Gama Consulting Brisbane Pty Ltd
Suite 4, 36 Agnes St
Fortitude Valley QLD 4006
email adminqld@gamaconsulting.com.au
p 07 3385 0541
w www.gamaconsulting.com.au
ABN 12 672 288 587

OUR REF: 26099
DATE: 8/5/2026

Apex Building Products
C/o- Carl Brandon
32-36 Saltwater Circuit,
Narangba QLD 4504
e: CBrandon@apexsteel.com.au

SUBJECT: Apex Apspan Sheet – Rainwater Drainage Capacity
DRAWING NO: 26099-S02-A

We hereby state that the design calculations have been carried out in accordance with the National Code of Construction Series (BCA) and the following Australian Standards:

Act, Regulation or NCC	**Section, Regulation, Part, Performance Requirement or other provision**
AS/NZS 3500.3-2021	Section 3 – Roof Drainage Systems
AS1562.1:2018	Section 3.3 – Roof Drainage
National Construction Code	NCC 2022 Volumes 2 & 3

We hereby state that the following aspects of the Apex Apspan sheet comply with the codes and standards listed above:

- Rainwater Drainage Capacities for roof pitch of 2 and 3 degrees.
- Maximum Roof Lengths for Drainage for Victorian locations.

Analysis details:

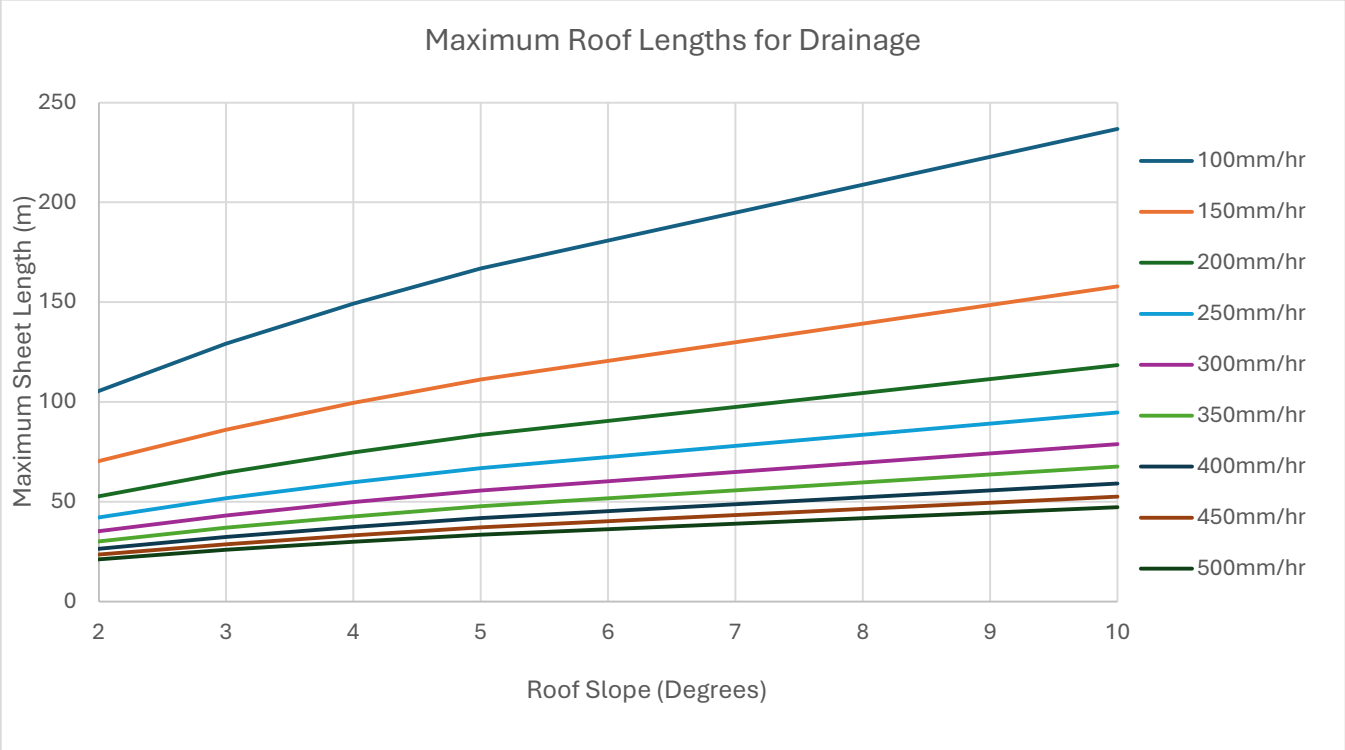
- Analysis based on steady flow and Mannings Formula with roughness coefficient n = 0.022.
- Analysis based upon depth of flow of 60% of the height of the top of the anti-capillary feature to the trough, and due to closely spaced rib profiles.
- Analysis ignores thermal limitations on maximum length, refer to Apex Steel for details.
- Analysis doesn't consider gutter and downpipe requirements, refer to Apex Steel for details.

Name: Matthew Mammone
Address: Suite 4, 36 Agnes St, Fortitude Valley QLD 4006
Email: mattm@gamaconsulting.com.au
Category and Class: Civil and Structural Engineer
Registration no.: PE0002861
Signature:

Apspan – Maximum Roof Lengths for Drainage

Roof Slope (Degrees)	Rainfall Capacity (mm/hr)								
	100	**150**	**200**	**250**	**300**	**350**	**400**	**450**	**500**
2	105	70	53	42	35	30	26	23	21
3	129	86	65	52	43	37	32	29	26
4	149	99	75	60	50	43	37	33	30
5	167	111	83	67	56	48	42	37	33
10	237	158	118	95	79	68	59	53	47

Aspan – Maximum Roof Lengths for Drainage



RAINFALL REGION (VICTORIA)	ARI (ONE IN 100 YEARS) (mm/hr)	ROOF PITCH (DEGREES)	MAXIMUM RIDGE TO GUTTER LENGTH OF ROOF (m)
BALLARAT	188	2	72
BENALLA	194	2	69
GEELONG	144	2	94
HORSHAM	173	2	79
LAKES ENTRANCE	198	2	68
MELBOURNE	187	2	72
HASTINGS, MELBOURNE	145	2	93
MILDURA	218	2	62
STAWELL	186	2	73

Aspan – Maximum Ridge to Gutter Length of Roof – 2 Degrees – Victorian Locations

RAINFALL REGION (VICTORIA)	ARI (ONE IN 100 YEARS) (mm/hr)	ROOF PITCH (DEGREES)	MAXIMUM RIDGE TO GUTTER LENGTH OF ROOF (m)
BALLARAT	188	3	88
BENALLA	194	3	85
GEELONG	144	3	115
HORSHAM	173	3	96
LAKES ENTRANCE	198	3	83
MELBOURNE	187	3	89
HASTINGS, MELBOURNE	145	3	114
MILDURA	218	3	76
STAWELL	186	3	89

Apspan – Maximum Ridge to Gutter Length of Roof – 3 Degrees – Victorian Locations

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ABN 12 672 288 587

Certified by:
Matthew Mammone on behalf of
Gama Consulting Pty Ltd

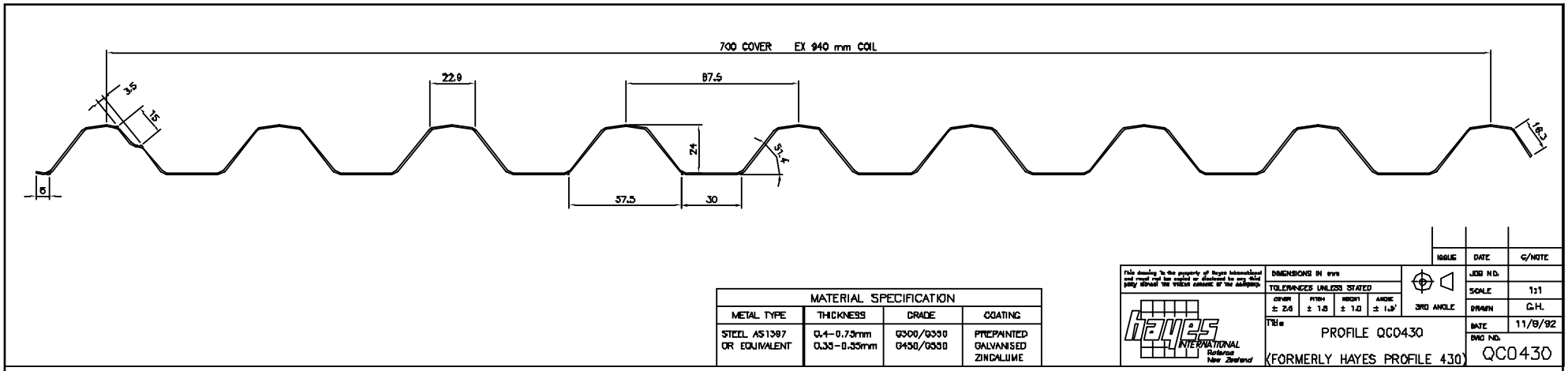

FIGURE 1. APSPAN PROFILE

Roof Pitch (degrees)	Rainwater Drainage Capacity (L/s/m)
1	0.15
2	0.21
Note: Drainage capacity has been calculated with depth of water in trough at 60% of the height of the top of the anti-capillary feature to the trough, and due to closely spaced rib profiles as per Appendix D of AS 1562.1:2018.	

FIGURE 2. APSPAN DRAINAGE CAPACITY

DRAWING NO. 26099-S02-A Rev. 1