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Kyle Wills & Elise Le Compte
Lot 106
Belfast Development
Belfast, Christchurch

Job Number:
143897

Original Plan:
Fernbird

Sheet Name:
COVER PAGE

Sales: D Ryan Drawn: M Glynn QS: S Liu Print Date: 12/04/2022 Scale: @ A3

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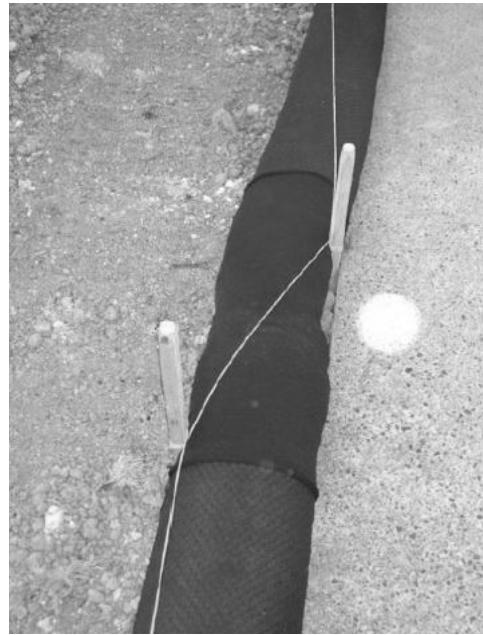
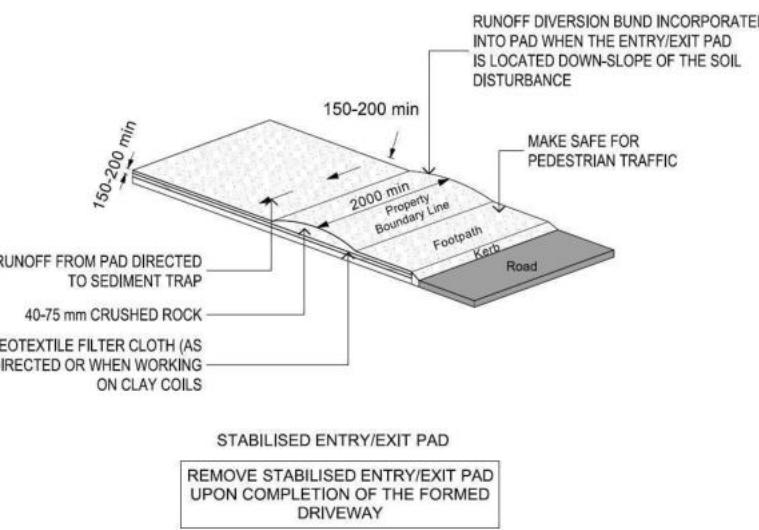
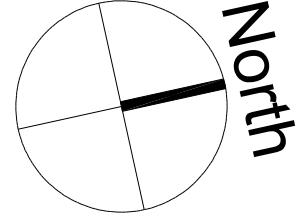
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of 23 sheets

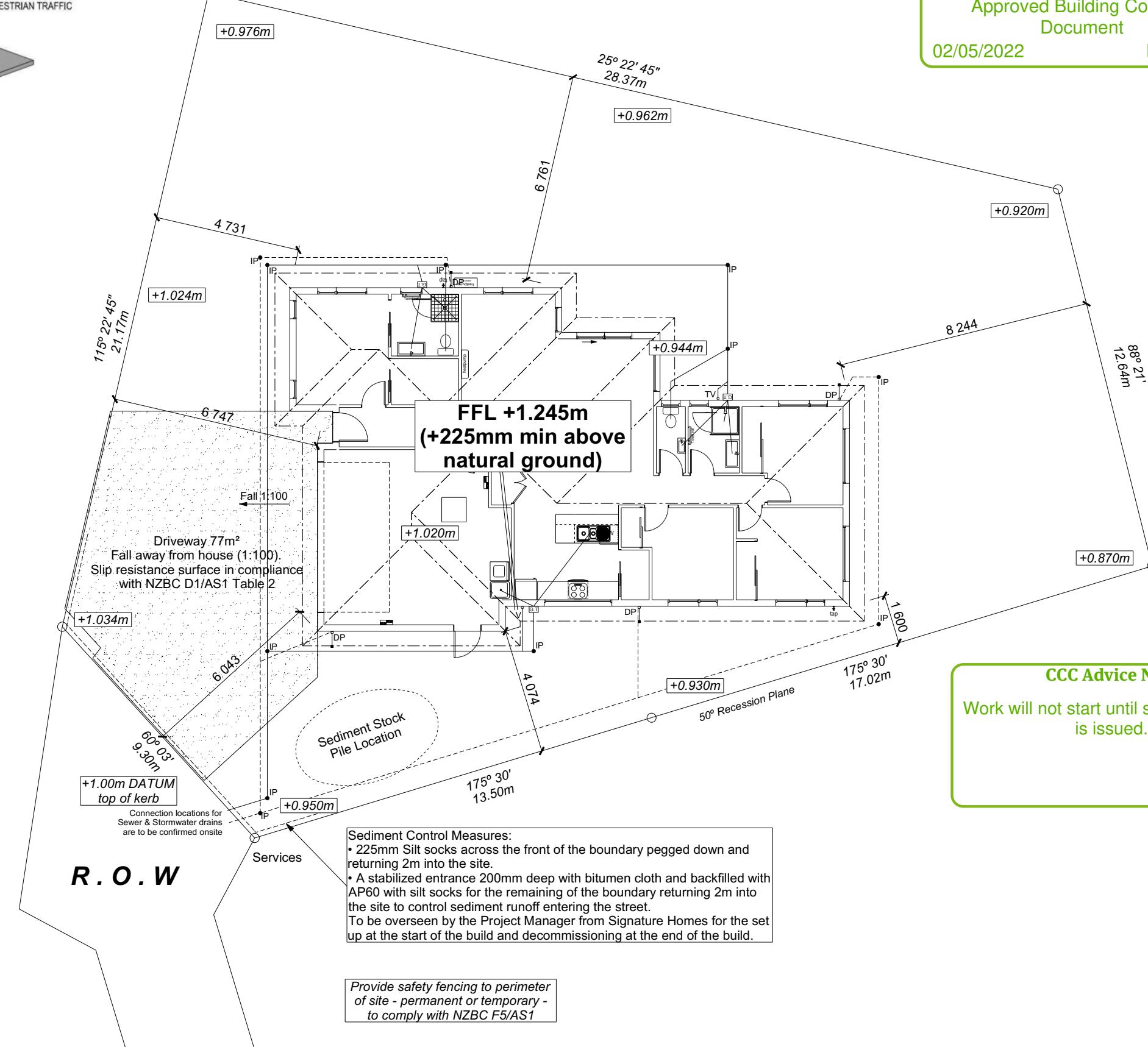


02/05/2022

Rae, Yoko



Silt sock joined using a sleeve and pegged and secured using bailing twine with 1 m overlapping joint (Source: Erosion Control Ltd)



CCC Advice Note

Work will not start until s224 certificate is issued.

SITE INFORMATION

Site Area : 725m²
Floor Area (VENEER) : 160.32m²
Site Coverage : 22.11%

Wind High
Earthquake 2
Exposure C
Snow N 4 at 50m (up to 1kPa)

Note: The dimensions shown are from cladding to boundary. Refer to sheet 8 for foundation to boundary dimensions.

Sediment control and site safety requirements are noted in the attached Specifications.

DRAINAGE LEGEND

-----	Stormwater DN100mm uPVC
-----	Sewer Drain DN100mm uPVC
DP	Downpipe
GT	Gully Trap
ORG	Overflow Relief Gully
TV	Terminal Vent
AAV	Air Admittance Valve
IP	Inspection Point

DRAWING NOTES

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Job Number:
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Sheet Name:
SITE PLAN

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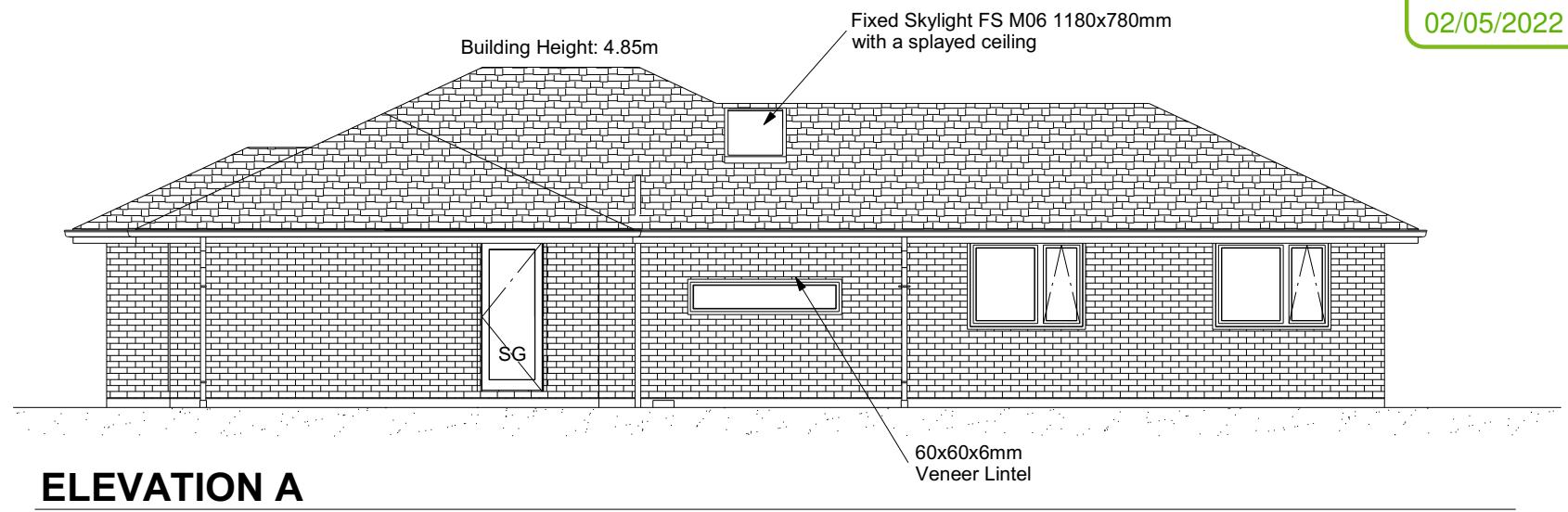
ROOF & WALL CLADDINGS
Roof: 25° Pressed Metal Tiles
Walls: 70 Series Brick Veneer
with a 50mm cavity

ELEVATION LEGEND	
SS	Safety Stays
SG	Safety Glass
MB	Meter Box
TV	Terminal Vent

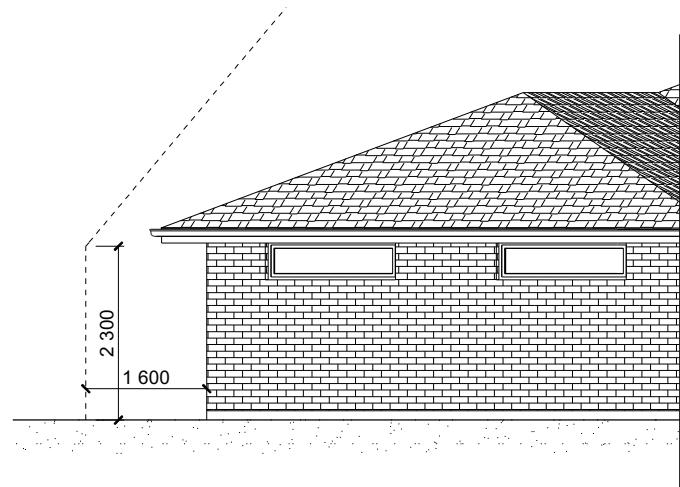
ELEVATION NOTES
Gutter : Coloured Steel Quad Gutter
Fascia : Coloured Steel 185 Fascia
Downpipes : Colorsteel Rectangular 75x55mm
Soffits : Hardiflex 4.5mm
Joinery : Double glazed aluminum

All egress points to have a maximum step down of 190mm.
Access routes to have slip resistance surface in compliance with NZBC D1/AS1 Table 2 and to have a 1:100 fall away from the building

BUILDING ENVELOPE RISK MATRIX		
ELEVATION A		
RISK CRITERIA	RISK	SCORE
Wind Zone	High	1
Number of Stories	Low	0
Roof Wall Junction	Low	0
Eaves Width	Medium	1
Building Envelope	Low	0
Decks & Balconies	Low	0
Total		2



BUILDING ENVELOPE RISK MATRIX		
ELEVATION B		
RISK CRITERIA	RISK	SCORE
Wind Zone	High	1
Number of Stories	Low	0
Roof Wall Junction	Low	0
Eaves Width	Medium	1
Building Envelope	Low	0
Decks & Balconies	Low	0
Total		2



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Job Number:
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Sheet Name:
ELEVATIONS

Sales:

Drawn:

QS:

Print Date:

Scale:

D Ryan
M Glynn
S Liu
12/04/2022
1:100 @ A3

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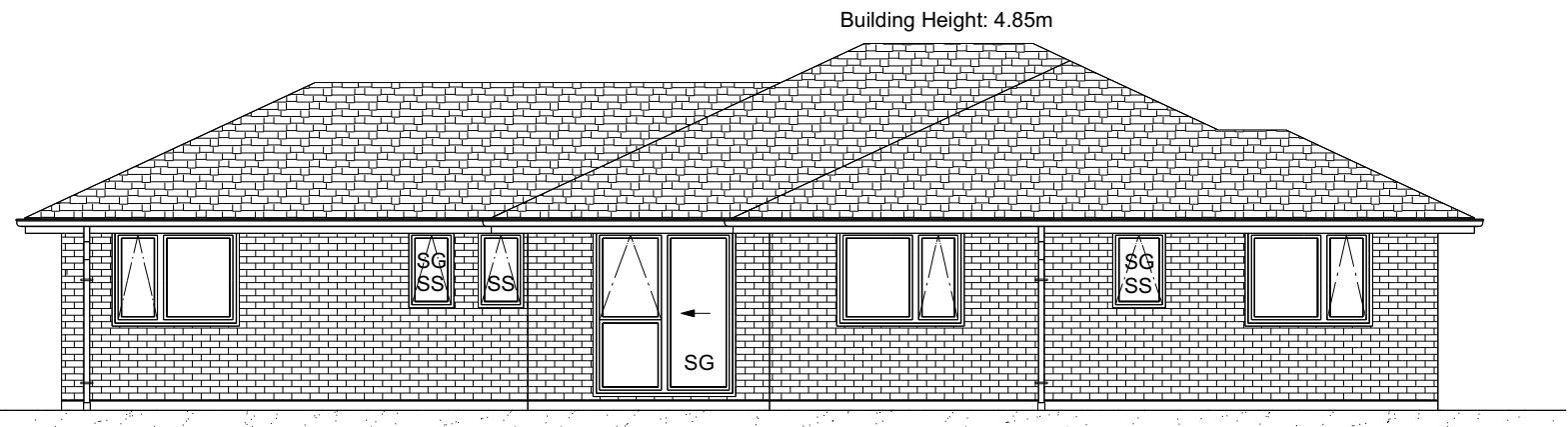
ROOF & WALL CLADDINGS
Roof : 25° Pressed Metal Tiles
Walls : 70 Series Brick Veneer
with a 50mm cavity

ELEVATION LEGEND	
SS	Safety Stays
SG	Safety Glass
MB	Meter Box
TV	Terminal Vent

ELEVATION NOTES
Gutter : Coloured Steel Quad Gutter
Fascia : Coloured Steel 185 Fascia
Downpipes : Colorsteel Rectangular 75x55mm
Soffits : Hardiflex 4.5mm
Joinery : Double glazed aluminum

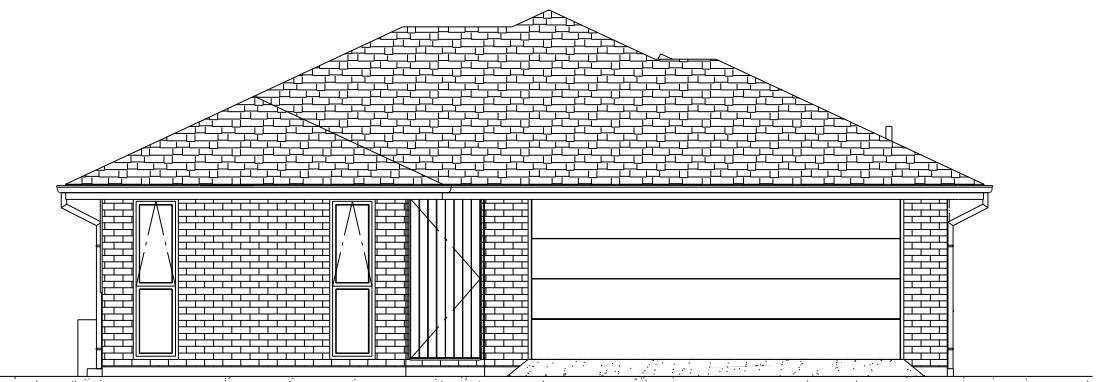
All egress points to have a maximum step down of 190mm.
Access routes to have slip resistance surface in compliance with NZBC D1/AS1 Table 2 and to have a 1:100 fall away from the building

BUILDING ENVELOPE RISK MATRIX		
ELEVATION C		
RISK CRITERIA	RISK	SCORE
Wind Zone	High	1
Number of Stories	Low	0
Roof Wall Junction	Low	0
Eaves Width	Medium	1
Building Envelope	Low	0
Decks & Balconies	Low	0
Total		2



ELEVATION C

BUILDING ENVELOPE RISK MATRIX		
ELEVATION D		
RISK CRITERIA	RISK	SCORE
Wind Zone	High	1
Number of Stories	Low	0
Roof Wall Junction	Low	0
Eaves Width	Medium	1
Building Envelope	Low	0
Decks & Balconies	Low	0
Total		2



ELEVATION D

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Original Plan:
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Sheet Name:
ELEVATIONS

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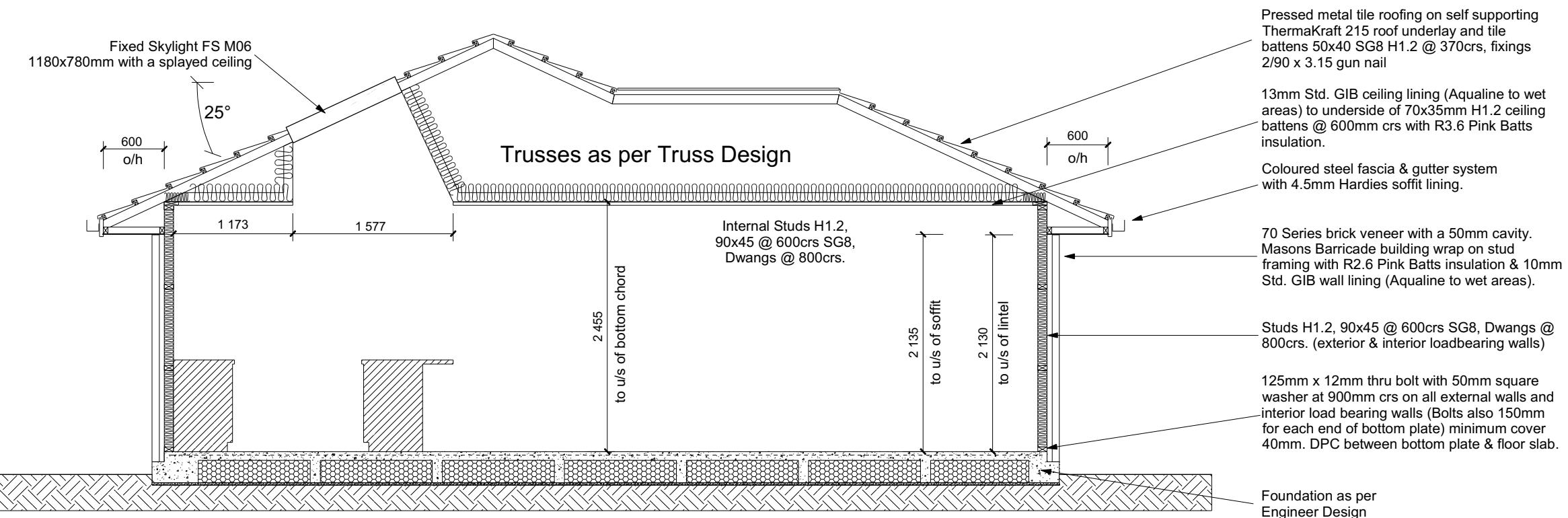
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ROOF & WALL CLADDINGS
Roof : 25° Pressed Metal Tiles
Walls : 70 Series Brick Veneer
with a 50mm cavity

CROSS SECTION NOTES
Building wrap is to comply with E2/AS1 & NZS 3604:2011.
Flashing materials must be selected based on environmental exposure. Refer to NZS 3604:2011 & table 20 of E2/AS1.
Flashing tape must have proven compatibility with the selected wrap & other materials with which it comes into contact as per table 21 of E2/AS1.
Fixings shall comply with NZS 3604:2011 Section 4 Durability Tables 4.1-4.3
Unless stated otherwise, timber members on drawings are to be a minimum of SG8 strength graded as per NZS3604:2011.

INSULATION
Ceiling: Pink Batts R3.6 Ceiling Batts
Wall: Pink Batts R 2.6 Wall Batts



CROSS SECTION A-A

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Original Plan:
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Sheet Name:
CROSS SECTIONS

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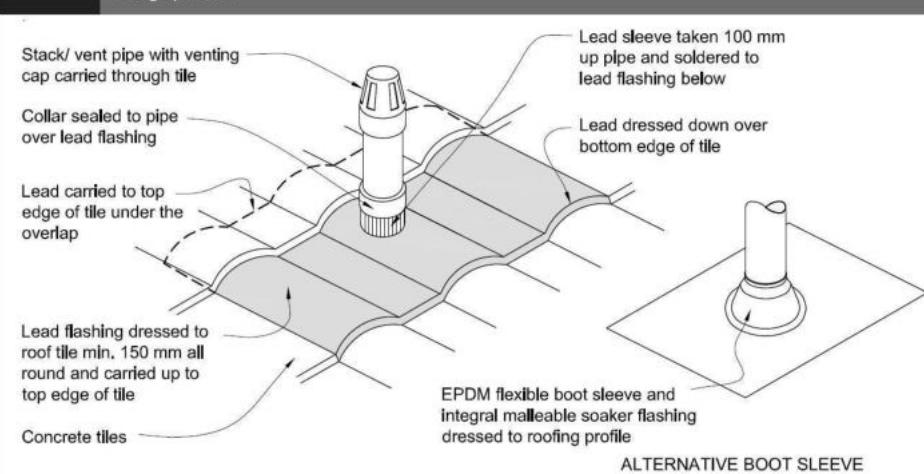
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Figure 29: Pipe penetration for masonry tile

Paragraph 8.2.7

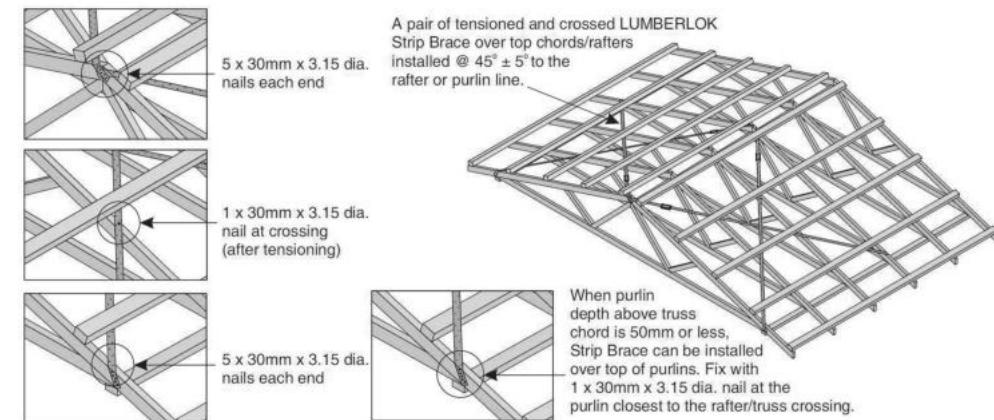


Metal Tile Penetration Detail
Scale NTS

8.3.10 Roof penetrations

Pipe penetrations shall be flashed using EPDM flashings similar to that shown for masonry tiles, Figure 29.

- A pair of tensioned and crossed LUMBERLOK Strip Brace running continuously from ridge to top plate installed as detailed below.



ROOF CLADDING
Roofing : 25° Pressed Metal Tiles
Tile Battens : 50x40 SG8 H1.2 @ 370cs, fixings 2/90 x 3.15 gun nail

ROOF PLAN NOTES

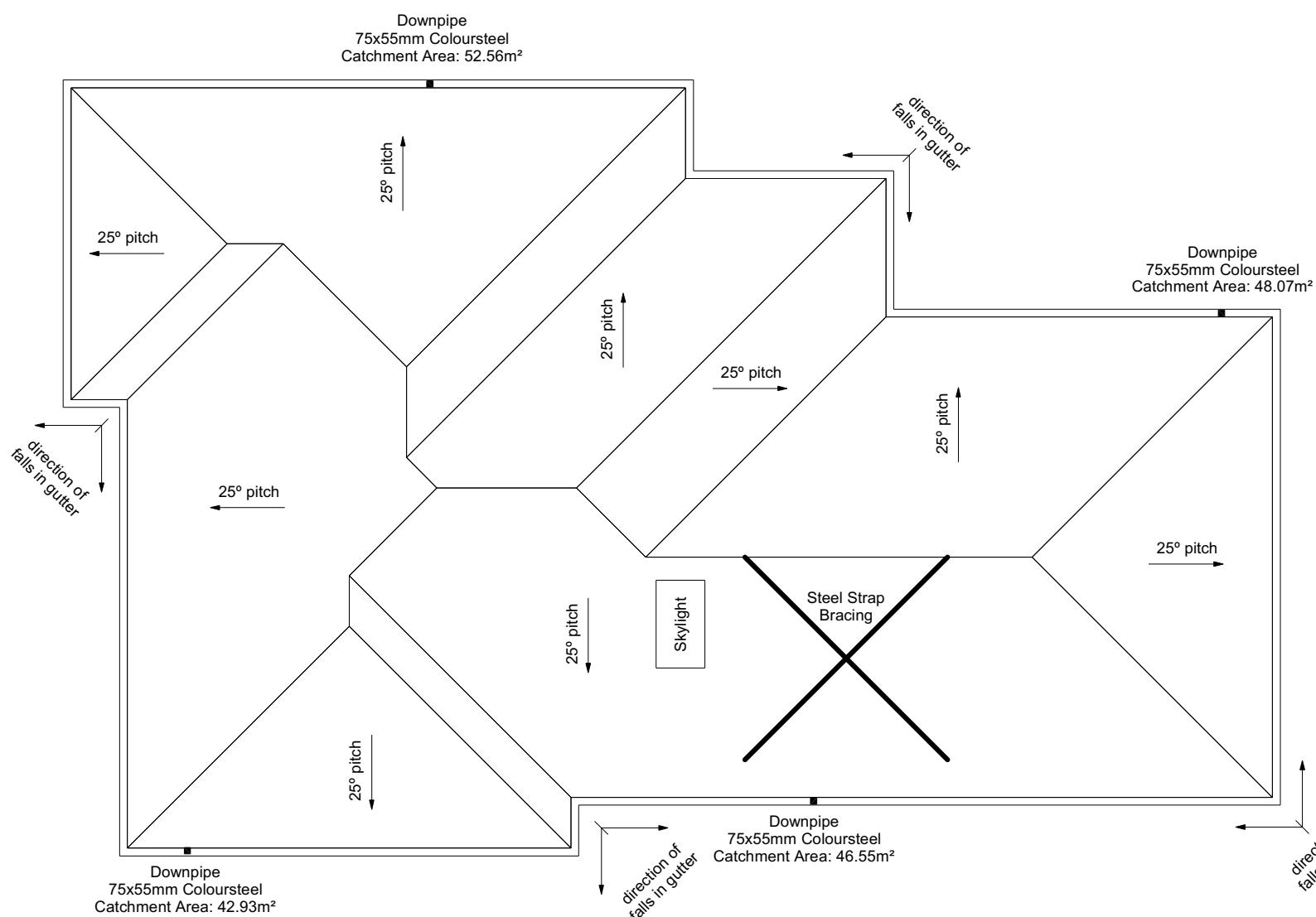
Gutter: Coloured Steel Quad Gutter
Fascia: Coloured Steel 185 Fascia
Downpipes: Colorsteel Rectangular 75x55mm
Soffits: Hardiflex 4.5mm

Underlay: Thermakraft 215 roof underlay

Downpipes: 75x55 Rectangle Colorsteel
As per NZBC E1/AS1 Table 5 75x55 down pipes can collect up to 60m² of 0-25° roof plan area.

Use Coloured steel Quad Gutter
As per NZ Metal Roof and Wall Cladding Code of Practice Version 2 section 8 the above gutter with a cross sectional area of 5550mm² can collect up to 60m² of 0-25° roof plan area. Refer to the specifications for exact calculations.

Use Lumberlock top plate fixing chart attached to the main specifications to determine top plate fixings.



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Belfast, Christchurch

Job Number:
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Original Plan:
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Sheet Name:
ROOF PLAN

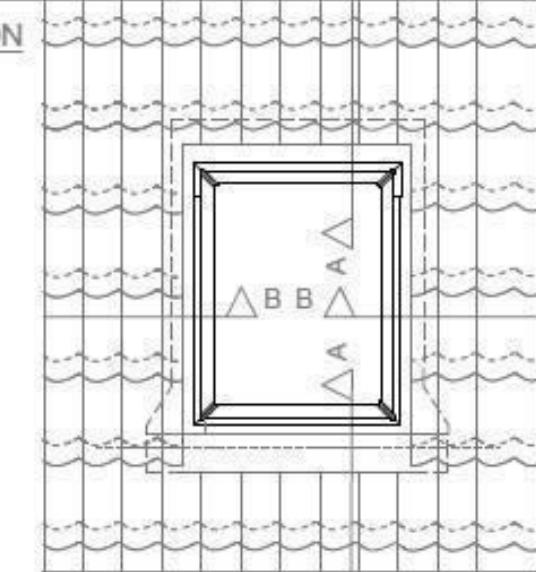
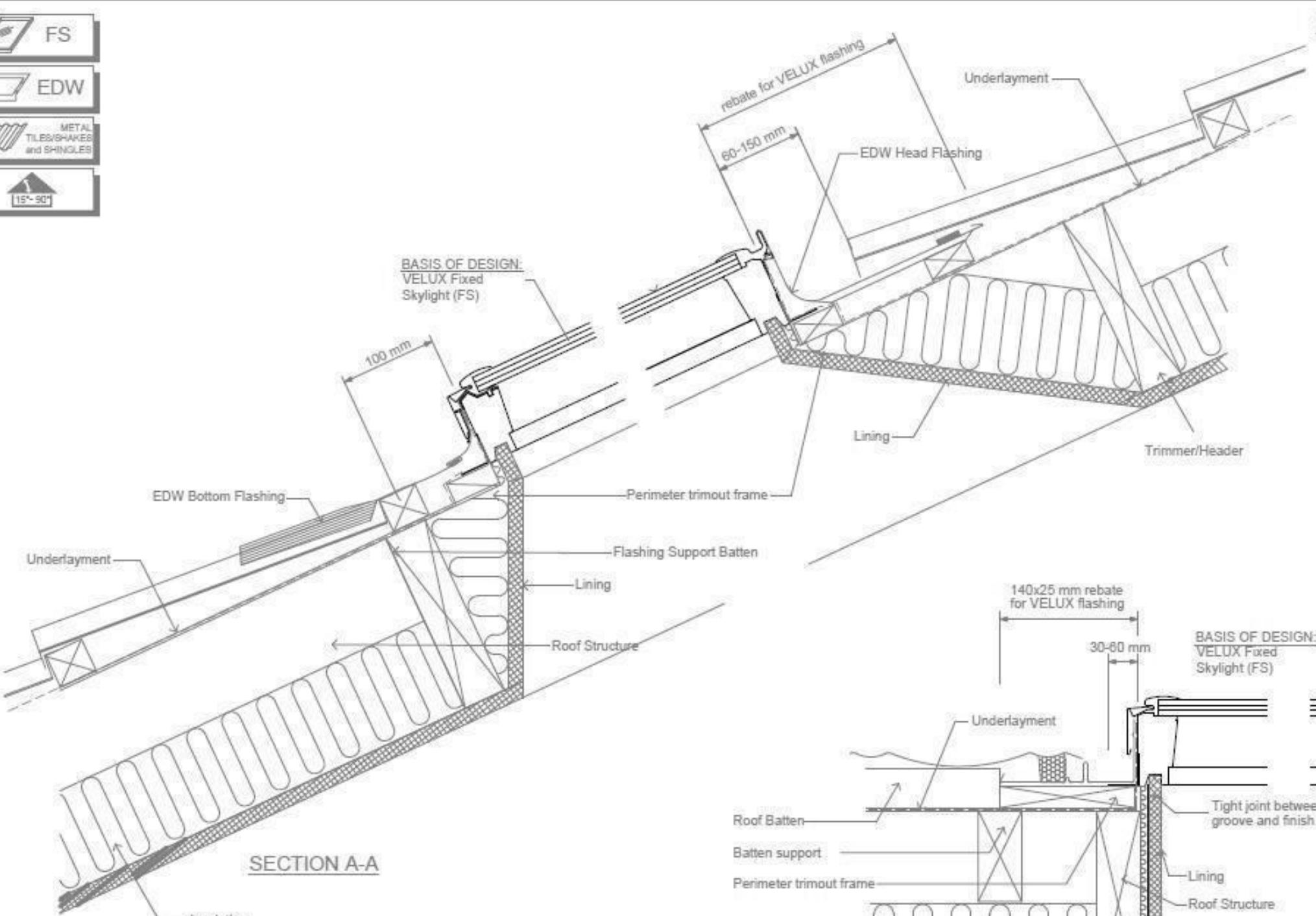
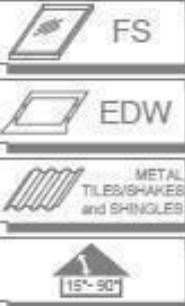
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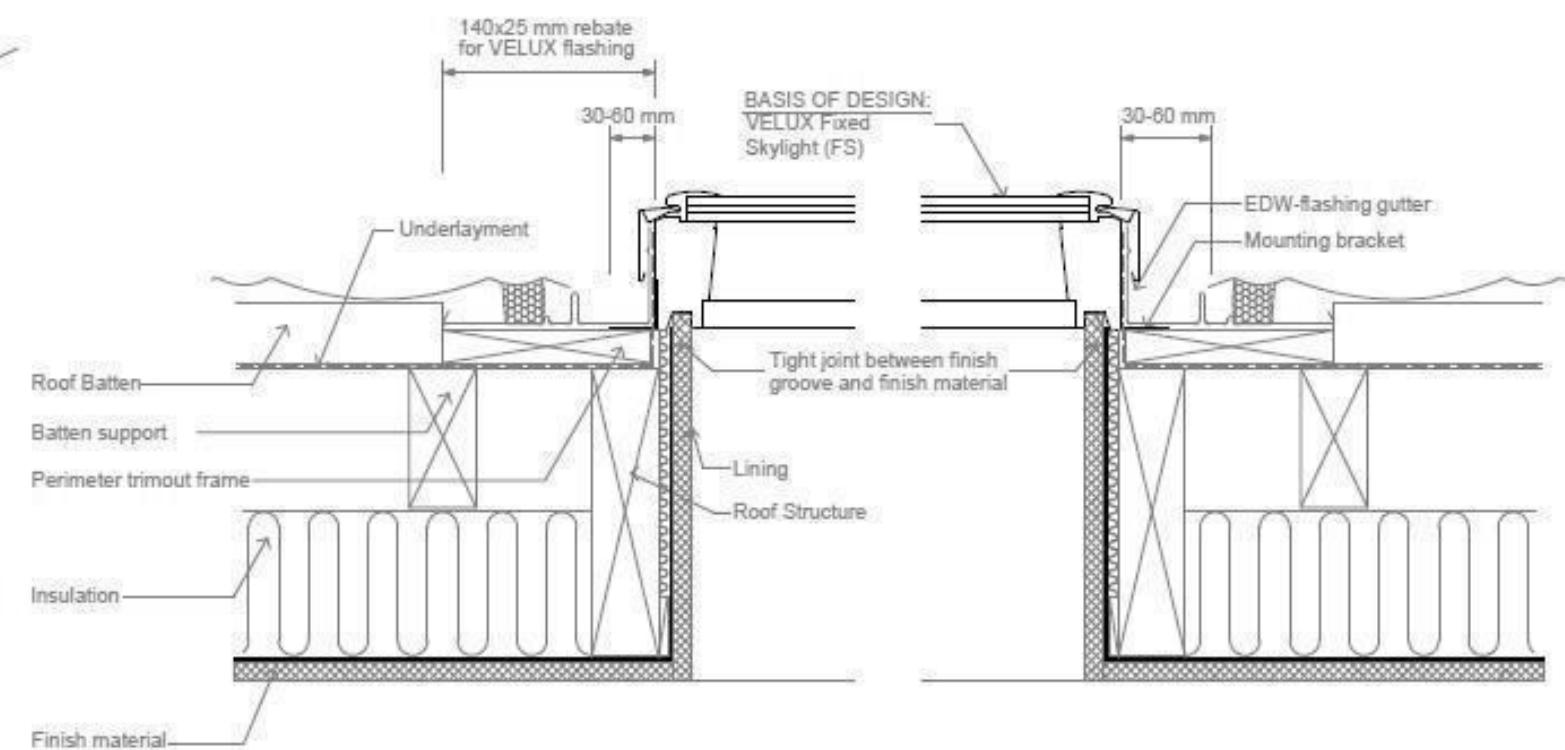
Sheet No.:
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of 23 sheets



VELUX Skylight installed in metal tile shakes or shingle roofing.

Please note:
Ensure that the roof battens are rebated 25 mm around the perimeter of the VELUX Skylight, for the EDW flashing to fit correctly.



Christchurch
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This drawing is an instrument of service and is provided for informational use only.

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Job Number:
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Original Plan:
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Sheet Name:
SKYLIGHT DETAIL

Sales: D Ryan Drawn: M Glynn QS: S Liu Print Date: 12/04/2022 Scale: NTS @ A3

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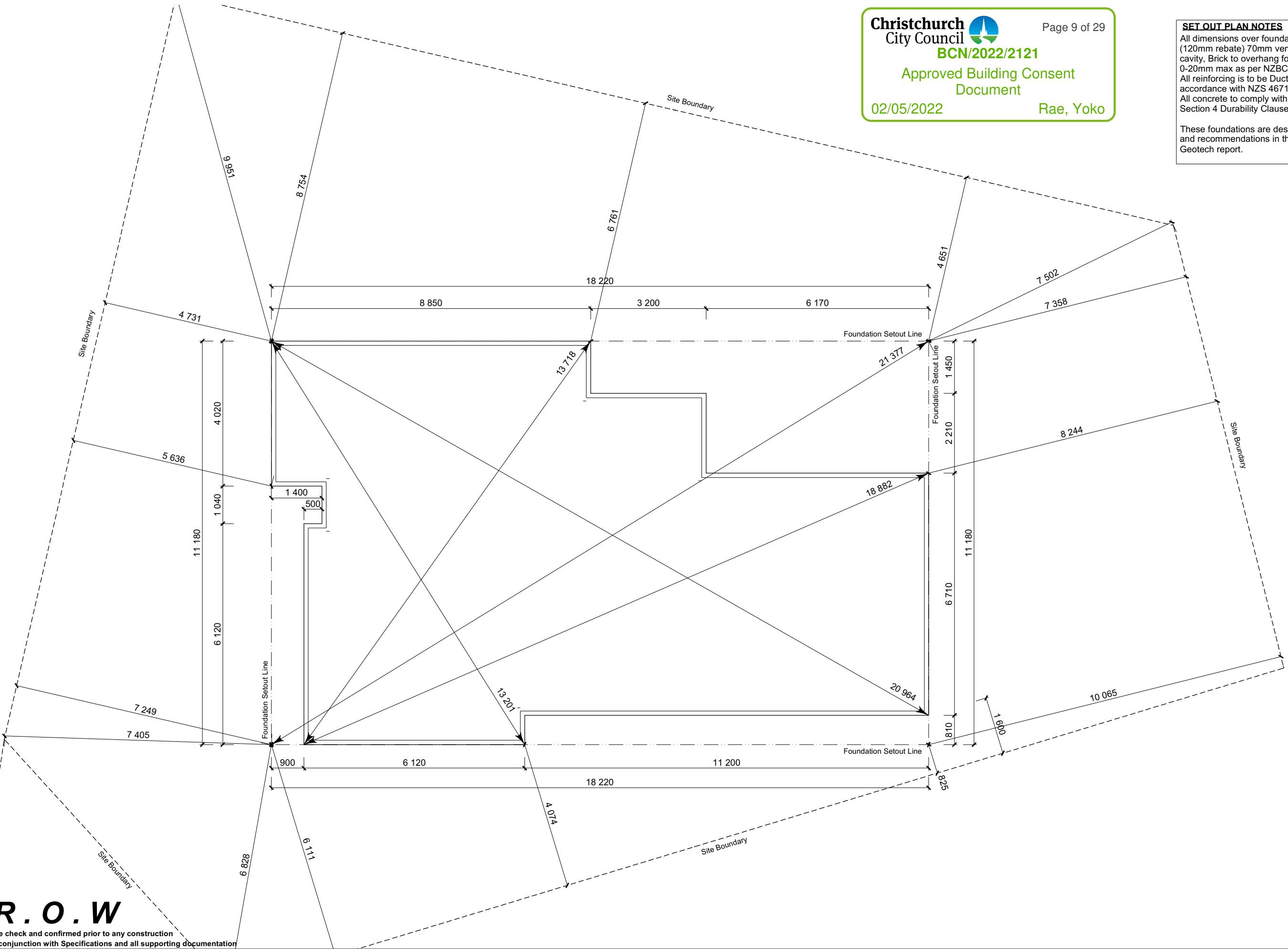
02/05/202

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SET OUT PLAN NOTES

All dimensions over foundation face. Allow (120mm rebate) 70mm veneer & 50mm cavity, Brick to overhang foundation face by 0-20mm max as per NZBC E2/AS1.
All reinforcing is to be Ductility Class E, in accordance with Nzs 4671.
All concrete to comply with Nzs3604:2011
Section 4 Durability Clause 4.5.2.

These foundations are design to the findings and recommendations in the site specific Geotech report.



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Lot 106
Belfast Development
Belfast, Christchurch

Job Num
1438

7
Original
Ferrari

an: Sheet Name:
d **SETOUT DIMENSIONS**

FOUNDATION PLAN NOTES

All dimensions over foundation face. Allow (120mm rebate) 70mm veneer & 50mm cavity, Brick to overhang foundation face by 0-20mm max as per NZBC E2/AS1.

W/C location indicated on plan has assumed a 140mm offset from internal frame line, please consult manufacturer's documentation to confirm offset.

Contractor to consult manufacturer's documentation to determine the correct location for all wastes positioned through floor slabs.

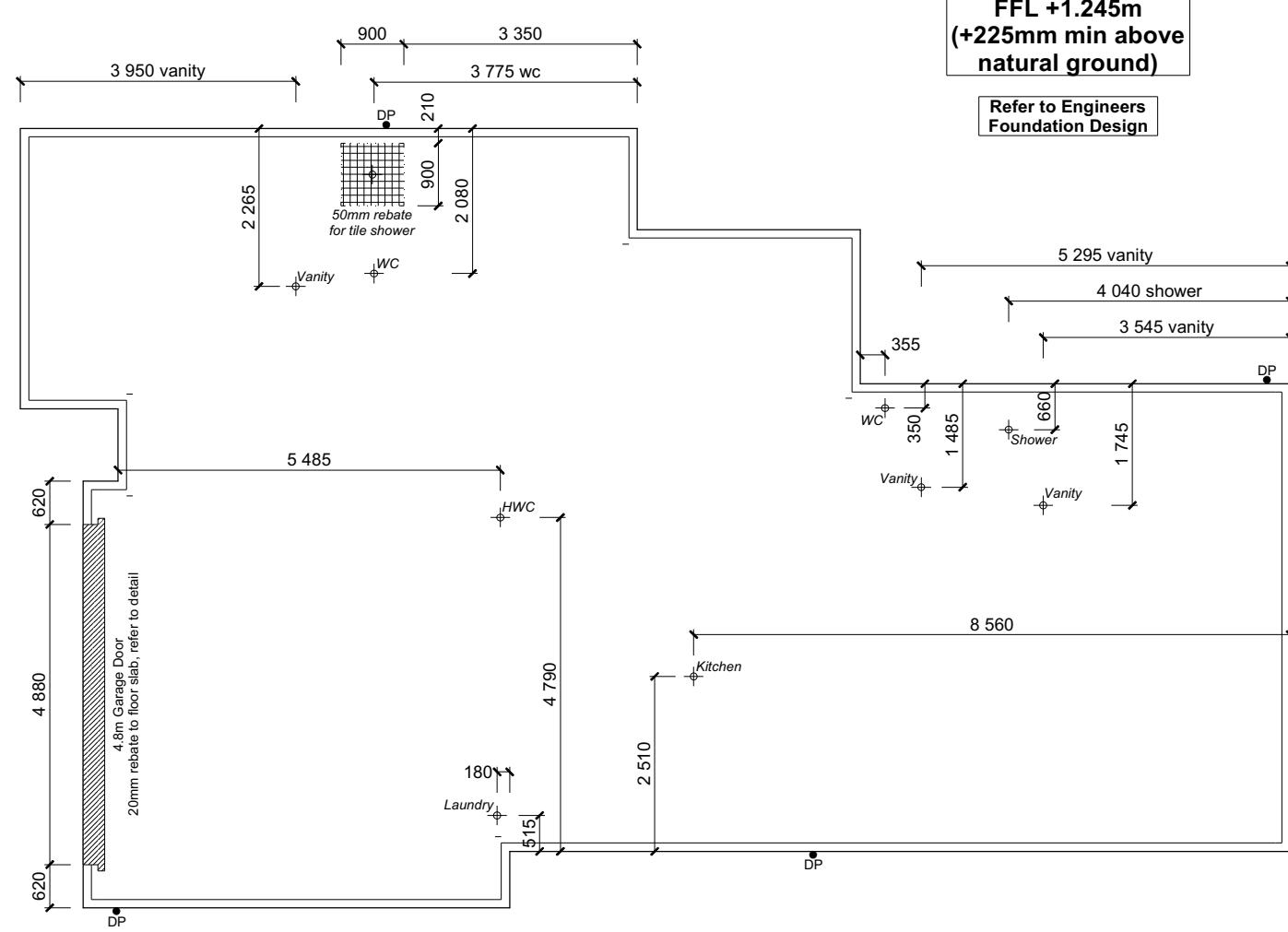
Earth bar to be bonded to the reinforcing mesh

Refer to Truss design for exact location of slab thickenings

All reinforcing is to be Ductility Class E, in accordance with NZS 4671.

All concrete to comply with NZS3604:2011 Section 4 Durability Clause 4.5.2.

These foundations are design to the findings and recommendations in the site specific Geotech report.



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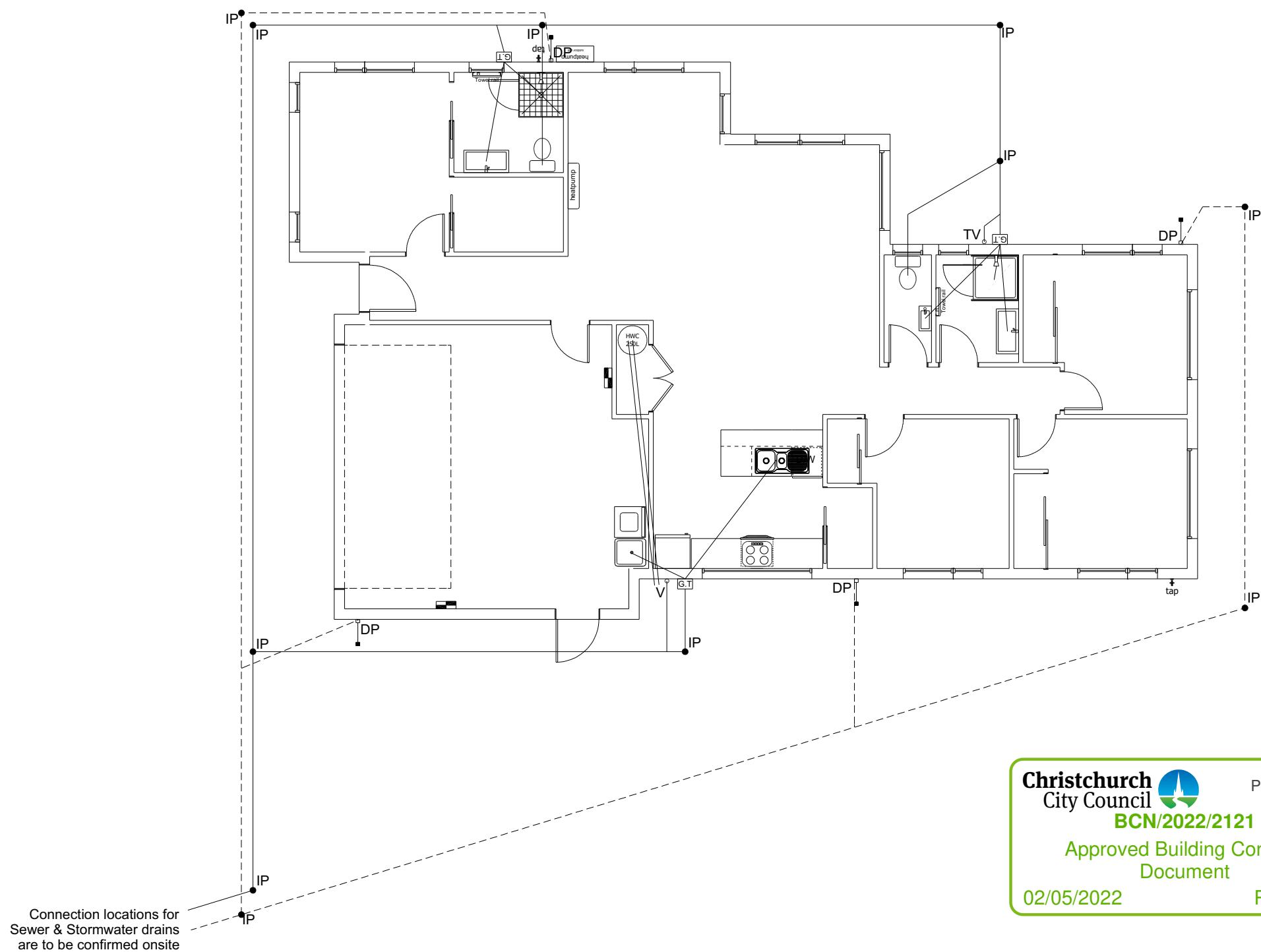
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CONSENT PLANS

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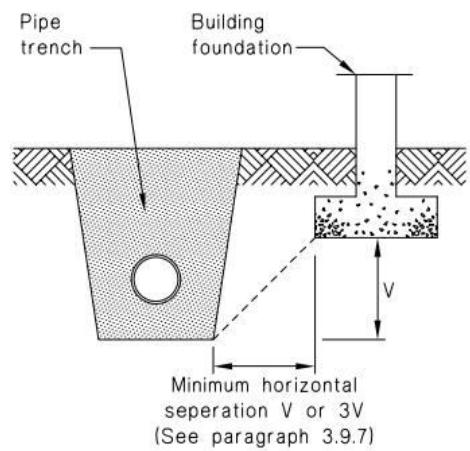
Plumbing Schedule	NZBC G13
Kitchen	
Sink:	Ø50mm @1:40 (3 discharge units)
Bathrooms	
Vanity:	Ø40mm @1:40 (1 discharge units per basin)
Shower:	Ø40mm @1:40 (2 discharge units)
Bath:	Ø40mm @1:40 (4 discharge units)
WC:	Ø100mm @1:40 (4 discharge units)
Laundry Sink:	Ø40mm @1:30 (5 discharge units)
Drainage Schedule	NZBC G13
Main Foulwater	
Vented Drain	Ø100mm @1:60
Stormwater Drain	Ø100mm @1:60 (1:120max)
Terminal Vent	Ø80mm
Vent	Ø50mm
Heatpump	Drain over GT
ORG	Overflow Relief Gully
Hot water Cylinder	min 20mm Drain over GT
Notes:	All plumbing and drainage to comply with NZBC G13.
	ORG to be positioned so the top of gully dish is no less than 150mm below overflow level of lowest fixture.
	Sewer & Stormwater to connect to existing connections.
	All drains passing through concrete, provide sleeve or wrap in durable and flexible to allow for expansion and contraction. (as per G13/AS2 5.8.1)
	HWC: Safe tray to HWC with 50mm overflow drain to exterior to comply with G12/AS1.

DRAINAGE LEGEND	
-----	Stormwater DN100mm uPVC
—	Sewer Drain DN100mm uPVC
DP	Downpipe
GT	Gully Trap
ORG	Overflow Relief Gully
TV	Terminal Vent
AAV	Air Admittance Valve
IP	Inspection Point



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Figure 14: Relationship of Pipe Trench to Building Foundation
Paragraph 3.9.7



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DRAINAGE PLAN

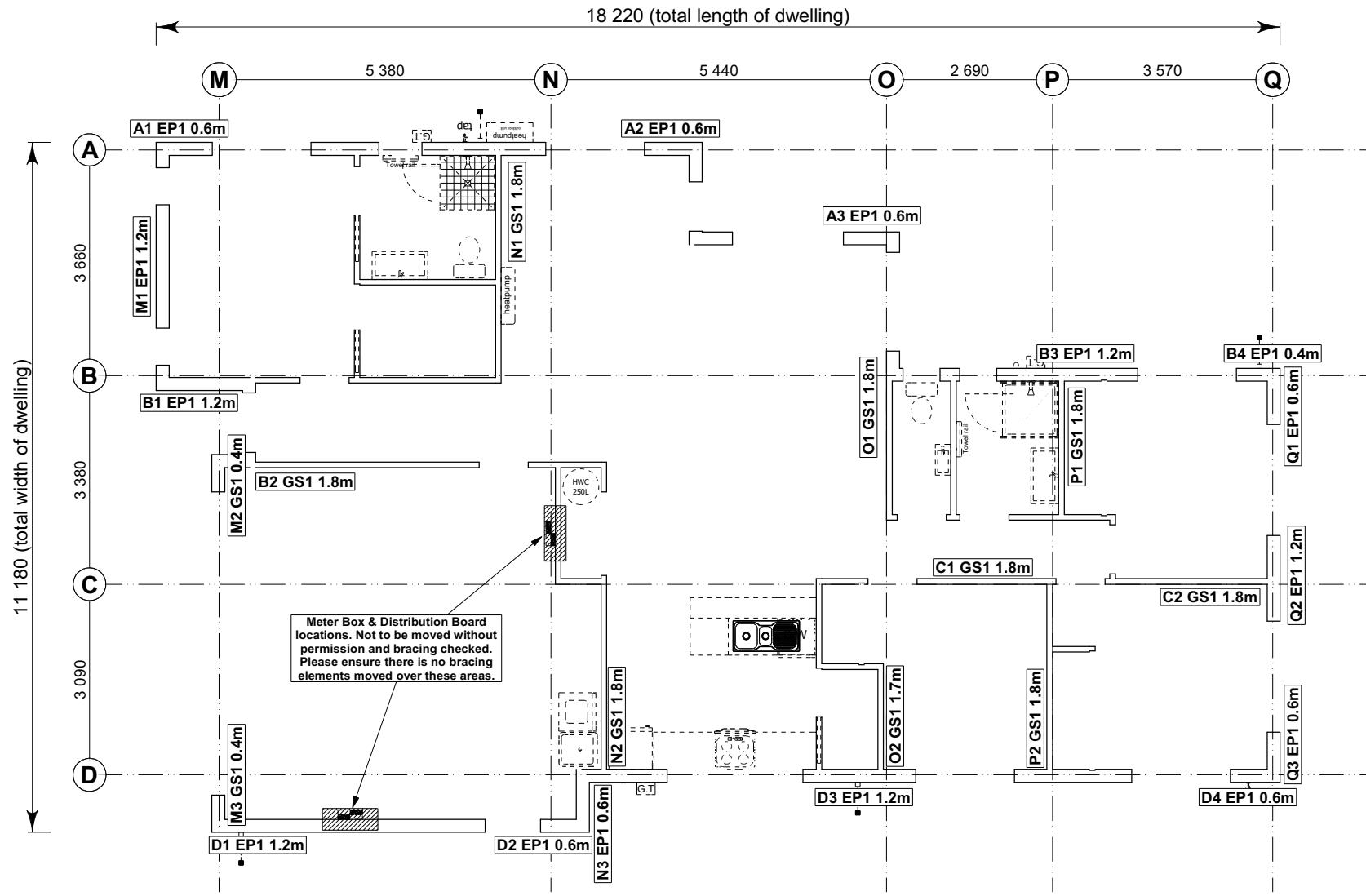
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8.7.3.4

Each wall that contains one or more wall bracing elements shall be connected at the top plate level, either directly, or through a framing member in the line of the wall, to external walls at right angles to it. Top plate fixings(s) of the capacity in tension or compression along the line of the wall bracing element are given as follows:

- For each wall containing wall bracing elements with a total bracing capacity of not more than 125 bracing units: to at least one such external wall by a fixing as shown in figure 8.16 of 6 kN capacity;
- For each wall containing wall bracing elements with a total bracing capacity of not more than 250 bracing units: to at least 2 external walls by fixings as shown in figure 8.16 each of 6 kN capacity;
- For each wall containing wall bracing elements with a total bracing capacity of more than 250 bracing units: to at least 2 external walls by fixings as shown in figure 8.16 each having a rating of not less than 2.4 kN per 100 bracing units.

BRACING PLAN NOTES
Wall bracing designed in accordance with NZS 3604:2011 & GIB Ezybrace system
Refer to attached calculations.

Bracing Designed to:
Wind: High
Earthquake: 2

BRACING LEGEND

A	Brace Line Label
5 380	Brace Length
N	Brace Type
3 660	Brace Number

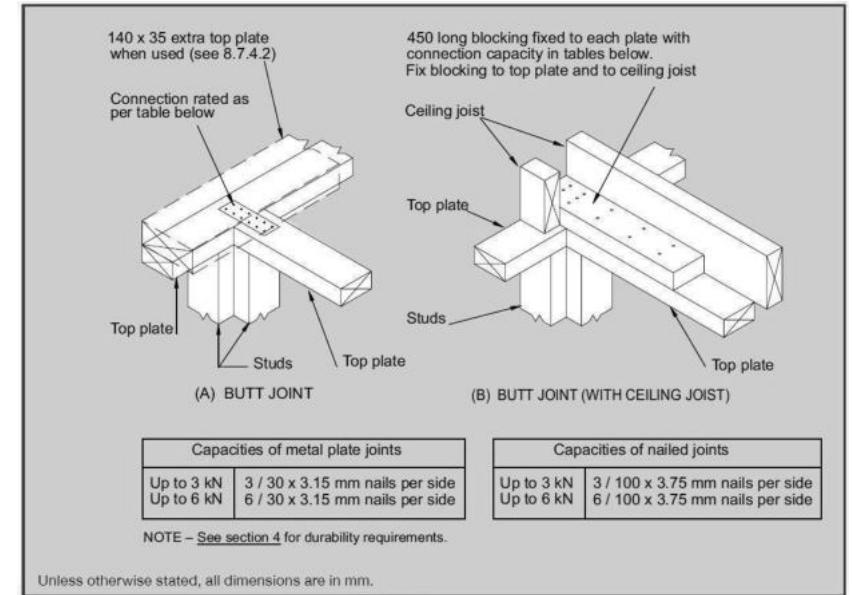


Figure 8.16 – Connecting top plates to external walls at right angles – Walls containing bracing (see 8.7.3.4)

Christchurch City Council BCN/2022/2121

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Approved Building Consent Document

Rae, Yoko

Single Level Along Resistance Sheet

Job Name: Willis & Le Compte

Wind	EQ
Demand	
580	963
Achieved	

Line	Element	Length (m)	Angle (degrees)	Stud Ht. (m)	Type	Supplier	Wind (BUs)	EQ (BUs)	1266	1325
									218%	138%
A	1	0.60		2.4	EP1 0.6	Ecopy®	57	63		
	2	0.60		2.4	EP1 0.6	Ecopy®	57	63		
	3	0.60		2.4	EP1 0.6	Ecopy®	57	63		
									171 OK	189 OK
B	1	1.20		2.4	EP1 1.2	Ecopy®	144	162		
	2	1.80		2.4	GS1-N	GIB®	124	108		
	3	1.20		2.4	EP1 1.2	Ecopy®	144	162		
	4	0.40		2.4	EP1 0.4	Ecopy®	32	38		
									444 OK	470 OK
C	1	1.80		2.4	GS1-N	GIB®	124	108		
	2	1.80		2.4	GS1-N	GIB®	124	108		
									248 OK	216 OK
D	1	1.20		2.4	EP1 1.2	Ecopy®	144	162		
	2	0.60		2.4	EP1 0.6	Ecopy®	57	63		
	3	1.20		2.4	EP1 1.2	Ecopy®	144	162		
	4	0.60		2.4	EP1 0.6	Ecopy®	57	63		
									402 OK	450 OK

Single Level Across Resistance Sheet

Job Name: Willis & Le Compte

02/05/2022

Wind	EQ
Demand	
948	963
Achieved	

Line	Element	Length (m)	Angle (degrees)	Stud Ht. (m)	Type	Supplier	Wind (BUs)	EQ (BUs)	1240	1201
M	1	1.20		2.4	EP1 1.2	Ecopy®	144	162		
	2	0.40		2.4	GS1-N	GIB®	21	23		
	3	0.40		2.4	EP1 0.6	Ecopy®	57	63		
									186 OK	208 OK
N	1	1.80		2.4	GS1-N	GIB®	124	108		
	2	1.80		2.4	GS1-N	GIB®	124	108		
	3	0.60		2.4	EP1 0.6	Ecopy®	57	63		
									305 OK	279 OK
O	1	1.80		2.4	GS1-N	GIB®	124	108		
	2	1.70		2.4	GS1-N	GIB®	117	102		
									242 OK	210 OK
P	1	1.80		2.4	GS1-N	GIB®	124	108		
	2	1.80		2.4	GS1-N	GIB®	124	108		
									248 OK	216 OK
Q	1	0.60		2.4	EP1 0.6	Ecopy®	57	63		
	2	1.20		2.4	EP1 1.2	Ecopy®	144	162		
	3	0.60		2.4	EP1 0.6	Ecopy®	57	63		
									258 OK	288 OK

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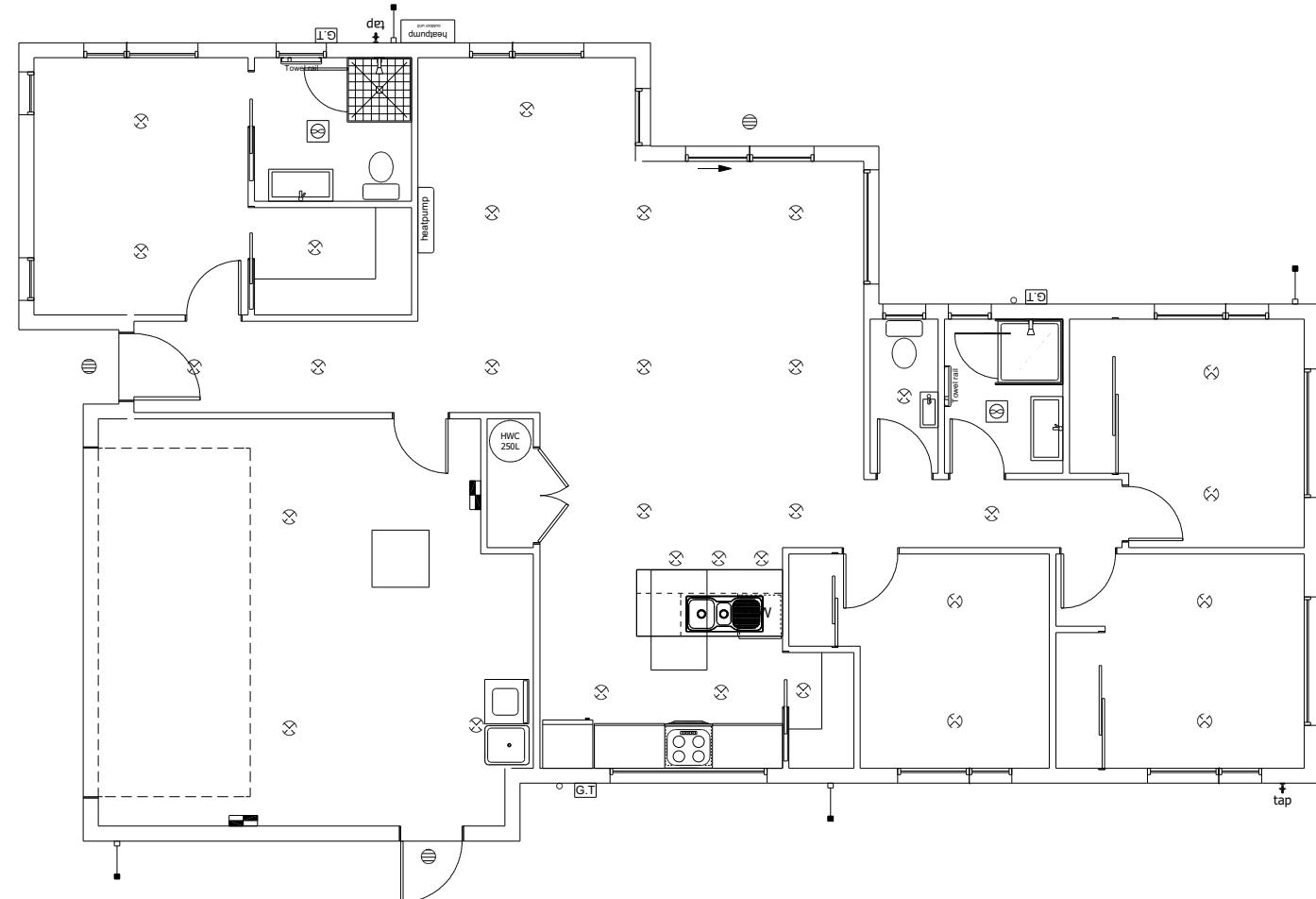
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Kyle Wills & Elise Le Compte
Lot 106
Belfast Development
Belfast, Christchurch

Job Number: 143897
Original Plan: Fernbird
Sheet Name: BRACING PLAN
Sales: D Ryan
Drawn: M Glynn
QS: S Liu
Print Date: 12/04/2022
Scale: 1:100 @ A3

CONSENT PLANS
No. Date Reason:
1 09-02-2022 Initial Consent Plans

Sheet No.: 12
of 23 sheets



LEGEND	
Refer to Electrical Section in Specification for further details	
○	Ceiling Pan
⊗	CA Approved Down Light
⊖	Exterior Bulkhead Light
●	Exterior Wall Light
—	Fluorescent Double
↶	Light Switch
↷	Two Way Light Switch
↑	Single Power Socket
⤒	Double Power Socket
⦿	Outside Waterproof Plug
▼	Telephone/Data Outlet
[TV]	TV Jack
[SKY]	Sky Connection
■	Bathroom Heater
■	Bathroom Extractor/Light

Electrical Plan is indicative only and is to be confirmed onsite with electrician and client

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Kyle Wills & Elise Le Compte
Lot 106
Belfast Development
Belfast, Christchurch

Job Number:
143897

Original Plan:
Fernbird

Sheet Name:
LIGHTING PLAN

Sales:

Drawn:

QS:

S Liu

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1:100 @ A3

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No.	Date:	Reason:
1	09-02-2022	Initial Consent Plans

Sheet No.:
13

of 23 sheets

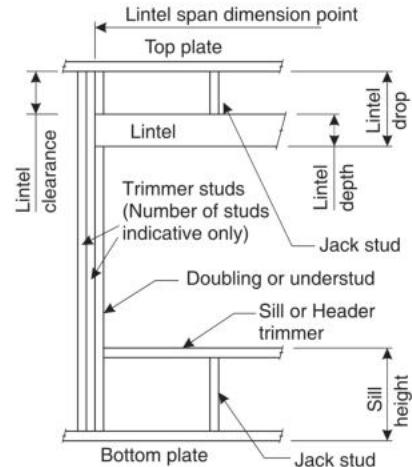


LINTEL FIXING SCHEDULE ALTERNATIVE TO TABLE 8.14 & FIGURE 8.12 NZS 3604:2011

NOTE:

- All fixings are designed for vertical loads only. Dead loads include the roof weight and standard ceiling weight of 0.20kPa.
- Refer to Table 8.19 NZS 3604:2011 for nailing schedule to resist horizontal loads.
- These fixings assume the correct choice of rafter/truss to top plate connections have been made.
- All fixings assume bottom plate thickness of 45mm maximum. Note: TYLOK options on timber species.
- Wall framing arrangements under girder trusses are not covered in this schedule.
- All timber selections are as per NZS 3604:2011.

DEFINITIONS



Roof Tributary Area	Light Roof			Heavy Roof		
	Wind Zone			Wind Zone		
	L, M, H	VH	EH	L, M, H	VH	EH
8.6m ²	G	G	H	G	G	H
11.6m ²	G	H	H	G	G	H
12.1m ²	G	H	H	G	H	H
15.3m ²	H	H	-	G	H	H
19.1m ²	H	-	-	G	H	-
20.9m ²	H	-	-	H	H	-
21.8m ²	H	-	-	H	-	-
34.3m ²	-	-	-	H	-	-

NOTES:

- Roof Tributary Area = approx. 1/2 x (Total roof area on girder and rafter trusses supported by lintel)
- Assumed girder truss is at mid-span or middle third span of lintel
- Use similar fixings for both ends of lintel
- All other cases require specific engineering design

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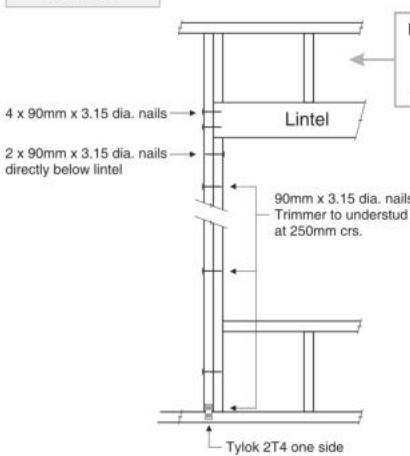
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01/2017

LINTEL FIXING OPTIONS

TYPE E 1.4kN

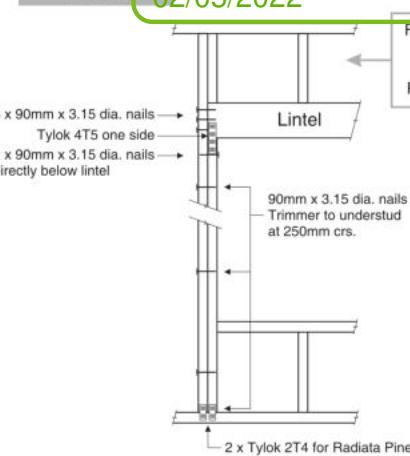


For fixing of jack studs to lintel & top plate, refer to Stud to Top Plate Fixing Schedule

90mm x 3.15 dia. nails
Trimmer to understud at 250mm ctrs.
Tylok 2T4 one side

Stud numbers
indicative only.
Refer Table 8.5
NZS 3604:2011

TYPE F 4.0kN



02/05/2022

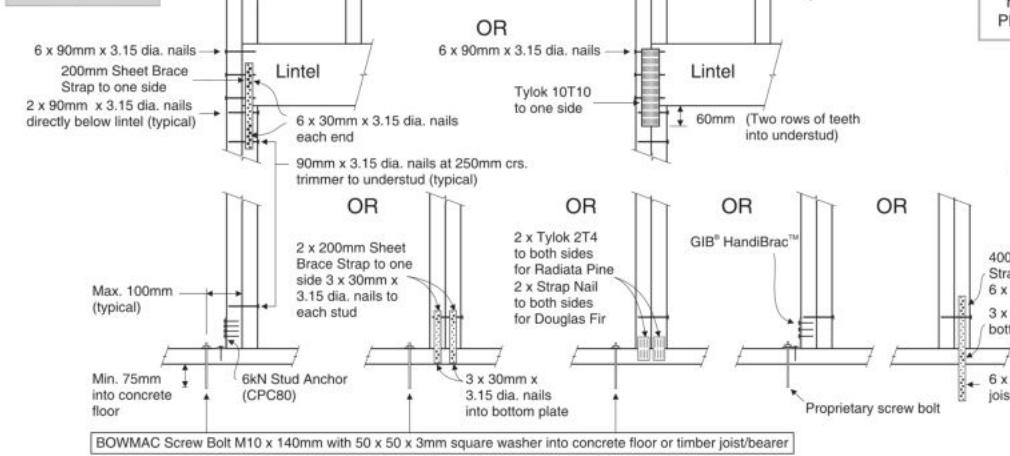
For fixing of jack studs to lintel & top plate, refer to Stud to Top Plate Fixing Schedule

90mm x 3.15 dia. nails
Trimmer to understud at 250mm ctrs.
Tylok 4T5 one side

Rae, Yoko
For fixing of jack studs to lintel & top plate, refer to Stud to Top Plate Fixing Schedule

Stud numbers
indicative only.
Refer Table 8.5
NZS 3604:2011

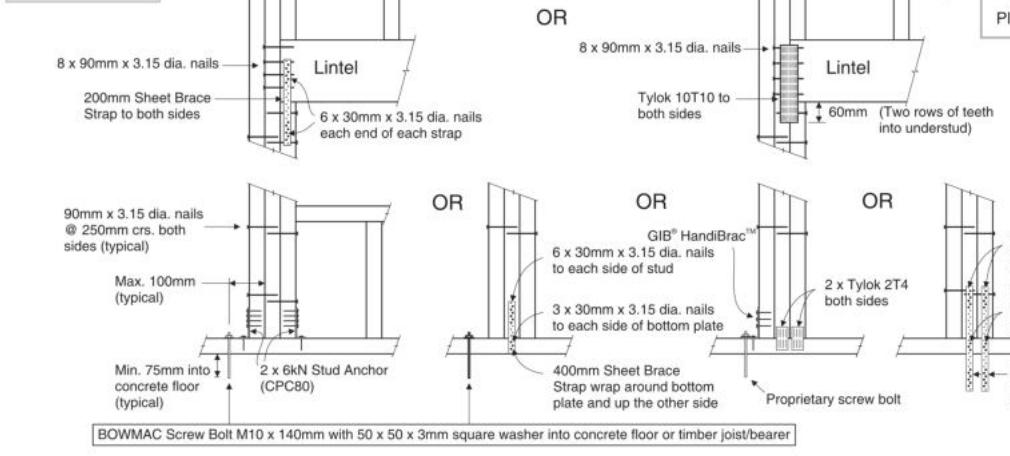
TYPE G 7.5kN



For fixing of jack studs to lintel & top plate, refer to Stud to Top Plate Fixing Schedule

Stud numbers
indicative only.
Refer Table 8.5
NZS 3604:2011

TYPE H 13.5kN



For fixing of jack studs to lintel & top plate, refer to Stud to Top Plate Fixing Schedule

Stud numbers
indicative only.
Refer Table 8.5
NZS 3604:2011

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Belfast, Christchurch

Job Number:
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FRAMING DETAILS

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08/2017

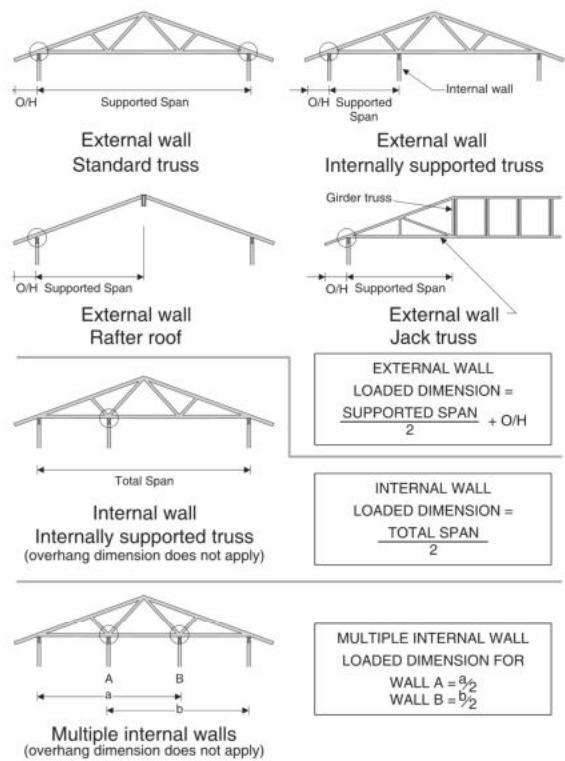
STUD TO TOP PLATE FIXING SCHEDULE

ALTERNATIVE TO TABLE 8.18 NZS 3604:2011

NOTE:

- All fixings are designed to resist vertical loads only. Dead loads include the roof weight and standard ceiling weight of 0.20kPa.
- Refer to Table 8.19 NZS 3604:2011 for nailing schedule to resist lateral loads.
- These fixings assume the correct choice of rafter/truss to top plate connections have been made.
- For gable end walls where the adjacent rafter/truss is located within 1200mm and with a maximum verge overhang of 750mm, select stud to top plate fixing using a loaded dimension of 1.5m.
- All fixings assume top plate thickness of 45mm maximum.
- Wall framing arrangements under girder trusses are not covered in this schedule.
- All timber selections are as per NZS 3604:2011.

LOADED DIMENSION DEFINITION



FIXING SELECTION CHART

(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						
300mm	400mm	600mm	L	M	H	VH	EH	L	M	H	VH	EH
3.0	2.3	1.5	A	A	B	B	B	A	A	B	B	B
4.0	3.0	2.0	A	A	B	B	B	A	A	B	B	B
5.0	3.8	2.5	A	B	B	B	B	A	A	B	B	B
6.0	4.5	3.0	A	B	B	B	B	A	A	B	B	B
7.0	5.3	3.5	A	B	B	B	B	A	A	B	B	B
8.0	6.0	4.0	A	B	B	B	B	A	A	B	B	B
9.0	6.8	4.5	B	B	B	B	B	A	A	B	B	B
10.0	7.5	5.0	B	B	B	B	B	A	A	B	B	B
11.0	8.3	5.5	B	B	B	B	B	A	A	B	B	B
12.0	9.0	6.0	B	B	B	B	B	A	A	B	B	B

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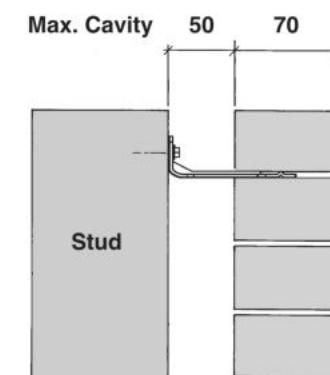
Kyle Wills & Elise Le Compte
Lot 106
Belfast Development
Belfast, Christchurch

Job Number:
143897
Original Plan:
Fernbird
Sheet Name:
FRAMING DETAILS
Sales: D Ryan Drawn: M Glynn QS: S Liu Print Date: 12/04/2022 Scale: NTS @ A3

CONSENT PLANS
No. Date: Reason:
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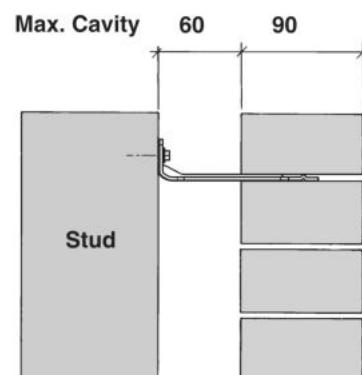
Sheet No.:
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70 SERIES BRICK



Screw Tie Short
(85mm)

90 SERIES BRICK



Screw Tie Long
(105mm)

- All brick work must be constructed in accordance with NZS 4210:2001 Masonry Construction: Materials and Workmanship. Screw Ties must be applied accordingly and are not to be hammered into timber framing.
- Water shedding shoulder prevents transfer of the moisture from tie to building.
- Nail hole for Oamaru Stone.
- Angled neck encourages increased tie embedment in mortar.

Material: 1.2mm NZCC-SD Hot Dip Galvanised Steel
Screws: Type 17-12g x 35mm Hex Head Hot Dip Galvanised Screws
Packed: 250 ties per box including screws

Also available in Stainless Steel Grade 316 for Zone D.

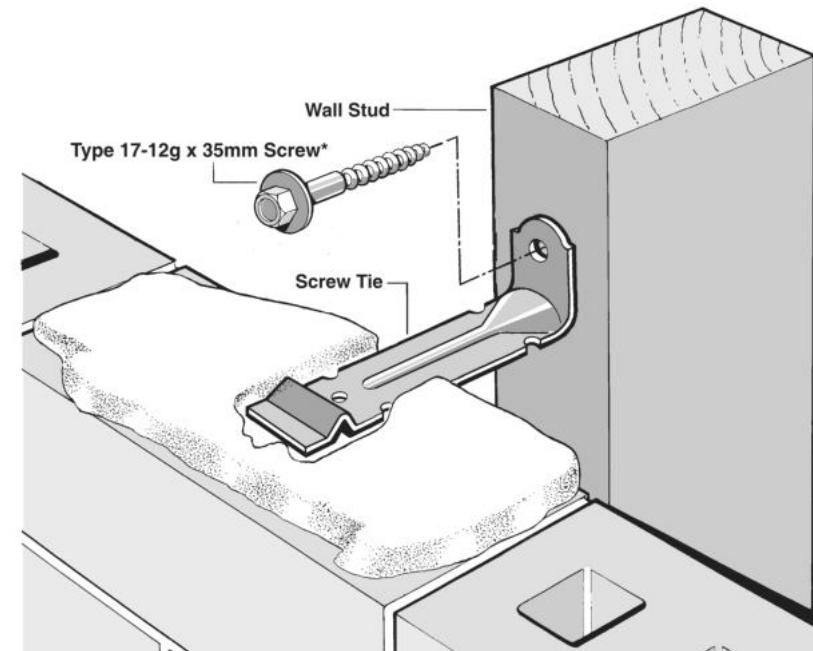


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*NOTE:
Use longer screws for fixing through Rigid Air Barrier (RAB). Maintain 35mm embedment in studs.



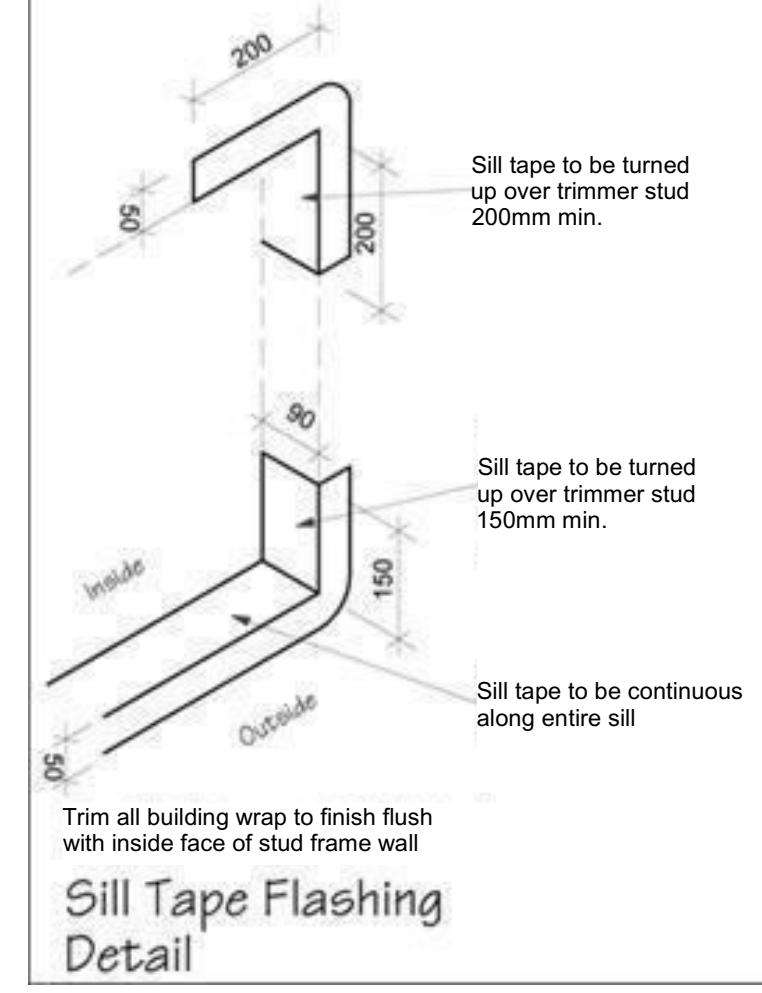
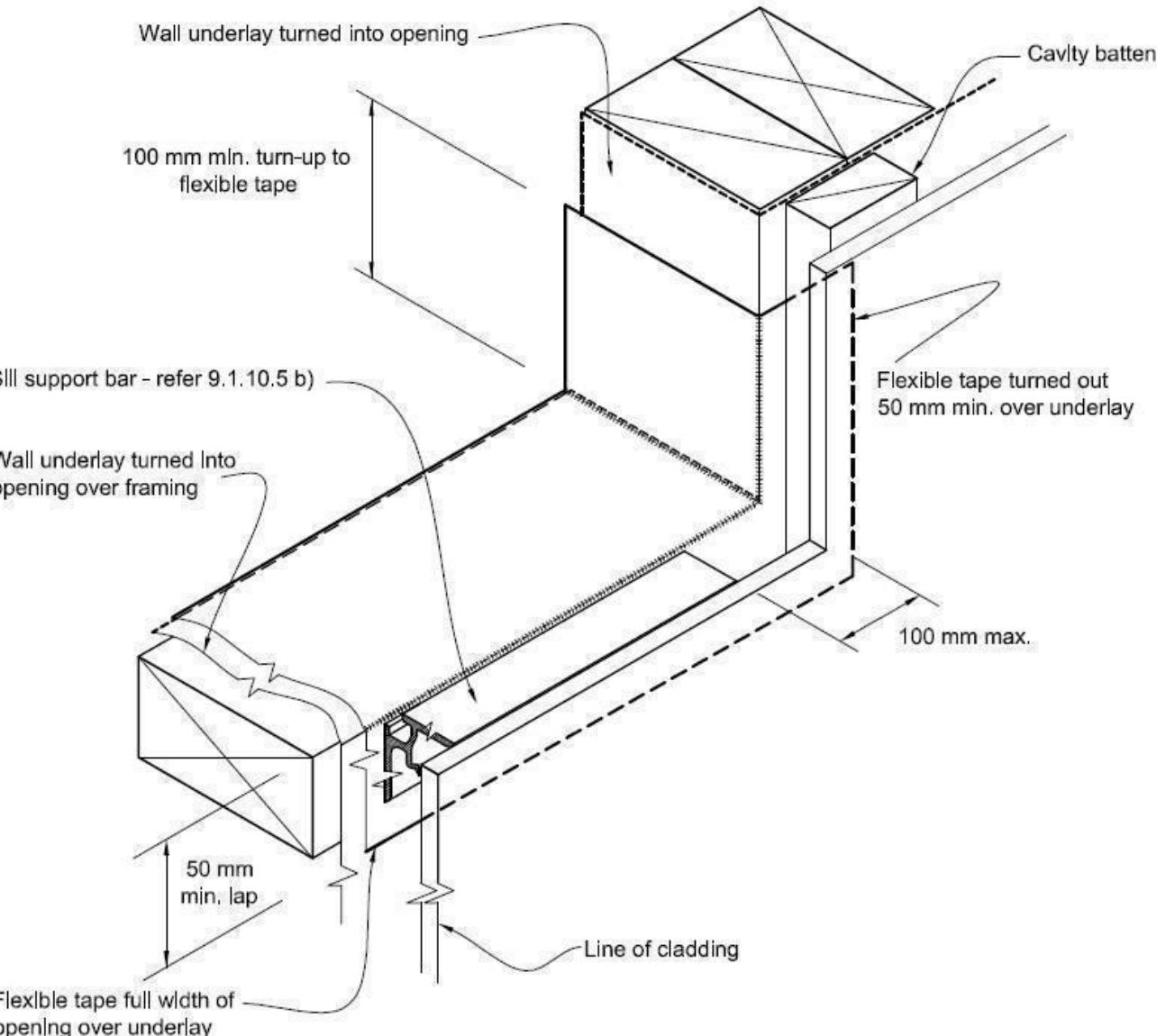
SCAN FOR
INSTALLATION
VIDEO

<https://vimeo.com/117353604>

Figure 72B: General window and door opening with drainage cavity
Paragraphs 9.1.5, 9.1.9.3, 9.1.10.2, Figures 73C, 76, 85, 86, 91, 99, 116 and 128

NOTE:

- (1) Detailed cladding omitted for clarity, refer to specific claddings.
- (2) Head to be treated similarly with continuous wall underlay and flexible tape at corners.
- (3) Refer individual cladding details for jamb flashings.



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Rae, Yoko

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Lot 106
Belfast Development
Belfast, Christchurch

Job Number:
143897

Original Plan:
Fernbird

Sheet Name:
CONSTRUCTION DETAILS

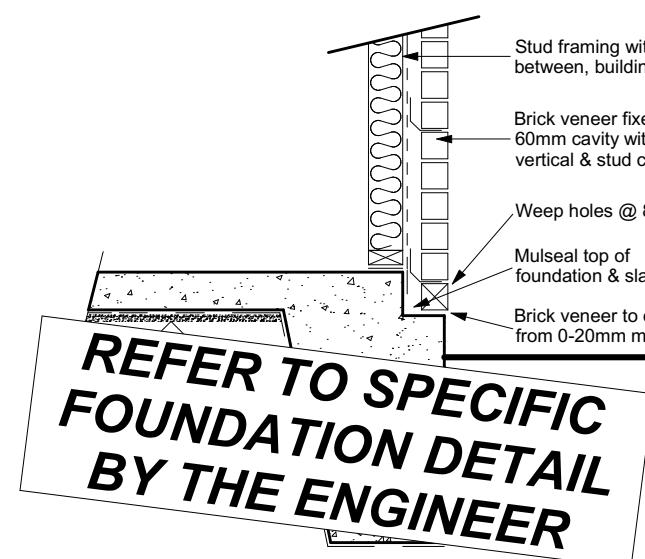
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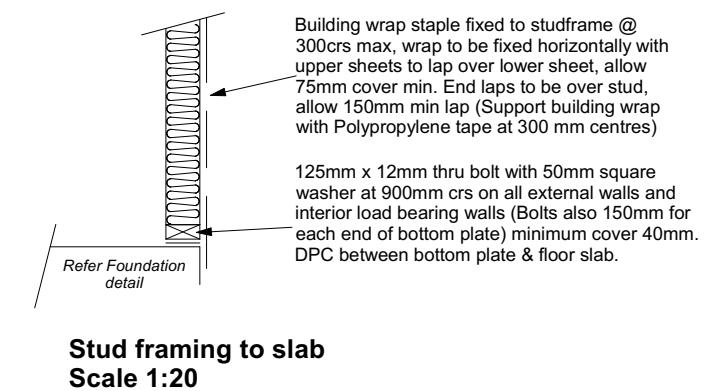
Sheet No.:
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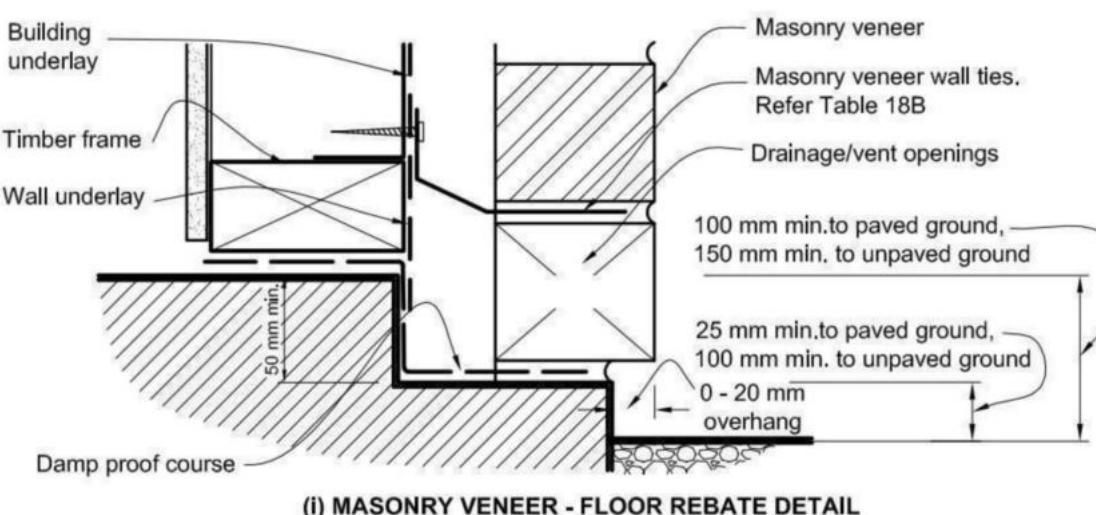
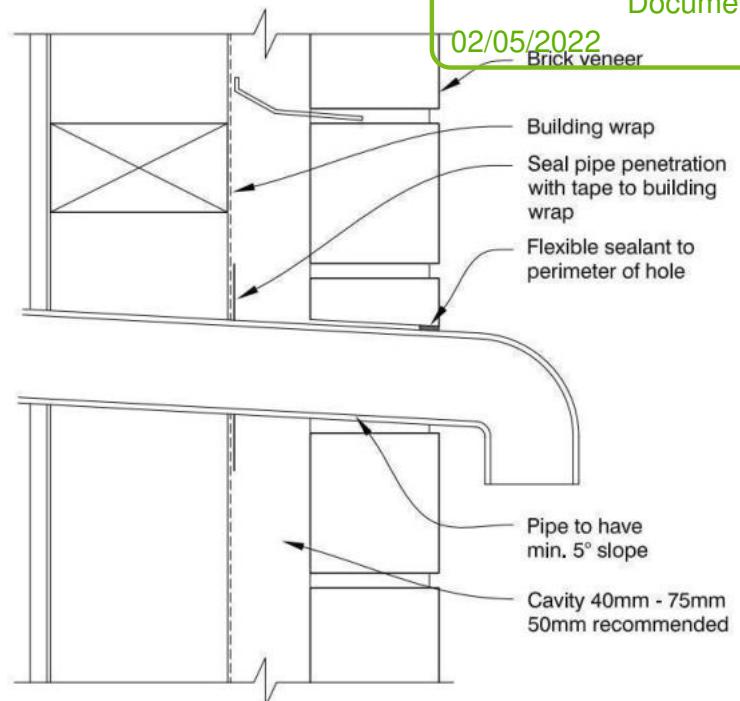
02/05/2022
Brick veneer



Brick Veneer Foundation
Scale 1:20



Stud framing to slab
Scale 1:20



(i) MASONRY VENEER - FLOOR REBATE DETAIL

Figure 65: Levels and garage openings
Paragraphs 9.1.3, 9.1.3.4, 9.2.5,
Table 18

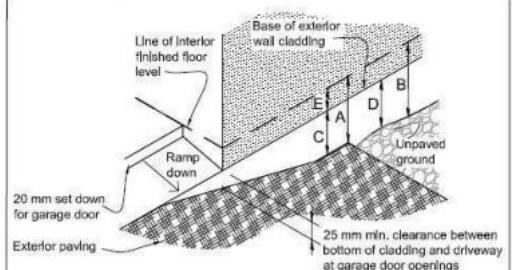


Table 18: Minimum clearances
Paragraphs 9.1.3, 9.1.3.1, 9.1.3.2,
9.1.3.3, 9.1.3.4, 9.1.3.5 and 9.2.7

Minimum clearances (mm)	Masonry veneer	Other claddings				
		A	B	C	D	E
Concrete slab	100 150	150	225	100	175	50
Timber floor Refer Note 1)		100	175	502		

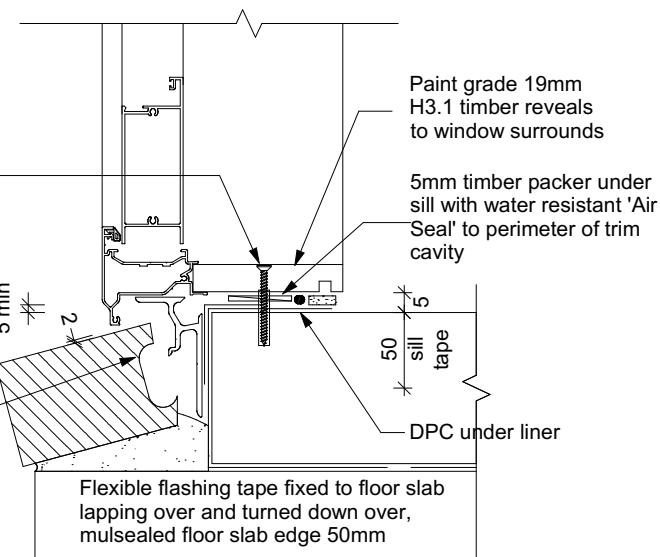
NOTE: 1) Refer to NZS 3604 for requirements.

2) Cladding to extend minimum 50 mm below bearer or lowest part of timber floor framing.

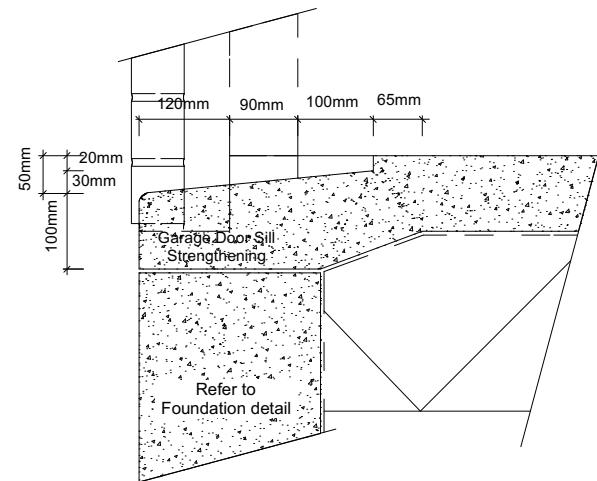
50mm screw fixing to window sill, no more than 150mm from all corners and then 450crs spacings, allow for extra fixings at mullions, transoms & door strikers, all screws driven below sill surface and filled and sanded prior to painting

Continuous ventilated support bar fixed to sill plate with 50mm screws, top face of bar to be fitted level & 5mm min above sill plate

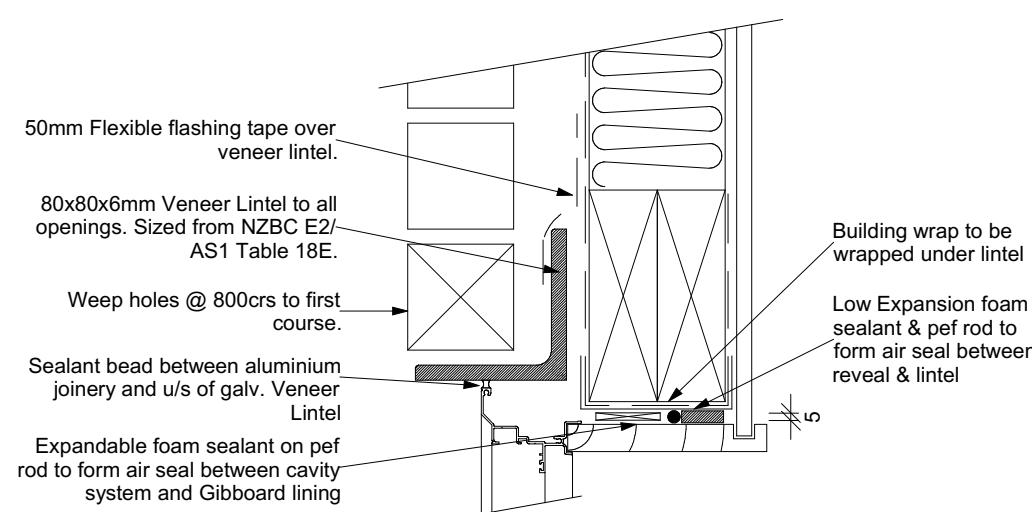
Coat bricks, if flat, with waterproofing agent



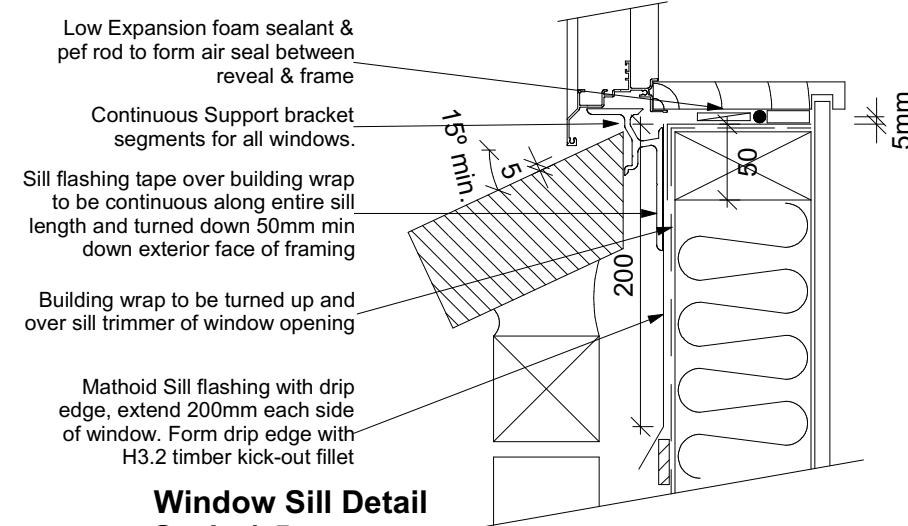
Door Sill to Slab Detail
Scale 1:20



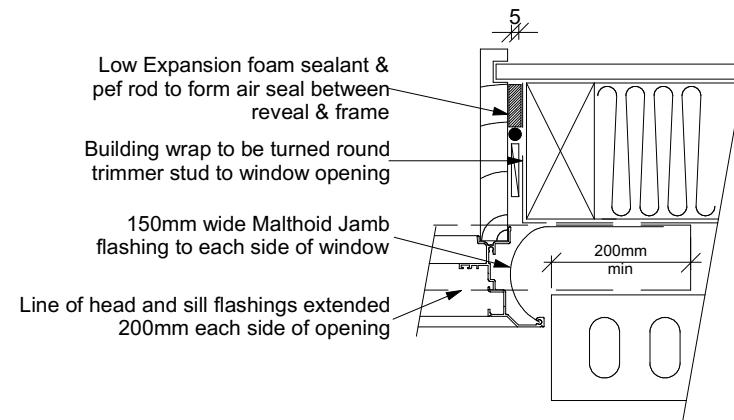
Garage Door Rebate Details
Scale 1:10



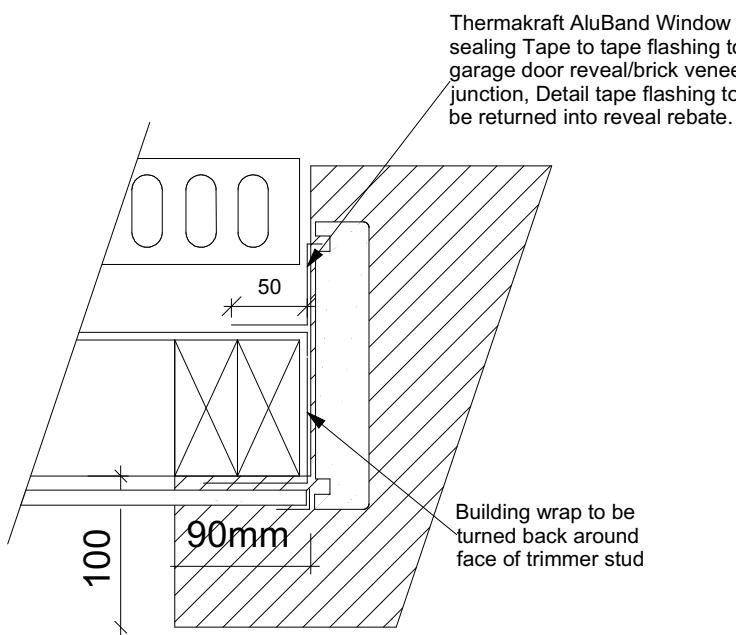
Window Head Detail
Scale 1:5



Window Sill Detail
Scale 1:5



Window Jamb Detail
Scale 1:5



Garage Door Jamb Detail
Scale 1:5

9.2.9 Openings in masonry veneer

Openings with *masonry veneer* above shall be spanned by steel angle lintels.

Openings in *masonry veneer* for meter boxes less than 500 mm wide may be installed without lintel bars or head *flashings* provided the meter box is sealed to *wall underlay* with *flashing tape* to Paragraph 4.3.11.

Separate steel meter boxes from direct contact with *masonry veneer* or mortar with *flashing tape* to Paragraph 4.3.11.

Lintels shall:

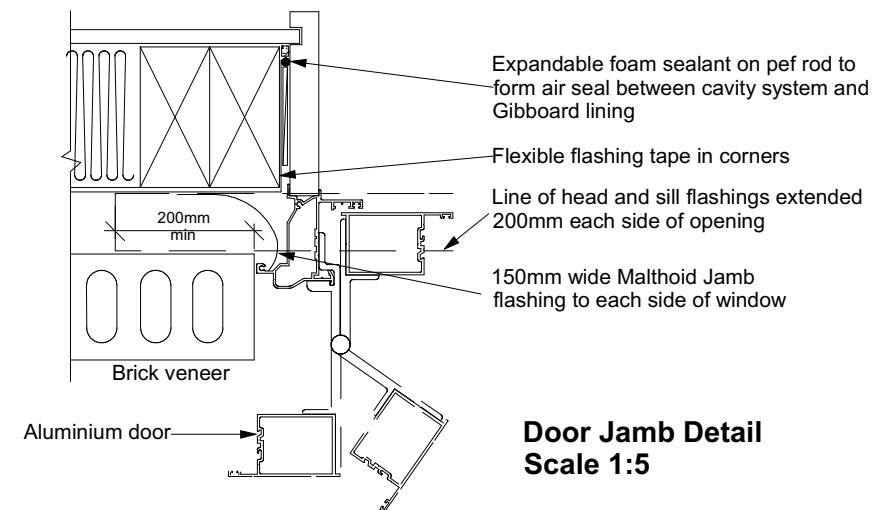
- Be protected against corrosion as in Table 18D and to exposure zones outlined in Nzs 3604.
- Have a minimum seating into adjacent veneer of:
 - 100 mm for spans up to, and including 2 m,
 - 200 mm for spans over 2 m.
- Be sized in accordance with Table 18E.

9.1.10.8 Attachments for windows and doors

Install windows and doors using pairs of minimum 75 x 3.15 galvanised jolt head nails or 8 gauge x 65 mm stainless steel screws, through reveals into surrounding *framing* at:

- Maximum 450 mm centres along sills, jambs and heads, and
- Maximum 150 mm from reveal ends.

Install packers between reveals and *framing* at all fixing points, except between head reveals and lintels.

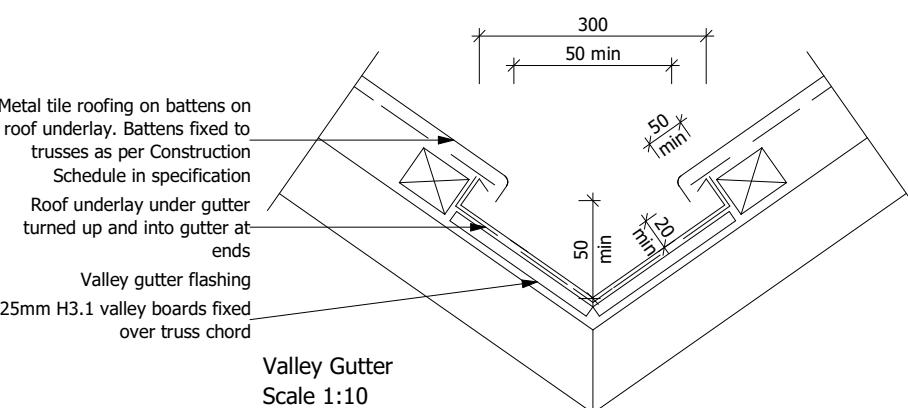
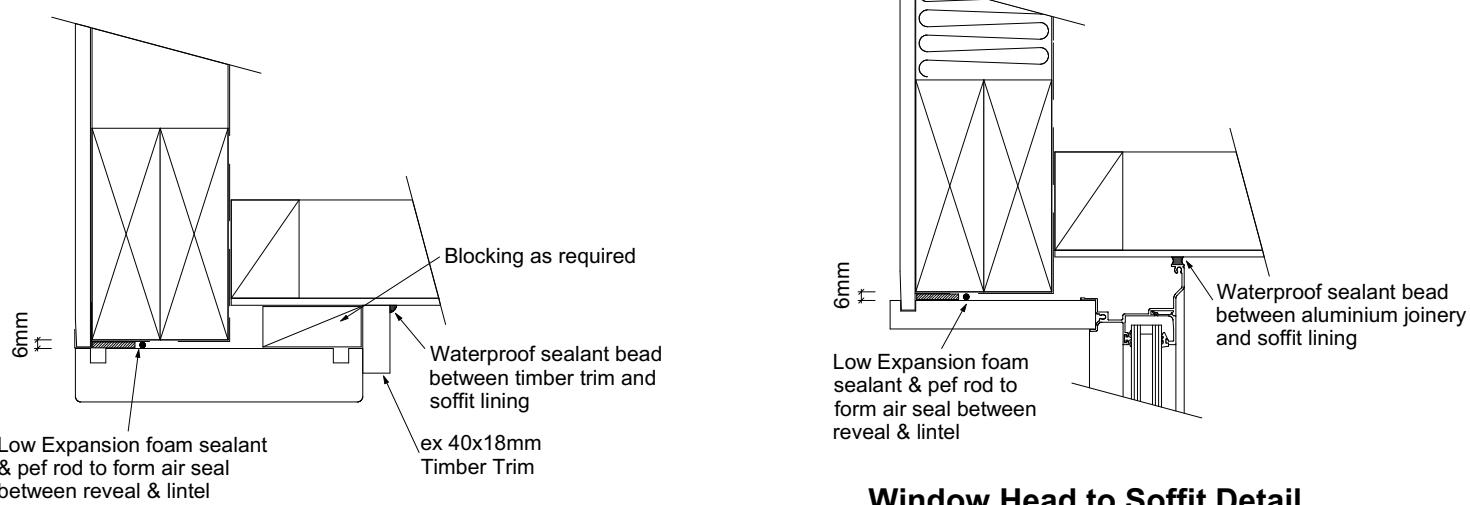
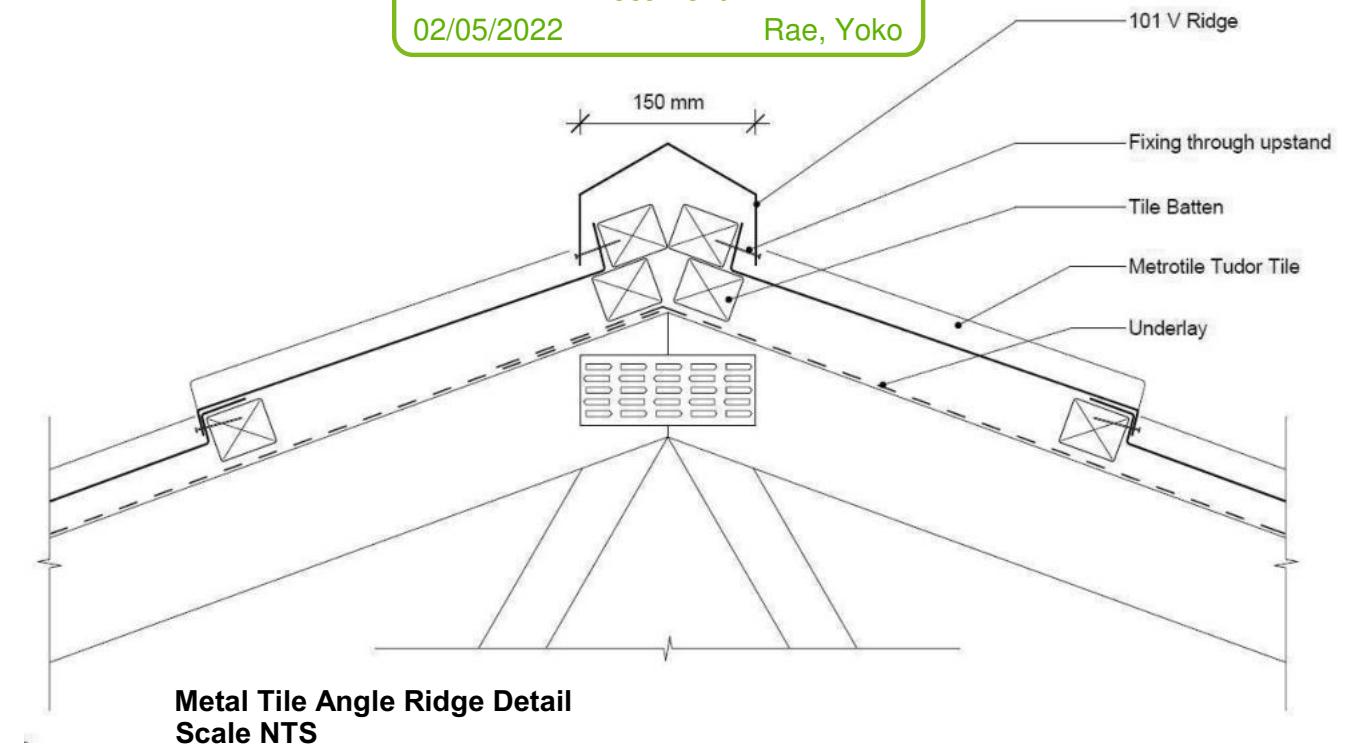
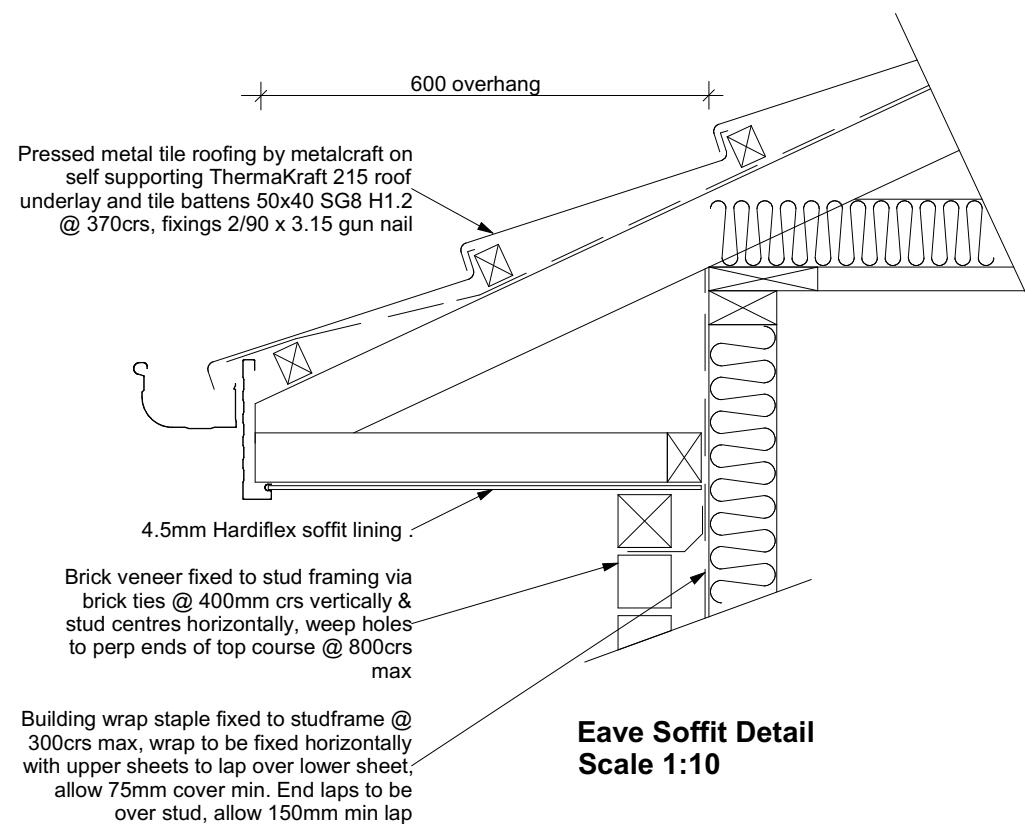


Door Jamb Detail
Scale 1:5

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CONSTRUCTION DETAILS

CONSENT PLANS

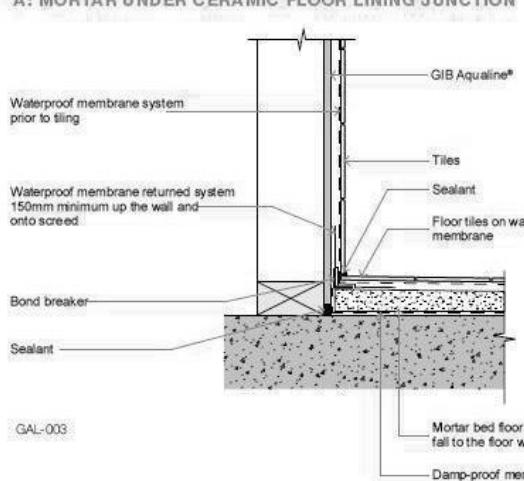
No.	Date:	Reason:
1	09-02-2022	Initial Consent Plans

Sheet No.:
19

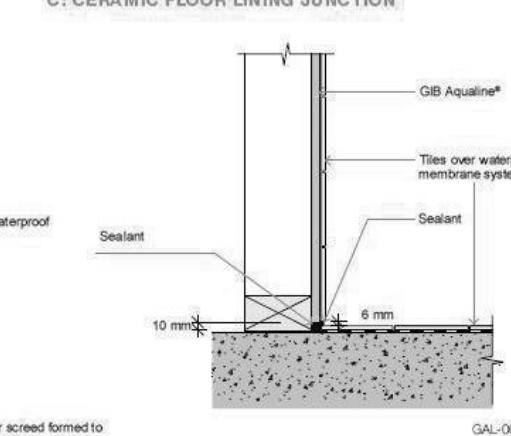
of 23 sheets

SHOWER - TILED WALL AND BASE DETAILS

A: MORTAR UNDER CERAMIC FLOOR LINING JUNCTION



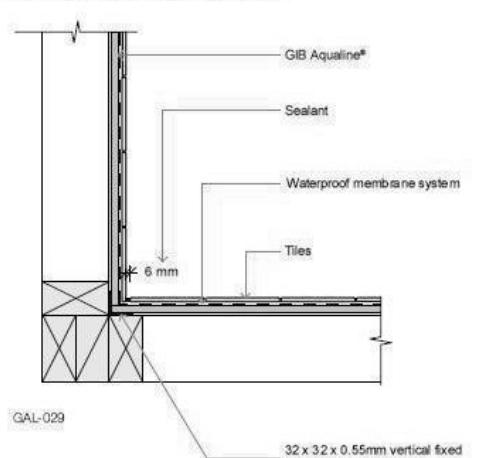
C: CERAMIC FLOOR LINING JUNCTION



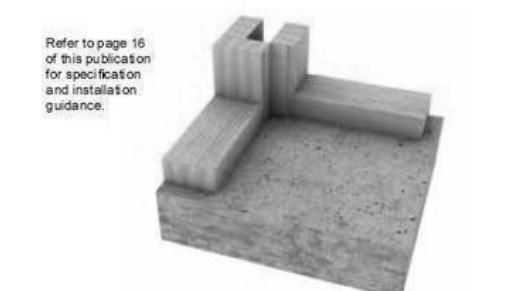
PREFORMED SHOWER BASE JUNCTIONS

Refer to the shower base manufacturer for proprietary shower tray installation detailing including wet wall lining junction detailing.

B: TILED INTERNAL CORNER

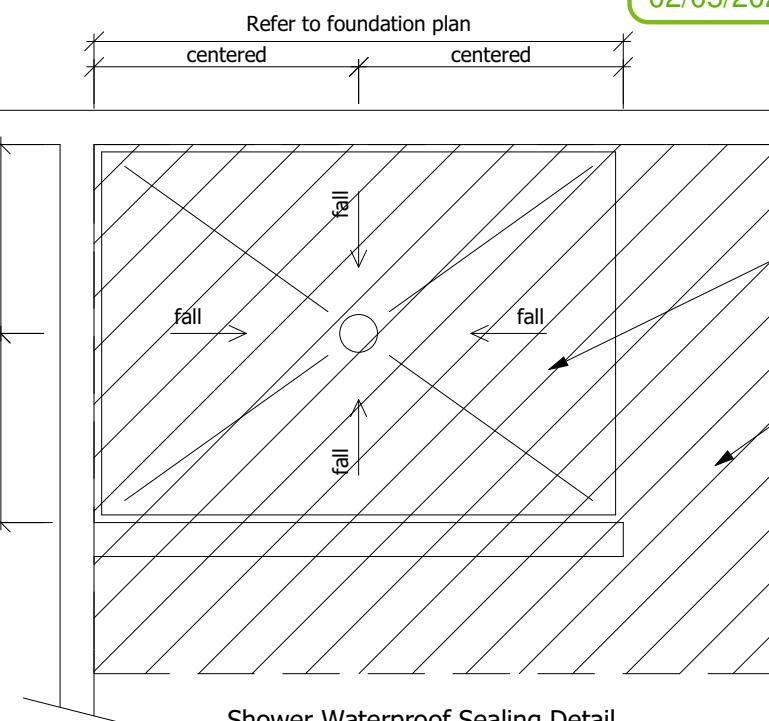
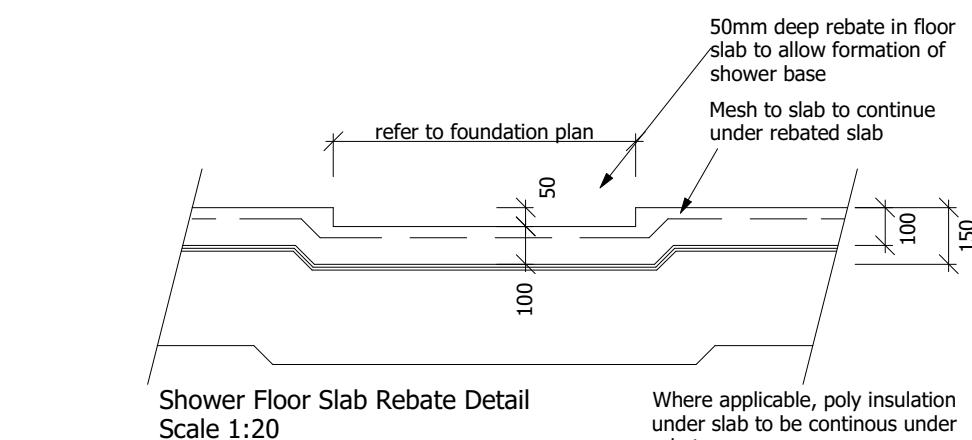
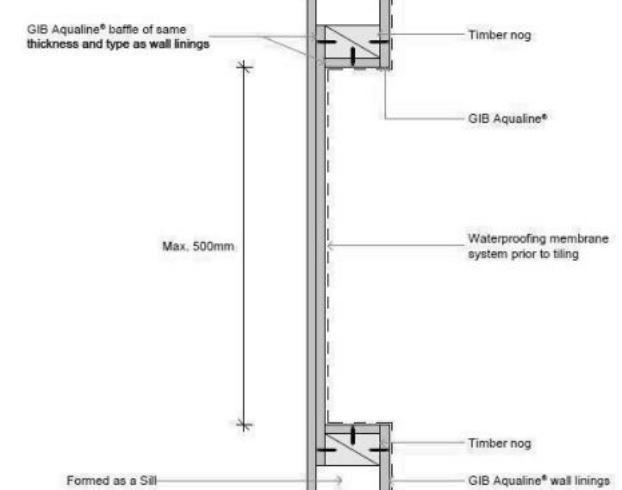
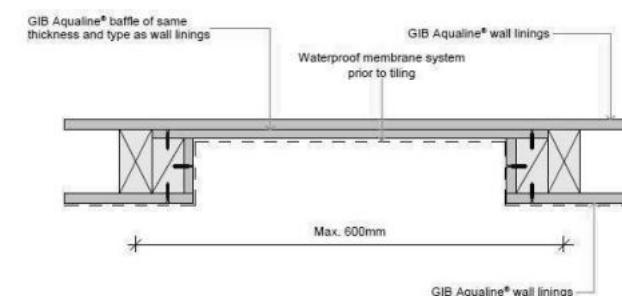


D: TILED INTERNAL CORNER METAL ANGLE POSITION

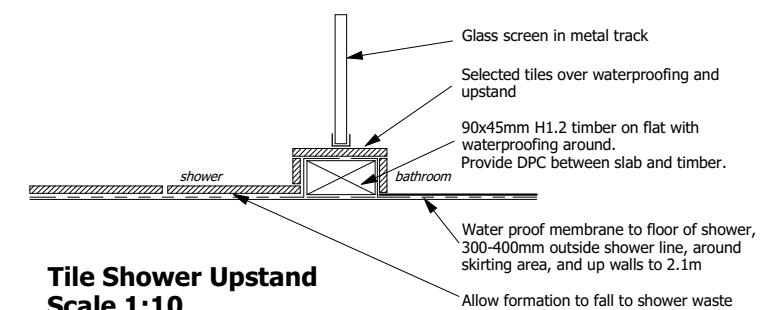


E: SHOWER MIXER PENETRATION IN WET WALL LININGS

Refer to the shower mixer manufacturer for shower mixer installation detailing including the use of proprietary products to prevent water or moisture ingress behind the wet wall lining.



Shower Waterproof Sealing Detail
Scale 1:20



All dimensions are to be checked and confirmed prior to any construction
Plans are to be read in conjunction with Specifications and all supporting documentation



TKR Homes Ltd.
31 Watts Road, Sockburn
PO BOX 11 351
Christchurch 8443
P: +64 3 342 7788

These drawings are limited to and by the extent of the detail covered in the drawings to meet the current New Zealand Building Code (NZBC). Where detail is required for construction and to demonstrate compliance with the current NZBC, a specific request should be made for the required detail to be supplied. No liability will be accepted for any detail or construction not covered in these drawings and/or carried out by persons other than the designer producing these documents.

Kyle Wills & Elise Le Compte
Lot 106
Belfast Development
Belfast, Christchurch

Job Number:
143897

Original Plan:
Fernbird

Sheet Name:
BATHROOM DETAILS

CONSENT PLANS

No.	Date:	Reason:
1	09-02-2022	Initial Consent Plans

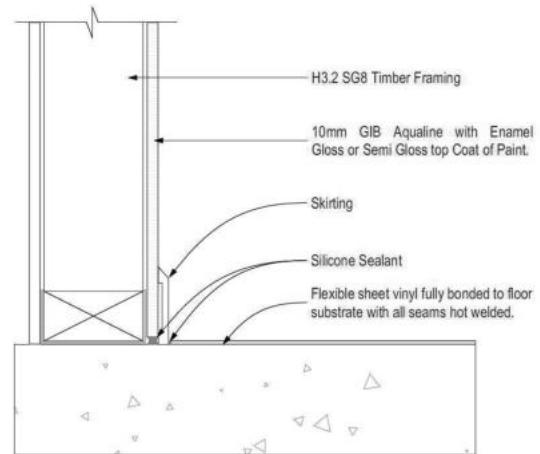
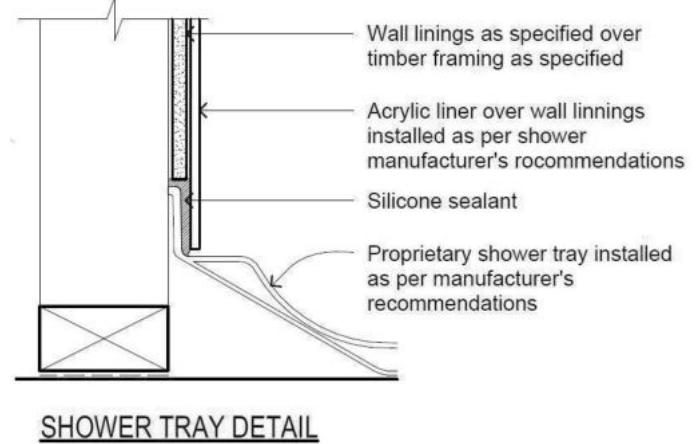
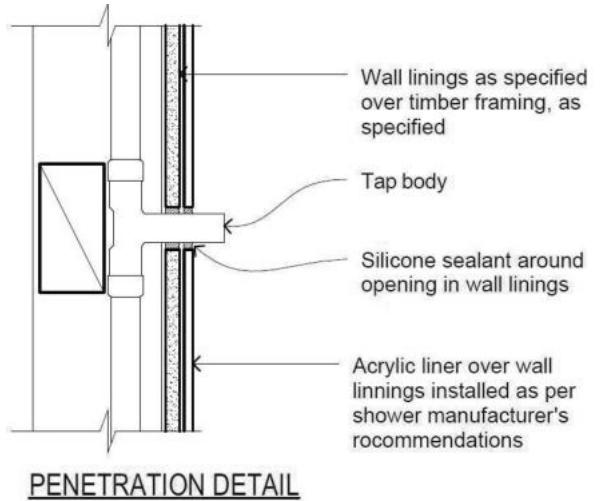
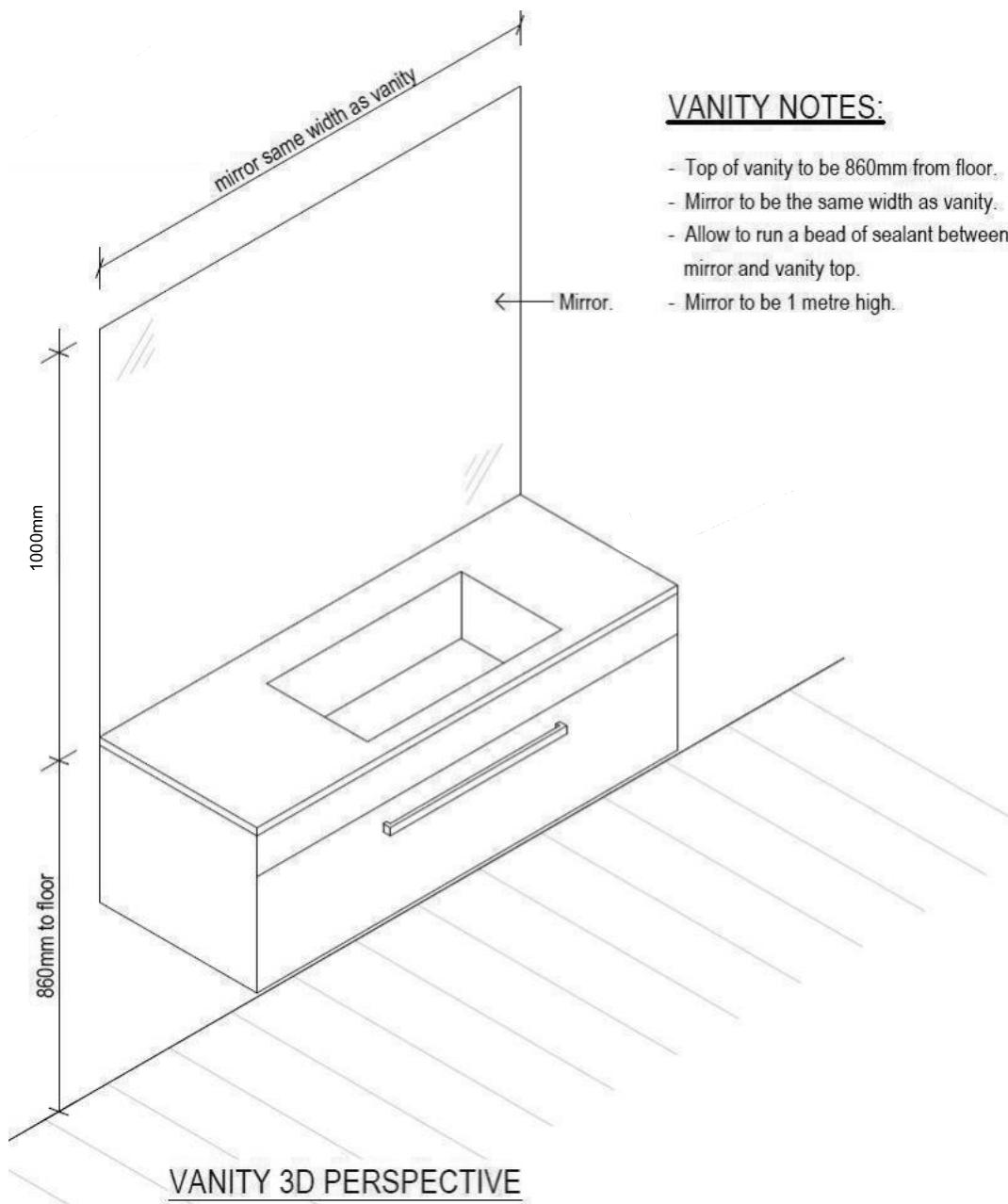
Sheet No.:
20

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02/05/2022

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CONSENT PLANS

No.	Date:	Reason:
1	09-02-2022	Initial Consent Plans

Sheet No.:
21

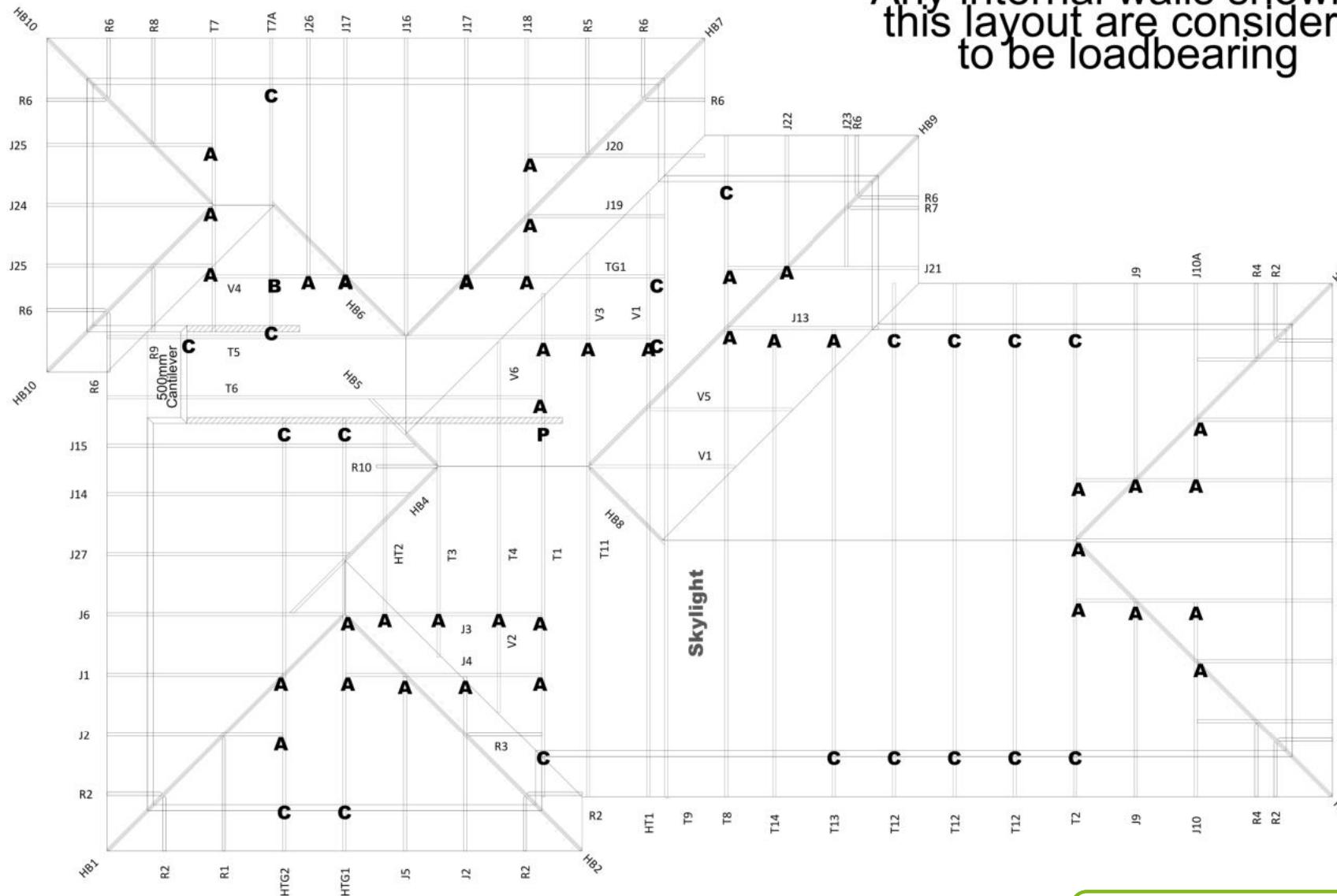
of 23 sheets

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



Any internal walls shown on this layout are considered to be loadbearing

If metal ceiling battens on clips are used, 90x45 SG8 bottom chord restraints are required at 1800mm centres fixed with 2/90x3.15dia nails (skew nails if on edge).
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.

Christchurch City Council
BCN/2022/2121
Approved Building Consent Document
02/05/2022 Rae, Yoko

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CARTERS
Carters National Support Office
0800 Carters

JOB No **355164C1**

Client: TKR Homes Limited | T/A Signature
Job: Willis - Le Compte
Site: Lot 106 Belfast Development
Belfast
Christchurch

Pitch: 25.0deg
Roof Type: Metal Tiles
Overhang: 600mm
Wind Area: High
Roof Snow: 0.441kPa
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 Bruce Barrow | 11 Oct, 2021

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 joins.

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.

Truss Layout

All dimensions are to be checked and confirmed prior to any construction
Plans are to be read in conjunction with Specifications and all supporting documentation



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Kyle Wills & Elise Le Compte
Lot 106
Belfast Development
Belfast, Christchurch

Job Number:
143897

Original Plan:
Fernbird

Sheet Name:
TRUSS DESIGN

Sales: D Ryan Drawn: M Glynn QS: S Liu Print Date: 12/04/2022 Scale: NTS @ A3

CONSENT PLANS

No.	Date:	Reason:
1	09-02-2022	Initial Consent Plans

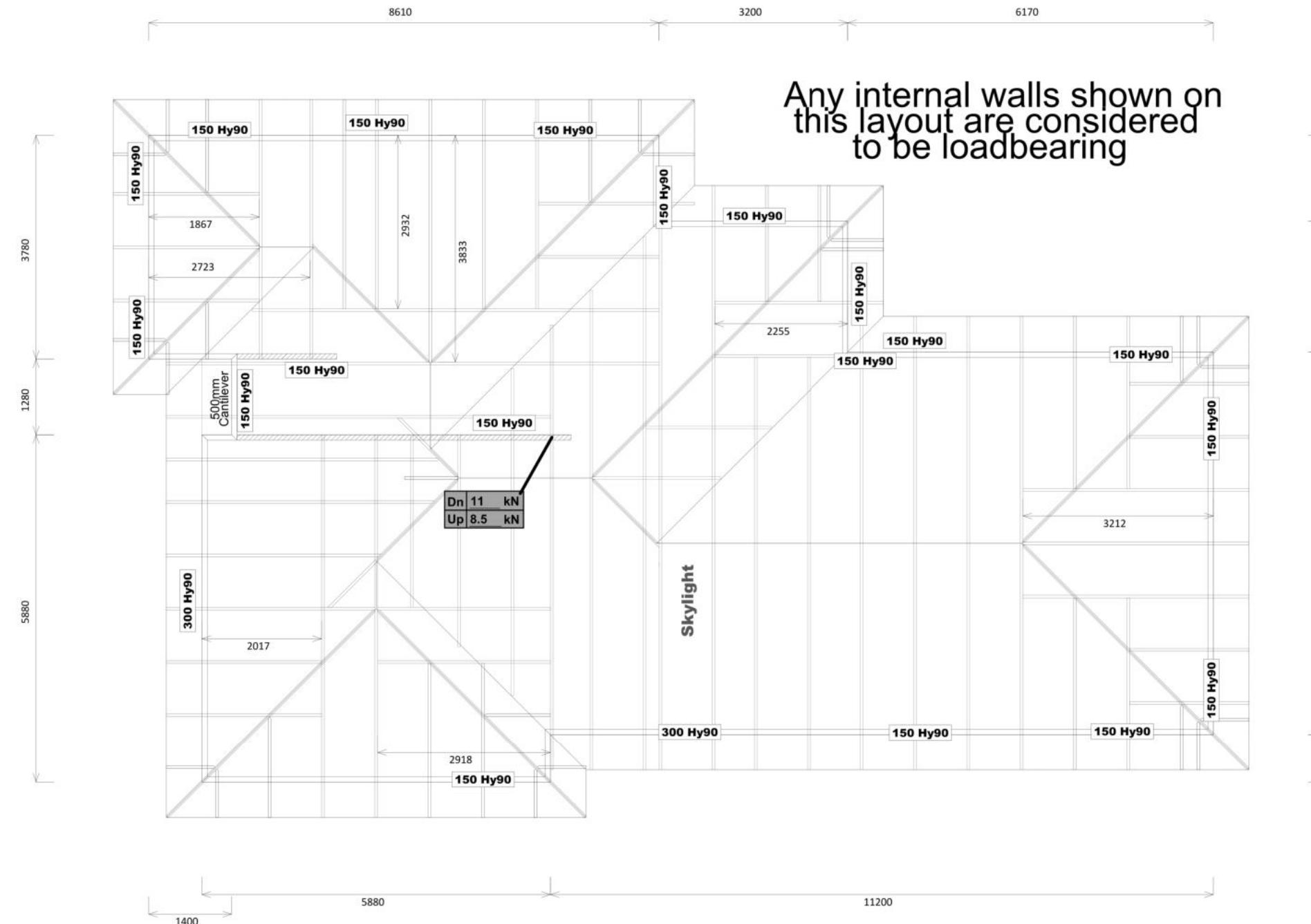
Sheet No.:
22

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BUILDABLE CONSENT LAYOUT

CARTERS

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Document
02/05/2022 Rae, Yoko

All internal walls shown hatched on this layout are considered to be loadbearing
Lintel fixing specification remains the responsibility of the architect / draughtsperson

All dimensions are to be checked and confirmed prior to any construction
Plans are to be read in conjunction with Specifications and all supporting documentation



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Kyle Wills & Elise Le Compte
Lot 106
Belfast Development
Belfast, Christchurch

Job Number:
143897 Original Plan:
Fernbird Sheet Name:
TRUSS DESIGN
Sales: D Ryan Drawn: M Glynn QS: S Liu Print Date: 12/04/2022 Scale: NTS @ A3

CARTERS
Carters National Support Office
0800 Carters

JOB No **355164C1**

Client: TKR Homes Limited | T/A Signature
Job: Willis - Le Compte
Site: Lot 106, Belfast Development
Belfast
Christchurch

Pitch: 25.0deg
Roof Type: Metal Tiles
Overhang: 600mm
Wind Area: High
Roof Snow: 0.441kPa

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

DRAWN Bruce Barrow | 11 Oct, 2021

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.

Sheet No.:
23
of 23 sheets



ENGCO
Consulting Engineers

Proposed New Dwelling

Lot 106 Belfast Development

RIBRAFT DRAWINGS

File Number 21008.219

Sheet No.	Rev	Date Issued	Sheet Title	Issue Register
S1	-	2021.11.27	General Notes	
S2	-	2021.11.27	RibRaft Foundation Plan	
S3	-	2021.11.27	Typical Foundation Sections	
S4	-	2021.11.27	Typical Foundation Sections	
S5	-	2021.11.27	Typical Services Penetration Details	

Date Description

2021.11.27 Issued for Consent

GENERAL

- These drawings are not to be used for construction until the plan (sheet S2) is signed by the main contractor.
- Do not scale. Refer any discrepancies to the Architect.
- These drawings are to be read in conjunction with the Architects drawings.
- The builder shall be responsible for any damage to works during construction.
- The sand blinding layer shall be 20mm min. & 50mm max. to aid levelling & to prevent rocking of pods.
- Vapour barrier to be 0.25mm (250 micron) polythene complying with NZS 4229 / NZS 3604 .
- Finished ground level adjacent to slab to be protected from wind, water erosion and undermining.

FOUNDATIONS

- For assumed allowable bearing capacity refer to calculations/installer guide. Unless otherwise noted in documentation.
- If there is any doubt about the integrity of the material on which the slab is to be founded - Supervising Engineer must be notified immediately.

GEOTECHNICAL REFERENCE:

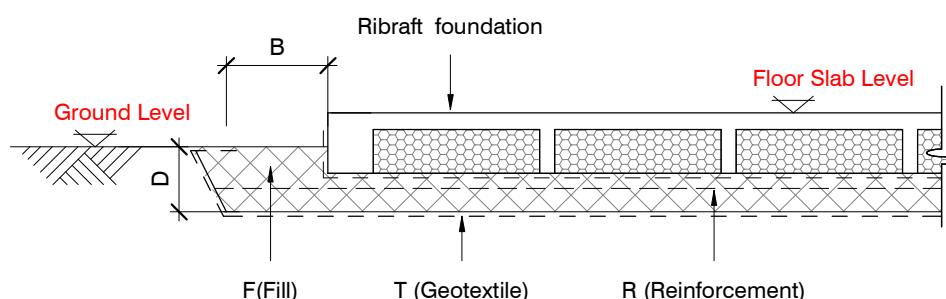
Refer: ENGEO Report
Ref. No: 19120.000.001.71
Dated: 3 November 2021

INSPECTIONS

Inform ENGCO consulting 48 hours in advance of any inspections required for code compliance certification.
Contact ENGCO - Ph. 03 366 7955 & quote ENGCO Ref. No. 21008.219

INSPECTIONS REQUIRED

- Confirm bearing at excavation - ENGCO
- Contractor to supply (4) N.D> Tests at finished compacted surface - if depth of fill is greater than 400mm.
- Pre-pour of slab - ENGCO

**BUILDING PLATFORM**

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**CONCRETE**

- All workmanship & materials to conform to NZS 3109, NZS 4210 & local authority regulations.
- Minimum covers to reinforcement:
 - Exposed to earth - 75mm.
 - Protected by vapour barrier - 50mm.
 - Not exposed to weather except for a brief period during construction - 25mm.
- No holes or chases other than those specified are to be made in the slab without the approval of Engco.
- All concrete shall have 20mm nominal maximum aggregate size & 120mm slump & shall comply with NZS 3109.
- All concrete to be mechanically vibrated & carefully worked around the reinforcement & into the corners of the formwork.
- Ribraft make-up to be

100 mm Floor Slab - 220 mm pods
(20MPa min. TC2 Dramix 4D 80/60 Fibre mix Concrete)
G500 E SE62 Ductile mesh on 65 mm chairs.

The design Fibre mix shall be supplied so that the residual flexural tensile stresses $f_{r,1}$ & $f_{r,4,k}$ shall be 1.5 MPa & 1.0 MPa respectively.

REINFORCEMENT

- All reinforcing shall be New Zealand sourced and conform to AS/NZS 4671:2001 in grade 300 or grade 500E.
- All bends to be made cold without fracture.
- All reinforcing shall be deformed type unless otherwise stated.
- Grade 500E deformed bars shall be designated 'H', Grade 300 deformed bars shall be designated 'D' and Grade 300 round bars shall be designated 'R'.
- Minimum bar splice 720mm. (or unless otherwise noted).
- All reinforcement to be fixed & tied where necessary in its specified position.
- Welding of steel is not permitted.
- Spacers:
 - Edge at 1200mm ctrs (one on edge & two on corners, typically).
 - Internal one on each side of pod (typically).
- All mesh shall comply with AS/NZS 4671 & shall conform with elongation requirements exceeding 10%.
- All mesh shall lap a minimum of 250mm (end extensions not included in lap length).

BUILDING PLATFORM TABLE:	
B	500mm
D	Remove topsoil only - 300mm approx.
T	N/A
R	N/A
F	AP 40/AP65 fill. - 95% Dry Density. Compact in 150mm layers (max.)

Refer Architectural drawings for Finished Floor Level

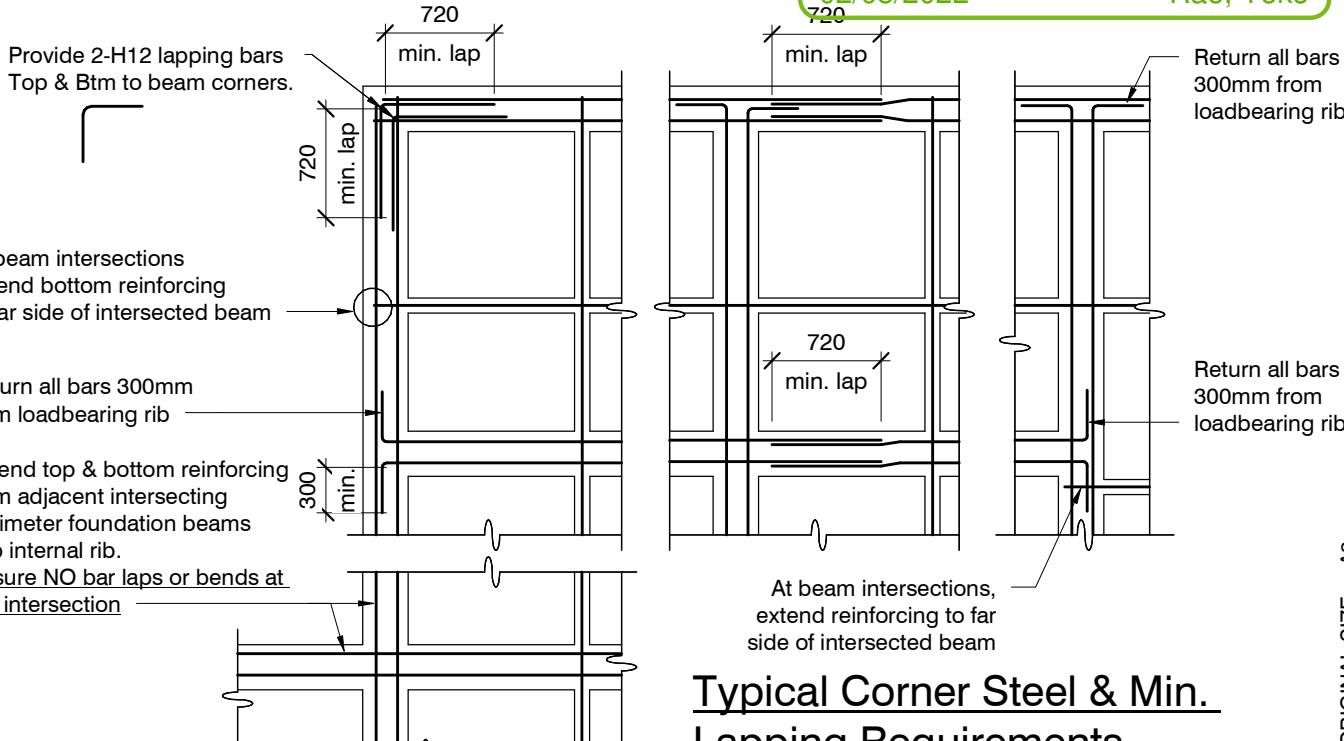
Proposed New Dwelling

Lot 106 Belfast Development

General Notes

revisions	-	2021.11.27	Issued for Consent

design	C. Gleeson	file	21008.219
drawn	LB	dwg	S1
appvd	M. Cusiel	rev.	-
date	2021-11-27		



Typical Corner Steel & Min. Lapping Requirements

N.T.S.

ORIGINAL SIZE = A3

Christchurch City Council BCN/2022/2121
Approved Building Consent Document
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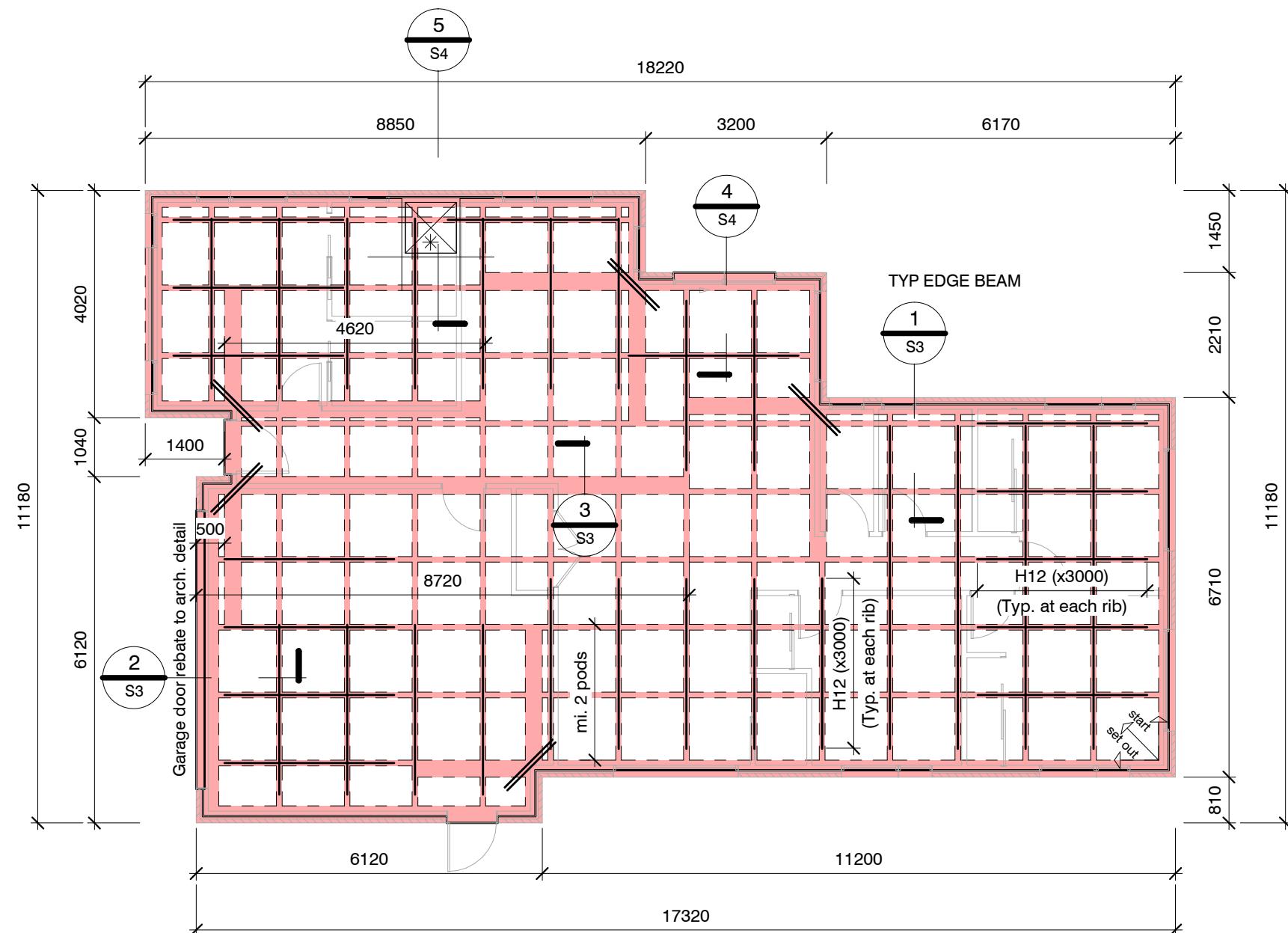
GENERAL NOTES:

Locations shown of internal floor beam thickenings are indicative only. It shall be the responsibility of the Contractor to ensure that they are located centrally under the load bearing walls to which they pertain.

Under no circumstance should pipework for services be run longitudinally in 100mm ribs. Similarly they should not be run along perimeter foundations nor internal floor beam thickening

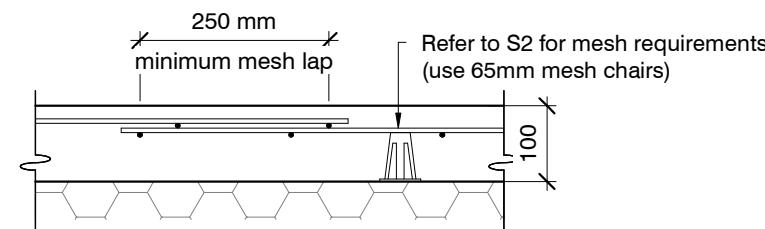
Vertical or horizontal penetrations through the foundation edge beam or floor beam thickening must be made through the middle third of the member. Vertical penetrations should not be made through 100 mm ribs.

Refer to Architects drawings for floor slab, set downs, steps, rebates, holding down bolts, cast-in componentry and the like.



RIBRAFT FOUNDATION PLAN

1 : 100



The design Fibre mix shall be supplied so that the residual flexural tensile stresses $f_{r,1}$ & $f_{r4,K}$ shall be 1.5 MPa & 1.0 MPa respectively.

All Mesh shall lap a minimum of 250mm (end of extensions not included).

* 50mm shower rebate, maintain min. slab thickness Trim perimeter with H12. extending 750mm past (typ.) (or 300mm return) Refer to Architects drawings for setout dimensions

TYPICAL MESH LAP & CHAIR REQUIREMENTS

1:10

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Lot 106 Belfast Development

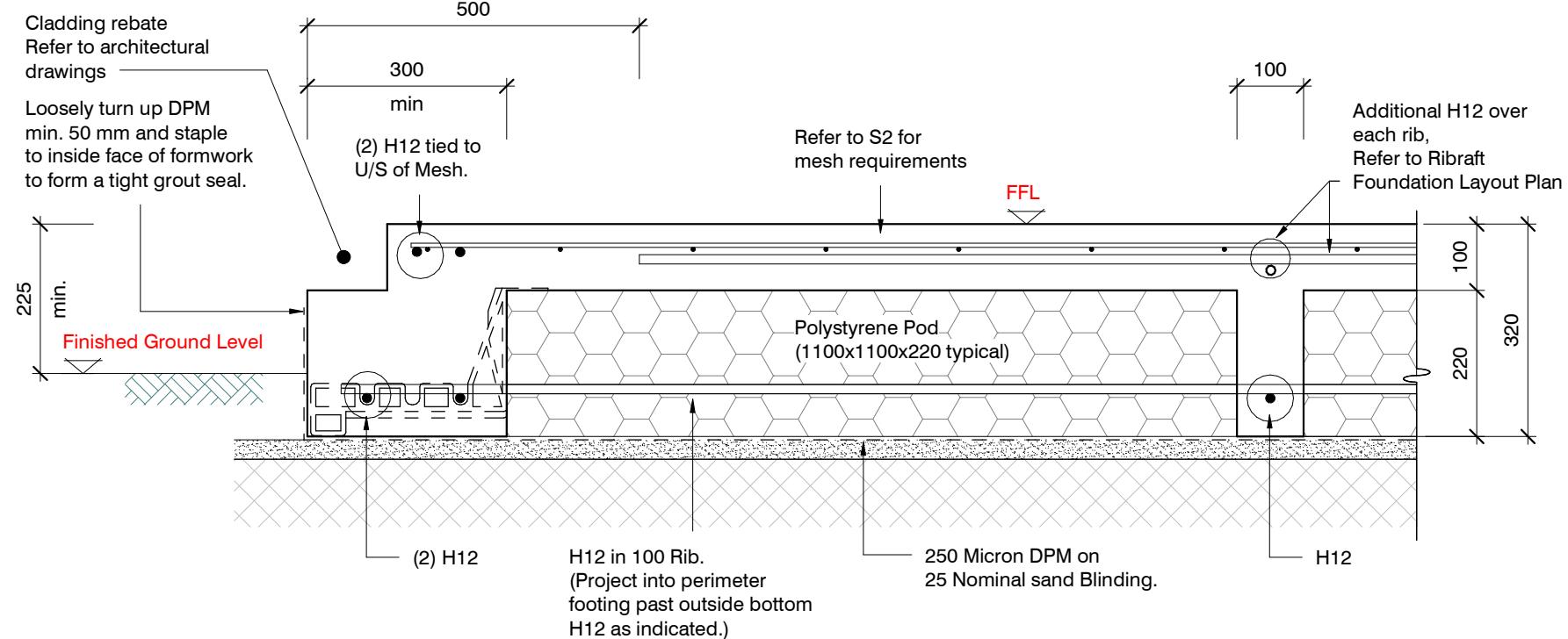
RibRaft Foundation Plan

revisions

-	2021.11.27	Issued for Consent

design	C. Gleeson	file	21008.219
drawn	LB		
appvd	M. Cusiel		
date	2021-11-27	dwg	S2

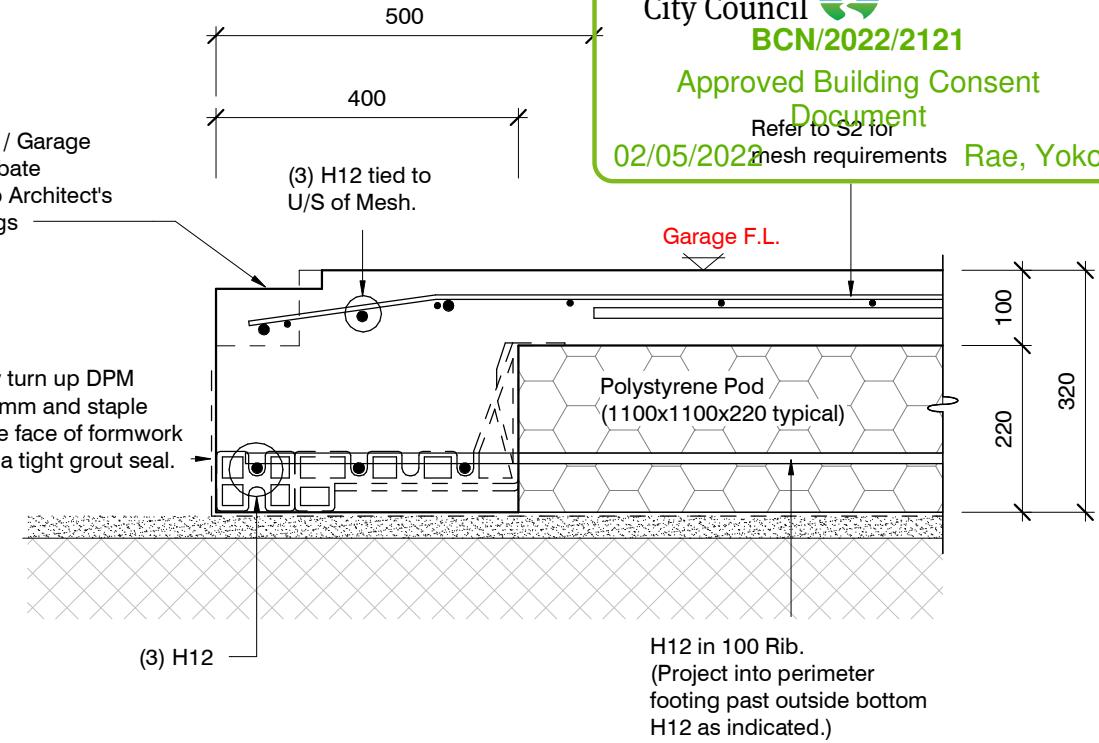
ORIGINAL SIZE = A3



SECTION 1 TYPICAL 300 WIDE EDGE BEAM

1 : 10

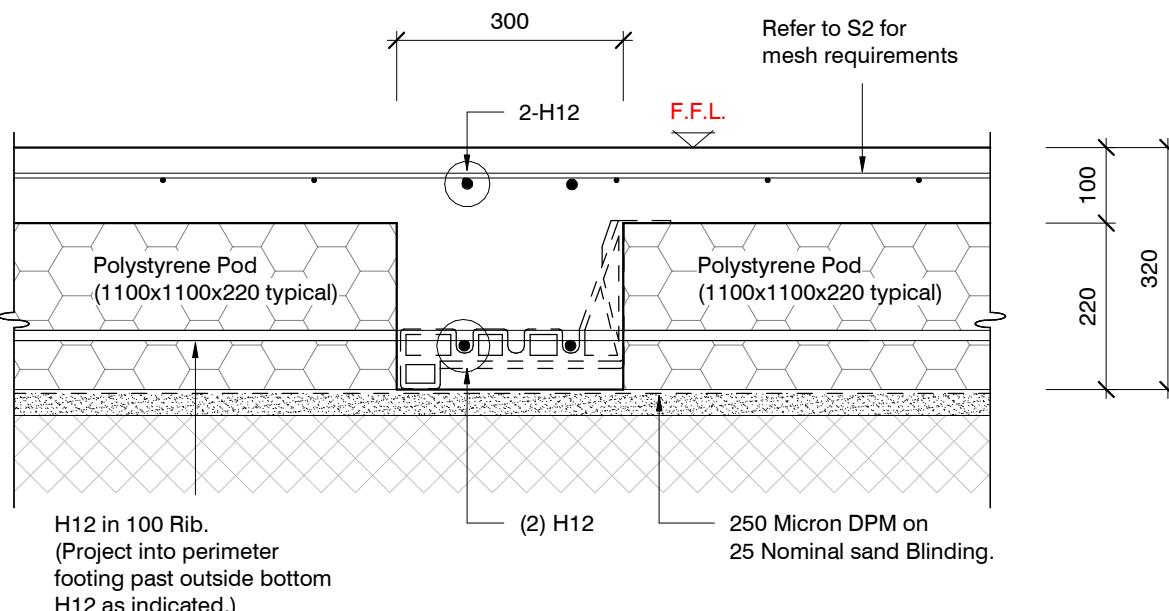
S2



SECTION 2 GARAGE DOOR REBATE

1 : 10

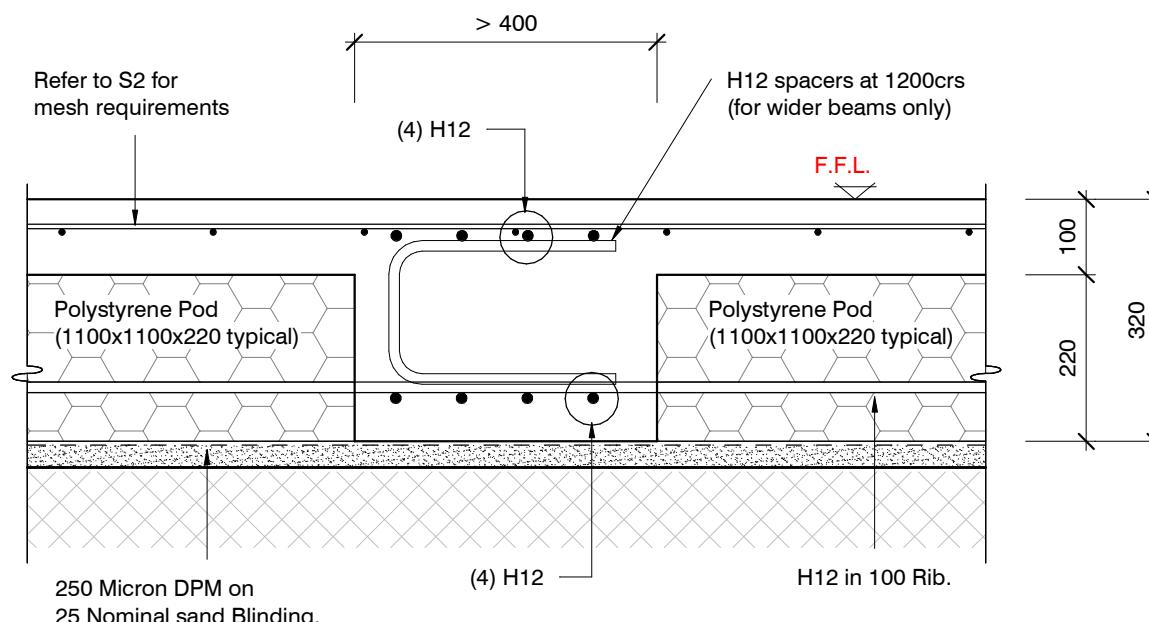
S2



SECTION 3 TYPICAL 300 WIDE INTERNAL BEAM

1 : 10

S2



INTERNAL BEAM > 400mm IN WIDTH

1:10

if required

revisions	-	2021.11.27	Issued for Consent
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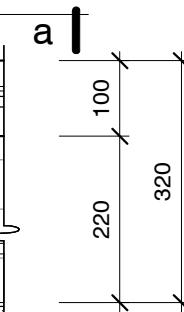
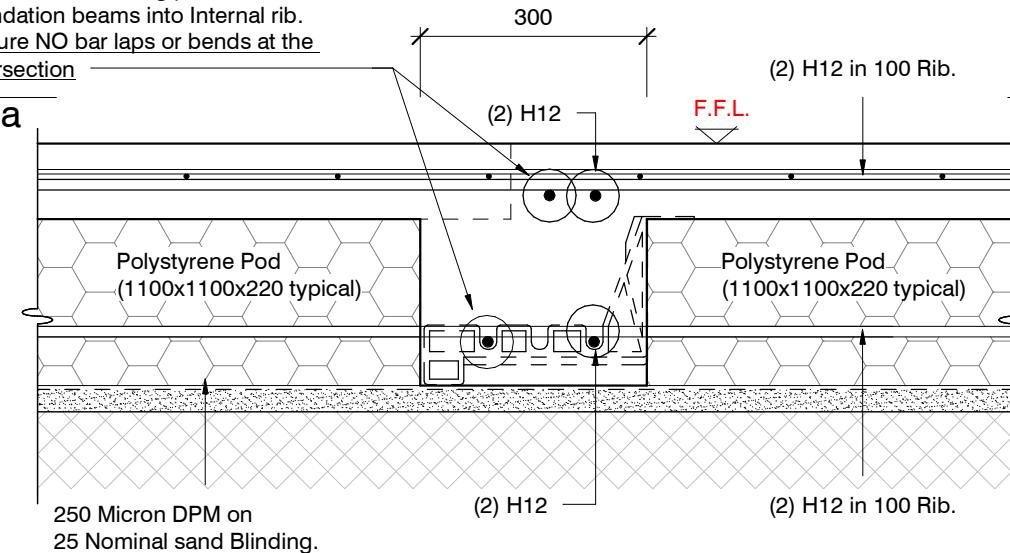


Proposed New Dwelling
Lot 106 Belfast Development

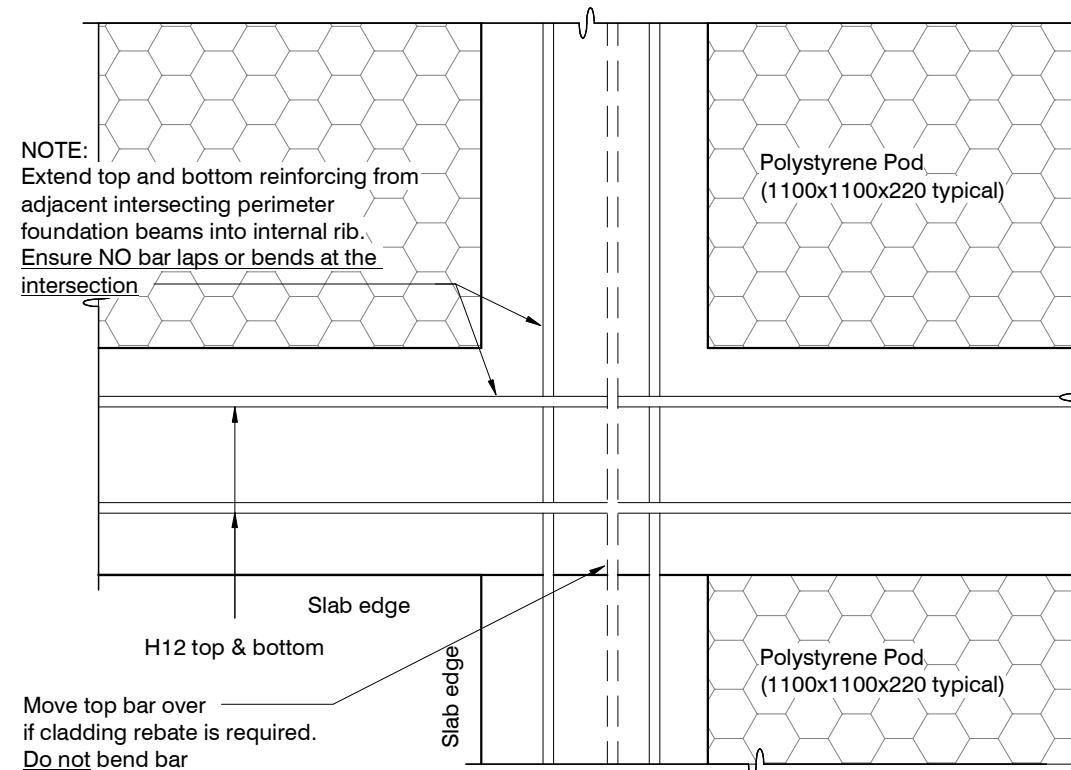
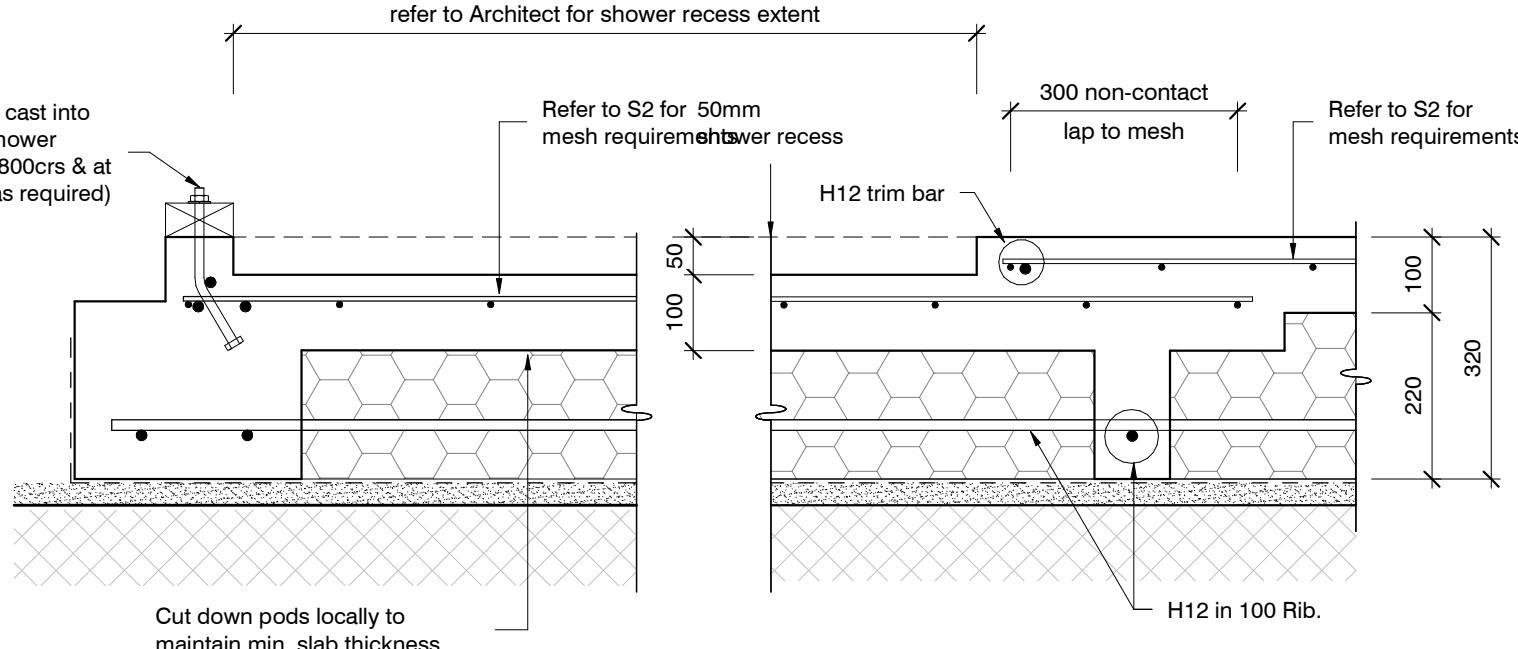
Typical Foundation Sections

design	C. Gleeson	file	21008.219
drawn	LB		
appvd	M. Cusiel		
date	2021-11-27	rev.	-

NOTE:
Extend top and bottom reinforcing from adjacent intersecting perimeter foundation beams into Internal rib.
Ensure NO bar laps or bends at the intersection



M12 bolts cast into edge at shower recess at 800crs & at corners (as required)



a-a

SECTION 4 TYPICAL 300 WIDE INTERNAL BEAM

1 : 10

-	2021.11.27	Issued for Consent

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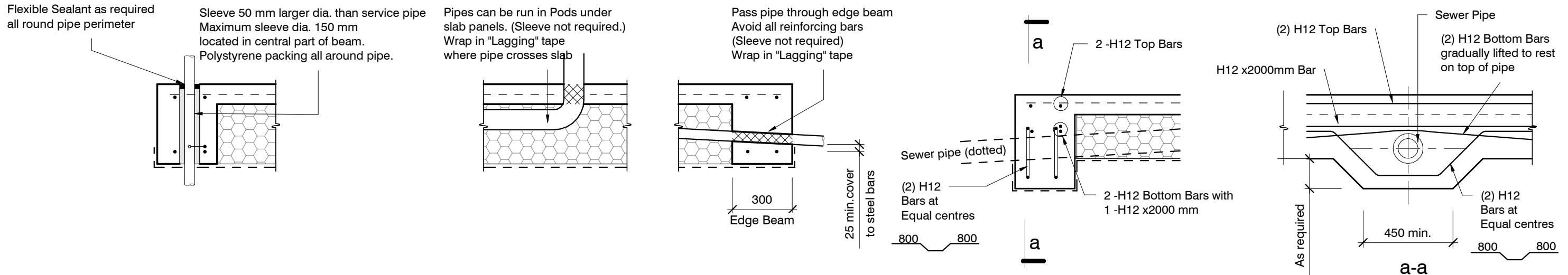


Proposed New Dwelling
Lot 106 Belfast Development

Typical Foundation Sections

design	C. Gleeson	file	21008.219
drawn	LB		
appvd	M. Cusiel		
date	2021-11-27	rev.	-

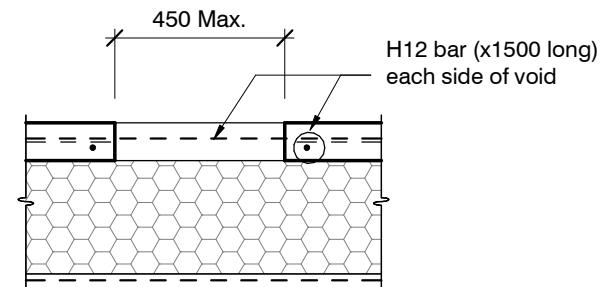
ORIGINAL SIZE = A3



SLAB SERVICES PENETRATION DETAIL

PIPE NOTE:
No separation required where
pipes are fully contained within slab.
Sleeve all drains that pass through the
base of the slab.

PENETRATIONS NOTE:
Where penetrations through
Floor Slab exceed 450 mm Square,
Crack Control Bars will be required.



LARGE SLAB PENETRATION DETAIL

TYPICAL SECTION LOCALISED DEEPENING OF FOUNDATION BEAM TO ACCOMMODATE TOILET WASTE PIPE

Christchurch
City Council

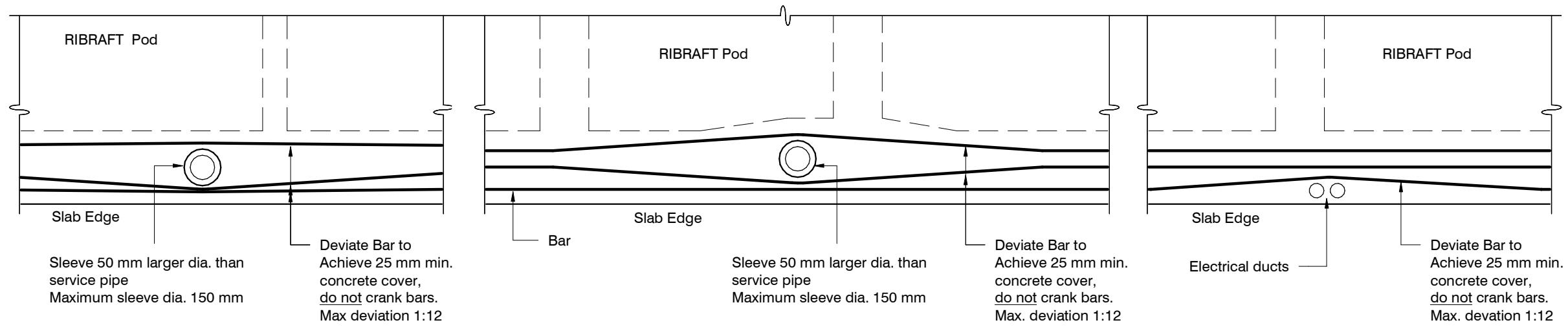
BCN/2022/2121

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Document

02/05/2022

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Rae, Yoko



ORIGINAL SIZE = A3

FOUNDATION SERVICES PENETRATION DETAILING.

Services shall not run along ribs or edge beams.

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Proposed New Dwelling
Lot 106 Belfast Development

Typical Services
Penetration Details

-	2021.11.27	Issued for Consent

design	C. Gleeson	file	21008.219
drawn	LB	dwg	S5
appvd	M. Cusiel	rev.	-
date	2021-11-27		