GIB EzyBrace® Bracing Software

Demand Calculation Sheet

Job Details

Name:	Daniel and Candice Sanson
Street and Number:	46 Pelorus Avenue
Lot and DP Number:	Lot 135
City/Town/District:	Napier
Designer:	Gordon Sanson
Company:	Homeworx
Date:	Sunday, June 17, 2018

Building Specification

Number of Storeys	1
Floor Loading	2 kPa
Foundation Type	Slab
	Single
Cladding Weight	Light
Roof Weight	Light
Room in Roof Space	No
Roof Pitch (degrees)	15
Roof Height above Eaves (m)	1.4
Building Height to Apex (m)	3.9
Ground to Lower Floor (m)	0.2
Average Stud Height (m)	2.4
Building Length (m)	18.56
Building Width (m)	12.8
Building Plan Area (m²)	174.2

Building Location

Wind Zone = High

Earthquake Zone 3

Soil Type	D & E (Deep to Very Soft)
Annual Prob. of Exceedance:	1 in 500 (NZS3604:2011 Default)

Bracing Units required for Wind

	Along	Across
Single Level	**529**	**639**

Bracing Units required for Earthquake

	Along & Across
Single Level	**904**

Single Level Along Resistance Sheet

Job Name: Daniel and Candice Sanson

									Wind	EQ
									Demand	
									529	904
									Achieved	
Line	Element	Length (m)	Angle (degrees)	Stud Ht. (m)	Type	Supplier	Wind (BUs)	EQ (BUs)	1822 344%	1615 179%
a	1	1.00		2.4	GS1-N	GIB®	65	60		
	2	1.00		2.4	GS1-N	GIB®	65	60		
	External Length = 4.6								130 OK	119 OK
b	1	3.20		2.4	GS1-N	GIB®	221	192		
	2	0.51		2.4	GS1-N	GIB®	28	30		
	3	0.60		2.4	GS1-N	GIB®	34	35		
	4	0.70		2.4	GS1-N	GIB®	41	41		
	External Length = 11.5								324 OK	298 OK
c	1	5.80		2.4	GS1-N	GIB®	400	348		
	2	1.20		2.4	GS1-N	GIB®	83	72		
	3	2.20		2.4	GS1-N	GIB®	152	132		
									635 OK	552 OK
d	1	1.10		2.4	GS1-N	GIB®	74	66		
	2	2.10		2.4	GS1-N	GIB®	145	126		
	3	1.80		2.4	GS2-N	GIB®	176	155		
									395 OK	347 OK
e	1	2.00		2.4	GS1-N	GIB®	138	120		
	2	1.20		2.4	GS1-N	GIB®	83	72		
	3	1.20		2.4	GS1-N	GIB®	83	72		
	4	0.60		2.4	GS1-N	GIB®	34	35		
	External Length = 18.5								338 OK	299 OK

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Single Level Across Resistance Sheet

Job Name: Daniel and Candice Sanson

									Wind	EQ
									Demand	
									639	904
									Achieved	
Line	Element	Length (m)	Angle (degrees)	Stud Ht. (m)	Type	Supplier	Wind (BUs)	EQ (BUs)	1497 234%	1320 146%
m	1	0.45		2.4	GS1-N	GIB®	24	26		
	2	0.45		2.4	GS1-N	GIB®	24	26		
	3	1.15		2.4	BL1-H	GIB®	144	119		
	4	1.15		2.4	BL1-H	GIB®	144	119		
	External Length = 12.7								337 OK	291 OK
n	1	1.70		2.4	GS1-N	GIB®	117	102		
	2	0.51		2.4	GS1-N	GIB®	28	30		
	External Length = 3								145 OK	132 OK
o	1	1.25		2.4	GS1-N	GIB®	86	75		
	2	0.65		2.4	GS1-N	GIB®	38	38		
	3	0.45		2.4	GS1-N	GIB®	24	26		
	External Length = 1.3								148 OK	139 OK
p	1	2.00		2.4	GS1-N	GIB®	138	120		
	2	2.10		2.4	GS1-N	GIB®	145	126		
	External Length = .6								283 OK	246 OK
q	1	3.00		2.4	GS1-N	GIB®	207	180		
	2	3.30		2.4	GS1-N	GIB®	228	198		
									435 OK	378 OK
r	1	1.80		2.4	GS1-N	GIB®	124	108		
	2	0.45		2.4	GS1-N	GIB®	24	26		
	External Length = 7.6								149 OK	134 OK

Custom Wall Elements

Supplier	System	Min. Length m	Wind BUs/m	EQ BUs/m
Ecoply	EP1 0.4	.4	80	95