

## SITE SPECIFIC DESIGN CRITERIA ANALYSIS



Prepared for:

Stuart Smith 5 Minmai Road

Mona Vale NSW 2103

Supplier:

Sheds n Homes Nowra

Assessment Ref: STX20010223YH

Issued:

19/01/2020

**Building Details:** 

Span: 4.2 Length: 7

Avg. Height: 2.885

Certified by:

R. Nancarrow

for and on behalf of

TNC Engineering PTY LTD

(ACN 610 855 260)

Member Institution of Engineers (Aust.), CPEng (NER Structural & Civil) Regn. No. 2741240
Registered Professional Engineer (Structural & Civil) - Queensland: Regn. No. 13750
Registered Professional Engineer (Structural & Civil) - Victoria: Regn. No. EC44684
Registered Building Designer & Professional Engineer (Structural & Civil) - Tasmania: Regn. No. CC6968



## Site Location:

Geographic coordinates of -33.67263,151.28885 Generally described as: 5 Minmai Road Mona Vale NSW 2103

## **Executive Summary - Site Specific Analysis**

The design analysis of the building has not been considered for each of the 4 orthogonal directions. Hence the maximum wind speed in any of the 8 cardinal directions has been used as the design wind speed. This is a conservative approach.

Each cardinal direction has been considered and the results are summarised below

Factor	N	NE	Е	SE	S	SW	W	NW
Wind Region	A2							
Importance level (IL)	2							
Regional Wind Speed (Vr)	45							
Terrain Category (TC)	2.96	2.81	2.98	2.97	2.87	2.99	3	3
Terrain Category Multiplier (Mz)	0.83	0.85	0.83	0.83	0.84	0.83	0.83	0.83
Shielding Multiplier (Ms)	0.81	0.82	0.81	0.99	1	1	0.84	0.82
Topographic Multiplier (Mt)	1	1	1	1	1	1	1	1
Wind Direction Multiplier 1 (Md1)	0.8	0.8	0.8	0.95	0.9	0.95	1	0.95
Site specific design wind speed (Vsite1)	30	30	30	35.3	34.1	35.6	31.4	30
Wind Direction Multiplier 2 (Md2)	0.8	0.8	0.8	0.95	0.9	0.95	1	0.95
Site specific design wind speed (Vsite2)	30	30	30	35.3	34.1	35.6	31.4	30

Design Wind Speed 35.6 m/s (Vsite1)

for the resultant forces and overturning moments on the complete building and wind actions on major structural elements.

Design Wind Speed 35.6 m/s (Vsite2)

for all other cases, including cladding and immediate supporting members (Purlins and Girts)

Snow Load Nil

Seismic Factor Nil

**Durability Alert** No