

Specification Sheet NZS3604:2011 Compliant

Project Name:	BRACING
Level, Wing or Block (If applicable)	
Street and Number	Weka Street, Mangawhai
Lot and DP Number:	LOT 8 DP 560995
City/Town/District:	

Designer Name:	
Design Company Name:	
Bracing Design Date:(dd/mm/yy)	7/06/2022
Engineering Company Name:	
This form filled out by:	

General Specifications

Number of Storeys	Single
Foundation Type	Slab
Floor Loading	2 kPa
Roof Weight:	Light
Single Storey Cladding Weight:	Light

Select Wind Zone =====> High

Roof Specifications

Roof Type:	Typical (Gabled End)	
Roof Pitch:	35.0 degrees	35.8
Roof Length:	22.4 m	
Roof Width:	9.9 m	

Determine Earthquake Zone and Subsoil Class.

Earthquake Zone:	1
Subsoil Classification:	E: Very Soft
Annual Exceedance Probability:	1 in 500 yrs: (Default)

Key Heights

Height (h) above Eaves:	3.58 m
Height: Top of Slab to Apex (H)	5.72 m

Single Level Demand

Demand Source= QuickBrace (FP)

Single Storey Specifications

External Wall Height:	2.14 m
Internal Stud Height	2.40 m
Building Length	21.5 m
Building Width	9.0 m
Gross Plan Area (GPA)	192.7 m ²
Limit Element Resistance to 150 bu's/m	Slab: 150 Bu's/m
Room in Roof Space?	Yes
Room in Roof Space Area:	54.0 m ²

	Per M/M ²
Wind Along	67.8
Wind Across	63.1
Earthquake	4.6

QuickBrace© First Principles
Demands (Bu's)
610 Bu's
1357 Bu's
896 Bu's

Elephant QuickBrace™ September 2018 V.1.0										Wind		Earthquake		
Wall Along			BRACING			Demand Source: QuickBrace® First Principles		Achieved =		206%	1255	113%	1009	
Single Storey			Weka Street, Mangawhai			Min. Bu's per either External side of Project=		Total Demand =		Bu's	610	Bu's	896	
Don't Show Element Numbers for Regular Plasterboard Fixing						Minimum Bu's Req. on each Bracing Line =				323		323		
Line	Element #	Top, Bottom OR Internal	Single or Double Sided	Available Wall Lengths	Wall Angle °	Element Height	Suggest Systems Suggested Systems	Supplier	Element Resistance Limitations	Wind		Earthquake		
										Bu/m	Achieved Bu's	Bu/m	Achieved Bu's	
A	A1	Top External	Single Sided	2.40		2.4	ES-H	EPB	150 BU's	110	264	84	202	
	A2	Top External	Single Sided	0.60		2.4	ES-N	EPB	150 BU's	69	41	61	37	
	A3	Top External	Single Sided	0.96		2.4	ES-N	EPB	150 BU's	72	69	62	60	
	A4	Top External	Single Sided	0.96		2.4	ES-N	EPB	150 BU's	72	69	62	60	
									A Line: Min. Requirement=		102	444	149	358
B	B1	Internal	Single Sided	2.40		2.4	ES-N	EPB	150 BU's	83	199	64	154	
	B2	Internal	Single Sided	1.20		2.4	ES-N	EPB	150 BU's	72	86	64	77	
	B3	Internal	Single Sided	0.60		2.4	ES-N	EPB	150 BU's	69	41	61	37	
									B Line: Min. Requirement=		102	327	149	267
C	C1	Bot. External	Single Sided	2.40		2.4	ES-N	EPB	150 BU's	83	199	64	154	
	C2	Bot. External	Single Sided	1.20		2.4	ES-N	EPB	150 BU's	72	86	64	77	
	C3	Bot. External	Single Sided	2.40		2.4	ES-N	EPB	150 BU's	83	199	64	154	
									C Line: Min. Requirement=		102	485	149	384
User Comments:										Wind		Earthquake		
Print Date: 7-Jun-22			Single Storey			Wall Along		Achieved BU's =		206%	1255	113%	1009	
Elephant QuickBrace™ September 2018 V.1.0						Total Demand =				Bu's	610	Bu's	896	

Elephant QuickBrace™ September 2018 V.1.0										Wind		Earthquake	
Wall Across			BRACING			Demand Source: QuickBrace© First Principles		Achieved =		115%	1559	143%	1278
Single Storey			Weka Street, Mangawhai			Min. Bu's per either External side of Project=		Total Demand =		Bu's	1357	Bu's	896
Don't Show Element Numbers for Regular Plasterboard Fixing						Minimum Bu's Req. on each Bracing Line =				136		135	
Line	Element #	Left, Right OR Internal	Single or Double Sided	Available Wall Lengths	Wall Angle °	Element Height	Suggest Systems Suggested Systems	Supplier	Element Resistance Limitations	Wind		Earthquake	
										Bu/m	Achieved Bu's	Bu/m	Achieved Bu's
M	M1	Left External	Single Sided	0.50		2.4	EM-H	EPB	150 BU's	104	52	102	51
	M2	Left External	Single Sided	1.05		2.4	EM-H	EPB	150 BU's	133	140	112	118
	M3	Left External	Single Sided	0.46		2.4	EM-H	EPB	150 BU's	102	47	101	47
M Line: Min. Requirement									136	239	100	215	
N	N1	Internal	Single Sided	2.40		2.4	ES-N	EPB	150 BU's	83	199	64	154
	N2	Internal	Single Sided	1.20		2.4	ES-N	EPB	150 BU's	72	86	64	77
N Line: Min. Requirement									136	286	100	230	
O	O1	Internal	Single Sided	2.40		2.4	ES-N	EPB	150 BU's	83	199	64	154
	O2	Internal	Single Sided	2.93		2.4	ES-N	EPB	150 BU's	83	243	64	188
O Line: Min. Requirement									136	442	100	341	
P	P1	Internal	Single Sided	0.80		2.4	ES-N	EPB	150 BU's	72	58	61	49
	P2	Internal	Single Sided	0.80		2.4	ES-N	EPB	150 BU's	72	58	61	49
	P3	Internal	Single Sided	2.93		2.4	ES-N	EPB	150 BU's	83	243	64	188
P Line: Min. Requirement									136	358	100	285	
Q	Q1	Right External	Single Sided	0.65		2.9	EM-H	EPB	150 BU's	93	61	87	57
	Q2	Right External	Single Sided	1.58		4.45	EM-H	EPB	150 BU's	76	119	62	98
	Q3	Right External	Single Sided	0.60		2.9	EM-H	EPB	150 BU's	91	55	86	52
Q Line: Min. Requirement									136	234	100	206	
User Comments:										Wind		Earthquake	
Print Date: 7-Jun-22			Single Storey			Wall Across		Achieved BU's =		115%	1559	143%	1278
Elephant QuickBrace™ September 2018 V.1.0						Total Demand =				Bu's	1357	Bu's	896