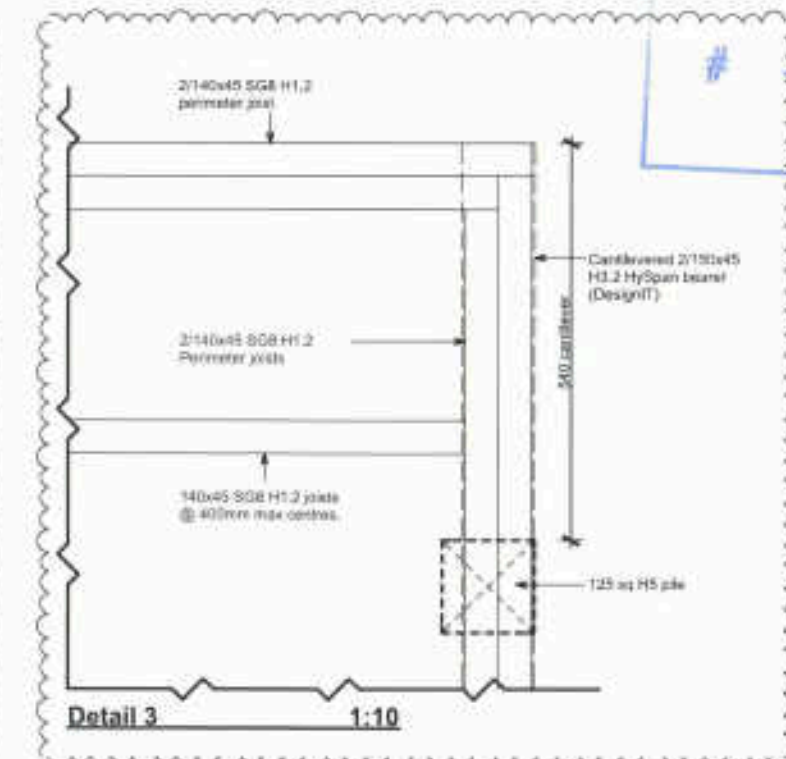
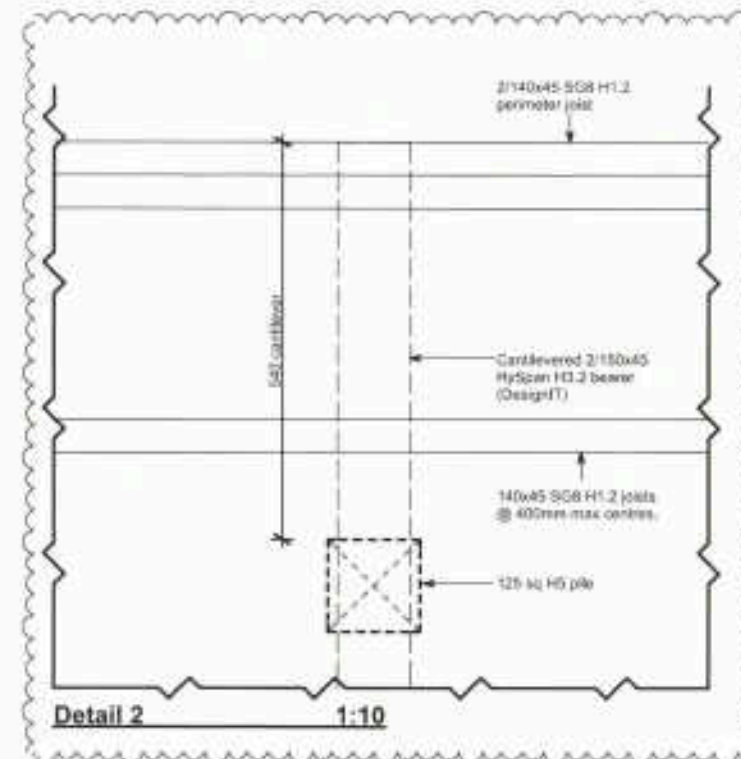
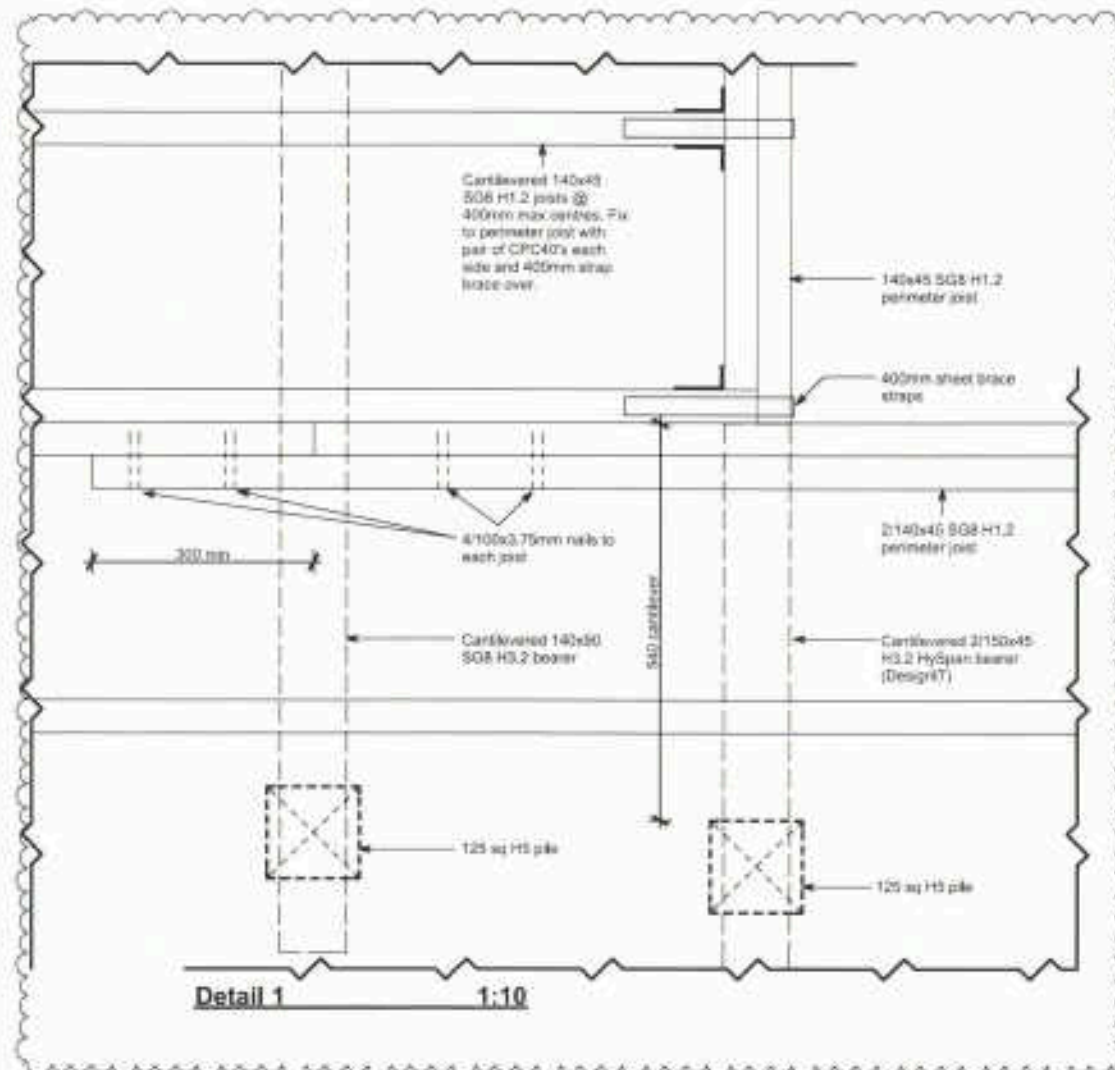


RECEIVED

05 FEB 2020

80240



Document Number: RDC-992922

Date Registered: 25/2/2020

CONSENT

Client:		Mark Lam	
Site Address:		16 Oakland Place, Ngongotaha, Rotorua,	
LEGAL DESCRIPTION			
Lot No.	70	389915	
Job Title			
Gourlay Home - Mark Lam			
Drawing Title			
Floor Framing Details			
Scale:	1:10	Drawing Number	17
Drawn:	JWD		
Checked:	MB		
Published:	05-Feb-20	Job No.	GH84

ALL DIMENSIONS TO BE VERIFIED ON SITE

RECEIVED

05 FEB 2020

BC

- 80240

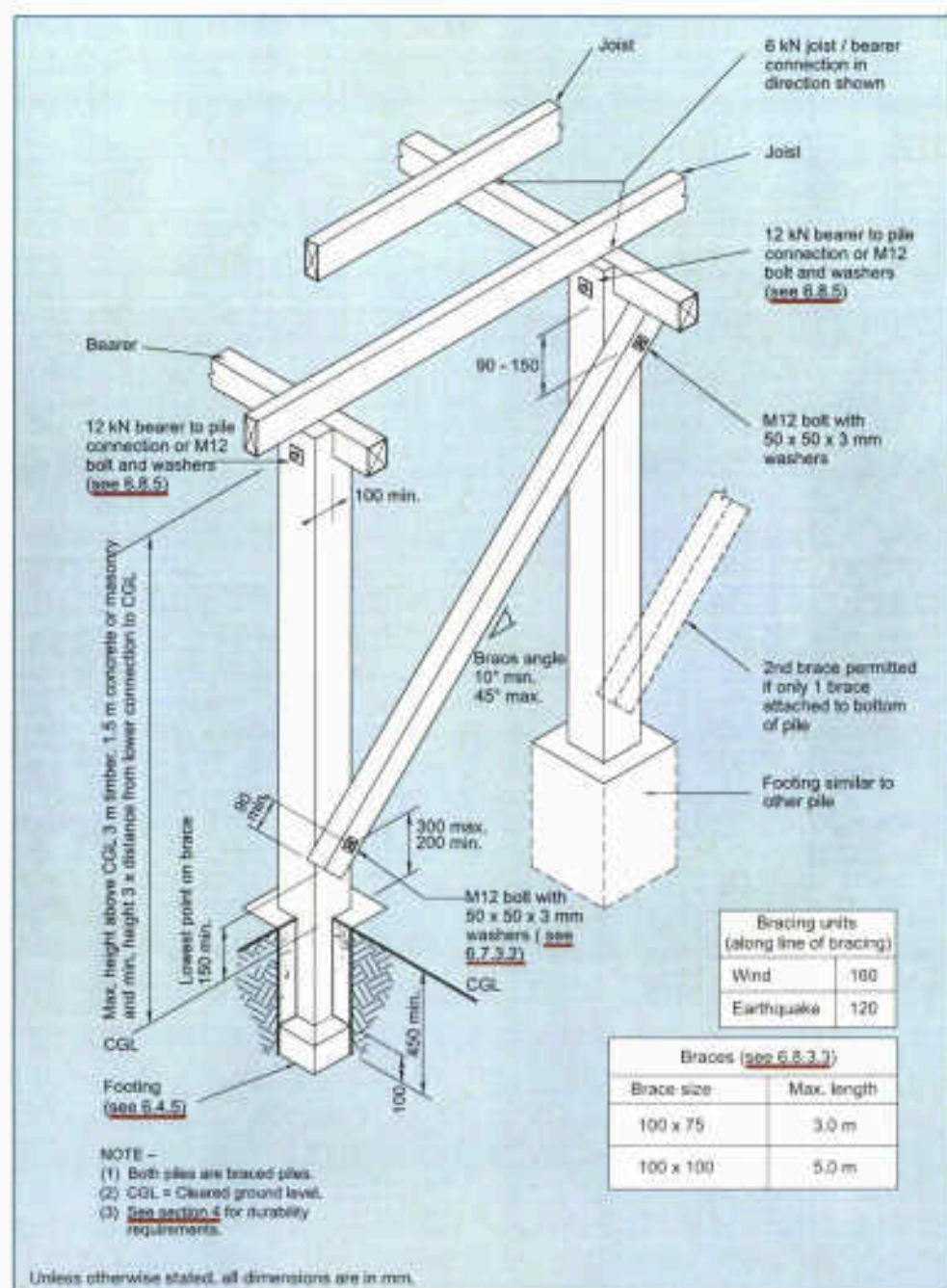


Figure 6.6 - Braced pile system - Brace connected to pile (see 6.8)

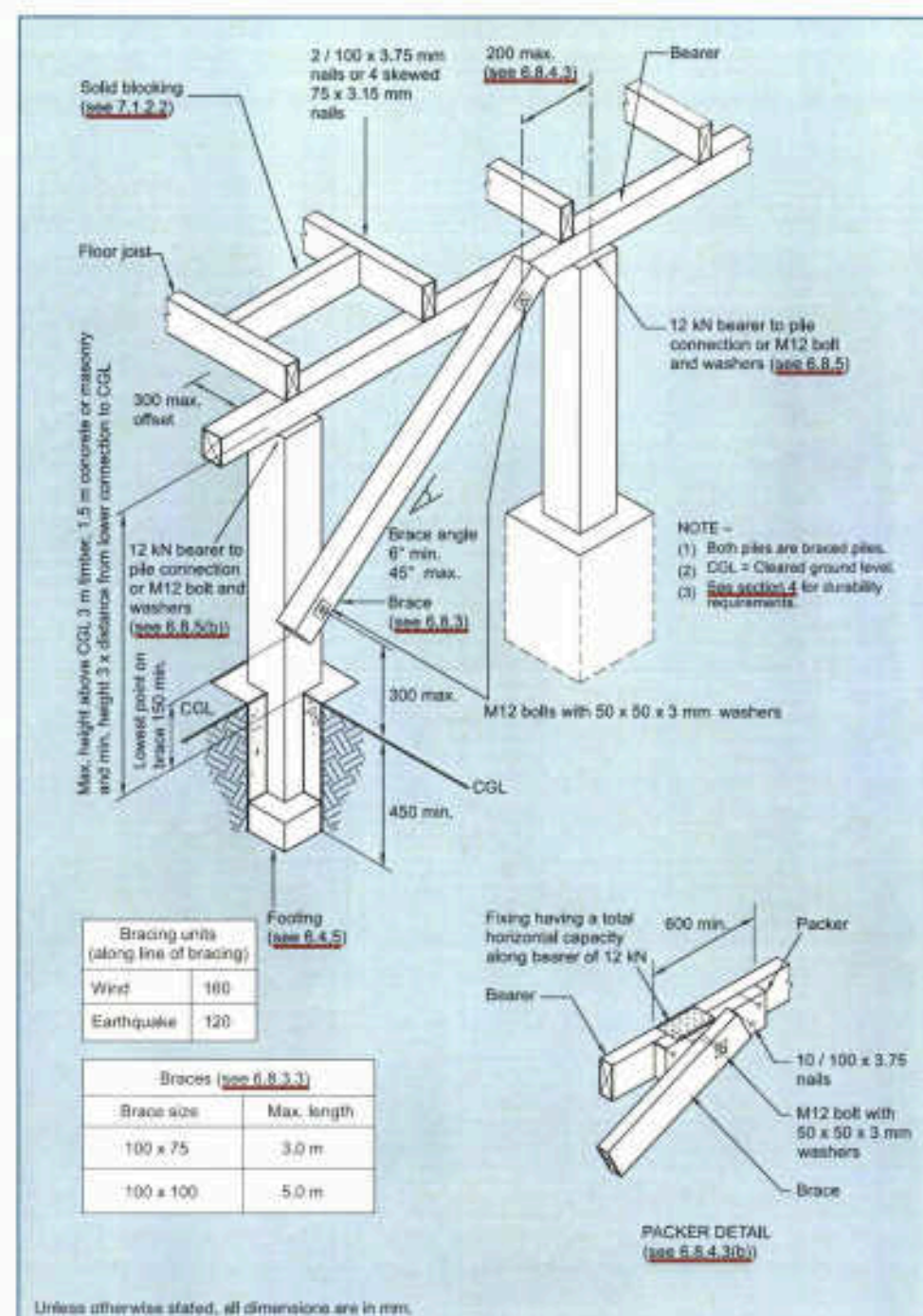


Figure 6.7 - Braced pile system - Brace connected to bearer (see 6.8)

CONSENT

Client:
Mark Lam

Site Address:
16 Oakland Place, Ngongotaha, Rotorua,

LEGAL DESCRIPTION:
Lot No. **70** 389915

Job Title:
Gourlay Home - Mark Lam

Drawing Title:
Pile Fixing Details

Scale:
1:10

Drawn:
JWD

Checked:
MB

Published:
05-Feb-20

Drawing Number:
17a

Job No.:
GH84

ALL DIMENSIONS TO BE VERIFIED ON SITE

RECEIVED

05 FEB 2020

- 80240

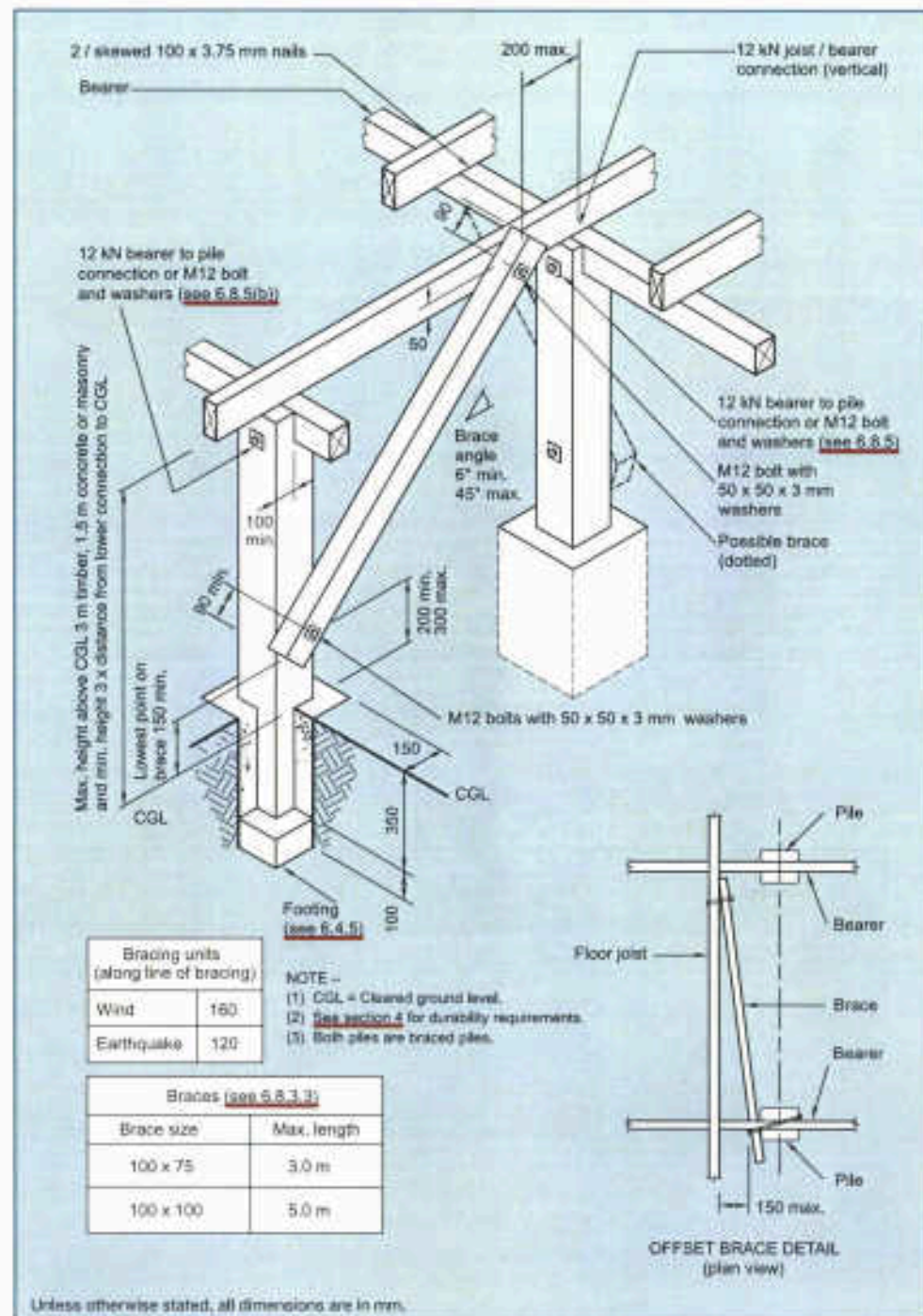


Figure 6.2 - Braced pile system - Brace connected to joist (see 6.8)

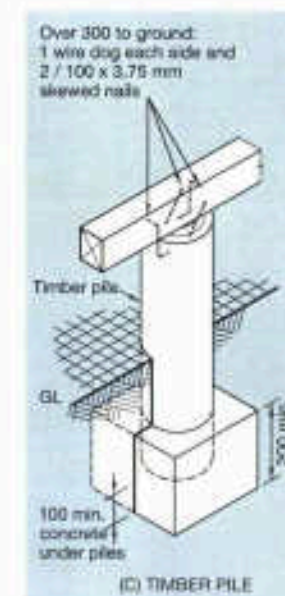
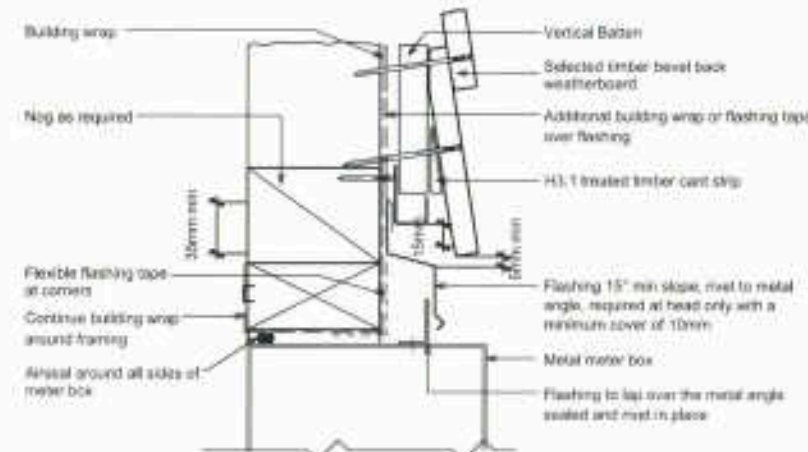
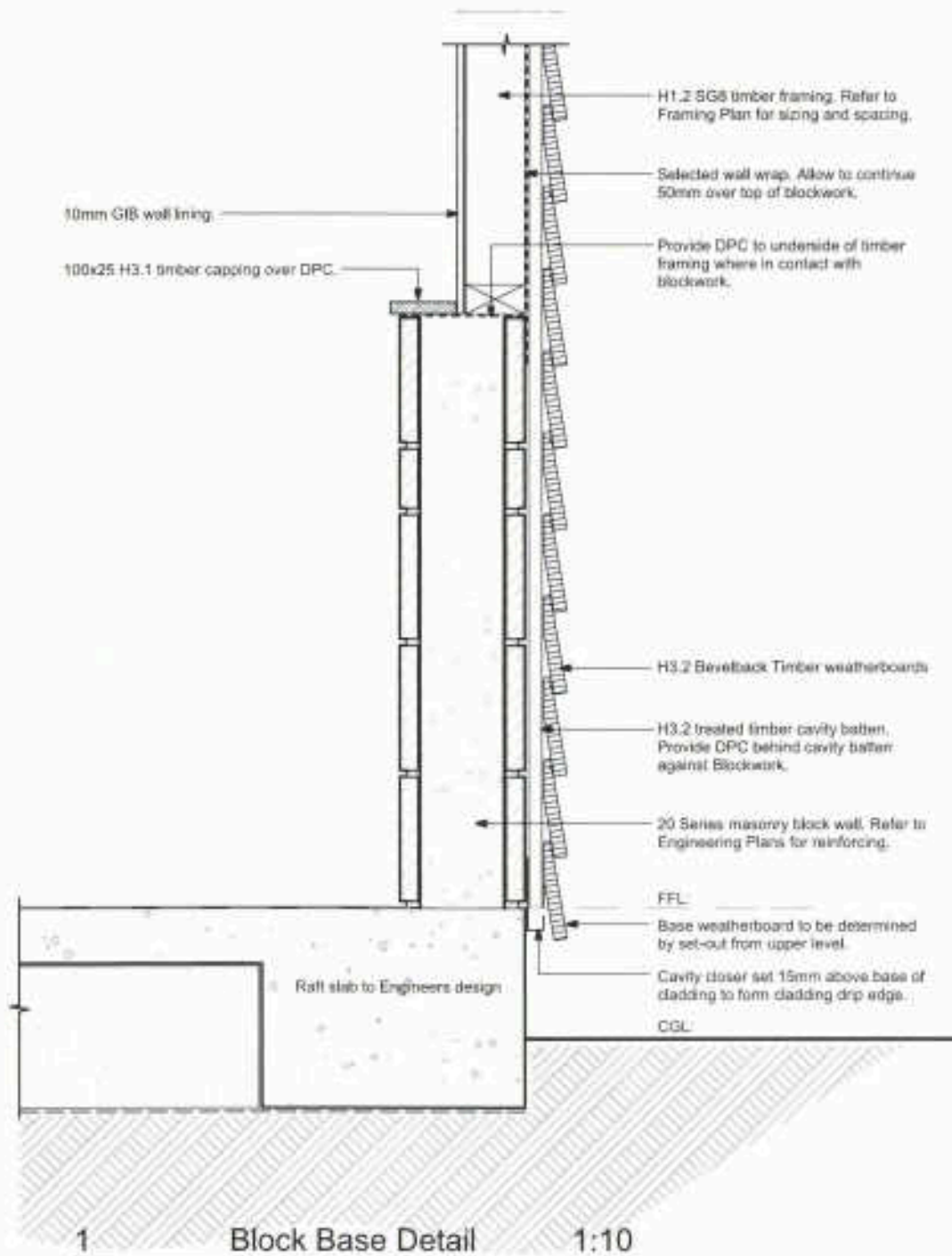


Figure 6.3 - Fixing of bearers to ordinary piles

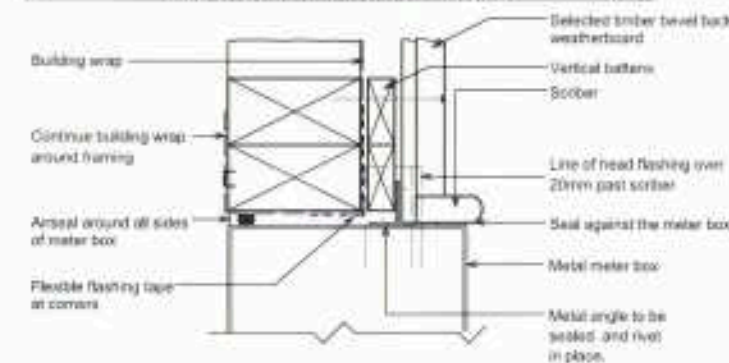
CONSENT

Client:	Mark Lam		
Site Address:	16 Oakland Place, Ngongotaha, Rotorua,		
LEGAL DESCRIPTION			
Lot No.	70	389915	
Job Title	Gourlay Home - Mark Lam		
Drawing Title	Pile Fixing Details		
Scale	1:10	Drawing Number	17b
Drawn	JWD		
Checked	MB		
Published	05-Feb-20	Job No.	GH84

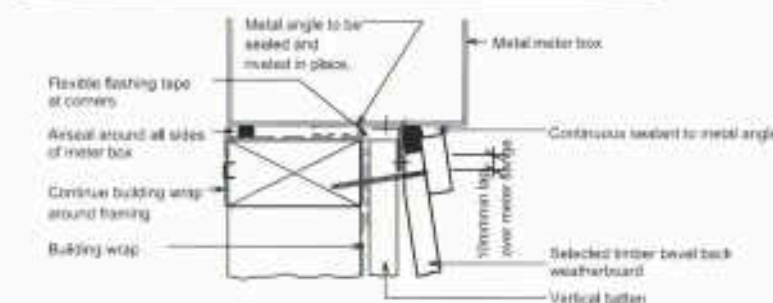
ALL DIMENSIONS TO BE VERIFIED ON SITE



2 Meterbox Head Detail 1:5



3 Meterbox Jamb Detail 1:5

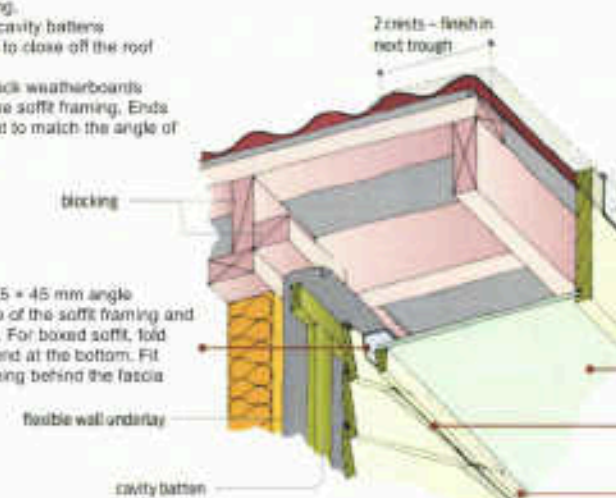


4 Meterbox Sill Detail 1:5

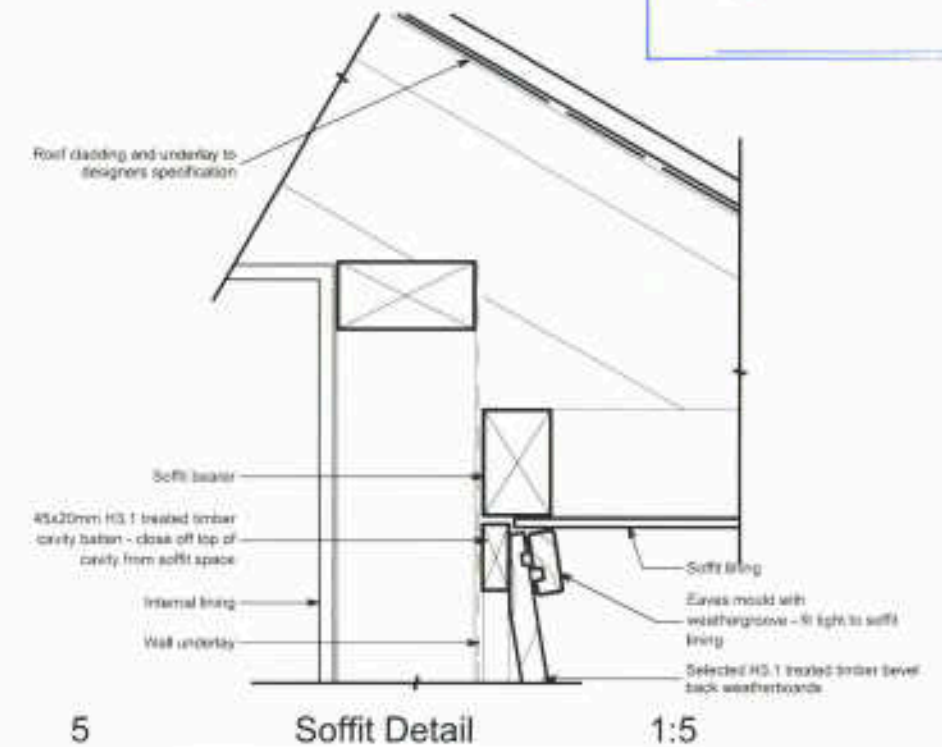
The sequence of construction is described in Steps 1-7 and shown in detail below.

- Step 1** - Carry wall underlay up the wall framing and turn out over the underside of the flying rafters/soffit framing.
- Step 2** - Install vertical cavity battens and raking cavity batten to close off the roof space.
- Step 3** - Install bevel-back weatherboards up to the underside of the soffit framing. Ends of weatherboards are cut to match the angle of the roof pitch.

- Step 4** - Fix minimum 45 x 45 mm angle flashing to the underside of the soffit framing and over the weatherboards. For boxed soffit, fold flashing to form a stop-end at the bottom. Fit an additional angle flashing behind the fascia return.



6 Gable Wall / Eaves Detail 1:10

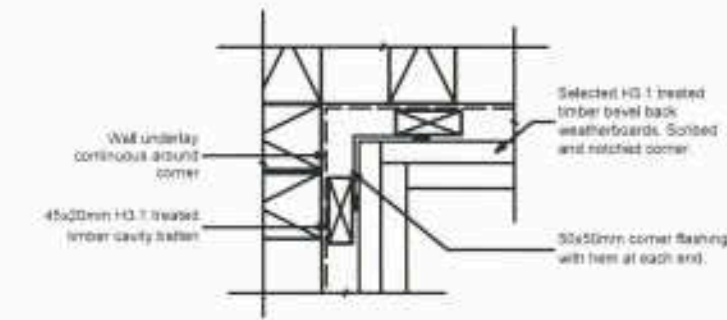


5 Soffit Detail 1:5

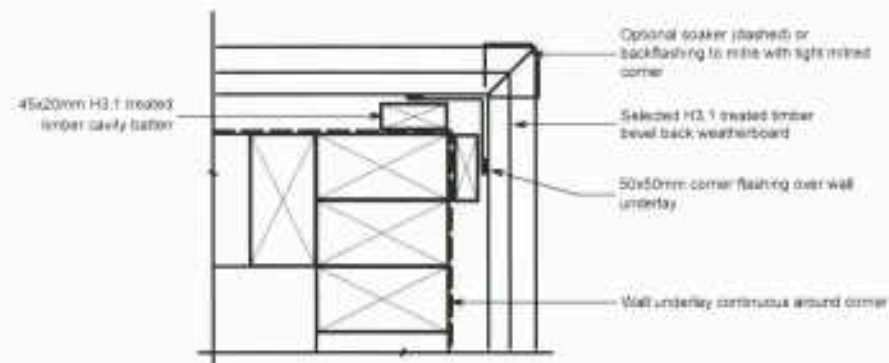
CONSENT

Client	Mark Lam		
Site Address	16 Oakland Place, Ngongotaha, Rotorua,		
LEGAL DESCRIPTION			
Lot No.	70	389915	
Job Title			
Gourlay Home - Mark Lam			
Drawing Title			
Cladding Details			
Scale	1:10, 1:5		
Drawn	JWD	Drawing Number	18
Checked	MB		
Published	05-Feb-20	Job No.	GH84

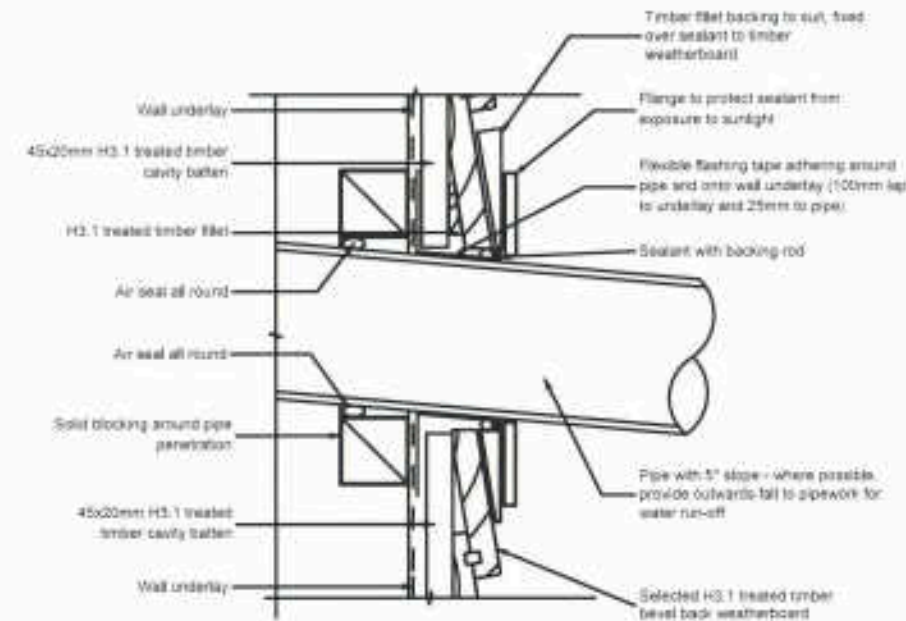
ALL DIMENSIONS TO BE VERIFIED ON SITE



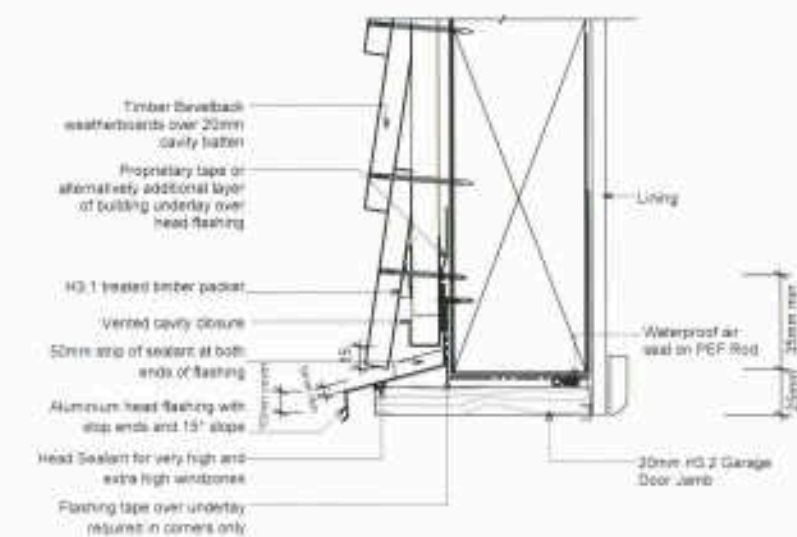
1 Internal Corner Detail 1:5



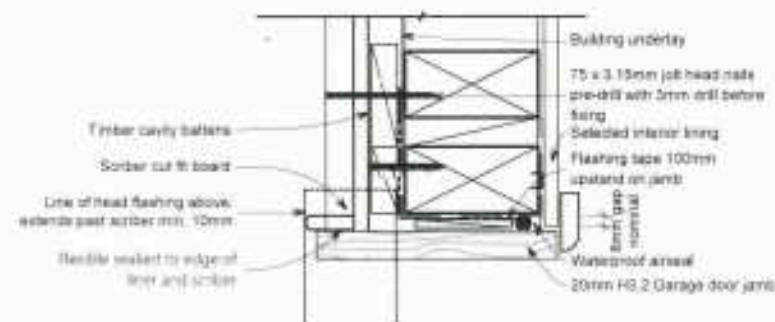
2 External Corner Detail 1:5



3 Penetration Detail 1:5



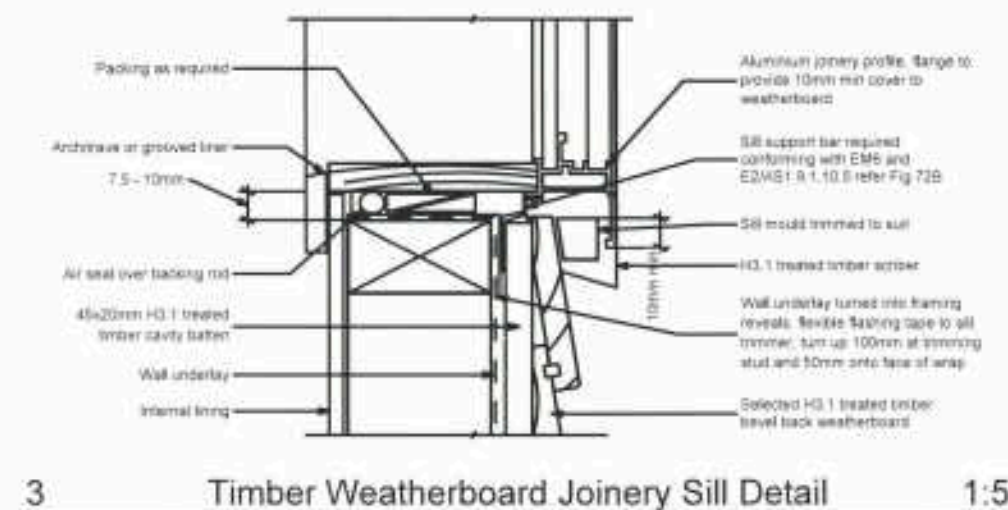
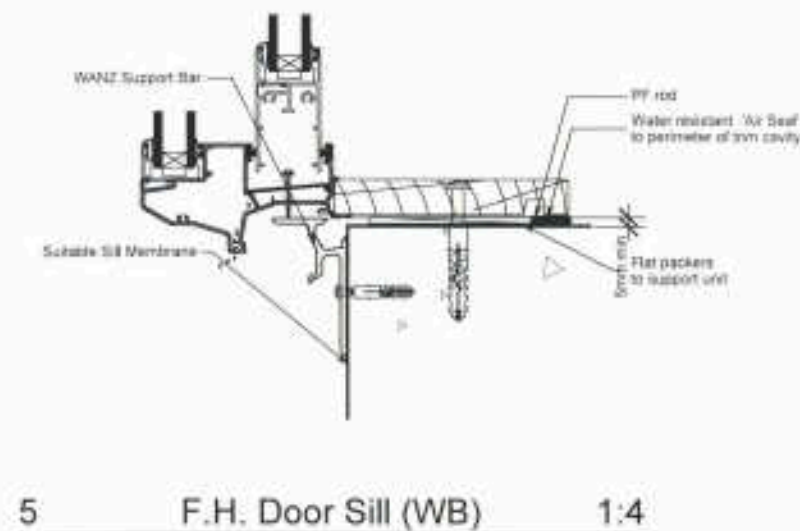
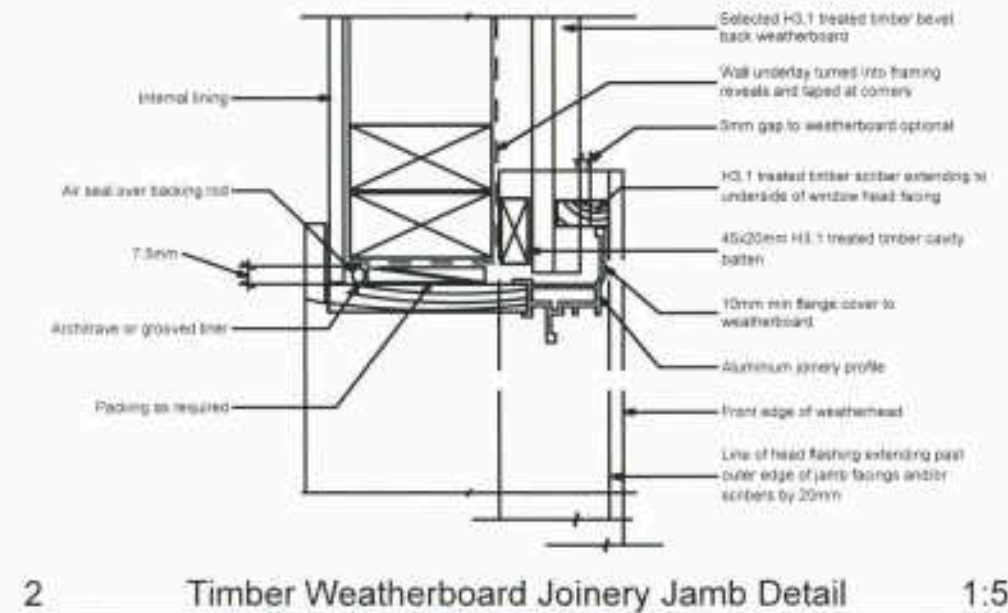
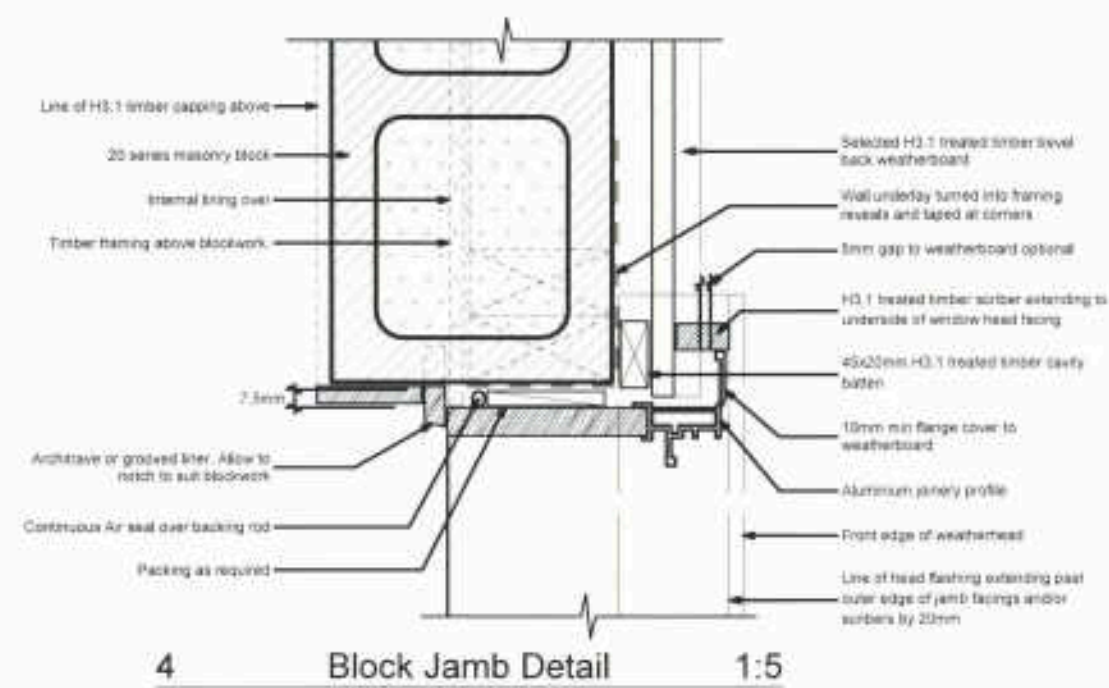
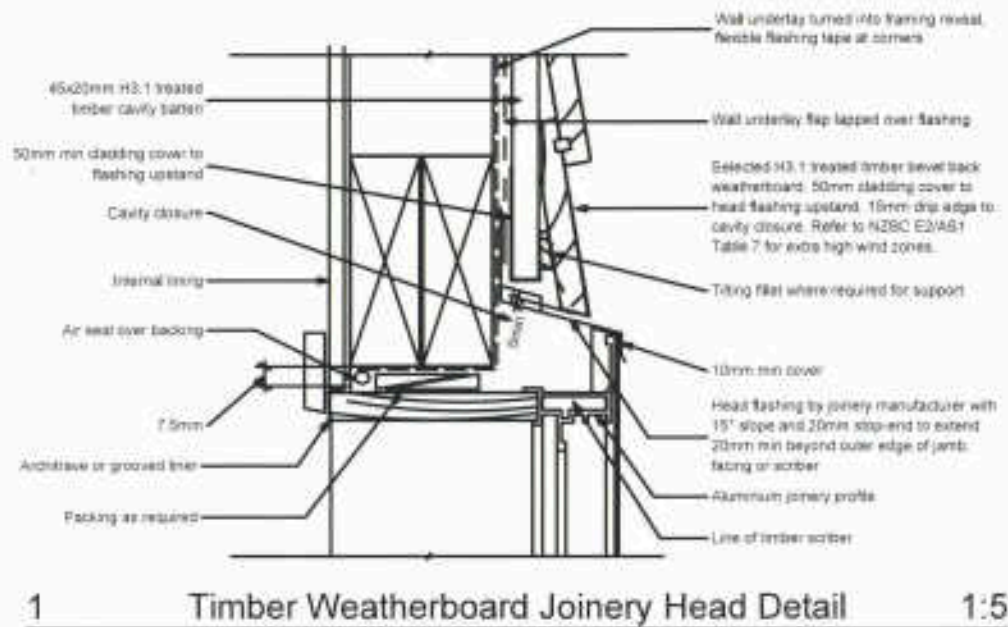
4 Hardies Garage Door Head Garage Door Head 1:5



5 Garage Door Jamb Garage Door Jamb Detail 1:5

CONSENT	
Client:	Mark Lam
Site Address:	16 Oakland Place, Ngongotaha, Rotorua.
LEGAL DESCRIPTION	
Lot No. 70	389915
Job Title	
Gourlay Home - Mark Lam	
Drawing Title	
Cladding Details	
Scale	Drawing Number
1:5	19
Drawn JWD	Job No. GH84
Checked MB	
Published 18/12/2019	

ALL DIMENSIONS TO BE VERIFIED ON SITE



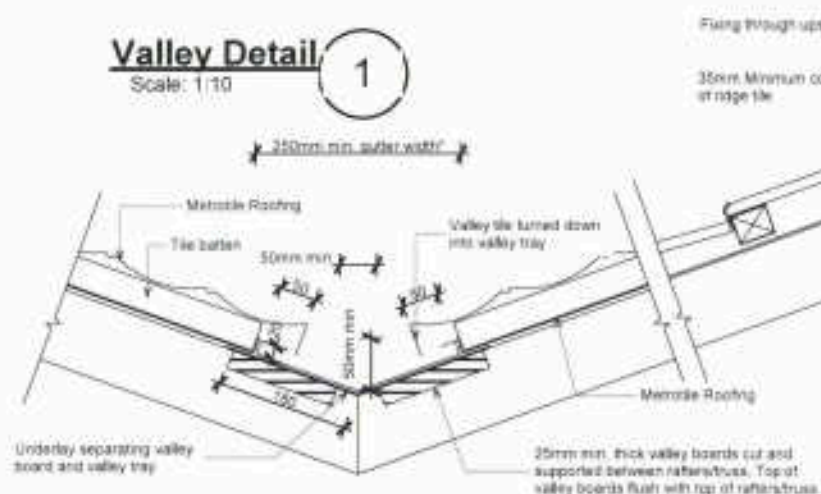
CONSENT	
Client:	Mark Lam
Site Address:	16 Oakland Place, Ngongotaha, Rotorua,
LEGAL DESCRIPTION	
Lot No.	70 389915
Job Title	
Gourlay Home - Mark Lam	
Drawing Title	
Joinery Details	
Scale	1:5, 1:4
Drawn	JWD
Checked	MB
Published	16/12/2019
Job No.	GH84

ALL DIMENSIONS TO BE VERIFIED ON SITE

BC ONLY
No 80240

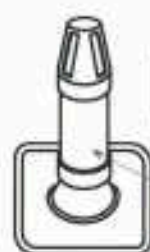
Valley Detail 1

Scale: 1:10



Ridge Detail 2

Scale: 1:10



Pipe penetrations

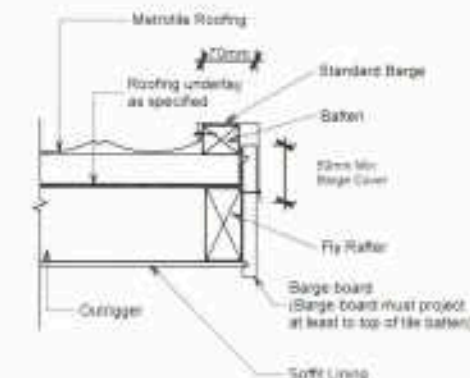
Pipe penetrations for as per E2WAS1 shall be flashed using EPDM or silicone rubber boot flashings

EPDM flexible boot sleeve and integral malleable spoker flashing dressed to roofing profile

Eaves Detail 3

Scale: 1:10

* Similar design detail for metal fascia systems



Barge Detail 4

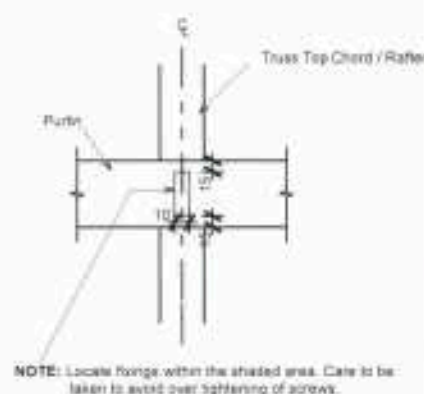
Scale: 1:10

Soffit Drop for Bildon 2000 Fascia system Metal Roof & Metal Profile

Pitch	SOFFIT DROP			
	300 OH	450 OH	600 OH	750 OH
10°	57mm	84mm	112mm	140mm
12.5°	77mm	115mm	150mm	195mm
15°	85mm	128mm	170mm	211mm
17.5°	102mm	150mm	200mm	250mm
20°	116mm	173mm	232mm	288mm
22.5°	127mm	194mm	257mm	325mm
25°	145mm	215mm	287mm	360mm
28°	164mm	245mm	327mm	410mm
30°	177mm	266mm	355mm	443mm

FIXING TOLERANCES

LUMBERLOK BLUE SCREW



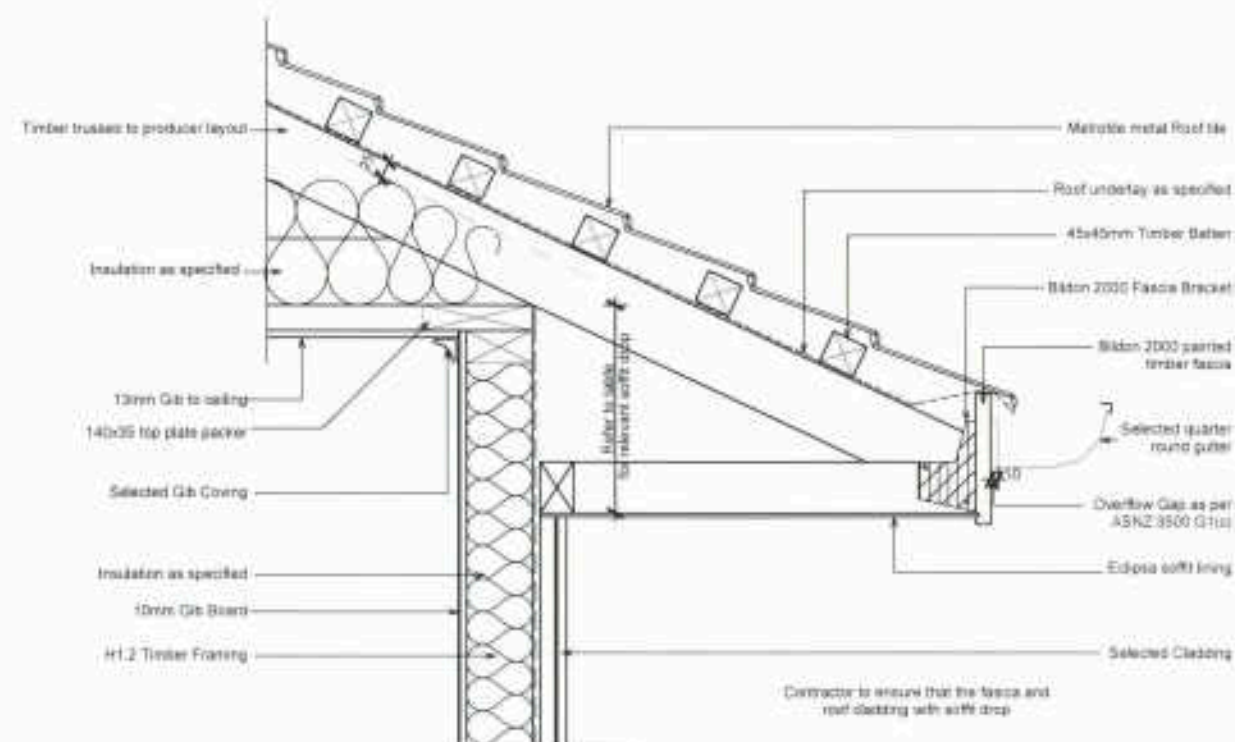
PURLIN / BATTEN SPLICE FIXING OPTIONS

1 nail in each

Frame Type A & B Cover Purlin Splice
NOTE: Saw nail when fixing to 35mm rafter or truss.

Frame Type B & B Batten
2 NAIL

ROOF WEIGHT	MAX. PURLIN SPAN (mm)	MAX. PURLIN CRS. (mm)	WIND ZONE				
			L	M	H	VH	EH
HEAVY ROOF Tile Battens	900	370	A	A	A	A	A
LIGHT ROOF Tile Battens	900	370	A	A	B	C	C
	1200	370	A	B	C	C	C
LIGHT ROOF Purlins	900	900	C	C	C	C	D
	1200	900	C	C	C	D	D
	1200	1200	C	C	D	E	E



5

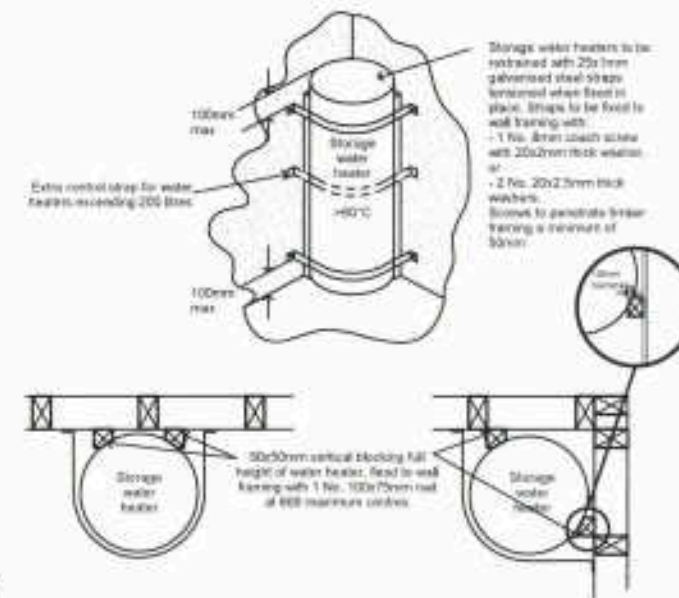
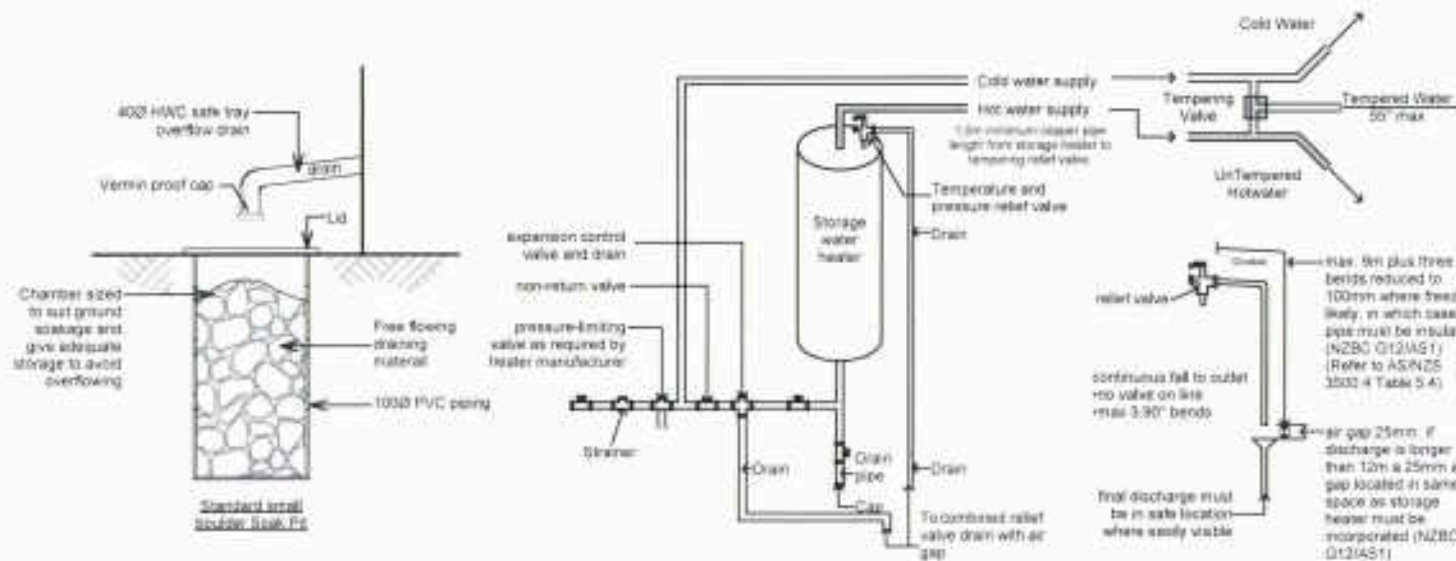
Roofing Metal Tile Soffit Detail

1:10

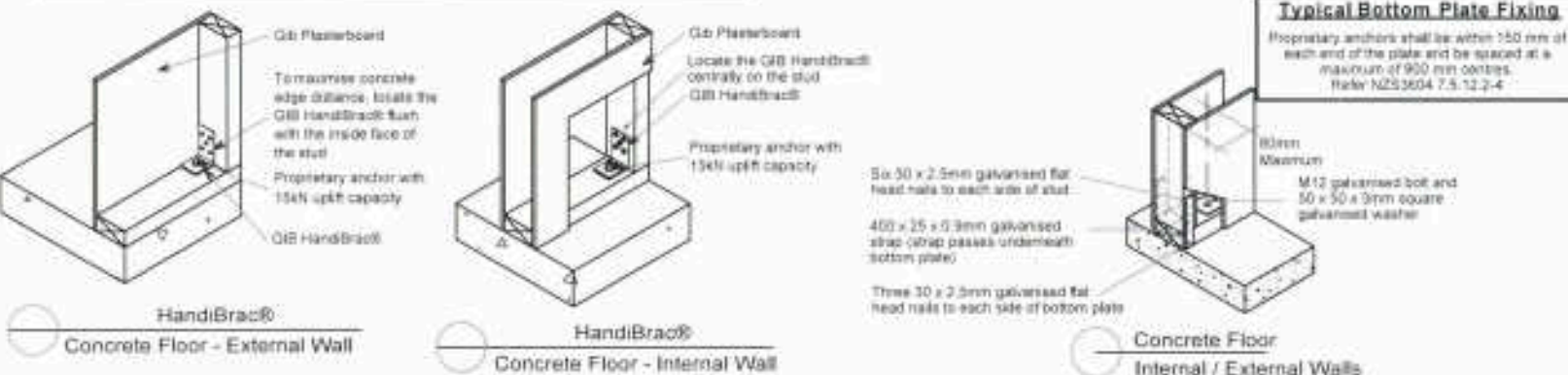
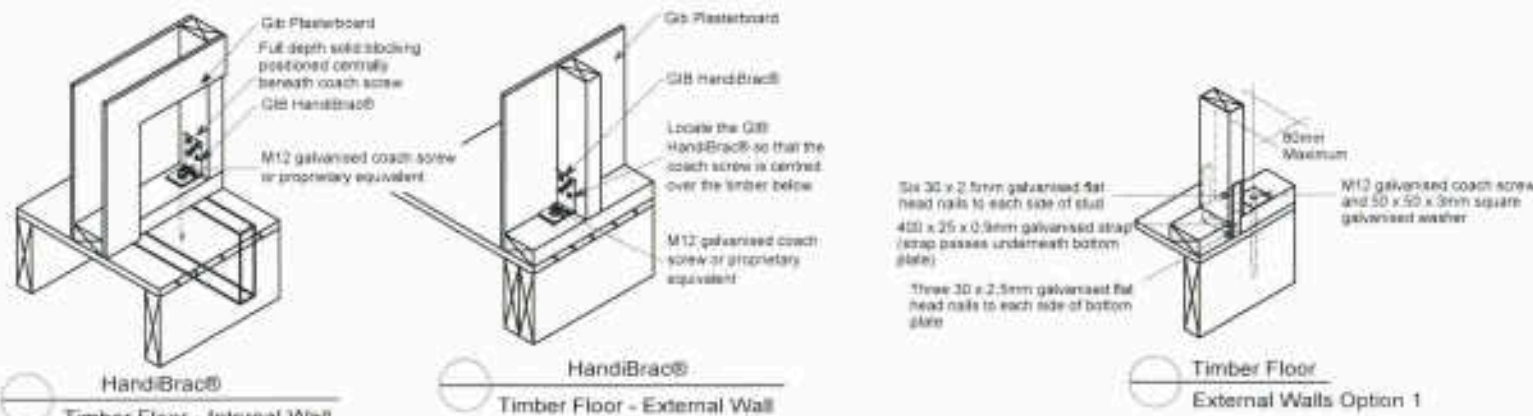
CONSENT

Client:	Mark Lam
Site Address:	16 Oakland Place, Ngongotaha, Rotorua,
LEGAL DESCRIPTION:	Lot No. 70 389915
Job Title:	Gourlay Home - Mark Lam
Drawing Title:	Roofing Details
Scale:	1:10
Drawn:	JWD
Checked:	MB
Published:	16/12/2019
Drawing Number:	21
Job No.:	GH84

ALL DIMENSIONS TO BE VERIFIED ON SITE



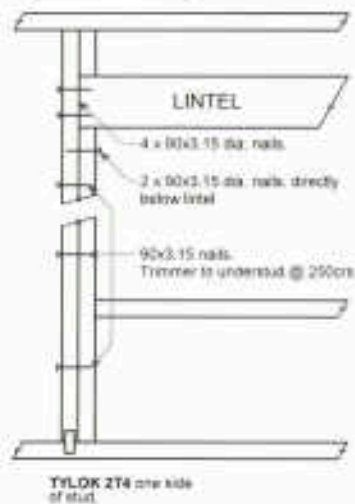
6.7.3 Combined relief valve drains When relief valve drains are combined the combined drain shall (see Figure 13): - Receive discharges from one temperature pressure relief valve or the pressure relief valve and one expansion control valve; - Discharge via a minimum air break of 25 mm; and - Have a minimum size of 20 mm diameter and be one size larger than the largest relief valve outlet.	6.7.5 relief drains located where freezing is likely Additional requirements for relief drains located where freezing is likely (see Figure 12) are that: - Relief valve drain pipes shall discharge over a tundish with a 25 mm air break before the drain pipe enters a zone where freezing is likely; and - Relief valve drains from a tundish shall be one size larger than the outlet diameter of the relief valve.	Pipework insulation 6.7.6 Closed cell foam polymer insulation or fibre glass insulation which is preformed to the shape of the pipe and not less than 13 mm thick, is acceptable material for preventing pipes less than or equal to 40 mm diameter from freezing. Any insulation material that absorbs moisture shall be protected in a waterproof membrane the relief valve.
--	--	--



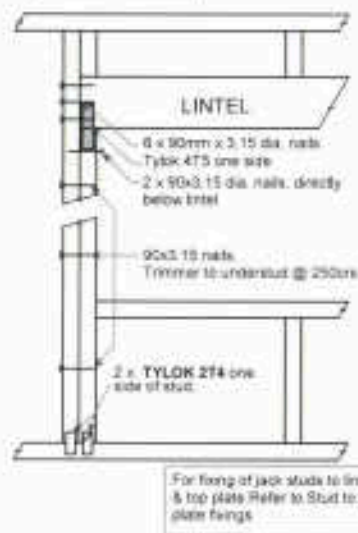
CONSENT	
Client	Mark Lam
Site Address	16 Oakland Place, Ngongotaha, Rotorua.
LEGAL DESCRIPTION	
Lot No.	70 389915
Job Title	
Gourlay Home - Mark Lam	
Drawing Title	
Fixing Details	
Scale	1:10
Drawn	JWD
Checked	MB
Published	16/12/2019
Job No.	GH84
Drawing Number	22

ALL DIMENSIONS TO BE VERIFIED ON SITE

TYPE E (1.4 kN)



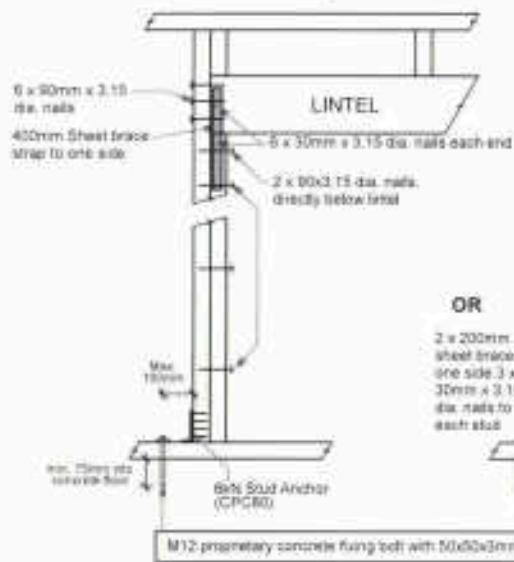
TYPE F (4.0 kN)



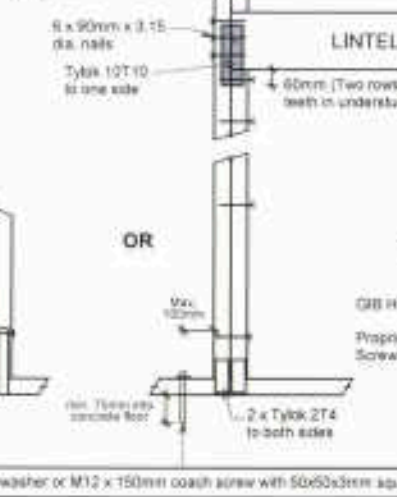
Lintel Supporting Girdler Trusses:

Roof Tributary Area	Light Roof Wind Zone					Heavy Roof Wind Zone				
	L	M	H	VH	EH	L	M	H	VH	EH
8.5 m ²	G	G	G	H	G	G	G	G	H	H
11.6 m ²	G	G	H	H	G	G	G	G	H	H
12.1 m ²	G	G	H	H	G	G	G	H	H	H
15.3 m ²	H	H	H	H	G	G	G	H	H	H
18.1 m ²	H	H	H	H	G	G	G	H	H	H
20.9 m ²	H	H	H	H	G	G	G	H	H	H
21.6 m ²	H	H	H	H	G	G	G	H	H	H
34.2 m ²	H	H	H	H	G	G	G	H	H	H

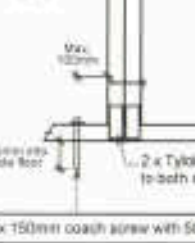
TYPE G (7.5 kN)



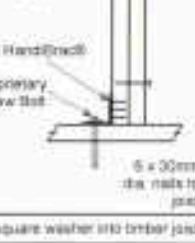
OR



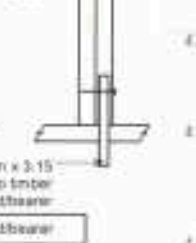
OR



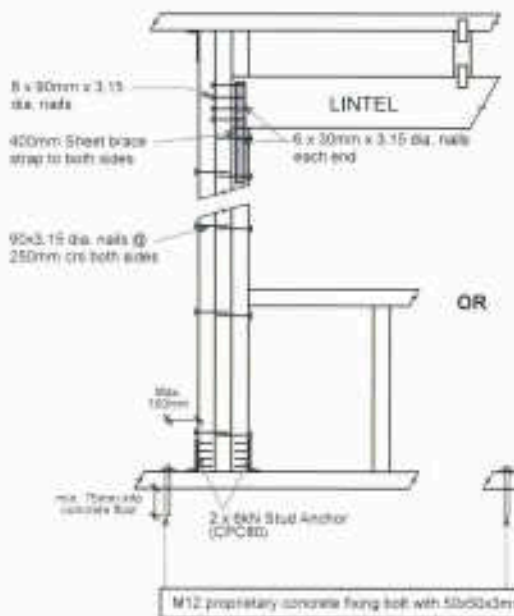
OR



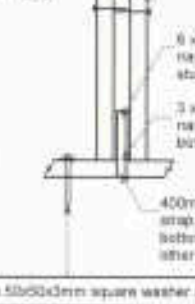
OR



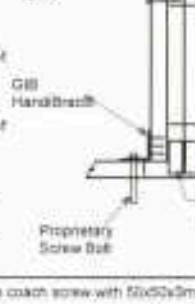
TYPE H (13.5 kN)



OR



OR



OR



FIXING CHART FOR LINTEL FIXINGS

Lintel Span	Loaded Dimension (See Pg. 13)	Light Roof Wind Zone					Heavy Roof Wind Zone				
		L	M	H	VH	EH	L	M	H	VH	EH
0.7	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F
0.9	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F
1.0	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F
1.2	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F
1.5	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F
2.0	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F
2.5	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F
3.0	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F
3.5	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F
4.0	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F
4.5	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F
5.0	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F
5.5	2.0	E	E	E	F	F	E	E	E	F	F
	3.0	E	E	E	F	F	E	E	E	F	F
	4.0	E	E	E	F	F	E	E	E	F	F
	5.0	E	E	E	F	F	E	E	E	F	F
	6.0	E	E	E	F	F	E	E	E	F	F

(Suitable for walls supporting roof members at 600, 900 or 1200mm crs.)

Wind Zones L, M, H, VH, EH, as per NZS 3604:2011

Loaded Dimension (m)	Stud Centres		Light Roof Wind Zone					Heavy Roof Wind Zone				
			L	M	H	VH	EH	L	M	H	VH	EH
3.0	2.7	1.5	A	A	B	B	A	A	B	B	B	
4.0	3.0	2.0	A	A	B	B	A	A	B	B	B	
5.0	3.5	2.5	A	A	B	B	A	A	B	B	B	
6.0	4.0	3.0	A	A	B	B	A	A	B	B	B	
7.0	5.3	3.0	A	A	B	B	A	A	B	B	B	
8.0	6.0	4.0	A	A	B	B	A	A	B	B	B	
9.0	6.8	4.0	A	A	B	B	A	A	B	B	B	
10.0	7.5	5.0	B	B	B	B	A	A	B	B	B	
11.0	8.3	5.0	B	B	B	B	A	A	B	B	B	
12.0	9.0	6.0	B	B	B	B	A	A	B	B	B	

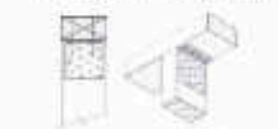
FIXING TYPE A
0.7 kN

2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud

FIXING TYPE B
4.7 kN

CHOOSE ANY OF THE 3 OPTIONS BELOW

2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud



Plus LUMBERLOK 6x6 Stud Anchor (CPC80)

Recommended for internal wall options to avoid lintel issues

2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud



Plus LUMBERLOK Stud Strap (over face only)

2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud



Plus LUMBERLOK Stud Strap (over face only)

2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud



Plus LUMBERLOK Stud Strap (over face only)

2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud



Plus LUMBERLOK Stud Strap (over face only)

2 x 90mm x 3.15 dia. plain steel wire nails driven vertically into stud



Plus LUMBERLOK Stud Strap (over face only)

BISHOP ARCHITECTURE

P.O. Box 508, ROTORUA
1109 Pukutua Street, ROTORUA
(0187) 829 8807
info@bishoparch.co.nz

Sill and Head trimmers

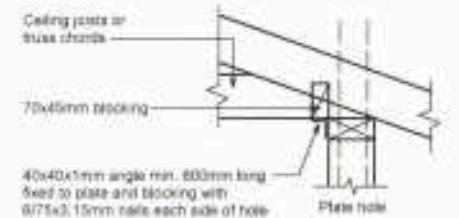
Maximum clear width of opening	Minimum thickness of sill and header trimmers
0m	0mm
2.0	30
2.4	45
3.0	60 (or 75mm)
3.6	75 (or 90mm)
4.2	90

All wind zones - NZS 9004 table 8.15

Terminal vent through top plate

For Terminal vents exceeding 80mm the top plate needs to be strengthened using one of the following methods:

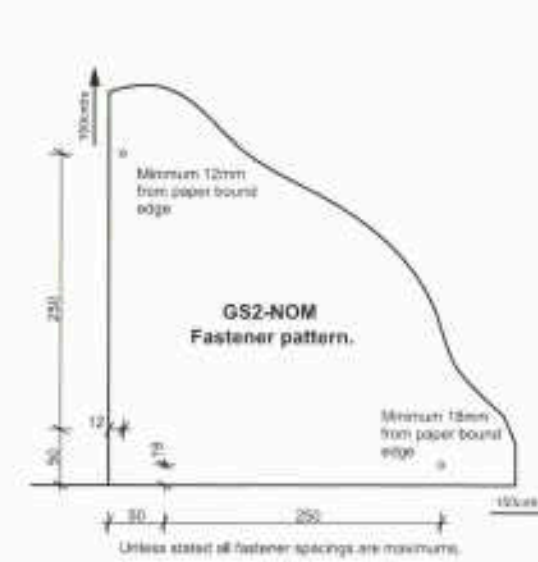
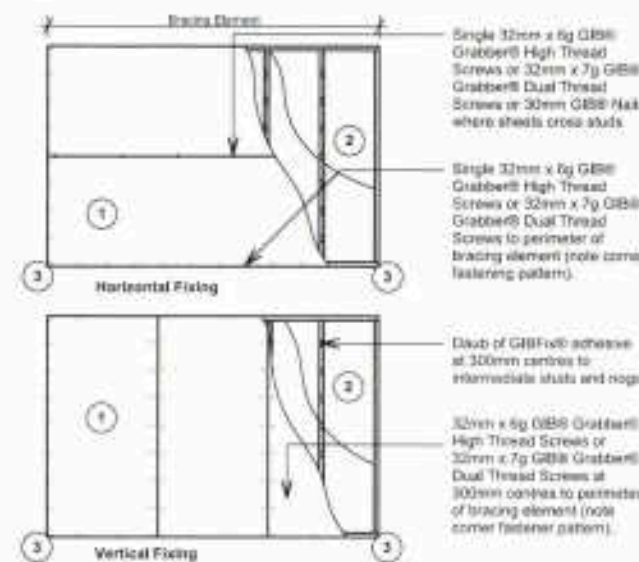
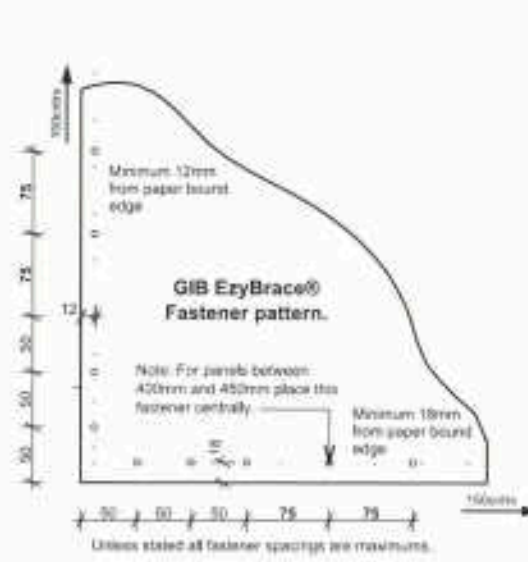
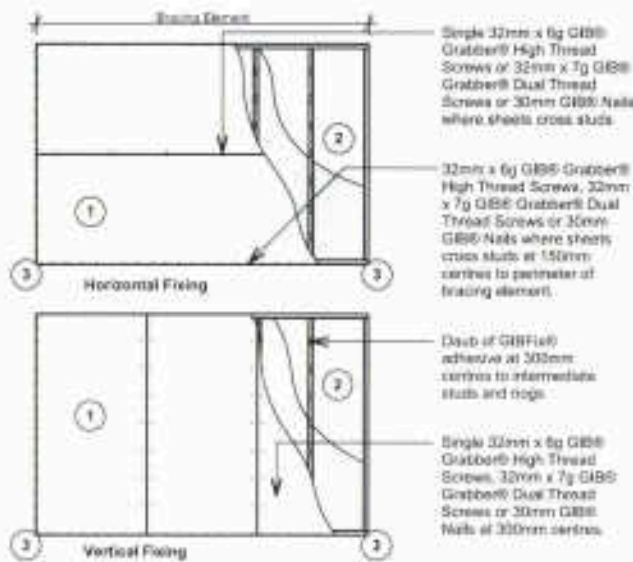
- (a) 470mm x 45mm member x 600mm long nailed to the exterior side of the plate with 4/75 x 3.15 nails on each side of the hole or notch.
- (b) A 70mm x 45mm wave runner connected to all studs and no more than 250mm below the top plate, or
- (c) A 70 x 45mm blocking fitted between ceiling joists or trusses above cut top plates and the steel angle



CONSENT

Client:	Mark Lam		
Site Address:	16 Oakland Place, Ngongotaha, Rotorua.		
LEGAL DESCRIPTION	Lot No.	70	389915
Job Title:	Gourlay Home - Mark Lam		
Drawing Title:	Fixings Details		
Scale:	NTS		
Drawn:	JWD	Drawing Number:	23
Checked:	MB	Job No.:	GH84
Published:	16/12/2019		

ALL DIMENSIONS TO BE VERIFIED ON SITE

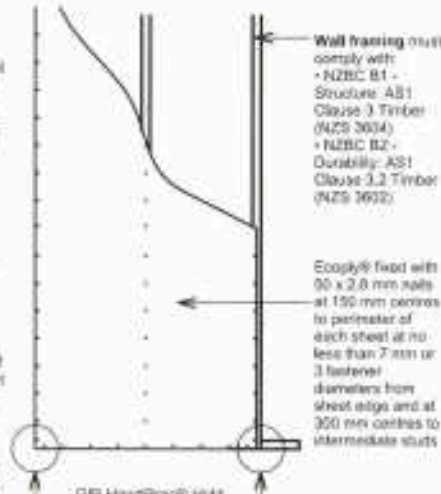


Fastening the Ecopy® Panels

Fasten with 50 x 2.8 mm galvanised or stainless steel flat head nails for direct fix, or 60 x 2.8 mm over cavity fasteners. Place fasteners no less than 7 mm from sheet edges.

Fasteners for H3.2 CCA treated Ecopy®

Where fasteners are in contact with H3.2 CCA treated timber or plywood, fasteners shall be a minimum of hot dip galvanised. In certain circumstances stainless steel fasteners may be required. Refer to Table 6 of the Ecopy Specification and Installation Guide for these circumstances and further fastener selection advice. Where stainless steel nails are required, annular grooved nails must be used.



Lining - EPGIGSP

Side 1: One layer of 7 mm, 8 mm or 12 mm Ecopy plywood exterior wall cladding fixed directly to framing. If part sheets are used, ensure nailing at required centres is carried out around the perimeter of each sheet or part sheet. A 2-3 mm expansion gap should be left between sheets.

Side 2: One layer of 10 or 13 mm GIB Standard plasterboard vertically or horizontally fixed. Sheet joints are touch fitted and fastener heads and joints stopped in accordance with the GIB® Site Guide.

Construction Details					
Brace type	Lining one side (1)		Lining opposite side (2)		Fasteners Spacing's
	Lining	Fasteners	Lining	Fasteners	
GS1-H	Any 10mm or 13mm GIB® Standard plasterboard	32mm x 6g GIB® Grabber® High Thread Screws, 32mm x 7g GIB® Grabber® Dual Thread Screws or 30mm GIB® Nails. If using the GIBFix® Angle use 32mm x 7g GIB® Grabber® Dual Thread Screws.	Not required	Not required	GIB® Plasterboard
GS2-N			Any 10mm or 13mm GIB® Standard plasterboard	32mm x 6g GIB® Grabber® High Thread Screws, 32mm x 7g GIB® Grabber® Dual Thread Screws or 30mm GIB® Nails. If using the GIBFix® Angle use 32mm x 7g GIB® Grabber® Dual Thread Screws.	Corner fastening pattern as illustrated above. Fasteners at 150mm to bracing element perimeter, and at 300mm centres to intermediate sheet joints for vertical fixing, or at stud / sheet junction for horizontally fixed elements, and GIBFix® adhesive double at 300mm c/s to intermediate framing.
GS2-NOM			Minimum 7mm structural plywood manufactured to AS/NZ 2269.0 - 2012	50 x 2.8mm Galv or Stainless steel annular grooved FH nails.	Yes, see detail.
GSP-H					
BL1-H	10mm or 13mm GIB® Bracknell®	32mm x 6g GIB® Grabber® High Thread Screws or 32mm x 7g GIB® Grabber® Dual Thread Screws. If using the GIBFix® Framing System or if fastening through GIBFix® Angles use only 32mm x 7g GIB® Grabber® Dual Thread Screws.	Not required	Not required	GS2-NOM
BL2-H			Any 10mm or 13mm GIB® plasterboard to the other side	32mm x 6g GIB® Grabber® High Thread Screws, 32mm GIB® Nails or 32mm x 7g GIB® Grabber® Dual Thread Screws.	Corner fastening pattern as illustrated above 50, 300mm from each corner and 300mm maximum thereafter around the perimeter of the bracing element.
BLP-H			Maximum 7mm structural plywood manufactured to AS/NZ 2269.0 - 2012	50 x 2.8mm Galv or Stainless steel annular grooved FH nails.	Plywood
EP1	One layer of 7 mm, 8 mm or 12 mm Ecopy plywood exterior wall cladding fixed directly to framing	50 x 2.8 mm hot dipped galvanised or stainless steel flat head nails for direct fix. Place fasteners no less than 7 mm or 3 fastener diameters from sheet edges. Screws cannot be used. Power driven nails are suitable. Do not overdrive, nails must be full round head.	Not required	Not required	Fasteners at 150mm around the perimeter of every sheet and at 300mm centres to intermediate studs. Place fasteners no closer than 7mm from sheet edges. Plasterboard corner fastener pattern does not apply to plywood.

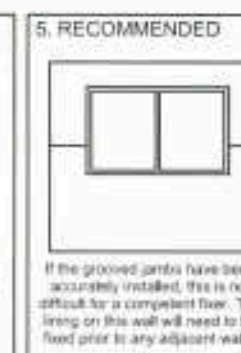
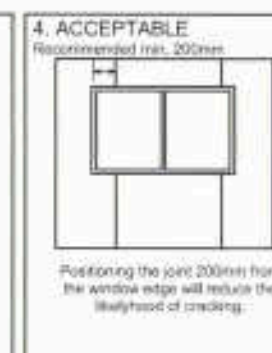
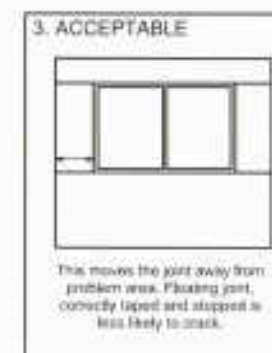
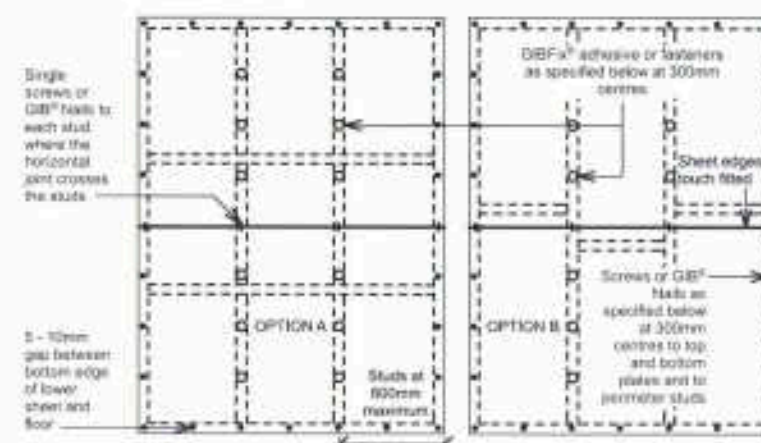
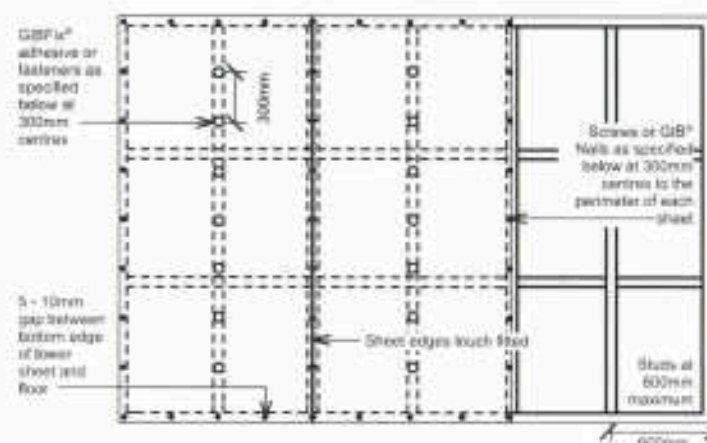
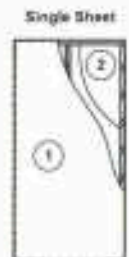
Bottom plate fixings for GIB Bracing Elements			
Brace type	Concrete slabs		Timber floors
	External wall	Internal wall	External and internal walls
GS1-H	As per NZS 3604:2011 No specific additional fastening required	As per NZS 3604:2011. Alternatively use 75x3.8mm shot-fired fasteners with 16mm washers, 150mm and 300mm from each end of the bracing element and at 600mm thereafter	Pairs of 100x3.75mm flat head hard driven nails or 3/80x3/15mm power driven nails at 600mm centres in accordance with NZS 3604:2011
GS2-N	Not applicable		
GS2-NOM			
GSP-H	Intermediate fastenings to comply with NZS 3604:2011		
BL1-H	In addition: GIB HandBrace® flange or metal wrap around strap fixings and bolt		
BLP-H	Not applicable	As for GSP-H, BL1-H, BLP-H on concrete slab above	In addition: GIB HandBrace® fixings or metal wrap around strap fixings and bolt as illustrated.

NOTES:

Gib Aqualine Wet System

Refer GIB Aqualine Wet Area Systems 2007 Installation guide for all wet area details.

PLASTERBOARD LININGS - All linings to Gib lining solutions Site Guide (December 2014) and all relevant suppliers documentation. Bracing elements as detailed on plans. Wet areas to be lined with Gib Aqualine as outlined in Gib Aqualine Wet Area Systems (March 2007).



CONSENT

Client:

Mark Lam

Site Address:

16 Oakland Place, Ngongotaha, Rotorua.

LEGAL DESCRIPTION

Lot No. **70** Section **389915**

Job Title:

Gourlay Home - Mark Lam

Drawing Title:

Linings Details

Scale:

NTS

Drawing Number:

24

Drawn: **JWD**

Checked: **MB**

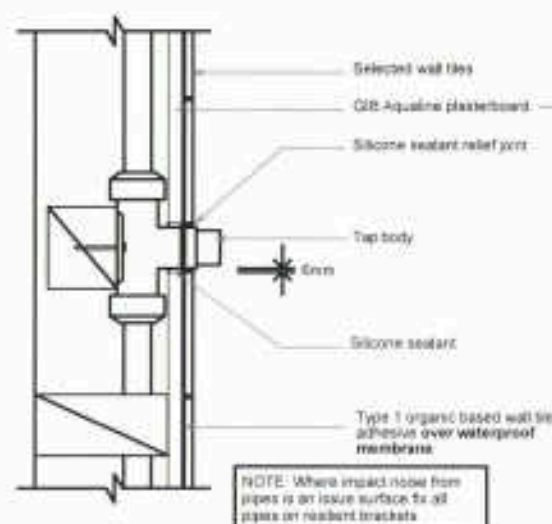
Published: **16/12/2019**

Job No: **GH84**

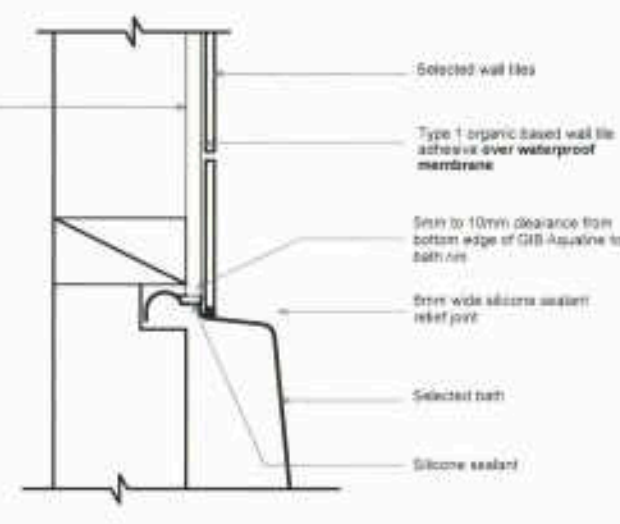
ALL DIMENSIONS TO BE VERIFIED ON SITE

BC ONLY
No - 80240

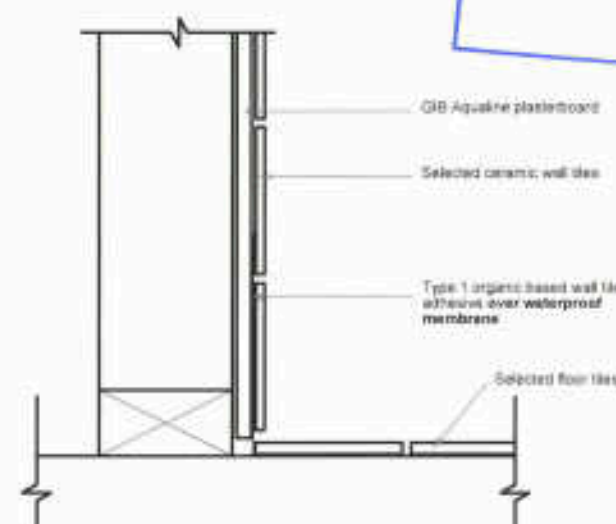
BISHOP
ARCHITECTURE
P.O. Box 808, ROTORUA
1100 Pukutahi Street, ROTORUA
(ph) 07 529 9807
jobs@bishoparch.co.nz



TYPICAL PLUMBING PENETRATION
SCALE 1:5

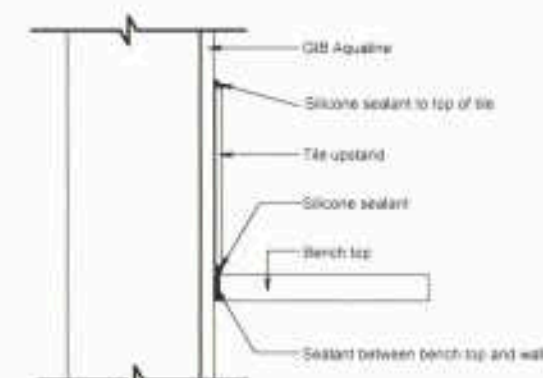
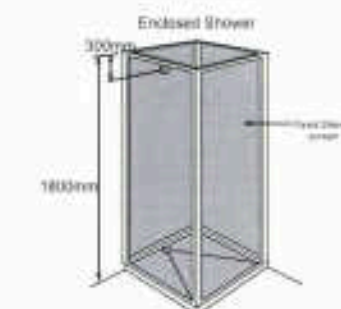
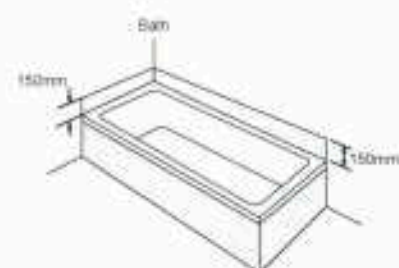
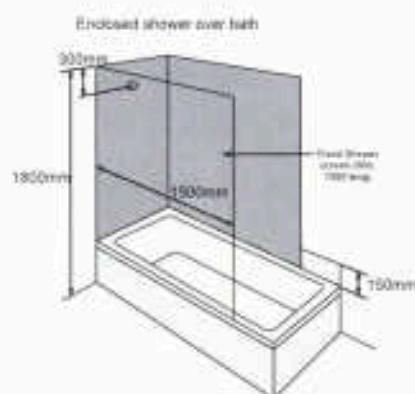
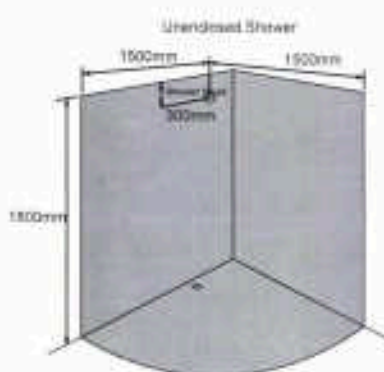
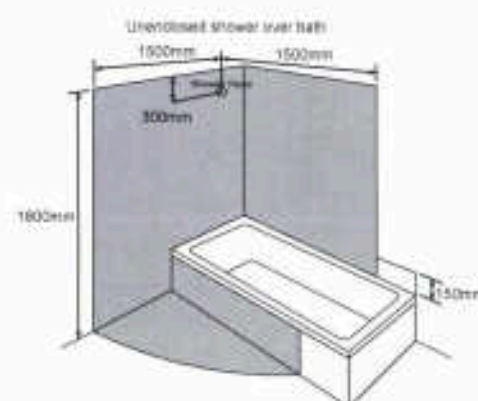


BATH WALL JUNCTION
SCALE 1:5

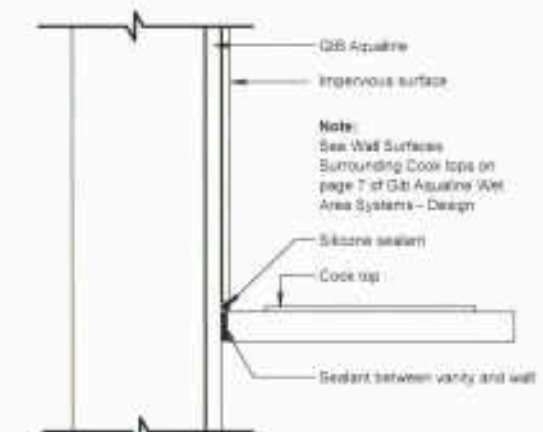


WALL TO FLOOR JUNCTION
SCALE 1:5

NOTES
Gib Aqualine Wet System:
Refer Gib Aqualine Wet Area Systems March 2007 installation guide for all wet area details.
PLASTERBOARD LININGS: All linings to Gib living systems Site Guide (December 2014) and all relevant suppliers documentation. Bracing elements as detailed on plans.
Wet areas to be lined with Gib Aqualine as outlined in Gib Aqualine Wet Area Systems (March 2007).
PARTING: Wet Areas - Water-based acrylic enamel paint applied over a solvent-based sealer coat.
Resene System as detailed or similar:
BASE: Resene Resene Brushed Waterborne Wallboard Sealer (D403) with either Resene Sureseal (D42) or Resene Waterborne Smooth Surface Sealer (D47a).
WALLS: Resene SpaceCote Low Sheen Kitchen & Bathroom (D311K) or Resene SpaceCote Low Sheen (D311).
CEILINGS: Resene SpaceCote Flat Kitchen & Bathroom (D314K) or Resene SpaceCote Flat (D314).



WALL TO BENCH JUNCTION
SCALE 1:5



WALL TO BENCH JUNCTION
SCALE 1:5

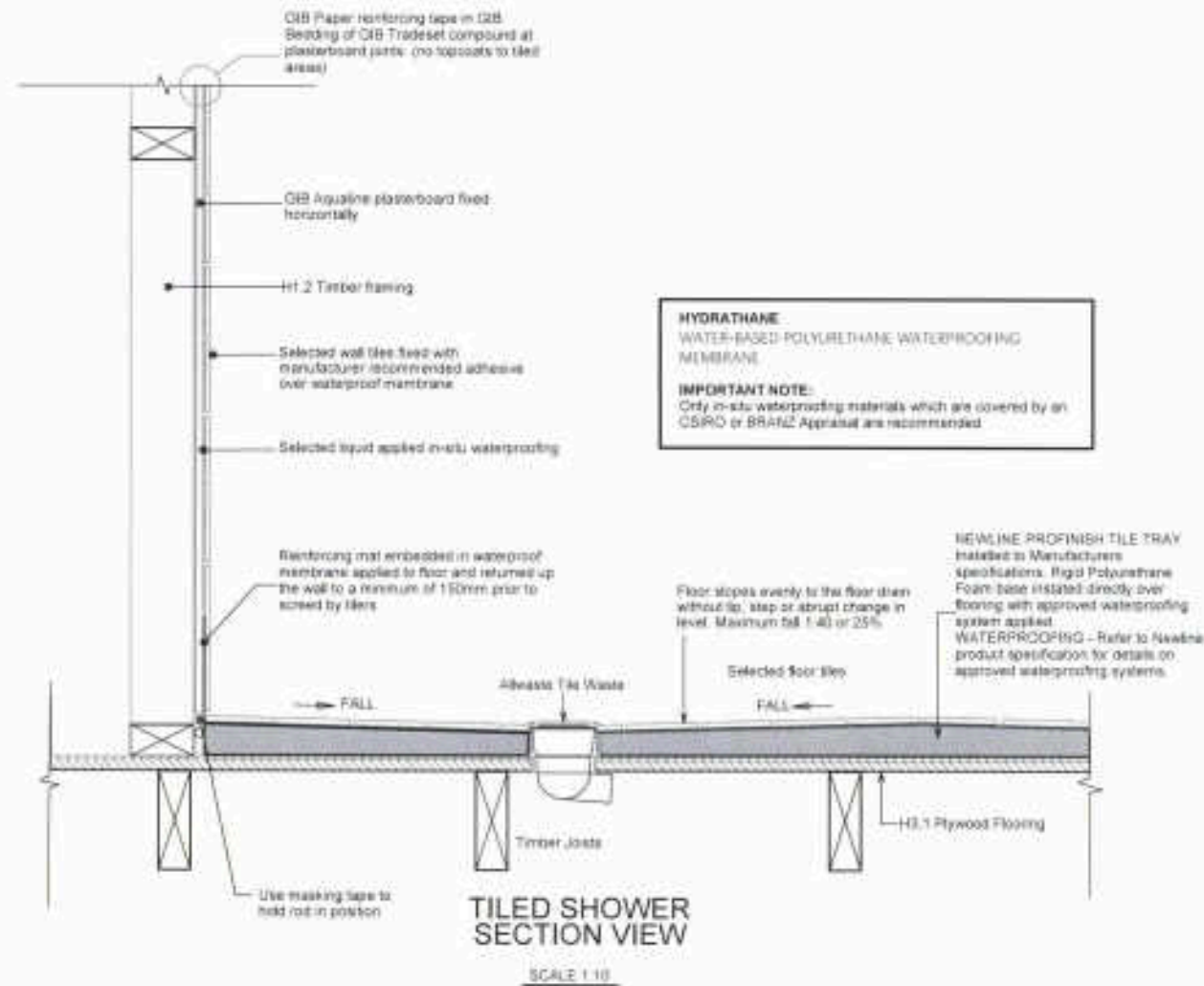
Surfaces in Showers and Around Baths
A waterproof membrane complying with AS/NZS 4858: 2004 MUST be applied to all lining materials used under ceramic tiles in these areas. The waterproof membrane must extend to a 1500mm horizontal radius from a shower rose unless the shower is contained within a fixed enclosure. Panelboard manufacturers recommend that in wet areas, panels should be protected with a suitable wet area membrane or an integrally waterproof sheet material. Some local authorities call for this treatment on all timber based floors. Local requirements should be checked before proceeding.
Dark grey shaded areas in the diagrams below represent the minimum extent of wall surfaces requiring impervious sheet materials or waterproof membranes prior to tiling. Light grey shaded areas represent good practice.
SHOWER MIXER
Run a bead of silicone sealant around the mixer unit onto the tiles extending below the bottom of the pipe aperture.

SURFACE FINISHINGS
ES 3.4 requires impervious and easily cleaned surfaces to all surfaces adjacent to sanitary fixtures or laundering facilities.
ES 3.5 requires that surfaces of building elements likely to be splashed or contaminated in the course of the intended use of the building, must also be impervious and easily cleaned.
ES 3.6 requires that surfaces of building elements likely to be splashed must be constructed in a way that prevents water from penetrating behind linings or into concealed spaces (e.g. wall cavities).
Walls in wet areas therefore need to be addressed according to whether they fall within the scope of one of the following descriptions:
1. Wall surface likely to be splashed
2. Shower walls. Although not a requirement of NZBC it is highly recommended that the wall surfaces within 150mm of the top edge of a bath and the vertical faces immediately under the edge of a bath, are sealed in the same way as for a shower wall.
QUICK Slip Resistance
Slip resistance in wet areas to meet NZBC D1 Table 2 with a slip resistance coefficient of 0.4 maximum when wet.

CONSENT

Client:	Mark Lam		
Site Address:	16 Oakland Place, Ngongotaha, Rotorua		
<u>LEGAL DESCRIPTION</u>			
Lot No.	70	389915	
Job Title:	Gourlay Home - Mark Lam		
Drawing Title:	Wet Area Details		
Scale:	1:1	Drawing Number:	25
Drawn:	JWD		
Checked:	MB		
Published:	18/12/2019	Job No.	GH84

ALL DIMENSIONS TO BE VERIFIED ON SITE



NOTES

Gib Aqualine Wet System

Refer Gib Aqualine Wet Area Systems March 2007 installation guide for all wet area details

PLASTERBOARD LININGS - All linings to Gib Site Guide (Jan 2010) and all relevant suppliers documentation. Bracing elements as detailed on plans.

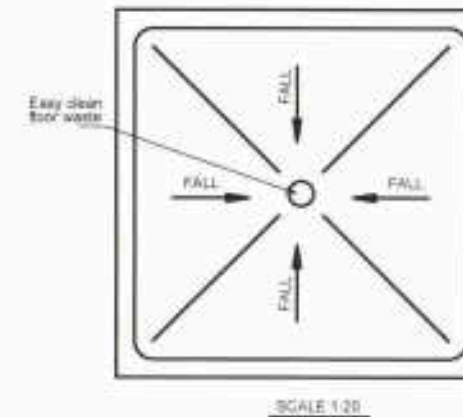
Wet areas to be lined with Gib Aqualine as outlined in Gib Aqualine Wet Area Systems (Mar 2007)

TILING

Tiles to be installed in accordance with requirements outlined in AS3958 (Installation of ceramic tiles).
Adhesive to be organic based complying with AS2356 or as specified by tile manufacturer

SHOWER MIXER

Run a bead of silicone sealant around the mixer unit onto the tiles extending below the bottom of the pipe aperture



CONSENT	
Client	Mark Lam
Site Address	16 Oakland Place, Ngongofaha, Rotorua.
LEGAL DESCRIPTION	
Lot No.	70 389915
Job Title	
Gourlay Home - Mark Lam	
Drawing Title	
Tiled shower Details	
Scale	1:1
Drawn	JWD
Checked	MB
Published	16/12/2019
Job No.	GH84
Drawing Number	26

ALL DIMENSIONS TO BE VERIFIED ON SITE

GIB EzyBrace® Bracing Software



Demand Calculation Sheet

Job Details

Name: New Gourlay Home
 Street and Number: 16 Oaklands
 Lot and DP Number: Lot 70, DP389915
 City/Town/District: Rotorua
 Designer: JWD
 Company: BA
 Date: 9 October, 2019

Building Specification

Number of Storeys: 1
 Floor Loading: 2 kPa
 Foundation Type: Subfloor
 Subfloor Cladding Weight: Light
 Cladding Weight: Single
 Roof Weight: Light
 Room in Roof Space: No
 Roof Pitch (degrees): 25
 Roof Height above Eaves (m): 2.9
 Building Height to Apex (m): 6.1
 Ground to Lower Floor (m): 1.1
 Average Stud Height (m): 2.4
 Building Length (m): 21.4
 Building Width (m): 12.6
 Building Plan Area (m²): 215.7

Building Location

Wind Zone = High
 Earthquake Zone 2
 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	703	1305
Subfloor Level	1049	1582

Bracing Units required for Earthquake

	Along & Across
Single Level	1466
Subfloor Level	2195

GIB EzyBrace® Version 8/16

ALONG											
Bracing Line			Bracing Elements Provided					Wind		Earthquake	
Line Label	Min BUs W	Min BUs E	Brace No.	Brace Type	Brace Length	Brace Angle	Brace Height	Rating BUs/m	BUs Achieved	Rating BUs/m	BUs Achieved
A	101	183	A1	BL1-H	0.9	0.0	2.4	90	79.2	100	88.0
			A2	BL1-H	0.8	0.0	2.4	90	72.0	100	80.0
			A3	BL1-H	0.5	0.0	2.4	90	45.0	100	50.0
B	192	192	B1	BL1-H	1.1	0.0	2.4	90	94.5	100	105.0
			B2	BL1-H	0.5	0.0	2.4	90	41.4	100	46.0
			B3	BL1-H	0.6	0.0	2.4	90	49.5	100	55.0
			B4	BL1-H	0.6	0.0	2.4	90	49.5	100	55.0
			B5	GS1-N	0.5	0.0	2.4	50	23.0	55	25.3
C	100	183	C1	BL1-H	3.2	0.0	2.4	125	396.2	105	332.8
			C2	GS1-N	1.8	0.0	2.4	70	126.0	60	108.0
			C3	GS1-N	2.6	0.0	2.4	70	182.0	60	156.0
D	321	321	D1	BL1-H	0.6	0.0	2.4	90	54.0	100	60.0
			D2	GS1-N	1.1	0.0	2.4	50	55.0	55	60.5
			D3	GS1-N	1.1	0.0	2.4	50	53.3	55	58.6
			D4	BL1-H	0.7	0.0	2.4	90	63.0	100	70.0
			D5	BL1-H	0.8	0.0	2.4	90	69.3	100	77.0
			D6	GS1-N	0.8	0.0	2.4	50	40.0	55	44.0
			D7	GS1-N	0.8	0.0	2.4	50	40.0	55	44.0
			D8	BL1-H	0.8	0.0	2.4	90	67.5	100	75.0
Totals Achieved								W	1,600.4	E	1,590.2
Totals Required								W	703.0	E	1,466.0
ACROSS											
Bracing Line			Bracing Elements Provided					Wind		Earthquake	
Line Label	Min BUs W	Min BUs E	Brace No.	Brace Type	Brace Length	Brace Angle	Brace Height	Rating BUs/m	BUs Achieved	Rating BUs/m	BUs Achieved
M	100	105	M1	BL1-H	1.2	0.0	2.4	125	150.0	105	126.0
			M2	BL1-H	1.2	0.0	2.4	125	150.0	105	126.0
N	117	117	N1	BL1-H	0.5	0.0	2.7	90	36.7	100	40.8
			N2	GS1-N	0.4	0.0	2.7	50	18.3	55	20.2
			N3	BL1-H	0.7	0.0	2.4	90	62.1	100	69.0
O	100	105	O1	GS1-N	1.8	0.0	2.7	70	114.1	60	97.8
			O2	GS1-N	1.8	0.0	2.4	70	126.0	60	108.0
P	100	105	P1	GS1-N	1.8	0.0	2.4	70	126.0	60	108.0
			P2	GS1-N	1.8	0.0	2.4	70	126.0	60	108.0
Q	100	105	Q1	GS1-N	3.0	0.0	2.4	70	211.4	60	181.2
			Q2	GS1-N	1.8	0.0	2.4	70	126.0	60	108.0
R	100	105	R1	GS1-N	1.8	0.0	2.4	70	126.0	60	108.0
			R2	GS1-N	1.8	0.0	2.4	70	126.0	60	108.0
S	141	141	S1	GS1-N	2.4	0.0	2.4	70	168.0	60	144.0
			S2	GS1-N	2.6	0.0	2.4	70	182.0	60	156.0
			S3	GS1-N	0.6	0.0	2.4	50	31.5	55	34.7
Totals Achieved								W	1,690.2	E	1,643.6
Totals Required								W	1,305.0	E	1,466.0

BISHOP ARCHITECTURE
 P.O. Box 908, ROTORUA
 1109 Pukutua Street, ROTORUA
 (ph) 07 925 9807
 (fax) 07 925 9807
 (email) info@bishoparch.co.nz

BC ONLY
 # 80240

CONSENT

Client: **Mark Lam**

Site Address: **16 Oakland Place, Ngongotaha, Rotorua.**

LEGAL DESCRIPTION:
 Lot No: **70** DP No: **389915**

Job Title: **Gourlay Home - Mark Lam**

Drawing Title: **Bracing Calcs**

Scale: **1:100, 1:1.0313**

Drawn: **JWD**

Checked: **MB**

Published: **16/12/2019**

Drawing Number: **27**

Job No: **GH84**

ALL DIMENSIONS TO BE VERIFIED ON SITE

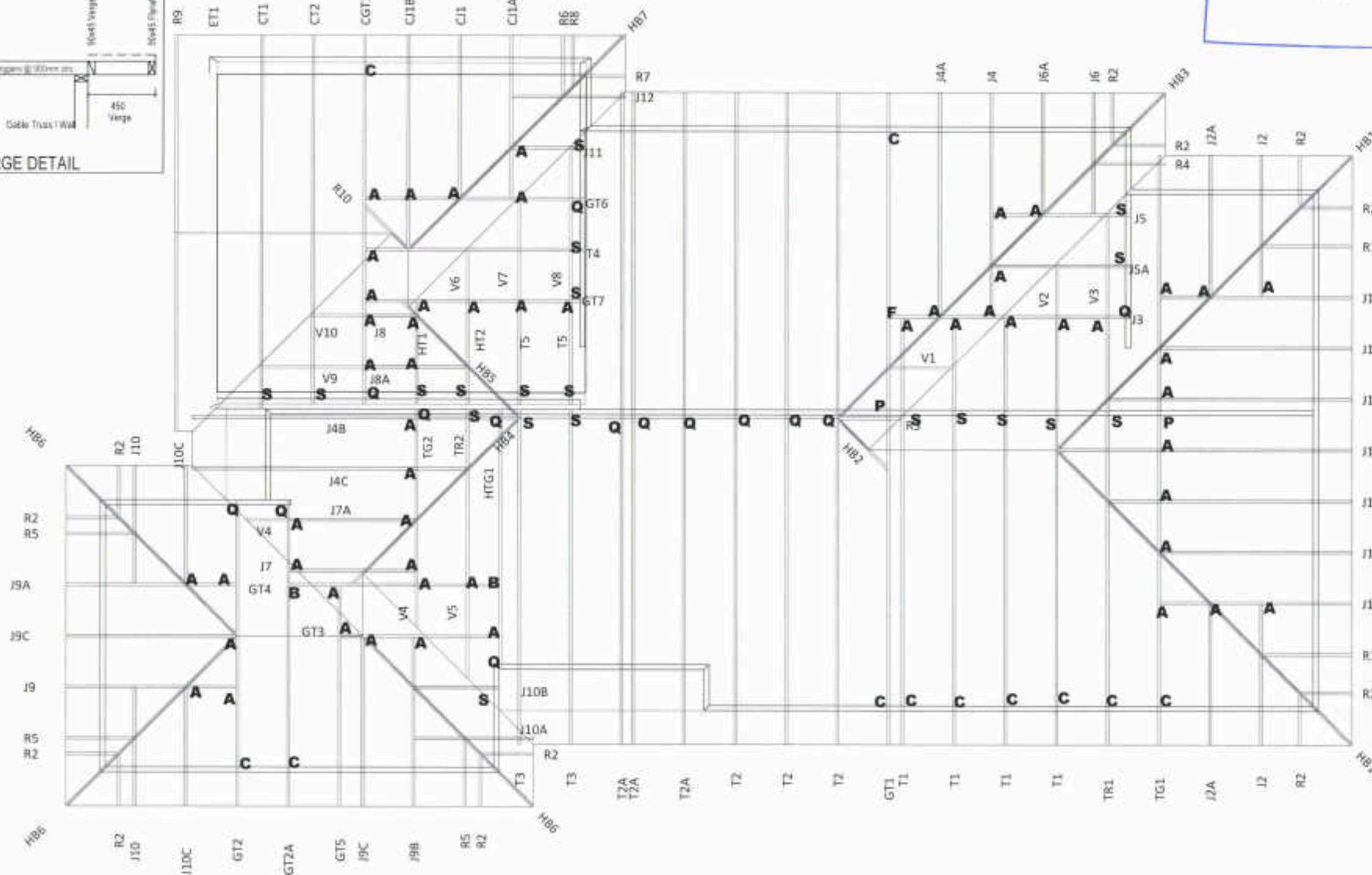
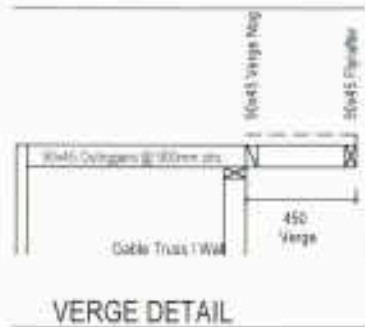
BUILDABLE CONSENT LAYOUT

For valley/saddle truss fixing unless stated otherwise use a pair of wire dogs at 900mm centres for up to and including a very high wind zone. Or a pair of CT200's at 900mm centres for extra high wind zone. This fixing is to meet the minimum requirements as per NZS3604.

CARTERS

Your Building Partner

BC ONLY
80240



CARTERS
Carters Manufacturing Cambridge
(07) 3431049

JOB No **267122C2**

Client: GOURLAY HOMES LIMITED
Job: MARK LAM
Site: 16 OAKLAND PLACE
NGONGHATAHA
ROTORUA

Pitch: 25.0deg
Roof Type: Metal Tiles
Overhang: 600mm
Wind Area: High
Roof Snow: 0.000kPa
Ceiling Restraint Centres 600mm

Trusses and rafters at 900mm
max centres unless stated otherwise.
This layout is to be read in conjunction
with the Architectural plans.

DRAWN David Shaw 18 Sep.2019

FIXINGS

- A = 47x90 Joist Hanger**
- B = 47x120 Joist Hanger**
- C = CT200 (pair)**
- D = 47x190 Joist Hanger**
- E = 95x165 Joist Hanger**
- F = SH-140 Split Hanger**
- G = SH-180 Split Hanger**
- H = SH-220 Split Hanger**
- J = 2x6kN Strap (12kN Total)**
- K = 6kN Strap**
- L = Multigrip (single)**
- M = Multigrips (pair)**
- N = Nailon Plate (240x110x1)**
- P = 16kN Pack**
- Q = 9kN Pack**
- S = CPC 40 Single Cleat**
- T = CPC 40 Short (pair)**
- U = CPC 80 Single Cleat**
- V = 16kN Uplift**
- W = 24kN Uplift**
- X = 25kN Uplift**
- Y = 35kN Uplift**
- Z = 45kN Uplift**

Unless otherwise indicated, all specified truss fixings are to use L/Lok product nail fasteners (as per the MiTek On-site Guide) when the choice of using screws or nails is optional.

All truss to frame fixings require 2 additional 2/90x3.15dia skew nails.

All truss fixings not indicated as above must have 2 wire dogs for cross joints and 2/90x3.15dia nails for butt joints.

Fixings shown are for fixing trusses to the top plate. Any other point load uplift fixings down through the framing stud to top plate, stud to bottom plate, bottom plate to floor remain the responsibility of the architect / draughtsman.

EASE NOTE: The trusses on this job have been designed based on direct fixed ceiling battens restraining truss bottom chords, not metal ceiling battens on clips.
All gable trusses are designed to suit cladding manufacturer's framing requirements.
If a gable truss requires a windbeam brace, the type of MiTek brace will be noted as such on the layout.

Truss Layout

CARTERS

Your Building Partner

JOB No **267122C2**

Pitch:	25.0deg
Roof Type:	Metal Tiles
Overhang:	600mm
Wind Area:	High
Roof Snow:	0.000kPa

Trusses and rafters at 900 mm max centres unless stated otherwise. This layout is to be read in conjunction with the Architectural plans.

DRAWN David Shaw	18 Sep.2019
------------------	-------------

 Dn	kN	 Up	kN	Ultimate Limit State Loads

Notification of point loaded lintels or point loads on internal walls where the downward load is higher than 8kN (85mm raft type slab) or 10kN (100mm standard slab), or the upward load is greater than 10kN.

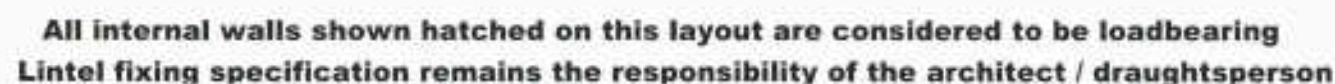
Any roof loads as stated on this layout over 16kN up or down are outside the scope of NZS3604, and the architect / draughtsperson is responsible for the design to transfer the loads to the ground.

The lintels have been sized using one of the following:

hy90, hyONE and hySPAN lintels have been sized using the designIT for houses - New Zealand series 6 software.

GANGLAM and FLITCH BEAMS
have been sized using the MiTek
Beam Program V1.10 June 2011.

Unless otherwise stated the timber grade for all lintels is SG8. Lintels not shown are to be selected as per NZS3604: 2011.



GENERAL

1. Do not scale from drawings. These drawings are to be read in conjunction with the architectural drawings and all other related documents. Refer to architectural drawings for dimensions, rebates & recesses.
2. Contact the architect/engineer if any discrepancies are found.
3. Under no circumstances shall polystyrene spacers be used. Use recommended spacers as per details provided.
4. DPM shall be in accordance with NZS3604 (polyethylene sheet, mm, 0.25mm). All penetrations through the DPM shall be sealed.
5. A layer of sand binding or granular fines (GAF7) shall be placed, screeded and compacted over the building platform. The maximum thickness of this layer shall be no more than 50mm.
6. All service trenches shall be properly backfilled and compacted.
7. Where underfloor heating is installed, floor topping shall be increased to 110mm.
8. Concrete polishing/grinding has not been allowed for in this design. Please advise Wilton Joubert Ltd if it is intended for the floor to be polished/grinded.
9. Polystyrene pods shall be 1100 x 1100 x 220mm.

CONCRETE

1. All concrete work and materials shall conform to NZS3109 and applicable building consent authority regulations.
2. No cuts shall be made to the floor other than those shown on the drawings.
3. Unless otherwise noted,
Concrete for slabraft shall be:
20MPa minimum with Firth RP20 (BTC2 fibre mix or 25MPa minimum with Firth RP25 (BTC2 fibre mix (if in exposure zone D))
- Concrete for footings shall be:
20MPa minimum or 25MPa minimum within 'exposure zone D' (if in doubt, confirm with local BCA)

REINFORCEMENT

1. Unless otherwise specified, all reinforcement shall be Ductility Class E, in accordance with NZS 4671.
2. All bend diameters shall comply with NZS 3109. Re-bending of reinforcement is not permitted. Spot welding of reinforcement is not permitted.
3. All mesh reinforcement shall be Ductility Class E as per NZS4671.
4. Unless otherwise specified by proprietary product specifications, mesh shall be lapped a minimum of 250mm or by a gnd plus 50mm, whichever is greater.
5. Unless otherwise specified on plans, minimum covers are:
exposed to earth: 75mm
exposed to edge: 50mm
protected by damp proofing: 50mm
6. Unless otherwise specified, reinforcement laps are:

Reinforcement Grade	Nomination	min. lap (whichever is greater)	concrete strength (MPa)
300	'D'	40Ø or min. 600mm	all blockfill, 20 and 25
500	'HD'	70Ø	all blockfill
500	'Hb'	56Ø	20
500	'Hb'	50Ø	25

SITE CONDITIONS

1. Design based on soils report/assessment
By: O'Brien Geotech Ltd
Ref: S83 rev A
Dated: April 2019

Specifically: Design based on all unsuitable material removed and uniform soils across building platform with a minimal Ultimate bearing capacity of: 300 kPa, subject to engineers confirmation. Design based on TC2 requirements as detailed in MBIE Guidance Document December 2012.



INSPECTIONS

1. Check the BUILDING CONSENT CONDITIONS for any inspections that are required by the Building Consent Authority (BCA).
2. If BCA requires PS4 to be issued for inspections, a local engineer may be engaged to carry out such inspections and issue a PS4 accordingly.

NOTES

Item	Description	Date
1	due to suffer cracks	30-7-19

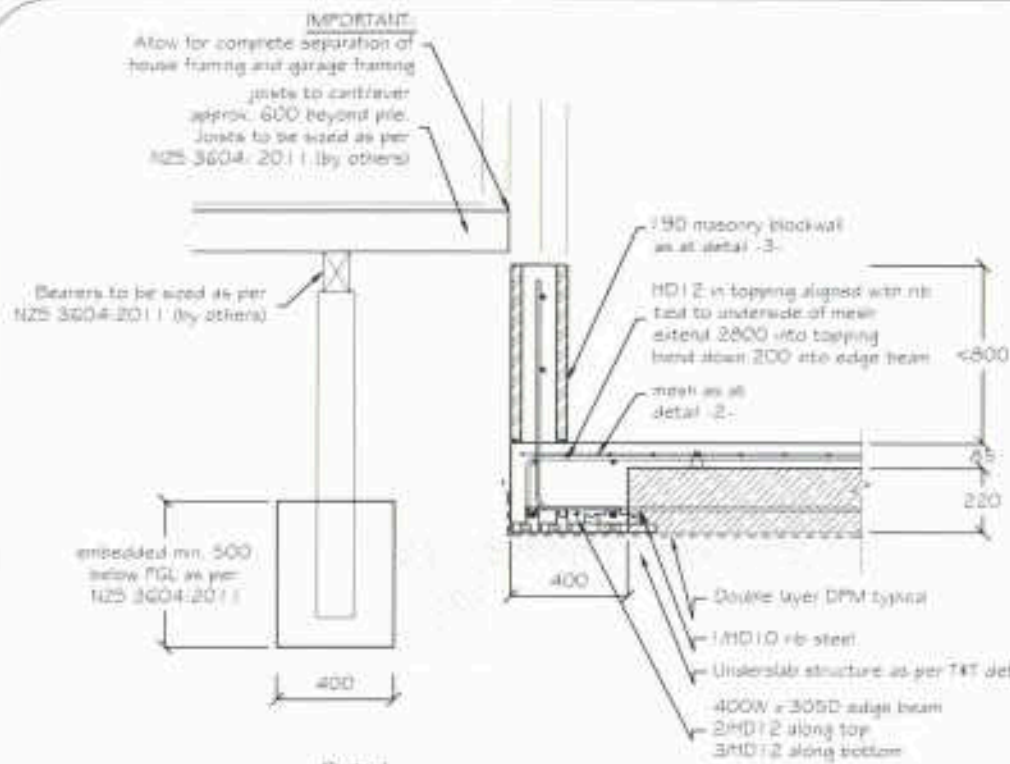
WILTON JOUBERT
 Consulting Engineers

Northland: 09 945 4188
 Auckland - Waikato: 09 527 0196
 Canterbury: 021 824 063
 Southern Lakes: 03 443 6209
www.wiltonjoubert.co.nz

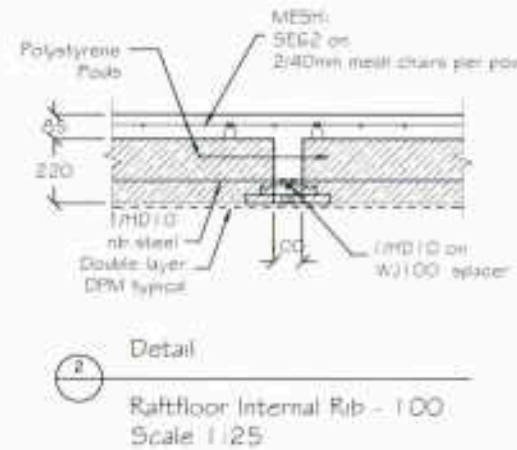
in Title
 Proposed Residence
 Lot 70
 16 Oaklands Place
 Ngongotaha, Bay of Plenty

in Title
 General Notes

AAF	MH
NL	AAF
	31-4-2018
Job # 76541	50
Revised by: P.S. 18/12/18	

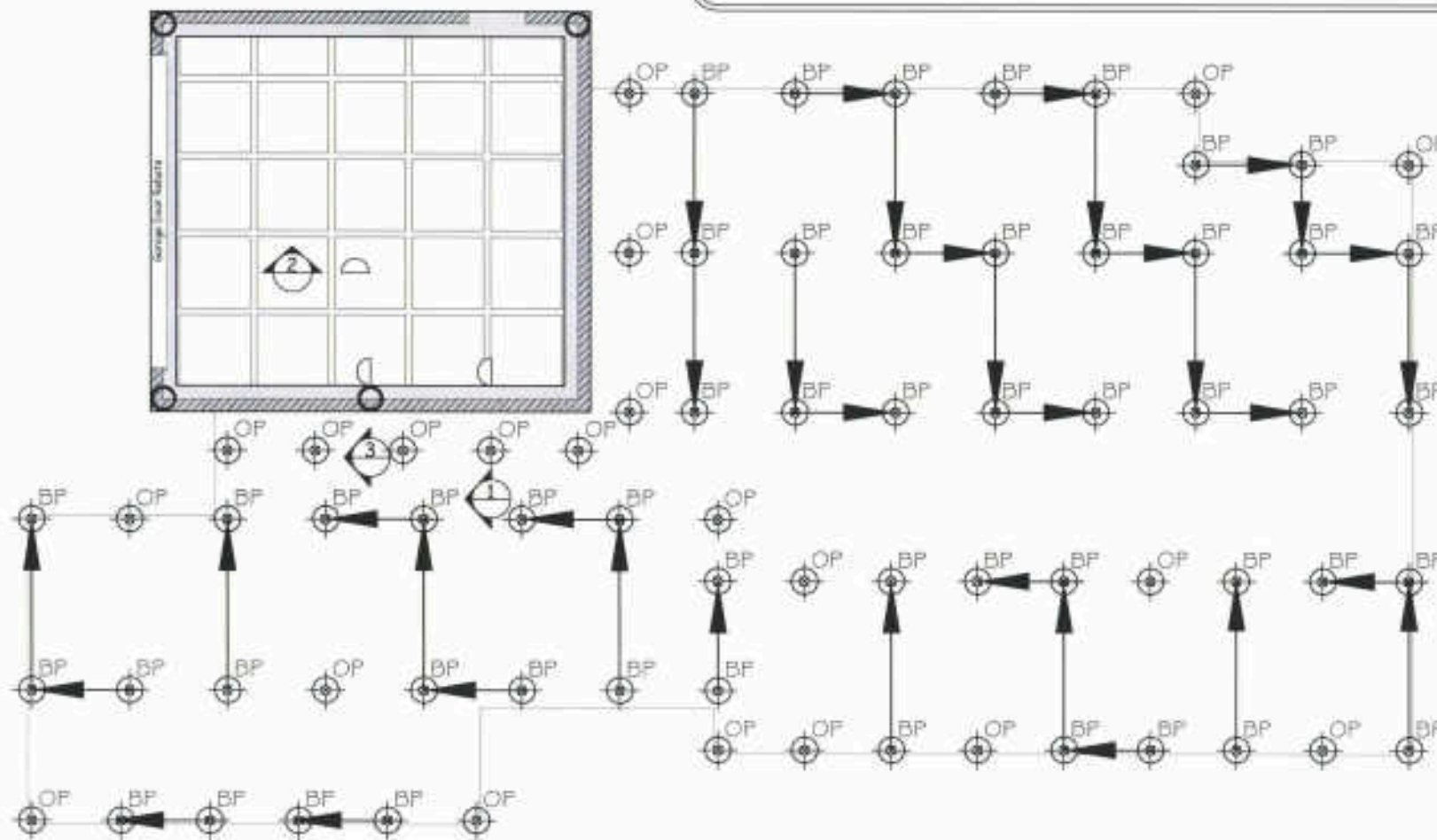


Detail 1
Raftfloor Edge Beam - 400
Scale 1:25

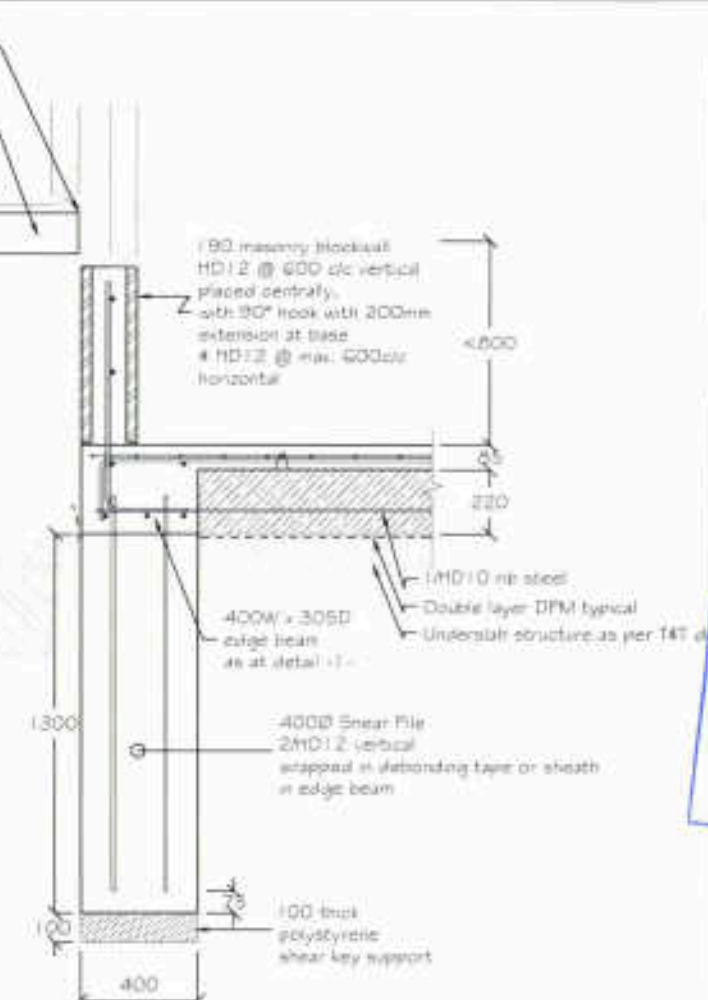


Detail 2
Raftfloor Internal Rib - 100
Scale 1:25

Double DPM Layer: DPM to generally comply with Clauses 7.5.4 to 7.5.7 of NZS3604:2011. Two layers of 0.25mm polythene to be used. Laps for each layer to be staggered. Laps to be taped.



Ribraft Floor Plan
Scale 1:100



Detail 3
Raftfloor Edge Beam - 400
Scale 1:25

Legend:

400B Shear Key File 2HD12 vertical set 1.3m below CGL

pile designation

Post footing 'BP' 400B BCF footing set min. pile depth: 500mm below FGL as per NZS 3604:2011 max. height to top connection: 1100mm 125# Serton Post cast in with 100mm bottom cover: rings as per NZS 3604:2011 Min. 12.0M rings between pile and bearer as per NZS 3604:2011

Diagonal braces to piles as per NZS3604, arrow head indicates top of brace Braces to be 100x75 or 100x100 SGB traces as per NZS 3604:2011 Braces fixed to piles top and bottom as per NZS 3604:2011

Post footing 'OP' 400B BCF footing set min. pile depth: 500mm below FGL as per NZS 3604:2011 max. height to top connection: 1100mm 125# Serton Post cast in with 100mm bottom cover: Ordinary pile rings at top of pile

Quantities of Spacers

(Quantities are approximate and to be used as a guide only)

Item	Qty.
W100 Centre Spacer	50
W100 Clip or Spacer	20

NOTES

Do not scale from Drawings. Refer Architectural Drawings for overall dimensions. To be read in conjunction with all other related documents.

BC ONLY
80240

Item	Description	State
1	400B Shear Key File	10-11



Northland: 09 945 4188
Auckland - Waikato: 09 527 0196
Canterbury: 021 824 063
Southern Lakes: 03 443 6209
www.wiltonjoubert.co.nz

Site Title
Proposed Residence
Lot 70
16 Oaklands Place
Ngongotaha, Bay of Plenty

Sheet Title
Ribraft Floor
Plan & Details

AAF	MH
NL	AAF
100	24-338
Job # 76541	S1

Group 1 = 401528

S1



NOTES:

- | Test Sieve Aperture
(mm) | Percentage passing
(%) |
|-----------------------------|---------------------------|
| 24.5 | 100 |
| 13.2 | 85-100 |
| 8.5 | 80-95 |
| 4.75 | 65-85 |
| 2.50 | 50-70 |
| 1.18 | 35-55 |
| 0.8 | 18-40 |
| 0.3 | 3-25 |
| 0.15 | 8 max |
| 0.075 | 0 |

		DRAWS: SMR, MUR GROUND CHECK: HP, FI APPROVED: TAT, ITC	
Tonkin & Taylor Environmental & Engineering Consultants		PEOPLE 851126 Stg 1, F 10, dwg 80413 (at 45 WEE) t: 300	
☐ Hamilton ☐ Nelson ☒ Auckland ☐ Wellington ☐ Christchurch ☐ Dunedin ☐ Auckland	REG-ECT No 851126		

Figure 10



Switches		
	2Way	2 Way Circuit
	3Way	3 Way Circuit
		3 Point Switch
		Single Switch

Lights		
	Fluorescent	Fluorescent Light
		Up&Down Light
		Inline fan with light ducted outside
		Ceiling Mounted Light
		Night Light
		Owner supplied Light
		Bathroom Light Ducted outside
		Outside Recessed Light
		Recessed Down Light
		Halogen Light
		Sensor Light

Plugs & Sockets		
		Key Connection
		Double Plug
		Rft Connection
		Single Plug
		Range Hood Plug
		Special Wiring
		TV Connection

Other		
		Wall Mounted Heater
		Smoke Alarm Hardwired
		Security Sensor
		Internal heatpump
		Light Sensor
		Extractor Fan ducted outside
		Garage Door
		Heated Towel Rail
		Distribution Board



CONSENT

Client:		Mark Lam	
Site Address:		16 Oakland Place, Ngongotaha, Rotorua.	
LEGAL DESCRIPTION		Lot No. 70 389915	
Job Title:		Gourlay Home - Mark Lam	
Drawing Title: Electrical Plan (Blank)			
Scale:	1:100	Drawing Number:	35
Drawn:	JWD	Checked:	MB
Published:	16/12/2019	Job No:	GH84

ALL DIMENSIONS TO BE VERIFIED ON SITE