

SOLAR SUPPORT SYSTEM IS NOT RATED FOR IMPACT.

SOLAR SUPPORT SYSTEM IS SECURED TO ROOF STRUCTURE (BY OTHERS)

ECOFASTEN SOLAR ROOF ATTACHMENTS

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF’S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND ROOF SHEATHING.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON–METALLIC AND NON–COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2023 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, e.g. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT.

CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOADS SHOWN ARE BASED ON ‘ALLOWABLE STRESS DESIGN (ASD)’.

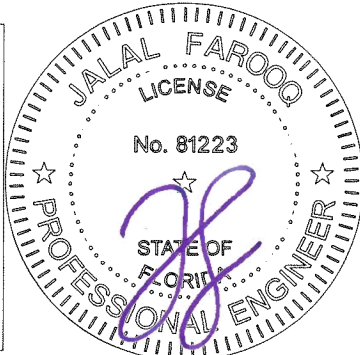
MANUFACTURER’S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1703.5 OF FLORIDA BUILDING CODE. LABELING TO COMPLY WITH SECTION 1703.5.

A– CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

B– THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

C– SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

D– THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



Sealed: 12/21/2023

FL #39871

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AL-FAROOQ CORPORATION

ENGINEERS & PRODUCT DEVELOPMENT

9360 SUNSET DRIVE, SUITE 220

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SOLAR – RACK\21 – 67F – ESL

ECOFASTEN SOLAR ROOF ATTACHMENTS

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Fax:

revisions:	no	date	by	description
	A	01.28.22		ROCKIT OPTION ADDED
	B	12.05.23		UPDATED TO 2023 FBC

date: 10-04-21

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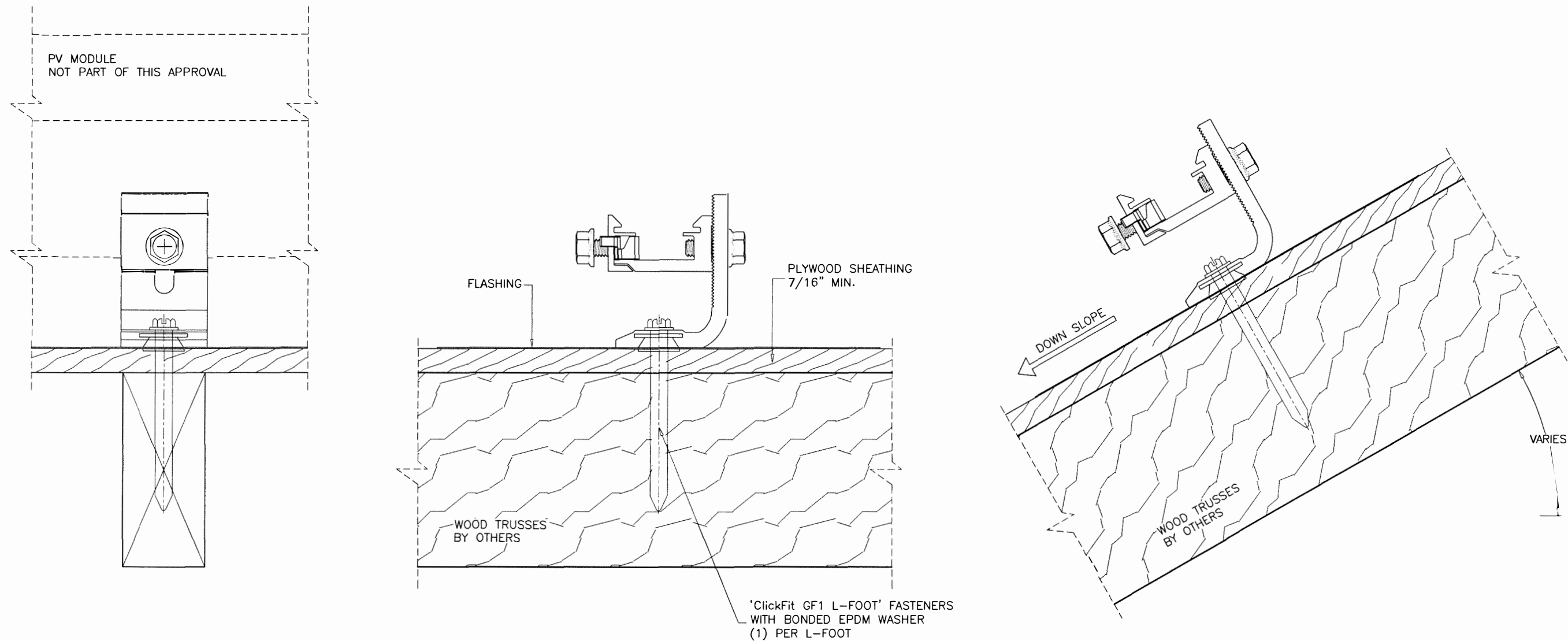
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21-67F

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EcoFasten ClickFit GF1 L-Foot



ClickFit GF1 L-FOOT INSTALLATION DETAILS

ClickFit GF1 L-FOOT FASTENERS:
5/16" X 4" LAG SCREWS (Fy = 60 KSI MIN.)
3" MIN. THREAD PENETRATION INTO WOOD TRUSSES
CENTERED AT WOOD TRUSSES (SG = 0.42 MIN.)

WIND LOAD UPLIFT RESISTANCE (PERPENDICULAR TO ROOF) = 895 Lbs MAX.
COMPRESSION = 914 Lbs MAX.
SHEAR RESISTANCE (PARALLEL TO RAFTER) = 315 Lbs MAX.
SHEAR RESISTANCE (PERPENDICULAR TO RAFTER) = 293 Lbs MAX.

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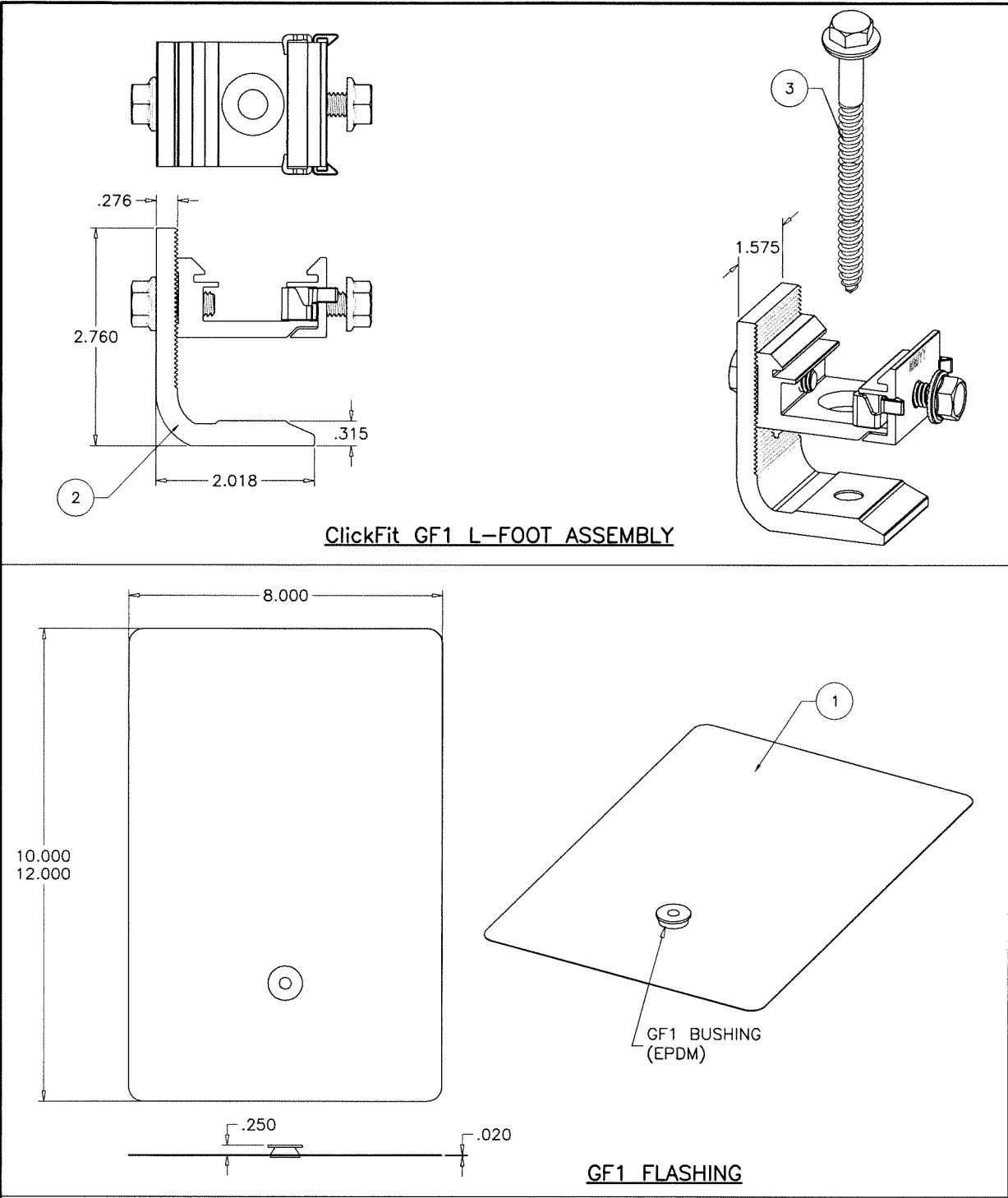


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sheet 2 of 9

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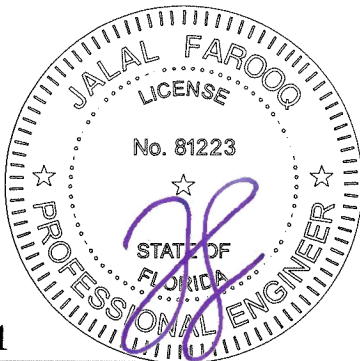


ClickFit GF1 L-FOOT

ITEM NO.	DESCRIPTION	MATERIAL
1	GF1 FLASHING	ALUMINUM OR COATED STEEL & EPDM
2	ClickFit L-FOOT ASSEMBLY	6000 SERIES ALUMINUM (Fy = 35 KSI MIN.) & 300 SERIES ST. STEEL (Fy = 23 KSI MIN.)
3	LAG SCREW, 5/16-4", 3" THREAD, EPDM BACKED WASHER	300 SERIES ST. STEEL (Fy = 23 KSI MIN.) & EPDM

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PV MODULE
NOT PART OF THIS APPROVAL



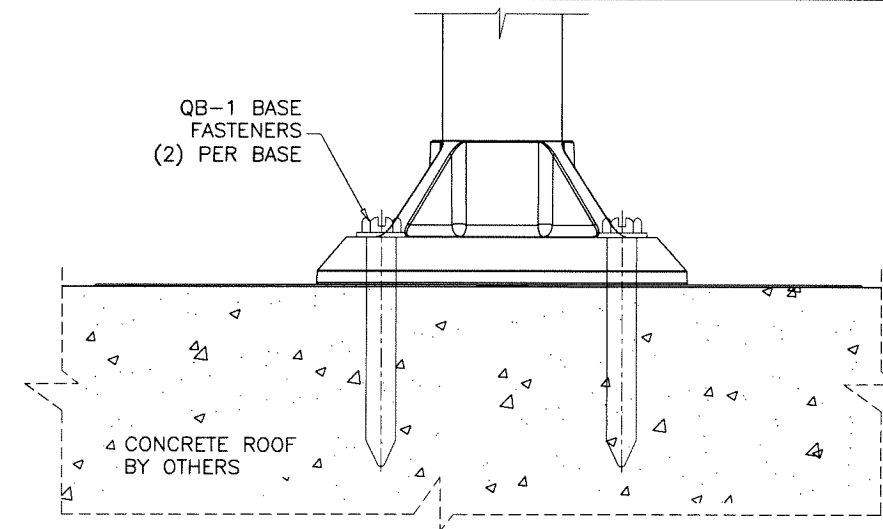
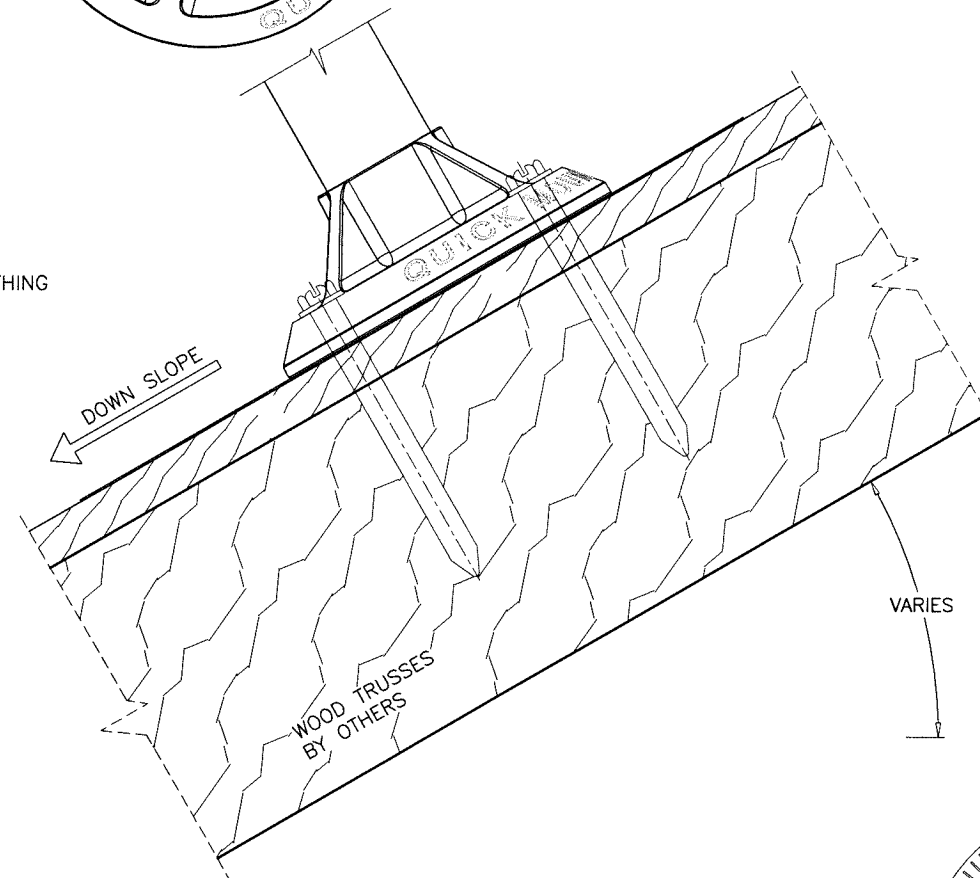
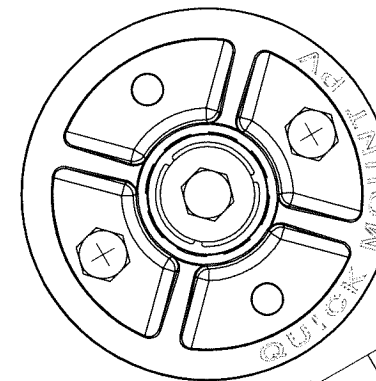
5/16" X 3" LAG SCREWS (Fy = 60 KSI MIN.)

1-13/16" MIN. THREAD PENETRATION INTO WOOD TRUSSES
CENTERED AT WOOD TRUSSES (SG = 0.45 MIN.)

5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
 INTO CONCRETE ROOF (3000 PSI MIN.)
 1-3/4" MIN. EMBED
 2-3/16" MIN. EDGE DISTANCE

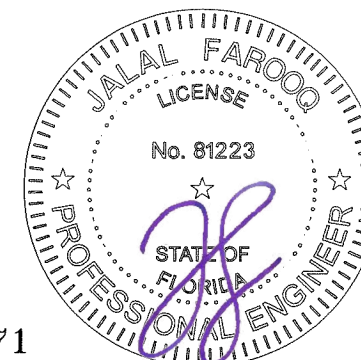


WIND LOAD UPLIFT RESISTANCE (PERPENDICULAR TO ROOF) = 1212.5 Lbs MAX.
SHEAR RESISTANCE (PARALLEL TO RAFTER) = 687.5 Lbs MAX.
SHEAR RESISTANCE (PERPENDICULAR TO RAFTER) = 950 Lbs MAX.



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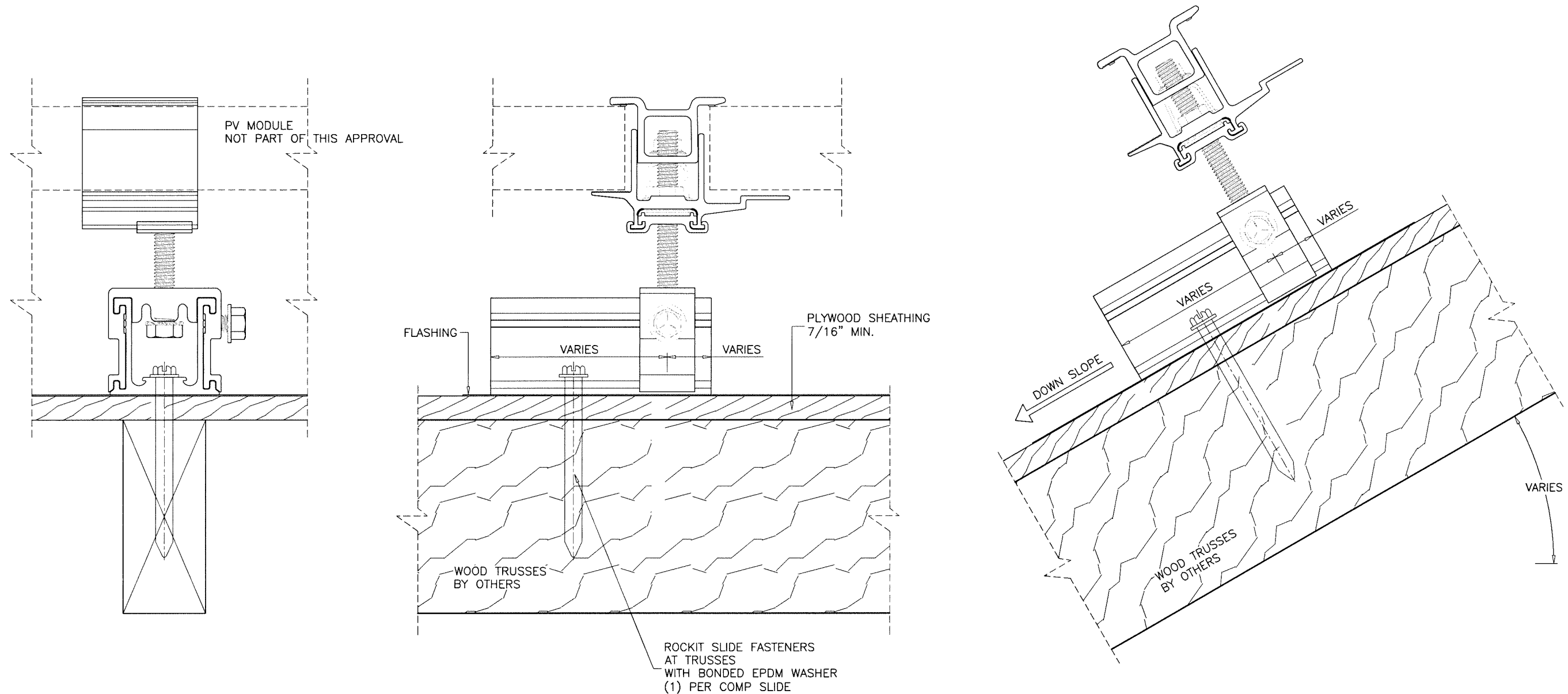
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Ecofasten Rockit GF1 Comp Slide



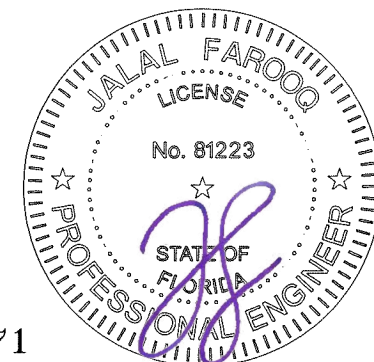
Rockit GF1 Comp Slide Installation Details

Rockit GF1 Comp Slide Fasteners:

5/16" X 4" LAG SCREWS' ($F_y = 60$ KSI MIN.)
3" MIN. THREAD PENETRATION INTO WOOD TRUSSES
CENTERED AT WOOD TRUSSES ($SG = 0.42$ MIN.)

WIND LOAD UPLIFT RESISTANCE (PERPENDICULAR TO ROOF) = 668 Lbs MAX.
SHEAR RESISTANCE (PARALLEL TO RAFTER) = 142 Lbs MAX.
SHEAR RESISTANCE (PERPENDICULAR TO RAFTER) = 142 Lbs MAX.

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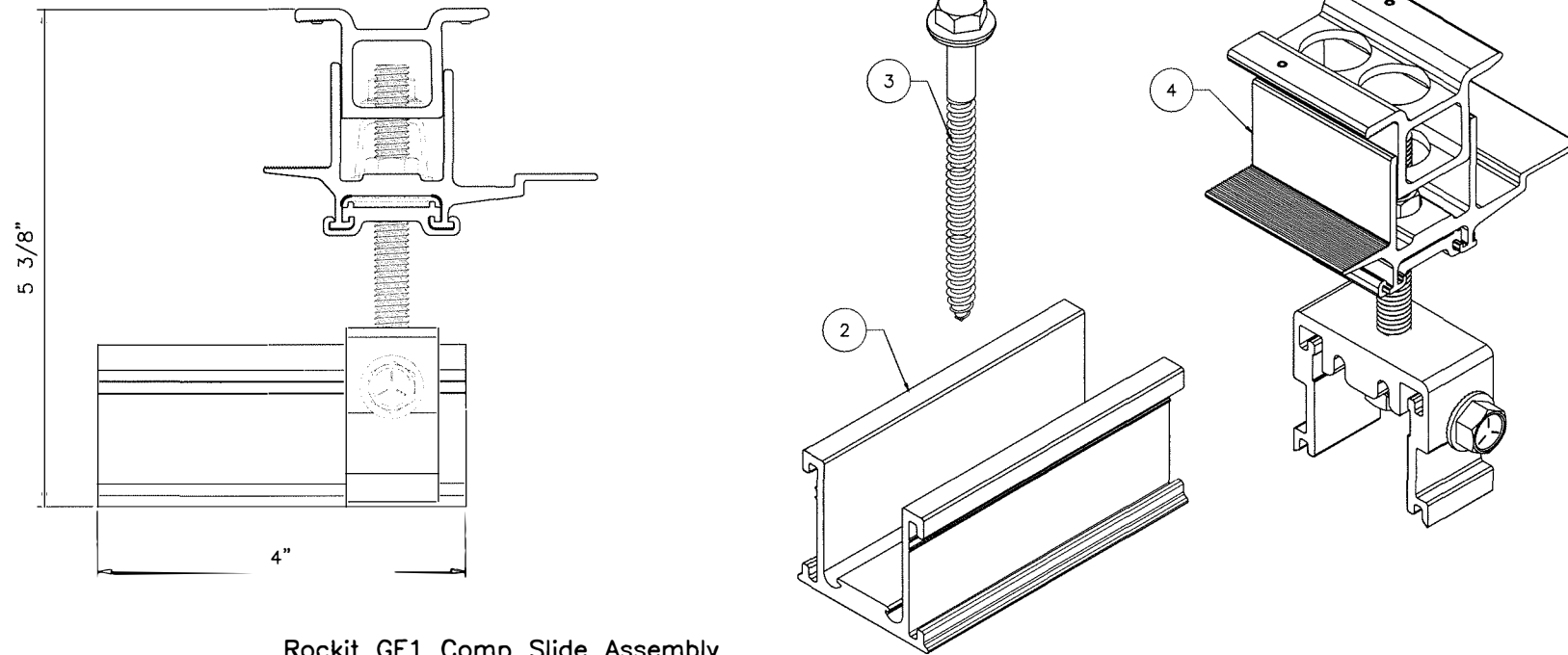
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SOLAR-RACK\21-

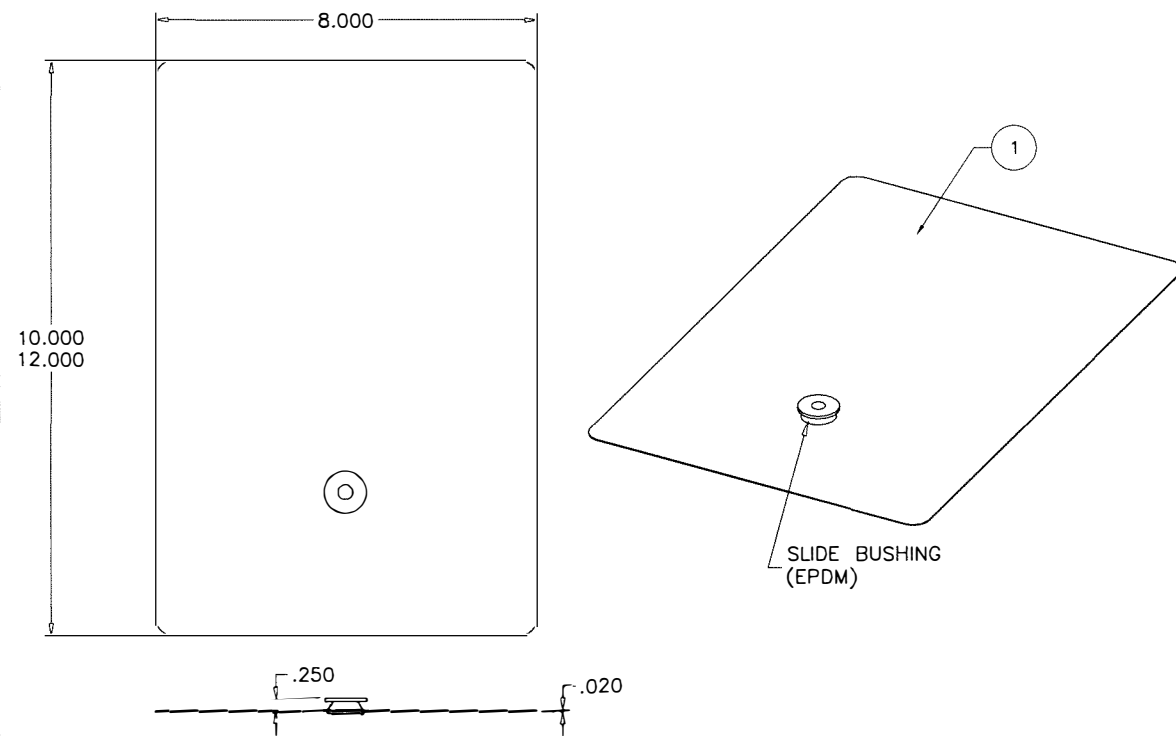
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Rockit GF1 Comp Slide Assembly

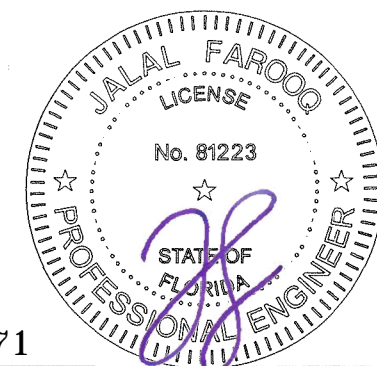


GF1 FLASHING

Rockit GF1 Comp Slide

ITEM NO.	DESCRIPTION	MATERIAL
1	GFI FLASHING	ALUMINUM OR COATED STEEL & EPDM
2	Rockit COMP SLIDE	6000 SERIES ALUMINUM (Fy = 34 KSI MIN.)
3	LAG SCREW 5/16-4", 3" THREAD, EPDM BACKED WASHER	300 SERIES ST. STEEL (Fy = 23 KSI MIN.) & EPDM
4	Rockit MOUNT	300 SERIES ST. STEEL (Fy = 23 KSI MIN.) & 6000 SERIES ALUMINUM (Fy = 34 KSI MIN.)

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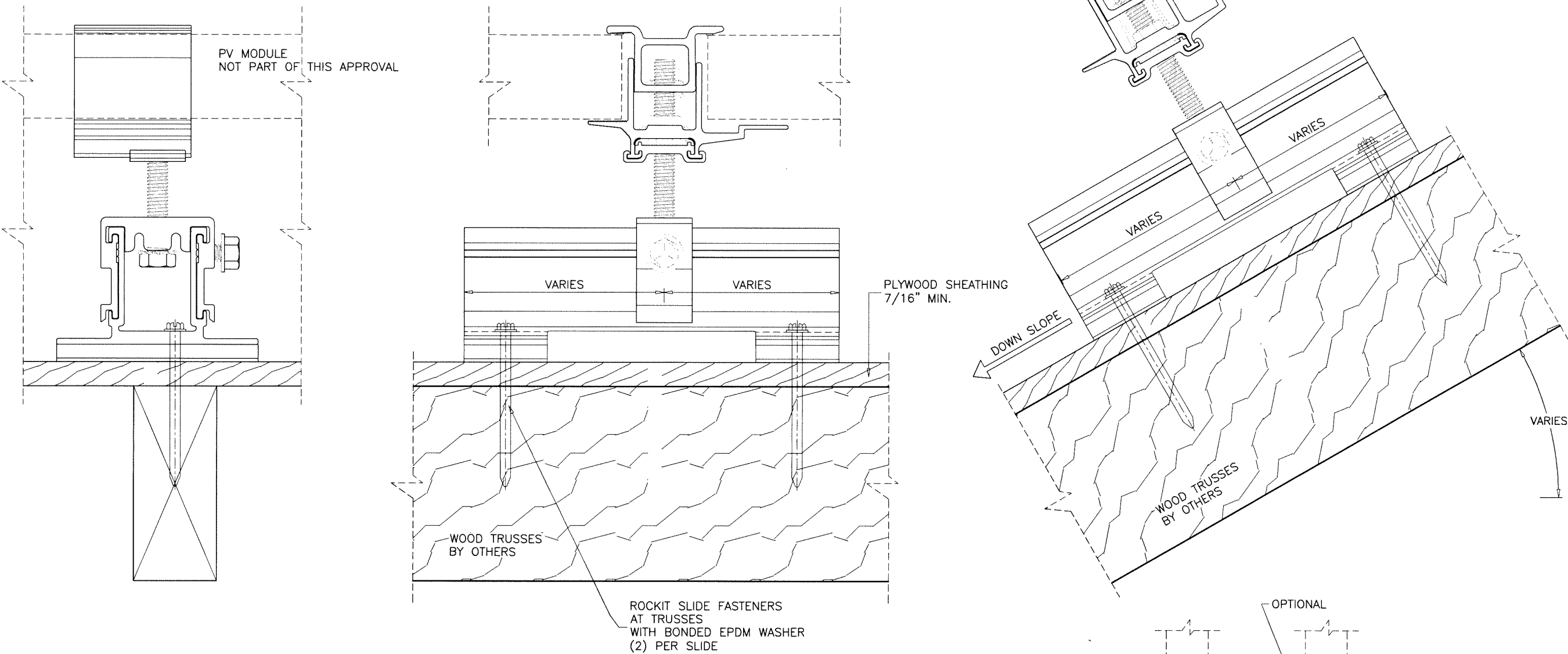
ECOFASTEN SOLAR ROOF ATTACHMENTS

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SOLAR-RACK 21-67F-ESL

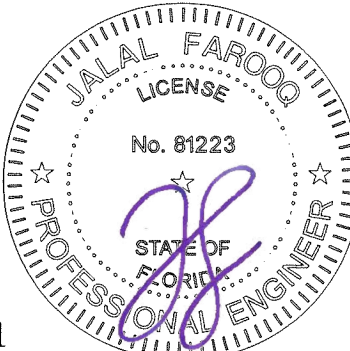
EcoFasten Rokit Smart Slide



Rokit Smart Slide Installation Details
INTO RAFTER WITH 2 OR 3 SCREWS

Rokit Smart Slide Fasteners:
#12 X 3" SELF-TAPPING SCREWS (300 SERIES ST. STEEL)
FULLY SEATED INTO WOOD TRUSSES
CENTERED AT WOOD TRUSSES (SG = 0.42 MIN.)

WIND LOAD UPLIFT RESISTANCE (PERPENDICULAR TO ROOF) = 530 Lbs MAX.
COMPRESSION = 1106 Lbs MAX.
SHEAR RESISTANCE (PARALLEL TO RAFTER) = 142 Lbs MAX.
SHEAR RESISTANCE (PERPENDICULAR TO RAFTER) = 103 Lbs MAX.



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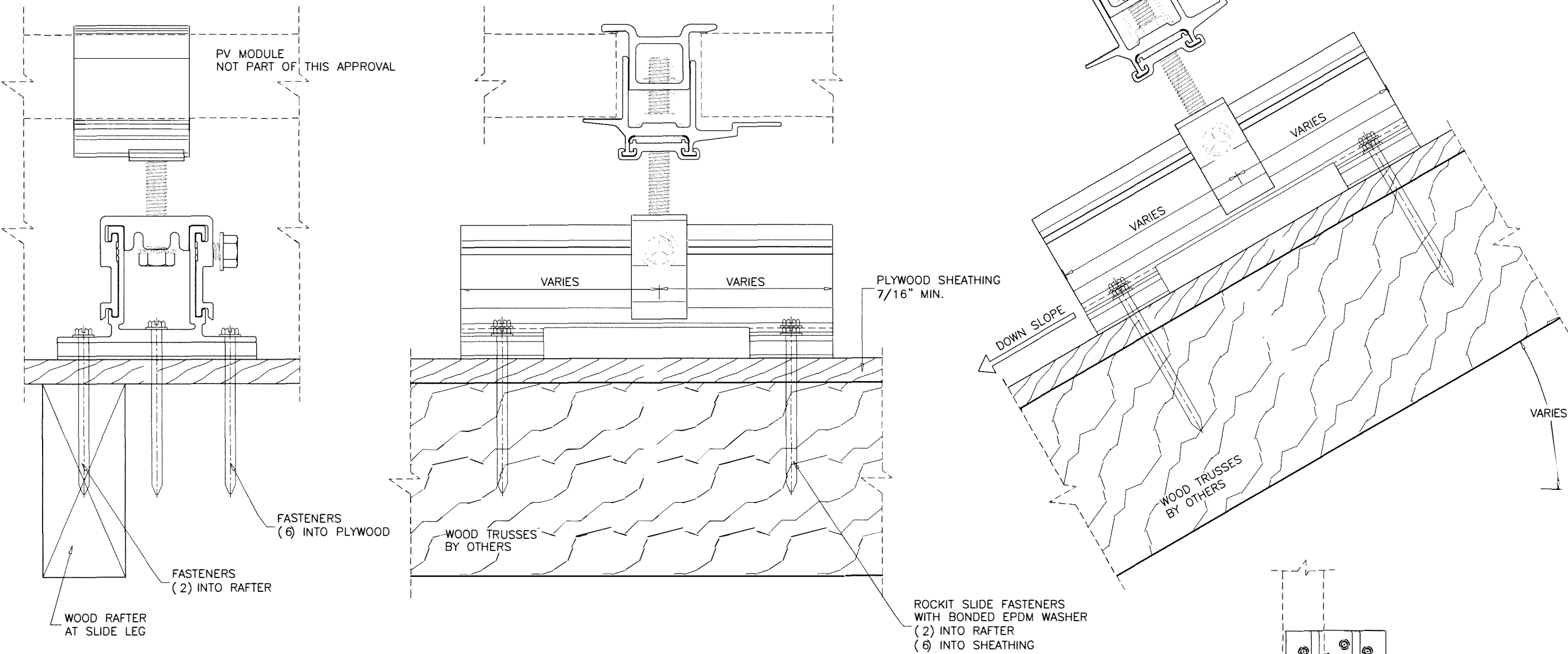
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EcoFasten Rokit Smart Slide



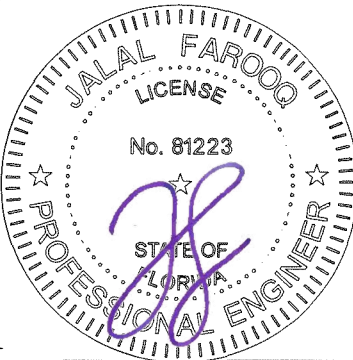
Rokit Smart Slide Installation Details
INTO RAFTER WITH 8 SCREWS

Rokit Smart Slide Fasteners:

#12 X 3" SELF-TAPPING SCREWS (300 SERIES ST. STEEL)
CENTERED AT WOOD TRUSSES (SG = 0.42 MIN.)
INTO ROOF SHEATHING (PLYWOOD/OSB) (FBC APPROVED SHEATHING)

WIND LOAD UPLIFT RESISTANCE (PERPENDICULAR TO ROOF) = 530 Lbs MAX.
COMPRESSION = 1106 Lbs MAX.
SHEAR RESISTANCE (PARALLEL TO RAFTER) = 142 Lbs MAX.
SHEAR RESISTANCE (PERPENDICULAR TO RAFTER) = 103 Lbs MAX.

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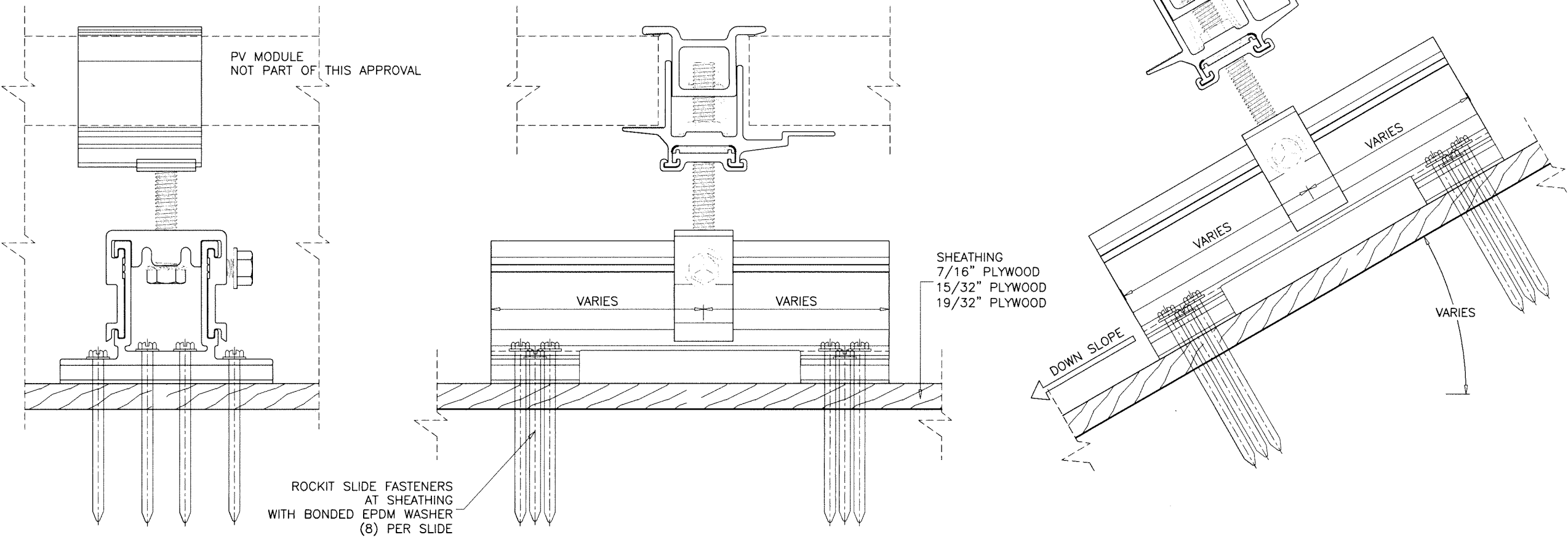
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EcoFasten Rokit Smart Slide



Rokit Smart Slide Installation Details
INTO SHEATHING WITH 8 SCREWS

7/16" SHEATHING

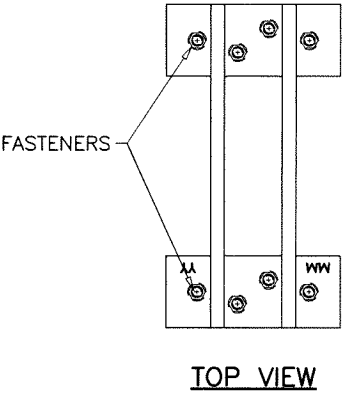
WIND LOAD UPLIFT RESISTANCE (PERPENDICULAR TO ROOF) = 186 Lbs MAX.
COMPRESSION = 232 Lbs MAX.
SHEAR RESISTANCE (PARALLEL TO SLOPE) = 142 Lbs MAX.
SHEAR RESISTANCE (PERPENDICULAR TO SLOPE) = 82 Lbs MAX.

15/32" SHEATHING

WIND LOAD UPLIFT RESISTANCE (PERPENDICULAR TO ROOF) = 216 Lbs MAX.
COMPRESSION = 284 Lbs MAX.
SHEAR RESISTANCE (PARALLEL TO SLOPE) = 142 Lbs MAX.
SHEAR RESISTANCE (PERPENDICULAR TO SLOPE) = 82 Lbs MAX.

19/32" SHEATHING

WIND LOAD UPLIFT RESISTANCE (PERPENDICULAR TO ROOF) = 283 Lbs MAX.
COMPRESSION = 320 Lbs MAX.
SHEAR RESISTANCE (PARALLEL TO SLOPE) = 142 Lbs MAX.
SHEAR RESISTANCE (PERPENDICULAR TO SLOPE) = 82 Lbs MAX.



Rokit Smart Slide Fasteners:

#12 X 3" SELF-TAPPING SCREWS (300 SERIES ST. STEEL)
INTO ROOF SHEATHING (PLYWOOD/OSB) (FBC APPROVED SHEATHING)

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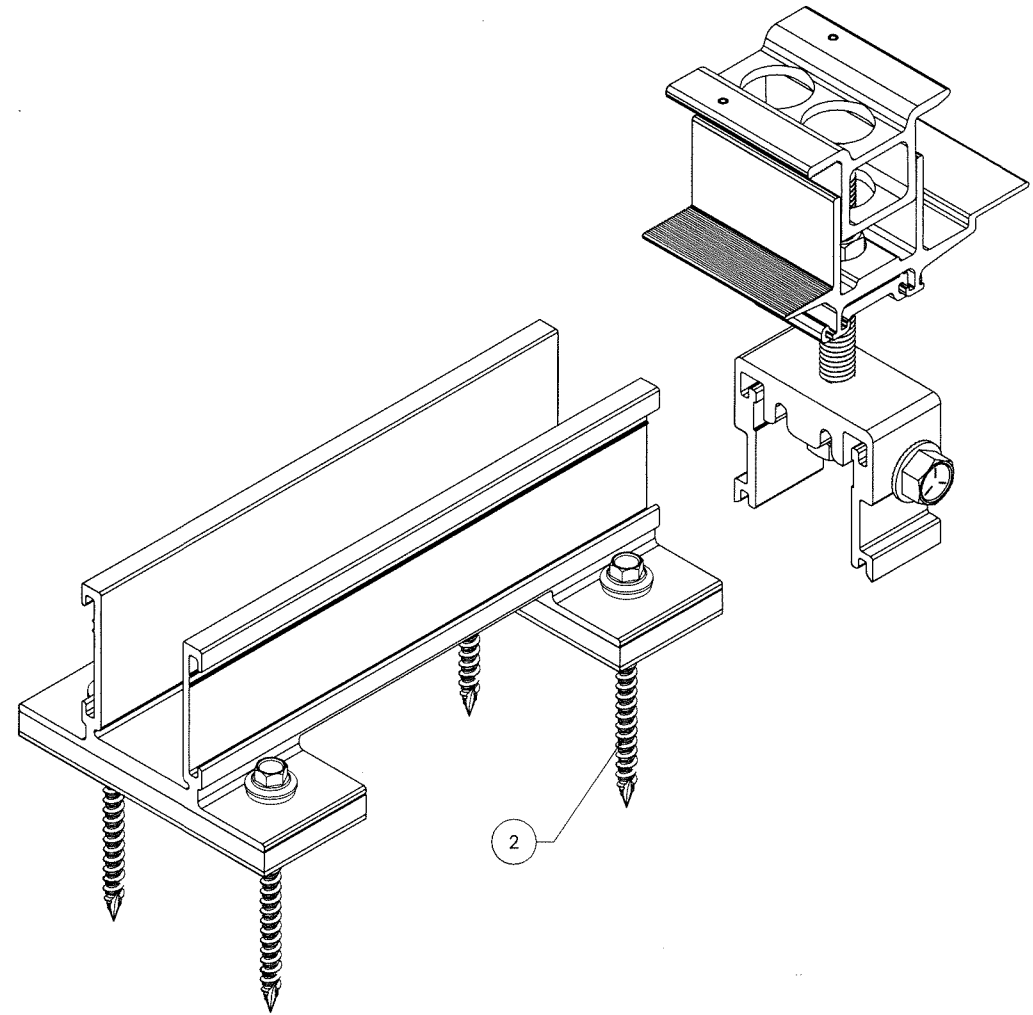
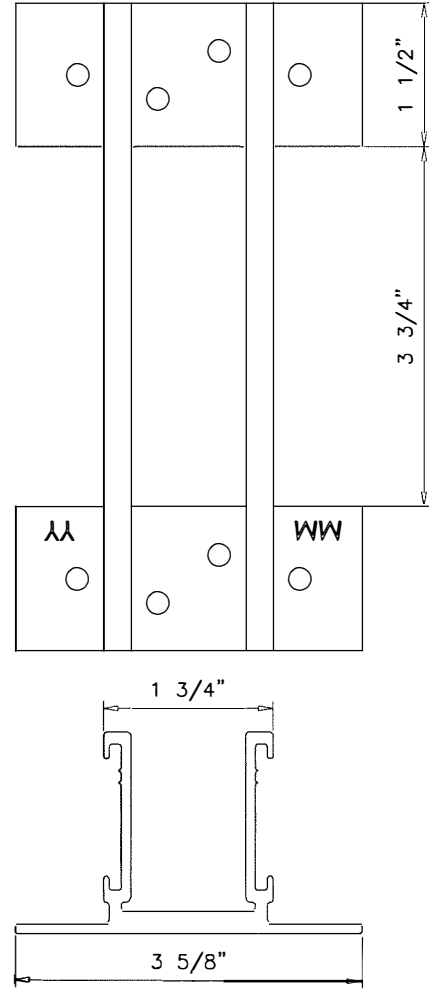
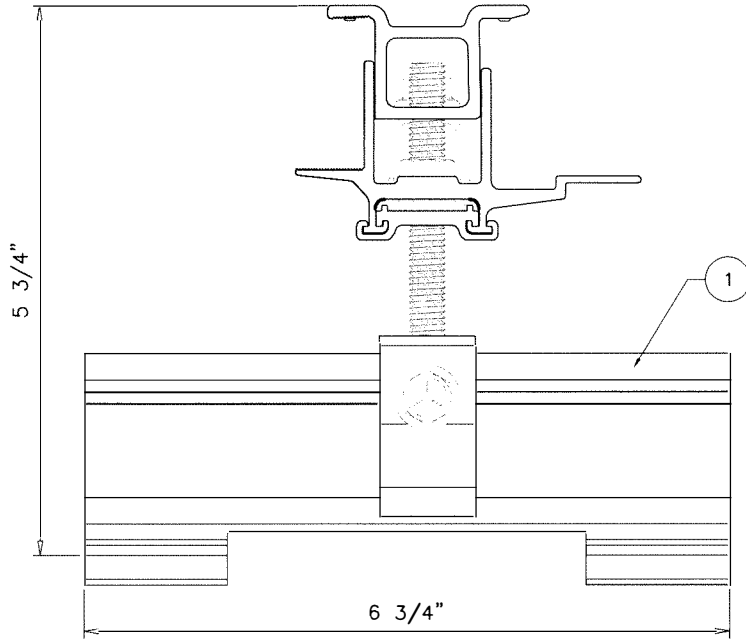
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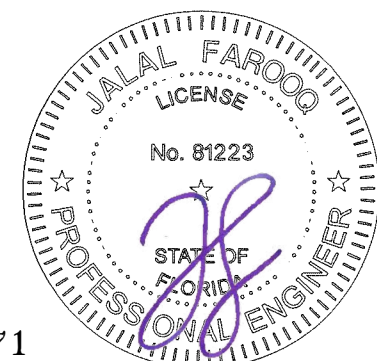


Rockit Smart Slide Assembly

Rockit Smart Slide

ITEM NO.	DESCRIPTION	MATERIAL
1	Rockit Smart Slide ASSEMBLY	6000 SERIES ALUMINUM (Fy = 34 KSI MIN.) & FLEXIBLE PROPRIETARY FLASHING SYSTEM
2	SCREW, #12 X 3", EPDM BACKED WASHER	300 ST. STEEL (Fy = 23 KSI MIN.) & EPDM

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