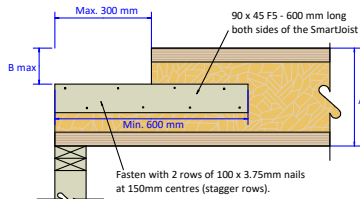


SmartJoist Rafter Box-Gutter

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads

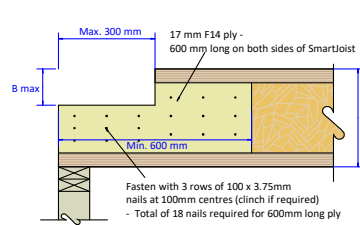


A = 200*, 240, 255 & 300 mm depth
B = 50 mm when A = 240 and 255 mm
B = 100 mm when A = 300 mm

*200 mm - Requires ply infill, 90 x 45 solid timber reinforcement is not suitable. Refer to detail BG2 for Box gutter rebate on S120044.

SmartJoist Box Gutter Rebate With Pine Reinforcement
BG1

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads

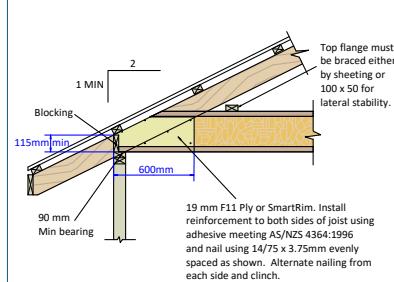


A = 200, 240, 255 & 300 mm depth
B = 50 mm when A = 240 and 255 mm
B = 100 mm when A = 300 mm

SmartJoist Box Gutter Rebate With Ply Reinforcement
BG2

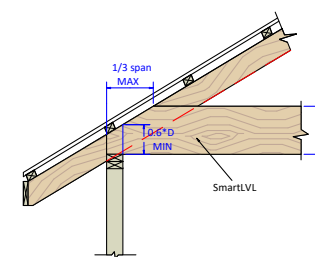
SmartJoist, SmartLVL & SmartLam GLT Rafter Cut

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



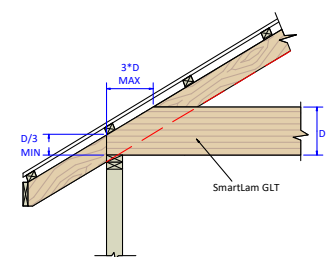
SmartJoist Rafter Cut
F26

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartLVL Rafter Cut
F26A

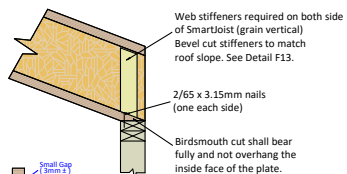
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartLam GLT Rafter Cut
F26B

SmartJoist Birdsmouth Cut & Bevel Cut

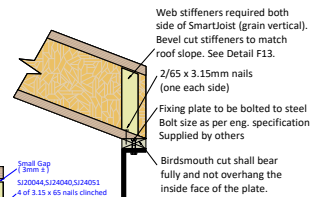
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



(At low end of joist ONLY)
(Limited to max. 600mm overhang)

SmartJoist Birdsmouth Cut
R1

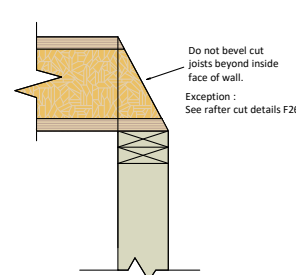
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



PFC, UC or UB
Steel Beam
(At low end of joist ONLY)
(Limited to max. 600mm overhang)

SmartJoist Birdsmouth Cut
R1A

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads

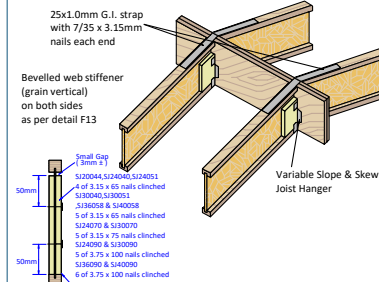


NOTE: SmartJoist blocking is required at bearing to provide lateral support

SmartJoist Bevel Cut
R2

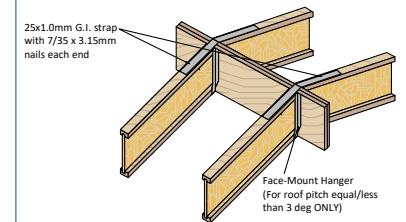
SmartJoist Rafter to Ridge Beam

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartJoist Rafter To Ridge Beam Using Slope & Skew Joist Hanger
R3A

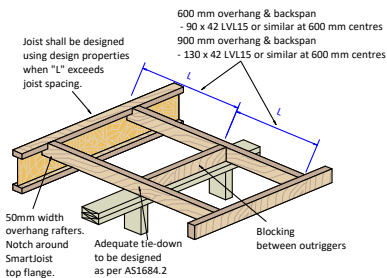
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartJoist Rafter To Ridge Beam Using Face Mount Joist Hanger
R3B

Outriggers to SmartJoist Rafter

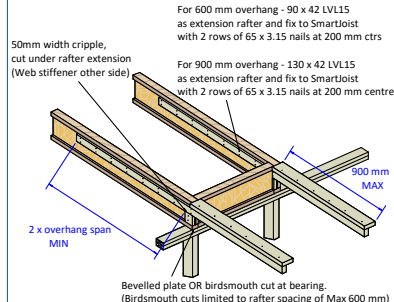
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



Outriggers To SmartJoist Rafter
R4

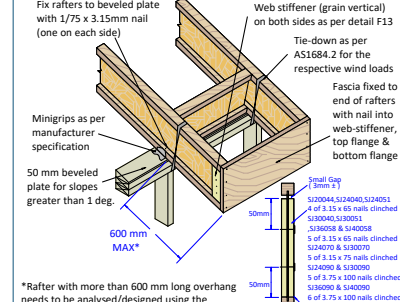
SmartJoist Rafter With Overhang On Bevelled Plate

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



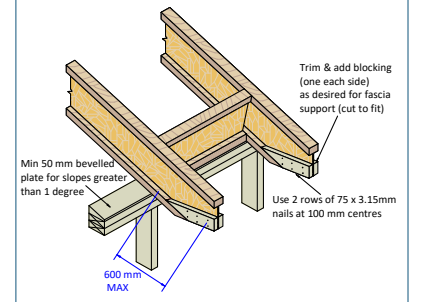
SmartJoist Rafter With Solid Section Overhang On Bevelled Plate or With Birdsmouth Cut
R5A

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



*Rafter with more than 600 mm long overhang needs to be analysed/ designed using the appropriate model within the SmartFrame program
SmartJoist Rafter On Bevelled Plate With Overhang
R5B

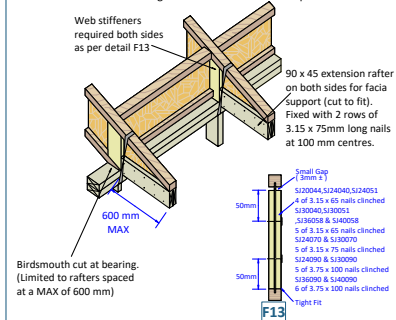
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartJoist Rafter On Bevelled Plate With Soffit Cut Overhang
R5C

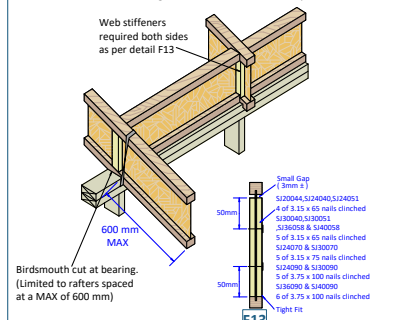
SmartJoist Rafter Overhang With Birdsmouth

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartJoist Rafter With Soffit Overhang & Birdsmouth Cut
R6A

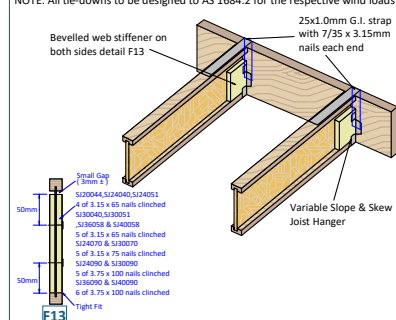
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartJoist Rafter With Overhang & Birdsmouth Cut
R6B

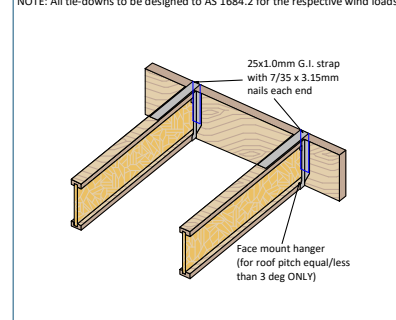
Peak Connection

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



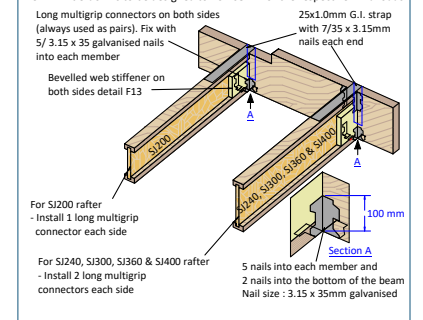
SmartJoist Rafter Peak Connection With Slope & Skew Joist Hanger
R7A

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



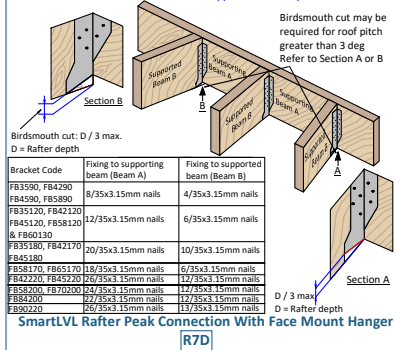
SmartJoist Rafter Peak Connection With Face Mount Joist Hanger
R7B

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



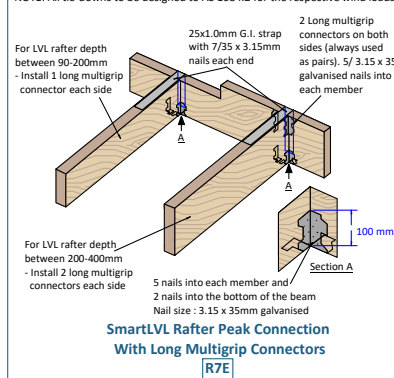
SmartJoist Rafter Peak Connection With Long Multigrip Connector
R7C

Unless the top of the supported beam is provided with additional lateral restraints such as mini or multi grips, the bracket must cover at least 60% of the supported beam depth.



SmartLVL Rafter Peak Connection With Face Mount Hanger
R7D

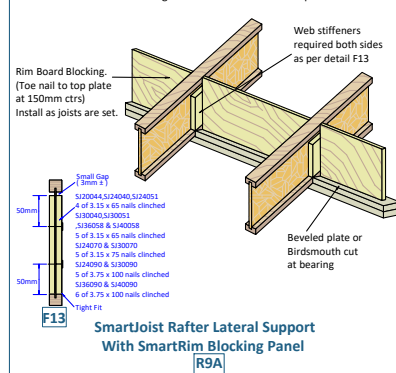
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartLVL Rafter Peak Connection With Long Multigrip Connectors
R7E

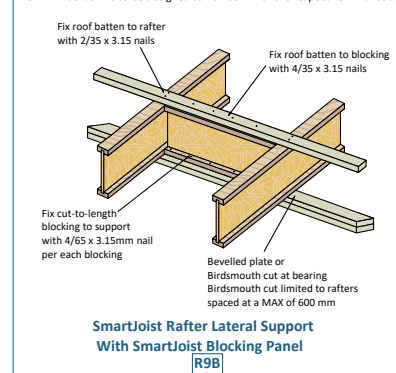
Lateral Restraint At Support

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



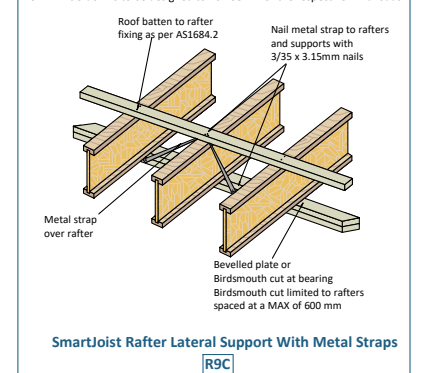
SmartJoist Rafter Lateral Support With SmartRim Blocking Panel
R9A

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartJoist Rafter Lateral Support With SmartJoist Blocking Panel
R9B

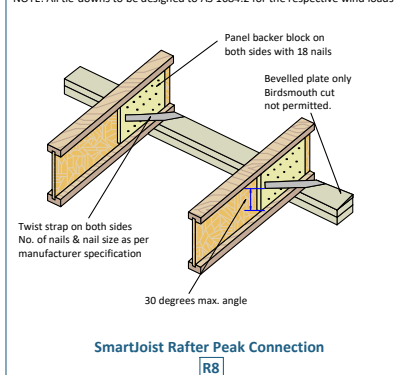
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartJoist Rafter Lateral Support With Metal Straps
R9C

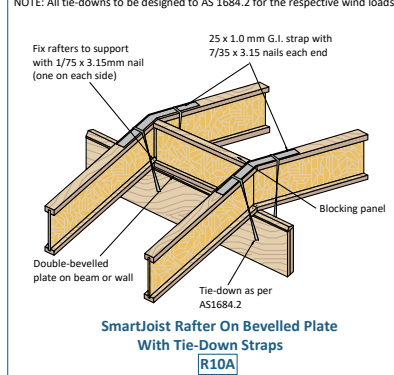
SmartJoist Rafter On Bevelled Plate

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



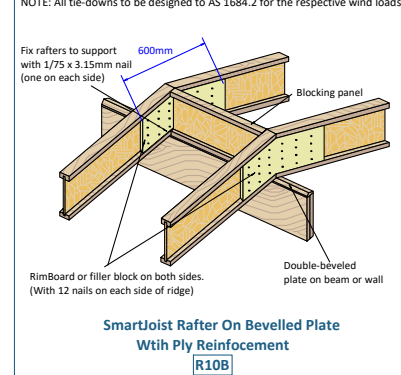
SmartJoist Rafter Peak Connection
R8

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartJoist Rafter On Bevelled Plate With Tie-Down Straps
R10A

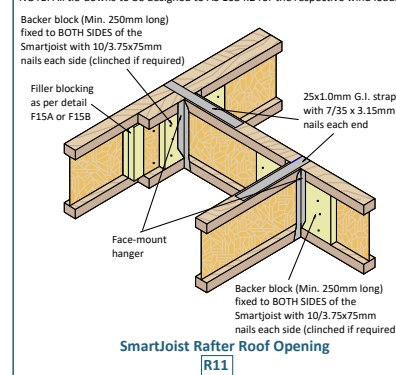
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartJoist Rafter On Bevelled Plate With Ply Reinforcement
R10B

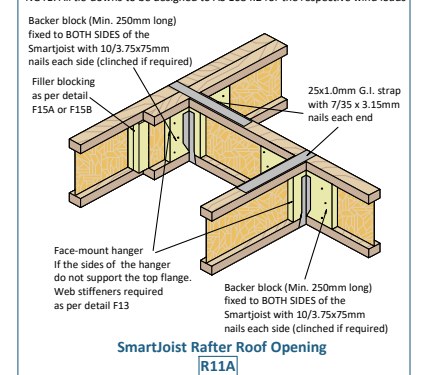
Roof Opening

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartJoist Rafter Roof Opening
R11

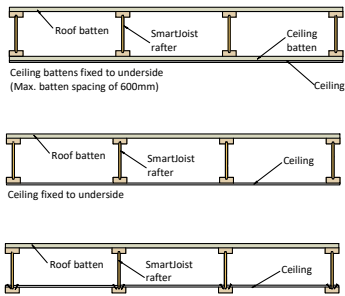
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartJoist Rafter Roof Opening
R11A

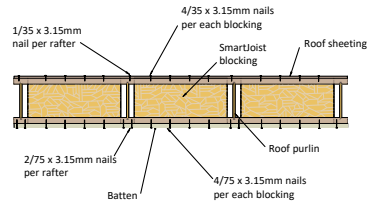
Lateral Restraint With Ceiling Attached

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



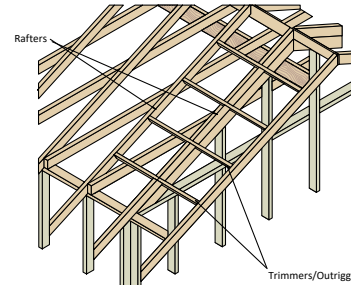
Ceiling/Ceiling Batten To SmartJoist Rafter
R12

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



Lateral Restraint SmartJoist Purlin
R9D

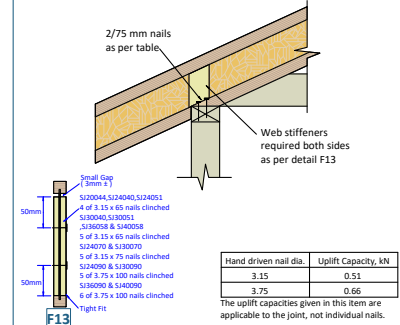
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



Outriggers To SmartLVL Rafter
R13

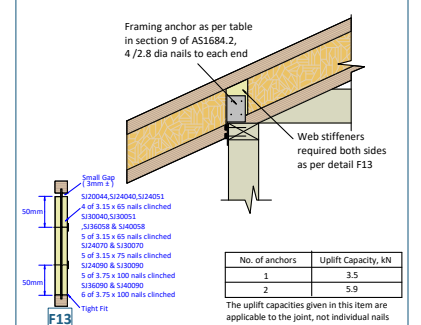
Tie-Down For SmartJoist Rafter

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



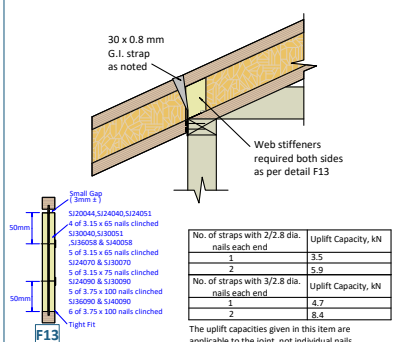
SmartJoist Rafter Tie-Down With Skew Nails
R14A

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads

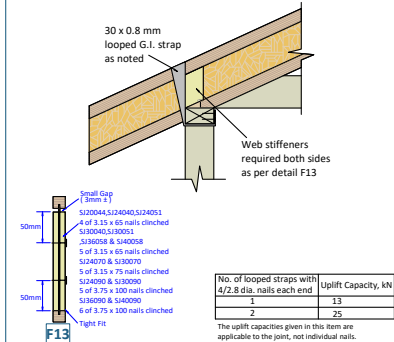


SmartJoist Rafter Tie-Down With Framing Anchor
R14B

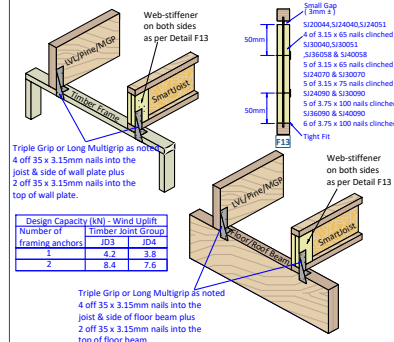
Tie-Down For SmartJoist/SmartLVL Rafter



SmartJoist Rafter Tie-Down With G.I. Strap
R14C



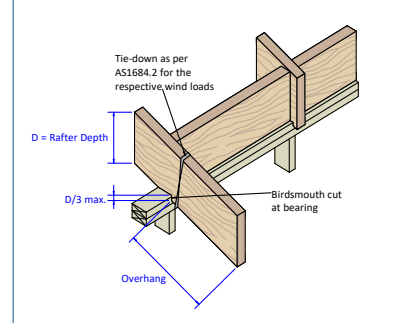
SmartJoist Rafter Tie-Down With Looped G.I. Strap
R14D



Tie-Down With Triple Grip / Multi Grip Connectors
R14E

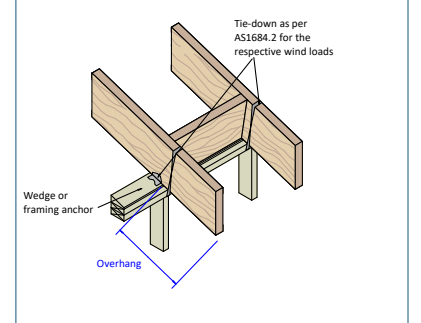
Rafter Overhang With/Without Bevelled Plate

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartLVL Rafter With Overhang & Birds-mouth Cut
R6C

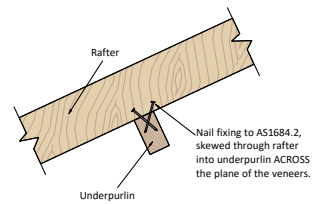
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



SmartLVL Rafter On Bevelled Plate
R5D

Roof Beam Lateral Restraint

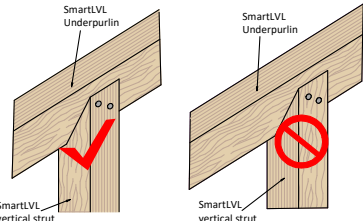
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



Rafters are NOT to be skewed nailed to the underpurlin with the nails parallel to the direction of the veneers.

SmartLVL Rafter To Underpurlin
R15

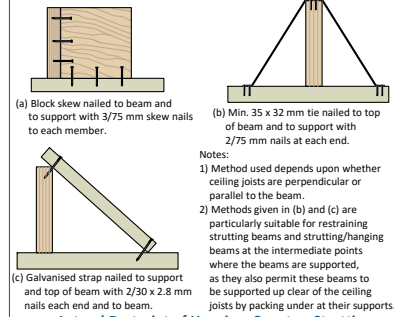
NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



DO NOT cut the birdsmouth in the direction of the SmartLVL veneers

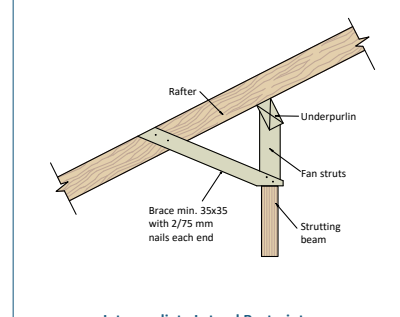
Vertical SmartLVL Roof Struts
R16

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



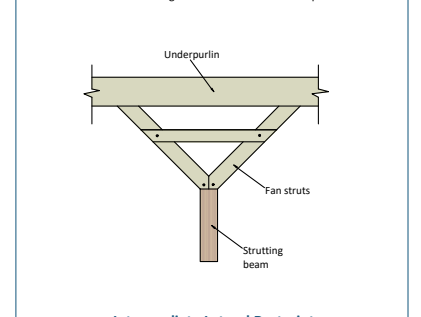
Lateral Restraint of Hanging, Counter, Strutting, Strutting/Hanging & Strutting/Counter Beams
R17

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



Intermediate Lateral Restraint For Strutting Beam Perpendicular to Underpurlin
R18A

NOTE: All tie-downs to be designed to AS 1684.2 for the respective wind loads



Intermediate Lateral Restraint For Strutting Beam Parallel to Underpurlin
R18B