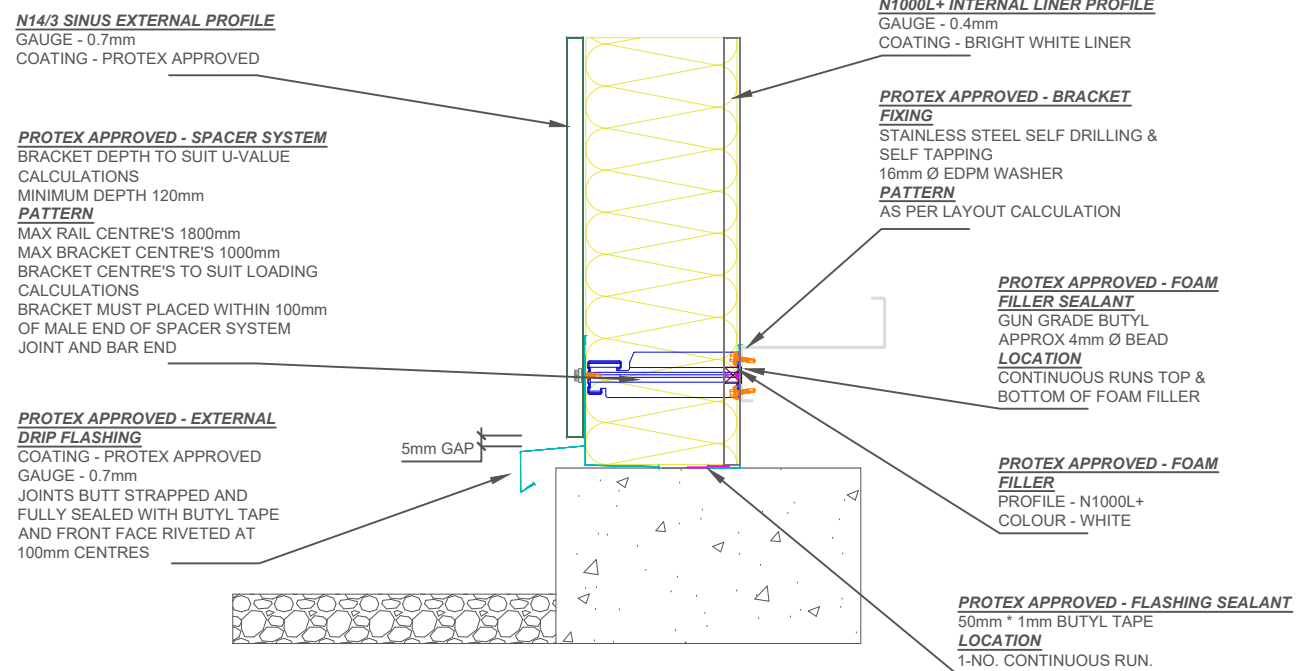
Drawing Number  
**Protex-WS03-2 End Lap Detail**

Drawn by: **KP**      Checked by: **TO**      Date: **24/09/2024**

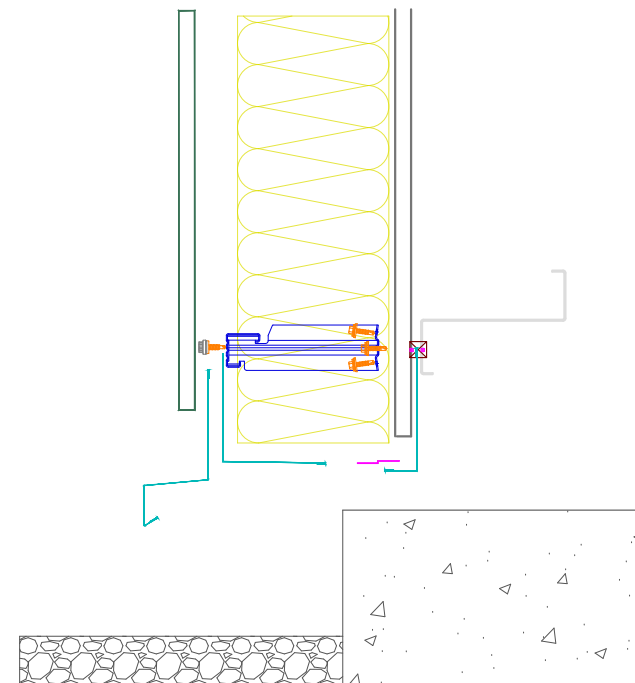
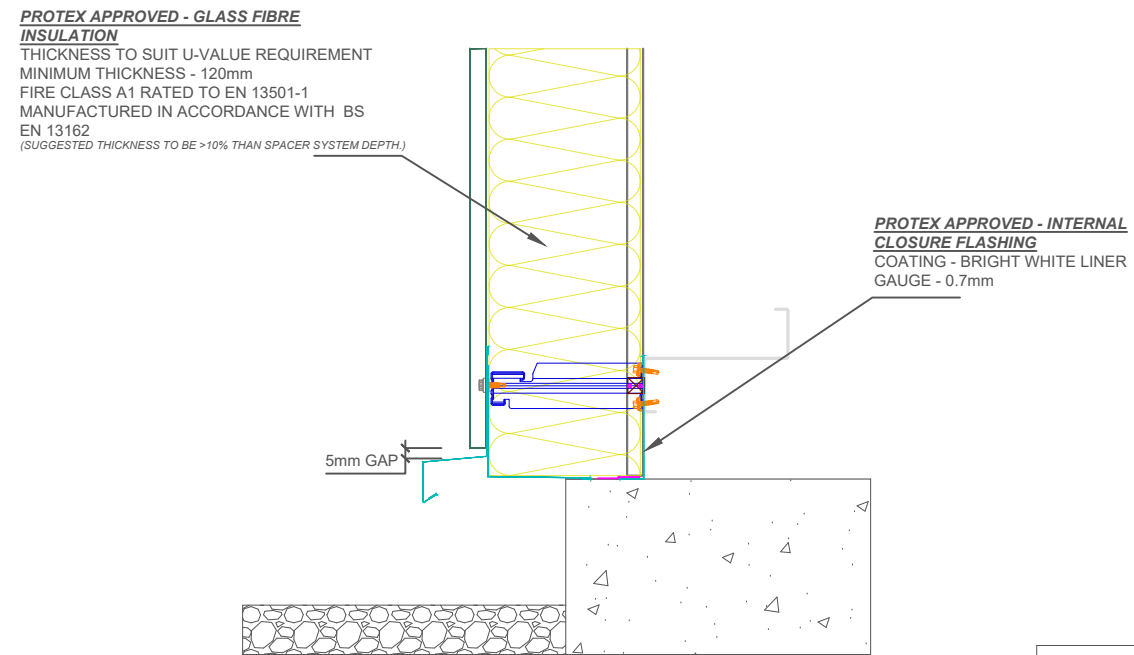
Project Title: **PRX-WS-03**      Size: **A3**      Revision: **A**

<<< DO NOT SCALE FROM THIS DRAWING >>>

## INLINE BASE DETAIL



## OVERHANGING BASE DETAIL



- INSTALLATION NOTES**
- FLASHING JOINTS SEALED WITH BUTYL
  - FLASHING JOINTS FIXED AT 100mm CENTRES (RIVET OR STITCH)
  - FLASHINGS FIXED AT 450mm CENTRES
  - BRACKET MUST BE POSITIONED WITHIN 100mm OF END OF BAR OR MALE END JOINT
  - NO IMPACT DRIVERS OR CLUTCHLESS DRILLS
  - NO CARBON FIXINGS

REV	DATE	DESCRIPTION

**FirthSteels**<sup>®</sup>

Firth Steels Ltd, Calderbank, River Street, Brighouse, West Yorkshire HD6 1LU  
Technical@firth-steels.co.uk +44 1484 405940 Firth-steels.co.uk



**PROTEX**<sup>®</sup>

**UK  
CA**



LPS 1181 Curt/LPCB ref. 1611a

This draft drawing has been supplied by Firth Steels Ltd for guidance purposes only and is provided free of charge. It represents a suggested typical detail and should not be assumed as suitable for any specific project or application. It is essential to read this in conjunction with the Protex System specification documents to ensure completeness of information. Please note, no responsibility is assumed for errors or misinterpretations resulting from the information contained within this drawing. Details depicted are for illustration purposes only, and no liability is accepted for their use. Firth Steels reserves the right to modify details without notice. This drawing is the property of Firth Steels Ltd, any reproduction without explicit written consent is prohibited. Firth Steels is committed to ongoing improvement. The details and data shared in this document are reflective of the current state as of the issue date. It is the duty of the recipients to ensure that the information in this document is still up-to-date at the time of its use.

Drawing Number  
**Protex-WS03-3 Drip Detail**

Drawn by KP	Checked by TO	Date 24/09/2024
----------------	------------------	--------------------

Project Title PRX-WS-03	Size A3	Revision A
----------------------------	------------	---------------

<<< DO NOT SCALE FROM THIS DRAWING >>>

**N14/3 SINUS EXTERNAL PROFILE**  
GAUGE - 0.7mm  
COATING - PROTEX APPROVED

**PROTEX APPROVED - EXTERNAL MAIN FIXING**  
STAINLESS STEEL SELF DRILLING & SELF TAPPING  
PAINTED / MOULDED HEAD  
16mm Ø EDPM WASHER  
**PATTERN**  
SHEET ENDS - EVERY 3 NO. TROUGHS - 5 NO.  
**FIXINGS**  
INTERMEDIATE SUPPORTS - EVERY 3 NO. TROUGHS - 5 NO. **FIXINGS**

**PROTEX APPROVED - LINER MAIN FIXING**  
STAINLESS STEEL SELF DRILLING & SELF TAPPING  
16mm Ø EDPM WASHER  
**PATTERN**  
SHEET ENDS - EVERY TROUGH - 6 NO.  
**FIXINGS**  
INTERMEDIATE SUPPORTS - ALTERNATE TROUGH - 4 NO. **FIXINGS**

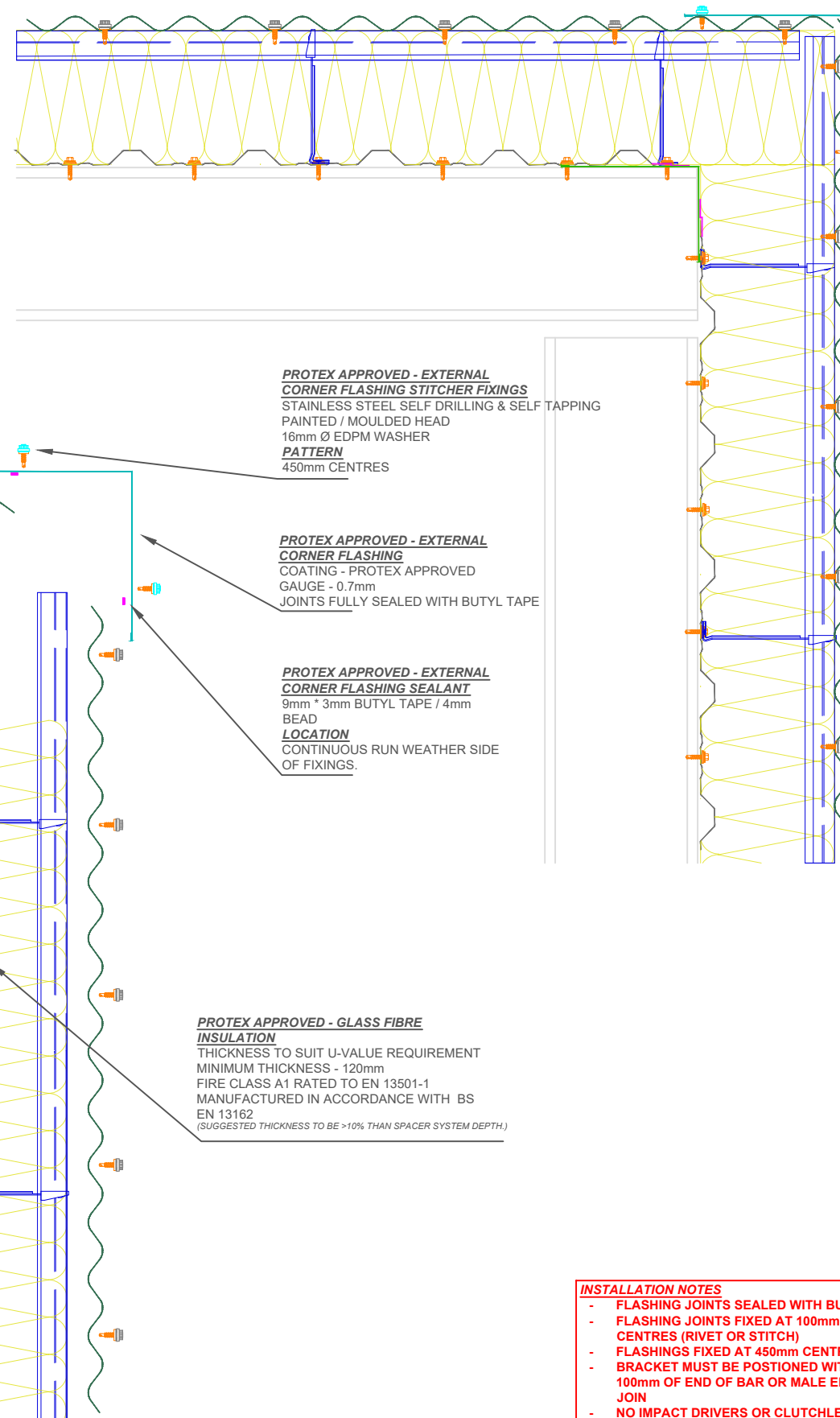
**PROTEX APPROVED - LINER SIDE LAP SEALANT**  
50mm \* 1mm BUTYL TAPE  
**LOCATION**  
1-NO. CONTINUOUS RUN.  
POSITIONED CENTRAL OVER JOIN

**PROTEX APPROVED - INTERNAL DRIP FLASHING**  
COATING - PROTEX APPROVED  
GAUGE - 0.7mm  
JOINTS FULLY SEALED WITH BUTYL TAPE

**PROTEX APPROVED - BRACKET FIXING**  
STAINLESS STEEL SELF DRILLING & SELF TAPPING  
16mm Ø EDPM WASHER  
**PATTERN**  
AS PER LAYOUT CALCULATION

**PROTEX APPROVED - SPACER SYSTEM**  
BRACKET DEPTH TO SUIT U-VALUE CALCULATIONS  
MINIMUM DEPTH 120mm  
**PATTERN**  
MAX RAIL CENTRE'S 1800mm  
MAX BRACKET CENTRE'S 1000mm  
BRACKET CENTRE'S TO SUIT LOADING CALCULATIONS  
BRACKET MUST BE PLACED WITHIN 100mm OF MALE END OF SPACER SYSTEM JOINT AND BAR END

**N1000L+ INTERNAL LINER PROFILE**  
GAUGE - 0.4mm  
COATING - BRIGHT WHITE LINER



**PROTEX APPROVED - EXTERNAL CORNER FLASHING STITCHER FIXINGS**  
STAINLESS STEEL SELF DRILLING & SELF TAPPING  
PAINTED / MOULDED HEAD  
16mm Ø EDPM WASHER  
**PATTERN**  
450mm CENTRES

**PROTEX APPROVED - EXTERNAL CORNER FLASHING**  
COATING - PROTEX APPROVED  
GAUGE - 0.7mm  
JOINTS FULLY SEALED WITH BUTYL TAPE

**PROTEX APPROVED - EXTERNAL CORNER FLASHING SEALANT**  
9mm \* 3mm BUTYL TAPE / 4mm BEAD  
**LOCATION**  
CONTINUOUS RUN WEATHER SIDE OF FIXINGS.

**PROTEX APPROVED - GLASS FIBRE INSULATION**  
THICKNESS TO SUIT U-VALUE REQUIREMENT  
MINIMUM THICKNESS - 120mm  
FIRE CLASS A1 RATED TO EN 13501-1  
MANUFACTURED IN ACCORDANCE WITH BS EN 13162  
(SUGGESTED THICKNESS TO BE >10% THAN SPACER SYSTEM DEPTH.)

- INSTALLATION NOTES**
- FLASHING JOINTS SEALED WITH BUTYL
  - FLASHING JOINTS FIXED AT 100mm CENTRES (RIVET OR STITCH)
  - FLASHINGS FIXED AT 450mm CENTRES
  - BRACKET MUST BE POSITIONED WITHIN 100mm OF END OF BAR OR MALE END JOIN
  - NO IMPACT DRIVERS OR CLUTCHLESS DRILLS
  - NO CARBON FIXINGS

REV	DATE	DESCRIPTION



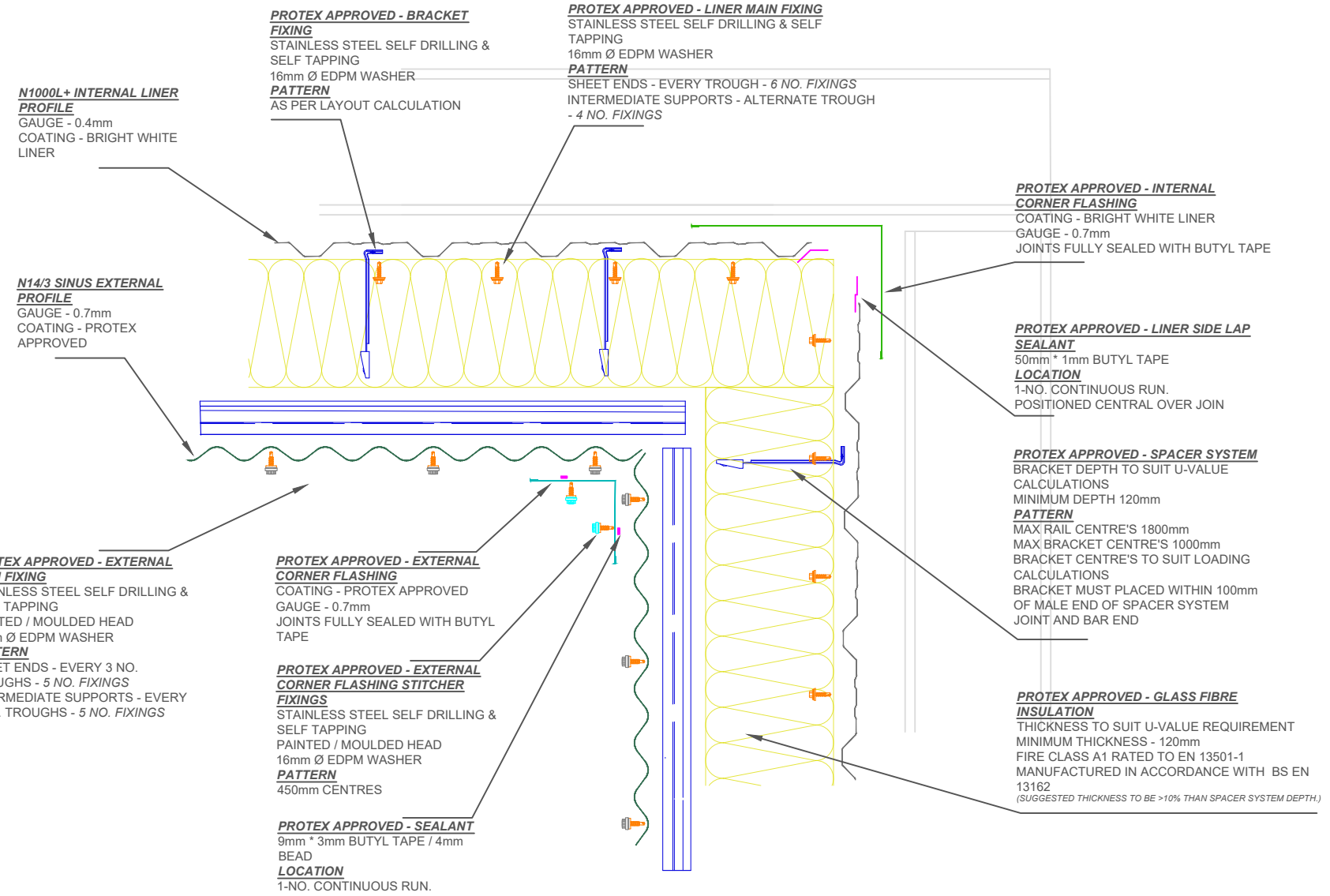
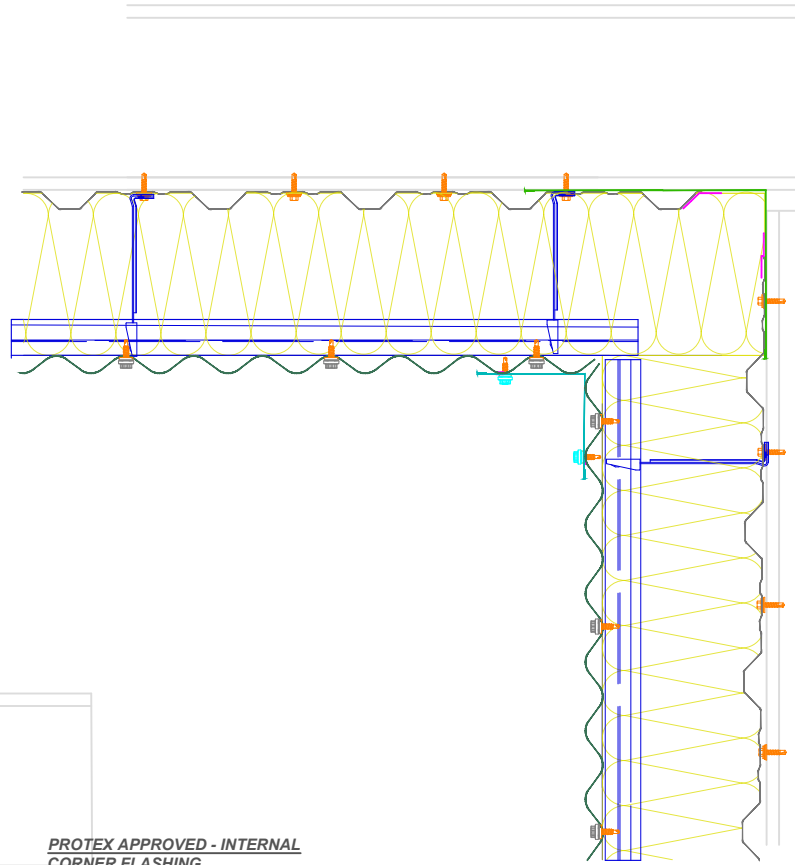
This draft drawing has been supplied by Firth Steels Ltd for guidance purposes only and is provided free of charge. It represents a suggested typical detail and should not be assumed as suitable for any specific project or application. It is essential to read this in conjunction with the Protex System specification documents to ensure completeness of information. Please note, no responsibility is assumed for errors or misinterpretations resulting from the information contained within this drawing. Details depicted are for illustration purposes only, and no liability is accepted for their use. Firth Steels reserves the right to modify details without notice. This drawing is the property of Firth Steels Ltd, any reproduction without explicit written consent is prohibited. Firth Steels is committed to ongoing improvement. The details and data shared in this document are reflective of the current state as of the issue date. It is the duty of the recipients to ensure that the information in this document is still up-to-date at the time of its use.

Drawing Number  
**Protex-WS03-4 Standard External Corner**

Drawn by KP	Checked by TO	Date 24/09/2024
----------------	------------------	--------------------

Project Title PRX-WS-03	Size A3	Revision A
----------------------------	------------	---------------

<<< DO NOT SCALE FROM THIS DRAWING >>>



- INSTALLATION NOTES**
- FLASHING JOINTS SEALED WITH BUTYL
  - FLASHING JOINTS FIXED AT 100mm CENTRES (RIVET OR STITCH)
  - FLASHINGS FIXED AT 450mm CENTRES
  - BRACKET MUST BE POSITIONED WITHIN 100mm OF END OF BAR OR MALE END JOIN
  - NO IMPACT DRIVERS OR CLUTCHLESS DRILLS
  - NO CARBON FIXINGS

REV	DATE	DESCRIPTION

**Firth Steels**<sup>®</sup>  
 Firth Steels Ltd, Calderbank, River Street, Brighouse, West Yorkshire HD6 1LU  
 Technical@firth-steels.co.uk +44 1484 405940 Firth-steels.co.uk

SGS  
 SGS  
 SGS  
 UKAS  
 PLANETMARK

**PROTEX**<sup>®</sup>

UK  
 CA

LPCB  
 UKAS  
 LPS 1181 Cert/LPCB ref. 1611a

This draft drawing has been supplied by Firth Steels Ltd for guidance purposes only and is provided free of charge. It represents a suggested typical detail and should not be assumed as suitable for any specific project or application. It is essential to read this in conjunction with the Protex System specification documents to ensure completeness of information. Please note, no responsibility is assumed for errors or misinterpretations resulting from the information contained within this drawing. Details depicted are for illustration purposes only, and no liability is accepted for their use. Firth Steels reserves the right to modify details without notice. This drawing is the property of Firth Steels Ltd, any reproduction without explicit written consent is prohibited. Firth Steels is committed to ongoing improvement. The details and data shared in this document are reflective of the current state as of the issue date. It is the duty of the recipients to ensure that the information in this document is still up-to-date at the time of its use.

Drawing Number  
**Protex-WS03-5 Internal Corner**

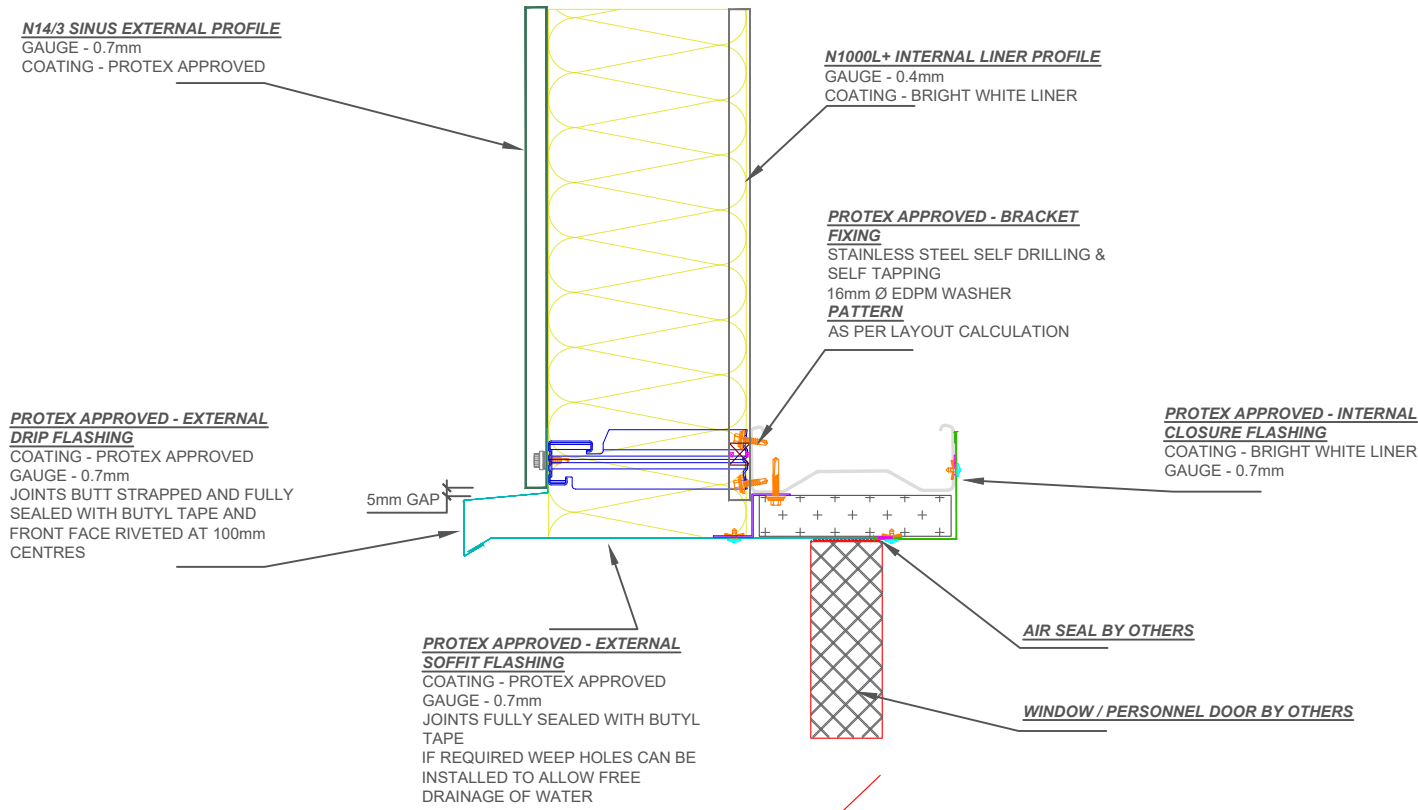
Drawn by KP	Checked by TO	Date 24/09/2024
----------------	------------------	--------------------

Project Title PRX-WS-03	Size A3	Revision A
----------------------------	------------	---------------

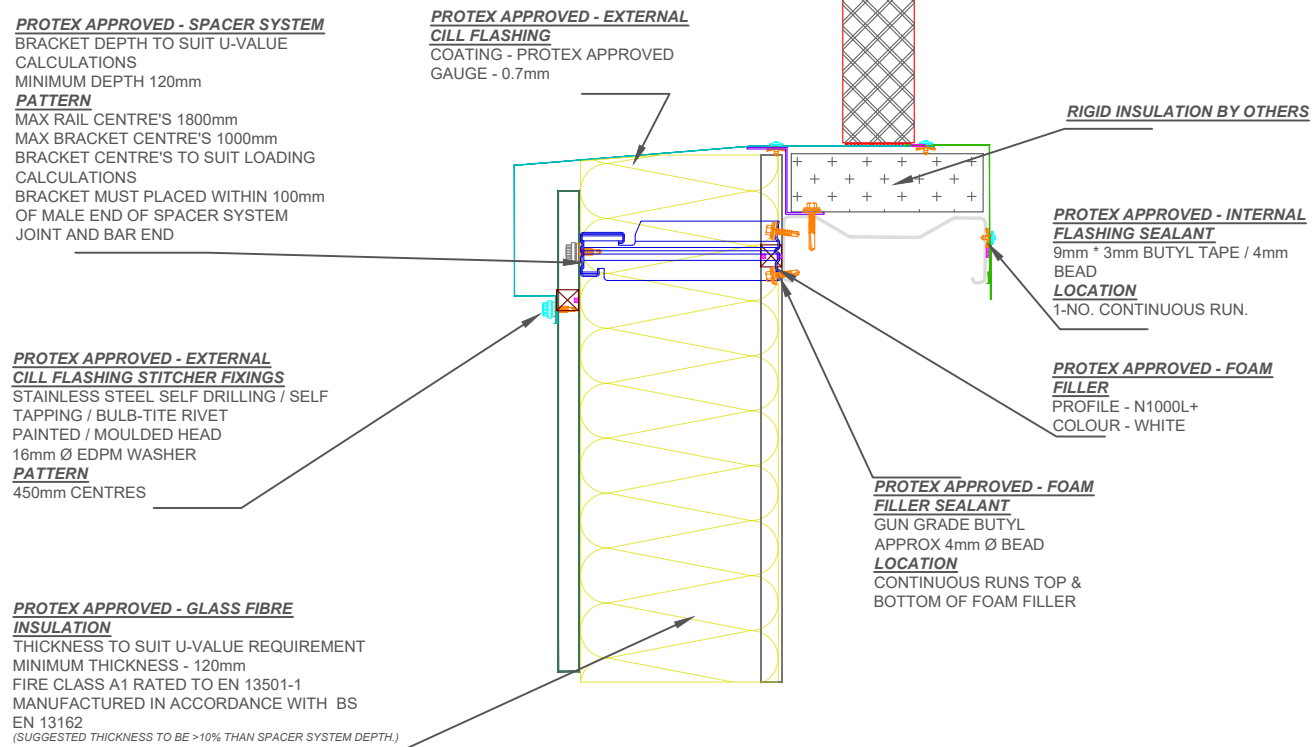
<<< DO NOT SCALE FROM THIS DRAWING >>>



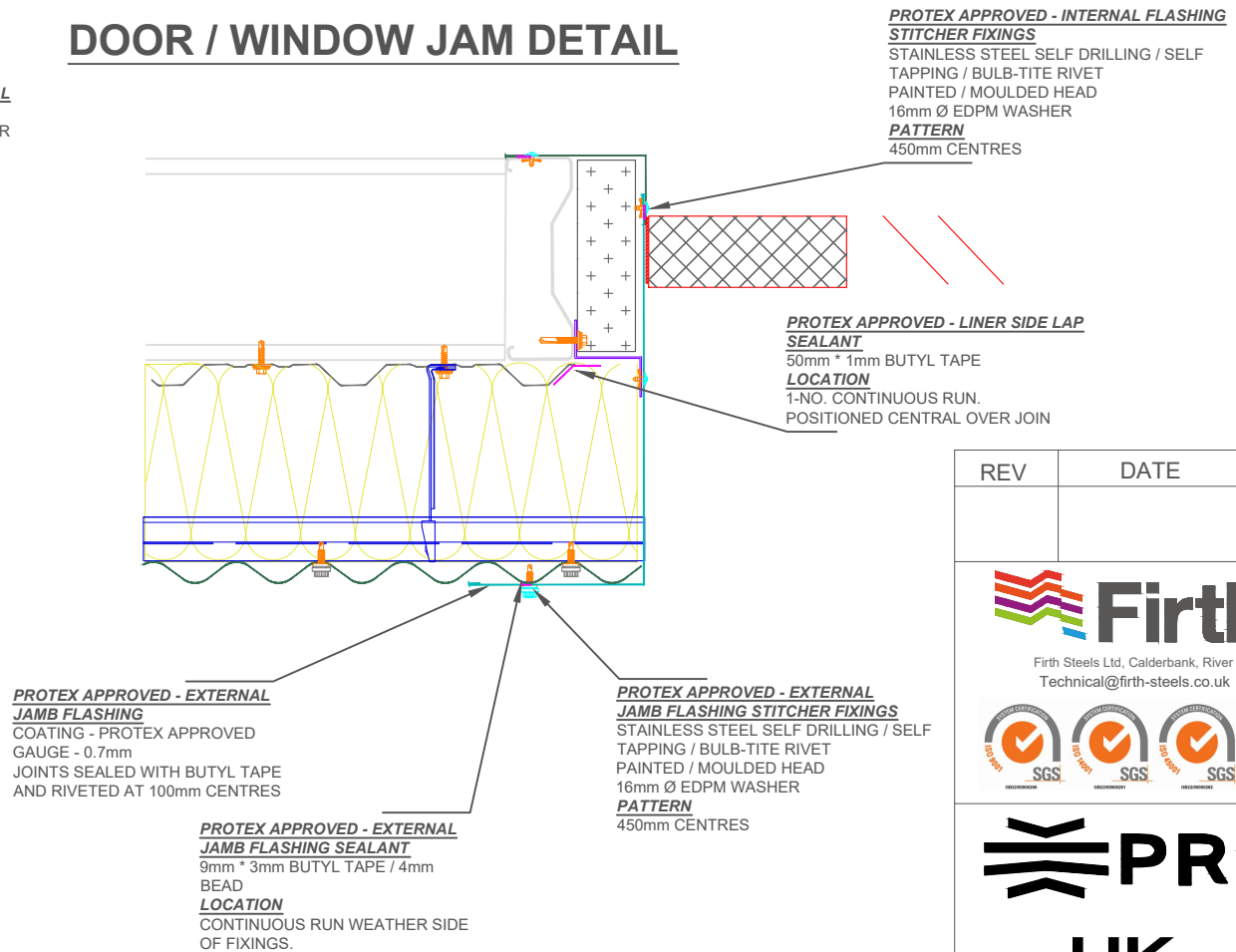
# DOOR / WINDOW HEADER DETAIL



# WINDOW CILL DETAIL



# DOOR / WINDOW JAM DETAIL



- INSTALLATION NOTES**
- FLASHING JOINTS SEALED WITH BUTYL
  - FLASHING JOINTS FIXED AT 100mm CENTRES (RIVET OR STITCH)
  - FLASHINGS FIXED AT 450mm CENTRES
  - BRACKET MUST BE POSITIONED WITHIN 100mm OF END OF BAR OR MALE END JOIN
  - NO IMPACT DRIVERS OR CLUTCHLESS DRILLS
  - NO CARBON FIXINGS

REV	DATE	DESCRIPTION

**FirthSteels**  
Firth Steels Ltd, Calderbank, River Street, Brighouse, West Yorkshire HD6 1LU  
Technical@firth-steels.co.uk +44 1484 405940 Firth-steels.co.uk

SGS UKAS PLANETMARK

**PROTEX**  
UK CA  
LPCB  
UKAS  
LPS 1181 Cert/LPCB ref. 1611a

This draft drawing has been supplied by Firth Steels Ltd for guidance purposes only and is provided free of charge. It represents a suggested typical detail and should not be assumed as suitable for any specific project or application. It is essential to read this in conjunction with the Protex System specification documents to ensure completeness of information. Please note, no responsibility is assumed for errors or misinterpretations resulting from the information contained within this drawing. Details depicted are for illustration purposes only, and no liability is accepted for their use. Firth Steels reserves the right to modify details without notice. This drawing is the property of Firth Steels Ltd, any reproduction without explicit written consent is prohibited. Firth Steels is committed to ongoing improvement. The details and data shared in this document are reflective of the current state as of the issue date. It is the duty of the recipients to ensure that the information in this document is still up-to-date at the time of its use.

Drawing Number  
**Protex-WS03-6 Window / Personnel Door**

Drawn by KP	Checked by TO	Date 24/09/2024
Project Title PRX-WS-03	Size A3	Revision A

<<< DO NOT SCALE FROM THIS DRAWING >>>

# SHUTTER DOOR HEADER DETAIL

**PROTEX APPROVED - SPACER SYSTEM**

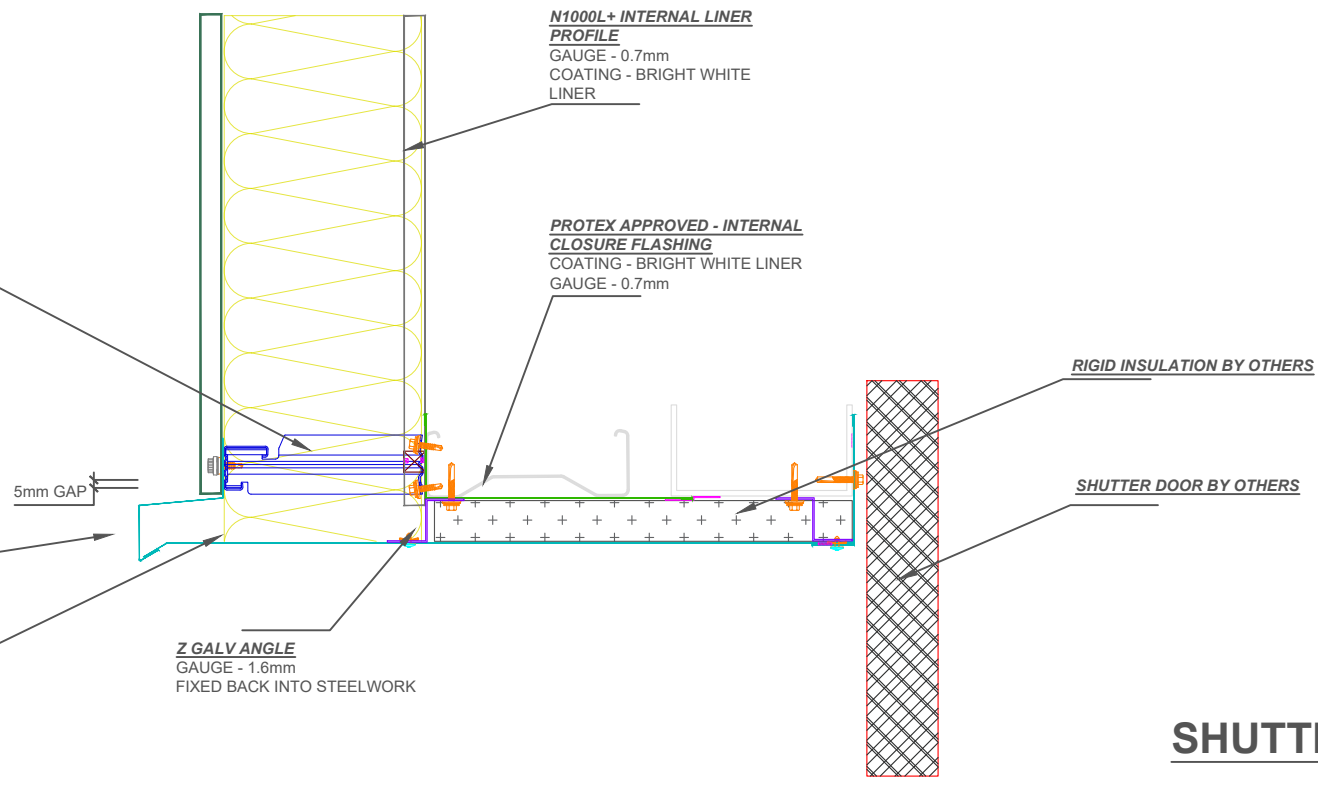
BRACKET DEPTH TO SUIT U-VALUE CALCULATIONS  
 MINIMUM DEPTH 120mm  
**PATTERN**  
 MAX RAIL CENTRE'S 1800mm  
 MAX BRACKET CENTRE'S 1000mm  
 BRACKET CENTRE'S TO SUIT LOADING CALCULATIONS  
 BRACKET MUST BE PLACED WITHIN 100mm OF MALE END OF SPACER SYSTEM JOINT AND BAR END

**PROTEX APPROVED - EXTERNAL DRIP FLASHING**

COATING - PROTEX APPROVED  
 GAUGE - 0.7mm  
 JOINTS BUTT STRAPPED AND FULLY SEALED WITH BUTYL TAPE AND FRONT FACE RIVETED AT 100mm CENTRES

**PROTEX APPROVED - EXTERNAL SOFFIT FLASHING**

COATING - PROTEX APPROVED  
 GAUGE - 0.7mm  
 JOINTS FULLY SEALED WITH BUTYL TAPE  
 IF REQUIRED WEEP HOLES CAN BE INSTALLED TO ALLOW FREE DRAINAGE OF WATER



# SHUTTER DOOR JAMB DETAIL

**PROTEX APPROVED - BRACKET FIXING**

STAINLESS STEEL SELF DRILLING & SELF TAPPING  
 16mm Ø EDPM WASHER  
**PATTERN**  
 AS PER LAYOUT CALCULATION

**PROTEX APPROVED - GLASS FIBRE INSULATION**

THICKNESS TO SUIT U-VALUE REQUIREMENT  
 MINIMUM THICKNESS - 120mm  
 FIRE CLASS A1 RATED TO EN 13501-1  
 MANUFACTURED IN ACCORDANCE WITH BS EN 13162  
 (SUGGESTED THICKNESS TO BE >10% THAN SPACER SYSTEM DEPTH.)

**N14/3 SINUS EXTERNAL PROFILE**  
 GAUGE - 0.7mm  
 COATING - PROTEX APPROVED

**PROTEX APPROVED - EXTERNAL JAMB FLASHING SEALANT**  
 9mm \* 3mm BUTYL TAPE / 4mm BEAD  
**LOCATION**  
 CONTINUOUS RUN WEATHER SIDE OF FIXINGS.

**PROTEX APPROVED - EXTERNAL JAMB FLASHING STITCHER FIXINGS**  
 STAINLESS STEEL SELF DRILLING / SELF TAPPING / BULB-TITE RIVET  
 PAINTED / MOULDED HEAD  
 16mm Ø EDPM WASHER  
**PATTERN**  
 450mm CENTRES

**PROTEX APPROVED - LINER SIDE LAP SEALANT**  
 50mm \* 1mm BUTYL TAPE  
**LOCATION**  
 1-NO. CONTINUOUS RUN. POSITIONED CENTRAL OVER JOIN

**PROTEX APPROVED - EXTERNAL JAMB FLASHING**  
 COATING - PROTEX APPROVED  
 GAUGE - 0.7mm

- INSTALLATION NOTES**
- FLASHING JOINTS SEALED WITH BUTYL
  - FLASHING JOINTS FIXED AT 100mm CENTRES (RIVET OR STITCH)
  - FLASHINGS FIXED AT 450mm CENTRES
  - BRACKET MUST BE POSITIONED WITHIN 100mm OF END OF BAR OR MALE END JOIN
  - NO IMPACT DRIVERS OR CLUTCHLESS DRILLS
  - NO CARBON FIXINGS

REV	DATE	DESCRIPTION



Firth Steels Ltd, Calderbank, River Street, Brighouse, West Yorkshire HD6 1LU  
 Technical@firth-steels.co.uk +44 1484 405940 Firth-steels.co.uk



This draft drawing has been supplied by Firth Steels Ltd for guidance purposes only and is provided free of charge. It represents a suggested typical detail and should not be assumed as suitable for any specific project or application. It is essential to read this in conjunction with the Protex System specification documents to ensure completeness of information. Please note, no responsibility is assumed for errors or misinterpretations resulting from the information contained within this drawing. Details depicted are for illustration purposes only, and no liability is accepted for their use. Firth Steels reserves the right to modify details without notice. This drawing is the property of Firth Steels Ltd, any reproduction without explicit written consent is prohibited. Firth Steels is committed to ongoing improvement. The details and data shared in this document are reflective of the current state as of the issue date. It is the duty of the recipients to ensure that the information in this document is still up-to-date at the time of its use.

Drawing Number  
**Protex-WS03-7 Shutter Door Detail**

Drawn by  
 KP

Checked by  
 TO

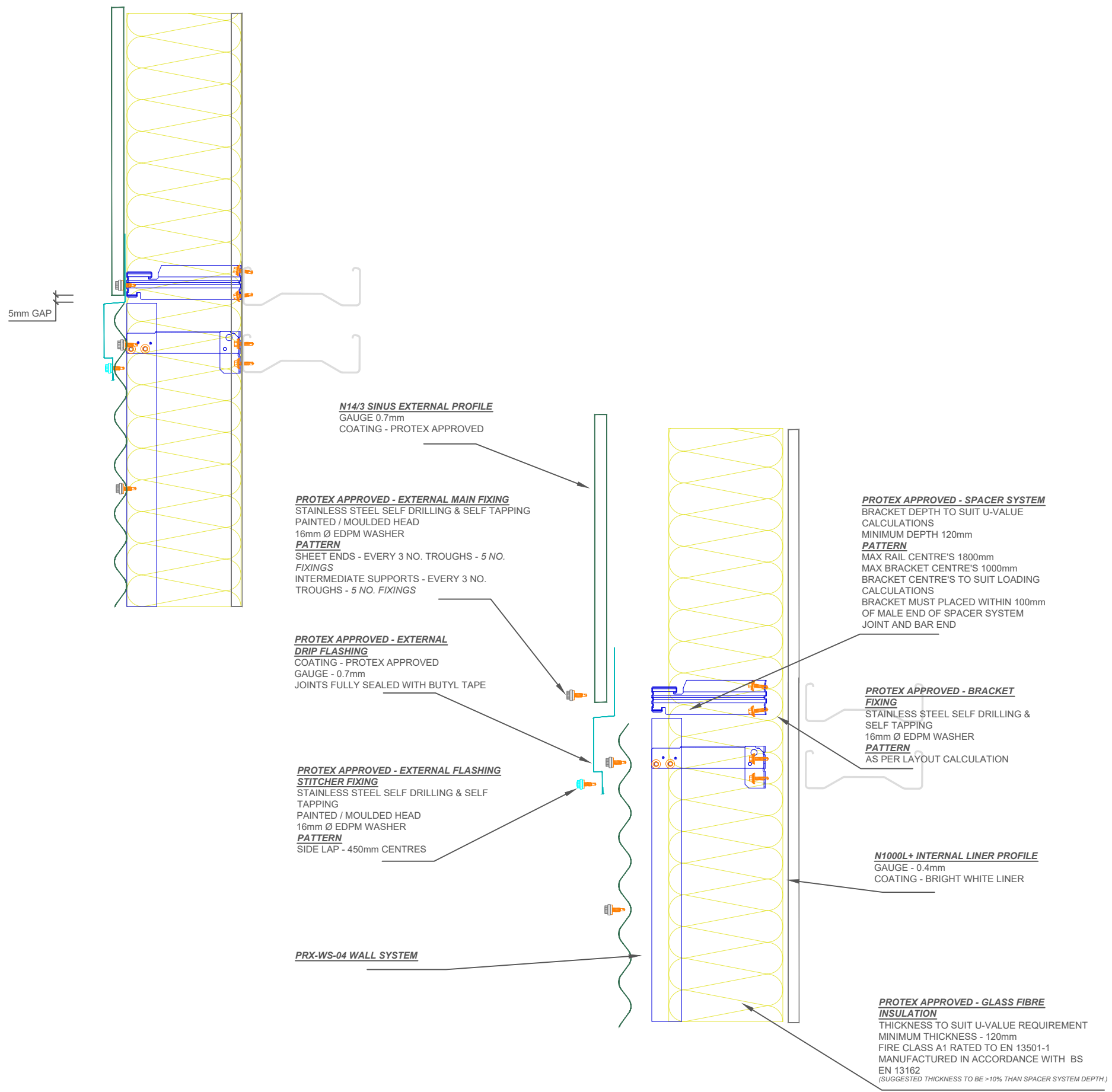
Date  
 24/09/2024

Project Title  
 PRX-WS-03

Size  
 A3

Revision  
 A

<<< DO NOT SCALE FROM THIS DRAWING >>>



- INSTALLATION NOTES**
- FLASHING JOINTS SEALED WITH BUTYL
  - FLASHING JOINTS FIXED AT 100mm CENTRES (RIVET OR STITCH)
  - FLASHINGS FIXED AT 450mm CENTRES
  - BRACKET MUST BE POSITIONED WITHIN 100mm OF END OF BAR OR MALE END JOIN
  - NO IMPACT DRIVERS OR CLUTCHLESS DRILLS
  - NO CARBON FIXINGS

REV	DATE	DESCRIPTION

**FirthSteels**<sup>®</sup>  
Firth Steels Ltd, Calderbank, River Street, Brighouse, West Yorkshire HD6 1LU  
Technical@firth-steels.co.uk +44 1484 405940 Firth-steels.co.uk

SGS  
SGS  
SGS  
UKAS  
PlanetMark

**PROTEX**<sup>®</sup>  
UK  
CA

LPCB  
UKAS  
LPS 1181 Cert/LPCB ref. 1611a

This draft drawing has been supplied by Firth Steels Ltd for guidance purposes only and is provided free of charge. It represents a suggested typical detail and should not be assumed as suitable for any specific project or application. It is essential to read this in conjunction with the Protex System specification documents to ensure completeness of information. Please note, no responsibility is assumed for errors or misinterpretations resulting from the information contained within this drawing. Details depicted are for illustration purposes only, and no liability is accepted for their use. Firth Steels reserves the right to modify details without notice. This drawing is the property of Firth Steels Ltd, any reproduction without explicit written consent is prohibited. Firth Steels is committed to ongoing improvement. The details and data shared in this document are reflective of the current state as of the issue date. It is the duty of the recipients to ensure that the information in this document is still up-to-date at the time of its use.

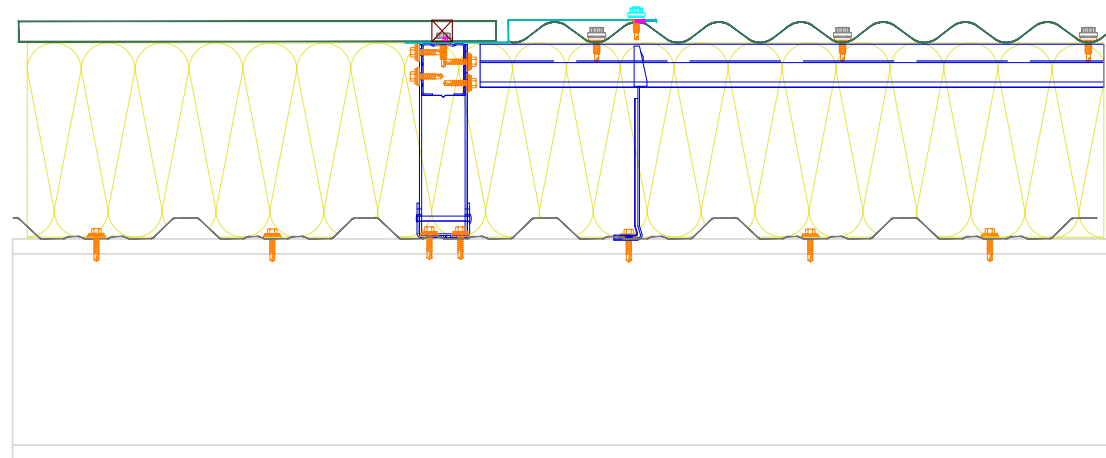
Drawing Number  
**Protex-WS03-8 Horizontal to Vertical Above**

Drawn by KP	Checked by TO	Date 24/09/2024
----------------	------------------	--------------------

Project Title PRX-WS-03	Size A3	Revision A
----------------------------	------------	---------------

<<< DO NOT SCALE FROM THIS DRAWING >>>





**PROTEX APPROVED - EXTERNAL MAIN FIXING**  
 STAINLESS STEEL SELF DRILLING & SELF TAPPING  
 PAINTED / MOULDED HEAD  
 16mm Ø EDPM WASHER  
**PATTERN**  
 SHEET ENDS - EVERY 3 NO. TROUGHS - 5 NO.  
**FIXINGS**  
 INTERMEDIATE SUPPORTS - EVERY 3 NO. TROUGHS  
 - 5 NO. **FIXINGS**

**PROTEX APPROVED - EXTERNAL FLASHING STITCHER FIXINGS**  
 STAINLESS STEEL SELF DRILLING / SELF TAPPING  
 PAINTED / MOULDED HEAD  
 16mm Ø EDPM WASHER  
**PATTERN**  
 450mm CENTRES

**PROTEX APPROVED - VENTED FOAM FILLER**  
 PROFILE - N14/3 SINUS  
 COLOUR - BLACK  
 VENTED AT TOP OF FILLER

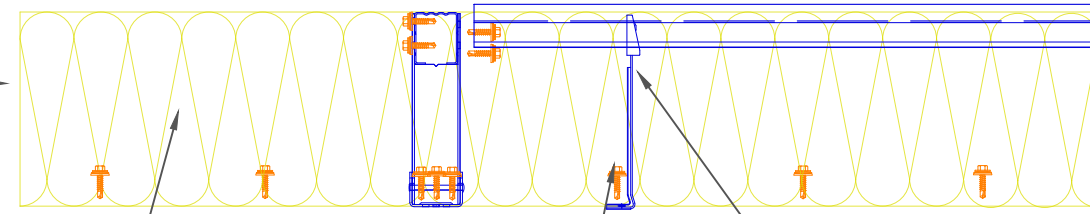
**PROTEX APPROVED - EXTERNAL FLASHING SEALANT**  
 COATING - PROTEX APPROVED  
 GAUGE - 0.7mm  
 JOINTS FULLY SEALED WITH BUTYL TAPE

**PROTEX APPROVED - FLASHING SEALANT**  
 9mm \* 3mm BUTYL TAPE / 4mm BEAD  
**LOCATION**  
 1-NO. CONTINUOUS RUN POSITIONED WEATHER SIDE OF FIXING

**N14/3 SINUS EXTERNAL PROFILE**  
 GAUGE 0.7mm  
 COATING - PROTEX APPROVED

**PROTEX APPROVED - VENTED FOAM FILLER SEALANT**  
 GUN GRADE BUTYL  
 APPROX 4mm Ø BEAD  
**LOCATION**  
 1-NO. CONTINUOUS RUN AT BASE OF FOAM FILLER

PRX-WS-04 WALL SYSTEM



**N1000L+ INTERNAL LINER PROFILE**  
 GAUGE - 0.4mm  
 COATING - BRIGHT WHITE LINER

**PROTEX APPROVED - GLASS FIBRE INSULATION**  
 THICKNESS TO SUIT U-VALUE REQUIREMENT  
 MINIMUM THICKNESS - 120mm  
 FIRE CLASS A1 RATED TO EN 13501-1  
 MANUFACTURED IN ACCORDANCE WITH BS EN 13162  
 (SUGGESTED THICKNESS TO BE >10% THAN SPACER SYSTEM DEPTH.)

**PROTEX APPROVED - BRACKET FIXING**  
 STAINLESS STEEL SELF DRILLING & SELF TAPPING  
 16mm Ø EDPM WASHER  
**PATTERN**  
 AS PER LAYOUT CALCULATION

**PROTEX APPROVED - SPACER SYSTEM**  
 BRACKET DEPTH TO SUIT U-VALUE CALCULATIONS  
 MINIMUM DEPTH 120mm  
**PATTERN**  
 MAX RAIL CENTRE'S 1800mm  
 MAX BRACKET CENTRE'S 1000mm  
 BRACKET CENTRE'S TO SUIT LOADING CALCULATIONS  
 BRACKET MUST BE PLACED WITHIN 100mm OF MALE END OF SPACER SYSTEM JOINT AND BAR END

REV	DATE	DESCRIPTION

**FirthSteels**<sup>®</sup>  
 Firth Steels Ltd, Calderbank, River Street, Brighouse, West Yorkshire HD6 1LU  
 Technical@firth-steels.co.uk +44 1484 405940 Firth-steels.co.uk

SGS  
 SGS  
 SGS  
 UKAS  
 PlanetMark

**PROTEX**<sup>®</sup>

UK  
 CA

LPCB  
 UKAS  
 LPS 1181 Cert/LPCB ref. 1611a

This draft drawing has been supplied by Firth Steels Ltd for guidance purposes only and is provided free of charge. It represents a suggested typical detail and should not be assumed as suitable for any specific project or application. It is essential to read this in conjunction with the Protex System specification documents to ensure completeness of information. Please note, no responsibility is assumed for errors or misinterpretations resulting from the information contained within this drawing. Details depicted are for illustration purposes only, and no liability is accepted for their use. Firth Steels reserves the right to modify details without notice. This drawing is the property of Firth Steels Ltd, any reproduction without explicit written consent is prohibited. Firth Steels is committed to ongoing improvement. The details and data shared in this document are reflective of the current state as of the issue date. It is the duty of the recipients to ensure that the information in this document is still up-to-date at the time of its use.

Drawing Number  
**Protex-WS03-9 Horizontal to Vertical Adjacent**

Drawn by  
 KP

Checked by  
 TO

Date  
 24/09/2024

Project Title  
 PRX-WS-03

Size  
 A3

Revision  
 A

<<< DO NOT SCALE FROM THIS DRAWING >>>

- INSTALLATION NOTES**
- FLASHING JOINTS SEALED WITH BUTYL
  - FLASHING JOINTS FIXED AT 100mm CENTRES (RIVET OR STITCH)
  - FLASHINGS FIXED AT 450mm CENTRES
  - BRACKET MUST BE POSITIONED WITHIN 100mm OF END OF BAR OR MALE END JOINT
  - NO IMPACT DRIVERS OR CLUTCHLESS DRILLS
  - NO CARBON FIXINGS

# LOUVRE HEADER & CILL DETAIL

**PROTEX APPROVED - SPACER SYSTEM**  
 BRACKET DEPTH TO SUIT U-VALUE CALCULATIONS  
 MINIMUM DEPTH 120mm  
**PATTERN**  
 MAX RAIL CENTRE'S 1800mm  
 MAX BRACKET CENTRE'S 1000mm  
 BRACKET CENTRE'S TO SUIT LOADING CALCULATIONS  
 BRACKET MUST BE PLACED WITHIN 100mm OF MALE END OF SPACER SYSTEM JOINT AND BAR END

**PROTEX APPROVED - EXTERNAL DRIP FLASHING**  
 COATING - PROTEX APPROVED  
 GAUGE - 0.7mm  
 JOINTS BUTT STRAPPED AND FULLY SEALED WITH BUTYL TAPE AND FRONT FACE RIVETED AT 100mm CENTRES

**PROTEX APPROVED - EXTERNAL FLASHING STITCHER FIXINGS**  
 STAINLESS STEEL SELF DRILLING & SELF TAPPING  
 PAINTED / MOULDED HEAD  
 16mm Ø EDPM WASHER  
**PATTERN**  
 450mm CENTRES

**N14/3 SINUS EXTERNAL WALL PROFILE**  
 GAUGE - 0.7mm  
 COATING - PROTEX APPROVED

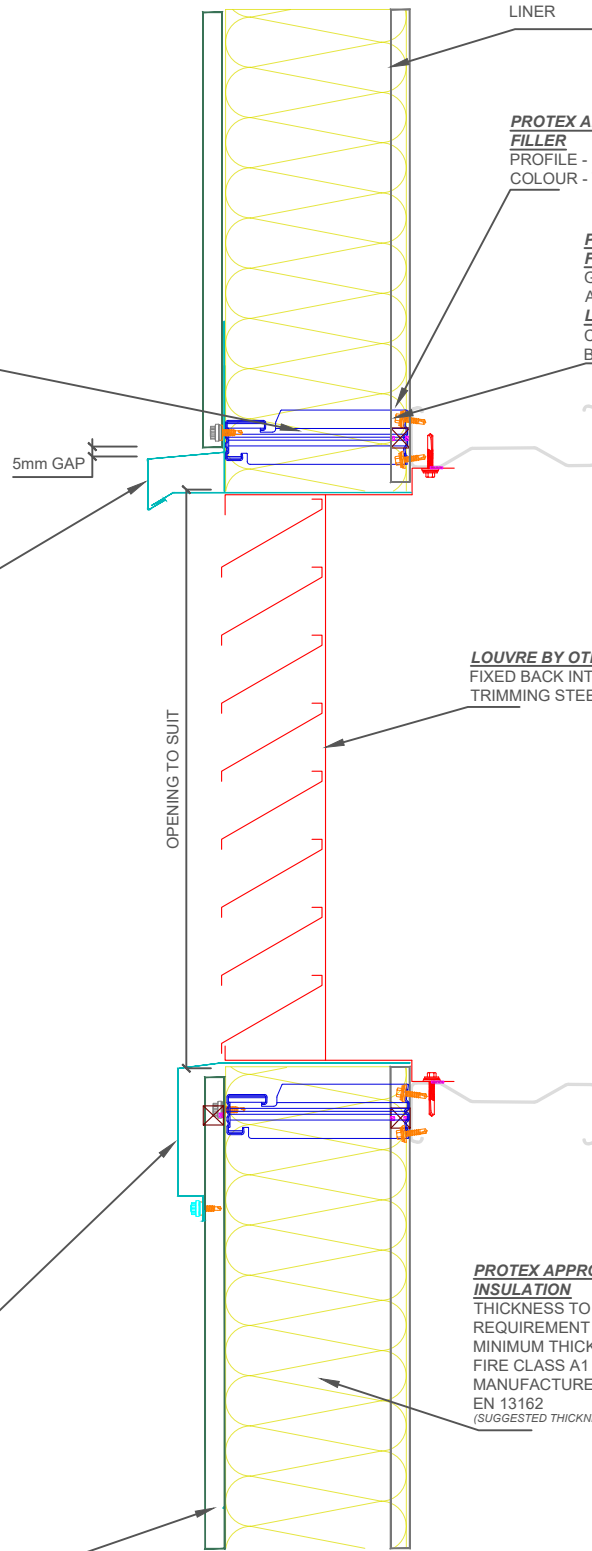
**N1000L+ INTERNAL LINER PROFILE**  
 GAUGE - 0.4mm  
 COATING - BRIGHT WHITE LINER

**PROTEX APPROVED - FOAM FILLER**  
 PROFILE - N1000L+  
 COLOUR - WHITE

**PROTEX APPROVED - FOAM FILLER SEALANT**  
 GUN GRADE BUTYL  
 APPROX 4mm Ø BEAD  
**LOCATION**  
 CONTINUOUS RUNS TOP & BOTTOM OF FOAM FILLER

**LOUVRE BY OTHERS**  
 FIXED BACK INTO STEELWORK  
 TRIMMING STEEL IF REQUIRED

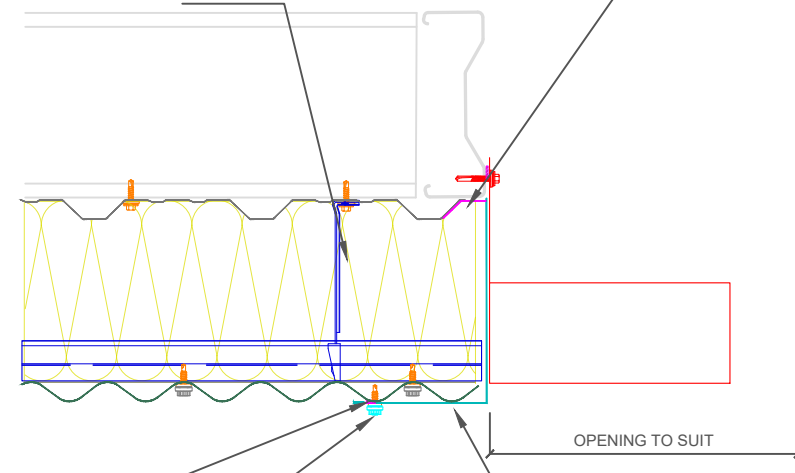
**PROTEX APPROVED - GLASS FIBRE INSULATION**  
 THICKNESS TO SUIT U-VALUE REQUIREMENT  
 MINIMUM THICKNESS - 120mm  
 FIRE CLASS A1 RATED TO EN 13501-1  
 MANUFACTURED IN ACCORDANCE WITH BS EN 13162  
 (SUGGESTED THICKNESS TO BE >10% THAN SPACER SYSTEM DEPTH.)



# LOUVRE JAMB DETAIL

**ADDITIONAL BRACKETS IF REQUIRED**  
 AT END OF TOP SHEET, BRACKETS WITHIN FIRST LINER TROUGH

**PROTEX APPROVED - LINER SIDE LAP SEALANT**  
 50mm \* 1mm BUTYL TAPE  
**LOCATION**  
 1-NO. CONTINUOUS RUN. POSITIONED CENTRAL OVER JOIN



**PROTEX APPROVED - EXTERNAL JAMB FLASHING SEALANT**  
 9mm \* 3mm BUTYL TAPE / 4mm BEAD  
**LOCATION**  
 CONTINUOUS RUN WEATHER SIDE OF FIXINGS.

**PROTEX APPROVED - EXTERNAL FLASHING STITCHER FIXINGS**  
 SELF DRILLING / SELF TAPPING  
 PAINTED / MOULDED HEAD  
 16mm Ø EDPM WASHER  
**PATTERN**  
 450mm CENTRES

**PROTEX APPROVED - EXTERNAL JAMB FLASHING**  
 COATING - PROTEX APPROVED  
 GAUGE - 0.7mm

- INSTALLATION NOTES**
- FLASHING JOINTS SEALED WITH BUTYL
  - FLASHING JOINTS FIXED AT 100mm CENTRES (RIVET OR STITCH)
  - FLASHINGS FIXED AT 450mm CENTRES
  - BRACKET MUST BE POSITIONED WITHIN 100mm OF END OF BAR OR MALE END JOIN
  - NO IMPACT DRIVERS OR CLUTCHLESS DRILLS
  - NO CARBON FIXINGS

REV	DATE	DESCRIPTION

**FirthSteels**  
 Firth Steels Ltd, Calderbank, River Street, Brighouse, West Yorkshire HD6 1LU  
 Technical@firth-steels.co.uk +44 1484 405940 Firth-steels.co.uk

SGS  
 SGS  
 SGS  
 UKAS  
 PlanetMark

**PROTEX**  
 UK  
 CA  
 LPCB  
 UKAS  
 LPS 1181 Curt/LPCB ref. 1611a

This draft drawing has been supplied by Firth Steels Ltd for guidance purposes only and is provided free of charge. It represents a suggested typical detail and should not be assumed as suitable for any specific project or application. It is essential to read this in conjunction with the Protex System specification documents to ensure completeness of information. Please note, no responsibility is assumed for errors or misinterpretations resulting from the information contained within this drawing. Details depicted are for illustration purposes only, and no liability is accepted for their use. Firth Steels reserves the right to modify details without notice. This drawing is the property of Firth Steels Ltd, any reproduction without explicit written consent is prohibited. Firth Steels is committed to ongoing improvement. The details and data shared in this document are reflective of the current state as of the issue date. It is the duty of the recipients to ensure that the information in this document is still up-to-date at the time of its use.

Drawing Number  
**Protex-WS03-10 Louvre**

Drawn by  
 KP

Checked by  
 TO

Date  
 24/09/2024

Project Title  
 PRX-WS-03

Size  
 A3

Revision  
 A

<<< DO NOT SCALE FROM THIS DRAWING >>>