

Approved Building Consent Documents

Please Note: A copy of the stamped approved documents must be available on site for all inspections.

Inspection booking timeframes

Call received	before 3pm inspection will be done	after 3pm inspection will be done
Monday	Wednesday	Thursday
Tuesday	Thursday	Friday
Wednesday	Friday	Monday
Thursday	Monday	Tuesday
Friday	Tuesday	Wednesday

Building inspections and enquiries phone: 03 347 2839

Please ensure all work for inspection is ready the day before. Incomplete work requiring re-inspection will incur an additional inspection fee.

Sheet Index

Layout ID	Layout Name
A1.01	Site Plan
A1.02	Plumbing & Drainage Plan
A1.03	Foundation Plan
A2.01	Floor Plan
A2.02	Framing Plan
A2.03	Roof Plan
A2.04	Bracing Plan
A2.05	Bracing Connection Details
A3.01	Elevations
A3.02	Door & Window Schedule
A4.01	Sections A & B
A5.01	Plumbing & Drainage Details
A5.02	Foundation Details
A5.03	Typical Roof Details
A5.04	Brick Cladding Details
A5.05	Gas & Wet Area Details
A5.06	Lintel Fixing Details
A5.07	Firewall Details
A5.08	Firewall Details

Proposed Granny Flat
for
43 Nicolau Avenue



ARTIST IMPRESSION ONLY

SDC - Approved Building Consent Document - BC222012 - Pg 2 of 22 - 4/07/2023 - homann

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General Notes

LOT No:	33
D.P:	535457
Site Area	663m ²
Floor Area (Over Framing)	61.36 m ²
Floor Area (Over Foundation)	65.34 m ²
Site Coverage	35.5- (40% Allowable)
Maximum Building Height	8m
Territorial Authority	Selwyn District Council
Planning Zone	Living Z
Wind Zone	High Wind
Earthquake Zone	2
Technical Category	TC1
Now Zone	N4- 1kPa
Corrosion Zone	C

General:
Concept subject to TA rules and regulations.
All dimensions to be confirmed on site

Foundation Type:
C1 Firth Ribraft Foundation System.

Site Information:
Position of road crossing, services locations, street trees, lamp posts, parking bays, pedestrian islands etc to be confirmed on site.

Site Levels:
Levels obtained

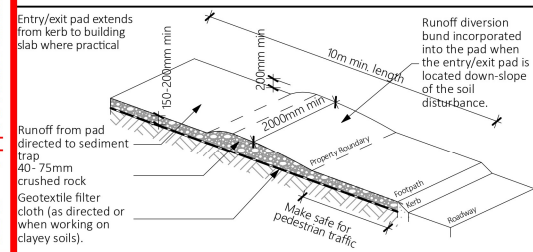
Finished floor level to be 150mm minimum above crown of road as per NZBC E1/AS1 Figure 1 or the lowest point of the boundary as per Figure 2, E1/AS1.

Compliance Requiring RC: Road Boundary Setback

Steps & Paths:
Step/s or appropriate landscaping is to be provided if drop from external doors is greater than 90mm from FFL to FGL. All access routes must provide a non-slip surface in accordance to NZBC D1/AS1 Table 2. Convey surface water from sealed drive to an appropriate approved outfall.

Sediment Control

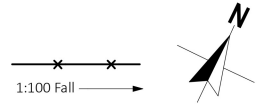
Rumble pad to be created at point of entry & exit on site (Removed on completion of formed driveway)
Rumble pad to be created in accordance to guidelines provided by the local Council & maintained in good condition throughout its period of use.
All ground cover/vegetation outside of immediate build area to be maintained throughout period of house build. This includes grass verges on the street frontage.
Any stockpiles of soil or excavated material are to be kept to the rear of the site & covered with impervious sheets.
Roof downpipes are to be connected to the installed stormwater drainage as soon as practical once pad cladding has been installed. Until this point ensure water run-off from downpipes is directed away from build area but not on to neighbouring properties.
No building work will be started on this project until the construction of an approved stormwater outfall has been completed for this proposed lot.



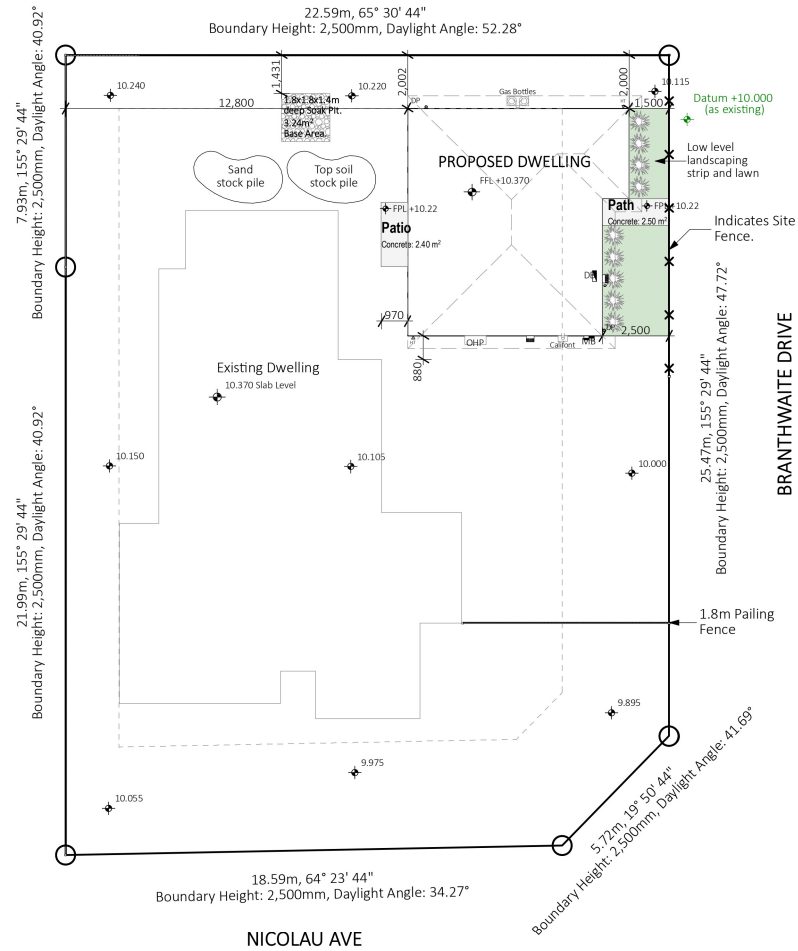
Stabilised Entry/Exit Pad

Site Plan Legend

-Site Fencing
-1:100 Fall to planting or grass area



-Main contractor to provide 2m min. high chain link fence (min. size 50 x 50mm) to prevent unauthorised entry to the site. All fencing to comply with F5 including relevant hazard signage.
-Main contractor to provide on site a specific Health & Safety policy which is to be viewed & signed by all persons entering the site.



**Resource Consent # 225186
has been granted on 01/07/22**

29/09/2022 hillsI

Legend

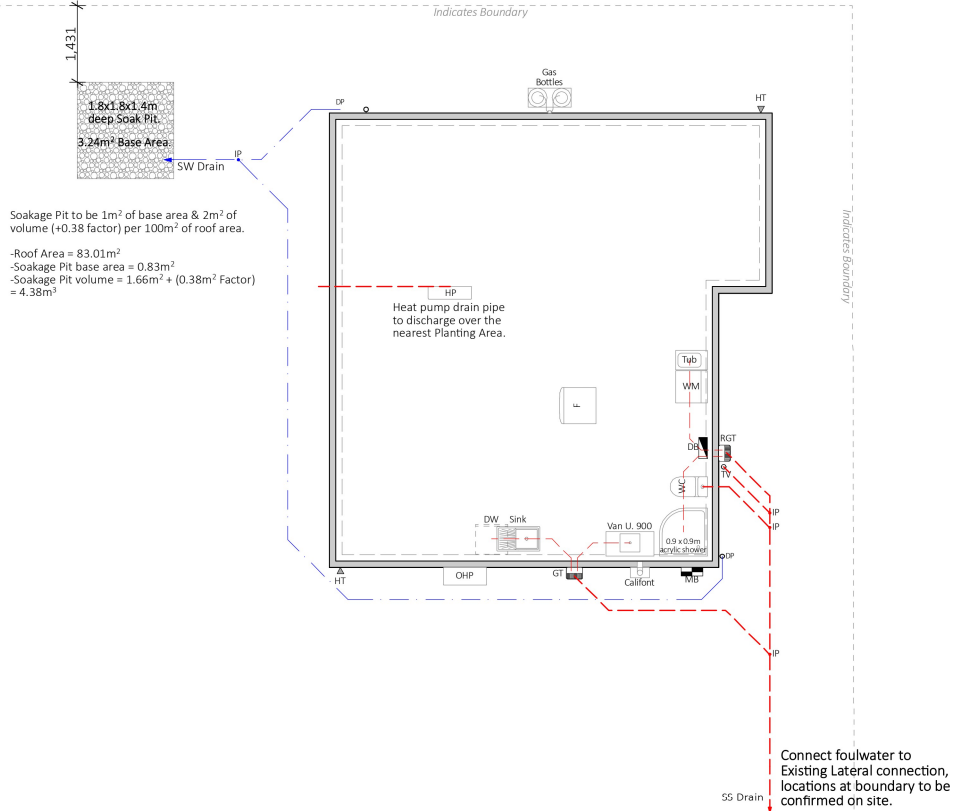
Ref	Fixture	Waste Size	Gradient
WC	Water Closet	100mm	1:60
SHW	Shower	40mm	1:20
S+DW	Kitchen Sink + DW	50mm	1:40
Van.U	Vanity Unit	40mm	1:20
TUB+WM	Laundry Tub + WM	50mm	1:40
WM	Washing Machine	Discharge to TUB	
GT	Gully Trap		
RGT	Relief Gully Trap		
TV	Terminal Vent	80mm	
DP	Downpipe	80mm Dia Colorsteel Downpipes	
IP	Inspection Point		
AV	Air Admittance Valve	Discharge pipe more then 3.5m to GT	
HT	Hose Tap		
HP	Heat Pump		

- 100mm uPVC surface water drain at 1:100 gradient to proposed soakpit. (SW)
- 100mm uPVC foul water drain at 1:60 gradient to existing drains on site. (FW)
- All internal waste pipes - Size & gradient shown in above table

Note:
Relief Gully Trap is to be positioned so that the top of the gully dish is no less than 150mm below the overflow level of the lowest sanitary fixture served by the drainage system.
Position of drain connections at street laterals to be confirmed on site.
Allow to thermally insulate all exterior pipework & valves exposed to external weather conditions.
Heat pump drain pipe to discharge over the nearest Planting Area.

Drain pipes discharging to GT:
25mm min air gap between all pipes & GT.

All plumbing and drainage to comply with Acceptable Solutions G13/AS1/AS2 by qualified tradesman. Allow to check all dimensions and falls of drains onsite prior to installation.
Contractor to locate all service connections on site prior to earthworks, confirm all boundary setbacks & restrictions comply with current regulations prior to commencement of foundations.
All waste pipes PVC. Sizes, fall, venting & discharge to be confirmed by NZ qualified plumber. Confirm positions of available services cabling etc. on site prior to any excavation.
Internal water pipes to be Polybutylene. All pipework & pipes exposed to freezing to be lagged with closed cell foam.

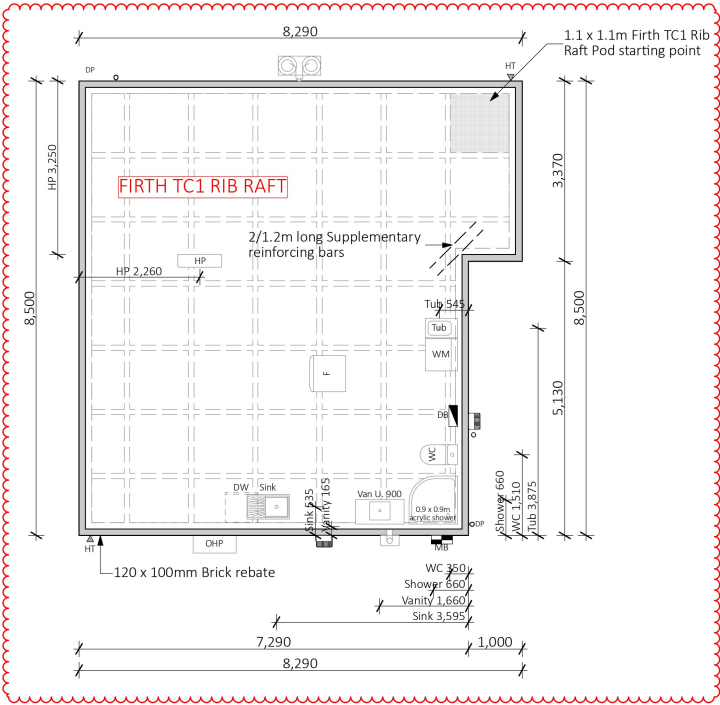


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Foundation Notes:

- TC1 Firth Ribraft Foundation System. For more information refer to supporting documents.
- 300mm wide x 305mm deep Concrete Footng reinforced with 2xHD12 Bars at bottom and 1 x HD12 bar at top
- 100mm conc ribs reinforced with 1 x HD12 Rod
- 20Mpa 100mm thick min Conc Slab reinforced with Grade 665 mesh with minimum of 30mm cover on Polythene DPM over compacted 150mm layers of AP40.
- Supplementary reinforcing (2/D12 1200mm long) to internal corners.
- WC riser locations have a typical offset of 140mm from internal line of framing to center of waste. (Manufacturers technical specifications should be consulted to confirm offset)
- Vanity & Tub riser locations have a typical offset of 45mm to centre line of wall framing to centre of waste.
- Mesh in floor slab must be earthed. Earth with 16mm REO rod brought up into wall below meterbox & wired to the mesh. At prewire, connect a clamp & piece of wire to rod & earth it to the meterbox.
- Minimum heights of concrete slab on ground above surrounding ground levels to be:
 - Brick- 125mm to sealed surface & 200mm to unsealed ground as per NZBC E2.
 - Coats of bituminous liquid to brick rebate
- Finished floor level to be 150mm minimum above crown of road as per NZBC E1/AS1 Figure 1 or the lowest point of the boundary as per Figure 2,E1/AS1.
- Confirm layout of fittings of kitchen & bathroom etc. before foundation commences.

- Contractor to Confirm
- Overall Slab Dimensions with Framing plan Prior to set out
 - Confirm Down pipe locations with Roof Plan
 - Confirm Cladding Rebates with Elevations & Floor Plan.
 - Confirm Drain location with fixture type.



Amendments: 24/05/23

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General Notes

Floor Area (Over Framing)	61.36 m ²
Floor Area (Over Foundation)	65.34 m ²
Roof Pitch	25°
Eaves Width	600mm
Height To Underside Of Truss	2455mm
Lintel Height	2130mm
Internal Door Leaf Height	1980mm
Internal Door Leaf Width	810mm, 710mm to wet areas

Plasterboard Materials

10mm GIB plasterboard installed over timber framing as per manufacturer's specifications. GIB Aqualine to be used in wet areas.
3mm GIB plasterboard ceiling lining fix to 35mm Metal Battens @ 600crs, installed as per manufacturer's specifications.

Heating:

Heat pump to be fixed in position shown on the drawings.

Ventilations/Extraction System:

15 L/s) Bathroom to vent directly to exterior
Dryer to vent directly to exterior through soffit lining.
10 L/s) Range Hood to exit through soffit lining.
Bathroom extraction systems to be automated and placed to adequately deal with steam.

General Notes:

All glazing to comply with NZS4223
All hard floor finishes to comply with NZBC D1/AS Table 2. Floor tiles to be non-slip & have a slip coefficient value of 0.35 - 0.65 for grit finished ceramic tiles.
Hot water pipes to be sized according to NZBC G12 & NZS4305:1996. Mains pressure: 5mm dia. allows 12m max. pipe length. Pipe length beyond this must be lagged.

Surfaces Note:

All food preparation areas & fixtures to comply with G3/AS1.
All kitchen fixtures to comply with G3/AS1 section 1.0. all splashbacks (linings adjacent to appliances & facilities) shall comply with G3/AS1 paragraph 1.6.

Wet Area Note:

Satin enamel wall finish to bathroom & those walls adjacent to sinks etc. in kitchen & laundry. One row of tiles to be used above basins, vanities & benches. Bottom edge to be filled with fungus/mold resistant sealant.

Smoke Alarms:

Required within 3m of all sleeping areas, change in level & entry/exits, Hush type facility in accordance to F7/AS1

Electrical Notes

Allow for single switched powerpoint for standard appliances: Fridge, Dishwasher, Waste Disposal, Rangehood, Hob, Oven. Refer to kitchen design for layout and positions of kitchen area sockets etc. All power points are indicative only and must be positioned and confirmed on site by architect and/or owner.

All electrical installations to be in accordance with G9/ AS1

Where downlights are to be installed, only CA 80, CA 135, IC or IC-F downlights are permitted in private or rental dwellings. (Note that IC downlights can only be used with insulation that passes the needle flame test of AS/NZS 60598 2.2 clause 11.5). Recessed downlights that are not labelled as above are not permitted to be installed into residential buildings.

Total of 20 lux of illuminance for the total wattage required per m2 of floor area as shown in NZBC G8 / AS1 Table 1.

Lighting and electrical by others, all positions and types to be selected and confirmed by client with contractor unless noted otherwise.

Mechanical ventilation in housing removing moisture shall be vented outside (includes wet areas & cooker hoods). Refer to NZBC G4/AS1 1.3.3 (a&b), Mechanical Ventilation to be 150 dia 230 Cu M/H inline fan ducted to soffit. Auto extractor fans shall terminate through soffit with an extraction rate as set out in NZBC G4.

Downlights shall be CA80 check the insulation manufacturers instructions to ensure their product is safe when installed along side proposed downlights

General Placement Notes

Powerpoints typically 300mm from nearest corner & 300mm from FFL unless otherwise noted

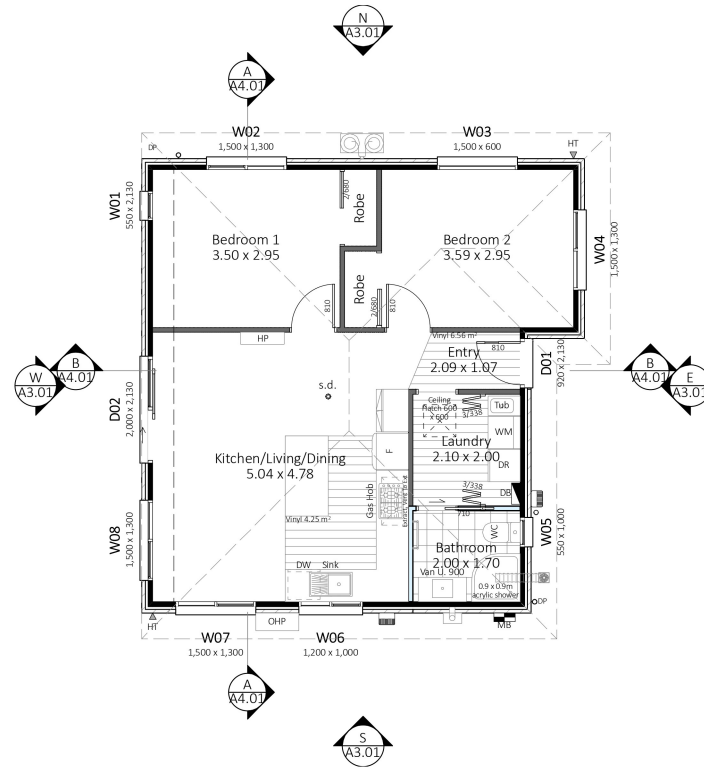
Powerpoints in wet areas to be 1,200mm high from FFL and vertically fixed unless otherwise noted

Powerpoint for heater to be located 300mm below finished ceiling level

Powerpoints in kitchen to be 1000mm high from FFL

Light switches typically 150mm from nearest corner or door frame & 1,200mm from FFL unless otherwise noted

Laundry Power Point 1000mm above FFL



LEGEND

	Meterboard
	Distribution Board
	Smoke Detector
	Heated Towel Rail
	Outlet Grille
	Mechanical Vent / Ducting
	Indoor Heat Pump Unit
	Outdoor Heat Pump Unit on Conc Plinth
	Gully Trap
	Hose Tap
	Gas Califont
	2x45kg Gas Bottles

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Project:

43 Nicolau Avenue

Project Address:

43 Nicolau Avenue, Rolleston

Drawing Title:

Floor Plan

Job No: 21151

Client: Jaspreet Singh

Stage: Detailed

Designer: UF

Drawn By: UF

Technician: UF

Rev Date

22/07/2022

Description

Client Review

Scale @ A3:

1:100

Print Date

22/07/2022

Sheet No:

A2.01

Rev:

-

General Notes:

Floor Area over Framing: 61.36 m²

Insulation: R2.6 Exterior walls
R3.6 Ceiling

Stud Heights: in High Wind .

Typical stud height: Single Storey
2455mm to underside of truss.

90x45mm SG8 @ 600mm crs max.

Dwangs: Unless noted - All Dwangs @ 800mm crs

Lintels:
Window lintel height: 2130mm
Internal door leaf height: Standard, unless noted otherwise

General Notes:
- All exterior window & door lintels by truss manufacturer
- Internal non-loadbearing walls to be SG8 graded.
- All dimensions to be confirmed on site.

Sizing of timber plates

Bottom Plate 45mm thick, width to match stud. SG8, H1.2, Pinus Radiata
Top Plate 45mm thick, width to match stud. Additional top plate
35mm thick, 90mm wide if 90mm wall, SG8, H1.2, Pinus Radiata

Lintel Fixing Schedule:

Lintel Joint:
Exterior Bottom plate to concrete floor (Non-braced):

Fixing:
Pryda Bottom Plate Anchors with 75x4mm dia. concrete nails adjacent to anchor 70mm min from edge of slab, as per manufacturers specifications. @ 900mm crs. max as per NZS3604:2011. Refer to bracing plan for additional hold down fixings.

Exterior bottom plate to concrete floor:

75 x 3.8mm shot fired fastenings with 16mm washers @ 600mm crs, within 150mm each end of plate. Refer to bracing plan for additional hold down fixings.

Stud to Top plate:

2/90 x 3.15 end nails + 2/wire dogs (Or Alternative 4.7kN Fixings). As per Table 8.18 NZS3604:2011
Stud to Bottom plate:
Hand Driven 2/100 x 3.75mm end nails
Power Driven 2/90 x 3.15mm end nails
Lintel to stud:
Hand Driven 2/100 x 3.75mm end nails
Power Driven 2/90 x 3.15mm end nails
Flush plate to Straightened stud:
Hand Driven 4/60 x 2.8mm nails each side
Power Driven 4/60 x 2.8mm nails each side
Half Joint in top Plate:
Hand Driven 4/75 x 3.15mm nails
Power Driven 4/75 x 3.06mm nails
Standard soffit stringer to stud:
Hand Driven 2/100 x 3.75mm nails
Power Driven 3/90 x 3.15mm nails
Double top plate to top plate:
Hand Driven 2/100 x 3.75mm @ 500mm crs
Power Driven 3/90 x 3.15mm @ 500mm crs

Lintel to trimming Stud:

As Per Lumberlok Lintel Fixing Schedule (See Schedule at Rear of Drawing Set)

Trim all trimmer to trimming stud for:

As Per Lumberlok Lintel Fixing Schedule (See Schedule at Rear of Drawing Set)

Trimming studs together at openings, studs & blocking at wall intersections:

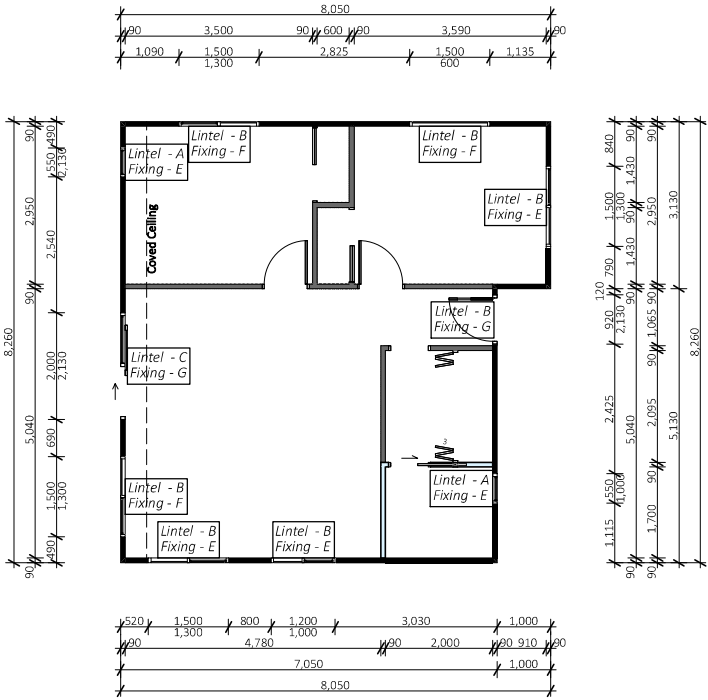
As Per Lumberlok Lintel Fixing Schedule (See Schedule at Rear of Drawing Set)

Trimming Stud to Doubling Stud immediately under lintels:

As Per Lumberlok Lintel Fixing Schedule (See Schedule at Rear of Drawing Set)

Lintel Fixing Schedule of Framing Timbers - Grading & Treatment

Wall framing
Exterior walls & lintels SG8, H1.2, Pinus radiata
Interior walls (non-loadbearing) SG8, H1.2, Pinus radiata



KEY	
	Indicates insulated wall
	Indicates non-insulated wall
	Indicates Aqualine lined wall

LINTELS & LINTEL FIXING TYPES

Lintels as per Truss Design & Fixings as per Lumberlok Lintel Fixing Schedule. Refer Lumberlok Schedule attached.

LINTEL SIZES		FIXING TYPES	
A	2/90x45 SG8		= 1.4 kN
B	150x90 Hy90		= 4.0 kN
C	200x90 Hy90		= 7.5 kN
			= 13.5 kN

KEY	
	Lintel Type
	Lintel Fixing Type

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Roof Notes:

Roof Cladding
0.40 BMT Colorsteel Longrun Corrugate on Self-supporting building underlay
Roof Pitch 1 25°
Eaves Width 600mm

Spouting & Fascia
Selected colorsteel Quad spouting (5550mm²) cross sectional area fixed to 185 Colorsteel fascia

Down Pipe (DP)
80mm Dia Colorsteel Downpipes

Fixing Notes:

Purlins
70x45 H1.2 SG8 Purlins fixed to trusses with 1/10g x 80mm self-drilling screw.
Top & bottom purlins shall be @ 600mm crs & 900crs to body.

Trusses
Prefabricated roof trusses @ 900mm crs max fix to top plate with 2/100 x 7.5mm skewed nails & 2/wiredogs each side in accordance to Manufacturer documents & producer statement.

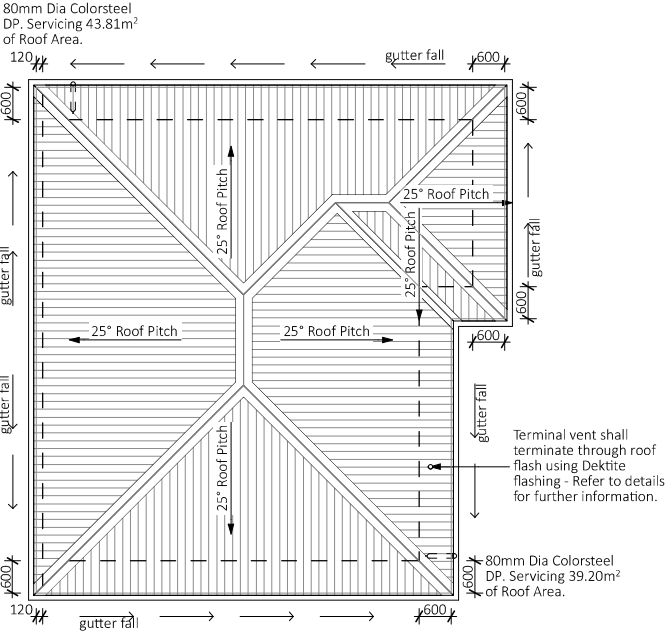
Roof bracing to be 8.0kN diagonally opposed intersecting steel straps fixed to top chord & top plate as per NZS3604:2011, Section 10.3, 10.4 or refer to truss manufacturer's design for positions.

All roof penetrations shall be flashed as per NZBC E2/AS1 external moisture section 8.4 profiled metal roof cladding (8.4.17 Roof Penetrations) as shown in figure 53 & 54

All Flashings to be 0.55 BMT colorsteel fixed in accordance with NZS3604:2011 and meeting the durability requirements of NZBC E2/AS1 Table 20,21,22

GENERAL KEY:

Gutter Fall: → → →
Terminal Vent Downpipe 80mm
80mm Dia Colorsteel Downpipes



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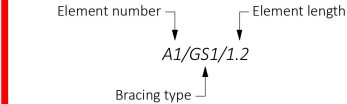
Bracing Notes:

Note:
Where exterior ply bracing elements are used & not continued the entire length of the wall.

Refer to supporting documents for Ecoply fixing requirements. Treatment to be a minimum of H3.2.

Openings in Bracing Elements:
(as per GIB EzyBrace System)
Openings are allowed within the middle third of a wall bracing element's length & height. Neither opening dimension shall be more than one third of the element height. Wall fixings are fixed to opening trimmers at 150mm crs. Small openings (e.g. power outlets) of 100 x 90mm or less may be placed no closer than 90mm to the edge of the braced element.

Reading the Bracing Plan:
S1-N- 0.4m min. length. Any 10mm or 13mm GIB Standard Plasterboard fixed to one side only.
P1- 0.4m min. length. 7mm minimum Ecoply fixed to exterior side of the wall framing.
GIB Handbracs to be installed each end of bracing element as per manufacturer's specifications - Refer to Supporting Documents for further information.

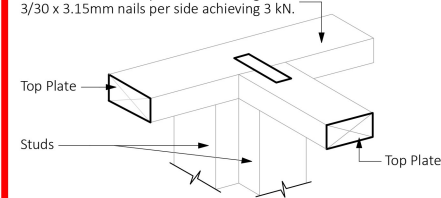


BRACING KEY

Indicates: Truss chord, Top plate or ceiling battens shall be continuous to exterior walls to allow for perimeter fixing for bracing element

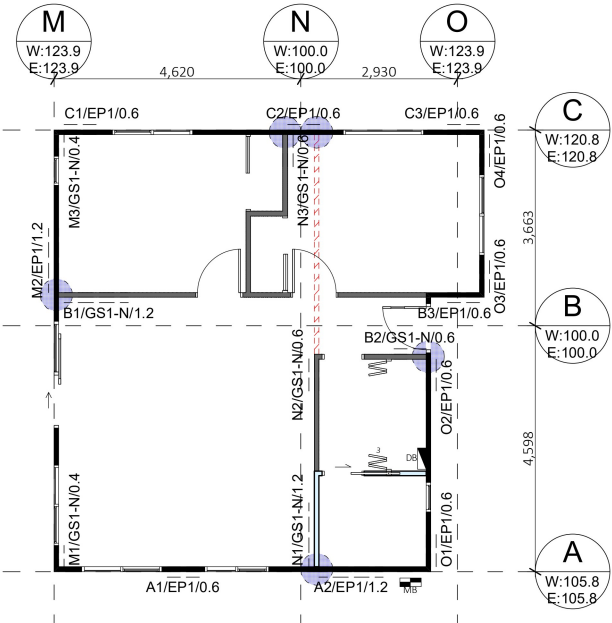
6kN Connection

6/30 x 3.15mm nails per side achieving 6 kN.
3/30 x 3.15mm nails per side achieving 3 kN.



CONNECTING TOP PLATES TO EXTERNAL WALLS - WALLS CONTAINING BRACING
Note: "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 fixing(s) of the capacity in tension or compression along the line of the wall bracing element are given as follows:

- a) 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;
- b) 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;
- (c) 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."



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BRACING CALCULATIONS

Location of Storey	Single	Wind Zone	High
Room in Roof Space	No	Earthquake Zone	2
Building Width (BW)	8.1m	Soil Class	D - Deep or Soft
Building Length (BL)	8.3m		
Gross Floor Area (GFA)	65.34m²	W along	60.0BU/m
Floor Height to Apex	5m	W along x BW	483.0BU
Roof Height Above Eaves	3m	W across	60.0BU/m
Roof Pitch	0 - 25°	W across x BL	495.6BU
Roof Style	Hip		
Double Top Plate	Yes	EQ	7.2BU/m²
Floor Load	2kPa	EQ x GFA	470.4BU
Cladding Weights:			
- Subfloor	Concrete Floor		
- Wall	Heavy		
- Roof	Light		

Calculations based on NZS3604:2011

BRACING ALONG

Required			Provided						Achieved		
Line	W BU	EQ BU	Brace	Type	W BU/m	EQ BU/m	Length m	Height m	Angle	W BU	EQ BU
A	105.8	105.8	A-1	EP1	95.0	105.0	0.6	2.4	-	57.0	63.0
			A-2	EP1	120.0	135.0	1.2	2.4	-	144.0	162.0
										201.0	225.0
B	100.0	100.0	B-1	GS1-N	70.0	60.0	1.2	2.4	-	84.0	72.0
			B-2	GS1-N	50.0	55.0	0.6	2.4	-	30.0	33.0
			B-3	EP1	95.0	105.0	0.6	2.4	-	57.0	63.0
										171.0	168.0
C	120.8	120.8	C-1	EP1	95.0	105.0	0.6	2.4	-	57.0	63.0
			C-2	EP1	95.0	105.0	0.6	2.4	-	57.0	63.0
			C-3	EP1	95.0	105.0	0.6	2.4	-	57.0	63.0
										171.0	189.0
Total								Achieved	543.0	582.0	
								Required	483.0	470.4	

BRACING ACROSS

Required			Provided						Achieved		
Line	W BU	EQ BU	Brace Type		W BU/m	EQ BU/m	Length m	Height m	Angle	W BU	EQ BU
M	123.9	123.9	M-1	GS1-N	50.0	55.0	0.4	2.1	-	20.0	22.0
			M-2	EP1	120.0	135.0	1.2	2.1	-	144.0	162.0
			M-3	GS1-N	50.0	55.0	0.4	2.1	-	20.0	22.0
										184.0	206.0
N	100.0	100.0	N-1	GS1-N	70.0	60.0	1.2	2.4	-	84.0	72.0
			N-2	GS1-N	50.0	55.0	0.6	2.4	-	30.0	33.0
			N-3	GS1-N	50.0	55.0	0.6	2.4	-	30.0	33.0
										144.0	138.0
O	123.9	123.9	O-1	EP1	95.0	105.0	0.6	2.4	-	57.0	63.0
			O-2	EP1	95.0	105.0	0.6	2.4	-	57.0	63.0
			O-3	EP1	95.0	105.0	0.6	2.4	-	57.0	63.0
			O-4	EP1	95.0	105.0	0.6	2.4	-	57.0	63.0
										228.0	252.0
			Total						Achieved	556.0	596.0

TABLE: Default

NZBC H1 Energy Efficiency Assessment				
Insulated Floor Plan Area:		65.34	m ² over frame	
Total Floor Area		65.34	(including interior wall of garage)	
Foundation Perimeter Length		32.62		
Calculated Areas			Wall Length	Stud Height
North	Wall Area:	19.3	8.05	2.4
	Opening Area:	2.85		
	Wall Open Percentage:	15%		
East	Wall Area:	19.8	8.26	2.4
	Opening Area:	4.46		
	Wall Open Percentage:	22%		
South	Wall Area:	19.3	8.05	2.4
	Opening Area:	3.15		
	Wall Open Percentage:	16%		
West	Wall Area:	19.8	8.26	2.4
	Opening Area:	7.37		
	Wall Open Percentage:	37%		
Total	E/S/W Wall Area:	59.0		
	Entire Building Wall Area:	78.3		
	Entire Building Opening Area:	17.83		
	E/S/W Opening Area:	14.98		
	Percent Opening Area:	22.8	%	
	ESW Percent window area	25.4	%	
Is the window area of the walls less than 30%?		YES	Schedule method is ok to use	

Natural Light:	Window Area/Room Area		
Rooms	Window Area (Glazed)	Room Area	Total
Kitchen/Living/Dini	7.46	26.32	28%
Bedroom 1	2.39	10.325	23%
Bedroom 2	2.28	10.59	22%
Bathroom	0.35	3.4	10%

Ventilation:	Vented Area/Room Area		
Rooms	Window Area (Vented)	Room Area	Total
Kitchen/Living/Dini	6.88	26.32	26%
Bedroom 1	1.41	10.325	14%
Bedroom 2	0.83	10.59	8%
Bathroom	0.42	3.4	12%

Proposed Building: Construction R Values
To show compliance with H1 Schedule Method

Roof
Colorsteel Longrun Corrugate roofing on 70x45 H1.2 purlins @ 900mm crs on self-supporting roof underlay over pre-fabricated trusses @ 900mm crs with R3.6 insulation batts = **R3.35, R3.3min**

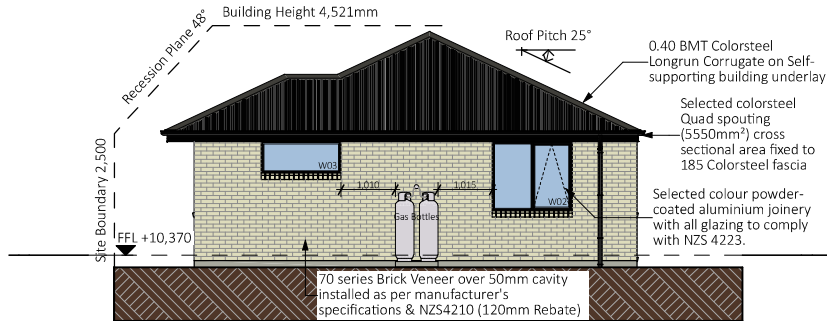
Wall Type 1
70 Series Brick Veneer on 50mm cavity, 90x45mm H1.2 SG8 framing @ 600mm crs, dwangs @ 800mm crs. Internally lined with 10mm standard plasterboard with R2.6 insulation batts = **R2.30, R2.0min**

Foundation
TC1 Firth Ribraft Foundation = **R1.3, R1.3 min**

Glazing
Total Glazing (<30%) (Double Glazing) = **R0.26, R0.26 min**

(Total construction R-values taken from Design Navigator)

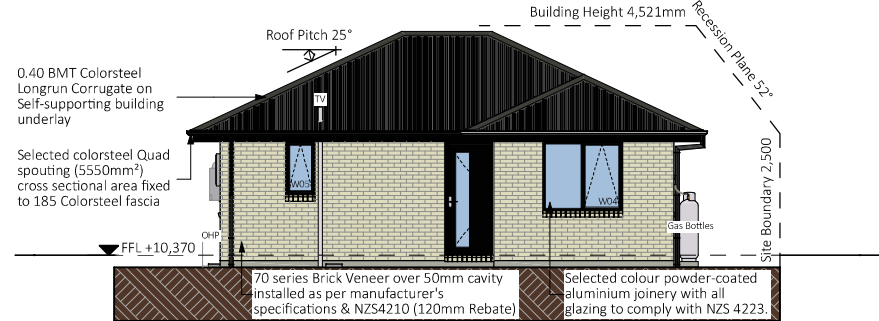
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North Elevation

Scale 1:100

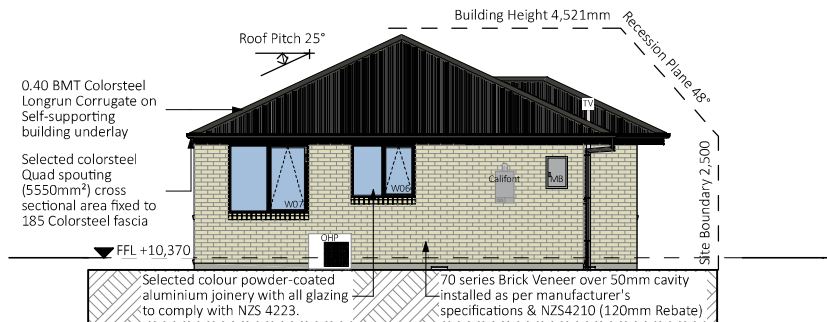
BUILDING ENVELOPE RISK MATRIX		
North Elevation		
Risk Factor	Risk Severity	Risk Score
Wind zone (per NZS 3604)	High risk	1
Number of storeys	Low risk	0
Roof/wall intersection design	Low risk	0
Eaves width	Medium risk	1
Envelope complexity	Low risk	0
Deck design	Low risk	0
Total Risk Score:		2



East Elevation

Scale 1:100

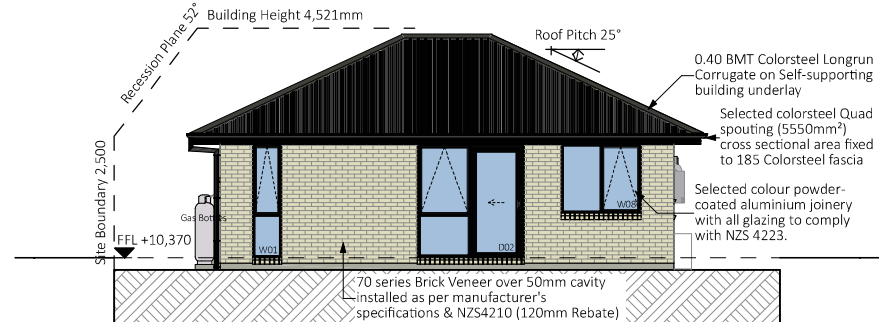
BUILDING ENVELOPE RISK MATRIX		
East Elevation		
Risk Factor	Risk Severity	Risk Score
Wind zone (per NZS 3604)	High risk	1
Number of storeys	Low risk	0
Roof/wall intersection design	Low risk	0
Eaves width	Medium risk	1
Envelope complexity	Low risk	0
Deck design	Low risk	0
Total Risk Score:		2



South Elevation

Scale 1:100

BUILDING ENVELOPE RISK MATRIX		
South Elevation		
Risk Factor	Risk Severity	Risk Score
Wind zone (per NZS 3604)	High risk	1
Number of storeys	Low risk	0
Roof/wall intersection design	Low risk	0
Eaves width	Medium risk	1
Envelope complexity	Low risk	0
Deck design	Low risk	0
Total Risk Score:		2



West Elevation

Scale 1:100

BUILDING ENVELOPE RISK MATRIX		
West Elevation		
Risk Factor	Risk Severity	Risk Score
Wind zone (per NZS 3604)	High risk	1
Number of storeys	Low risk	0
Roof/wall intersection design	Low risk	0
Eaves width	Medium risk	1
Envelope complexity	Low risk	0
Deck design	Low risk	0
Total Risk Score:		2

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Note:

- Confirm all opening sizes onsite prior to installation
- Sizes shown are rough opening sizes and & leaf sizes
- Client to confirm window & door style & finishes
- All doors & sliders are taken from External Elevation
- All windows are taken from External Elevation
- Refer to framing floor plan for accurate opening location

Joinery:

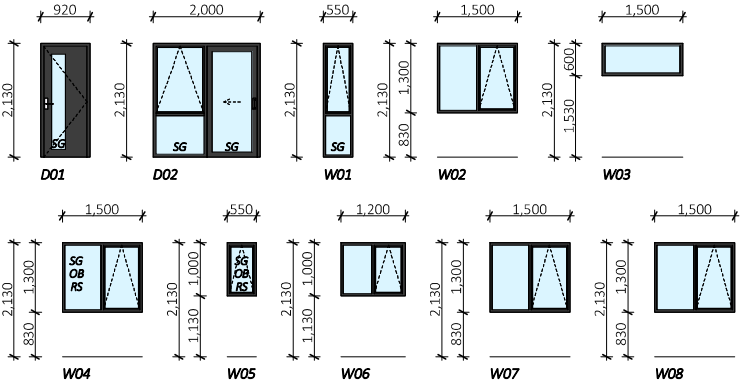
All exterior window and door joinery to be **Selected colour powder-coated aluminium joinery with all glazing to comply with NZS 4223**, and dressed timber reveals unless noted otherwise. Refer to specification for full details.

- Internal Door Leaf Height: -1980mm
- Internal Door Leaf Width: -810mm, 710mm to wet areas (unless noted on plan).
- Intels: -Refer to the Framing Plan for intel sizes.
- Safety Glazing (SG): -To all windows less than 800mm above FFL, unless a transom is less than 1.0m from FL.
-To all windows in wet areas less than 2.0m above FFL.
-To all doors (bottom pane only where a transom is used.)
- Obscure Glazing (OB): -To Bathroom
- Restrictor Stays (RS): -As indicated on Door & Window Schedule

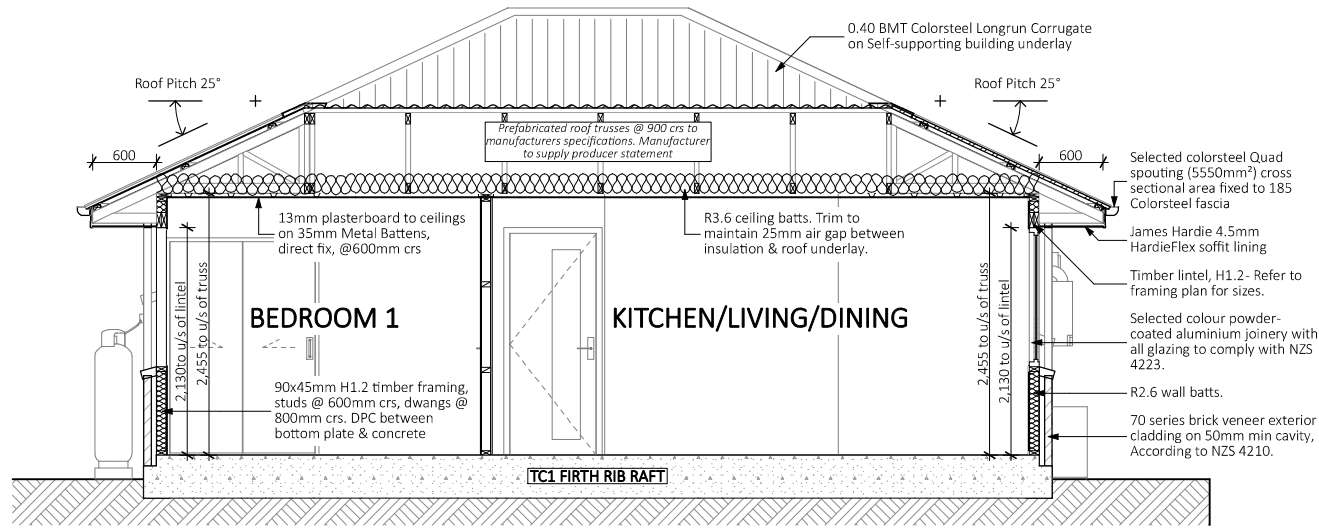
Glazing and glazed openings to comply with NZS 4223.3:2016 Glazing in buildings - Part 3: Human impact safety requirements, NZS 4211:2008: Specification for performance of windows and New Zealand Building Code Clauses: F2 Hazardous Building Materials & F4: Safety from Falling

Standard glazing units used:

- All Double Glazed Units
Comply with Table G2, NZS 4218:2004 & meet 0.26 (msq C/W)
- Standard Unit
6mm Glass / 12mm Air Gap / 4mm Glass
- Slider Unit
6mm Glass / 8mm Air Gap / 5mm Glass
- Safety Panel
6mm Toughened / 8mm Air Gap / 6.38mm Laminate

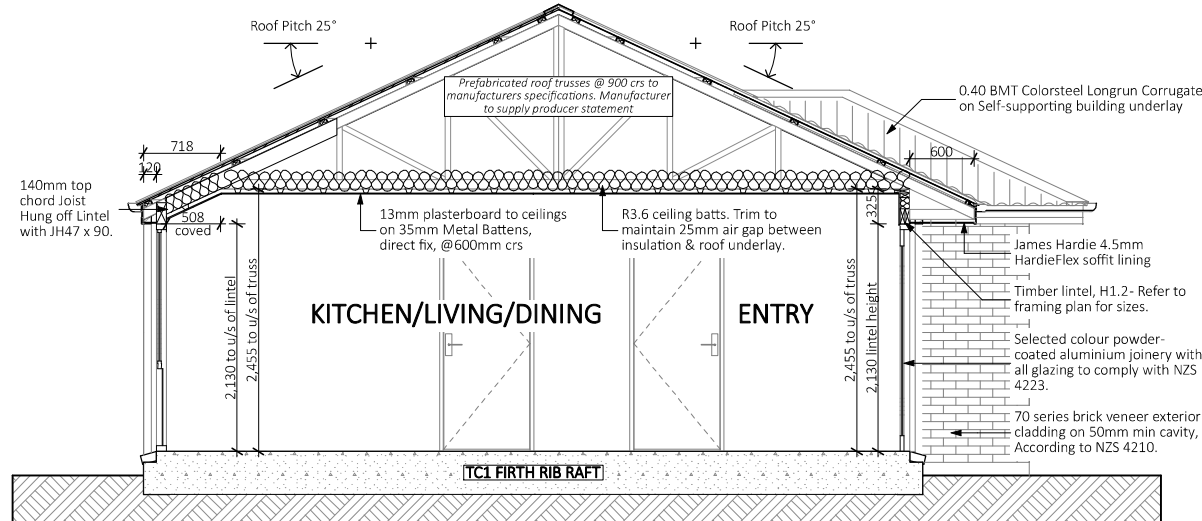


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Section A

Scale 1:50



Section B

Scale 1:50

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Project:

43 Nicolau Avenue

Project Address:

43 Nicolau Avenue, Rolleston

Drawing Title:

Sections A & B

Job No: 21151

Client: Jaspreet Singh

Stage: Detailed

Designer: LF

Drawn By: LF

Technician: LF

Rev Date

Description

22/07/2022 Client Review

Scale @ A3:

1:50

Print Date

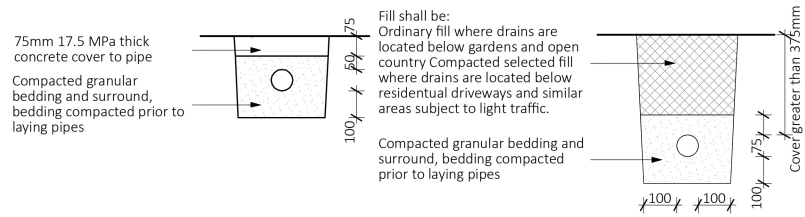
22/07/2022

Sheet No:

A4.01

Rev:

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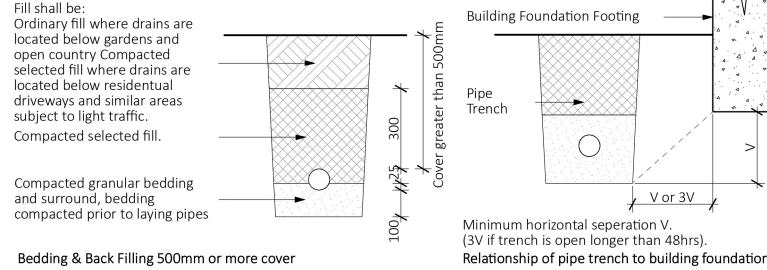


Bedding & Back Filling 125mm - 375mm cover

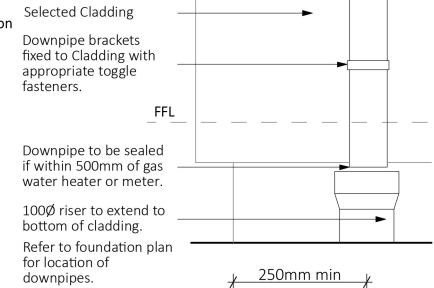
Bed & Back Filling

Scale 1:20

Bedding & Back Filling 375mm - 500mm cover

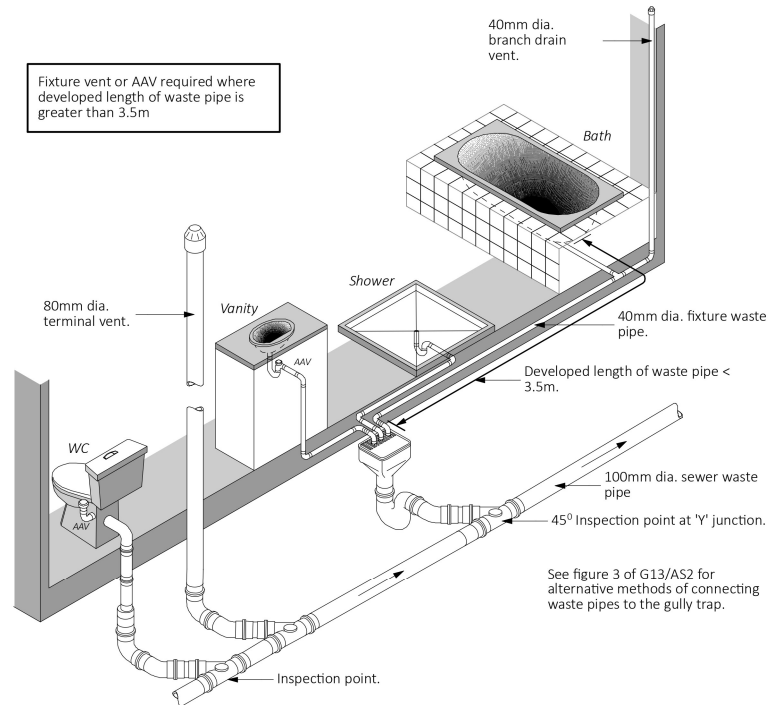


Bedding & Back Filling 500mm or more cover



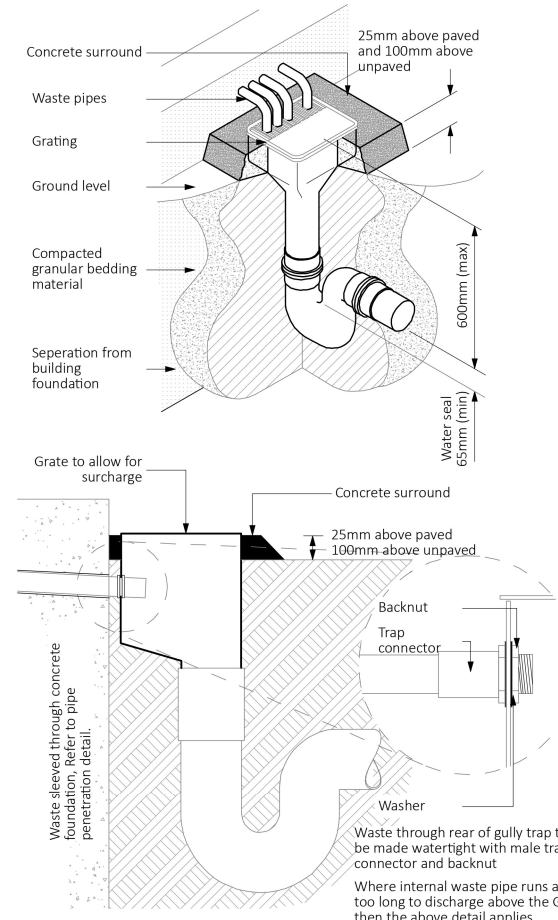
Down Pipe Offset

Scale 1:10



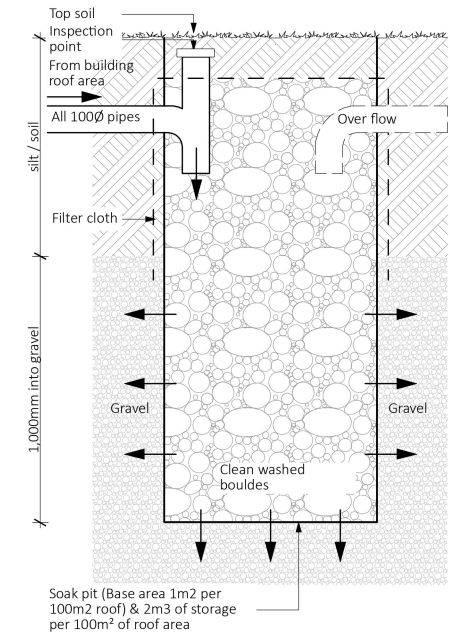
Typical Plumbing Schematic

Scale 1:50



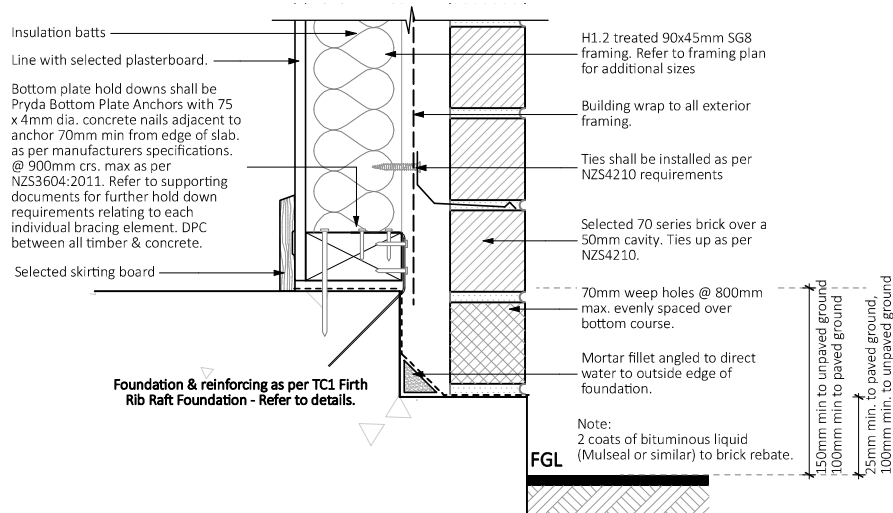
Typical Gully Trap

Scale 1:50



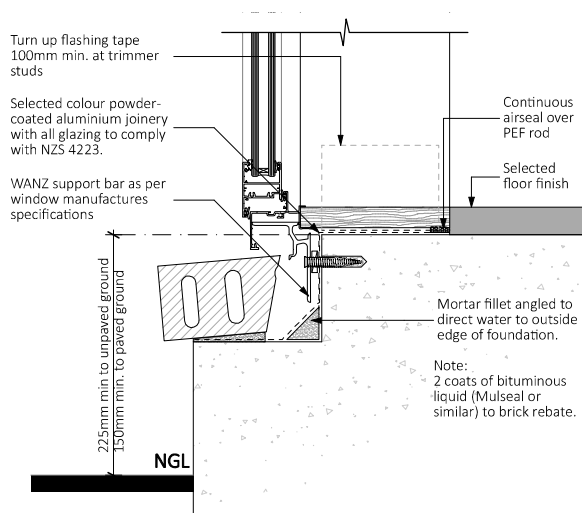
Soak Pit Detail

Scale 1:20



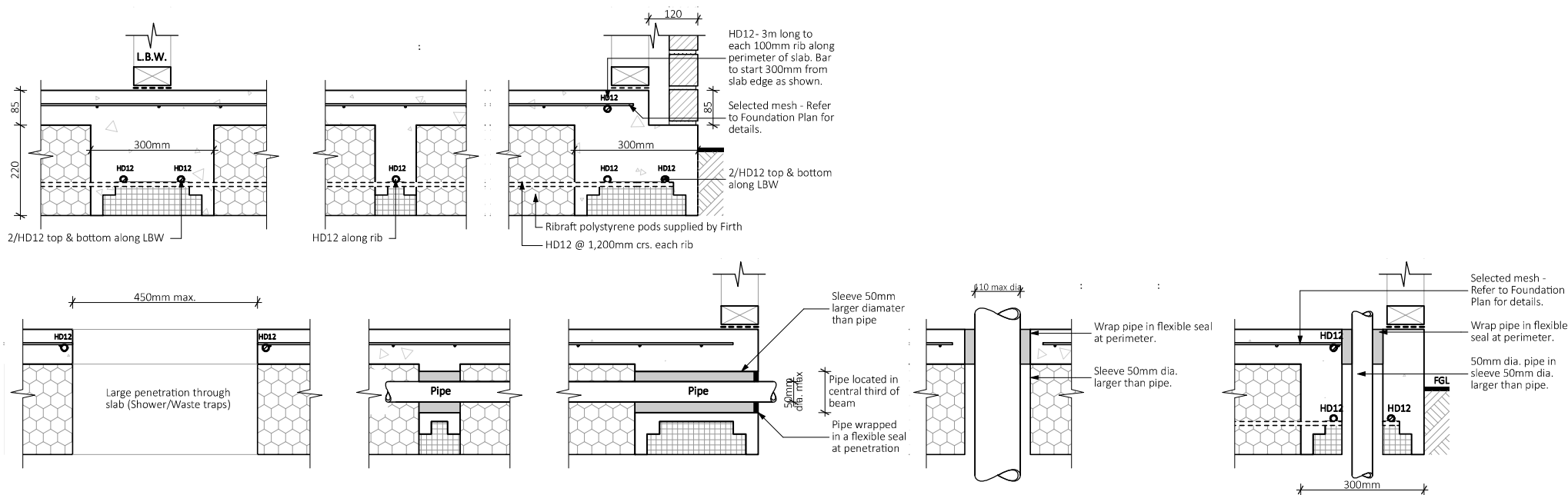
Brick Foundation Detail

Scale 1:5



Brick Typical Sill Detail

Scale 1:5



TC1 Firth Rib Raft Details

Scale 1:10

Project:

43 Nicolau Avenue

Project Address:

43 Nicolau Avenue, Rolleston

Drawing Title:

Foundation Details

Job No: 21151

Client: Jaspreet Singh

Stage: Detailed

Designer: LF

Drawn By: LF

Technician: LF

Rev Date

Description

22/07/2022 Client Review

Scale @ A3:

1:10, 1:5, 1:20

Print Date

22/07/2022

Sheet No:

A5.02

Rev:

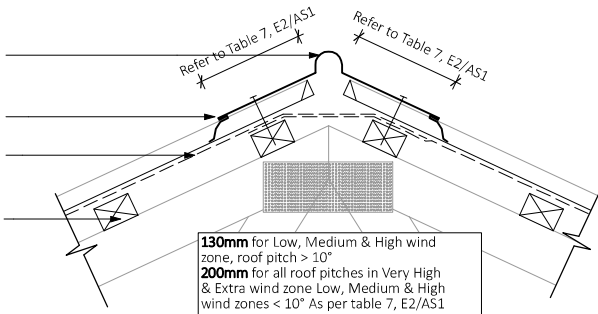
-

Roofing manufacturers 0.55mm BMT rolled colour coated steel ridge flashing c/w malleable edge folded over profiles.

Selected Longrun coloursteel roofing

Building wrap overlapped at ridge.

70x45mm H1.2 treated SG8 purlins at 900mm crs max fixed to trusses with 1/10g x 80mm self-drilling screw.



Ridge Capping

Scale 1:10

Note:
For other ridge to hip flashings, refer to New Zealand Metal Roof and Wall Cladding code of practice.

Ridge flashing

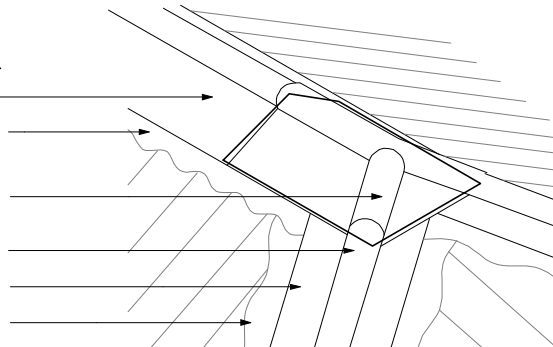
Soft edge dressed over corrugate

Butyl under-flashing to ridge and hip flashings.

Preformed 3-way roll cap or site made flashing

Hip flashing

Soft edge dressed over corrugate



Hip Junction

Scale 1:10

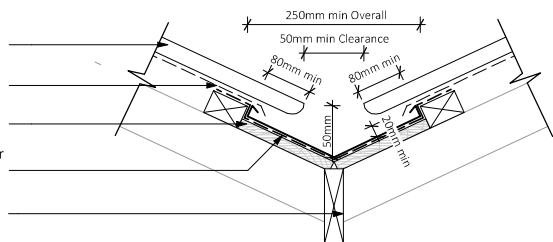
Selected Longrun coloursteel roofing

Self-supporting roof underlay

18mm H1.2 Solid timber support for valley gutter

Roof wrap continuous under gutter if copper based treatments are used

Valley rafter



Valley Gutter

Scale 1:10

NOTE:

(1) Max. roof pitch for flashing 45°, minimum pitch 10° if base of flange covers one or more complete troughs.

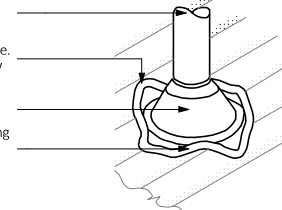
(2) For pipes up to 85mm dia.

Pipe

Malleable flange screw or rivet fixed, and sealed to roofing profile. Fit neoprene washers to all screw fixings.

EPDM flexible cone sleeve

Flashing fixed diagonally to roofing profile to minimise holding of discharge water.



Roof Penetration Detail

Scale 1:10

Building Wrap to exterior framing

Timber lintel

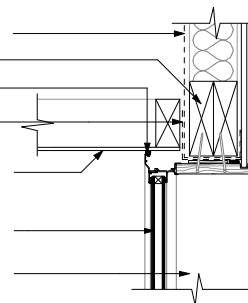
Bead MS sealant to soffit lining

Flashing tape installed to manufacturers specifications

4.5mm thick James Hardie soffit lining fixed to eave framing. Paint finish.

Selected colour powder-coated aluminium joinery with all glazing to comply with NZS 4223.

H3.1 treated 20mm pine reveal



Typical Joinery to Soffit

Scale 1:10

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Project:

43 Nicolau Avenue

Project Address:

43 Nicolau Avenue, Rolleston

Drawing Title:

Typical Roof Details

Job No: 21151

Client: Jaspreet Singh

Stage: Detailed

Designer: LF

Drawn By: LF

Technician: LF

Rev Date

Description

Scale @ A3:

Print Date

22/07/2022 Client Review

1:10, 1:100

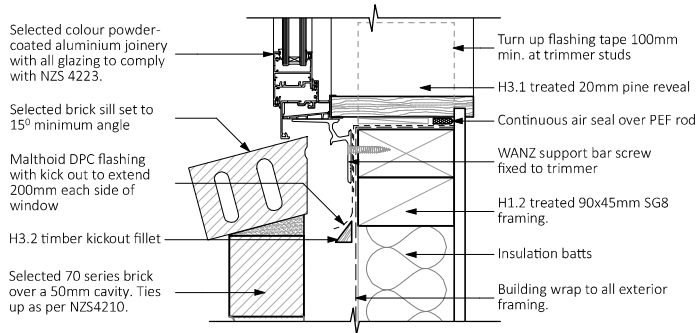
22/07/2022

Sheet No:

A5.03

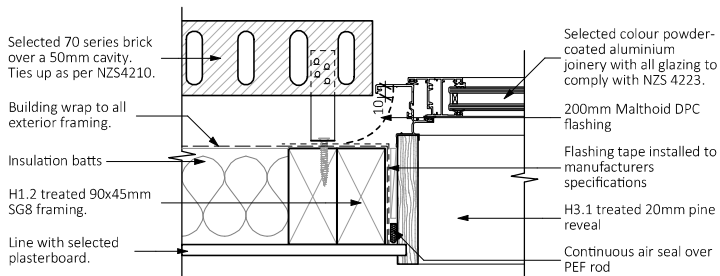
Rev:

-



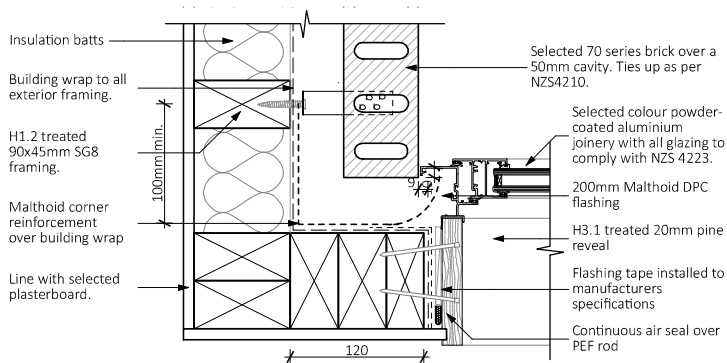
Window Sill Detail

Scale 1:5



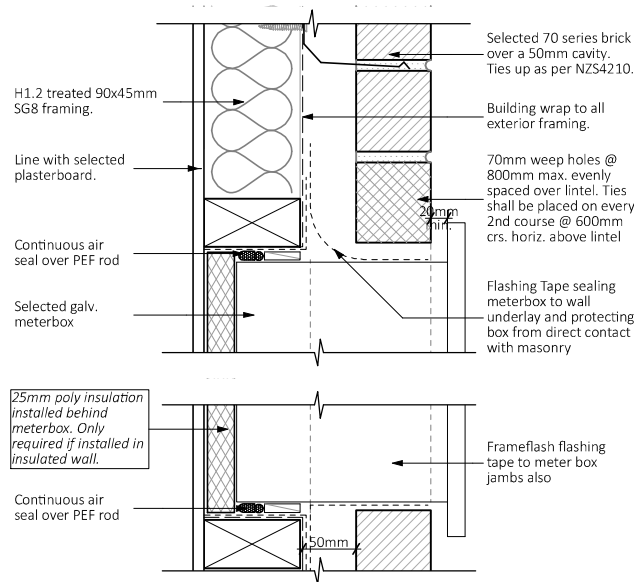
Window Jamb Detail

Scale 1:5



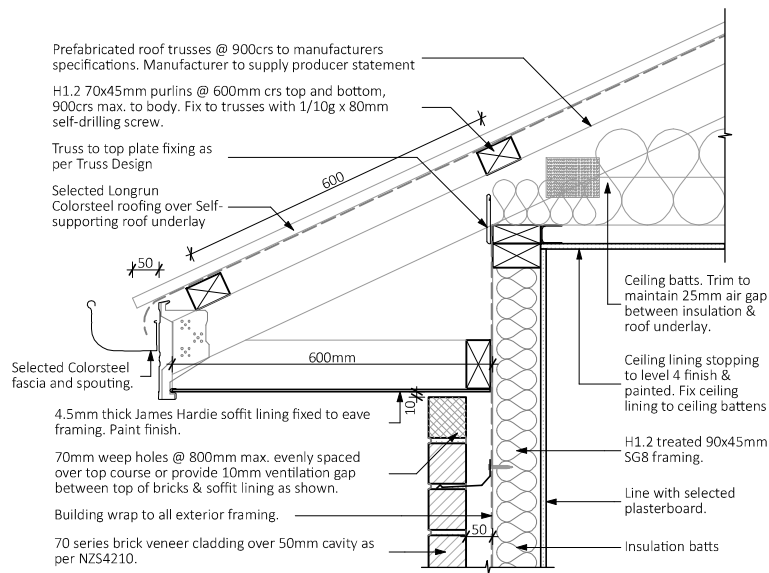
Joinery Junction Detail

Scale 1:5



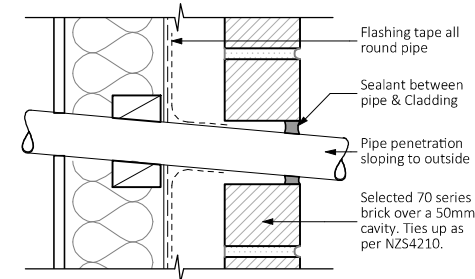
Meterboard Detail

Scale 1:5



Typical Soffit Detail

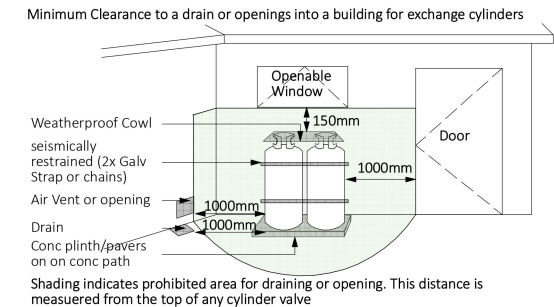
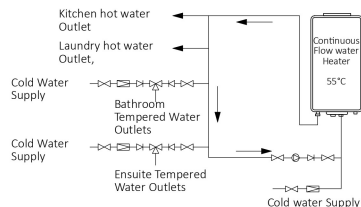
Scale 1:10



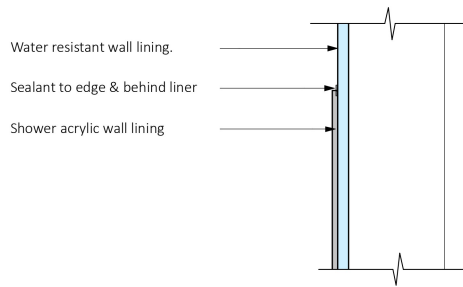
Pipe Penetration Detail

Scale 1:5

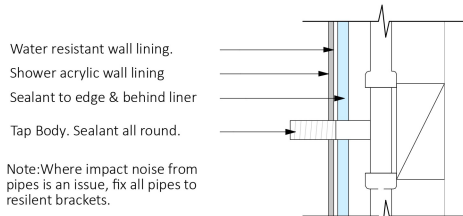
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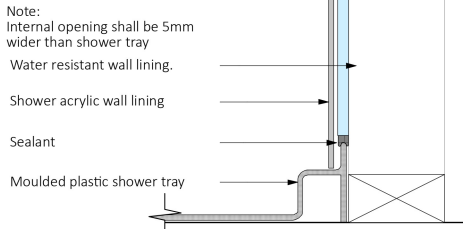
Gas Bottle and Hot Water Schematic
Scale 1:50



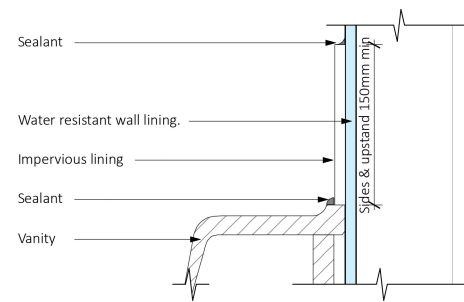
Acrylic Shower lining Junction



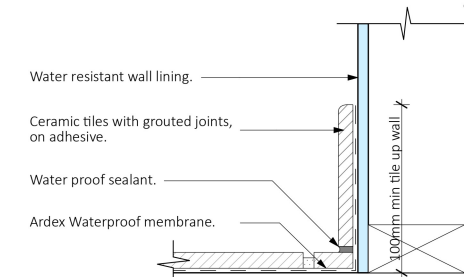
Pipe Penetration (Acrylic)



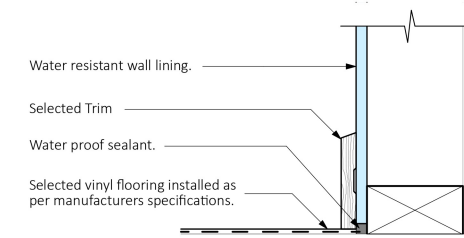
Acrylic Shower Detail
Scale 1:5



Vanity to Wall Detail
Scale 1:5



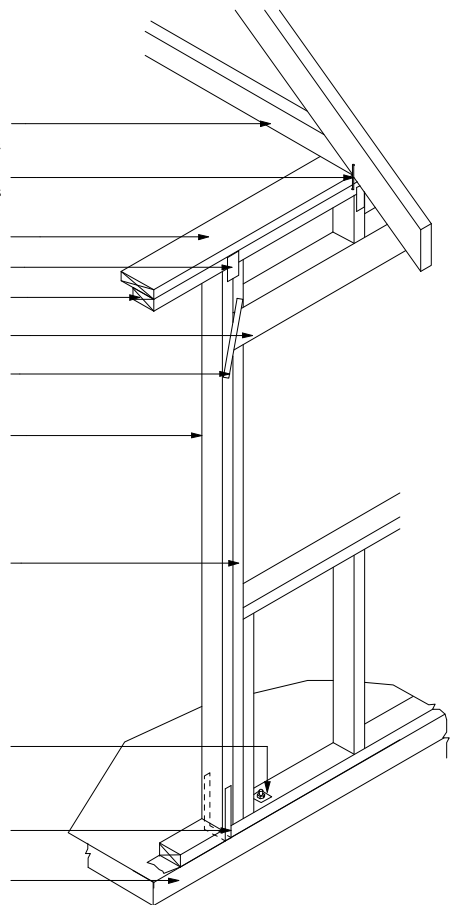
Tiled Floor to Wall Detail
Scale 1:5



Vinyl Floor to Wall Detail
Scale 1:5

SDC - Approved Building Consent Document - BC222012 - Pg 19 of 22 - 4/07/2023 - homann

Pre-fabricated truss
Where dogs either side of trusses
connecting to top plate (not
Doubling Top Plate) unless
other fixing is specified on truss
label
Ceiling plate
Nail plate
Top plate
Timber lintel
25mm sheet strap with
80x2.5mm product nails into
both lintel and stud
Fittings together with 100 x
5mm nails at 600cs, with
2 x 100 x 3.75 mm immediately
under the lintel
Doubling stud to be continuous
between the bottom plate and
the underside of the lintel
Dowel or bolt plate to slab
within 150 of stud (only
required if no Bottom Plate
chairs down are with
1mm.)
25 x 1 mm strap taken under
truss and 150 up each side of
stud, with 6/30mm x 2.5 mm
nails into each side of stud
Concrete slab



Typical Lintel Fixing - To Conc Slab

Scale 1:20

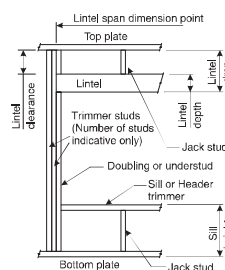


LINTEL FIXING SCHEDULE ALTERNATIVE TO TABLE 8.14 & FIGURE 8.12 NZS 3604:2011

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 Wind Zone				Heavy Roof Wind Zone			
		L	M	VH	EH	L	M	VH	EH
8.6m²		G	G	H	G	G	G	H	
11.8m²		G	H	H	G	G	H	H	
12.1m²		G	H	H	G	G	H	H	
15.3m²		H	H	-	G	H	H	-	
19.1m²		H	-	-	G	H	-	-	
20.9m²		H	-	-	H	H	-	-	
21.8m²		H	-	-	H	-	-	-	
34.3m²		-	-	-	H	-	-	-	

NOTES:

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



Lintel Span (m)	Loaded Dimension (m) (See Fig. 1.3 NZS 3604:2011)	Light Roof Wind Zone				Heavy Roof Wind Zone			
		L	M	VH	EH	L	M	VH	EH
1.0	2.0	E	E	F	F	E	E	E	F
	3.0	E	E	F	F	E	E	F	F
	4.0	E	F	F	G	E	F	F	F
	5.0	E	F	F	G	E	F	F	G
	6.0	E	F	F	G	E	F	F	G
1.2	2.0	E	E	F	F	E	E	F	F
	3.0	E	E	F	F	E	E	F	F
	4.0	E	F	F	G	E	F	F	G
	5.0	E	F	F	G	E	F	F	G
	6.0	F	F	G	H	E	F	G	G
1.5	2.0	E	E	F	F	E	E	F	F
	3.0	E	F	F	G	E	F	F	F
	4.0	E	F	F	G	E	F	F	G
	5.0	F	F	G	H	E	F	G	G
	6.0	F	F	G	H	E	F	G	H
2.0	2.0	E	E	F	F	E	E	F	F
	3.0	E	F	F	G	E	F	F	F
	4.0	F	F	G	H	E	F	G	G
	5.0	F	F	G	H	E	F	G	H
	6.0	F	F	G	H	E	F	G	H
2.4	2.0	E	E	F	F	E	E	F	F
	3.0	F	F	G	H	E	F	G	H
	4.0	F	F	G	H	E	F	G	H
	5.0	F	F	G	H	E	F	G	H
	6.0	F	F	G	H	E	F	G	H
3.0	2.0	E	E	F	F	E	E	F	F
	3.0	F	F	G	H	E	F	G	H
	4.0	F	F	G	H	E	F	G	H
	5.0	F	F	G	H	E	F	G	H
	6.0	F	F	G	H	E	F	G	H
3.6	2.0	F	F	G	H	E	F	G	H
	3.0	F	F	G	H	E	F	G	H
	4.0	F	F	G	H	E	F	G	H
	5.0	F	F	G	H	E	F	G	H
	6.0	F	F	G	H	E	F	G	H
4.2	2.0	F	F	G	H	E	F	G	H
	3.0	F	F	G	H	E	F	G	H
	4.0	F	F	G	H	E	F	G	H
	5.0	F	F	G	H	E	F	G	H
	6.0	F	F	G	H	E	F	G	H
4.5	2.0	F	F	G	H	E	F	G	H
	3.0	F	F	G	H	E	F	G	H
	4.0	F	F	G	H	E	F	G	H
	5.0	F	F	G	H	E	F	G	H
	6.0	F	F	G	H	E	F	G	H
4.8	2.0	F	F	G	H	E	F	G	H
	3.0	F	F	G	H	E	F	G	H
	4.0	F	F	G	H	E	F	G	H
	5.0	F	F	G	H	E	F	G	H
	6.0	F	F	G	H	E	F	G	H
5.1	2.0	F	F	G	H	E	F	G	H
	3.0	F	F	G	H	E	F	G	H
	4.0	F	F	G	H	E	F	G	H
	5.0	F	F	G	H	E	F	G	H
	6.0	F	F	G	H	E	F	G	H
5.4	2.0	F	F	G	H	E	F	G	H
	3.0	F	F	G	H	E	F	G	H
	4.0	F	F	G	H	E	F	G	H
	5.0	F	F	G	H	E	F	G	H
	6.0	F	F	G	H	E	F	G	H

01/2017

LINTEL FIXING OPTIONS

TYPE E 1.4kN

TYPE F 4.0kN

TYPE G 7.5kN

TYPE H 13.5kN

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New Zealand

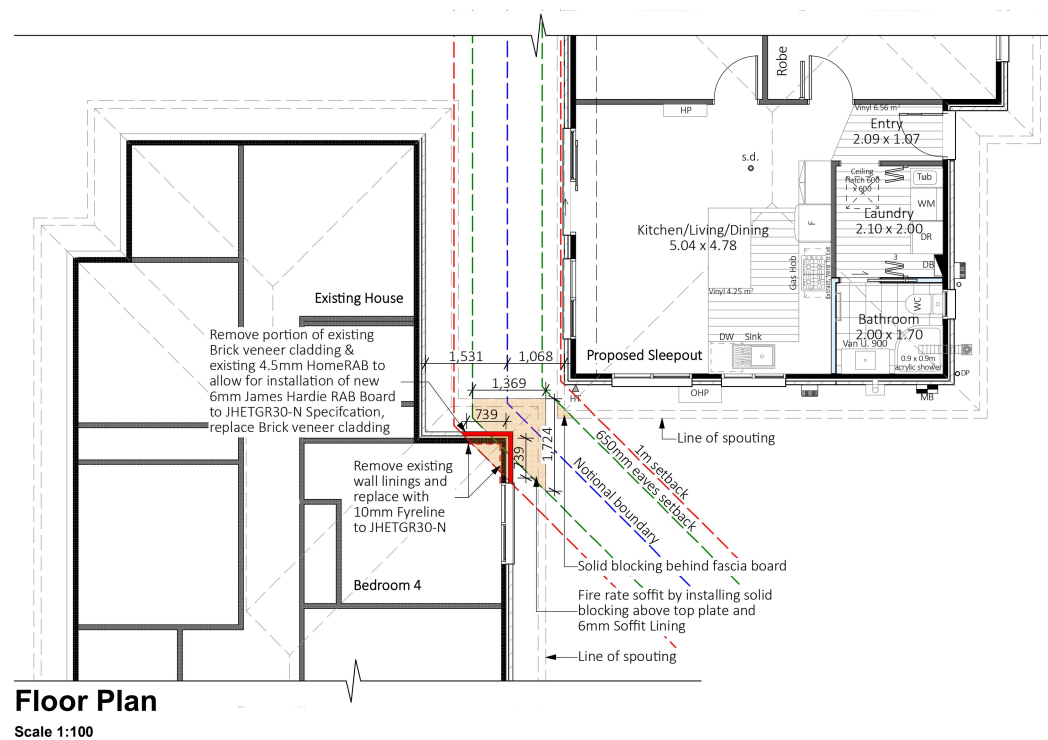
Building Consent
Project:
43 Nicolau Avenue
Project Address:
43 Nicolau Avenue, Rolleston

Drawing Title:
Lintel Fixing Details
Job No: 21151
Client: Jaspreet Singh
Stage: Detailed
Designer: LF
Drawn By: LF
Technician: LF

Rev	Date	Description
1	22/07/2022	Client Review

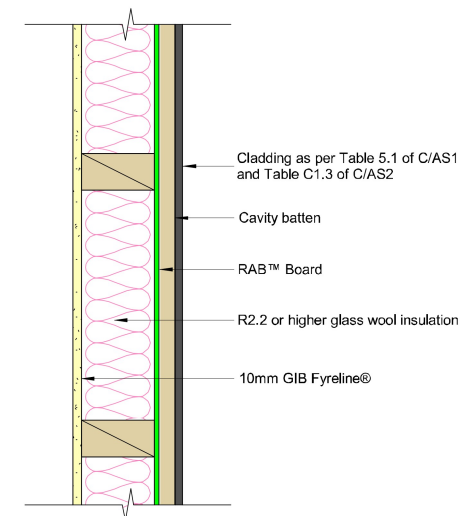
Scale @ A3: 1:20
Sheet No: A5.06
Rev: -

Whilst Choice Architecture has used reasonable means to ascertain dimensions on site, Choice Architecture does not warrant or guarantee the accuracy of dimensions supplied or implied on the drawings. For all intents and purposes, all dimensions are to be confirmed onsite. Do not scale off drawings.



JHETGR30-N		Fire Resistance	30/30/30	STC	42
Cladding	Cladding system as per Table 5.1 of C/AS1 and Table C1.3 of C/AS2		Lining		
Framing		Timber framing to be in accordance with NZS 3604 or SED complying with AS/NZS 1170 and NZS 3603. Framing size 90 x 45mm minimum. Studs at 600mm centres and noggs at 800mm centres maximum		Insulation	
Cavity Batten		As per cladding manufacturer technical specification		Underlay	
Cladding Fixing		As per cladding manufacturer technical specification		Lining Fixing	
RAB™ Board Fixing		RAB™ Board 6mm: 40 x 2.8mm fibre cement nail at 150mm centres to entire framing RAB™ Board 9mm: 50 x 2.8mm fibre cement nail at 150mm centres to entire framing Fixing to be 12mm from sheet edges		Fix GIB Fyrelite® with 41mm x 6g GIB® Grabber® High Thread Drywall Screws 300mm centre around the sheet perimeter and intermediate studs Fixing to be 12mm from bound sheet edges and 18mm from sheet ends	

No cladding required for wall applications enclosed within the roof space
For further information refer to HomeRAB™ Pre-Cladding and RAB™ Board installation manual



Fire & Acoustic Design Manual | November 2022 New Zealand 33

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Buildable Consent Layout

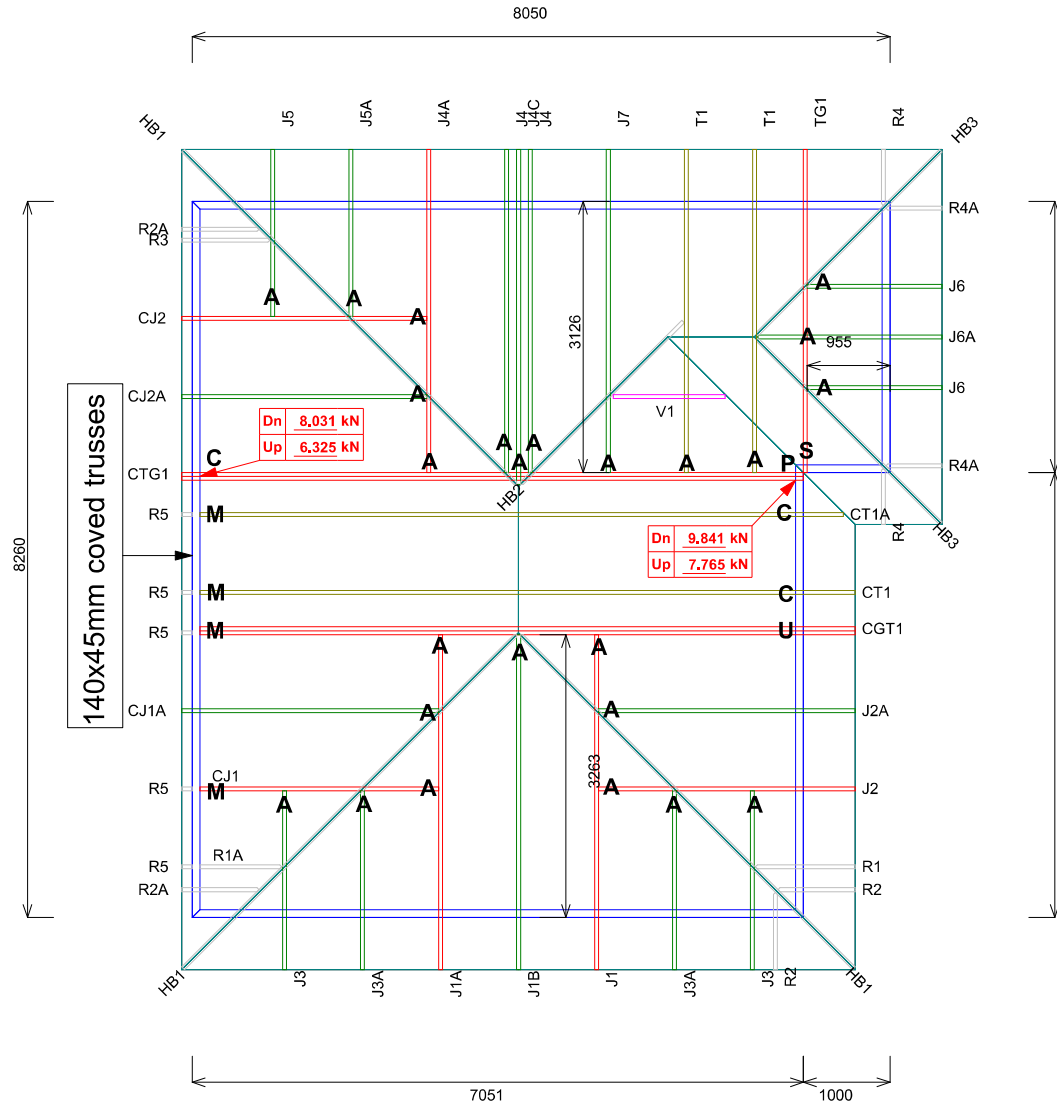


For valley/saddle truss fixing unless stated otherwise use a pair of wire dogs at 900mm centres for up to and including a very high wind zone. Or a pair of CT200's at 900mm centres for extra high wind zone. This fixing is to meet the minimum requirements as per NZS3604.

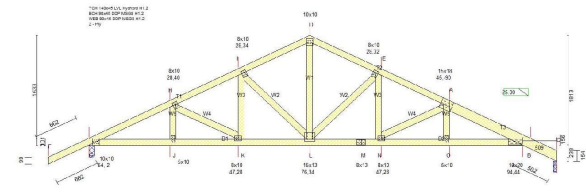
CARTERS

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CGT1:



Note/s:

- Lintel as per plan
- 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. This loads are Ultimate Limit State Loads.
- If no loads are shown no thickening is required.

Truss 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)
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
Z = Engineers Design

Unless otherwise indicated, all specified truss fixings are to use L/Lok product nail fasteners or Type 17 - 14g Hex Head Screws (as per the MiTek On-site Guide)

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.

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

Snow Zone:	Christchurch (N4)
Wind Area:	High
TC Restraints:	900 mm
Roof Material:	Galv Iron 0.55mm
Roof Pitch:	25.00 °
Snow Altitude:	100.000 m
Design Wind Speed:	44.0 m/s
BC Restraints:	600 mm
Ceiling Material:	Standard Plaster Board 13mm
Ground Snow Load:	0.900 kPa
Truss Centres:	900 mm



Drawn: Keren Pascua

Date: 2/08/2022

Job No: **CY1359245C2**
Customer: **HI TEC HOMES LIMITED**
Job Name: **43 Nicolau Ave Rolleston Flat**
Address: **43 Nicolau Ave Rolleston**
43 Nicolau Ave Rolleston, Christchurch

If a gable truss requires a windbeam brace, the type of MiTek brace will be noted as such on the layout. The truss fixings can be substituted for other fixings of the same or greater capacity. All verge framing to be fixed according to the MiTek On-Site Guide if not covered by NZS3604. If bottom chord restraints are 35mm Metal battens, then they must be fixed with either two nails or screws. If the metal battens are fixed with a single nail or screw then 90x45mm bottom chords restraints will be required at 1800mm centres

All loads shown on this page regarding the truss fixings are characteristic loads