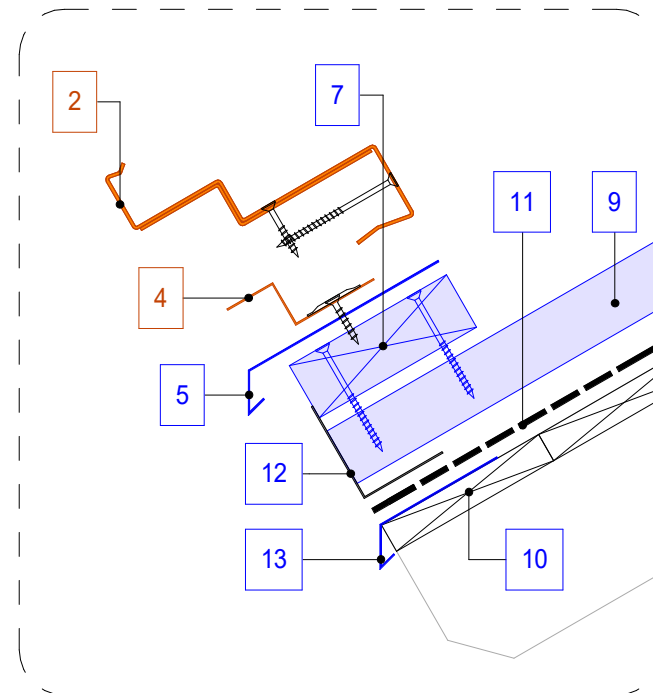


Solarstone delivers

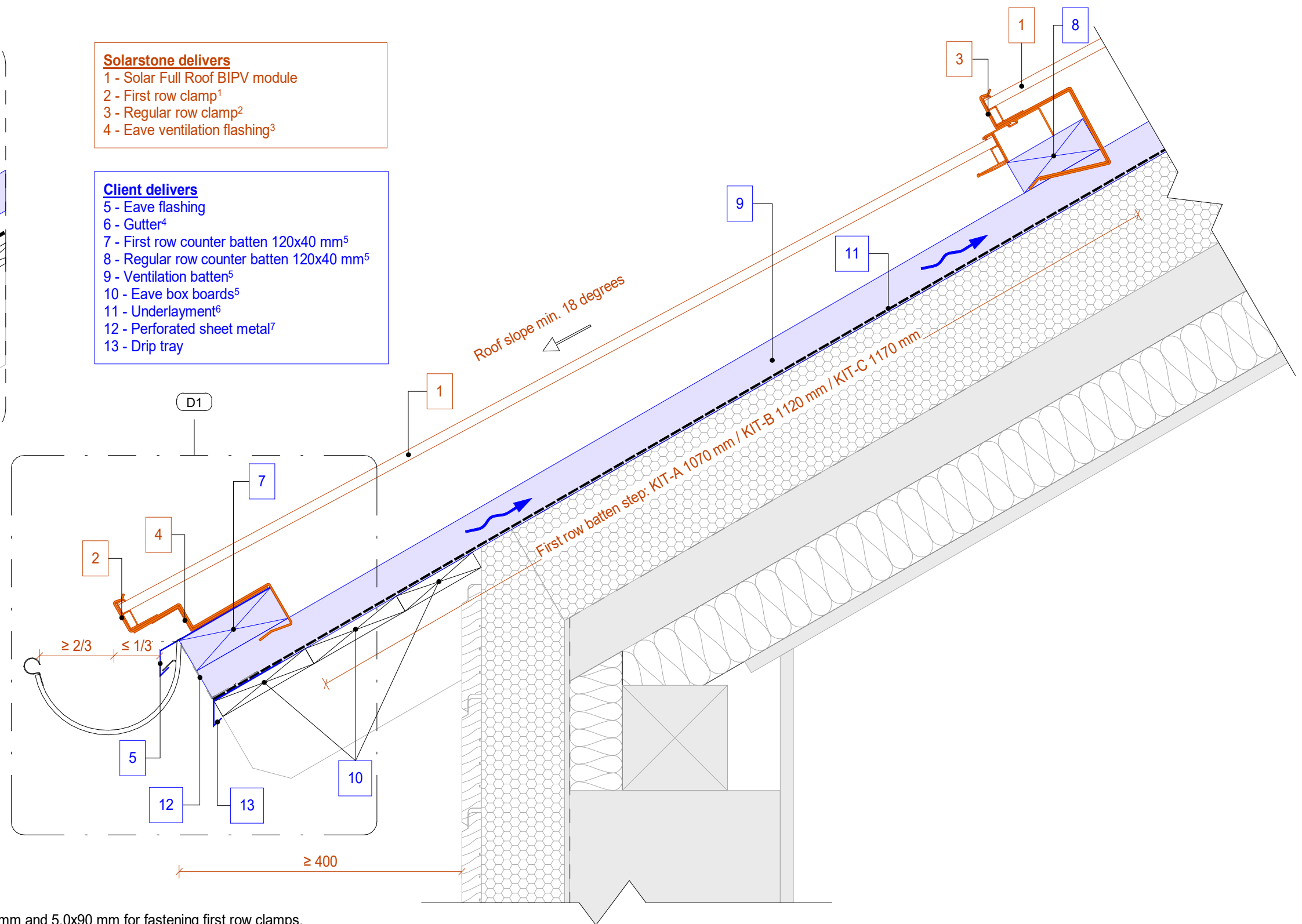
- 1 - Solar Full Roof BIPV module
- 2 - First row clamp¹
- 3 - Regular row clamp²
- 4 - Eave ventilation flashing³

Client delivers

- 5 - Eave flashing
- 6 - Gutter⁴
- 7 - First row counter batten 120x40 mm⁵
- 8 - Regular row counter batten 120x40 mm⁵
- 9 - Ventilation batten⁵
- 10 - Eave box boards⁵
- 11 - Underlayment⁶
- 12 - Perforated sheet metal⁷
- 13 - Drip tray



D1
1 : 5



1. Dimensions according to the project documentation.
2. The roof pitch has to be 18° or greater.
3. ¹ SOLARSTONE uses wood screw countersunk head, 5.0x40 mm and 5.0x90 mm for fastening first row clamps.
4. ² SOLARSTONE uses wood screw countersunk head, 5.0x90 mm for fastening regular row clamps.
5. ³ Recommended eave ventilation opening should be $\geq 3\%$ of the ventilated roof area.
6. ⁴ Recommended gutter slope $\geq 0,5\%$; downpipe spacing ≤ 15 m; recommended roof area per downpipe ≤ 100 m². Approximate downpipe cross-section 1,5 cm² per 1 m² roof area. Gutters and downpipes must be corrosion-resistant with sealed joints; de-icing cables recommended where snow is common.
7. ⁵ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be $\leq 18\%$ (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 μ m (C2), exterior $\geq$ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
8. ⁶ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.
9. ⁷ Air intake openings must be protected against larger insects, birds, and small rodents. The protective mesh must remain free of dust or blockage. Use intake protection with openings ≥ 4 mm while maintaining required ventilation.

Revision:		
Version: Ver 1	Eave Details	Sheet Number:
Issue date: 29.04.26	Standard	TD-EN-0001
Detail ID:		

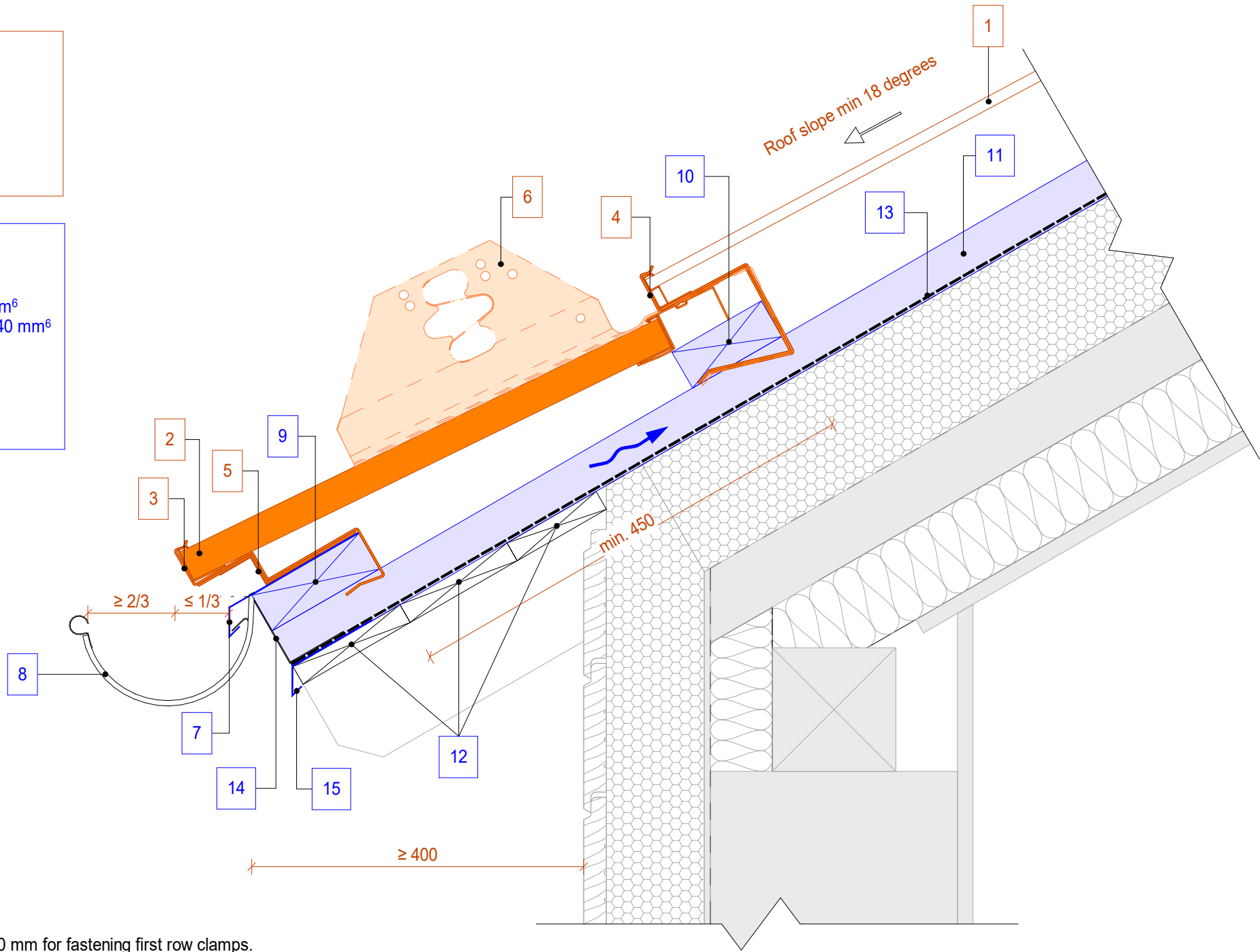
DETAIL DRAWINGS

Solarstone delivers

- 1 - Solar Full Roof BIPV module
- 2 - Solar Full Roof Filler module
- 3 - First row clamp¹
- 4 - Regular row clamp²
- 5 - Eave ventilation flashing³
- 6 - Snow Guard⁴

Client delivers

- 7 - Eave flashing
- 8 - Gutter⁵
- 9 - First row counter batten 120x40 mm⁶
- 10 - Regular row counter batten 120x40 mm⁶
- 11 - Ventilation batten⁶
- 12 - Eave box boards⁶
- 13 - Underlayment⁷
- 14 - Perforated sheet metal⁸
- 15 - Drip tray



Notes:

1. Dimensions according to the project documentation.
2. The roof pitch has to be 18° or greater.
3. ¹ SOLARSTONE uses wood screw countersunk head, 5.0x40 mm and 5.0x90 mm for fastening first row clamps.
4. ² SOLARSTONE uses wood screw countersunk head, 5.0x90 mm for fastening regular row clamps.
5. ³ Recommended eave ventilation opening should be ≥ 3‰ of the ventilated roof area.
6. ⁴ Snow guards shall be provided where required by applicable regulations to protect entrances, passageways and adjacent public areas from falling snow and ice. Installation of roof accessories is only permitted on filler modules. Install the SOLARSTONE snow guard according to the SOLARSTONE installation manual.
7. ⁵ Recommended gutter slope ≥ 0,5%; downpipe spacing ≤ 15 m; recommended roof area per downpipe ≤ 100 m². Approximate downpipe cross-section 1,5 cm² per 1 m² roof area. Gutters and downpipes must be corrosion-resistant with sealed joints; de-icing cables recommended where snow is common.
8. ⁶ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
9. ⁷ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.
10. ⁸ Air intake openings must be protected against larger insects, birds, and small rodents. The protective mesh must remain free of dust or blockage. Use intake protection with openings ≥ 4 mm while maintaining required ventilation.

Revision:		
Version:	Ver 1	Eave Details
Issue date:	29.04.2026	Snow Guard
Detail ID:		
		Sheet Number:
		TD-EN-0002

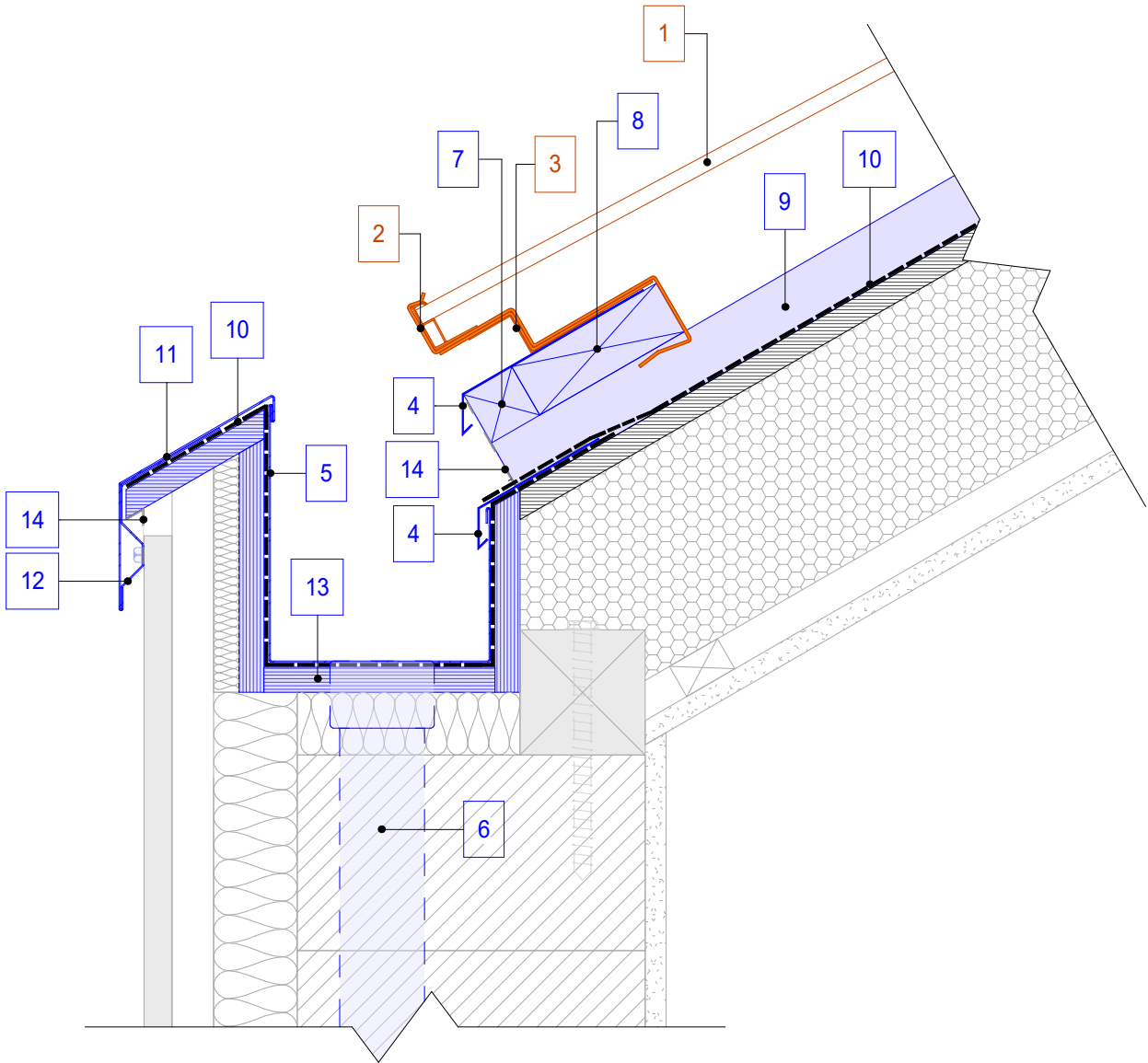
DETAIL DRAWINGS

Solarstone delivers

- 1 - Solar Full Roof BIPV module
- 2 - First row clamp¹
- 3 - Eave ventilation flashing²

Client delivers

- 4 - Drip tray
- 5 - Gutter³
- 6 - Downpipe⁴
- 7 - First row counter batten 40x40 mm⁵
- 8 - First row counter batten 120x40 mm⁵
- 9 - Ventilation batten⁵
- 10 - Underlayment⁶
- 11 - Cover Flashing
- 12 - Ventilation profile
- 13 - Box gutter base board⁷
- 14 - Perforated sheet metal⁸



Notes:

1. Dimensions according to the project documentation.
2. The roof pitch has to be 18° or greater.
3. ¹ SOLARSTONE uses wood screw countersunk head, 5.0x40 mm and 5.0x90 mm for fastening first row clamps.
4. ² Recommended eave ventilation opening should be ≥ 3‰ of the ventilated roof area.
5. ³ Recommended gutter slope ≥ 0,5%. Gutters and downpipes must be corrosion-resistant with sealed joints; de-icing cables recommended where snow is common. Rainwater must be safely drained even in case of downpipe blockage. Square cross-sections are recommended for internal gutters. Internal gutters require precise planning of emergency drainage via an emergency drain or safety channel with its own drainage. An additional drainage layer must be formed beneath the gutter using waterproof membranes. Emergency overflow outlets and larger pipe diameters are required.
- Safety factor as per DIN EN 1056-3:
- internal gutters with risk of overflow into building fabric – 2.0;
 - buildings with special protection (e.g. hospitals, theatres, warehouses) – 3.0.
- Hydraulic design as per DIN EN 12056.
6. ⁴ Downpipe spacing ≤ 15 m; recommended roof area per downpipe ≤ 100 m². Approximate downpipe cross-section 1.5 cm² per 1 m² roof area. Gutters and downpipes must be corrosion-resistant with sealed joints; de-icing cables recommended where snow is common. Downpipes must have suitable maintenance access.
7. ⁵ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.

8. ⁶ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.
9. ⁷ Box-gutter base board: EN 13986 (CE), Use Class 2; OSB/3–OSB/4, EN 636 plywood, or equivalent moisture-resistant board.
10. ⁸ Air intake openings must be protected against larger insects, birds, and small rodents. The protective mesh must remain free of dust or blockage. Use intake protection with openings ≥ 4 mm while maintaining required ventilation.

Revision:		
Version:	Ver 1	Eave Details
Issue date:	29.04.2026	Hidden Gutter
Detail ID:		
		Sheet Number:
		TD-EN-0003

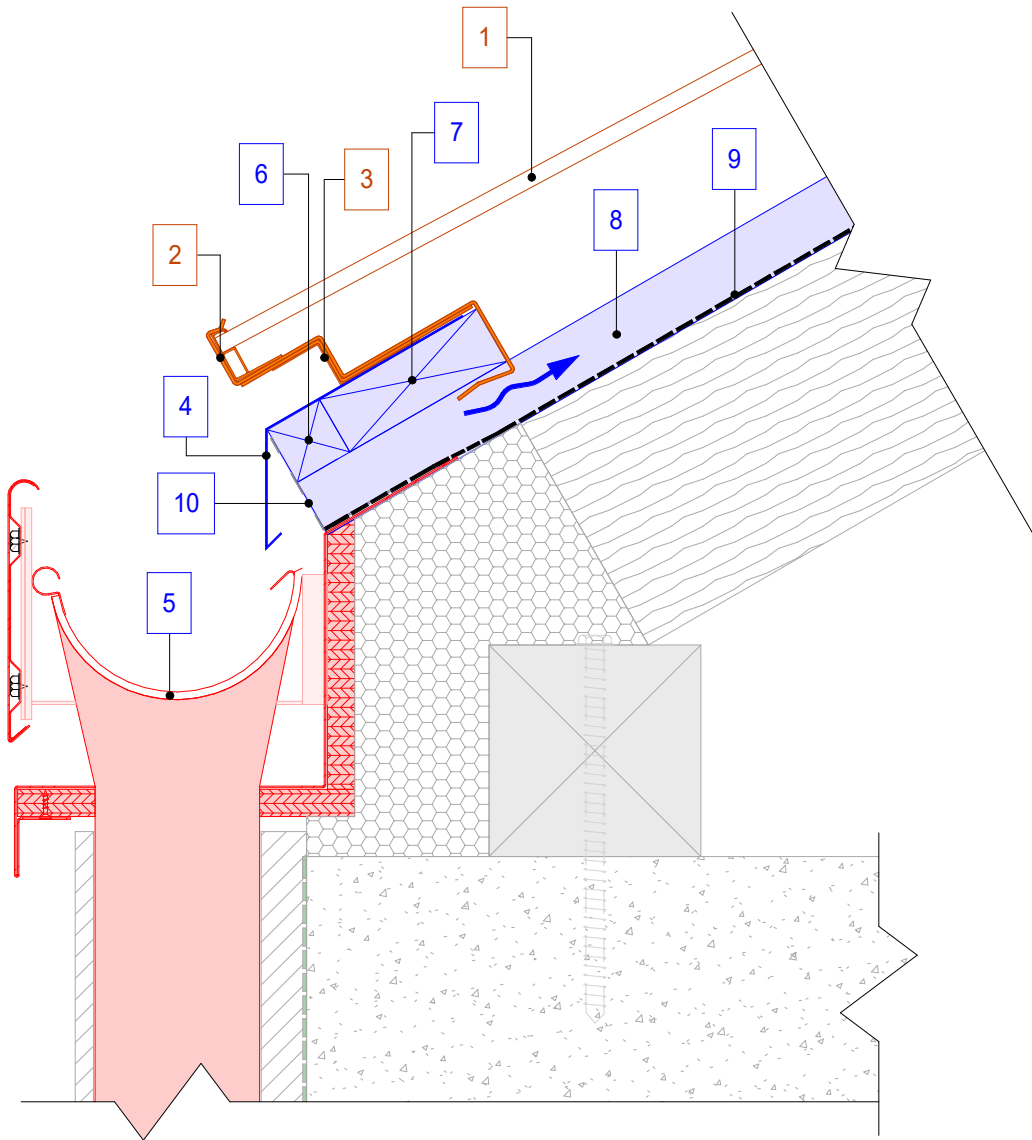
DETAIL DRAWINGS

Solarstone delivers

- 1 - Solar Full Roof BIPV module
- 2 - First row clamp¹
- 3 - Eave ventilation flashing²

Client delivers

- 4 - Drip tray
- 5 - Ruukki hidden rainwater system (in red)³
- 6 - First row counter batten 40x40 mm⁴
- 7 - First row counter batten 120x40 mm⁴
- 8 - Ventilation batten⁴
- 9 - Underlayment⁵
- 10 - Perforated sheet metal⁶



Notes:

- 1. Dimensions according to the project documentation.
- 2. The roof pitch has to be 18° or greater.
- 3. ¹ SOLARSTONE uses wood screw countersunk head, 5.0x40 mm and 5.0x90 mm for fastening first row clamps.
- 4. ² Recommended eave ventilation opening should be ≥ 3‰ of the ventilated roof area.
- 5. ³ Install according to the Ruukki hidden rainwater system manual.
- 6. ⁴ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
- 7. ⁵ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.
- 8. ⁶ Air intake openings must be protected against larger insects, birds, and small rodents. The protective mesh must remain free of dust or blockage. Use intake protection with openings ≥ 4 mm while maintaining required ventilation.

Revision:		
Version:	Eave Details	
Issue date:	29.04.26	Hidden Gutter (Ruukki)
Detail ID:		
		Sheet Number:
		TD-EN-0004

DETAIL DRAWINGS

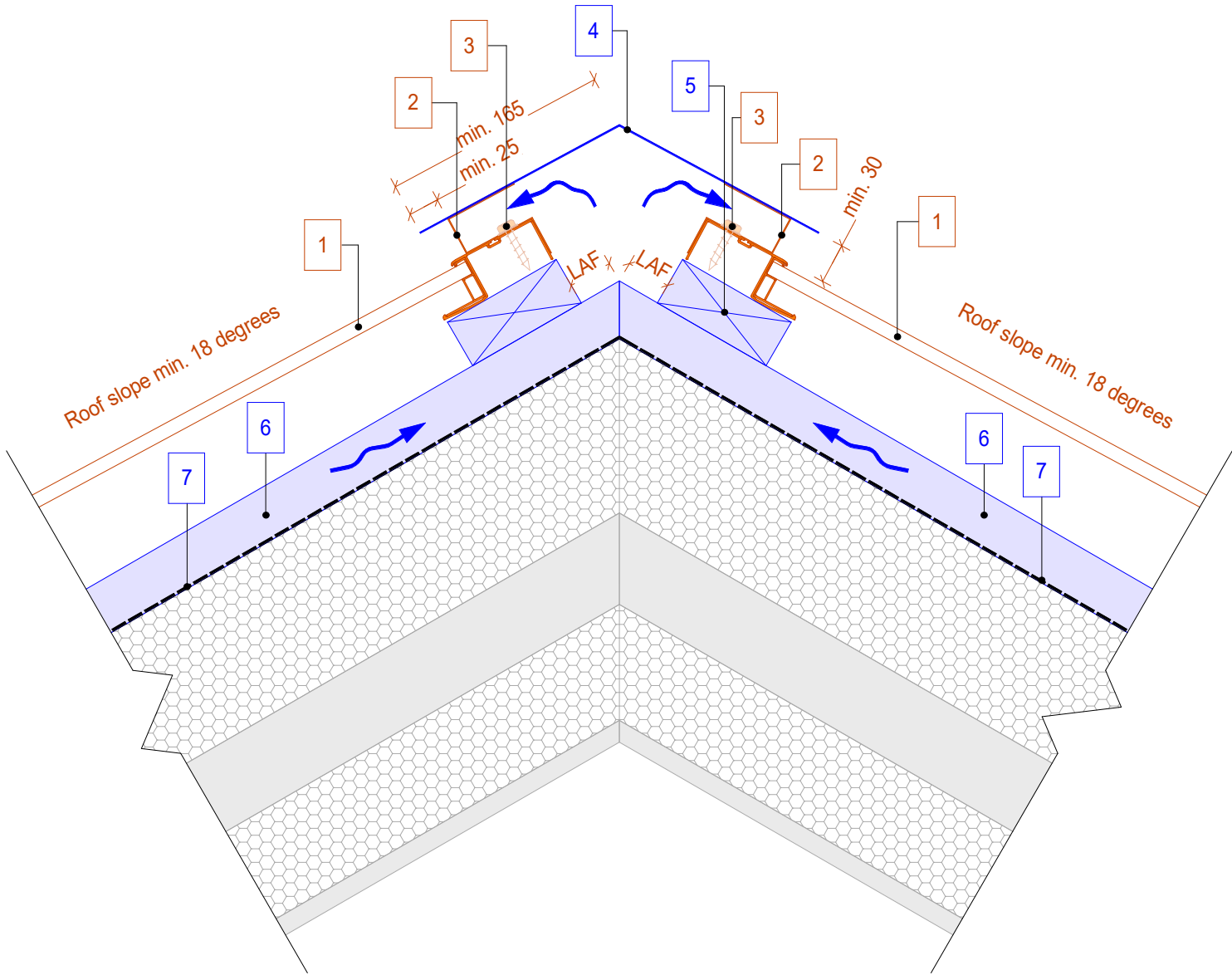
Solarstone delivers

- 1 - Solar Full Roof BIPV module
- 2 - Ridge ventilation flashing¹
- 3 - Roofing screw with drill point, 4.8x28 mm, RR33²

LAF = 30-45 mm

Client delivers

- 4 - Ridge flashing
- 5 - Regular row counter batten 120x40 mm³
- 6 - Ventilation batten³
- 7 - Underlayment⁴



Notes:

1. Dimensions according to the project documentation.
2. The roof pitch has to be 18° or greater.
3. ¹ Recommended ridge ventilation opening should be ≥ 2‰ of the ventilated roof area. The use of ventilation elements is recommended on pitched roofs where the ridge length exceeds 12 m, or where the ridge of a semi-detached or terraced house roof with a length exceeding 8 m is interrupted by a fire barrier or any other structure interrupting the ridge.
4. ² The screw from the top should only be installed into the profile that is added to the BIPV module. There must not be any screws in BIPV modules. Use the rate of revolutions as recommended by the manufacturer.
5. ³ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
6. ⁴ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.

Revision:		
Version:	Ver 1	Ridge Details
Issue date:	29.04.26	Insulated Roof
Detail ID:		
Sheet Number:		TD-EN-0021

DETAIL DRAWINGS

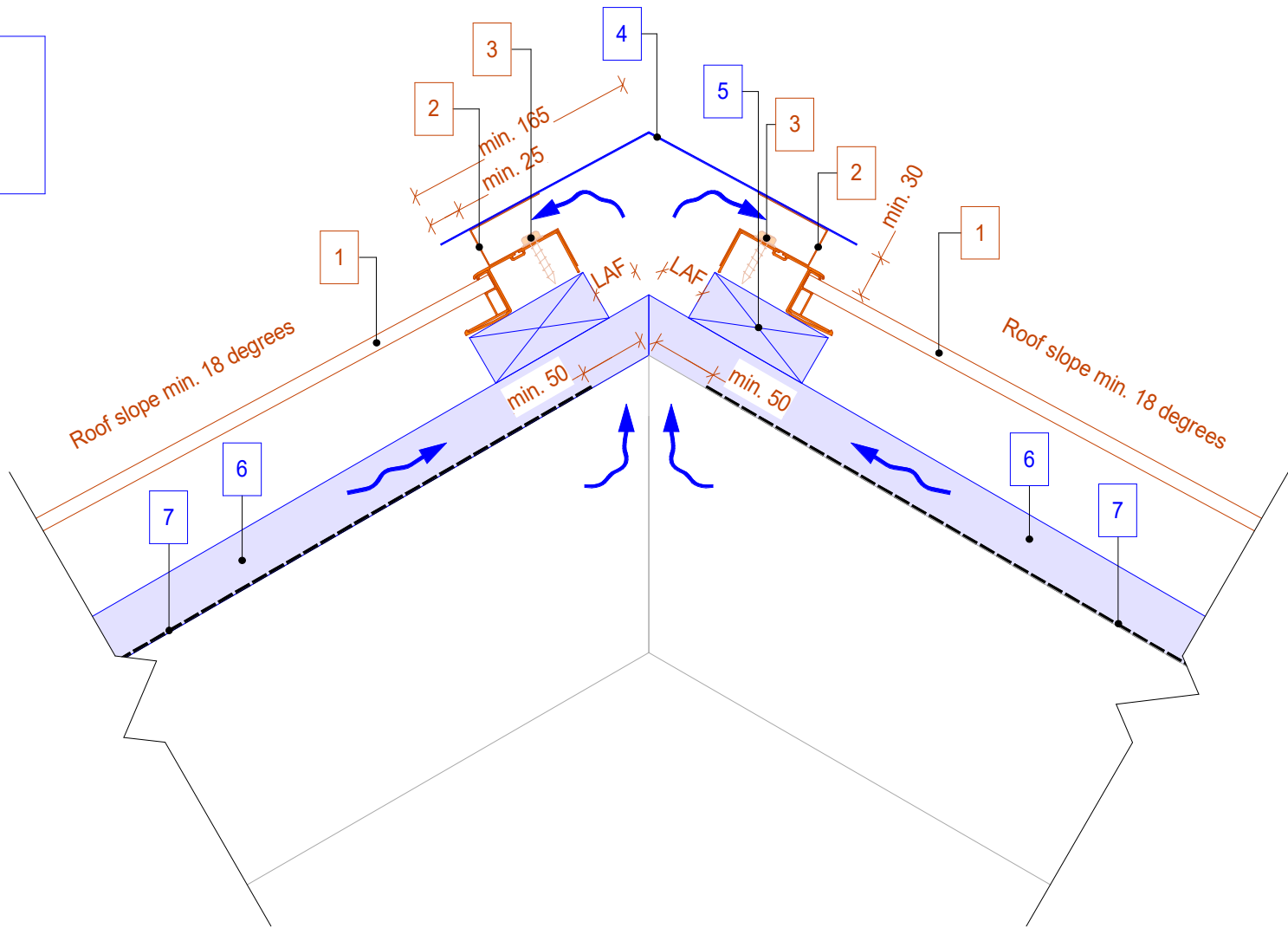
Solarstone delivers

- 1 - Solar Full Roof BIPV module
- 2 - Ridge ventilation flashing¹
- 3 - Roofing screw with drill point, 4.8x28 mm, RR33²

LAF = 30-45 mm

Client delivers

- 4 - Ridge flashing
- 5 - Regular row counter batten 120x40 mm³
- 6 - Ventilation batten³
- 7 - Underlayment⁴



Notes:

1. Dimensions according to the project documentation.
2. The roof pitch has to be 18° or greater.
3. ¹ Recommended ridge ventilation opening should be ≥ 2‰ of the ventilated roof area. The use of ventilation elements is recommended on pitched roofs where the ridge length exceeds 12 m, or where the ridge of a semi-detached or terraced house roof with a length exceeding 8 m is interrupted by a fire barrier or any other structure interrupting the ridge.
4. ² The screw from the top should only be installed into the profile that is added to the BIPV module. There must not be any screws in BIPV modules. Use the rate of revolutions as recommended by the manufacturer.
5. ³ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
6. ⁴ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.

Revision:		
Version:	Ver 1	Ridge Details
Issue date:	29.04.26	Cold Roof
Detail ID:		
		Sheet Number: TD-EN-0022

DETAIL DRAWINGS

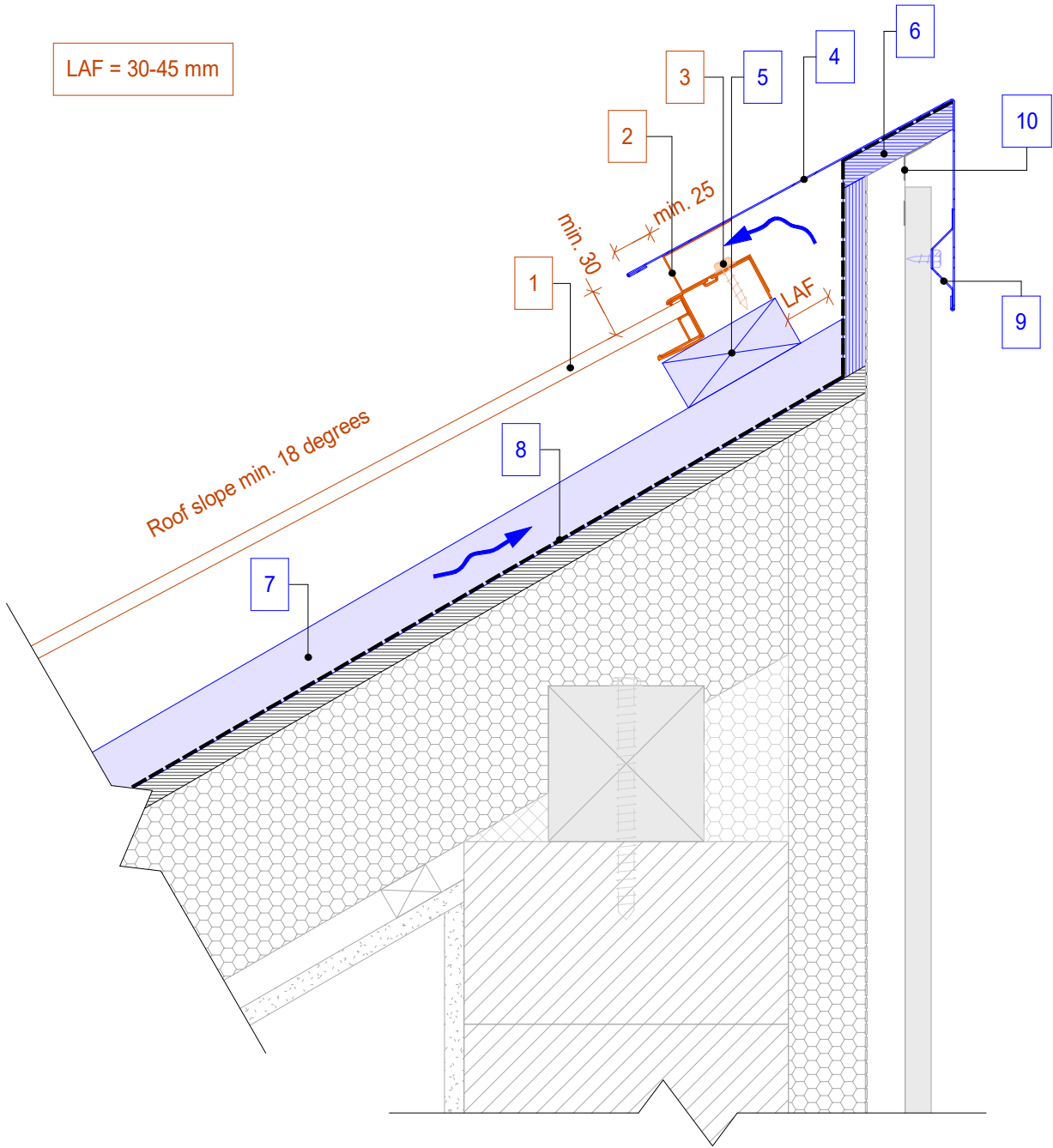
Solarstone delivers

- 1 - Solar Full Roof BIPV module
- 2 - Ridge ventilation flashing¹
- 3 - Roofing screw with drill point, 4.8x28 mm, RR33²

LAF = 30-45 mm

Client delivers

- 4 - Ridge flashing
- 5 - Regular row counter batten 120x40 mm³
- 6 - Support boards⁴
- 7 - Ventilation batten³
- 8 - Underlayment⁵
- 9 - Ventilation profile
- 10 - Perforated sheet metal⁶



Notes:

- 1. Dimensions according to the project documentation.
- 2. The roof pitch has to be 18° or greater.
- 3. ¹ Recommended ridge ventilation opening should be ≥ 2‰ of the ventilated roof area. The use of ventilation elements is recommended on pitched roofs where the ridge length exceeds 12 m, or where the ridge of a semi-detached or terraced house roof with a length exceeding 8 m is interrupted by a fire barrier or any other structure interrupting the ridge.
- 4. ² The screw from the top should only be installed into the profile that is added to the BIPV module. There must not be any screws in BIPV modules. Use the rate of revolutions as recommended by the manufacturer.
- 5. ³ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
- 6. ⁴ Support board: EN 13986 (CE), Use Class 2; OSB/3–OSB/4, EN 636 plywood, or equivalent moisture-resistant board.
- 7. ⁵ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.

Revision:		
Version:	Ver 1	Ridge Details
Issue date:	29.04.26	Mono-pitch Roof
Detail ID:		
		Sheet Number:
		TD-EN-0023

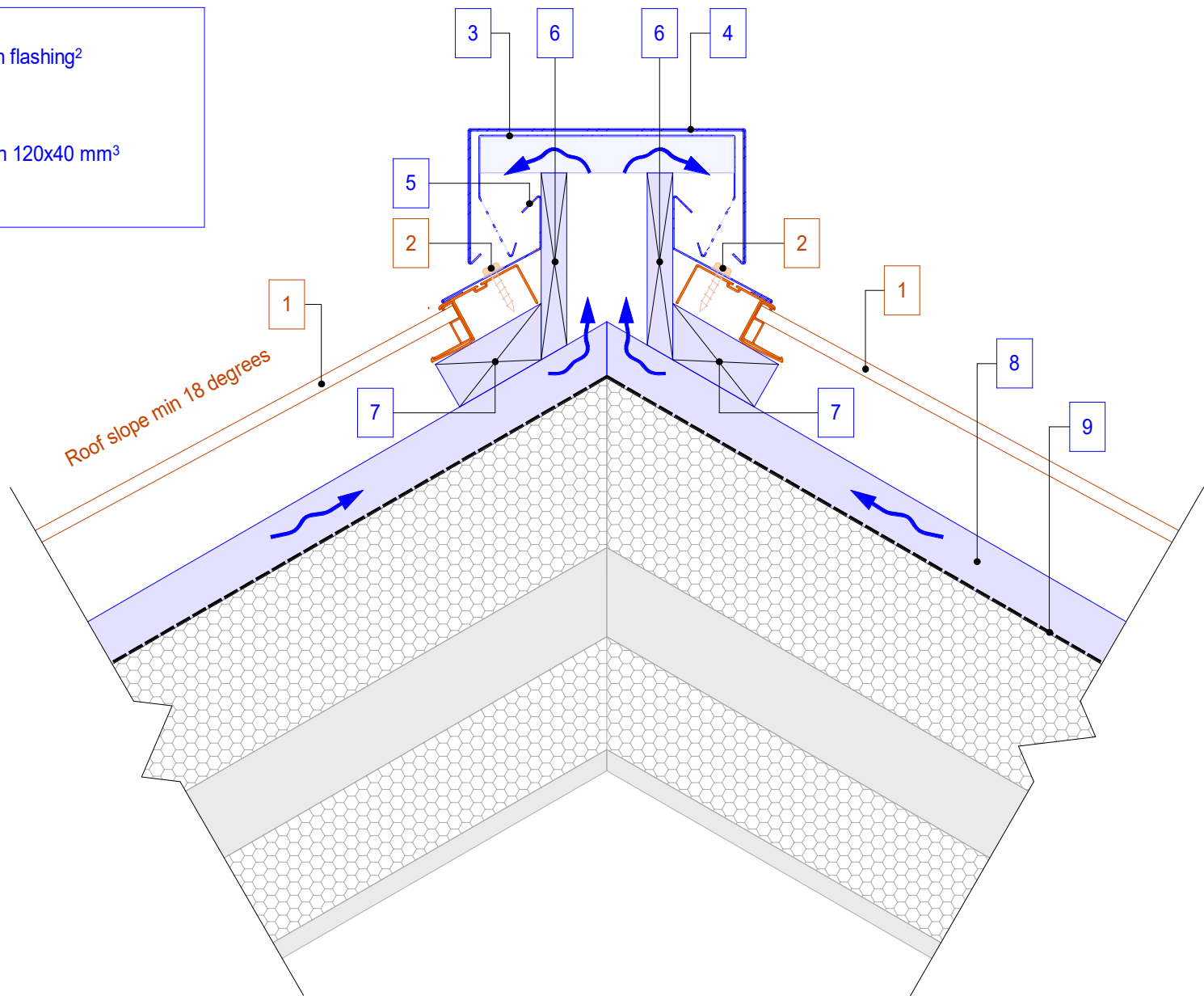
DETAIL DRAWINGS

Solarstone delivers

- 1 - Solar Full Roof BIPV module
- 2 - Roofing screw with drill point, 4.8x28 mm, RR33¹

Client delivers

- 3 - Perforated ridge ventilation flashing²
- 4 - Ridge cover flashing
- 5 - Apron flashing
- 6 - Ridge board³
- 7 - Regular row counter batten 120x40 mm³
- 8 - Ventilation batten³
- 9 - Underlayment⁴

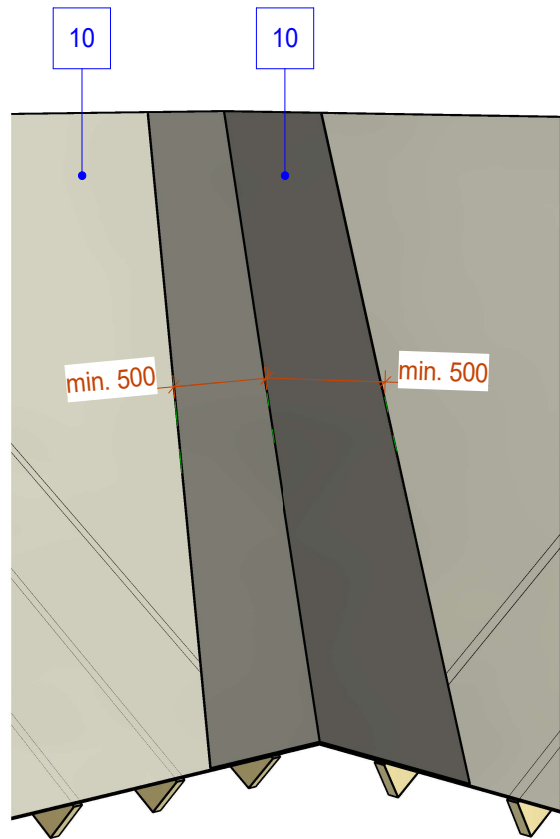


Notes:

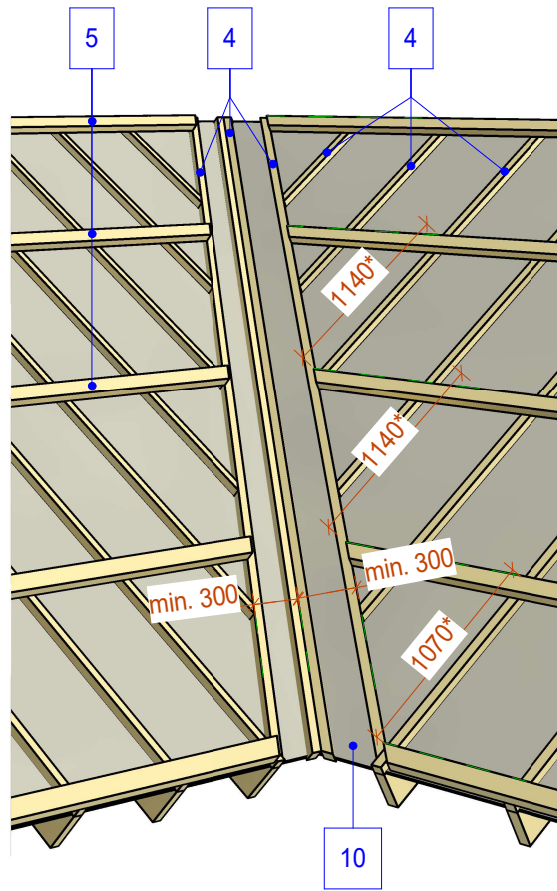
1. Dimensions according to the project documentation.
2. The roof pitch has to be 18° or greater.
3. ¹ The screw from the top should only be installed into the profile that is added to the BIPV module. There must not be any screws in BIPV modules. Use the rate of revolutions as recommended by the manufacturer.
4. ² Recommended ridge ventilation opening should be ≥ 2‰ of the ventilated roof area.
5. ³ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
6. ⁴ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.

Revision:		
Version:	Ver 1	Ridge Details
Issue date:	29.04.26	Raised Ridge
Detail ID:		
		Sheet Number:
		TD-EN-0024

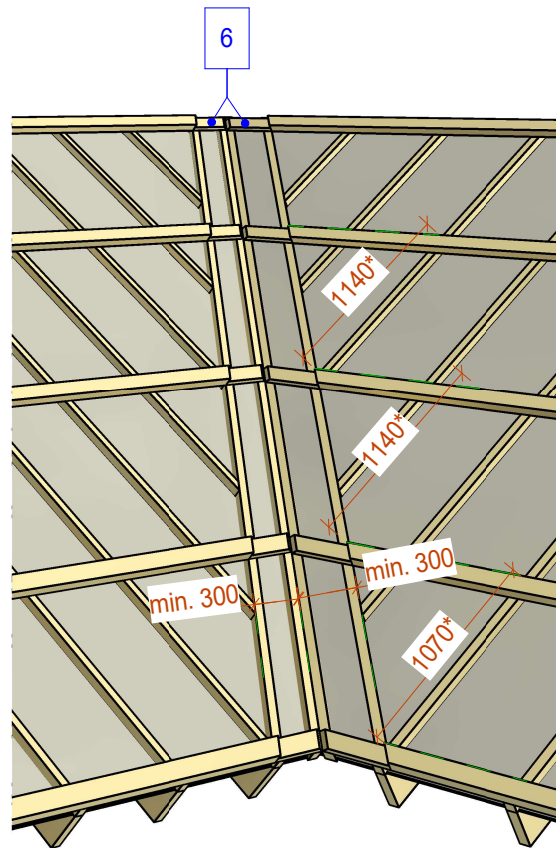
DETAIL DRAWINGS



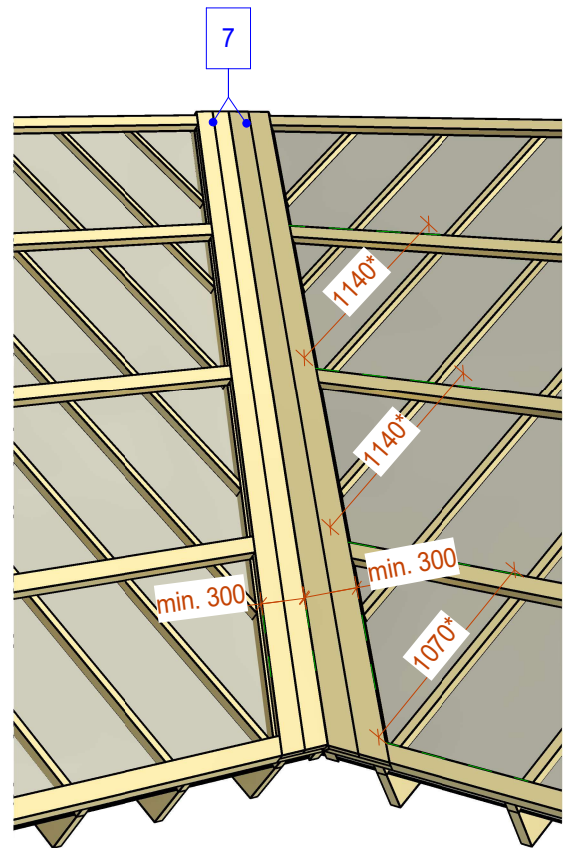
Step 1



Step 2



Step 3



Step 4

Solarstone delivers

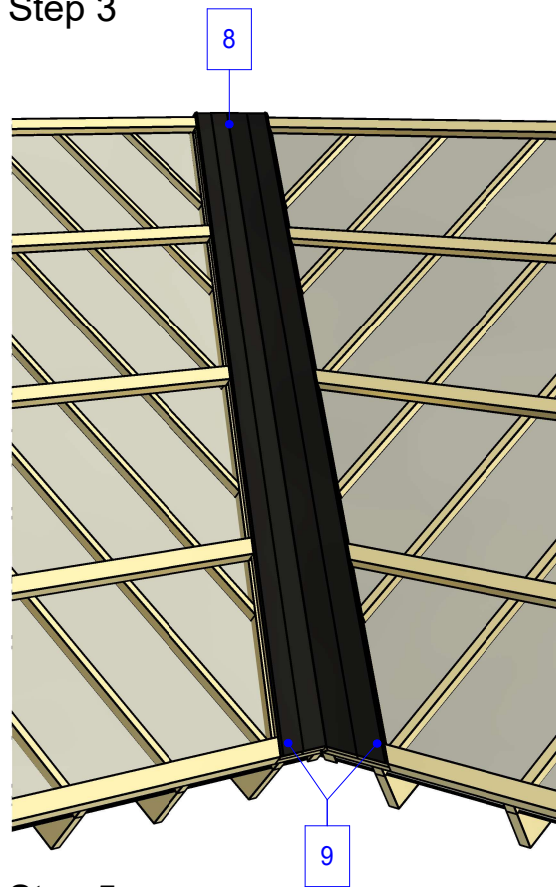
- 1 - Solar Full Roof BIPV module
- 2 - Solar Full Roof Filler module¹
- 3 - Cover flashing, fastened with roofing screw with drill point ²; 4.8x28 mm; RR33; cc 300 mm

Client delivers

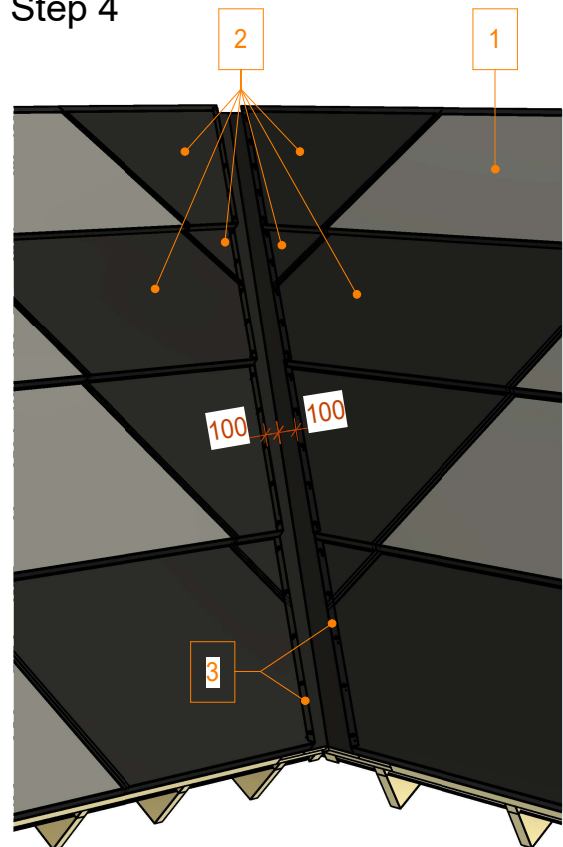
- 4 - Ventilation batten³
- 5 - Regular row counter batten 120x40 mm³
- 6 - Support batten 120x20 mm³
- 7 - Support boards t = 20 mm³
- 8 - Valley flashing⁴
- 9 - Triangular sealing strip⁵
- 10 - Underlayment⁶

Notes:

1. Dimensions according to the project documentation. The batten spacings shown in the details are based on Solar Full Roof KIT-A. For determining the batten spacings for KIT-B and KIT-C, refer to the Solar Full Roof installation manual.
2. The roof pitch has to be 18° or greater.
3. ¹ Triangular cut of the Filler module must be done according to the size of the roof. Filler modules can be cut with a circular saw. Perform the cut from the back side of the module to protect the front side from damaging the top paint coat. If small triangular pieces are required to complete roof space where clamps cannot be installed, the Filler module can be screwed directly into the batten through the top click with 5x70 mm screws.
4. ² There must not be any screws in BIPV modules. Use the rate of revolutions as recommended by the manufacturer.
5. ³ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
6. ⁴ Valley flashing shall be installed on support boards, starting from the eaves and proceeding towards the ridge, with an overlap of 100–150 mm. The valley flashing shall be fixed using dedicated valley flashing fastening hooks.
7. ⁵ A triangular sealing strip shall be continuously applied along the full length of both edges of the valley flashing, without interruptions.
8. ⁶ An additional underlay layer shall be installed in roof valleys. The additional valley underlay shall be installed on a rigid, solid substrate and laid longitudinally along the valley line. The minimum width of the valley underlay shall be 1000 mm, extending min. 500 mm on each side of the valley centerline. SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.



Step 5



Step 6

Revision:

Version: Ver 1

Issue date: 29.04.26

Detail ID:

Valley Details

Standard Installation

Sheet Number:

TD-EN-0041

DETAIL DRAWINGS

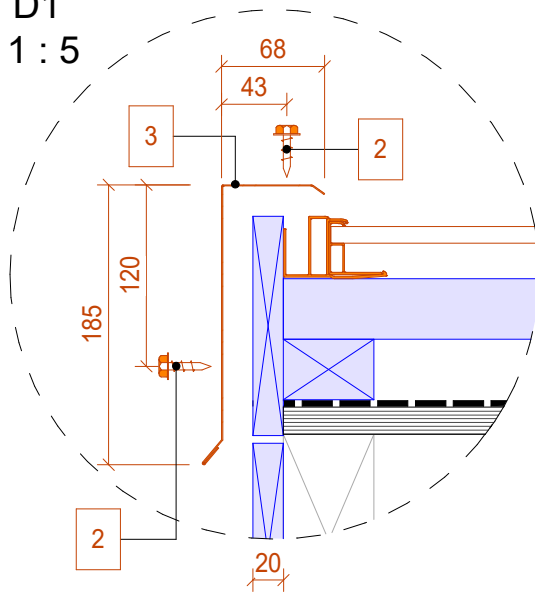
Solarstone delivers

- 1 - Solar Full Roof BIPV module
- 2 - Roofing screw with drill point, 4.8x28 mm, RR33¹
- 3 - Left Verge Flashing
- 4 - Right Verge Flashing

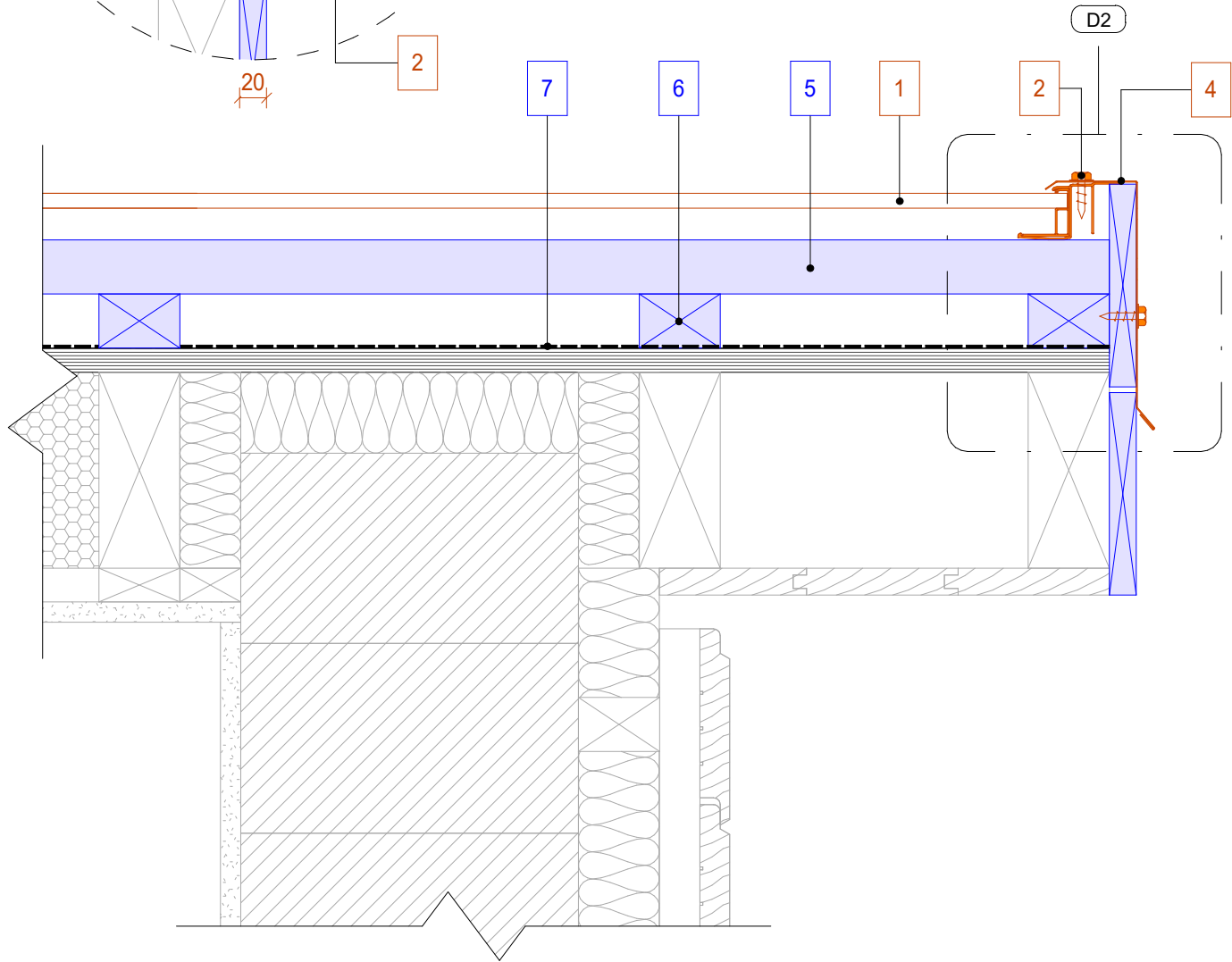
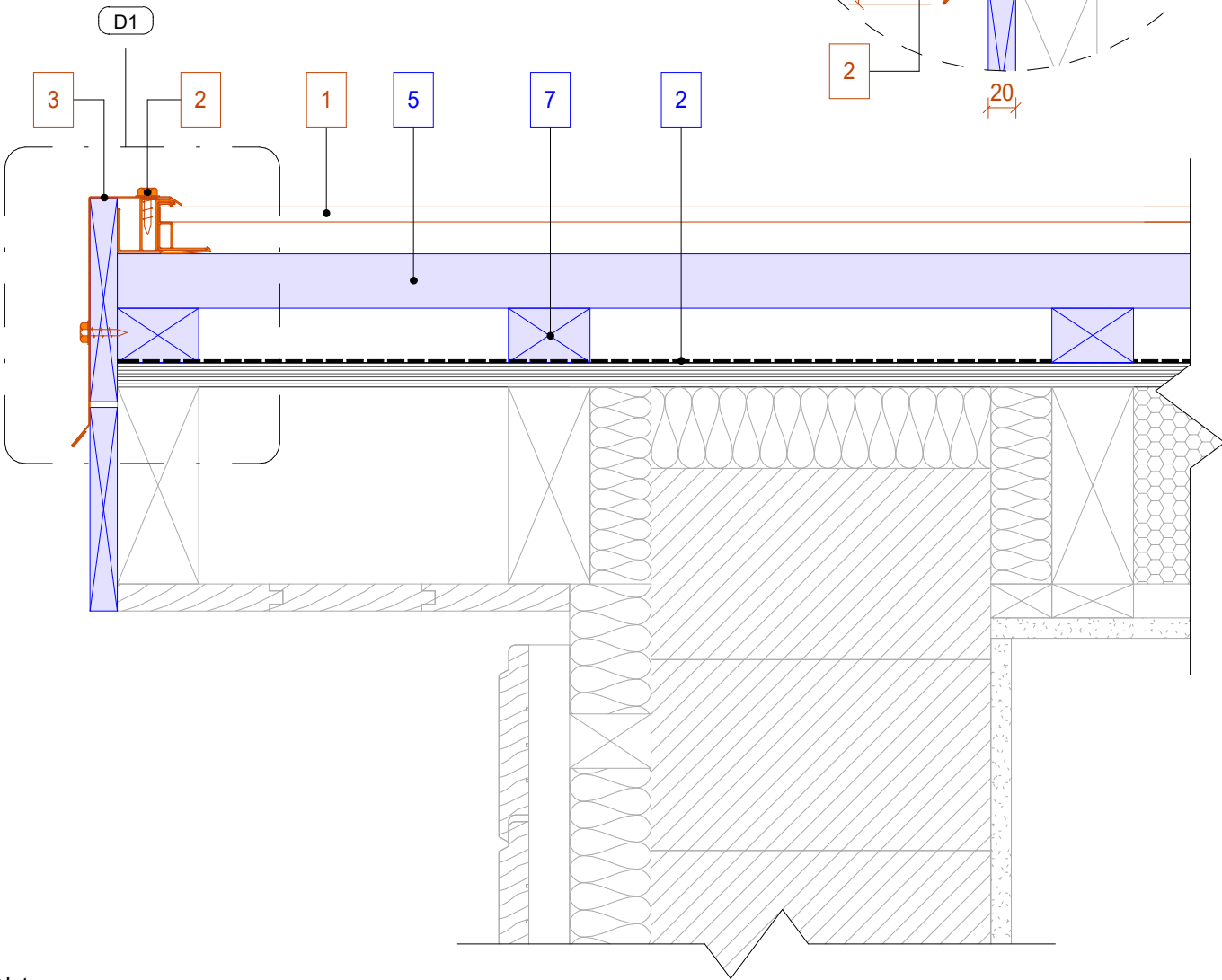
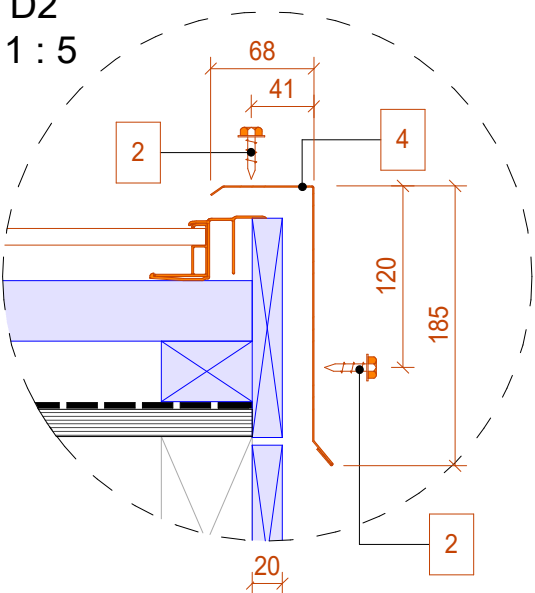
Client delivers

- 5 - Regular row counter batten 120x40 mm²
- 6 - Ventilation batten²
- 7 - Underlayment³
- 8 - Barge boards, t = 20 mm

D1
1 : 5



D2
1 : 5



Notes:

1. Roof dimensions according to the project documentation.
2. ¹ The screw from the top should only be installed into the profile that is added to the BIPV module. There must not be any screws in BIPV modules. Use the rate of revolutions as recommended by the manufacturer.
3. ² According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
4. ³ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.

Revision:		
Version:	Ver 1	Verge Details
Issue date:	29.04.26	Standard
Detail ID:		
		Sheet Number: TD-EN-0061

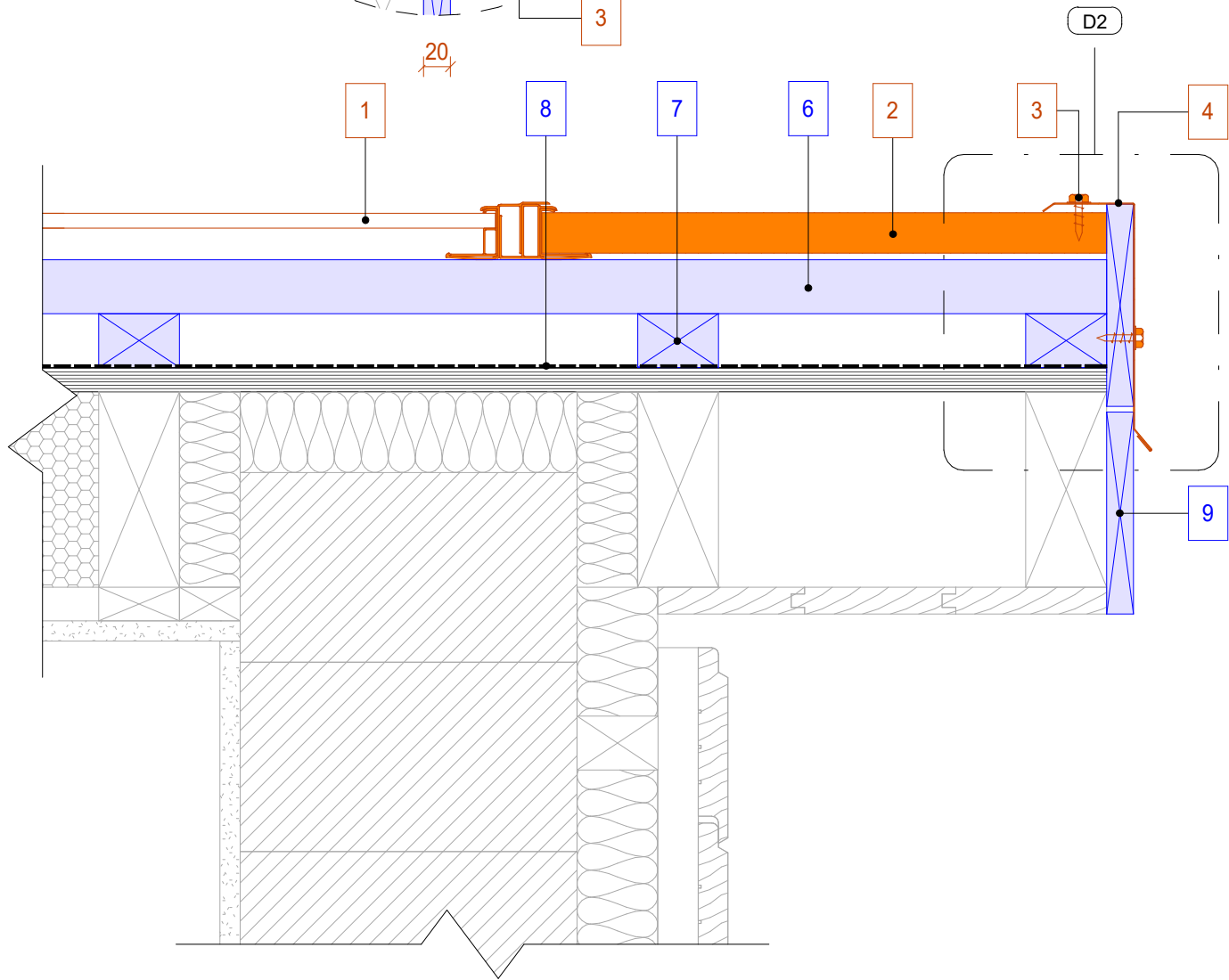
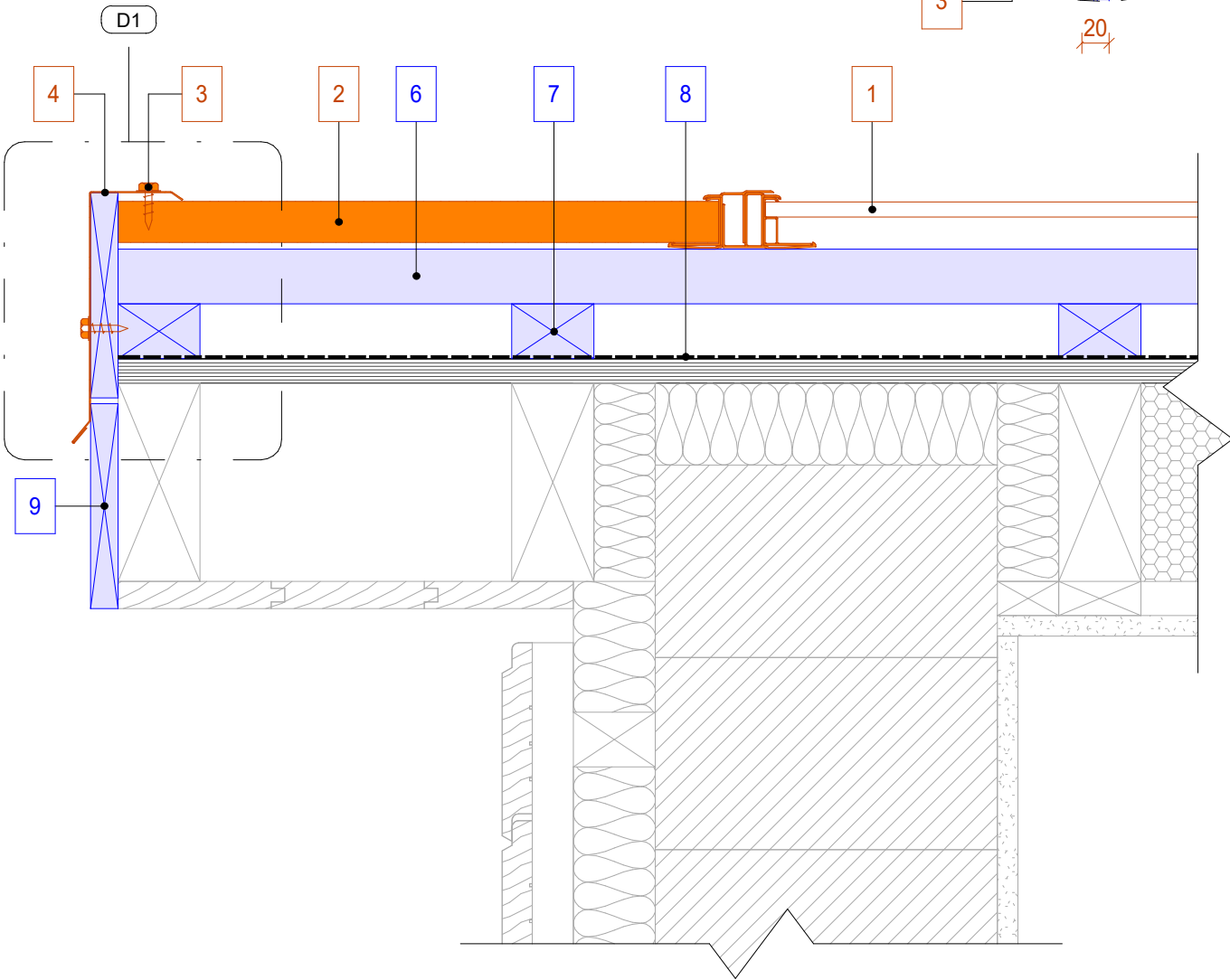
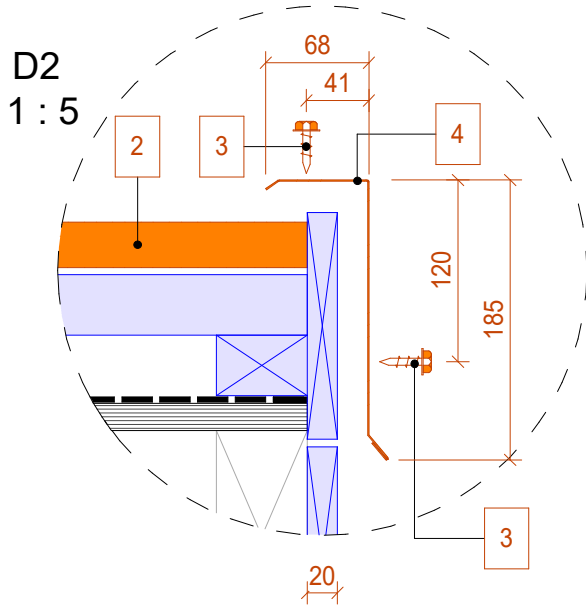
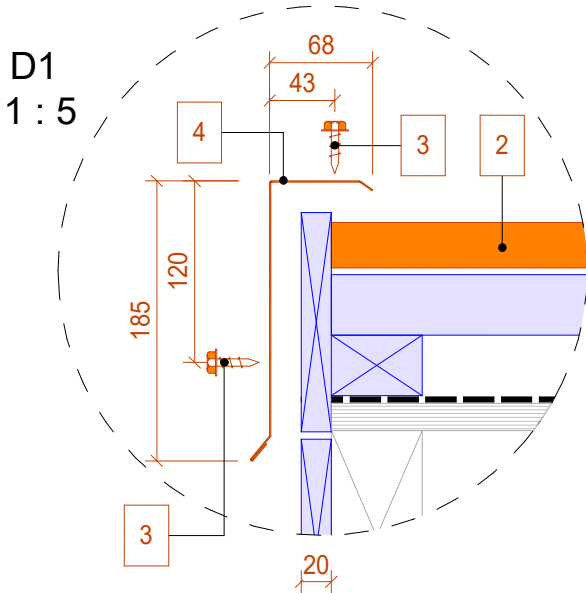
DETAIL DRAWINGS

Solarstone delivers

- 1 - Solar Full Roof BIPV module
- 2 - Solar Full Roof Filler module
- 3 - Roofing screw with drill point, 4.8x28 mm, RR33¹
- 4 - Left Verge Flashing
- 5 - Right Verge Flashing

Client delivers

- 6 - Regular row counter batten 120x40 mm²
- 7 - Ventilation batten²
- 8 - Underlayment³
- 9 - Barge boards, t = 20 mm



Notes:

1. Roof dimensions according to the project documentation.
2. ¹ There must not be any screws in BIPV modules. Use the rate of revolutions as recommended by the manufacturer.
3. ² According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be $\leq 18\%$ (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness $\geq 12 \mu\text{m}$ (C2), exterior $\geq \text{C2w}$; in Service Class 3 all fasteners $< 10 \text{ mm}$ must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
4. ³ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.

Revision:

Version: Ver 1

Issue date: 29.04.26

Detail ID:

Verge Detail

Filler Module

Sheet Number:

TD-EN-0062

DETAIL DRAWINGS

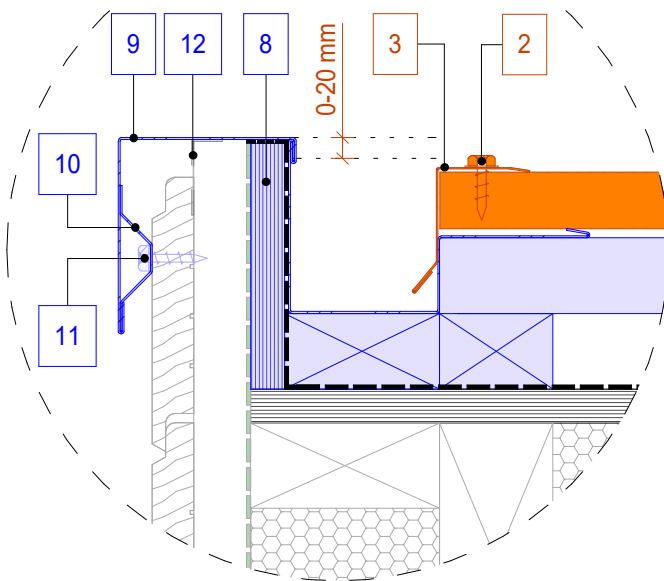
Solarstone delivers

- 1 - Solar Full Roof Filler module
- 2 - Roofing screw with drill point, 4.8x28 mm, RR33¹
- 3 - Left Verge Flashing
- 4 - Right Verge Flashing

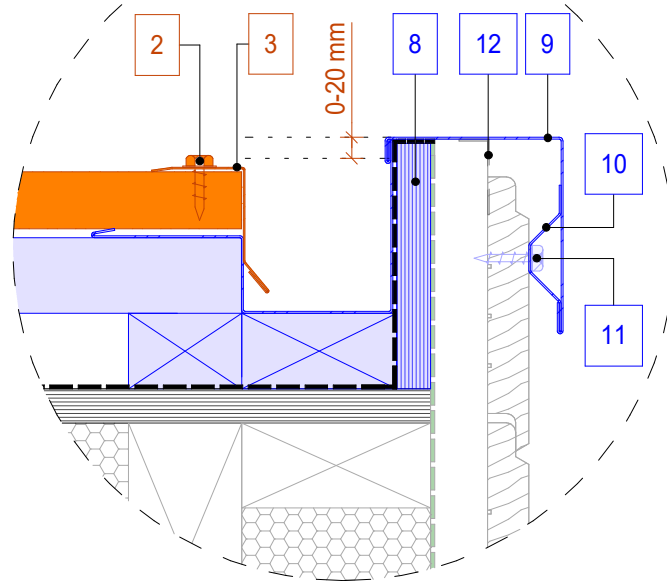
Client delivers

- 5 - Regular row counter batten 120x40 mm²
- 6 - Ventilation batten²
- 7 - Underlayment³
- 8 - Gutter base board⁴
- 9 - Gutter + cover flashing
- 10 - Ventilation profile
- 11 - Roofing screw with drill point
- 12 - Insect mesh

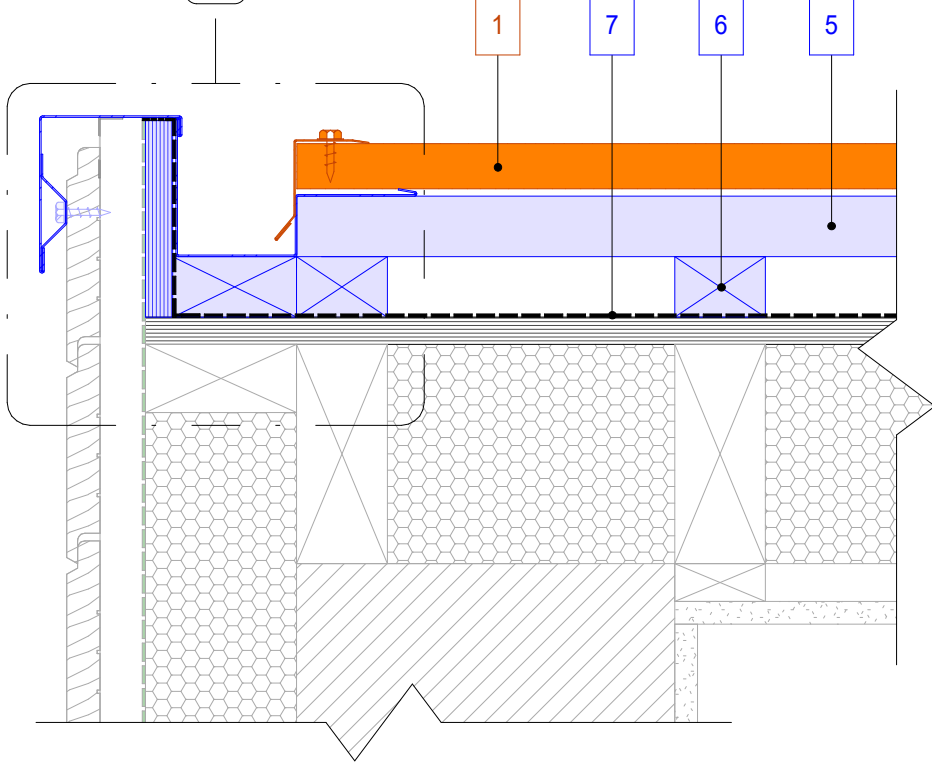
D1
1 : 4



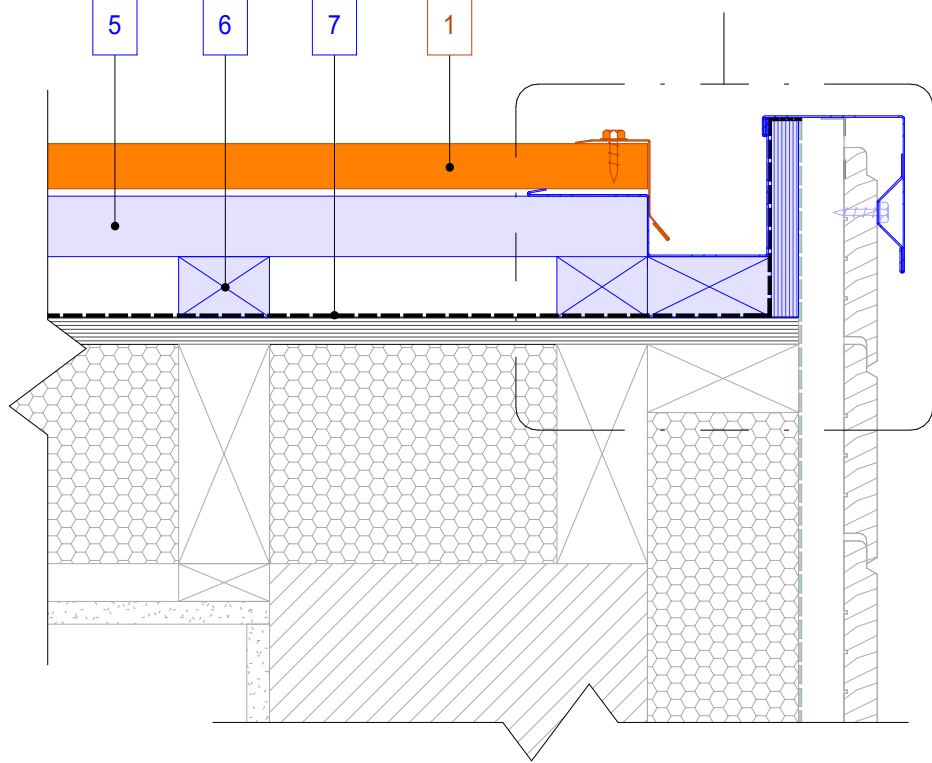
D2
1 : 4



D1



D2



Notes:

1. Dimensions according to the project documentation.
2. ¹ There must not be any screws in BIPV modules. Use the rate of revolutions as recommended by the manufacturer.
3. ² According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be $\leq 18\%$ (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness $\geq 12 \mu\text{m}$ (C2), exterior $\geq \text{C2w}$; in Service Class 3 all fasteners $< 10 \text{ mm}$ must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
4. ³ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.
5. ⁴ Box-gutter base board: EN 13986 (CE), Use Class 2; OSB/3–OSB/4, EN 636 plywood, or equivalent moisture-resistant board.

Revision:

Version:

Ver 1

Issue date:

29.04.26

Detail ID:

Verge Details

Verge Gutter

Sheet Number:

TD-EN-0063

DETAIL DRAWINGS

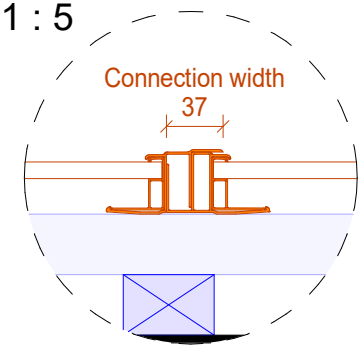
Solarstone delivers

- 1 - Solar Full Roof BIPV module
- 2 - Solar Full Roof Filler module¹

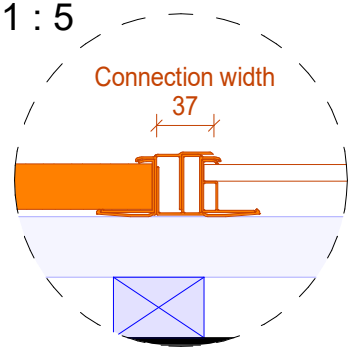
Client delivers

- 3 - Regular row counter batten 120x40 mm²
- 4 - Ventilation batten²
- 5 - Barge boards, t = 20 mm
- 6 - Underlayment³

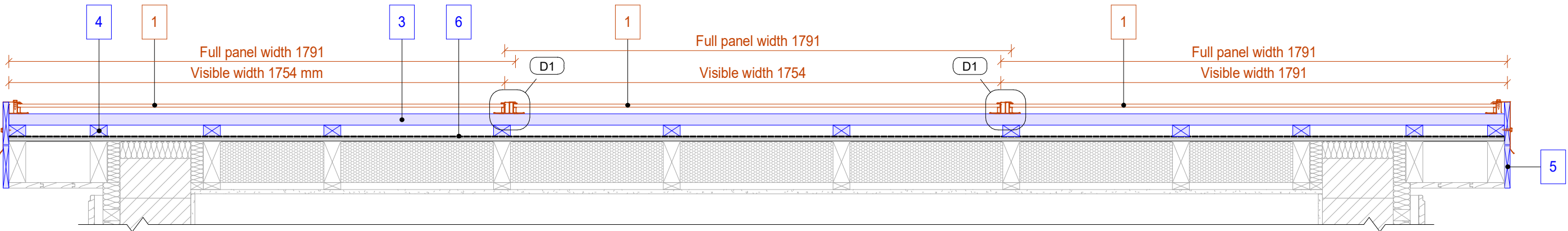
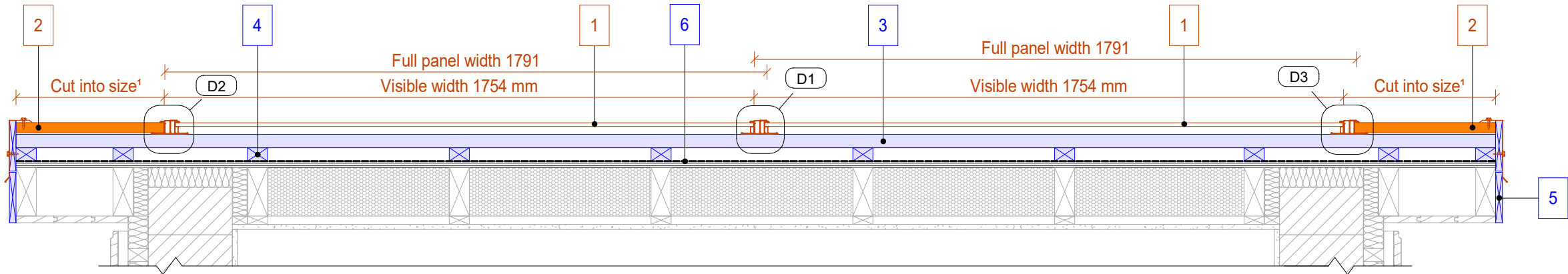
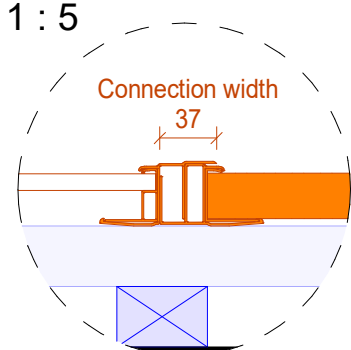
D1
1 : 5



D2
1 : 5



D3
1 : 5



Notes:

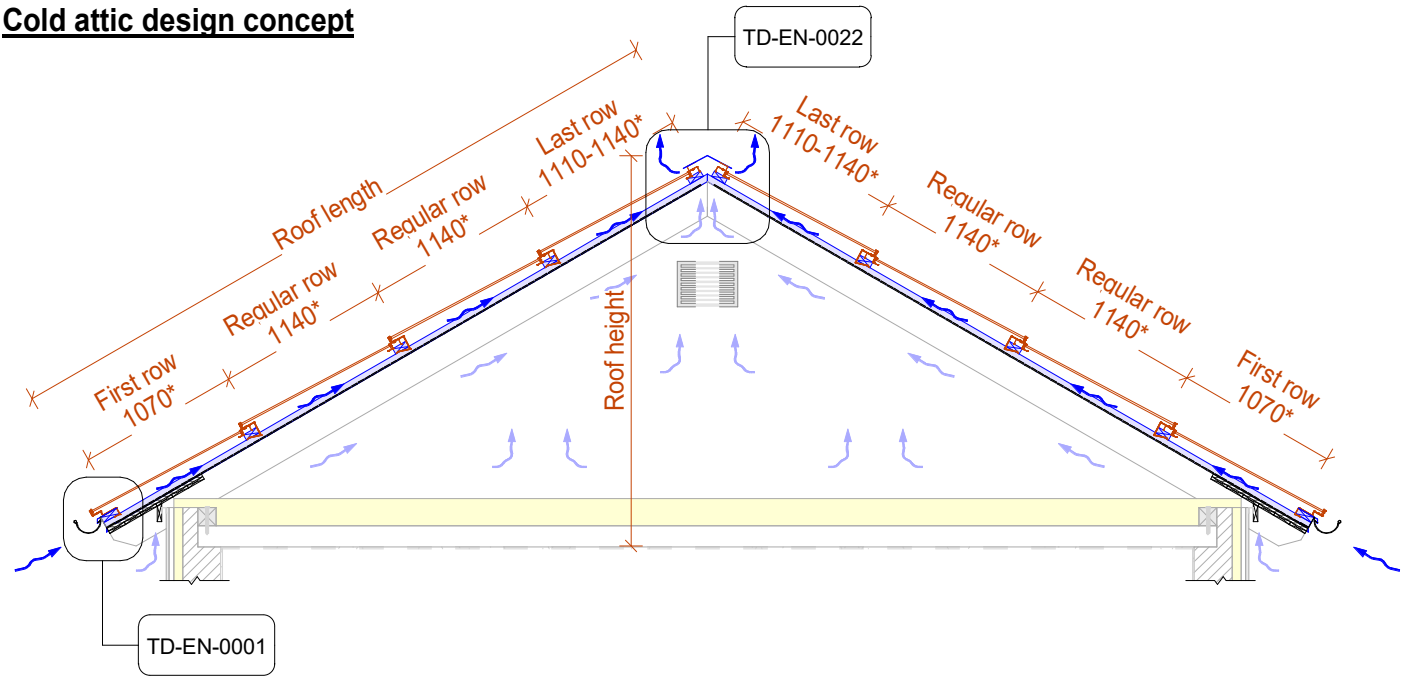
1. Roof dimensions according to the project documentation.
2. ¹ The width of the Filler module must be selected according to the size of the roof. The minimum height of a Filler module must be at least 300 mm. Filler modules can be cut with a circular saw. Perform the cut from the back side of the module to protect the front side from damaging the top paint coat.
3. ² According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be $\leq 18\%$ (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness $\geq 12 \mu\text{m}$ (C2), exterior $\geq \text{C2w}$; in Service Class 3 all fasteners $< 10 \text{ mm}$ must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
4. ³ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.

Revision:			Cross-sections	Horizontal	Sheet Number: TD-EN-0081
Version:	Ver 1				
Issue date:	29.04.26				
Detail ID:					

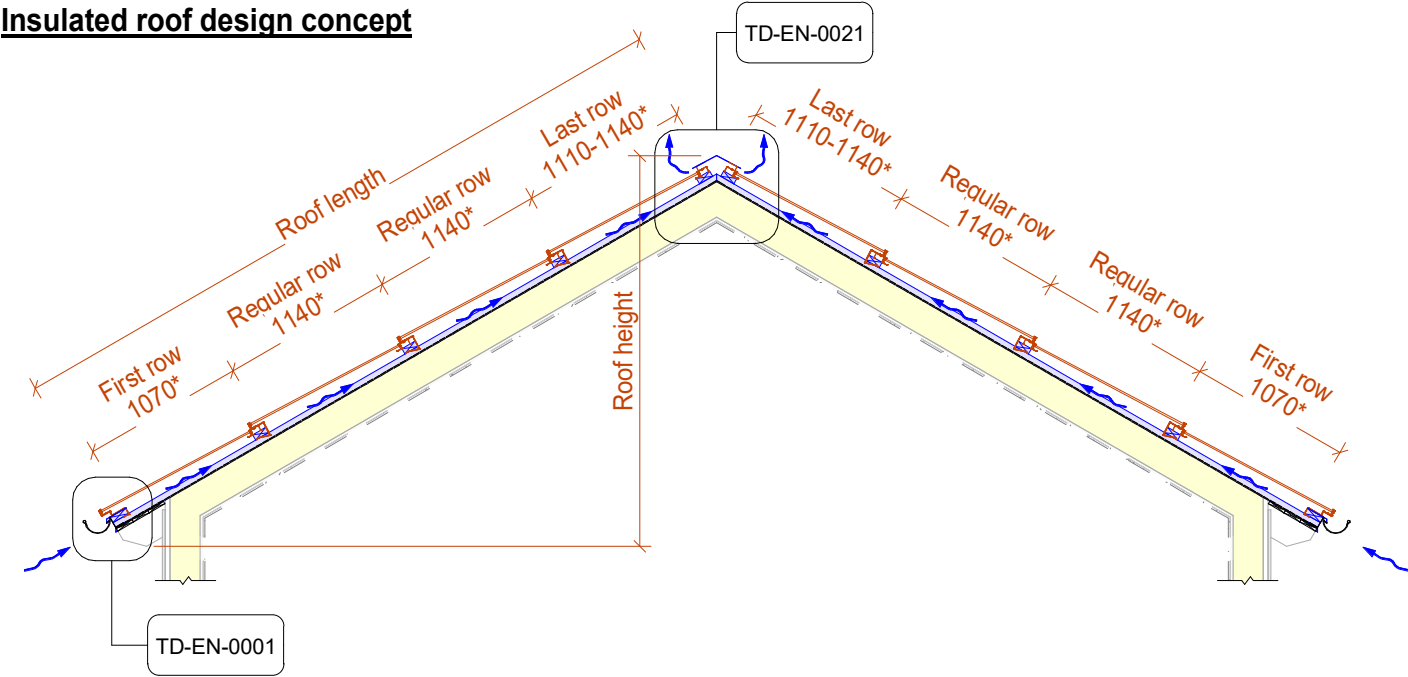
DETAIL DRAWINGS

SOLARSTONE

Cold attic design concept



Insulated roof design concept



General principles:

Project input data and geometry

- Roof geometry (length, height, slopes, upstands, drainage paths, penetrations, movement joints, maintenance routes) is defined by the project documentation (EN 1990/EN 1991 + National Annex, as applicable for the target country).
- Dimensions and batten spacings shown in the section are schematic and are specified in the relevant detail drawings and in the Solarstone Solar Full Roof installation manual (KIT-A / KIT-B / KIT-C)

Roof type: cold attic vs insulated roof (“warm roof”)

- Cold attic roof: the objective is to keep the attic cold and remove moisture through attic ventilation (DIN 4108-3).
- Insulated ceiling / warm roof: insulation + vapour control layer + underlayment must work as a system to ensure thermal performance and moisture safety, i.e., no moisture accumulation in the structure (DIN 4108-3; project-specific hygrothermal verification where required).

Ventilation

- Ventilation removes excess moisture from the roof build-up and roof voids (construction moisture + use-related moisture) and helps reduce summer overheating beneath the roof covering (DIN 4108-3; ZVDH technical rules/guidelines).
- The ventilation system consists of three essential components: (1) air intake openings at eaves → (2) continuous ventilation gap / airflow path → (3) air exhaust openings at ridge and edge areas (ZVDH technical rules; project details define the actual geometry).
- Ventilation is driven mainly by the stack effect and wind-induced pressure differences; performance depends on continuity of the airflow path and any flow obstructions (DIN 4108-3; ZVDH detailing principles).
- Openings must remain unobstructed (snow/dust/blockage) and must be protected with insect mesh; the mesh must remain maintainable and free from clogging (ZVDH detailing principles; project maintenance concept).

Sub-roof / underlayment

- Underlayment with all laps and upstands acts as a secondary water-shedding layer, draining incidental water/snow and protecting the structure against wind and moisture (ZVDH underlayment principles; project detailing).
- Underlayment selection for the Solarstone Solar Full Roof must consider elevated temperature exposure and UV exposure during the construction phase and must be installed as a coherent system (Solarstone requirements + ZVDH installation principles).
- All penetrations and transitions in the underlayment layer must be detailed so that water cannot reach the insulation or structural members (ZVDH detailing; project details).

Thermal insulation, vapour control and airtightness (for insulated ceilings / warm roofs)

- Thermal insulation must be selected and installed evenly and tightly to the supporting structure; protect insulation from wetting during construction (EN 13162 / EN 13163 / EN 13164 as applicable for the insulation product).
- Vapour barrier / vapour control layer is installed on the warm side and must form a continuous airtight layer; penetrations, joints and perimeters are critical (DIN 4108-3; project airtightness strategy).
- Where moisture safety depends on airtightness, airtightness must be ensured with particular care (continuous layer, seals, sleeves for penetrations) (DIN 4108-3; project verification where required).

Battens, batten spacings and fastenings

- First row / regular row / last row batten spacings are part of the system geometry and must match the Solar Full Roof kit instructions (KIT-A/B/C) (Solarstone installation manual).
- Timber battens are dimensioned and fixed following timber design principles; structural verification for battens/rafters is carried out where required (EN 1995-1-1 + National Annex, as applicable).
- Fasteners must comply with EN 14592 or ETA, as specified for the project/system (EN 14592 / ETA; manufacturer requirements).
- No screws may penetrate BIPV modules (Solarstone system requirement).
- If screwing is required, it is permitted only into the designated additional profile/fastening element (not into the module), and the tool speed/rpm must follow the manufacturer's recommendation.

Fire performance

- The Solarstone Solar Full Roof system is classified for external fire exposure as BROOF(t1) and BROOF(t2) (EN 13501-5; ENV 1187).

Drainage and moisture management

- Precipitation is drained safely from the roof covering surface via the rainwater system; any water in the underlayment layer is drained secondarily towards the eaves (project drainage concept; detailing principles).
- Valleys, upstands, transitions and penetrations are critical zones and are resolved by dedicated details (ZVDH detailing principles; project details).
- Where roof drainage is dimensioned, hydraulic design follows EN 12056-3 (EN 12056-3; project scope/requirements).

Safety and maintainability

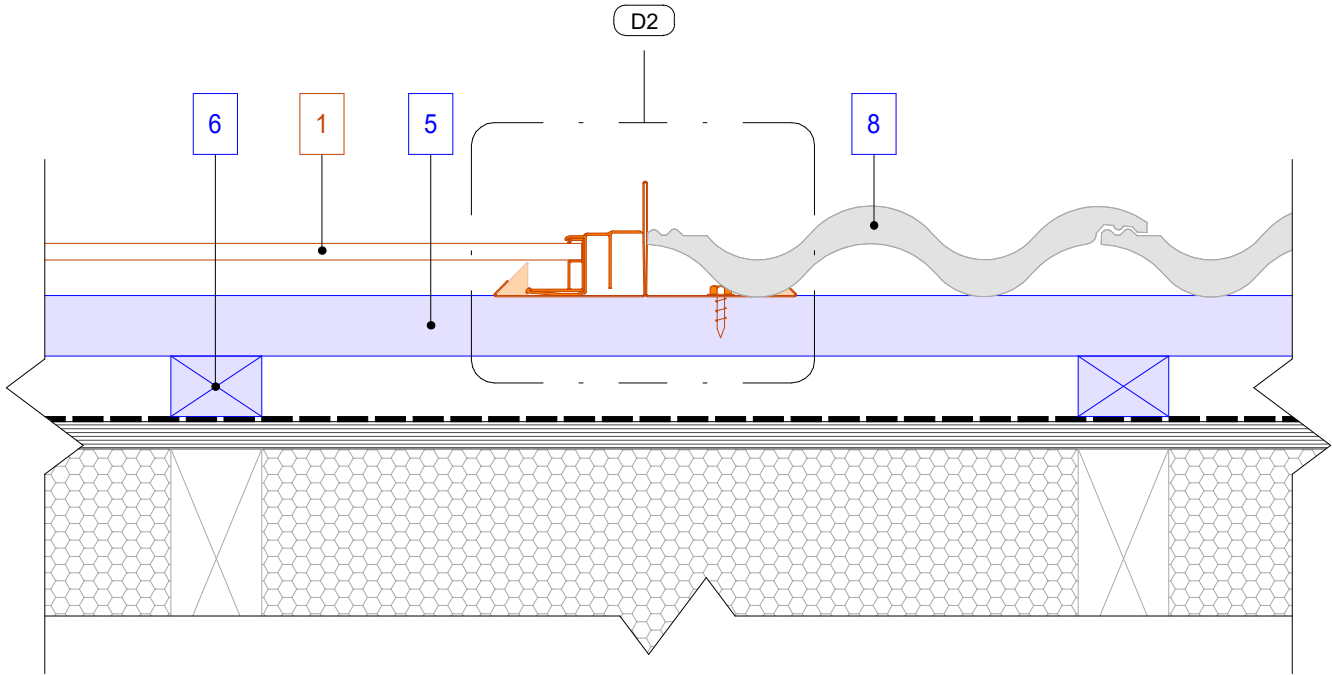
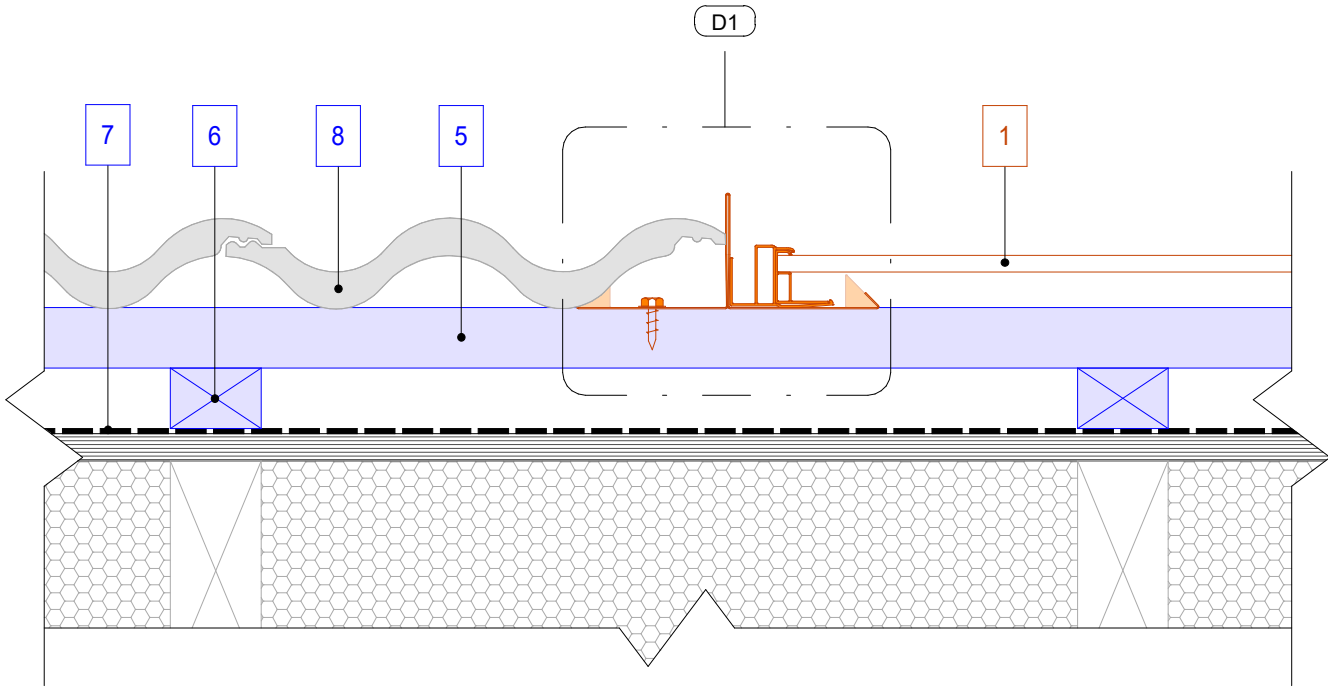
- Roof access is for trained persons only; access must be prohibited in hazardous weather conditions (project safety concept). Provide fall protection and safe maintenance routes where required; for cold attic roofs ensure safe movement in attic spaces and controlled access/protection (hatches/doors, guards) (project safety concept; where specified, EN 516 / EN 517).

Revision:			Cross-sections	Sheet Number: TD-EN-0082
Version:	Ver 1			
Issue date:	29.04.26			
Detail ID:				
			Vertical	

DETAIL DRAWINGS

- Solarstone delivers**
- 1 - Solar Full Roof BIPV module
 - 2 - Roofing screw with drill point, 4.8x28 mm, RR33¹
 - 3 - Joint Flashing²
 - 4 - Triangular sealing strip

- Client delivers**
- 5 - Regular row counter batten 120x40 mm³
 - 6 - Ventilation batten³
 - 7 - Underlayment⁴
 - 8 - Roof tile / any other conventional roofing material



Notes:

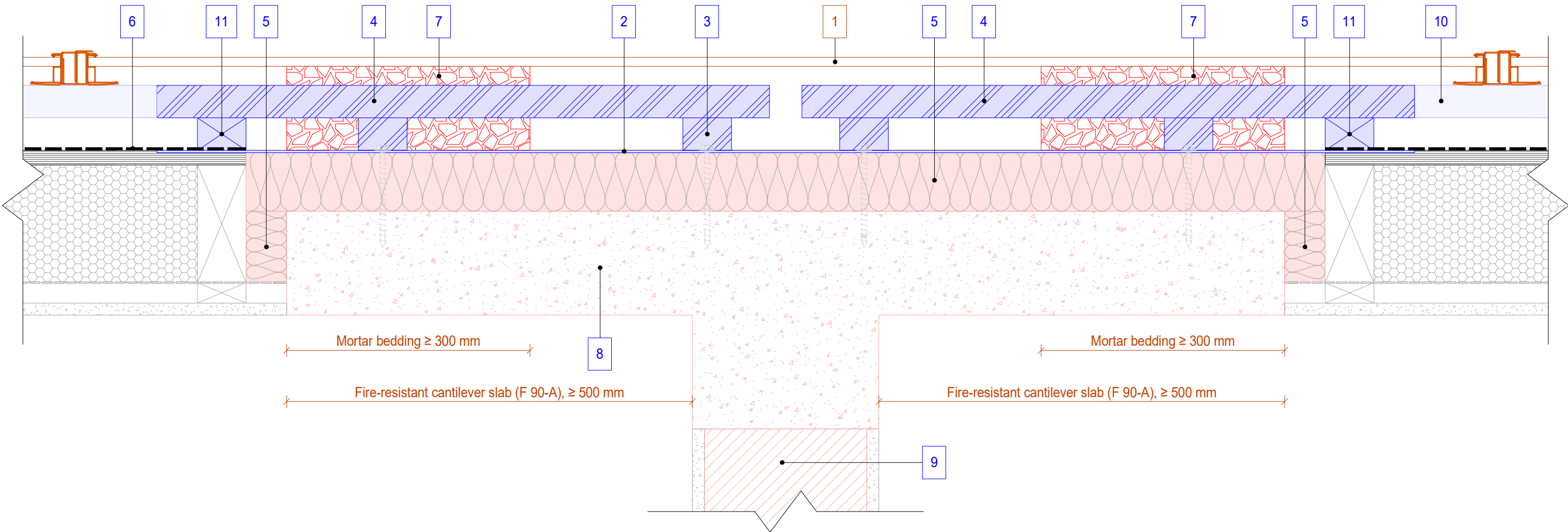
1. Roof dimensions according to the project documentation.
2. ¹ Minimum 4 screws should be used per joint flashing. There must not be any screws in BIPV modules. Use the rate of revolutions as recommended by the manufacturer.
3. ² Joint flashing is used when Filler modules are entirely excluded from the Solar Full Roof project design, and it must be installed continuously from the eave to the ridge to ensure necessary water-tightness.
4. ³ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be $\leq 18\%$ (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness $\geq 12 \mu\text{m}$ (C2), exterior $\geq \text{C2w}$; in Service Class 3 all fasteners $< 10 \text{ mm}$ must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
5. ⁴ SOLARSTONE strongly recommends choosing underlayment that cover: 120°C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.

Revision:		
Version:	Ver 1	Junctions
Issue date:	29.04.26	Functional transition to conventional roofing
Detail ID:		
		Sheet Number: TD-EN-0101

DETAIL DRAWINGS

Solarstone delivers
1 - Solar Full Roof BIPV module

Client delivers
2 - Sheet metal
3 - Metal counter batten¹
4 - Metal fixing clips¹
5 - Non-combustible insulation²
6 - Underlayment³
7 - Mortar bedding⁴
8 - Fire-resistant cantilever slab⁵
9 - Fire wall⁶
10 - Regular row counter batten 120x40 mm⁷
11 - Ventilation batten⁷



Notes:

1. Roof dimensions according to the project documentation.
2. The fire-resistant closure solution shown is schematic. Final detailing shall be coordinated with the fire-safety concept, structural design, roofing contractor and building authority.
3. ¹ In the fire wall zone, combustible timber battens shall be interrupted. Locally, non-combustible substructures (e.g. metal counter battens and fixing elements) shall be used to avoid combustible components bridging the fire wall.
4. ² All cavities within the fire wall zone shall be completely filled with non-combustible insulation to ensure effective closure against fire and smoke transmission. Insulation materials used in this zone shall be classified at least A1 in accordance with EN 13501-1 (e.g. mineral-based insulation).
5. ³ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.
6. ⁴ Mortar bedding shall be formed above the fire-resistant cantilever slab with a minimum width of 300 mm on both sides of the fire wall. The mortar bedding shall be non-combustible and continuous over the full roof build-up height to ensure effective closure of cavities.
7. ⁵ The fire-resistant cantilever slab shall be rated at least F90-A and shall project ≥ 500 mm on both sides of the fire wall. The cantilever slab forms the structural basis of the fire-resistant roof-level closure as an alternative solution in accordance with MBO §32 (5). Structural verification shall be project-specific.

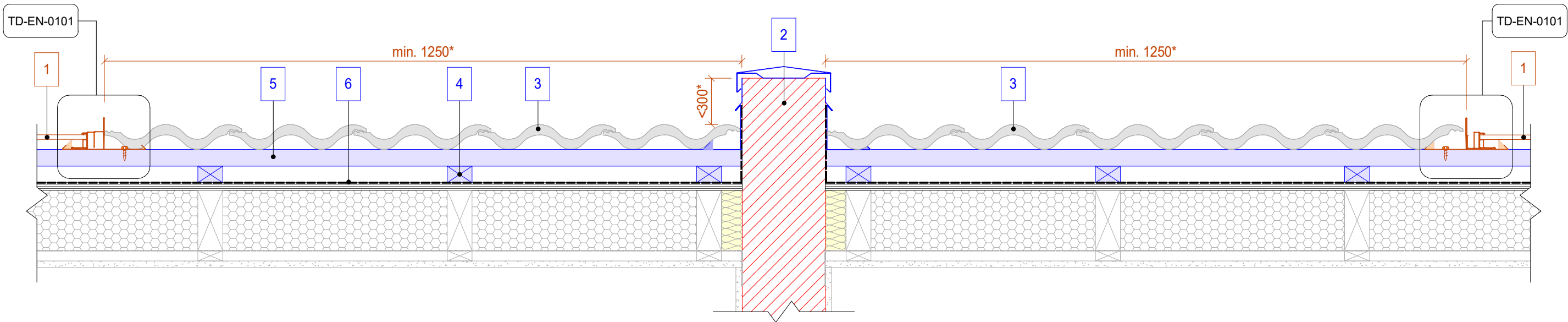
8. ⁶ The fire wall shall maintain its fire-separation function through the roof build-up. The combination of cantilever slab, mortar bedding and non-combustible insulation constitutes an alternative closure at roof level in accordance with MBO §32 (5).
9. ⁷ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.

Revision:		
Version:	Ver 1	Junctions
Issue date:	30.04.26	Fire Wall at Roof Level (50 + 50 Closure)
Detail ID:		
		Sheet Number:
		TD-EN-0102

DETAIL DRAWINGS

Solarstone delivers
1 - Solar Full Roof BIPV module

Client delivers
2 - Fire wall
3 - Roof tile / any other conventional roofing material
4 - Regular row counter batten 120x40 mm¹
5 - Ventilation batten¹
6 - Underlayment²



Notes:

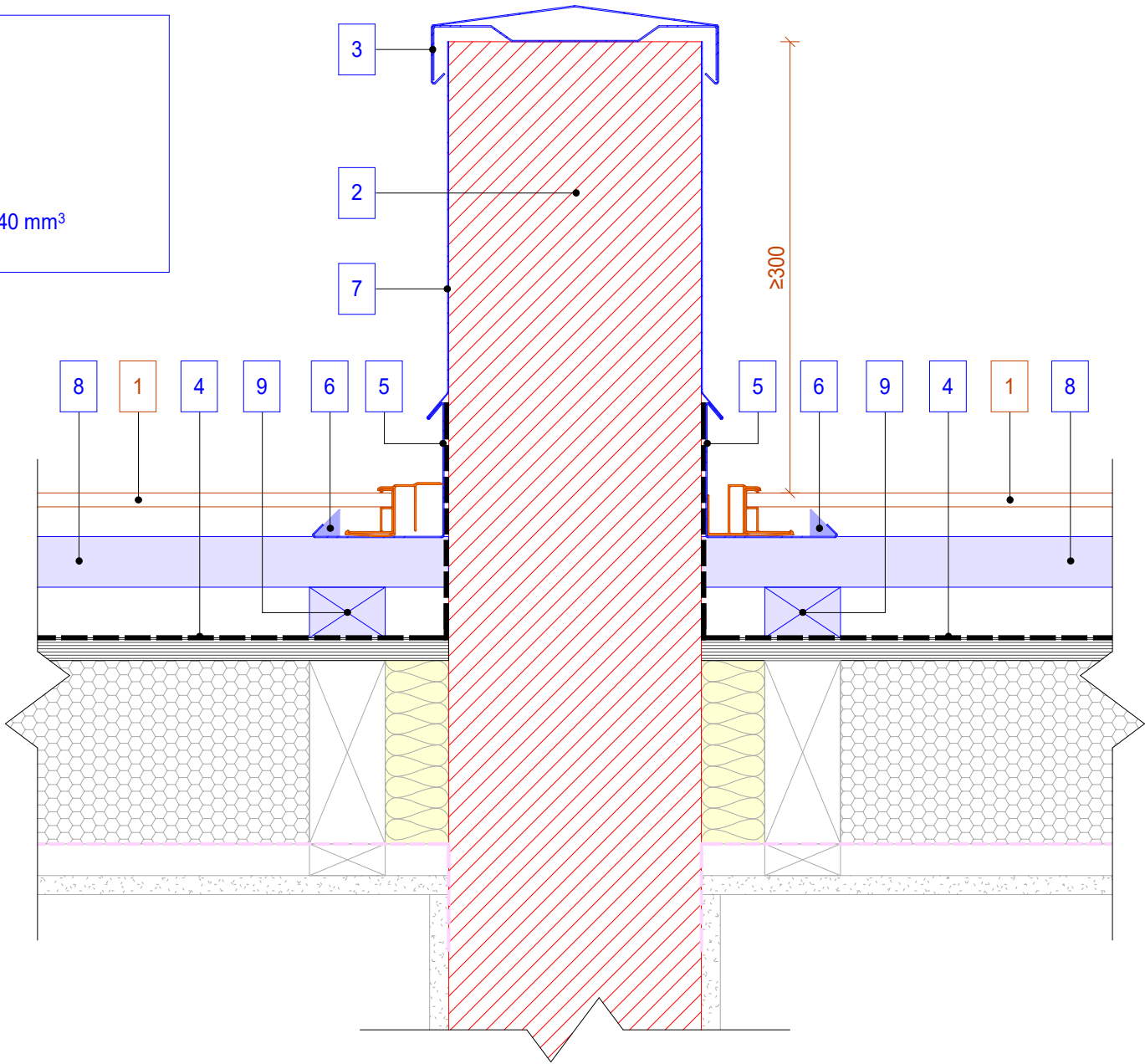
1. Roof dimensions according to the project documentation.
2. The fire-resistant closure solution shown is schematic. Final detailing shall be coordinated with the fire-safety concept, structural design, roofing contractor and building authority.
3. * Where the fire wall projects less than 300 mm above the roof covering, a minimum separation zone of 1250 mm from the fire wall shall be maintained in accordance with MBO §32 (5).
4. ¹ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be $\leq 18\%$ (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness $\geq 12 \mu\text{m}$ (C2), exterior $\geq \text{C2w}$; in Service Class 3 all fasteners $< 10 \text{ mm}$ must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
5. ² SOLARSTONE strongly recommends choosing underlayment that cover: 120°C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.

Revision:		
Version:	Ver 1	Junctions
Issue date:	30.04.26	Fire Wall below 300 mm
Detail ID:		
		Sheet Number: TD-EN-0103

DETAIL DRAWINGS

Solarstone delivers
1 - Solar Full Roof BIPV module

Client delivers
2 - Fire wall¹
3 - Sheet-metal cap
4 - Underlayment²
5 - Wall flashing
6 - Triangular sealing strip
7 - Drip flashing
8 - Regular row counter batten 120x40 mm³
9 - Ventilation batten³



Notes:

1. Roof dimensions according to the project documentation.
2. The execution shown is schematic. Final detailing shall be coordinated with the fire-safety concept, structural design, roofing contractor and building authority.
3. ¹ Where the fire wall projects at least 300 mm above the roof covering, installation may start directly at the fire wall in accordance with MBO §32 (5).
4. ² Underlayment shall be installed across the roof area and shall be turned up at the fire wall to ensure watertightness. SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.
5. ³ Wall flashing shall be installed to ensure a watertight connection to the vertical surface. The flashing shall be arranged in such a way that no direct contact occurs between the flashing and SOLARSTONE modules.
6. ⁴ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.

Revision:		
Version:	Ver 1	Junctions
Issue date:	30.04.26	Fire Wall above 300 mm
Detail ID:		
		Sheet Number:
		TD-EN-0104

DETAIL DRAWINGS

Solarstone delivers

1 - Solar Full Roof BIPV module

Client delivers

2 - Regular row counter batten 120x40 mm¹

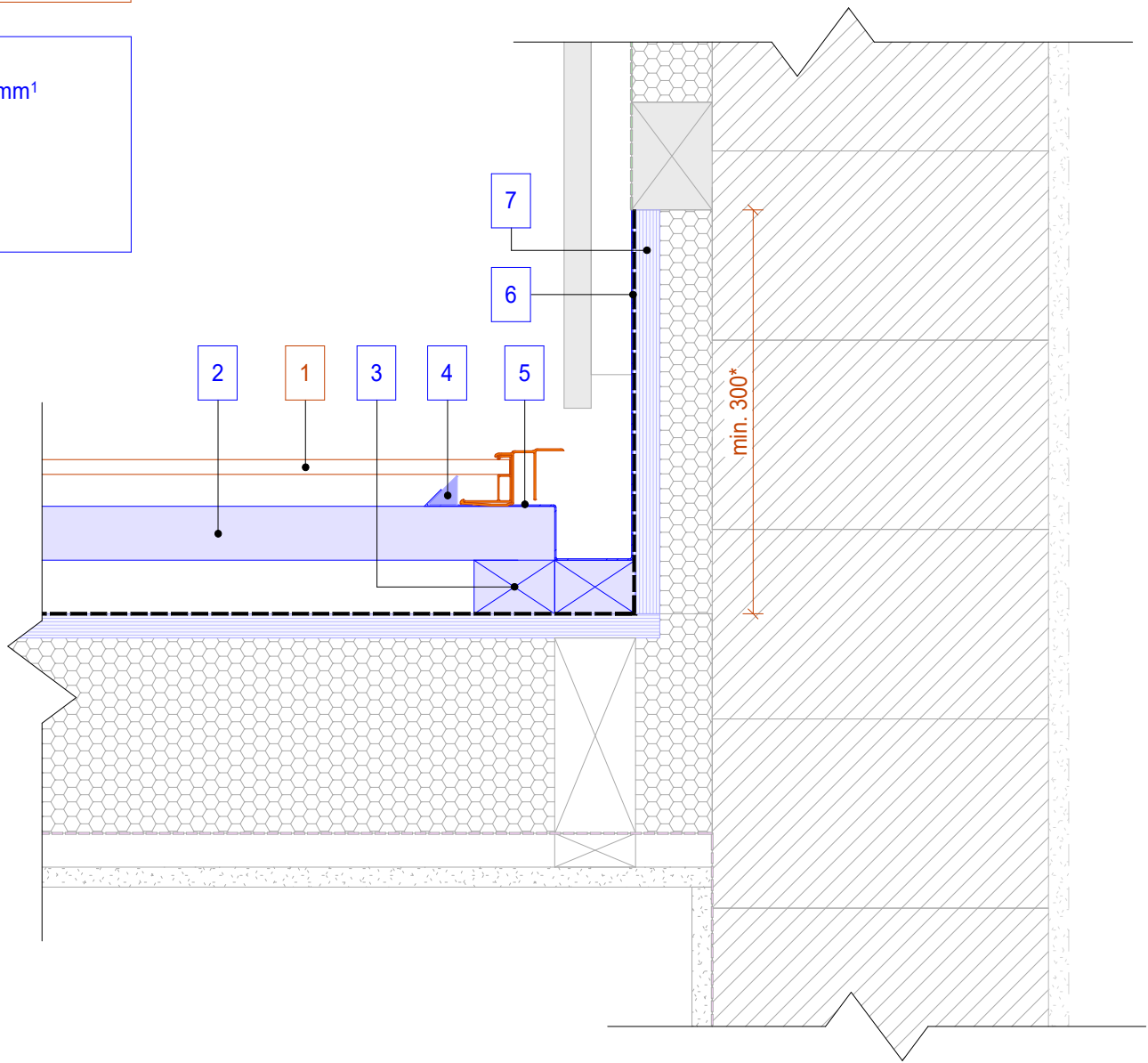
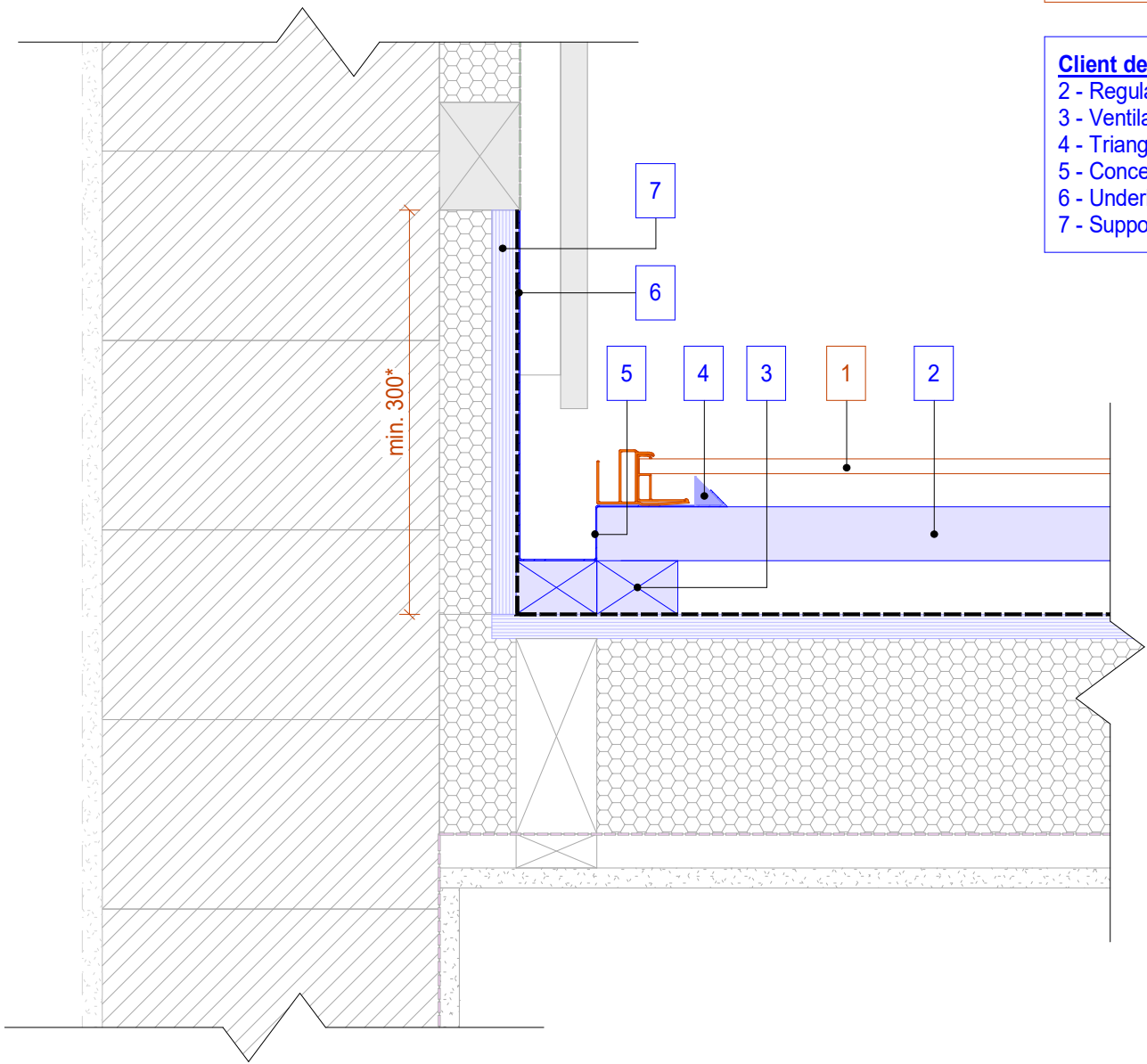
3 - Ventilation batten¹

4 - Triangular sealing strip

5 - Concealed wall gutter²

6 - Underlayment³

7 - Support board⁴



Notes:

1. Dimensions according to the project documentation.
2. The roof pitch has to be 18° or greater.
3. * Penetrations and connections to vertical elements shall ensure roof watertightness and its durability in service. As a general rule, the roof covering / waterproofing layer shall be turned up at least 300 mm at vertical elements. Where height is limited (e.g. above doors), the upturn may be reduced to minimum of 150 mm only with project-specific additional measures and detailing.
4. ¹ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
5. ² Concealed wall gutter shall be mechanically fixed to the upstand and shall fully protect the underlayment upturn by covering the entire upturn area and its top termination. Use corrosion-resistant sheet metal. Arrange the flashing so that no sheet-metal part touches BIPV modules and provide a movement clearance ≥ 15 mm where applicable. Use a triangular sealing strip to support the upturn and prevent kinking / sharp folds.
6. ³ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.
7. ⁴ Support board: EN 13986 (CE), Use Class 2; OSB/3–OSB/4, EN 636 plywood, or equivalent moisture-resistant board.

Revision:

Version: Ver 1

Issue date: 30.04.26

Detail ID:

Junctions

Wall Abutment - Cross-Section

Sheet Number:

TD-EN-0105

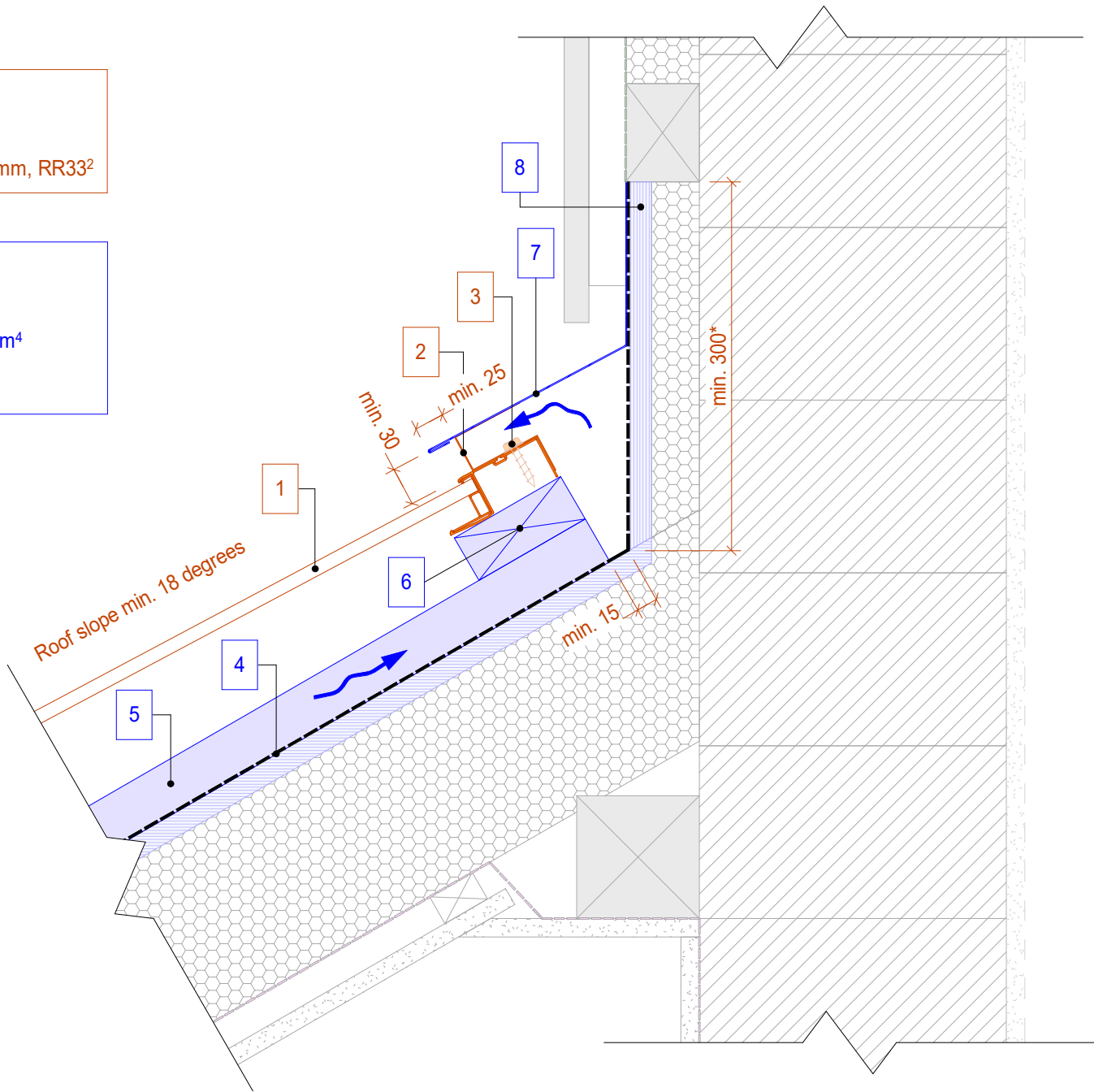
DETAIL DRAWINGS

Solarstone delivers

- 1 - Solar Full Roof BIPV module
- 2 - Ridge ventilation flashing¹
- 3 - Roofing screw with drill point, 4.8x28 mm, RR33²

Client delivers

- 4 - Underlayment³
- 5 - Ventilation batten⁴
- 6 - Regular row counter batten 120x40 mm⁴
- 7 - Wall flashing⁵
- 8 - Support board⁶



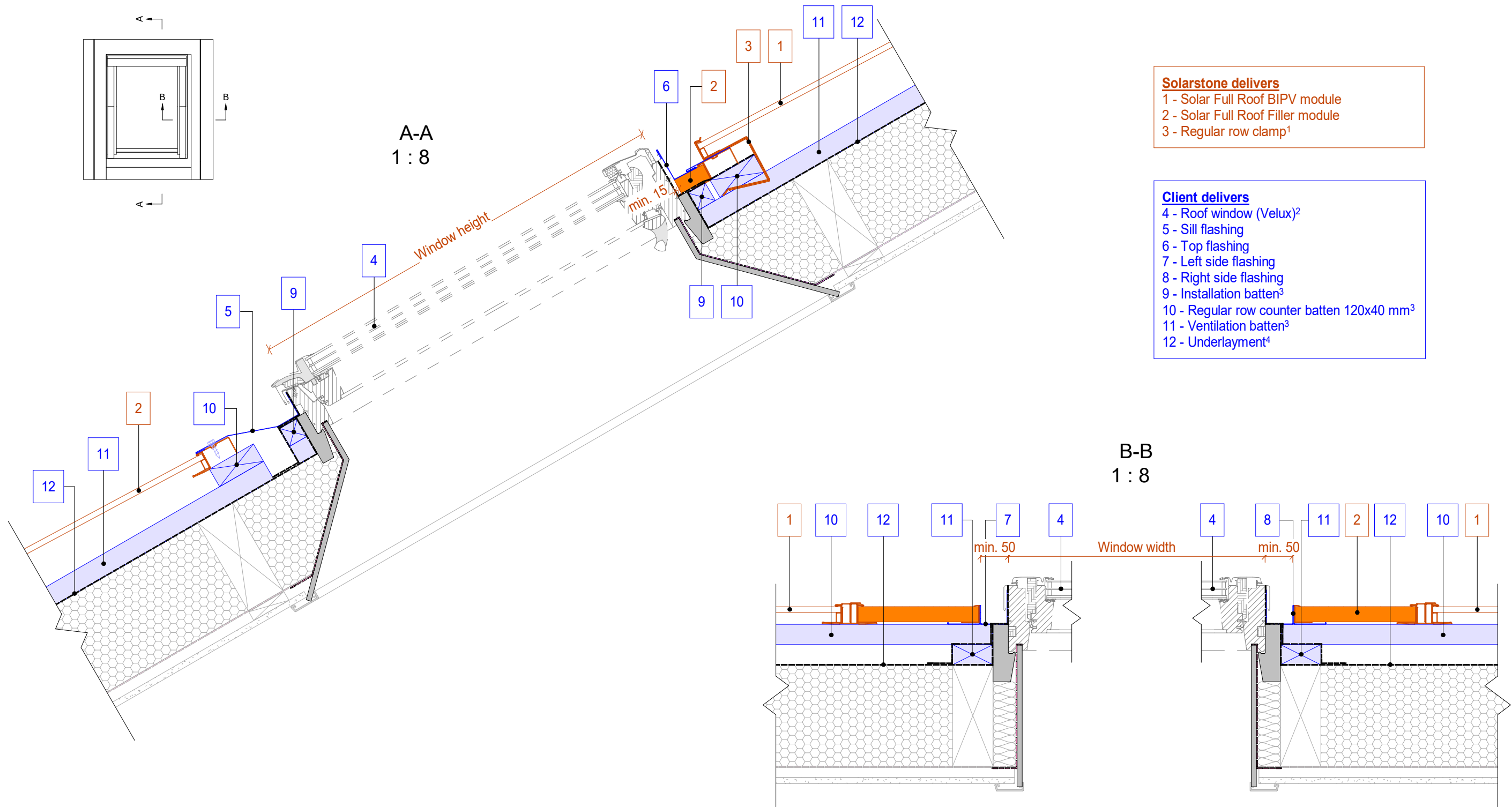
Notes:

1. Dimensions according to the project documentation.
2. The roof pitch has to be 18° or greater.
3. * Penetrations and connections to vertical elements shall ensure roof watertightness and its durability in service. As a general rule, the roof covering / waterproofing layer shall be turned up at least 300 mm at vertical elements. Where height is limited (e.g. above doors), the upturn may be reduced to minimum of 150 mm only with project-specific additional measures and detailing.
4. ¹ Recommended ridge ventilation opening should be ≥ 2‰ of the ventilated roof area.
5. ² The screw from the top should only be installed into the profile that is added to the BIPV module. There must not be any screws in BIPV modules. Use the rate of revolutions as recommended by the manufacturer.
6. ³ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.
7. ⁴ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.

8. ⁵ Wall flashing shall be mechanically fixed to the upstand and shall fully protect the underlayment upturn by covering the entire upturn area and its top termination. Use corrosion-resistant sheet metal. Arrange the flashing so that no sheet-metal part touches BIPV modules and provide a movement clearance ≥ 15 mm where applicable. Use a triangular sealing strip to support the upturn and prevent kinking / sharp folds.
9. ⁶ Support board: EN 13986 (CE), Use Class 2; OSB/3–OSB/4, EN 636 plywood, or equivalent moisture-resistant board.

Revision:		
Version:	Ver 1	Junctions
Issue date:	30.04.26	Wall Abutment - Longitudinal Section
Detail ID:		
		Sheet Number:
		TD-EN-0106

DETAIL DRAWINGS

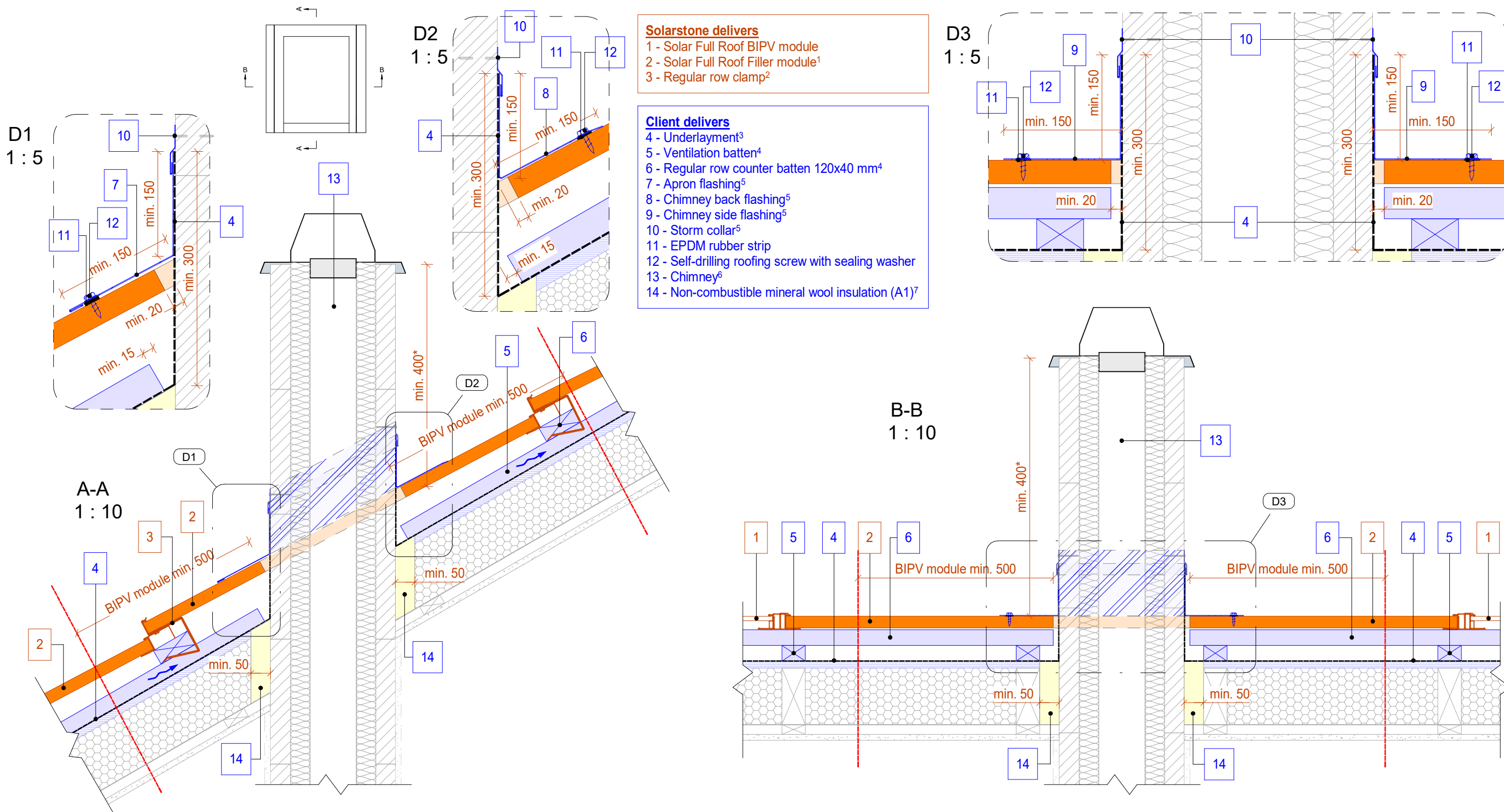


Notes:

1. Dimensions according to the project documentation.
2. The roof pitch has to be 18° or greater.
3. ¹ SOLARSTONE uses wood screw countersunk head, 5.0x90 mm for fastening regular row clamps.
4. ² The roof window shall be designed and installed to comply with the basic performance requirements for roofs, including water tightness, thermal performance, ventilation and drainage. The Velux roof window shown in the drawing is indicative. Installation shall comply with the installation manual applicable to the actual roof window type. Ensure that the position of the roof window does not block the ventilation.
5. ³ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
6. ⁴ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.

Revision:		
Version:	Ver 1	Penetrations
Issue date:	29.04.26	Roof Window
Detail ID:		
		Sheet Number: TD-EN-0121

DETAIL DRAWINGS



Notes:

1. Dimensions according to the project documentation.
2. The roof pitch has to be 18° or greater.
3. * Final chimney height and roof termination shall be determined in accordance with EN 15287-1:2023 (and EN 15287-2 where applicable), EN 1443:2019 and relevant chimney product standards, taking into account roof geometry and applicable local regulations, and in accordance with the chimney manufacturer's documentation.
4. ¹ Cut the filler module to suit the chimney penetration, performing the cut from the back side of the module to protect the front surface. Maintain a minimum clearance of 20 mm between the chimney and the filler module.
5. ² SOLARSTONE uses wood screw countersunk head, 5.0x90 mm for fastening regular row clamps.
6. ³ SOLARSTONE strongly recommends choosing underlayment that cover: 120 °C working temperature limit (short-term); high UV resistance (for at least 4 weeks); considered suitable option for solar roofs; Water Resistance test W1. The underlay must be installed in accordance with ZVDH guidelines in consultation with the roofing contractor and must be exposed no longer than 6 months.
7. ⁴ According to Eurocode 5, ventilation battens are in Service Class 2. Wood moisture content must be ≤ 18% (EVS-EN 13183-2). Each batten must include ≥ 2 fasteners and at least one fastener per running meter, with joints placed above supports. Fasteners must comply with

- EVS-EN 14592 or ETA, coating thickness ≥ 12 µm (C2), exterior ≥ C2w; in Service Class 3 all fasteners < 10 mm must be stainless steel. Structural calculations for battens and rafters, where necessary, must be carried out.
8. ⁵ Chimney flashing and storm collar shall be installed to ensure watertightness, using corrosion-resistant sheet metal and appropriate overlaps, in accordance with chimney manufacturer's guidelines and accepted practice.
 9. ⁶ Chimney design, positioning and execution shall comply with the applicable chimney manufacturer's documentation, relevant European standards and applicable national and local regulations.
 10. ⁷ The clearance around the chimney penetration shall be filled with non-combustible, form-stable mineral wool insulation (A1) in accordance with DIN EN 18160-1 and the chimney manufacturer's installation instructions.

Revision:			Penetrations	Chimney	Sheet Number: TD-EN-0122
Version:	Ver 1				
Issue date:	05.05.26				
Detail ID:					