

BY EXOLUX®
CLICKDECK
MODULAR DECKING SYSTEM

Framing installation Guide

- Specifications
- Connection details
- Deck supports
- Installation requirements



QUICK INFO GUIDE

Cutting:

We recommend an aluminium or multi material blade used in a dropsaw or grinder.

Safety:

Please ensure all PPE is worn

Foundations:

Ensure appropriate structural foundation is made under each pedestal or post to support deck loading.

Engineering:

General span calculations and engineering is available through us to assist with permits ect. Site specific engineering may be required which can be carried out by a licenced structural engineer.

Fasteners:

All fixings shall be either stainless steel or B8 coated screws.

Aluminium contact points:

Aluminium bolted to concrete - Separated with plastic or EPDM packer (Minimum 2mm clearance to concrete).

Aluminium encased in concrete - Concrete shall not be "rapidset" or contain lime and aluminium to be fully separated by corrosion resistance paint or similar.

Aluminium to steel - Steel to be HDG and packer to separate contact point.

Aluminium to natural ground - 5mm clearance.

Loadings:

Standard loading for residential decks under 1m = 2kpa Live load and .2kpa dead load have been used. For all additional loading requirements contact us for a tailored design.

Project Design:

Installer shall verify all measurements and install as per relevant building code. This information is for guidance only and does not overrule building codes.

Attention - *Do not overtighten hex screws* Max torque 39 Nm

CLICKDECK JOIST/BEARER PROFILES



USED FOR SUPER LOW APPLICATIONS
28 Profile

USED FOR MOST APPLICATIONS
55 Profile

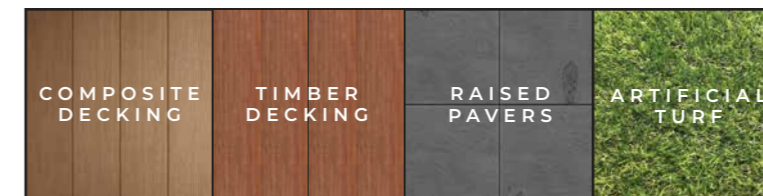
GENERALLY USED FOR LONGER SPANS OR ELEVATED DECKS
110 Profile

DIMENSIONS		
28H X 50W	55H X 55W	110H X 50W
FINISH		
POWDERCOATED MONUMENT	POWDERCOATED MONUMENT	MILL FINISH
STOCK LENGTHS		
3.6M / 4.8M / 6.0M	2.4M / 3.6M / 4.8M / 6.0M	3.6M / 4.8M / 6.0M

*CUT TO SIZE AVAILABLE IN KITS

Minimum height achievable: 30mm (Top of Frame)

MULTI-SURFACE CAPABILITY



CAN ALSO SUPPORT STRUCTURAL BOARD AND OTHER SURFACES

DECK SUPPORTS

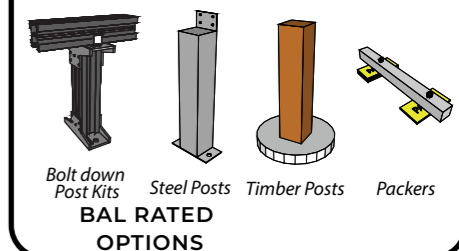
PEDESTALPRO
ADJUSTABLE PEDESTAL SYSTEM



MODEL	HEIGHT RANGE	Profile Option = 28 / 55 / 110 Pedestal Options = 10-440
FX0	10-25mm	
PPA	24-35mm	
PPB	33-47mm	
PPC	45-70mm	
PPD	65-110mm	
PPE	95-190mm	
PPE1	185-325mm	
PPE2	260-440mm	

Accessories

ALTERNATIVE DECK SUPPORTS



MAIN COMPONENTS - CLIP / BRACKETS

CORNER BRACKET **HOLD DOWN CLIP** **JOINERS**



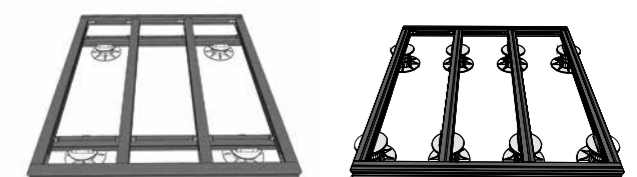
Pack size: 2
Used to make connections
Can be bent for angled connections

Pack size: 25
Used to make
Joist to bearer connection

Pack size: 6
Used to Join
profiles together

TYPICAL LAYOUT OPTIONS

JOIST ON BEARER **JOIST ONLY BEARER**



ALUMINIUM JOIST / BEARER

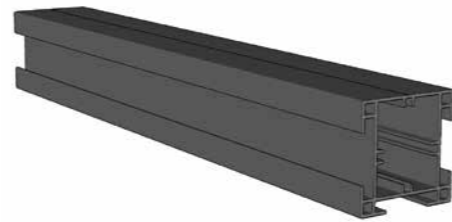
28PROFILE

- 28H x 50W
- Typical Joist span: 700mm
- Used for superlow applications
- Can be used as a bearer or joist



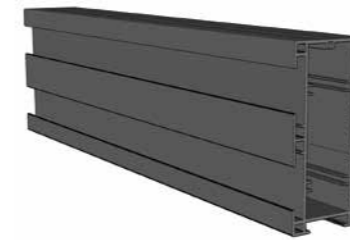
55PROFILE

- 55W x 55H
- Typical joist span : 1200mm
- Used for majority of applications
- Can be used as a bearer or joist



110PROFILE

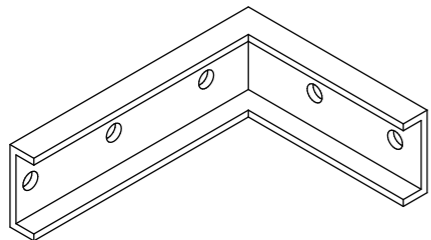
- 110H x 50W
- Typical joist span : 1900mm
- Used for longer spans and elevated decks
- Can be used as a bearer or joist



MAIN COMPONENTS

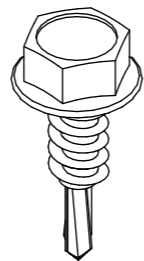
CORNER BRACKET

- The main bracket used make angled connections
- Can be bent to make non standard angles
- Works in all 3x profiles



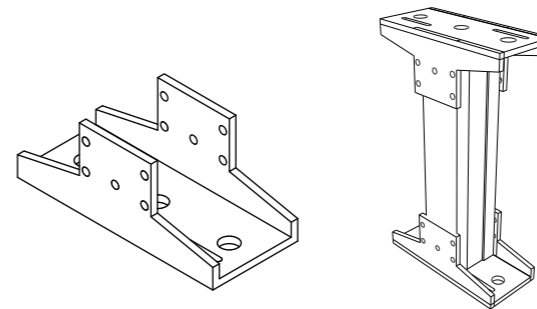
HEX SCREW

- Hex screw used to secure all components/brackets
- Marine Grade coated screw with EPDM washer
- M12 20mm



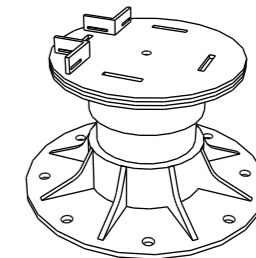
POST BRACKET

- Fits onto the end of the 55Profile to make a post support.



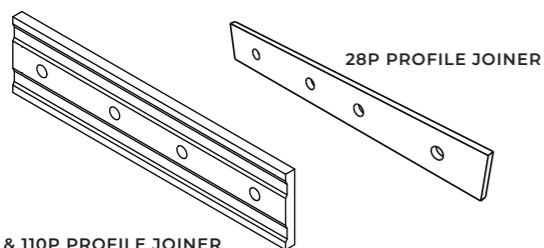
POWER PEDESTAL

- Adjustable height support system
- Heights from 10mm - 440mm



JOINER

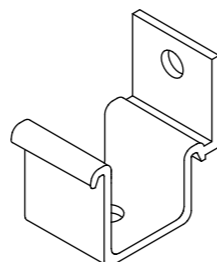
- Used to extend and join the lengths of the aluminium joists.



55P & 110P PROFILE JOINER

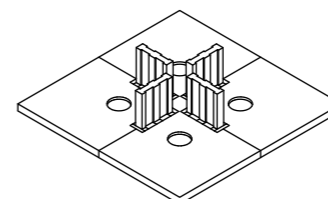
HOLD DOWN CLIP

- Used to fasten the joist to the bearer.



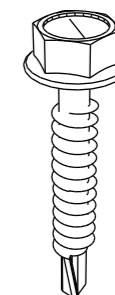
TILE SPACER

- Rubber tile spacer, supports the pavers and locks them into place once installed onto the Clickdeck system.



65mm HEX SCREW

- Long hex screw used to assemble stair kits
- Marine Grade coated screw with EPDM washer
- M12 65mm



OTHER COMPONENTS

SPAN TABLES

Site/load specific engineering available on request

FORM 126 Certification (VICTORIA)

FORM 15 Certification (QLD)



Standard Residential deck loading - Class A -
- 2Kpa Live Load , 0.2Kpa Dead Load , 1.8 KN Point Load*

BASIC SPAN TABLE

Profile	Joist Span (recommended)	Bearer Span (recommended)	Cantilever (max)
28 x 50	600mm	600mm	200mm
55 x 55	1200mm	1200mm	250mm
110 x 50	1900mm	1700mm	400mm

**CLICKDECK SYSTEM IS A CERTIFIED
ENGINEERED PRODUCT.**

Contact our friendly team for more information

**WE OFFER CUSTOM SITE SPECIFIC
ENGINEERING AND CERTIFICATION.**

Contact our friendly team for more information

SPAN TABLES

2.5 Kpa / 1.8 PL - Standard Residential
(Standard loading - ~3 People per SQM)

Notes: Vibration check for 1.8 KN PL <2mm

JOIST SPACING: 450mm

JOISTS		
PROFILE	SPAN	CANTILEVER
28x50	600/700*	200
55x55	1050/1200*	300
110x50	1900/2100*	500

28x50 - BEARER		
JOIST SPAN	BEARER SPAN	CANTILEVER
600	600/700*	200
1000	550/650*	200
1200	550/650*	200
1500	550/650*	150
1900	550/650*	150
2100	500/650*	150

55x55 - BEARER		
JOIST SPAN	BEARER SPAN	CANTILEVER
600	1200/1200*	300
1000	1150/1200*	300
1200	1100/1200*	300
1500	1050/1150*	250
1900	950/1050*	250
2100	950/1000*	200

110x50 - BEARER		
JOIST SPAN	BEARER SPAN	CANTILEVER
600	2400/2600*	500
1000	2150/2400*	500
1200	2050/2200*	500
1500	1900/1950*	400
1900	1700/1750*	400
2100	1600/1650*	400

- Minimum back span length to be 4 times of the overhang length
- *Continuous Span
- Alu261223

3.5 Kpa / 2.7 PL - (Commercial)
(Standard loading)

JOIST SPACING: 450mm

JOISTS		
PROFILE	SPAN	CANTILEVER
28x50	450/500*	200
55x55	1000/1200*	300
110x50	1900/2100*	400

28x50 - BEARER		
JOIST SPAN	BEARER SPAN	CANTILEVER
500	450/550*	250
1000	450/550*	150
1200	450/550*	150
1500	450/550*	150
1900	450/550*	100
2100	450/550*	100

55x55 - BEARER		
JOIST SPAN	BEARER SPAN	CANTILEVER
500	1100/1200*	300
1000	950/1150*	300
1200	950/1100*	250
1500	950/1000*	200
1900	850/850*	200
2100	850/850*	200

110x50 - BEARER		
JOIST SPAN	BEARER SPAN	CANTILEVER
500	2100/2300*	400
1000	1900/2000*	400
1200	1850/1850*	300
1500	1650/1650*	300
1900	1500/1500*	250
2100	1400/1400*	250

- Minimum back span length to be 4 times of the overhang length
- *Continuous Span
- Alu261223

SPAN TABLES



Notes: Vibration check for 1.8 KN PL <2mm

For non standard projects please contact us for site specific engineering.



Structural Assessment

Project: Aluminium Subfloor System Ref No. 2207264 CAN-001

From: Andrew Barraclough

Attention	Company	Email
To: Nathan Azaredo	Exolux Modular Subfloor Systems	nathan@exolux.com.au

Re: Clickdeck Decking Sytem

I, Andrew Barraclough, certify that we have carried out a design check for the aluminium subfloor elements' sections of 28x50, 55x55, and 110x55. We confirm that the nominated aluminium profile sections and connections can sustain the design loads during the stages (Refer: 'Clickdeck Residential Span Table' and 'Clickdeck Commercial Span Table') for the nominated structural purposes.

Kind Regards,

Andrew Barraclough

Dr Andrew Barraclough
BEng MEng PhD FIEAust CPEng NER RBP (EC 46301)
Barrason's Engineers, Principal Engineer

Notes:

- This consultant advice notice does not authorise any extension of time or cost variation.
- Should the contractor deem that this notice constitutes an extension of time or cost variation, then they are to submit a claim in writing to the project manager and obtain approval prior to undertaking the nominated works.
- This communication may contain information that is privileged, confidential and /or exempt from disclosure under applicable law. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or use of the information contained herein is prohibited. If you receive this transmission in error, please immediately contact the sender and destroy the material in its entirety, whether in electronic or hard copy format.

Barrason's Engineers
A: Lvl 2-3, 2 Pacific Promenade, Pakenham, Vic, 3810
P: (03) 5940 2638
E: admin@barrasons.com.au
W: www.barrasonengineers.com
ABN: 96 635 681 300

4 Kpa / 1.8 PL - Standard Residential (Higher occupancy loading) Balconies / Roof decks - No heavy point loaded objects

JOIST SPACING: 450mm			28x50 - BEARER			55x55 - BEARER			110x50 - BEARER		
JOISTS			JOIST SPAN	BEARER SPAN	CANTILEVER	JOIST SPAN	BEARER SPAN	CANTILEVER	JOIST SPAN	BEARER SPAN	CANTILEVER
PROFILE	SPAN	CANTILEVER									
28x50	550/700*	200	600	550/650*	200	600	1100/1200*	300	600	2200/2400*	400
55x55	1050/1200*	300	1000	500/650*	150	1000	1000/1150*	250	1000	1850/1900*	300
110x50	1900/2100*	500	1200	500/650*	150	1200	950/1050*	250	1200	1750/1750*	300
			1500	500/550*	100	1500	900/950*	200	1500	1600/1600*	250
			1900	450/450*	100	1900	800/850*	250	1900	1400/1400*	250
			2100	400/400*	100	2100	800/800*	200	2100	1300/1300*	250

- Minimum back span length to be 4 times of the overhang length
- *Continuous Span

4.5 Kpa / 3.6 kN PL - Podium decks, Walkways.

JOIST SPACING: 450mm			28x50 - BEARER			55x55 - BEARER			110x50 - BEARER		
JOISTS			JOIST SPAN	BEARER SPAN	CANTILEVER	JOIST SPAN	BEARER SPAN	CANTILEVER	JOIST SPAN	BEARER SPAN	CANTILEVER
PROFILE	SPAN	CANTILEVER									
28x50	400/450*					500	900/1050*	300	500	2000/2200*	350
55x55	900/1050*	300				1000	850/1000*	250	1000	1800/1800*	300
110x50	1900/2150*	400				1200	850/950*	250	1200	1650/1650*	300
						1500	850/850*	200	1500	1500/1500*	300
						1900	750/750*	200	1900	1300/1300*	300
						2100	750/750*	200	2100	1250/1250*	250

- Minimum back span length to be 4 times of the overhang length
- *Continuous Span

5.5 Kpa / 4.5 kN PL - Public areas with trolley access

JOIST SPACING: 450mm			28x50 - BEARER			55x55 - BEARER			110x50 - BEARER		
JOISTS			JOIST SPAN	BEARER SPAN	CANTILEVER	JOIST SPAN	BEARER SPAN	CANTILEVER	JOIST SPAN	BEARER SPAN	CANTILEVER
PROFILE	SPAN	CANTILEVER									
28x50	400/450*					500	800/850*	300	500	1900/2200*	300
55x55	800/850*	250				1000	800/800*	250	1000	1600/1600*	300
110x50	1900/2100*	300				1200	750/800*	250	1200	1500/1500*	300
						1500	750/800*	200	1500	1350/1350*	300
						1900	700/700*	200	1900	1200/1200*	300
						2100	650/650*	200	2100	1100/1100*	300

- Minimum back span length to be 4 times of the overhang length
- *Continuous Span

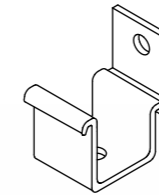
THE VERSATILE SOLUTION

LOW HEIGHT LAYOUT Fits in 30mm

- The 28Profile can be either supported by our pedestal system or fixed to a slab with plastic packers.

ATTACHING TO WALL Wailing / Ledger plate

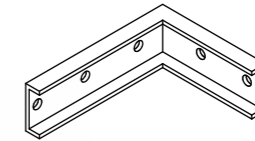
HOLD DOWN CLIP



- Used to fix the joists to the bearers.

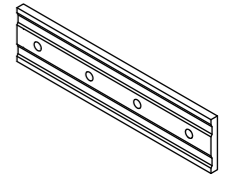
COMPONENTS

CORNER BRACKET



- Used for all standard and angled connections.

JOINER



- Used to join and extend the length of the joists / bearers.

JOIST / BEARER

28PROFILE

- Used for super low deck frames



55PROFILE

- Most commonly used profile



110PROFILE

- Typically used for longer spans and elevated decks

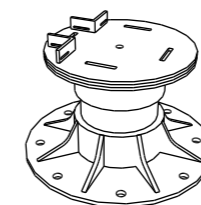


FASCIA / EDGE BOARD SUPPORTS

- Allows fascia/Edge board to be fixed to the side of the deck

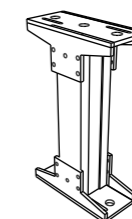
DECK SUPPORTS

POWER PEDESTAL DECK SUPPORTS



Exolux Pedestal system allows for height adjustment between 10 - 440mm.

ALUMINIUM POSTS KITS

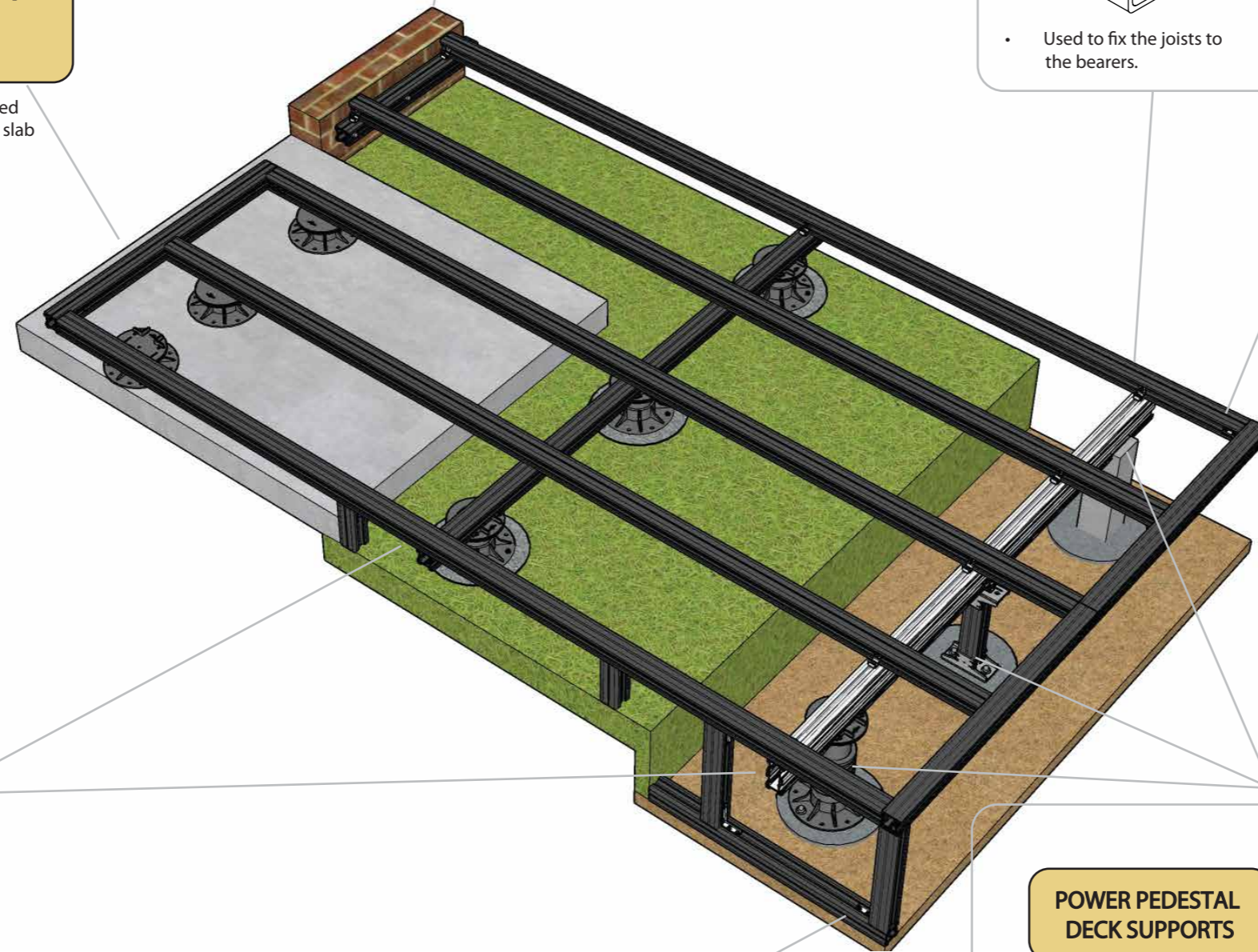


Clickdeck's aluminium post option uses the 55Profile as a post with screw on post brackets.

STEEL / TIMBER POSTS

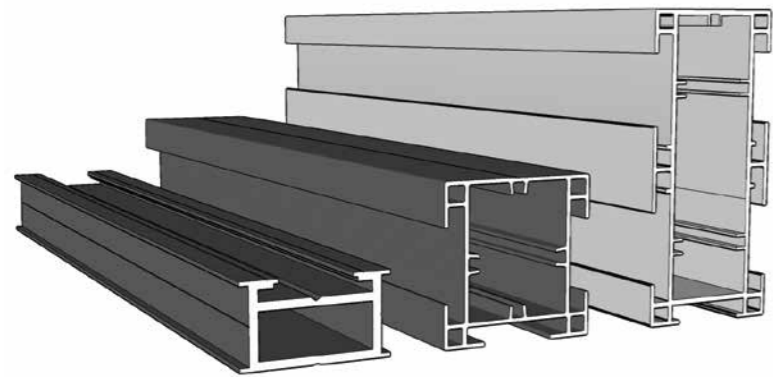


Clickdeck can be used with traditional timber, steel, aluminium posts.



CONNECTION DETAIL

PROFILE RANGE

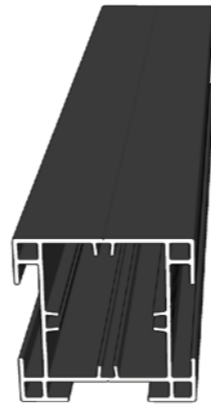


28PROFILE

55PROFILE

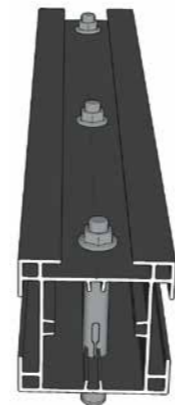
110PROFILE

PROFILE ORIENTATION



FLAT SIDE UP

Joist / Bearer
Most commonly used



FLAT SIDE DOWN

When using as a batten
fixings can be hidden in
profile recess.

SURFACE INSTALLATION

HARDWOOD DECKING



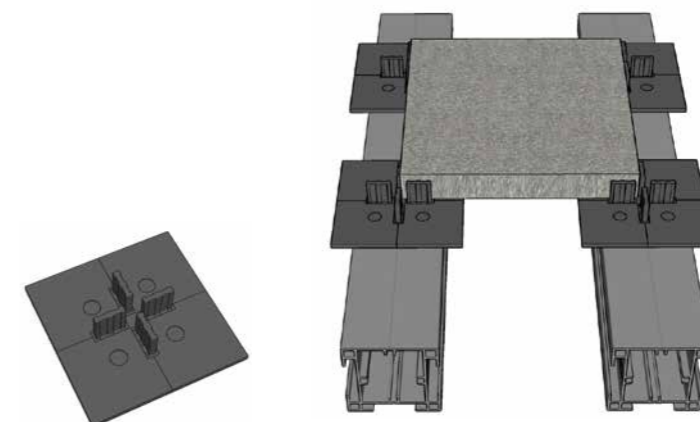
Face fixed with metal drilling deck screws

COMPOSITE DECKING



Works with all hidden fasteners and clipping system : eg KLEVAKLIP, CAMO

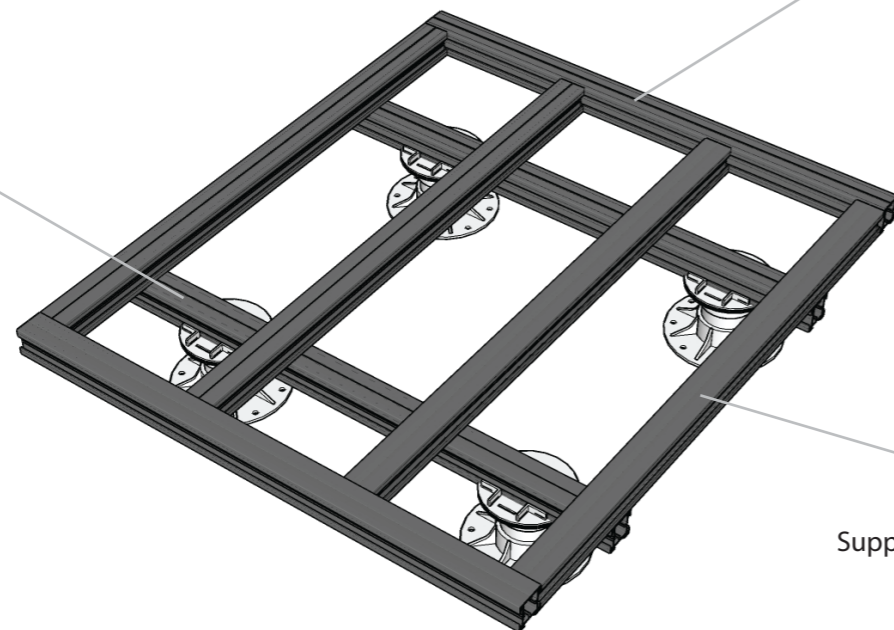
PAVER INSTALLATION



Using the CLICKDECK Tile Spacer

TERMINOLOGY

BEARER
Supports the joists



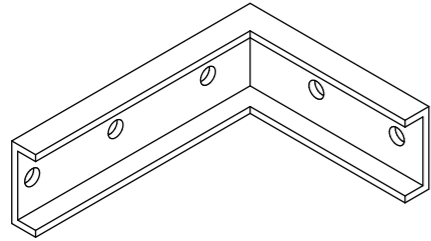
PERIMETER JOISTS
Braces the joists together

JOISTS
Support the decking surface

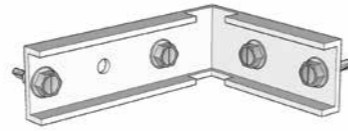
CONNECTION DETAIL

CORNER BRACKET

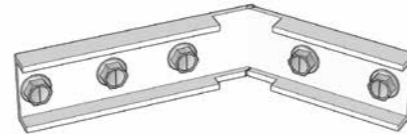
- The main bracket used make angled connections
- Can be bent to make non standard angles
- Works in all 3x profiles



4 Screws - Right Angles

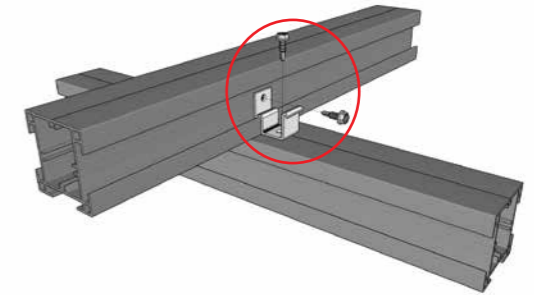
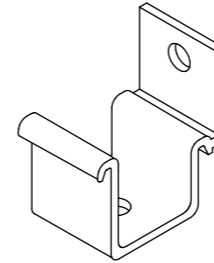


5 Screws - Bent Angles



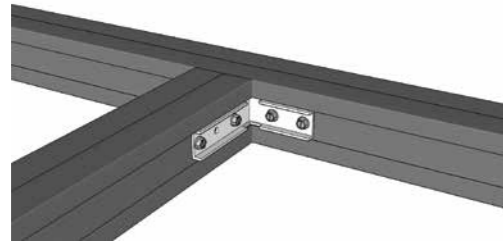
HOLD DOWN CLIP

- Used to fasten the joist to the bearer.

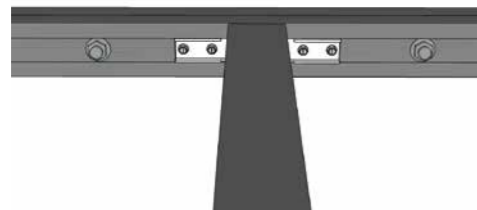


28/55PROFILE

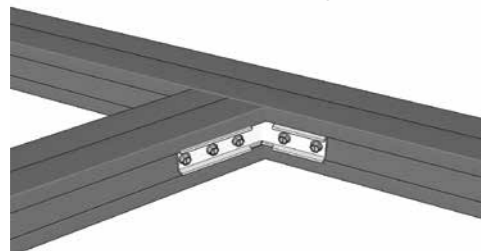
Joist to Perimeter joist
1 Per Connection



Joist to In-line bearer
2 Per Connection



Joist to angled perimeter joist
Bent to create angles



110PROFILE

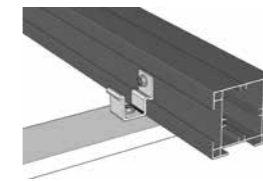
Joist to Perimeter joist
2 Per Connection



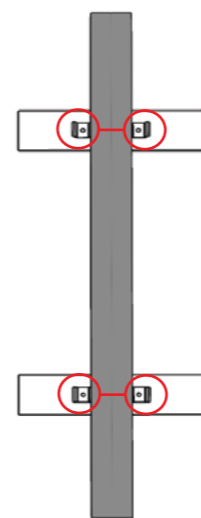
Joist to Inline bearer
4 Per Connection



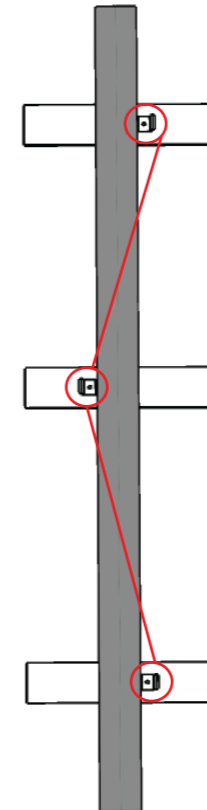
55PROFILE



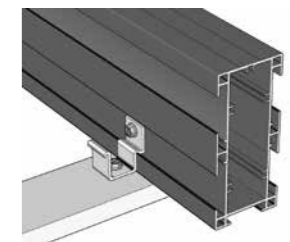
Single Span
(Over 2 bearers only)
HDC Both Sides



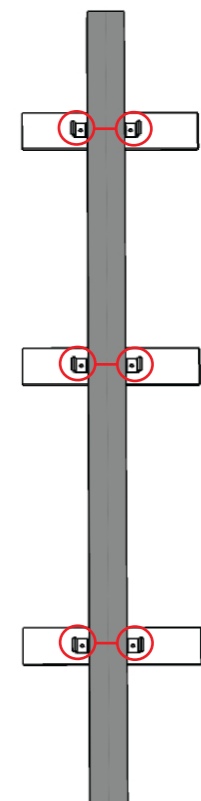
Multi Span
(Over 3+ bearers)
HDC Alternating Sides



110PROFILE



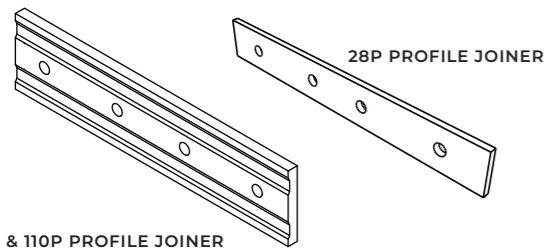
Single/Multi Span
HDC Both Sides



CONNECTION DETAIL

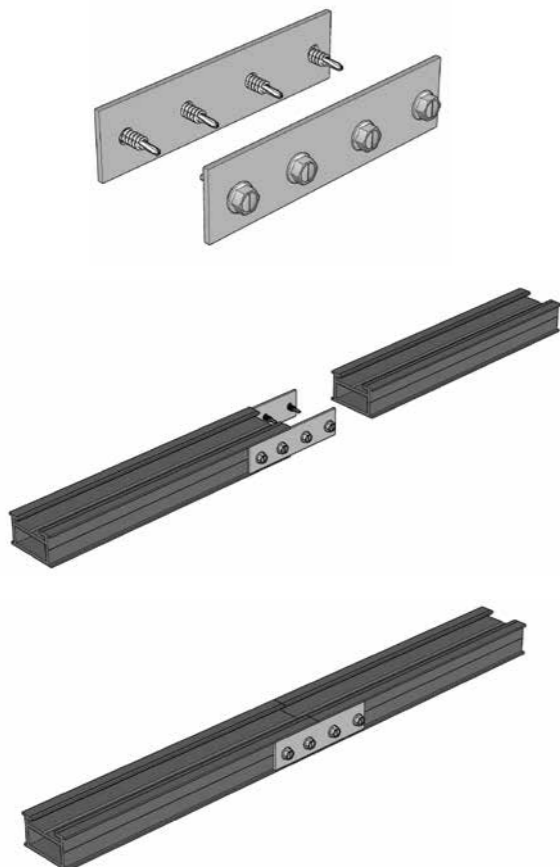
JOINER

- Used to extend and join the lengths of the aluminium joists.



28 PROFILE

2x Joiners per join
4x Hex Screws per Joiner



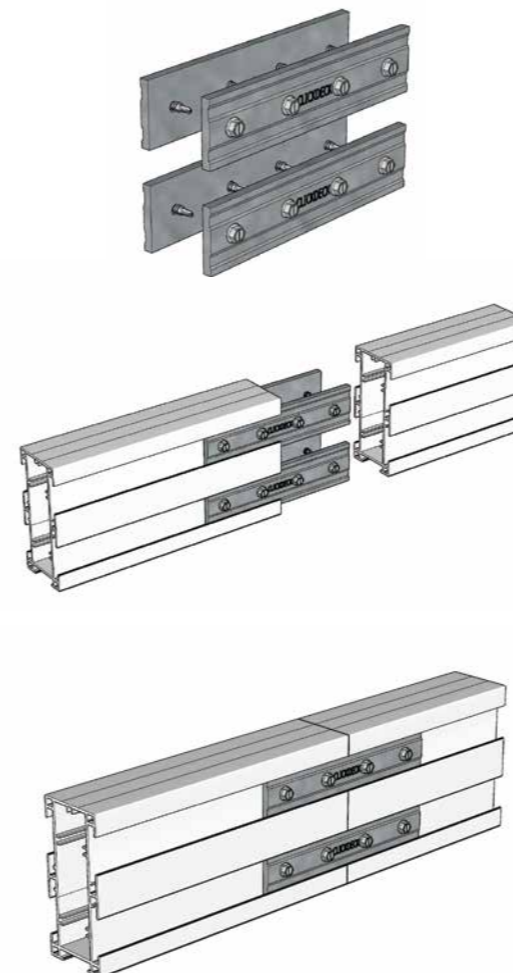
55 PROFILE

2x Joiners per join
4x Hex Screws per Joiner

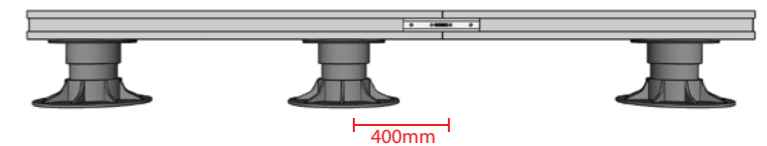


110 PROFILE

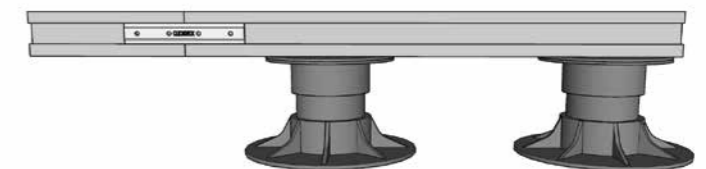
4x Joiners per join
4x Hex Screws per Joiner



Recommended to have joiners within 400mm of supports



Joiners should not be placed on a load bearing cantilever

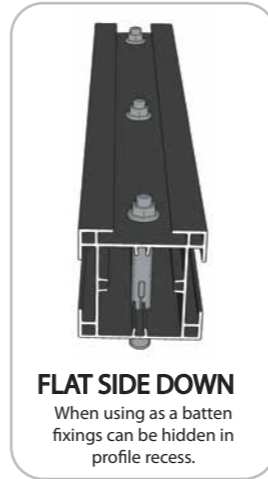


DECK SUPPORTS

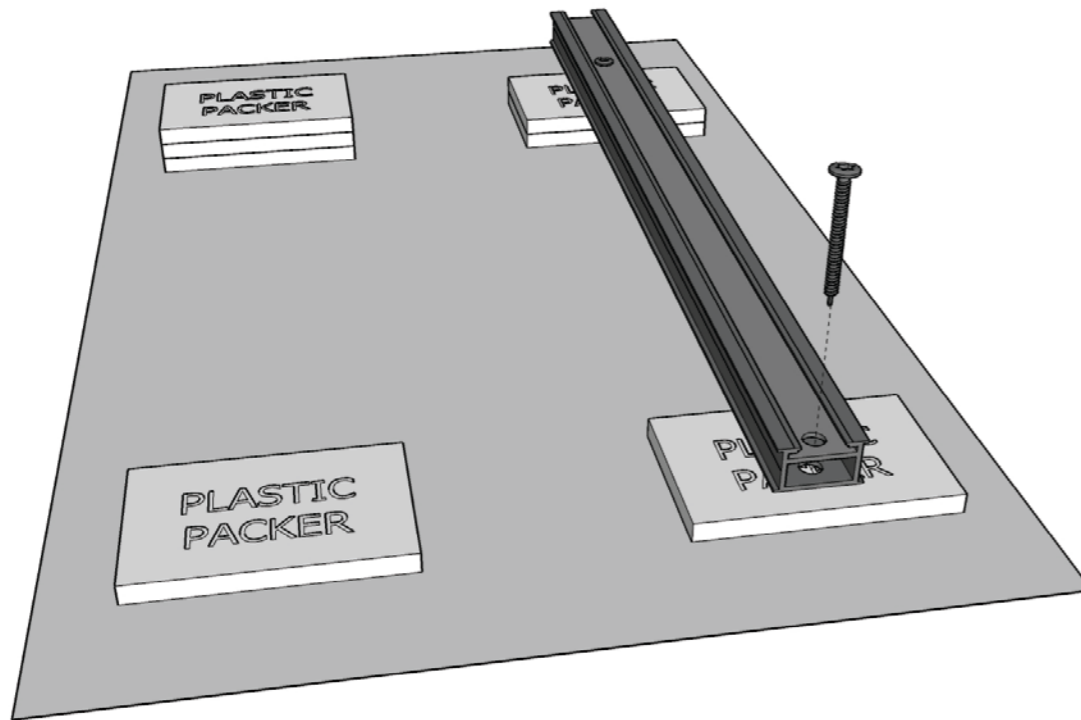
FASTENING TO CONCRETE SLAB



Predrill 28Profile
(Max 8mm diameter hole)



FLAT SIDE DOWN
When using as a batten
fixings can be hidden in
profile recess.

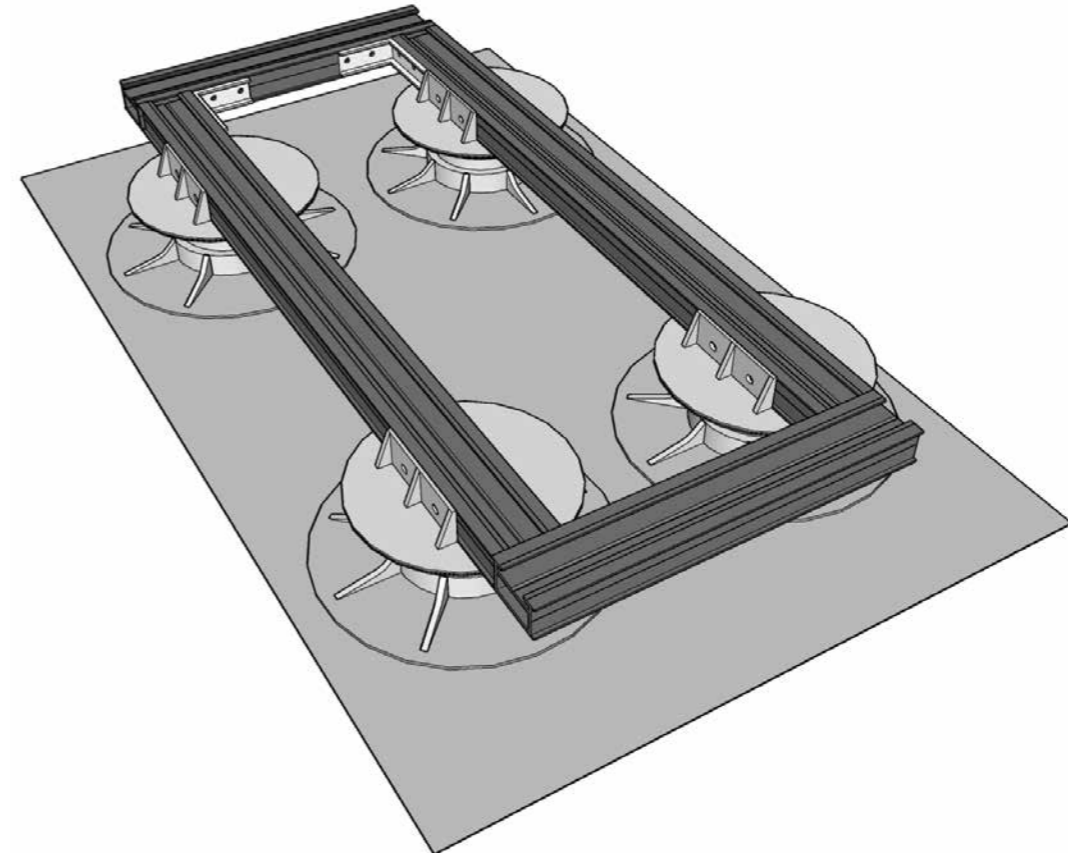


Use appropriate concrete fixings to secure the 28profile through the packer and into the concrete slab.

Please note: - Minimum 2mm clearance is required

USING PEDESTAL SYSTEM

We recommend fastening pedestals to substrate via fixings or appropriate adhesive.



Clickdeck pedestal system can be used to support the 28profile, its recommended to use perimeter joists to brace the frame.

DECK SUPPORTS-POWER PEDESTAL SYSTEM

HEIGHT CHART



PP RANGE

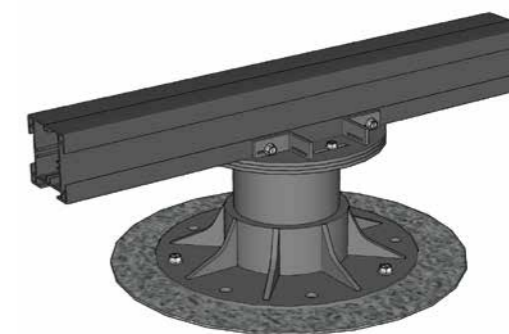


FX0

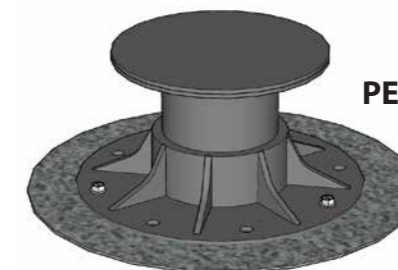
MODEL NO.	Height Range	Finished Floor Heights (includes 25mm deckboard + profile combination below)				
		28 JOIST ONLY	55 JOIST ONLY	55 JOIST 55 BEARER	55JOIST 110 BEARER	110 JOIST 110 BEARER
FX 0	10-25mm	63-78	90-105	145-160	200-215	255-270
PP A	24-35mm	77-88	104-115	159-170	214-225	269-280
PP B	33-47mm	86-100	113-127	168-182	223-237	278-292
PP C	45-70mm	98-123	125-150	180-205	235-260	290-315
PP D	65-110mm	118-163	145-190	200-245	255-300	310-355
PP E	95-190mm	148-243	175-270	230-325	285-380	340-435
PP E + 1 EX	185-325mm	238-378	265-405	320-460	375-515	430-570
PP E + 2 EX	260-440mm	313-493	340-520	395-575	450-630	505-685

We recommend fastening pedestals to substrate via fixings or appropriate adhesive.

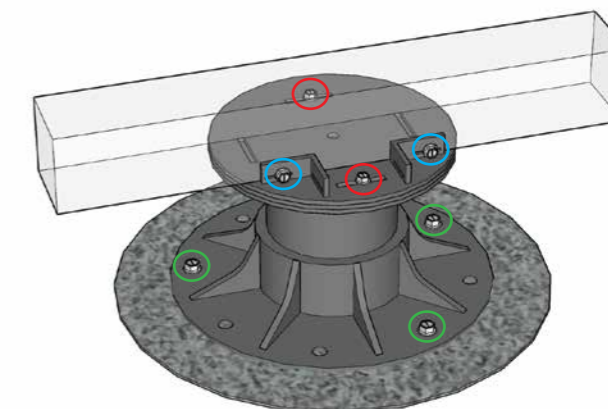
POWER PEDESTAL ASSEMBLY



POWER PEDESTAL JOIST HEAD



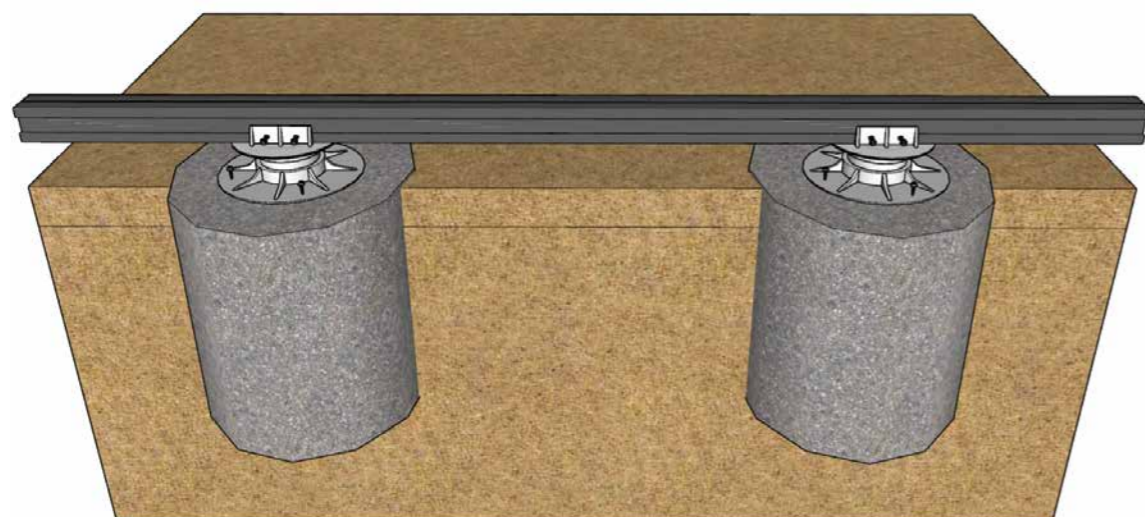
PEDESTAL BASE



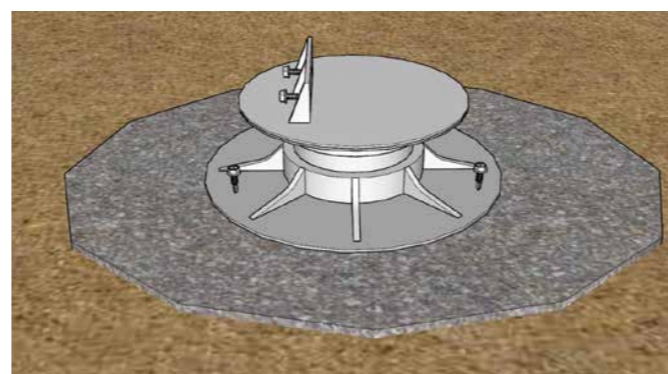
Fasten 2x screws to secure joist to base
Fasten 2x screws to secure head to joist

ON CONCRETE PAD FOOTINGS

Pedestals on concrete pad footings



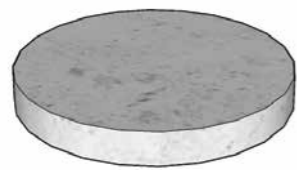
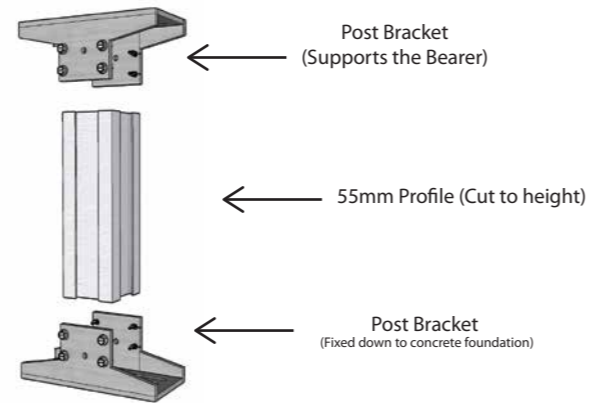
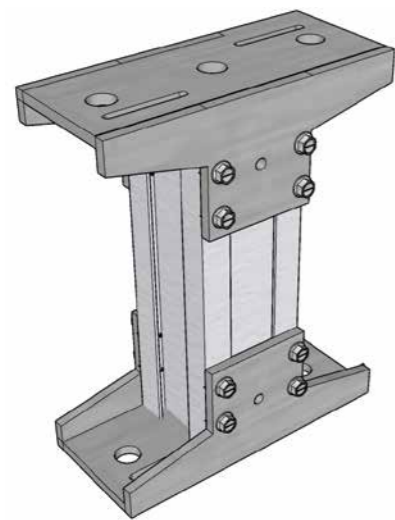
Pad footing (Typical detail)
350mm Diameter x Depth
(Dependent on soil type)



DECK SUPPORTS-POSTS

CLICKDECK POST ASSEMBLY

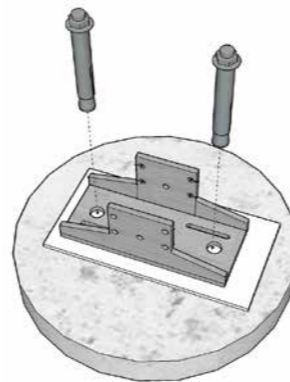
8 Hex Screws per post bracket
Max height of post - 600mm



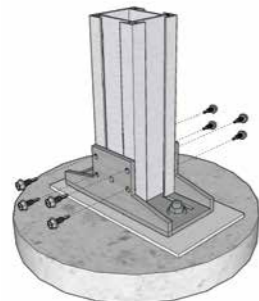
Suitable structural concrete foundation



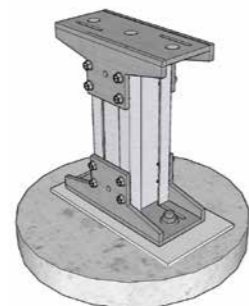
Insulating packer or similar to provide barrier between concrete and aluminium bracket must be used



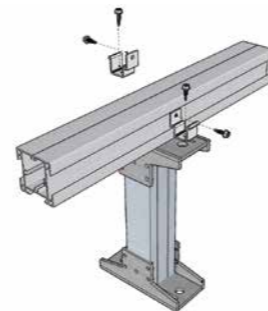
Using suitable masonry fixings attach post bracket to concrete foundation.



Insert 55mm Profile in bracket (Cut to desired height) secure profile with 8 hex screws



Secure top bracket with 8x hex screws

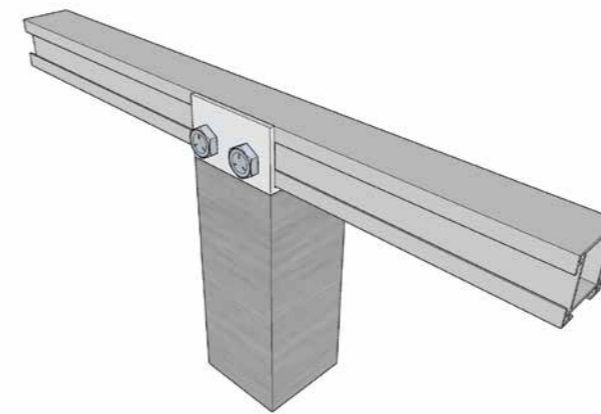


Using 2x Hold down clips (1 both sides), fasten hex screws into post bracket.

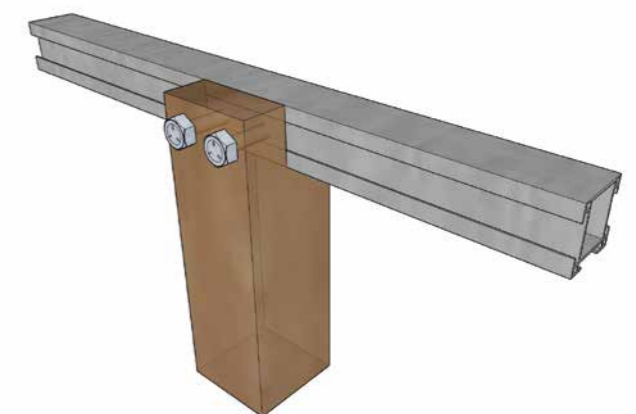
Note:

- All deck supports shall have a suitable structural foundation designed by a qualified professional.
- Rapid-set concrete or similar containing lime shall not be used when direct burying aluminium.
- Aluminium must be fully coated by barrier paint or similar and not be in direct contact with in-ground concrete.
- Maximum height for Aluminium post (55mm Profile) is 600mm from Ground level.
- Above 600mm height, a suitable timber or steel post maybe used.
- When attaching post bracket to concrete, an insulating packer or similar must be used to provide barrier between concrete and aluminium.
- It is recommended for the frame system to be attached to a perimeter wall or similar if possible.

Clickdeck can also be supported by:

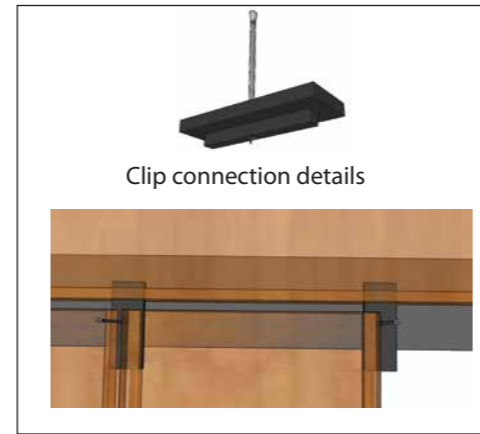
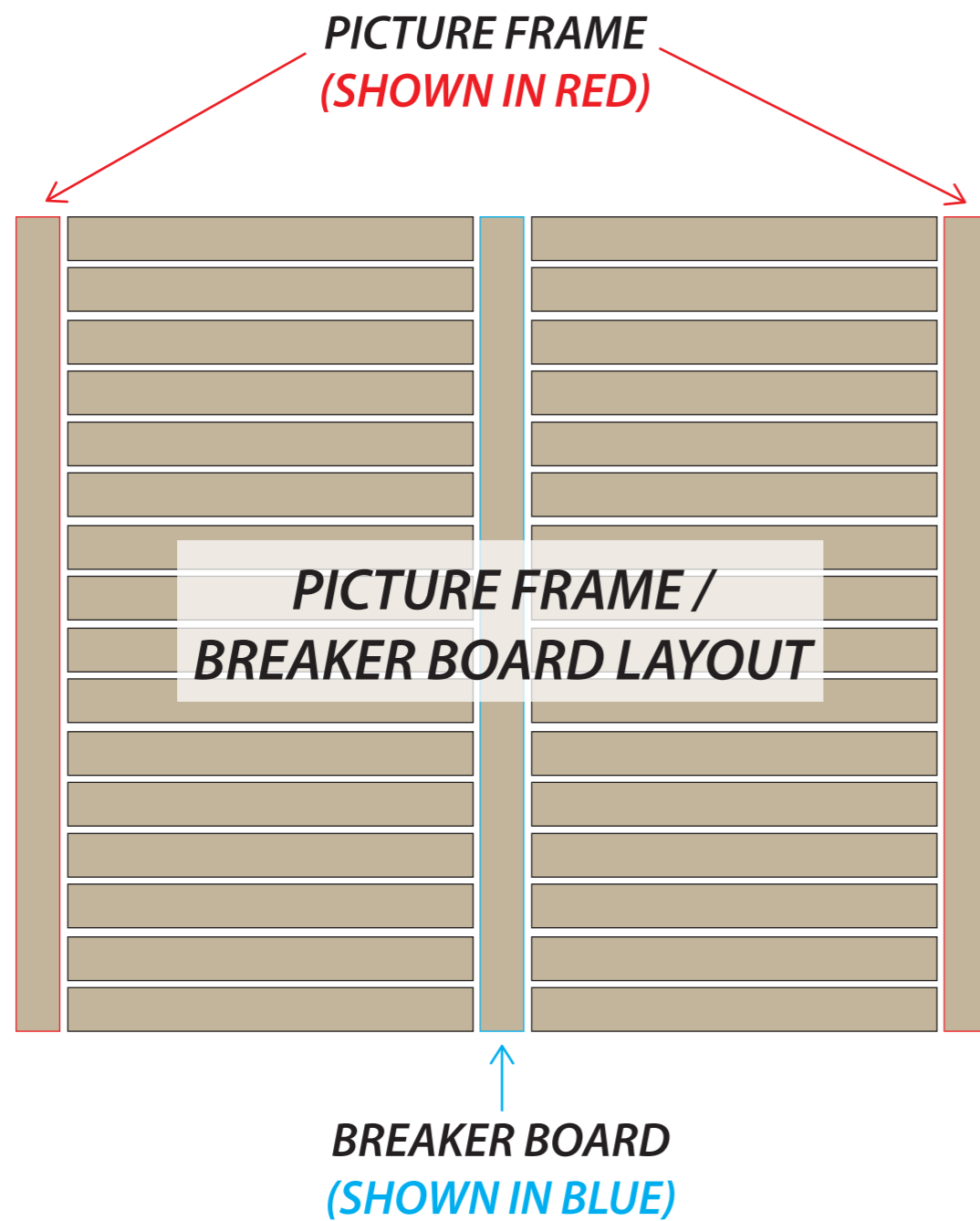


Steel Post

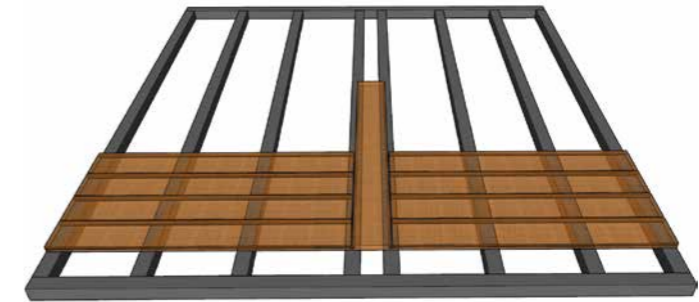


Timber Post

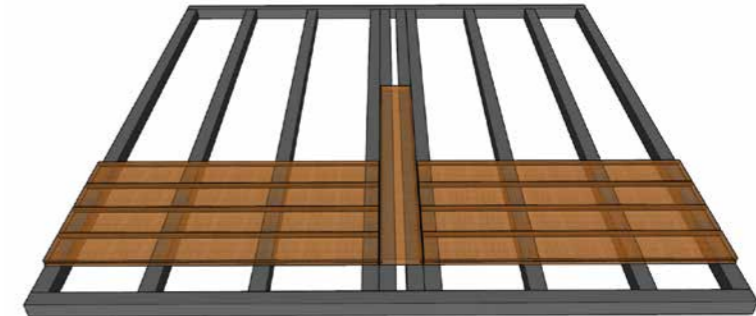
DECKBOARD DETAIL - PICTURE FRAME / BREAKER BOARD



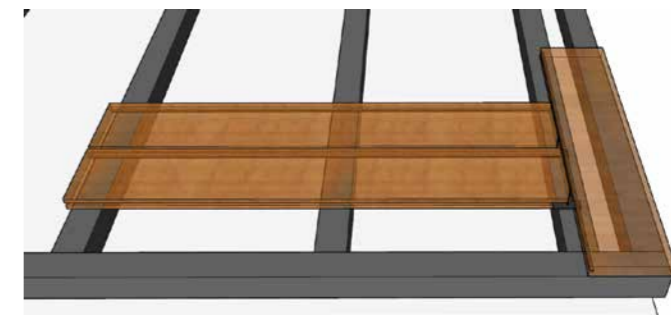
Breakerboard using 1x Additional joists



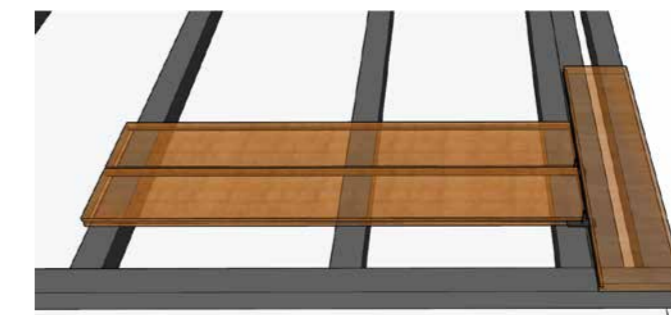
Breakerboard using 2x Additional joists



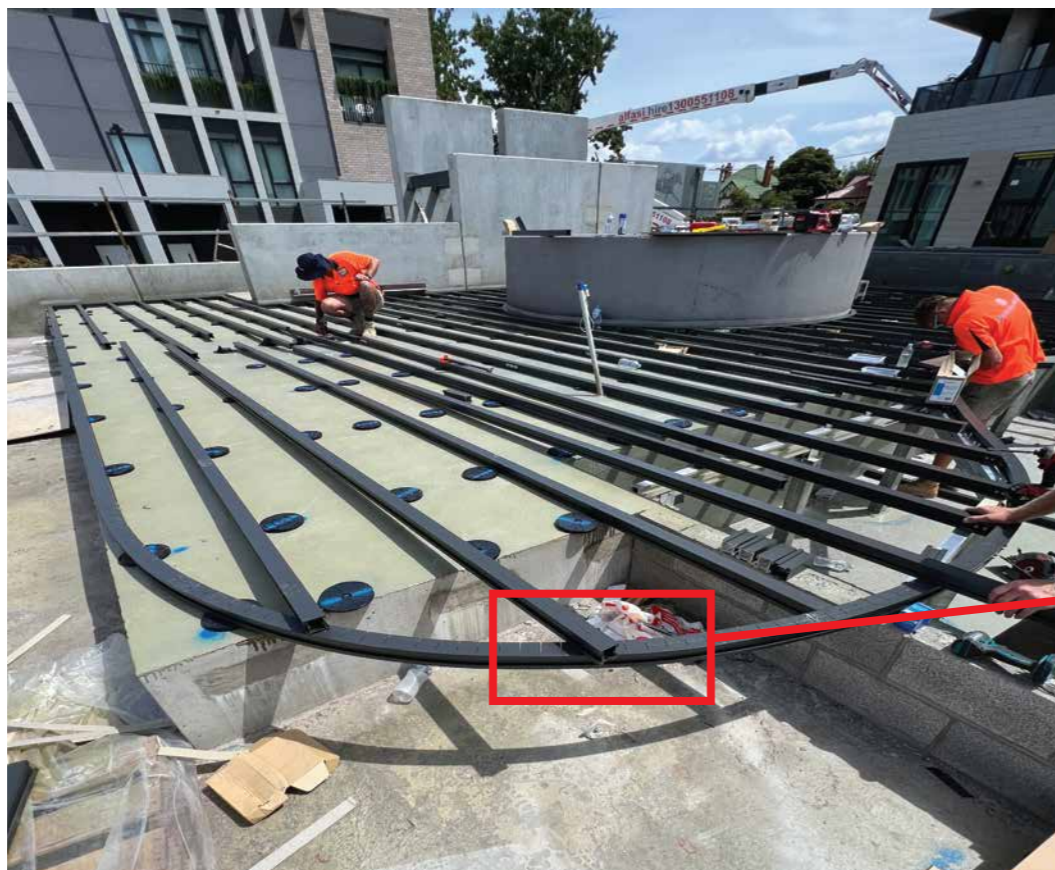
Picture frame using 1x Additional joist



Picture frame using 2x Additional joists



CURVED FRAMING



SLOT ALUMINIUM PROFILE



FOR DIRECT LOAD BEARING PERIMETER

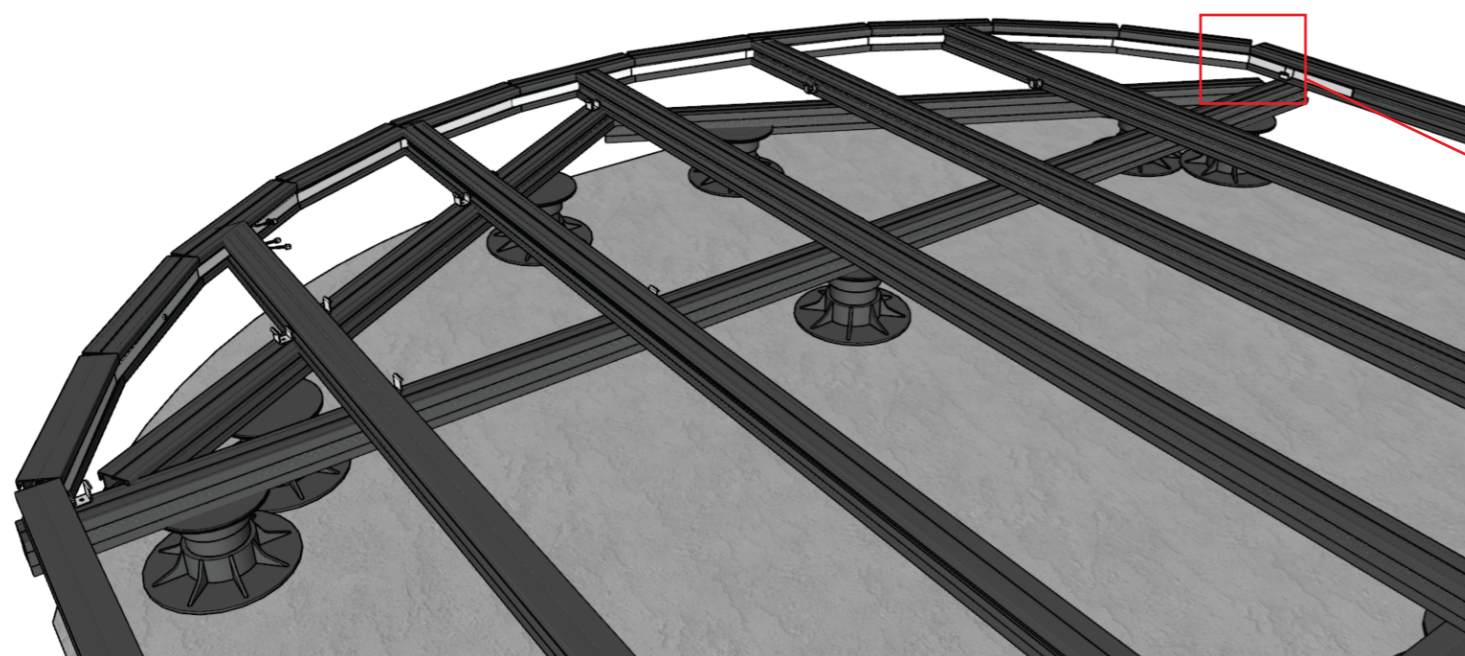
Step 1.

USE REINFORCING STRIP

- Slot out 80% of the joist profile depth, leaving 20% intact. Then bend to suit curve.



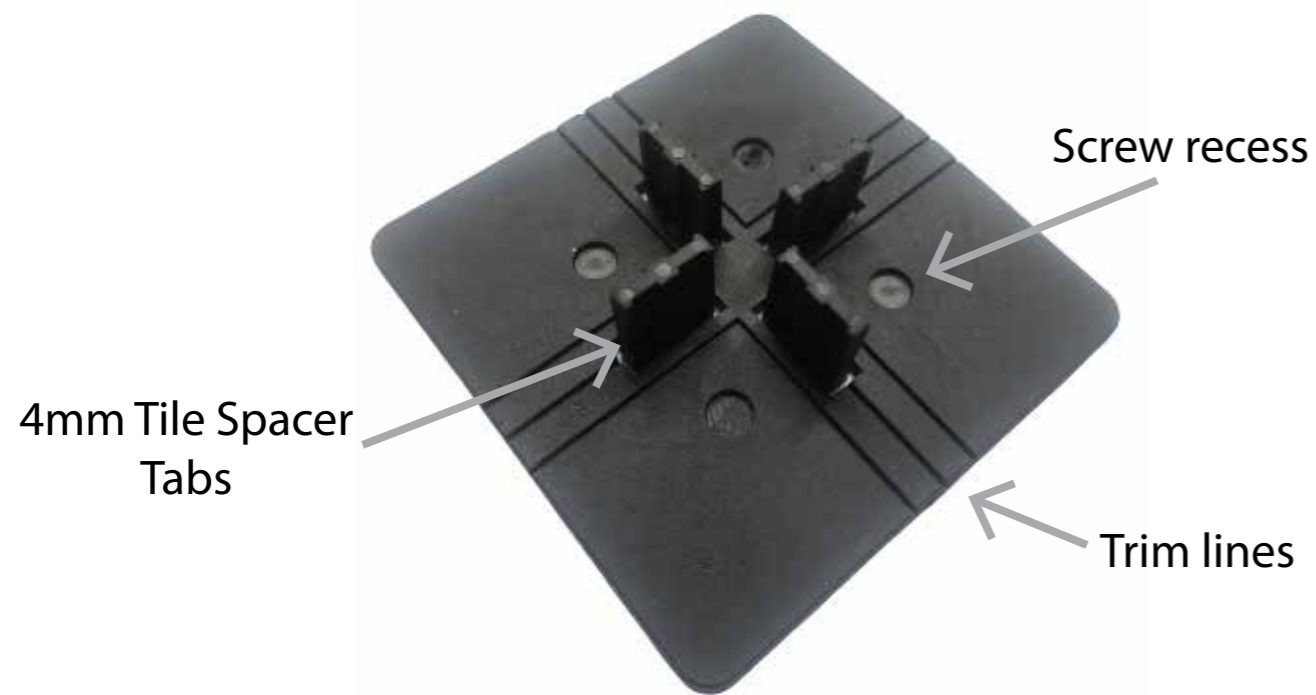
- Step 2. Reinforce the joist profile by using an aluminium strip (20mm x 1.6mm) fixed to the inside and outside of the perimeter joist. (If using flat side up)
Or
Only 1 internal strip needed if using profile flat side out



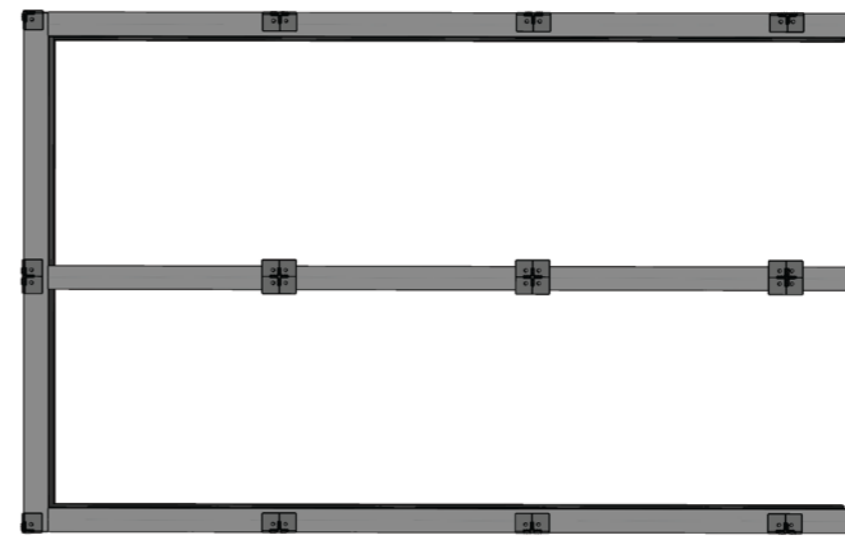
RAISED PAVER / TILE INSTALL

CLICKDECK TILE SPACER

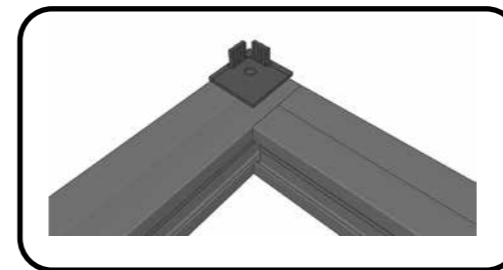
Locks and spaces pavers on frame



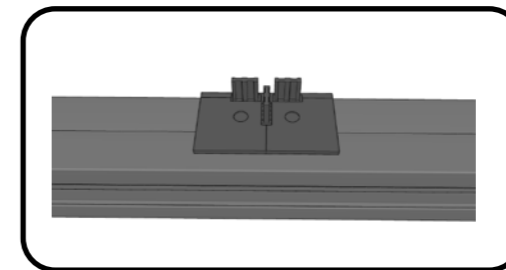
TRIM SPACER TO SUIT LOCATION



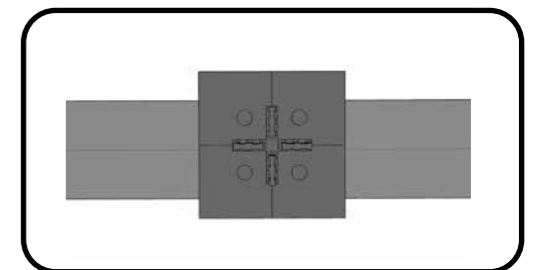
CORNER



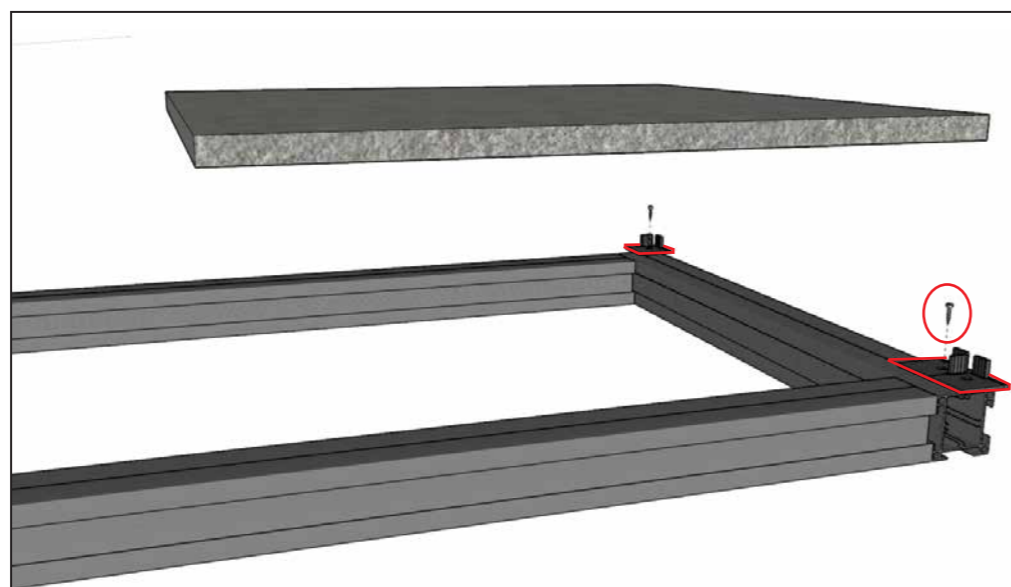
SIDE



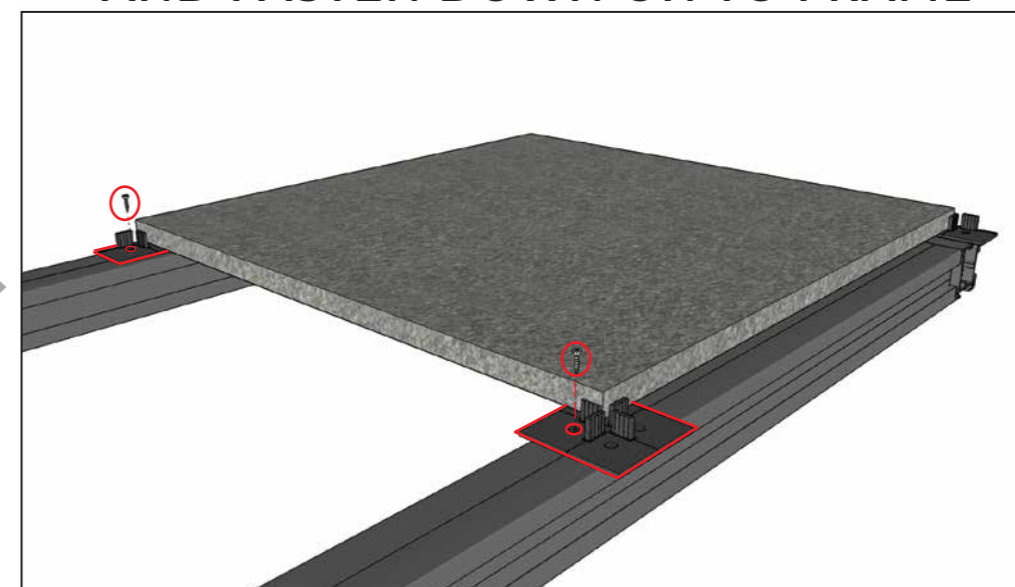
MID



FIX SPACERS TO FRAME ON CORNERS

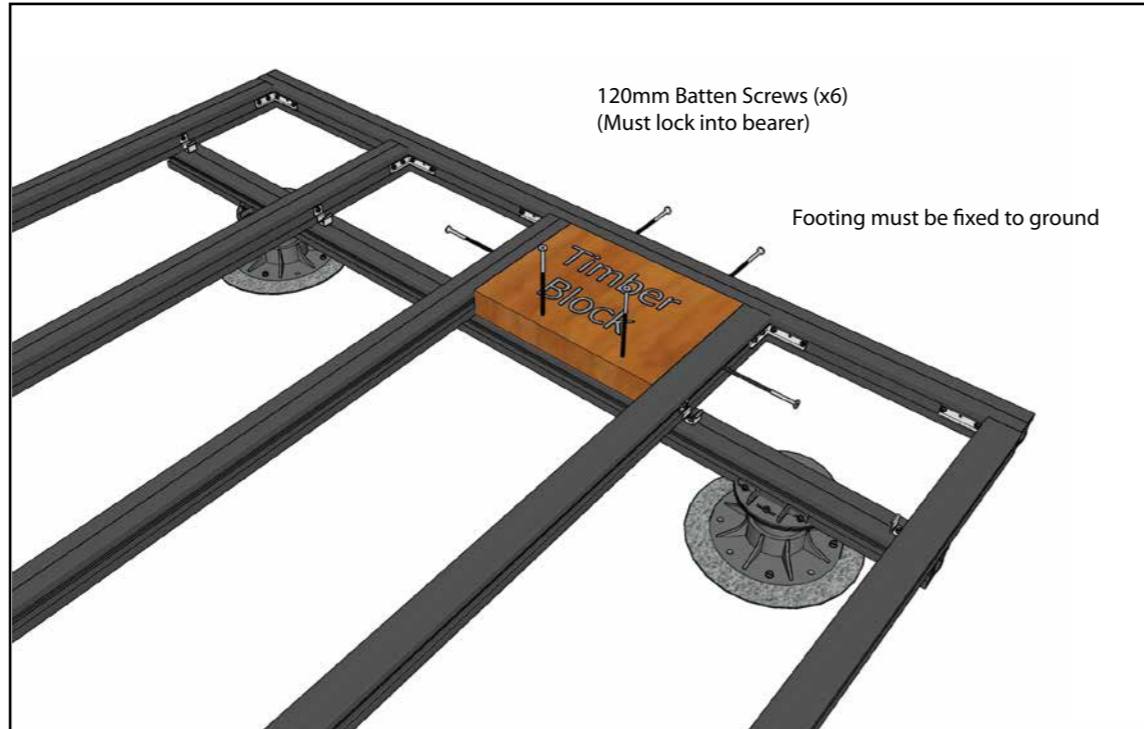


SLIDE REAR SPACERS UNDER PAVER AND FASTEN DOWN ON TO FRAME

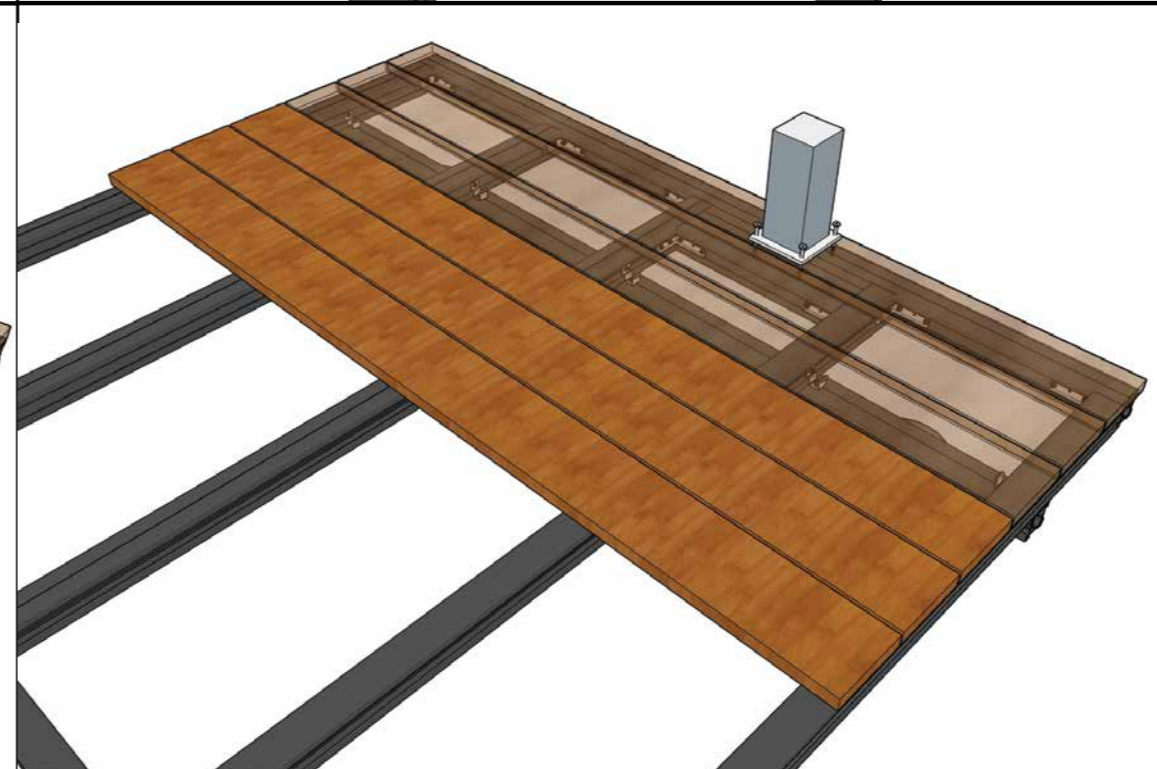
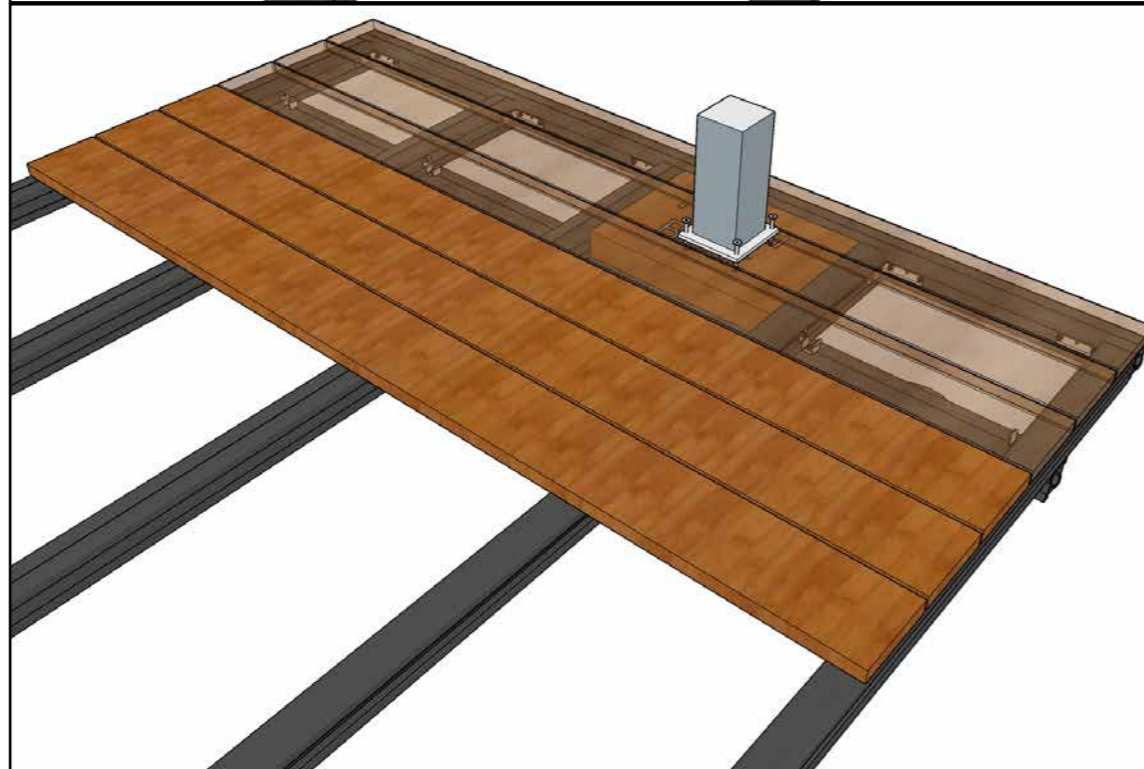
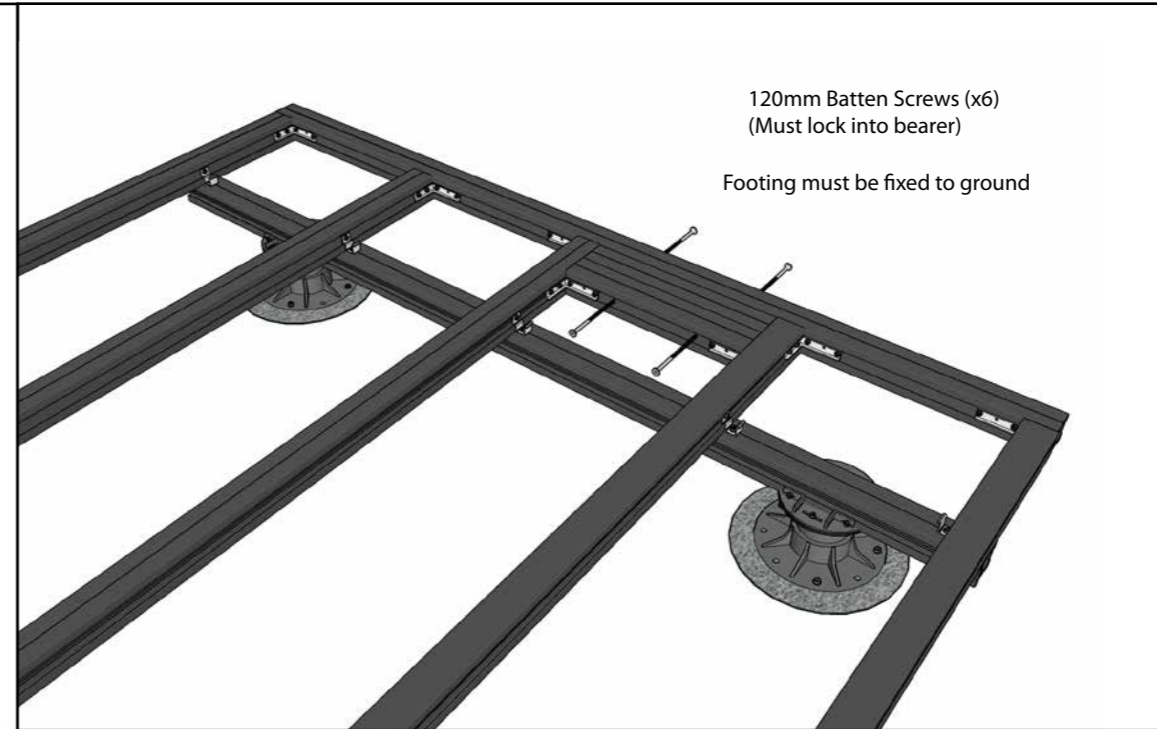


HANDRAIL SUPPORT

TIMBER BLOCKING FOR HANDRAIL

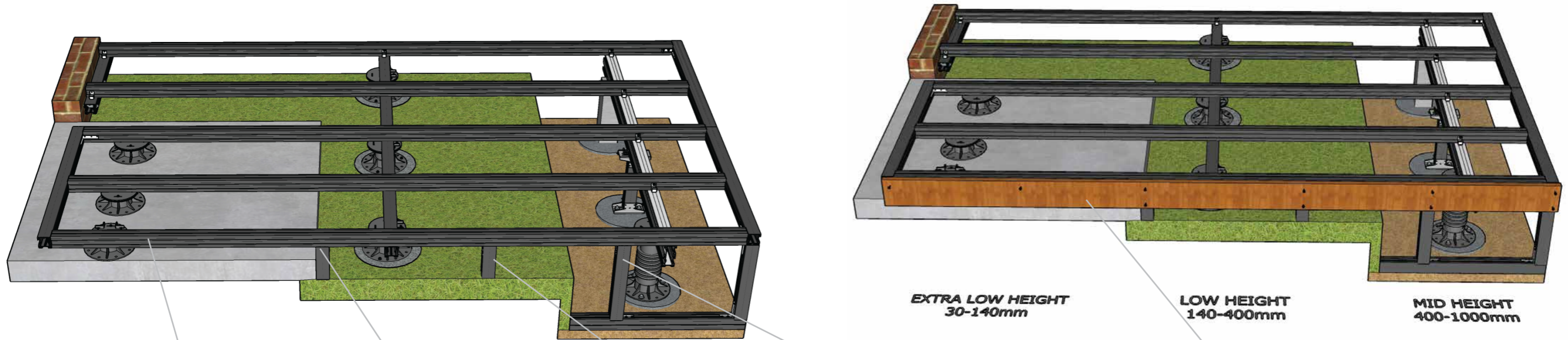


ALUMINIUM BLOCKING FOR HANDRAIL



Note: Please consult handrail engineer for installation requirements.

FASCIA BOARD SUPPORT



EXTRA LOW HEIGHT
30-140mm

LOW HEIGHT
140-400mm

MID HEIGHT
400-1000mm

EXTRA LOW HEIGHT
30-140mm

LOW HEIGHT
140-400mm

MID HEIGHT
400-1000mm

FASCIA / SIDE BOARD

