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Wall Bracing Calculation Sheet A

Job Details

box 1

Name Bucos & Rowse

Street and Number 124 WELAROT ROAD NAWERY

Lot and DP Number _____

City/Town/District South Taranaki

Location of Storey: single/upper of two/lower of two

Building height to apex 3.5 m Roof weight light/heavy

Roof height above eaves 1.0 m Cladding weight light/heavy

Stud height 2.4 m Room in roof space n/a

Average roof pitch _____

Building length BL = 8.5 m Gross Building _____

Building width BW = 2.4 m Plan Area, GPA = 21 m²

Note: When the average roof pitch is over 25 degrees, use the eaves length and width to determine BL and BW.

Note: For heavy roofs use the roof plan at eaves level to determine GPA.

Wind Zone

box 2

Region: ☒ Inland ☐ Coastal ☐ Sheltered ☐ Exposed ☒ Topography: ☒ Gentle ☐ Moderate ☐ Extreme

R1 0 ☒ Inland 0 ☐ Sheltered 0 ☐ Exposed 0 ☐ Moderate 0 ☐ Extreme 0

R2 1 ☐ Coastal 1 ☐ Exposed 1 ☐ Moderate 1 ☐ Extreme 1

Total points 0

Wind zone: ☐ Low (0) ☐ Very high (3)

☐ Medium (1) ☐ Specific Design (4)

☒ High (2)

Earthquake zone

box 3

From figure EQ1 select Earthquake Zone: A B C

BUs required Wind

box 4

From Table W1A/W1B

W along = 35 BUs/m

W across = 49 BUs/m

Total wind load,

W ALONG:

W along x BW = 84 BUs

W ACROSS:

W across x BL = 466 BUs

BUs required Earthquake

box 5

From Table EQ1

E = 4.6 BUs/m²

Note: For a room in the roof space use E+1

Total earthquake load,

EQ ALONG and EQ ACROSS:

E x GPA BUs = 97 BUs

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Wall Bracing Calculation Sheet B

Along

Wall or Bracing Line		Bracing Elements Provided			Wind		Earthquake	
1	2	3	4	5	6 W	7 W	6 EQ	7 EQ
Line Label	Minimum BUs Required	Bracing Element No.	Bracing Type	Length Element (m) L	Rating BU/m W	BUs Achieved (BU/m x L) W	Rating BU/m EQ	BUs Achieved (BU/m x L) EQ
A	100	1	qib2	3.0	80	240	70	210
B	100	2	qib3	1.0	65	65	60	60
		3		1.0	65	65	60	60
C								
D								
E								
Totals Achieved					W	370	EQ	330
From Sheet A Totals Required					W	84	EQ	97
Wreq/EQreq =								

*If Wreq/EQreq is 1 or less complete EQ column only
If Wreq/EQreq is 1.5 or more complete W column only
Otherwise complete both W and EQ

Across

Wall or Bracing Line		Bracing Elements Provided			Wind		Earthquake	
1	2	3	4	5	6 W	7 W	6 EQ	7 EQ
Line Label	Minimum BUs Required	Bracing Element No.	Bracing Type	Length Element (m) L	Rating BU/m W	BUs Achieved (BU/m x L) W	Rating BU/m EQ	BUs Achieved (BU/m x L) EQ
M	100	4	BR1	2.0	70	140		
N	100	5	BR6	1.5	150	225		
O	100	6	BR1	2.0	70	140		
P								
Q								
Totals Achieved					W	505	EQ	
From Sheet A Totals Required					W	466	EQ	
Wreq/EQreq =								

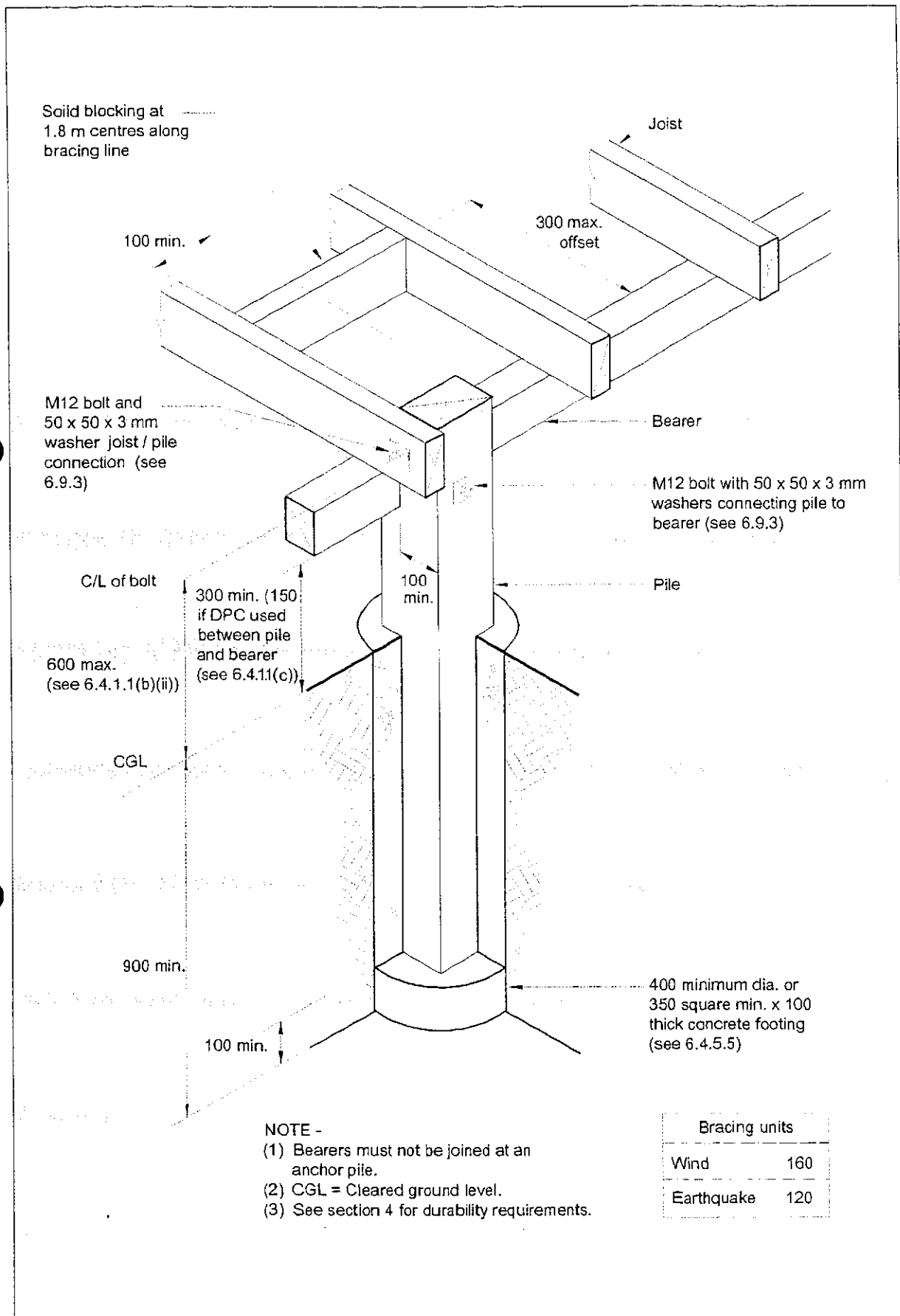


Figure 6.9 – Anchor pile directly connected to joist and bearer (see 6.9)

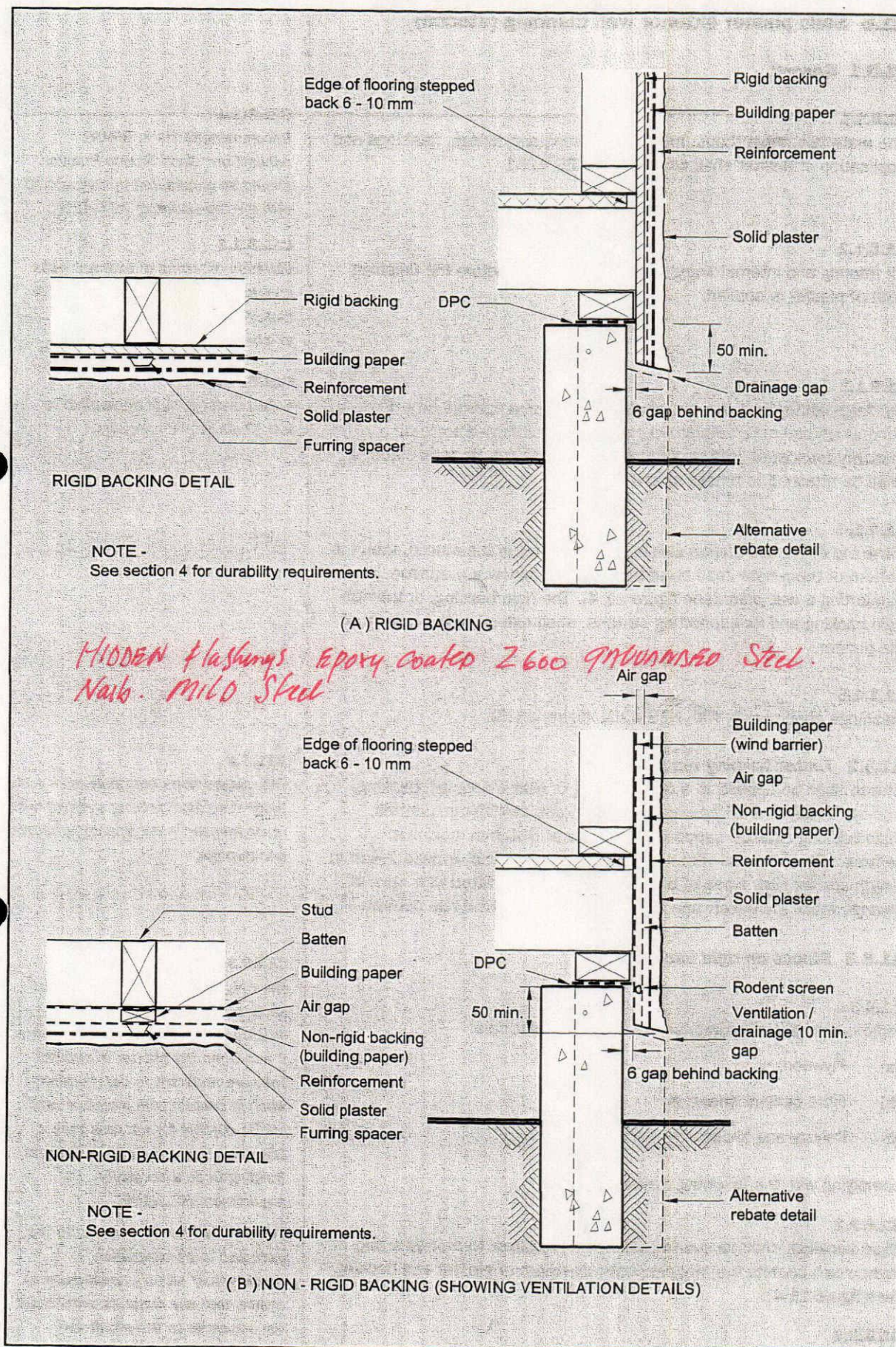


Figure 11.4 - Backing details (see 11.8.1.4 and 11.8.3.2)

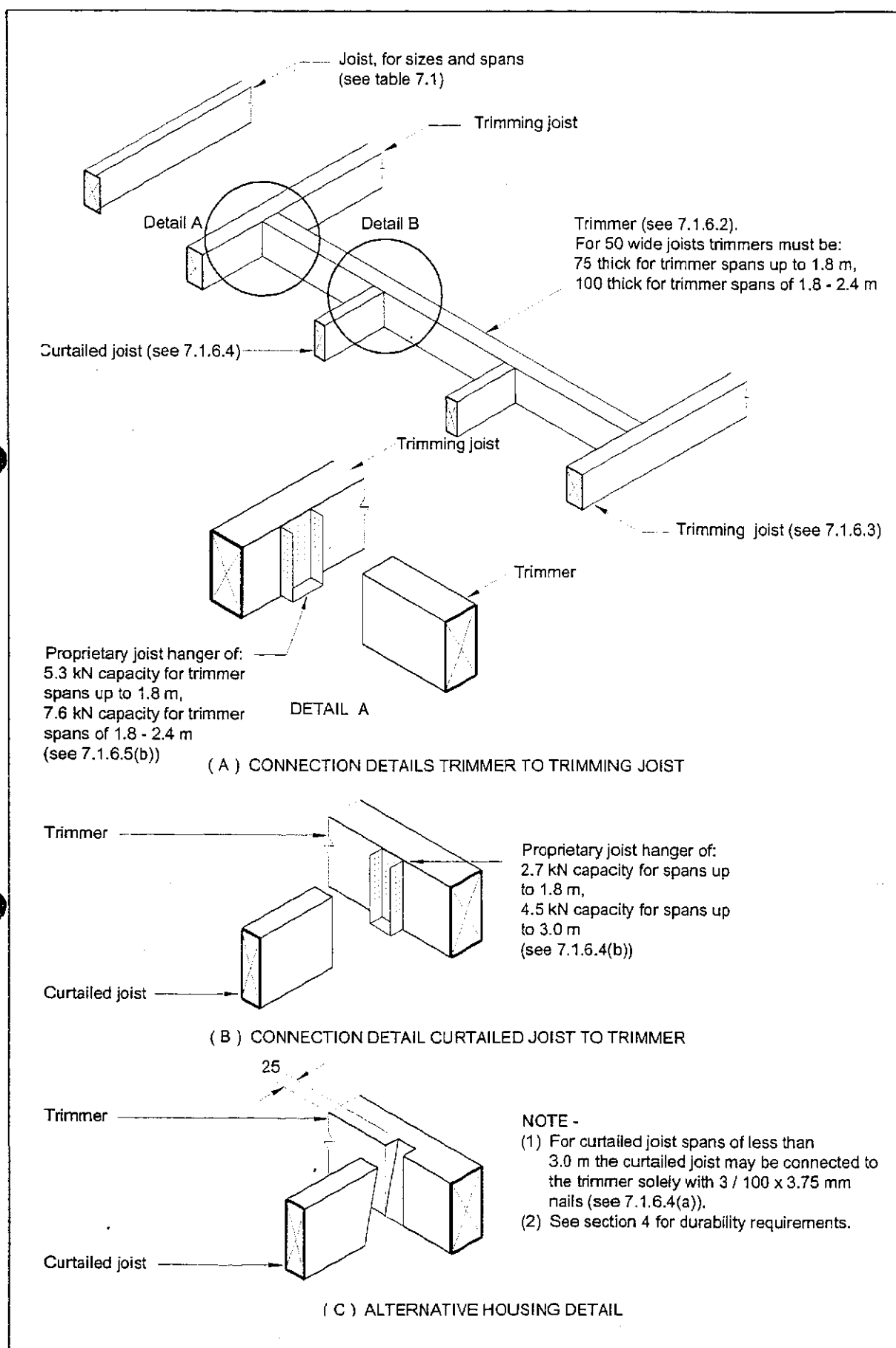


Figure 7.7 – Openings in floors (see 7.1.6.1)