

DESIGN CERTIFICATE

DESCRIPTION:

This certificate relates to the adequacy of the existing roof at the described location to support the pv-panels and to their fixings.

LOCATION:

Base 10 Youth Center, 10 Main South Road, Reynella SA

DETAILS:

Roof:

The adequacy of the existing roof structures to carry the loads arising from the pv-installations have been assessed based on comparing the loads for which the purlins would have been designed with the loads arising from the installation of the pv-panels and have been found to be satisfactory.

Fixings:

The landscape format Longi Solar 370W panels are to be mounted on pairs of Clenergy Eco rails and secured to the purlins using Clenergy tin feet and Buildex 14-11 hex head zips.

REFERENCES:

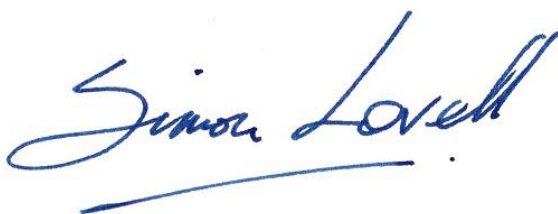
Westside Energy General arrangement

LSEC calculations Job No 21042-2 Rev 0

STANDARDS:

- AS1170.0 Structural design actions - General principles
- AS1170.1 Structural design actions - Dead and imposed loads
- AS1170.2 Structural design actions - Wind loads

It is certified that the described item(s) have been designed and assessed using the listed Standards, conventional engineering principles and good practice for the location and function detailed above. No physical testing of items has been undertaken.



SCJ Lovell BSc, CEng, MStructE, NER(Structural), RPEQ 13036

Date: 24 March 2021



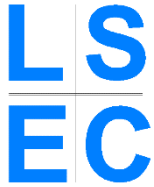
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STRUCTURAL CALCULATIONS

Project: pv-Panel installation

Address: Base 10 Youth Center, Main Sth Rd, Reynella

Client: Westside Energy

Project #: 21042-2

Revision	Date	Description
0	24/03/21	Issued for use

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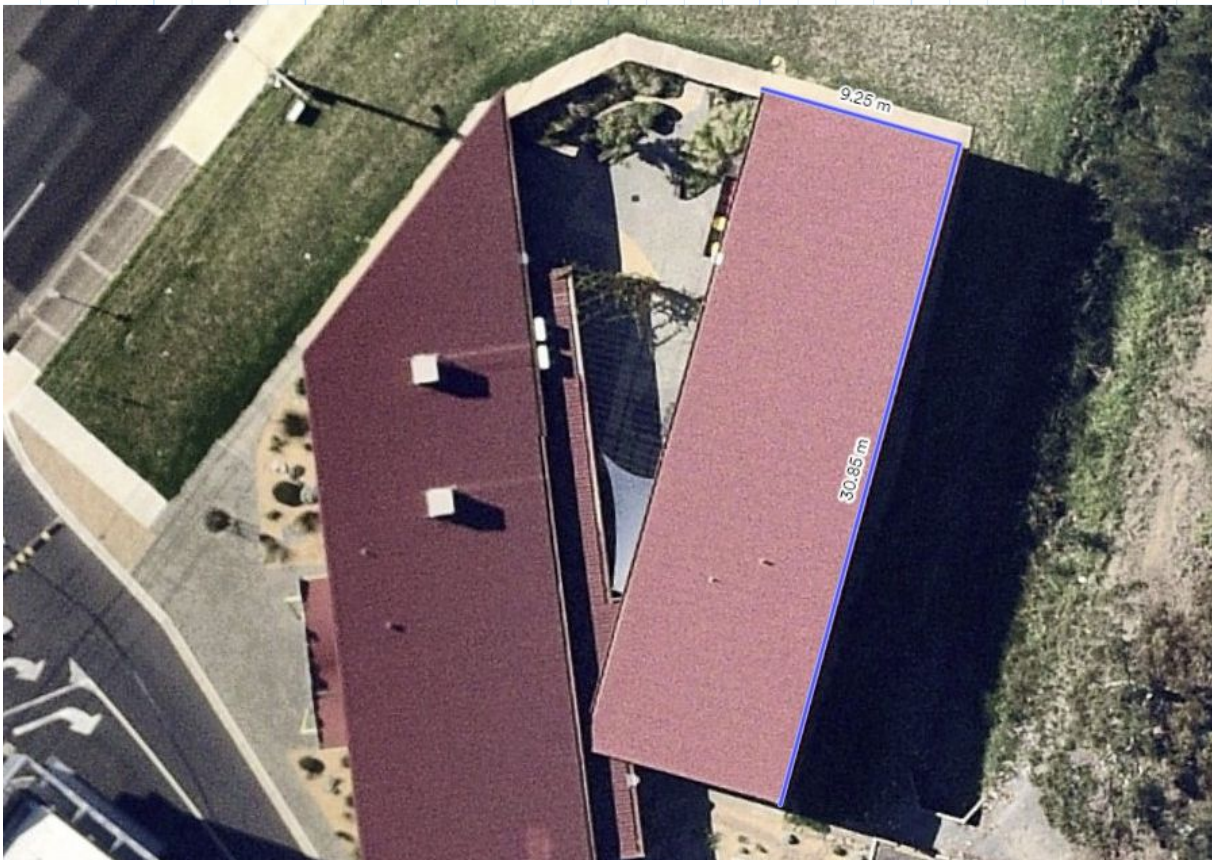
INTRODUCTION

The following structural calculations form part of the certification justifying the fixings for the pv-installation to the roof structure and the roof structure itself at the project location to withstand the applied loads and are to be read in conjunction with the certificate and with the reference drawings.

The calculation have been prepared by SCJ Lovell BSc CEng MStructE NER RPEQ

DESCRIPTION AND DESIGN PHILOSOPHY

Overall, the building measures around 9.3m by 30.8 m on plan with an average roof height of around 3.5 m.



Site information provided by Westside gives the 10-degree mono-pitch roof to comprise pierce corrugated sheeting and the image suggest purlins at 1200 mm spacing.

The installation comprises flush mounted pv-panels installed in landscape format on Clenergy Eco rails and fixed to the purlins using proprietary Clenergy tin feet and Buildex 14-11 hex head zips.

It is a pv-panel manufacturer's requirement that the panels are not trafficked by maintenance personnel nor that any materials are stacked on the panels; if it is necessary to undertake any maintenance work then this is conducted by removing panels to create the required access.

The panels are in small isolated groups and for the purposes of design of the fixings the wind load coefficient on the panels will be taken as 1.7. The wind load on the panel comprises the suction on the upper surface and the pressure on the lower surface however the pressure also acts on the roof sheet hence the nett effect on the roof is that due to the suction on the upper surface less the weight of the panel. For flush mounted panels the wind action on the upper surface is equivalent to that on the original roof surface hence there is no additional wind uplift on the roof.

The adequacy of the roof will be proven by comparing the loads for which the purlins would have been designed with the loads for which they will be subjected.

The assessment will be in accordance with:

AS1170.0	Structural design actions - General principles
AS1170.1	Structural design actions - Dead and imposed actions
AS1170.2	Structural design actions - Wind actions

REFERENCE DOCUMENTS

Westside - Base 10 Youth Center, General Arrangement

Clenergy installation manual

Longi Solar 370W panel data sheet

PANEL SYSTEM

Panel dimensions	Length	$p_l := 1755 \text{ mm}$
	Width	$p_w := 1038 \text{ mm}$

Loading from pv-system

Weight of panel	$G_{panel} := 19.5 \text{ kg} \cdot g = 191 \text{ N}$
Weight of frame	$G_{frame} := 3 \text{ kg} \cdot g = 29 \text{ N}$
Dead load of pv-system	$g_{pv} := \frac{(G_{panel} + G_{frame})}{p_l \cdot p_w} = 121 \text{ Pa}$

LOADINGS

Dead loads

Roof sheeting	$g_1 := 4.7 \text{ kg} \cdot m^{-2}$
Purlins	$g_2 := 4.5 \text{ kg} \cdot m^{-2}$
Ceiling and services - allow	$g_3 := 10 \text{ kg} \cdot m^{-2}$
Roof dead load	$g_{kr} := (g_1 + g_2 + g_3) \cdot g = 0.188 \text{ kPa}$

Imposed load

General load

$$q_{kr} := 0.25 \text{ kPa}$$

Wind loads

A wind analysis has been undertaken using CheckWind software

CHECKWIND v5.3.2 AS/NZS 1170 SITE REPORT

rev0

STRUCTURE:	BUILDING	LATITUDE:	-35.103959	CRITICAL DIRECTION:	North West
ORIENTATION:	22.5°	LONGITUDE:	138.528945	Md:	0.95
WIDTH:	9.25 m	ELEVATION:	94.00 m	TC:	3.00
LENGTH:	30.90 m	WIND REGION:	A1	Mz,cat:	0.8300
HEIGHT (h):	3.50 m	ULTIMATE ARI:	500 YEARS	Ms:	1.0
BASE RL:	0.00 m	ULTIMATE VR:	45 m/s	Mh:	1.0
				Mlee:	1.0
				Me1:	1.0
				Mt:	1.0
				Vdes,θ:	35.48 m/s
				qdes,θ:	0.76 kPa

$$q_{sit} := 0.76 \text{ kPa}$$



Existing purlins

Pitch of roof $\phi := 10 \text{ deg}$

Purlin spacing $s_p := 1.20 \text{ m}$

Additional dead loads from pv-panels

Original design load on purlins $E_{d.ex} := \left(\frac{1.2 \cdot g_{kr}}{\cos(\alpha)} + q_{kr} \right) \cdot s_p = 0.571 \text{ kN} \cdot \text{m}^{-1}$

General load case $E_{d.1} := \frac{1.35 \cdot (g_{kr} + g_{pv})}{\cos(\alpha)} \cdot s_p = 0.501 \text{ kN} \cdot \text{m}^{-1}$

CHECK $\frac{E_{d.1}}{E_{d.ex}} = 0.878 < 1 \text{ :: OK}$

Existing purlins OK for additional dead loads from pv panels

Fixings

For Buildex 14-11 hex head zips in 1.2 mm thick G450 purlins

Pull out capacity $N_{fix.a} := -3.87 \text{ kN}$

Capacity reduction factor $\phi := 0.7$

Aerodynamic shape factor $C_{fig} := -1.7$

Design wind pressure $p := q_{sit} \cdot C_{fig} = -1292 \text{ Pa}$

Load on panels $W := p + g_{pv} = -1171 \text{ Pa}$

For panels supported by 2 rails,
load per fixing $F_{fix} := W \cdot \frac{p_l}{2} \cdot s_p = -1.233 \text{ kN}$

CHECK $\frac{F_{fix}}{\phi \cdot N_{fix.a}} = 0.455 < 1 \text{ :: OK}$

USE 2 RAILS PER PANEL AND BUILDEX 14-11 HEX HEAD ZIPS

TITLE: Base 10 Wind Analysis
PROJECT: Base 10 Youth Center
CODE: 21042-2

Lovell Structural Engineering
Consultancy
Monday, 22 March 2021 15:55:43

----- STRUCTURE DATA -----

TYPE: BUILDING
ORIENTATION: 22.5°
ROOF: MONOSLOPE
WIDTH: 9.25 m
LENGTH: 30.90 m
ROOF SLOPE (α): 10.0°
HEIGHT (h): 3.50 m
BASE RL: 0.00 m

----- SITE DATA -----

LOCATION

LATITUDE: -35.103959
LONGITUDE: 138.528945
ELEVATION: 94.00 m

DESIGN

REFERENCE: AS/NZS 1170
IMPORTANCE LEVEL: 2
LIFE: 50 YEARS

WIND

REGION: A1
ULTIMATE ARI: 500 YEARS

REGIONAL WIND SPEED (VR)

- Calculated as per AS/NZS 1170.2 Section 3.2.

ULTIMATE: 45 m/s
ICE: 34 m/s
SERVICEABILITY: 37 m/s

DIRECTION MULTIPLIER (Md)

- Calculated for Region A1 as per AS/NZS 1170.2 Section 3.3.

WIND Md

N	0.90
NE	0.80
E	0.80
SE	0.80
S	0.85
SW	0.95
W	1.00
NW	0.95

TERRAIN/HEIGHT MULTIPLIER (Mz,cat)

- Calculated using averaging as per AS/NZS 1170.2 Section 4.2.3 and varies with height.

NORTH WIND: Mz,cat = 0.8300 (TC 3.00)

ZONE 1: TC 3 to 570.00 m

NORTH EAST WIND: Mz,cat = 0.8335 (TC 2.96)

ZONE 1: TC 2.5 to 114.00 m

ZONE 2: TC 3 to 570.00 m

EAST WIND: Mz,cat = 0.8300 (TC 3.00)

ZONE 1: TC 3 to 570.00 m

SOUTH EAST WIND: Mz,cat = 0.8300 (TC 3.00)

ZONE 1: TC 3 to 570.00 m

SOUTH WIND: Mz,cat = 0.8335 (TC 2.96)

ZONE 1: TC 2.5 to 114.00 m

ZONE 2: TC 3 to 570.00 m

SOUTH WEST WIND: Mz,cat = 0.8300 (TC 3.00)

ZONE 1: TC 3 to 570.00 m

WEST WIND: Mz,cat = 0.8300 (TC 3.00)

ZONE 1: TC 3 to 570.00 m

NORTH WEST WIND: Mz,cat = 0.8300 (TC 3.00)

ZONE 1: TC 3 to 570.00 m

SHIELDING MULTIPLIER (Ms)

- Calculated as per AS/NZS 1170.2 Section 4.3 and varies with height.

NORTH WIND: Ms = 1.0

NORTH EAST WIND: Ms = 1.0

EAST WIND: Ms = 1.0

SOUTH EAST WIND: Ms = 1.0

SOUTH WIND: Ms = 1.0

SOUTH WEST WIND: Ms = 0.7848

ID	HEIGHT	ELEVATION	SLOPE	AREA	BREADTH	LATITUDE	LONGITUDE
001	6.00 m	94.50 m	0.0279	255 m ²	15.73 m	-35.104048	138.528781
002	8.00 m	94.50 m	0.0103	970 m ²	29.81 m	-35.104258	138.528556

WEST WIND: Ms = 0.8856

ID	HEIGHT	ELEVATION	SLOPE	AREA	BREADTH	LATITUDE	LONGITUDE
001	6.00 m	94.50 m	0.0279	255 m ²	14.82 m	-35.104048	138.528781

NORTH WEST WIND: Ms = 1.0

ID	HEIGHT	ELEVATION	SLOPE	AREA	BREADTH	LATITUDE	LONGITUDE
001	6.00 m	94.50 m	0.0279	255 m ²	1.87 m	-35.104048	138.528781

TOPOGRAPHIC MULTIPLIER (Mt)

- Calculated as per AS/NZS 1170.2 Section 4.4 and varies with height.
- Water Surface has been defined @ RL 0.00 m.

WIND	CRITICAL	TOPOGRAPHY	H	Lu	x	Mh	Mt
N	NNE	Flat	20.00 m	280.00 m	1160.00 m	1.0	1.0
NE	ENE	Flat	21.50 m	265.00 m	1560.00 m	1.0	1.0
E	ESE	Ridge	39.00 m	145.00 m	-2440.00 m	1.0	1.0
SE	ESE	Ridge	39.00 m	145.00 m	-2440.00 m	1.0	1.0
S	SSE	Ridge	20.00 m	88.57 m	-1180.00 m	1.0	1.0
SW	SSW	Escarpment	17.00 m	130.00 m	-720.00 m	1.0	1.0
W	WSW	Escarpment	16.50 m	156.67 m	-2440.00 m	1.0	1.0
NW	WNW	Ridge	72.00 m	476.67 m	-3520.00 m	1.0	1.0

----- ANALYSIS -----

LOAD CASE 01: Ultimate Wind

NORTH WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.90	0.8300	0	-	-	1.0	1.0	33.62 m/s	0.6782 kPa
3.15 m	0.90	0.8300	0	-	-	1.0	1.0	33.62 m/s	0.6782 kPa
2.80 m	0.90	0.8300	0	-	-	1.0	1.0	33.62 m/s	0.6782 kPa
2.45 m	0.90	0.8300	0	-	-	1.0	1.0	33.62 m/s	0.6782 kPa
2.10 m	0.90	0.8300	0	-	-	1.0	1.0	33.62 m/s	0.6782 kPa
1.75 m	0.90	0.8300	0	-	-	1.0	1.0	33.62 m/s	0.6782 kPa
1.40 m	0.90	0.8300	0	-	-	1.0	1.0	33.62 m/s	0.6782 kPa
1.05 m	0.90	0.8300	0	-	-	1.0	1.0	33.62 m/s	0.6782 kPa
0.70 m	0.90	0.8300	0	-	-	1.0	1.0	33.62 m/s	0.6782 kPa
0.35 m	0.90	0.8300	0	-	-	1.0	1.0	33.62 m/s	0.6782 kPa
0.00 m	0.90	0.8300	0	-	-	1.0	1.0	33.62 m/s	0.6782 kPa

NORTH EAST WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.80	0.8335	0	-	-	1.0	1.0	30.01 m/s	0.5404 kPa
3.15 m	0.80	0.8340	0	-	-	1.0	1.0	30.02 m/s	0.5407 kPa
2.80 m	0.80	0.8345	0	-	-	1.0	1.0	30.04 m/s	0.5414 kPa
2.45 m	0.80	0.8350	0	-	-	1.0	1.0	30.06 m/s	0.5422 kPa
2.10 m	0.80	0.8355	0	-	-	1.0	1.0	30.08 m/s	0.5429 kPa
1.75 m	0.80	0.8359	0	-	-	1.0	1.0	30.09 m/s	0.5432 kPa
1.40 m	0.80	0.8363	0	-	-	1.0	1.0	30.11 m/s	0.5440 kPa
1.05 m	0.80	0.8368	0	-	-	1.0	1.0	30.12 m/s	0.5443 kPa
0.70 m	0.80	0.8372	0	-	-	1.0	1.0	30.14 m/s	0.5451 kPa
0.35 m	0.80	0.8376	0	-	-	1.0	1.0	30.15 m/s	0.5454 kPa
0.00 m	0.80	0.8380	0	-	-	1.0	1.0	30.17 m/s	0.5461 kPa

EAST WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
3.15 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
2.80 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
2.45 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
2.10 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
1.75 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
1.40 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
1.05 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
0.70 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
0.35 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
0.00 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa

SOUTH EAST WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
3.15 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
2.80 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
2.45 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
2.10 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
1.75 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
1.40 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
1.05 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
0.70 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
0.35 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa
0.00 m	0.80	0.8300	0	-	-	1.0	1.0	30.00 m/s	0.5400 kPa

SOUTH WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.85	0.8335	0	-	-	1.0	1.0	31.88 m/s	0.6098 kPa
3.15 m	0.85	0.8340	0	-	-	1.0	1.0	31.90 m/s	0.6106 kPa

2.80 m	0.85	0.8345	0	-	-	1.0	1.0	31.92 m/s	0.6113 kPa
2.45 m	0.85	0.8350	0	-	-	1.0	1.0	31.94 m/s	0.6121 kPa
2.10 m	0.85	0.8355	0	-	-	1.0	1.0	31.96 m/s	0.6129 kPa
1.75 m	0.85	0.8359	0	-	-	1.0	1.0	31.97 m/s	0.6132 kPa
1.40 m	0.85	0.8363	0	-	-	1.0	1.0	31.99 m/s	0.6140 kPa
1.05 m	0.85	0.8368	0	-	-	1.0	1.0	32.01 m/s	0.6148 kPa
0.70 m	0.85	0.8372	0	-	-	1.0	1.0	32.02 m/s	0.6152 kPa
0.35 m	0.85	0.8376	0	-	-	1.0	1.0	32.04 m/s	0.6159 kPa
0.00 m	0.85	0.8380	0	-	-	1.0	1.0	32.05 m/s	0.6163 kPa

SOUTH WEST WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	30.00 m/s	0.5400 kPa
3.15 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	30.00 m/s	0.5400 kPa
2.80 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	30.00 m/s	0.5400 kPa
2.45 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	30.00 m/s	0.5400 kPa
2.10 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	30.00 m/s	0.5400 kPa
1.75 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	30.00 m/s	0.5400 kPa
1.40 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	30.00 m/s	0.5400 kPa
1.05 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	30.00 m/s	0.5400 kPa
0.70 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	30.00 m/s	0.5400 kPa
0.35 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	30.00 m/s	0.5400 kPa
0.00 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	30.00 m/s	0.5400 kPa

WEST WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	33.08 m/s	0.6566 kPa
3.15 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	33.08 m/s	0.6566 kPa
2.80 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	33.08 m/s	0.6566 kPa
2.45 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	33.08 m/s	0.6566 kPa
2.10 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	33.08 m/s	0.6566 kPa
1.75 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	33.08 m/s	0.6566 kPa
1.40 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	33.08 m/s	0.6566 kPa
1.05 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	33.08 m/s	0.6566 kPa
0.70 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	33.08 m/s	0.6566 kPa
0.35 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	33.08 m/s	0.6566 kPa
0.00 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	33.08 m/s	0.6566 kPa

NORTH WEST WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	35.48 m/s	0.7553 kPa
3.15 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	35.48 m/s	0.7553 kPa
2.80 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	35.48 m/s	0.7553 kPa
2.45 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	35.48 m/s	0.7553 kPa
2.10 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	35.48 m/s	0.7553 kPa
1.75 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	35.48 m/s	0.7553 kPa
1.40 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	35.48 m/s	0.7553 kPa
1.05 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	35.48 m/s	0.7553 kPa
0.70 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	35.48 m/s	0.7553 kPa
0.35 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	35.48 m/s	0.7553 kPa
0.00 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	35.48 m/s	0.7553 kPa

LOAD CASE 02: Serviceability Wind

NORTH WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.90	0.8300	0	-	-	1.0	1.0	27.64 m/s	0.4584 kPa
3.15 m	0.90	0.8300	0	-	-	1.0	1.0	27.64 m/s	0.4584 kPa
2.80 m	0.90	0.8300	0	-	-	1.0	1.0	27.64 m/s	0.4584 kPa
2.45 m	0.90	0.8300	0	-	-	1.0	1.0	27.64 m/s	0.4584 kPa
2.10 m	0.90	0.8300	0	-	-	1.0	1.0	27.64 m/s	0.4584 kPa
1.75 m	0.90	0.8300	0	-	-	1.0	1.0	27.64 m/s	0.4584 kPa
1.40 m	0.90	0.8300	0	-	-	1.0	1.0	27.64 m/s	0.4584 kPa
1.05 m	0.90	0.8300	0	-	-	1.0	1.0	27.64 m/s	0.4584 kPa
0.70 m	0.90	0.8300	0	-	-	1.0	1.0	27.64 m/s	0.4584 kPa
0.35 m	0.90	0.8300	0	-	-	1.0	1.0	27.64 m/s	0.4584 kPa
0.00 m	0.90	0.8300	0	-	-	1.0	1.0	27.64 m/s	0.4584 kPa

NORTH EAST WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.80	0.8335	0	-	-	1.0	1.0	24.67 m/s	0.3652 kPa
3.15 m	0.80	0.8340	0	-	-	1.0	1.0	24.69 m/s	0.3658 kPa
2.80 m	0.80	0.8345	0	-	-	1.0	1.0	24.70 m/s	0.3661 kPa
2.45 m	0.80	0.8350	0	-	-	1.0	1.0	24.72 m/s	0.3666 kPa
2.10 m	0.80	0.8355	0	-	-	1.0	1.0	24.73 m/s	0.3669 kPa
1.75 m	0.80	0.8359	0	-	-	1.0	1.0	24.74 m/s	0.3672 kPa
1.40 m	0.80	0.8363	0	-	-	1.0	1.0	24.75 m/s	0.3675 kPa
1.05 m	0.80	0.8368	0	-	-	1.0	1.0	24.77 m/s	0.3681 kPa
0.70 m	0.80	0.8372	0	-	-	1.0	1.0	24.78 m/s	0.3684 kPa
0.35 m	0.80	0.8376	0	-	-	1.0	1.0	24.79 m/s	0.3687 kPa
0.00 m	0.80	0.8380	0	-	-	1.0	1.0	24.80 m/s	0.3690 kPa

EAST WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
3.15 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
2.80 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
2.45 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
2.10 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
1.75 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
1.40 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
1.05 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
0.70 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
0.35 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
0.00 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa

SOUTH EAST WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
3.15 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
2.80 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
2.45 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
2.10 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
1.75 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
1.40 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
1.05 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
0.70 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
0.35 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa
0.00 m	0.80	0.8300	0	-	-	1.0	1.0	24.57 m/s	0.3622 kPa

SOUTH WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.85	0.8335	0	-	-	1.0	1.0	26.21 m/s	0.4122 kPa
3.15 m	0.85	0.8340	0	-	-	1.0	1.0	26.23 m/s	0.4128 kPa
2.80 m	0.85	0.8345	0	-	-	1.0	1.0	26.25 m/s	0.4134 kPa
2.45 m	0.85	0.8350	0	-	-	1.0	1.0	26.26 m/s	0.4138 kPa
2.10 m	0.85	0.8355	0	-	-	1.0	1.0	26.28 m/s	0.4144 kPa
1.75 m	0.85	0.8359	0	-	-	1.0	1.0	26.29 m/s	0.4147 kPa
1.40 m	0.85	0.8363	0	-	-	1.0	1.0	26.30 m/s	0.4150 kPa
1.05 m	0.85	0.8368	0	-	-	1.0	1.0	26.32 m/s	0.4156 kPa
0.70 m	0.85	0.8372	0	-	-	1.0	1.0	26.33 m/s	0.4160 kPa
0.35 m	0.85	0.8376	0	-	-	1.0	1.0	26.34 m/s	0.4163 kPa
0.00 m	0.85	0.8380	0	-	-	1.0	1.0	26.36 m/s	0.4169 kPa

SOUTH WEST WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	22.90 m/s	0.3146 kPa
3.15 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	22.90 m/s	0.3146 kPa
2.80 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	22.90 m/s	0.3146 kPa
2.45 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	22.90 m/s	0.3146 kPa
2.10 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	22.90 m/s	0.3146 kPa
1.75 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	22.90 m/s	0.3146 kPa
1.40 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	22.90 m/s	0.3146 kPa
1.05 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	22.90 m/s	0.3146 kPa
0.70 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	22.90 m/s	0.3146 kPa
0.35 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	22.90 m/s	0.3146 kPa
0.00 m	0.95	0.8300	2	7.00 m	22.77 m	0.7848	1.0	22.90 m/s	0.3146 kPa

WEST WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	27.20 m/s	0.4439 kPa
3.15 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	27.20 m/s	0.4439 kPa
2.80 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	27.20 m/s	0.4439 kPa
2.45 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	27.20 m/s	0.4439 kPa
2.10 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	27.20 m/s	0.4439 kPa
1.75 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	27.20 m/s	0.4439 kPa
1.40 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	27.20 m/s	0.4439 kPa
1.05 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	27.20 m/s	0.4439 kPa
0.70 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	27.20 m/s	0.4439 kPa
0.35 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	27.20 m/s	0.4439 kPa
0.00 m	1.00	0.8300	1	6.00 m	14.82 m	0.8856	1.0	27.20 m/s	0.4439 kPa

NORTH WEST WIND

RL	Md	Mz,cat	ns	hs	bs	Ms	Mt	Vsit,β	qz
3.50 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	29.17 m/s	0.5105 kPa
3.15 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	29.17 m/s	0.5105 kPa
2.80 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	29.17 m/s	0.5105 kPa
2.45 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	29.17 m/s	0.5105 kPa
2.10 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	29.17 m/s	0.5105 kPa
1.75 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	29.17 m/s	0.5105 kPa
1.40 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	29.17 m/s	0.5105 kPa
1.05 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	29.17 m/s	0.5105 kPa
0.70 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	29.17 m/s	0.5105 kPa
0.35 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	29.17 m/s	0.5105 kPa
0.00 m	0.95	0.8300	1	6.00 m	1.87 m	1.0	1.0	29.17 m/s	0.5105 kPa

----- EXTERNAL PRESSURES -----

LOAD CASE 01: Ultimate Wind

NORTH NORTH EAST FACE

WALLS

SURFACE	DISTANCE FROM EDGE	Ka	Cp,e	pe	pnet
Windward	All	1.0	0.7	0.50 kPa	0.50 kPa / 0.50 kPa
Leeward	All	1.0	-0.3	-0.21 kPa	-0.21 kPa / -0.21 kPa
Side	0.00 m to 3.50 m	1.0	-0.65	-0.47 kPa	-0.47 kPa / -0.47 kPa
	3.50 m to 7.00 m	1.0	-0.5	-0.36 kPa	-0.36 kPa / -0.36 kPa
	7.00 m to 10.50 m	1.0	-0.3	-0.21 kPa	-0.21 kPa / -0.21 kPa
	10.50 m to 30.90 m	1.0	-0.2	-0.14 kPa	-0.14 kPa / -0.14 kPa

ROOF

SURFACE	DISTANCE FROM EDGE	Ka	Cp,e	pe	pnet
Crosswind Slope	0.00 m to 3.50 m	1.0	-0.9000 / -0.4000	-0.64 kPa / -0.29 kPa	-0.64 kPa / -0.29 kPa
	3.50 m to 7.00 m	1.0	-0.5000 / 0.0000	-0.36 kPa / 0.00 kPa	-0.36 kPa / 0.00 kPa
	7.00 m to 10.50 m	1.0	-0.3000 / 0.1000	-0.21 kPa / 0.07 kPa	-0.21 kPa / 0.07 kPa
	10.50 m to 30.90 m	1.0	-0.2000 / 0.2000	-0.14 kPa / 0.14 kPa	-0.14 kPa / 0.14 kPa
Upwind Slope	All	1.0	-0.7000 / -0.3000	-0.50 kPa / -0.21 kPa	-0.50 kPa / -0.21 kPa

Downwind Slope	All	1.0		-0.3000	-0.21 kPa	-0.21 kPa
EAST SOUTH EAST FACE						
WALLS						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Windward	All	1.0		0.7	0.40 kPa	0.40 kPa / 0.40 kPa
Leeward	All	1.0		-0.3	-0.17 kPa	-0.17 kPa / -0.17 kPa
Side	0.00 m to 3.50 m	1.0		-0.65	-0.37 kPa	-0.37 kPa / -0.37 kPa
	3.50 m to 7.00 m	1.0		-0.5	-0.29 kPa	-0.29 kPa / -0.29 kPa
	7.00 m to 9.25 m	1.0		-0.3	-0.17 kPa	-0.17 kPa / -0.17 kPa
ROOF						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Crosswind Slope	0.00 m to 3.50 m	1.0		-0.9000 / -0.4000	-0.51 kPa / -0.23 kPa	-0.51 kPa / -0.23 kPa
	3.50 m to 7.00 m	1.0		-0.5000 / 0.0000	-0.29 kPa / 0.00 kPa	-0.29 kPa / 0.00 kPa
	7.00 m to 9.25 m	1.0		-0.3000 / 0.1000	-0.17 kPa / 0.06 kPa	-0.17 kPa / 0.06 kPa
Upwind Slope	All	1.0		-0.8027 / -0.3514	-0.46 kPa / -0.20 kPa	-0.46 kPa / -0.20 kPa
Downwind Slope	All	1.0		-0.4027	-0.23 kPa	-0.23 kPa
SOUTH SOUTH WEST FACE						
WALLS						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Windward	All	1.0		0.7	0.43 kPa	0.43 kPa / 0.43 kPa
Leeward	All	1.0		-0.3	-0.18 kPa	-0.18 kPa / -0.18 kPa
Side	0.00 m to 3.50 m	1.0		-0.65	-0.40 kPa	-0.40 kPa / -0.40 kPa
	3.50 m to 7.00 m	1.0		-0.5	-0.30 kPa	-0.30 kPa / -0.30 kPa
	7.00 m to 10.50 m	1.0		-0.3	-0.18 kPa	-0.18 kPa / -0.18 kPa
	10.50 m to 30.90 m	1.0		-0.2	-0.12 kPa	-0.12 kPa / -0.12 kPa
ROOF						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Crosswind Slope	0.00 m to 3.50 m	1.0		-0.9000 / -0.4000	-0.55 kPa / -0.24 kPa	-0.55 kPa / -0.24 kPa
	3.50 m to 7.00 m	1.0		-0.5000 / 0.0000	-0.30 kPa / 0.00 kPa	-0.30 kPa / 0.00 kPa
	7.00 m to 10.50 m	1.0		-0.3000 / 0.1000	-0.18 kPa / 0.06 kPa	-0.18 kPa / 0.06 kPa
	10.50 m to 30.90 m	1.0		-0.2000 / 0.2000	-0.12 kPa / 0.12 kPa	-0.12 kPa / 0.12 kPa
Upwind Slope	All	1.0		-0.7000 / -0.3000	-0.43 kPa / -0.18 kPa	-0.43 kPa / -0.18 kPa
Downwind Slope	All	1.0		-0.3000	-0.18 kPa	-0.18 kPa
WEST NORTH WEST FACE						
WALLS						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Windward	All	1.0		0.7	0.53 kPa	0.53 kPa / 0.53 kPa
Leeward	All	1.0		-0.3	-0.23 kPa	-0.23 kPa / -0.23 kPa
Side	0.00 m to 3.50 m	1.0		-0.65	-0.49 kPa	-0.49 kPa / -0.49 kPa
	3.50 m to 7.00 m	1.0		-0.5	-0.38 kPa	-0.38 kPa / -0.38 kPa
	7.00 m to 9.25 m	1.0		-0.3	-0.23 kPa	-0.23 kPa / -0.23 kPa
ROOF						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Crosswind Slope	0.00 m to 3.50 m	1.0		-0.9000 / -0.4000	-0.68 kPa / -0.30 kPa	-0.68 kPa / -0.30 kPa
	3.50 m to 7.00 m	1.0		-0.5000 / 0.0000	-0.38 kPa / 0.00 kPa	-0.38 kPa / 0.00 kPa
	7.00 m to 9.25 m	1.0		-0.3000 / 0.1000	-0.23 kPa / 0.08 kPa	-0.23 kPa / 0.08 kPa
Upwind Slope	All	1.0		-0.8027 / -0.3514	-0.61 kPa / -0.27 kPa	-0.61 kPa / -0.27 kPa
Downwind Slope	All	1.0		-0.4027	-0.30 kPa	-0.30 kPa
LOAD CASE 02: Serviceability Wind						
NORTH NORTH EAST FACE						
WALLS						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Windward	All	1.0		0.7	0.34 kPa	0.34 kPa / 0.34 kPa
Leeward	All	1.0		-0.3	-0.15 kPa	-0.15 kPa / -0.15 kPa
Side	0.00 m to 3.50 m	1.0		-0.65	-0.31 kPa	-0.31 kPa / -0.31 kPa
	3.50 m to 7.00 m	1.0		-0.5	-0.24 kPa	-0.24 kPa / -0.24 kPa
	7.00 m to 10.50 m	1.0		-0.3	-0.15 kPa	-0.15 kPa / -0.15 kPa
	10.50 m to 30.90 m	1.0		-0.2	-0.10 kPa	-0.10 kPa / -0.10 kPa
ROOF						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Crosswind Slope	0.00 m to 3.50 m	1.0		-0.9000 / -0.4000	-0.44 kPa / -0.19 kPa	-0.44 kPa / -0.19 kPa
	3.50 m to 7.00 m	1.0		-0.5000 / 0.0000	-0.24 kPa / 0.00 kPa	-0.24 kPa / 0.00 kPa
	7.00 m to 10.50 m	1.0		-0.3000 / 0.1000	-0.15 kPa / 0.05 kPa	-0.15 kPa / 0.05 kPa
	10.50 m to 30.90 m	1.0		-0.2000 / 0.2000	-0.10 kPa / 0.10 kPa	-0.10 kPa / 0.10 kPa
Upwind Slope	All	1.0		-0.7000 / -0.3000	-0.34 kPa / -0.15 kPa	-0.34 kPa / -0.15 kPa

Downwind Slope	All	1.0		-0.3000	-0.15 kPa	-0.15 kPa
EAST SOUTH EAST FACE						
WALLS						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Windward	All	1.0		0.7	0.27 kPa	0.27 kPa / 0.27 kPa
Leeward	All	1.0		-0.3	-0.12 kPa	-0.12 kPa / -0.12 kPa
Side	0.00 m to 3.50 m	1.0		-0.65	-0.25 kPa	-0.25 kPa / -0.25 kPa
	3.50 m to 7.00 m	1.0		-0.5	-0.19 kPa	-0.19 kPa / -0.19 kPa
	7.00 m to 9.25 m	1.0		-0.3	-0.12 kPa	-0.12 kPa / -0.12 kPa
ROOF						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Crosswind Slope	0.00 m to 3.50 m	1.0		-0.9000 / -0.4000	-0.35 kPa / -0.15 kPa	-0.35 kPa / -0.15 kPa
	3.50 m to 7.00 m	1.0		-0.5000 / 0.0000	-0.19 kPa / 0.00 kPa	-0.19 kPa / 0.00 kPa
	7.00 m to 9.25 m	1.0		-0.3000 / 0.1000	-0.12 kPa / 0.04 kPa	-0.12 kPa / 0.04 kPa
Upwind Slope	All	1.0		-0.8027 / -0.3514	-0.31 kPa / -0.14 kPa	-0.31 kPa / -0.14 kPa
Downwind Slope	All	1.0		-0.4027	-0.16 kPa	-0.16 kPa
SOUTH SOUTH WEST FACE						
WALLS						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Windward	All	1.0		0.7	0.29 kPa	0.29 kPa / 0.29 kPa
Leeward	All	1.0		-0.3	-0.12 kPa	-0.12 kPa / -0.12 kPa
Side	0.00 m to 3.50 m	1.0		-0.65	-0.27 kPa	-0.27 kPa / -0.27 kPa
	3.50 m to 7.00 m	1.0		-0.5	-0.21 kPa	-0.21 kPa / -0.21 kPa
	7.00 m to 10.50 m	1.0		-0.3	-0.12 kPa	-0.12 kPa / -0.12 kPa
	10.50 m to 30.90 m	1.0		-0.2	-0.08 kPa	-0.08 kPa / -0.08 kPa
ROOF						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Crosswind Slope	0.00 m to 3.50 m	1.0		-0.9000 / -0.4000	-0.37 kPa / -0.16 kPa	-0.37 kPa / -0.16 kPa
	3.50 m to 7.00 m	1.0		-0.5000 / 0.0000	-0.21 kPa / 0.00 kPa	-0.21 kPa / 0.00 kPa
	7.00 m to 10.50 m	1.0		-0.3000 / 0.1000	-0.12 kPa / 0.04 kPa	-0.12 kPa / 0.04 kPa
	10.50 m to 30.90 m	1.0		-0.2000 / 0.2000	-0.08 kPa / 0.08 kPa	-0.08 kPa / 0.08 kPa
Upwind Slope	All	1.0		-0.7000 / -0.3000	-0.29 kPa / -0.12 kPa	-0.29 kPa / -0.12 kPa
Downwind Slope	All	1.0		-0.3000	-0.12 kPa	-0.12 kPa
WEST NORTH WEST FACE						
WALLS						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Windward	All	1.0		0.7	0.36 kPa	0.36 kPa / 0.36 kPa
Leeward	All	1.0		-0.3	-0.15 kPa	-0.15 kPa / -0.15 kPa
Side	0.00 m to 3.50 m	1.0		-0.65	-0.33 kPa	-0.33 kPa / -0.33 kPa
	3.50 m to 7.00 m	1.0		-0.5	-0.26 kPa	-0.26 kPa / -0.26 kPa
	7.00 m to 9.25 m	1.0		-0.3	-0.15 kPa	-0.15 kPa / -0.15 kPa
ROOF						
SURFACE	DISTANCE FROM EDGE	Ka		Cp,e	pe	pnet
Crosswind Slope	0.00 m to 3.50 m	1.0		-0.9000 / -0.4000	-0.46 kPa / -0.20 kPa	-0.46 kPa / -0.20 kPa
	3.50 m to 7.00 m	1.0		-0.5000 / 0.0000	-0.26 kPa / 0.00 kPa	-0.26 kPa / 0.00 kPa
	7.00 m to 9.25 m	1.0		-0.3000 / 0.1000	-0.15 kPa / 0.05 kPa	-0.15 kPa / 0.05 kPa
Upwind Slope	All	1.0		-0.8027 / -0.3514	-0.41 kPa / -0.18 kPa	-0.41 kPa / -0.18 kPa
Downwind Slope	All	1.0		-0.4027	-0.21 kPa	-0.21 kPa

----- LOCAL PRESSURES -----

LOAD CASE 01: Ultimate Wind

NORTH NORTH EAST FACE								
WALLS								
SURFACE	DISTANCE FROM EDGE	REF	AREA		K1	Cfig,e	pe	pnet
Windward	All	WA1	0.86 m ²		1.5	1.0500	0.75 kPa	0.75 kPa
Side	0.00 m to 1.85 m	SA1	3.42 m ²		1.5	-0.9750	-0.70 kPa	-0.70 kPa
	0.00 m to 0.93 m	SA2	0.86 m ²		2.0	-1.3000	-0.93 kPa	-0.93 kPa
ROOF								
SURFACE	DISTANCE FROM EDGE	REF	AREA	Kr	K1	Cfig,e	pe	pnet
Upwind Edges	0.00 m to 1.85 m	RA1	3.42 m ²	1.0	1.5	-1.3500	-0.97 kPa	-0.97 kPa
	0.00 m to 0.93 m	RA2	0.86 m ²	1.0	2.0	-1.8000	-1.29 kPa	-1.29 kPa
EAST SOUTH EAST FACE								
WALLS								

SURFACE	DISTANCE FROM EDGE	REF	AREA		K1	Cfig,e	pe	pnet
Windward	All	WA1	0.86 m ²		1.5	1.0500	0.60 kPa	0.60 kPa
Side	0.00 m to 1.85 m 0.00 m to 0.93 m	SA1	3.42 m ²		1.5	-0.9750	-0.56 kPa	-0.56 kPa
		SA2	0.86 m ²		2.0	-1.3000	-0.74 kPa	-0.74 kPa
ROOF								
SURFACE	DISTANCE FROM EDGE	REF	AREA	Kr	K1	Cfig,e	pe	pnet
Upwind Edges	0.00 m to 1.85 m 0.00 m to 0.93 m	RA1	3.42 m ²	1.0	1.5	-1.3500	-0.77 kPa	-0.77 kPa
		RA2	0.86 m ²	1.0	2.0	-1.8000	-1.03 kPa	-1.03 kPa
SOUTH SOUTH WEST FACE								
WALLS								
SURFACE	DISTANCE FROM EDGE	REF	AREA		K1	Cfig,e	pe	pnet
Windward	All	WA1	0.86 m ²		1.5	1.0500	0.64 kPa	0.64 kPa
Side	0.00 m to 1.85 m 0.00 m to 0.93 m	SA1	3.42 m ²		1.5	-0.9750	-0.59 kPa	-0.59 kPa
		SA2	0.86 m ²		2.0	-1.3000	-0.79 kPa	-0.79 kPa
ROOF								
SURFACE	DISTANCE FROM EDGE	REF	AREA	Kr	K1	Cfig,e	pe	pnet
Upwind Edges	0.00 m to 1.85 m 0.00 m to 0.93 m	RA1	3.42 m ²	1.0	1.5	-1.3500	-0.82 kPa	-0.82 kPa
		RA2	0.86 m ²	1.0	2.0	-1.8000	-1.10 kPa	-1.10 kPa
WEST NORTH WEST FACE								
WALLS								
SURFACE	DISTANCE FROM EDGE	REF	AREA		K1	Cfig,e	pe	pnet
Windward	All	WA1	0.86 m ²		1.5	1.0500	0.79 kPa	0.79 kPa
Side	0.00 m to 1.85 m 0.00 m to 0.93 m	SA1	3.42 m ²		1.5	-0.9750	-0.74 kPa	-0.74 kPa
		SA2	0.86 m ²		2.0	-1.3000	-0.98 kPa	-0.98 kPa
ROOF								
SURFACE	DISTANCE FROM EDGE	REF	AREA	Kr	K1	Cfig,e	pe	pnet
Upwind Edges	0.00 m to 1.85 m 0.00 m to 0.93 m	RA1	3.42 m ²	1.0	1.5	-1.3500	-1.02 kPa	-1.02 kPa
		RA2	0.86 m ²	1.0	2.0	-1.8000	-1.36 kPa	-1.36 kPa
LOAD CASE 02: Serviceability Wind								
NORTH NORTH EAST FACE								
WALLS								
SURFACE	DISTANCE FROM EDGE	REF	AREA		K1	Cfig,e	pe	pnet
Windward	All	WA1	0.86 m ²		1.5	1.0500	0.51 kPa	0.51 kPa
Side	0.00 m to 1.85 m 0.00 m to 0.93 m	SA1	3.42 m ²		1.5	-0.9750	-0.47 kPa	-0.47 kPa
		SA2	0.86 m ²		2.0	-1.3000	-0.63 kPa	-0.63 kPa
ROOF								
SURFACE	DISTANCE FROM EDGE	REF	AREA	Kr	K1	Cfig,e	pe	pnet
Upwind Edges	0.00 m to 1.85 m 0.00 m to 0.93 m	RA1	3.42 m ²	1.0	1.5	-1.3500	-0.65 kPa	-0.65 kPa
		RA2	0.86 m ²	1.0	2.0	-1.8000	-0.87 kPa	-0.87 kPa
EAST SOUTH EAST FACE								
WALLS								
SURFACE	DISTANCE FROM EDGE	REF	AREA		K1	Cfig,e	pe	pnet
Windward	All	WA1	0.86 m ²		1.5	1.0500	0.41 kPa	0.41 kPa
Side	0.00 m to 1.85 m 0.00 m to 0.93 m	SA1	3.42 m ²		1.5	-0.9750	-0.38 kPa	-0.38 kPa
		SA2	0.86 m ²		2.0	-1.3000	-0.50 kPa	-0.50 kPa
ROOF								
SURFACE	DISTANCE FROM EDGE	REF	AREA	Kr	K1	Cfig,e	pe	pnet
Upwind Edges	0.00 m to 1.85 m 0.00 m to 0.93 m	RA1	3.42 m ²	1.0	1.5	-1.3500	-0.52 kPa	-0.52 kPa
		RA2	0.86 m ²	1.0	2.0	-1.8000	-0.70 kPa	-0.70 kPa
SOUTH SOUTH WEST FACE								
WALLS								
SURFACE	DISTANCE FROM EDGE	REF	AREA		K1	Cfig,e	pe	pnet
Windward	All	WA1	0.86 m ²		1.5	1.0500	0.43 kPa	0.43 kPa
Side	0.00 m to 1.85 m 0.00 m to 0.93 m	SA1	3.42 m ²		1.5	-0.9750	-0.40 kPa	-0.40 kPa
		SA2	0.86 m ²		2.0	-1.3000	-0.54 kPa	-0.54 kPa
ROOF								
SURFACE	DISTANCE FROM EDGE	REF	AREA	Kr	K1	Cfig,e	pe	pnet
Upwind Edges	0.00 m to 1.85 m 0.00 m to 0.93 m	RA1	3.42 m ²	1.0	1.5	-1.3500	-0.56 kPa	-0.56 kPa
		RA2	0.86 m ²	1.0	2.0	-1.8000	-0.74 kPa	-0.74 kPa
WEST NORTH WEST FACE								
WALLS								

TITLE: Base 10 Wind Analysis
 PROJECT: Base 10 Youth Center
 CODE: 21042-2

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SURFACE	DISTANCE FROM EDGE	REF	AREA		K1	Cfig,e	pe	pnet
Windward	All	WA1	0.86 m ²		1.5	1.0500	0.54 kPa	0.54 kPa
Side	0.00 m to 1.85 m 0.00 m to 0.93 m	SA1	3.42 m ²		1.5	-0.9750	-0.50 kPa	-0.50 kPa
		SA2	0.86 m ²		2.0	-1.3000	-0.66 kPa	-0.66 kPa
ROOF								
SURFACE	DISTANCE FROM EDGE	REF	AREA	Kr	K1	Cfig,e	pe	pnet
Upwind Edges	0.00 m to 1.85 m 0.00 m to 0.93 m	RA1	3.42 m ²	1.0	1.5	-1.3500	-0.69 kPa	-0.69 kPa
		RA2	0.86 m ²	1.0	2.0	-1.8000	-0.92 kPa	-0.92 kPa

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