THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION DOCUMENTS, ENGINEERING DETAILS/ DRAWINGS, MANUFACTURER'S SPECIFICATIONS & TRUSS DESIGNERS/PRE-NAIL MANUFACTURER'S DRAWINGS

Artist Impression Only

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26	Bathroom/wet area Details
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28	Stud and LIntel Fixings
29	Window and Door Details
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Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.

Christchurch City Council

BCN/2024/9181

Approved Building Consent Document

24/12/2024 Jose, Abby

LICENSED BUILDING PRACTITIONER BUILDING CONFIDENCE

KW KATE WORNER Architectural Design

REVISION #:

ISSUED: 19/12/24

PROJECT #: #Pln

Forge Homes

11 Twin Meadows Drive
Christchurch

ADDRESS: TBA

MOBILE: TBA

#Contact E-mail jonroberts07@hotmail .com

SHEET TITLE:

Sheet Index

DRAWING SCALE:

SHEET

MAIN CONTRACTOR/BUILDER TO CONFIRM LOCATION & ORIENTATION OF DWELLING ON SITE WITH CLIENTS/OWNERS

Iota Onebox control panel. No more than 300mm from the front corner. To be mounted min. 1.2m above GL and may never be fenced off

Electricity supply for the system shall be from the dwelling and metered to the dwelling serviced by the system. The property owner is responsible for the power costs of operating the system

2.0m high Chain link fence from Ground Level - NZBC 1 0.2 - UNAUTHORISED ENTRY BY CHILDREN IS LIKELY

11 Twin Meadows Drive, Casebrook, Christchurch
Lot 22 DP 586884

Planning Zone :RNN
Residential - CCC
Site Area: 519 m2
Build Area: 207m2
Site Coverage: 39.88%
Wind: Med
Snow: 0.9KPa
Earthquake: 2
Corrosion Zone: C
Flood Management: No
Sea Spray Zone: No
Land Zoning: TC2

Hazardous Agents on Site
Site shall be assessed to determine the presence and potential threat of any hazardous agents or contaminants
Main Contractor/Builder to confirm location of Service Laterals on site before excavation/ drainlaying begins

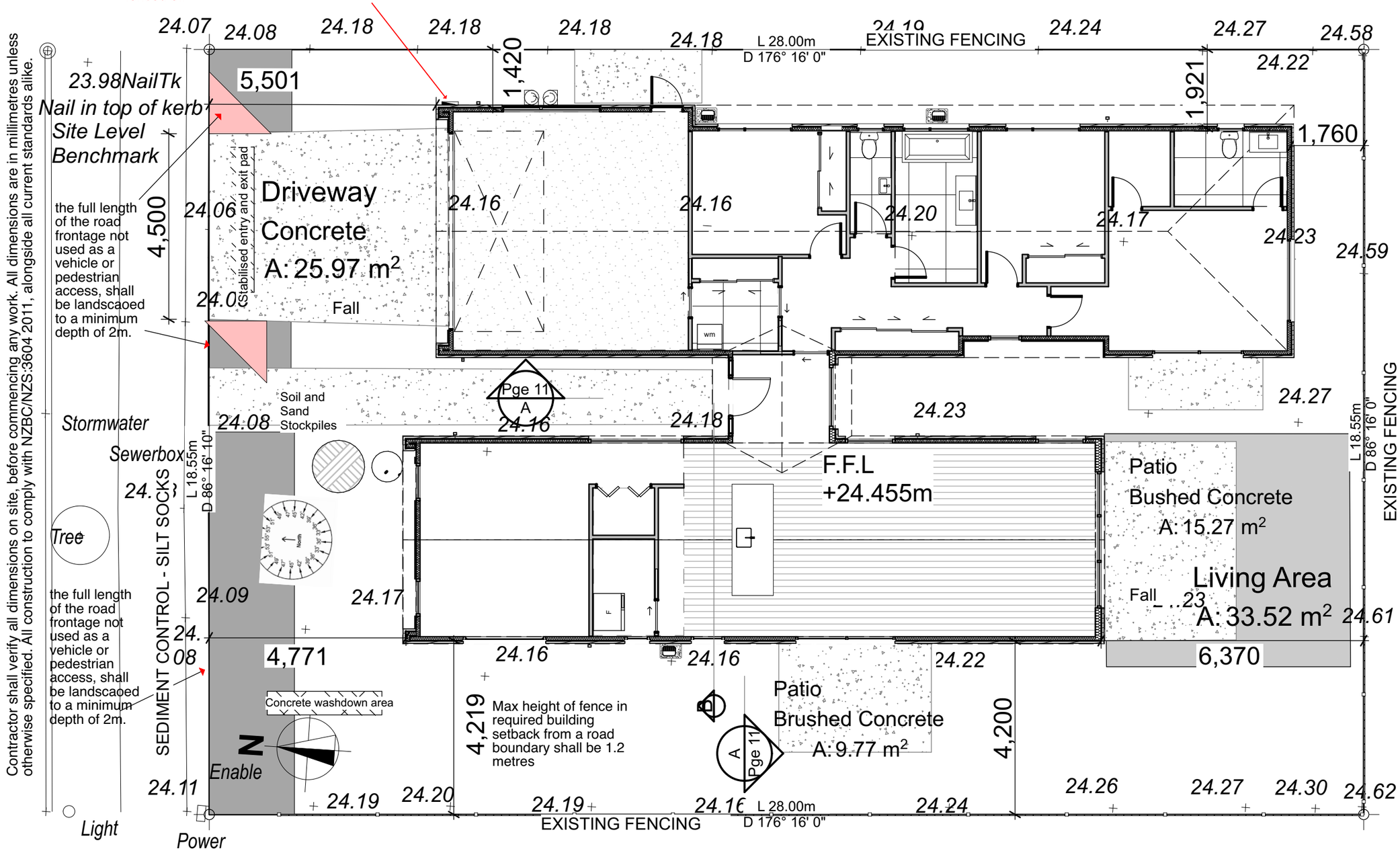
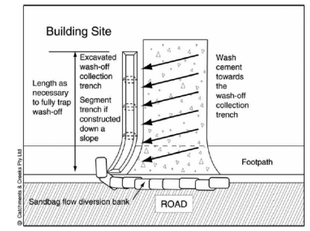


Figure 15 Managing concrete washdown runoff



SITE NOTES:
Site Levels are provided by Client/Builder
Location of existing Sewer & Stormwater connections to be confirmed on Site, prior to Construction.

Convey Surface Water from sealed driveway areas to an appropriate approved outfall.

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SHEET TITLE:
Site Plan

DRAWING SCALE: 1:100

SHEET
2

Hot water piping to be insulated with Isopipe thermal lagging

Iota Onebox control panel. Visible and accessible from the driveway and sewer tank. Centred no more than 300mm from the front corner. To be mounted min. 1.2m above GL and may never be fenced off

KEY

Proposed Stormwater	100mm PVC-U, 1:60 (min)
Proposed Sewer	100mm dia, 1:60 gradient
Terminal Vent (90mm min. dia)	TV
Branch Vent (80mm min dia)	BV
Down Pipe	DP
Gully Trap	GT
Branch Vent	BV
Inspection Junction/Bend/Point	IJ/IB/IP
Air Admittance Valve	AAV

All to comply with NZBC

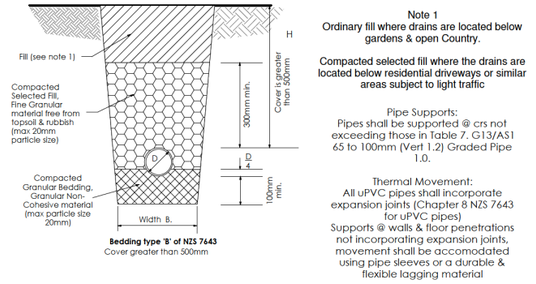
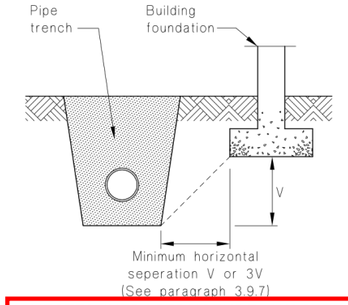
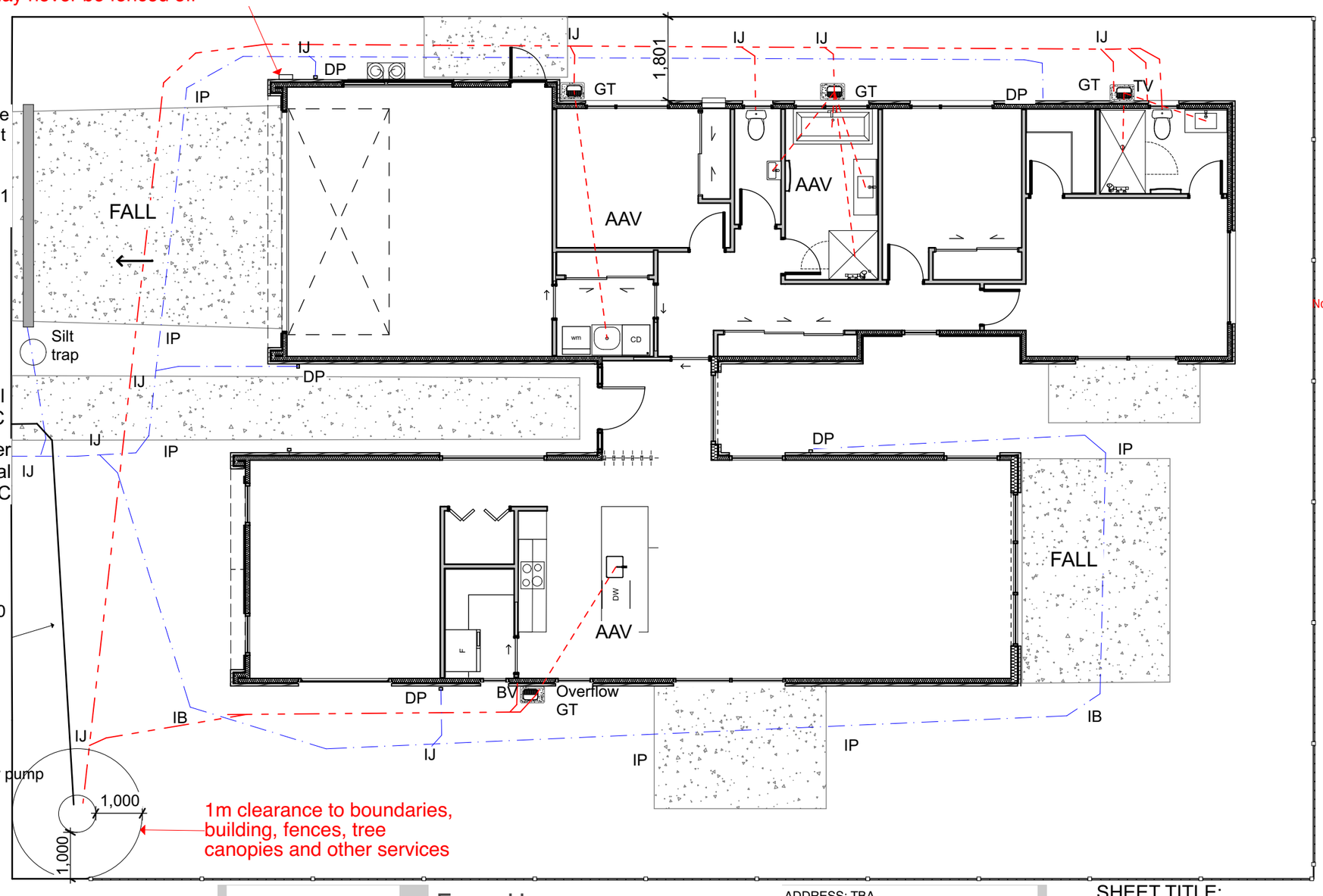


Figure 14: Relationship of Pipe Trench to Building Foundation
Paragraph 3.9.7





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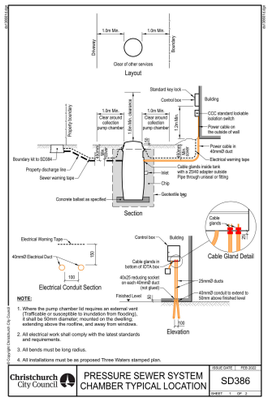
VESTED INFRASTRUCTURE - WASTEWATER
All work to be in accordance with I.D.S. & C.S.S. Pt.1-7

ACCEPTED
04 - Dec - 2024
CITY WATER & WASTE
CHRISTCHURCH CITY COUNCIL
BCN /2024/9181
Baker, Nigel

Notes:
- Engineering acceptance for location of Council vested Aquatec or E/One pressure sewer tank and IOTA OneBox Control Panel. Neither may be fenced off or relocated.
- IOTA OneBox must be within visible access, mounted against external wall of dwelling, accessible, min. 1.2 m above ground.
- Aquatec or E/One pressure sewer tank system must be installed by a Council Authorized Drainlayer with category approval for 'Pressure Sewer Tanks'.
- 5 working days' notice prior to commencing pressure sewer tank install to 'PressureTankInstalls@ccc.govt.nz.' Include BCN number, street address, stamped plan.



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SHEET TITLE:
Drainage Plan

DRAWING SCALE: 1:100

SHEET
3

Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.

PLUMBING AND DRAINAGE

All drains to comply with G13/AS1 and AS2
Air Admittance Valves are to be fitted to all fittings greater than 3.5m from any gully trap
Waste/pipe size/material/fall
- Shower waste: DN40mm dia. PVC-U @ 1 in 40 fall
- Sink waste: DN50mm dia. PVC-U @ 1 in 40 fall
- Tub waste: DN40mm dia. PVC-U @ 1 in 30 fall
- Bath waste: DN40mm dia. PVC-U @ 1 in 40 fall
- Basin waste: DN32mm dia. PVC-U @ 1 in 20 fall
- WC waste: DN100mm dia. PVC-U @ 1 in 60 fall

DN100mm dia. PVC-U sewer water drain @ 1:60 fall (min)
DN100mm dia PVC-U storm water drain @ 1:60 fall (min)

All penetrations through concrete shall be wrapped in 'DENSO TAPE' or similar product to allow for pipe expansion & movement. Allow for 25mm separation from foundation wall NZBC G13/AS2 2.5.8.1
Gutter internal size 115x60mm (min)
Downpipes 75x55mm (min) 1 per 55m2 of Roof Area
Storage water heaters to be restrained with 25x1mm galvanised steel straps tensioned when fixed in place. Straps to be fixed to wall framing with:
1- No. 8mm coach screw with 302mm thick washer, or
2 - No. 20x2.5mm thick washers. Screws to penetrate timber framing a min. of 50mm

Overflow Relief Gully Trap
Gully dish is no less than 150 mm below the overflow level of the lowest sanitary fixture served by the drainage system,

Table 1: Materials for Hot and Cold Water
Paragraphs 2.1.2, 2.2.1 and 6.7.2

Material	Relevant Standard
Hot and Cold	
Copper	NZS 3501
Galvanised steel	NZS/BS 1387
Polybutylene	AS/NZS 2642: Parts 1, 2 and 3
Cold Only	
PVC-U	AS/NZS 1477
Polyethylene	NZS 7601 for pressures up to 0.9 MPa (Type 3) NZS 7602 for pressures up to 1.2 MPa (Type 5) NZS 7610 for pressures up to 1.2 MPa AS/NZS 4129 for fittings AS/NZS 4130 for pressures up to 2.5 MPa

Table 3: Acceptable Flow Rates to Sanitary Fixtures
Paragraph 5.3.1

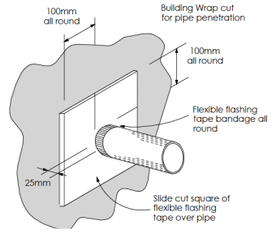
Sanitary fixture	Flow rate and temperature l/s and °C	How measured
Bath	0.3 at 45°C	Mix hot and cold water to achieve 45°C
Sink	0.2 at 60°C* (hot) and 0.2 (cold)	Flow rates required at both hot and cold taps but not simultaneously
Laundry tub	0.2 at 60°C* (hot) and 0.2 (cold)	Flow rates required at both hot and cold taps but not simultaneously
Basin	0.1 at 45°C	Mix hot and cold water to achieve 45°C
Shower	0.1 at 42°C	Mix hot and cold water to achieve 42°C

* The temperatures in this table relate to the temperature of the water used by people in the daily use of the *fixture*.
Note:
The flow rates required by Table 3 shall be capable of being delivered simultaneously to the kitchen sink and one other *fixture*.

Maximum height of riser from FGL to top of step to be 190mm

6.3 Thermal Movement

6.3.1 The plumbing system shall accomodate without failure the expected longitudinal movement in pipes resulting from temperature changes. All copper and uPVC pipes shall incorporate expansion joints. the provisions described in Chapter 8 of NZS 7643 shall be used for uPVC pipes.



6.14 Safe water temperatures

6.14.1 Maximum temperatures

The delivered hot water temperature at the outlet of any *sanitary fixture* used for personal hygiene shall not exceed:

a) 45°C for *early childhood education and care centres*, schools, old people's homes, institutions for people with psychiatric or physical disabilities, hospitals, and

b) 50°C for all other buildings.

Construction & Demolition Hazards Function:
Construction and demolition work on buildings shall be performed in a manner that avoids the likelihood of:
- Objects falling onto people on or off the site.
- Objects falling on property off the site.
- Other hazards arising on the site affecting people off the site and other property

Performance:
Suitable construction methods shall be used to avoid the likelihood of tools or materials falling onto places where people might be present.

Where construction or demolition work presents a hazard in places to which the public has access, barriers shall be
provided and shall:
- Be of appropriate height and construction to
prevent site hazards from harming traffic or passerby.
- Be difficult to climb.
- Have no openings other than those approved by the territorial authority for access and viewing.
- Have no gates or doors which project beyond the site when opened.

SEDIMENT CONTROL PLAN
Provide 2.0m wide entry/exit rumble pad (150-200mm deep 40mm crushed rock) to driveway area, from kerb to slab with 200mm high hump pad across pad deflecting stormwater runoff to sediment fence.

-Provide Silt Socks fencing/barrier (or similar approved) to the low side of the soil disturbance.
-Stockpile topsoil within the sediment controlled zone.
-Stabilise earth banks.
-Downpipes to be connected as soon as roof and drainage is available.
-All other work is to be completed in accordance with Environment Canterbury "Best Practice Guidlines."

Figure 2: Details of gully traps
Paragraph 3.3.1

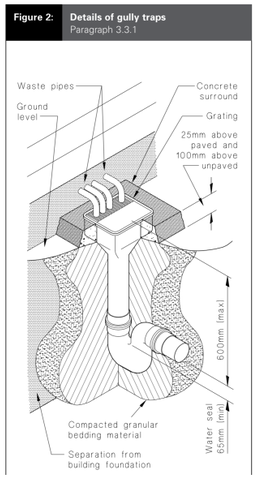
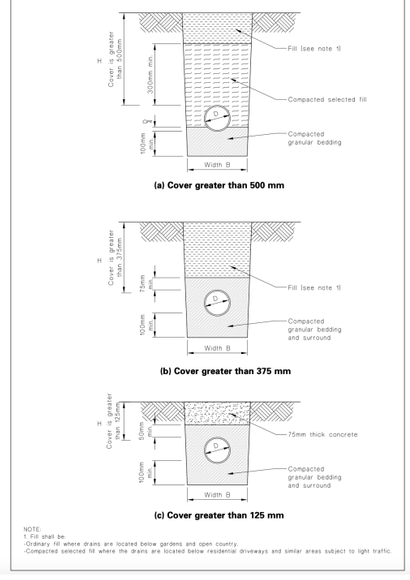


Figure 7: Bedding and backfilling
Paragraphs 2.1.1, 5.2.1, 5.3.1 and 5.4.1



NZBC E2/AS1 Section 11 - Construction Moisture:
Timber Framing - @ time of installing Interior linings less than 18% moisture in timber structure.
Concrete Floors - Sufficently dry to give a relative humidity reading of less than 75% @ time of laying floor coverings.

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

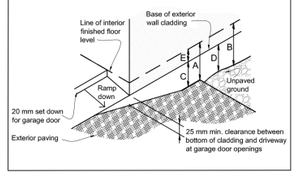


Table 18: Minimum clearances
Paragraphs 9.1.3, 9.1.3.1, 9.1.3.2, 9.1.3.3, 9.1.3.4, 9.1.3.5 and 9.2.7

Minimum clearances (mm)	Masonry veneer		Other claddings				
	A	B	A	B	C	D	E
Concrete slab	100	150	150	225	100	175	50
Timber floor Refer Note 1)					100	175	50 2)

NOTE: 1) Refer to NZS 3604 for requirements.
2) Cladding to extend minimum 50 mm below bearer or lowest part of timber floor framing.

Table 6: Design Limits for Stairs
Paragraphs 4.1.1, 4.1.4 a), 4.4.2, 4.5.1 a) and Figure 17

Stair	Maximum pitch	Maximum riser height (mm)	Minimum tread (mm)
Service, minor private	47°	220	220
Secondary private	41°	200	250
Common and main private	37°	190	280
Accessible	32°	180	310

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Forge Homes

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SHEET TITLE:
Drainage/Notes

DRAWING SCALE:

SHEET
4

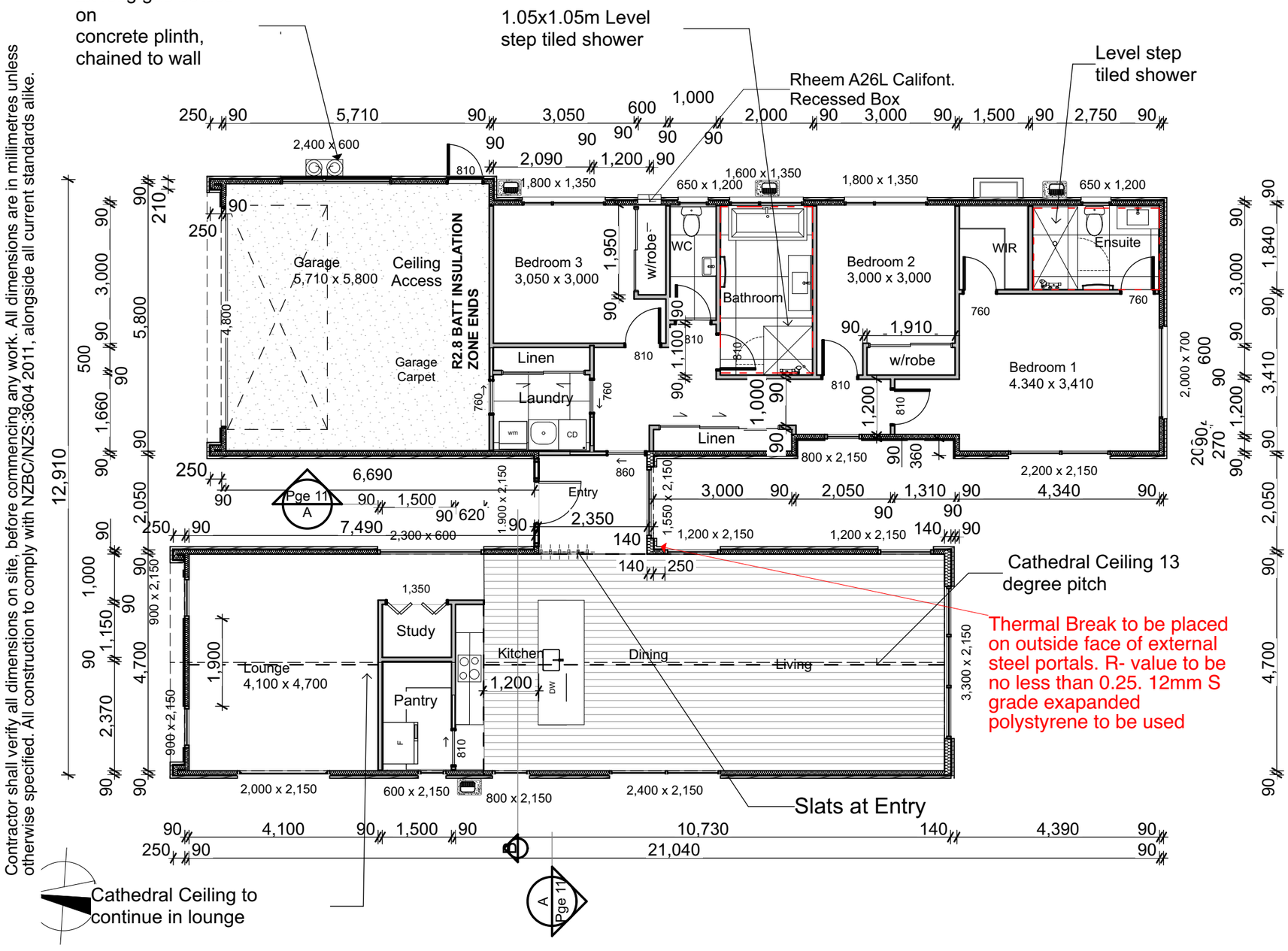
Wet area to have impervious waterproof substrate laid under tiles

- Ducted Heat Pump system
-Recessed gas califont
- Recessed windows

AREA OVER FRAME:

LIVING AREA = 173.9 m2
GARAGE AREA = 33 m2
Area Over Cladding = 206.9m2

OVERALL DIMENSIONS = 21.14 m x 12.91 m



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Concrete Floors - Sufficently dry to give a relative humidity reading of less than 75% @ time of laying floor coverings.

Floor Covering:
Alt solution to NZBC E3/AS1 for kitchen, WC
Vinyl in Kitchen with waterproof backing. All cracks and gaps to be sealed
Tiles in bathroom and WC
Carpet: Living and bedroom
Concrete : Garage

ANTI-SLIP: on all access routes (both external and internal), provide anti-slip surfaces complying with NZBC D1/AS1/Table 2 (except surfaces inside entry doors of housing may be considered as dry areas).

External & Internal load Bearing Wall Framing:
90x45 H1.2 treated pinus radiata timber framing with studs @ 600mm ctrs (max.) and dwangs @ 800mm ctrs (max.) for Integra panel. Studs @ 600crs and dwangs @ 400mm crs for Vertical Shiplap. Internal walls lined with 10mm GIB Board internally in accordance with GIB Bracing Systems 2016 Handbook

Lining
13mm gib board to ceiling
10mm gib board to walls
10mm gib aqualine to wet areas

Ceiling battens to be H1.2 70x35mm @ 600 crs

70x35mm H1.2 SG8 Timber Ceiling Battens @ 600crs, fixed to underside of trusses lined with 13mm GIB Board

Gable end walls:
H1.2 90x90 SG8 Laser Frame studs @ 300crs, dwangs @ 800 crs

Spaces to used for food preparation and utensil washing have:
(a) Interior linings and work surfaces that are impervious and easily cleaned.

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SHEET TITLE:
Floor Plan

DRAWING SCALE: 1:100

SHEET
5

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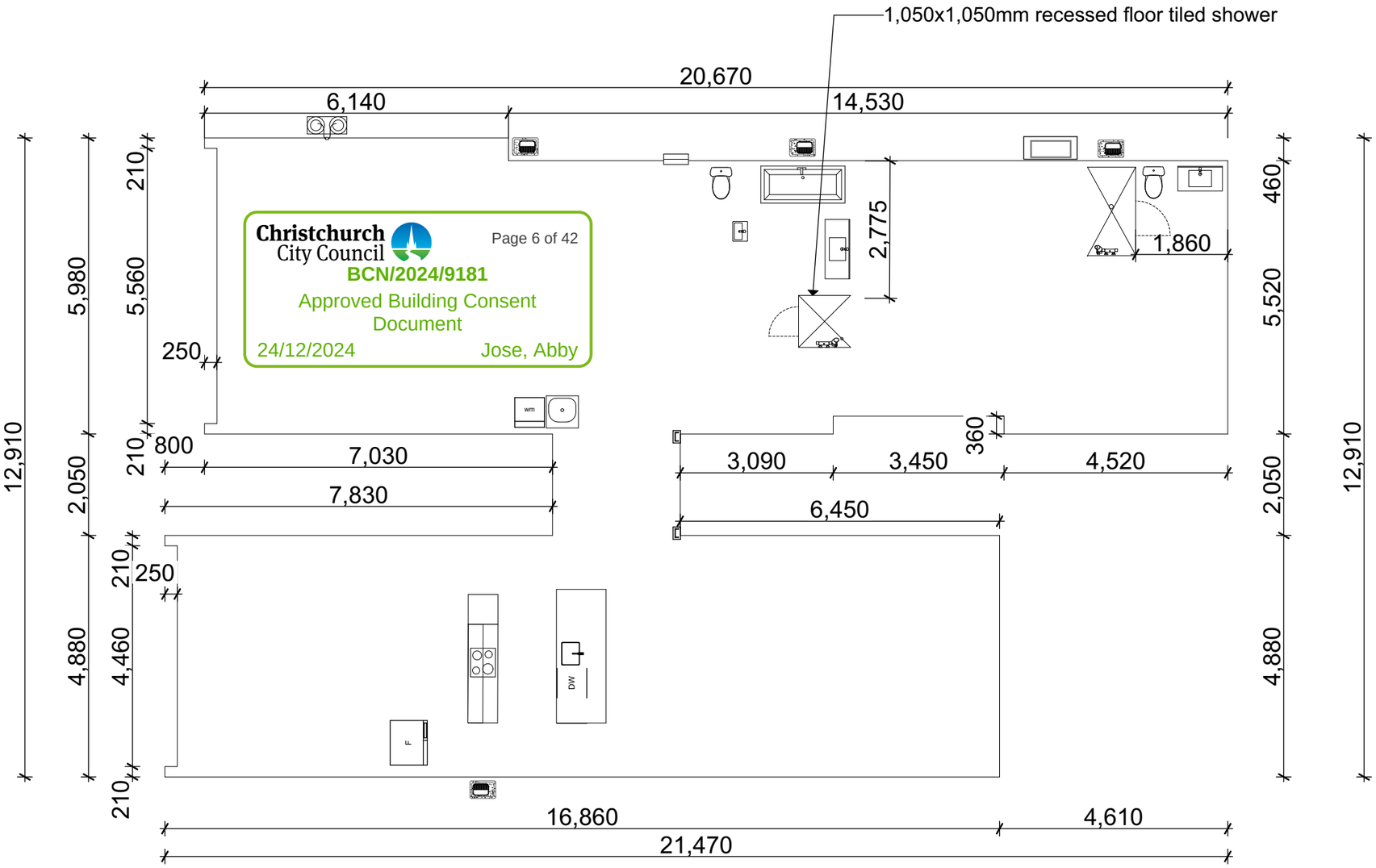

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24/12/2024 Jose, Abby
Page 6 of 42

Pod floor to be used with 50mm SLABX200 insulation under slab

SED DESIGN

LICENSED BUILDING PRACTITIONER BUILDING CONFIDENCE

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SHEET TITLE:
Foundation Plan

DRAWING SCALE: 1:100

SHEET
6

SAFETY GLAZING (eg:
bathroom window) SHALL COMPLY WITH NZBC F2/AS1
Glazing in bathroom and ensuite to be safety glazed as per NZS 4223.3 8.1

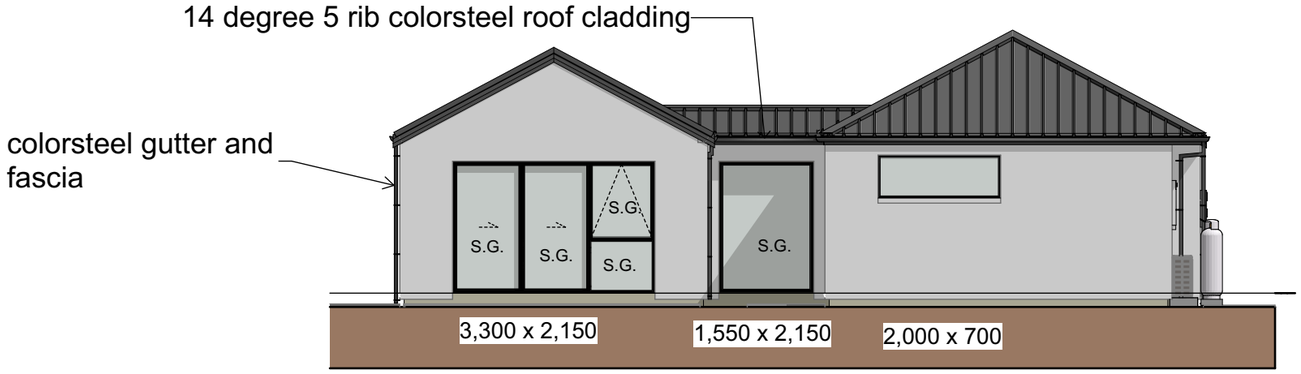
INSTALL WANZ SUPPORT BARS TO ALL EXTERIOR WINDOWS & DOOR SILLS

CONFIRM SOFFIT HEIGHT WITH TRUSS MANUFACTURER

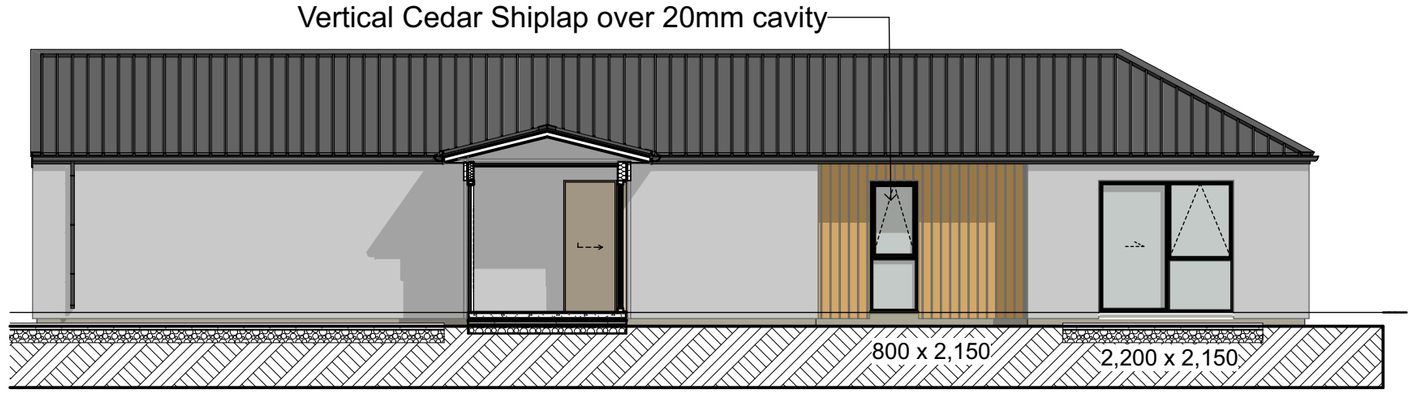
ALL WINDOWS AND DOORS TO BE SITE MEASURED BEFORE MANUFACTURED

ALL WINDOWS AND DOORS TO BE DOUBLE GLAZED UNITS AS PER NZBC H1/AS1 2007 - REFER TO CALCULATION SHEETS

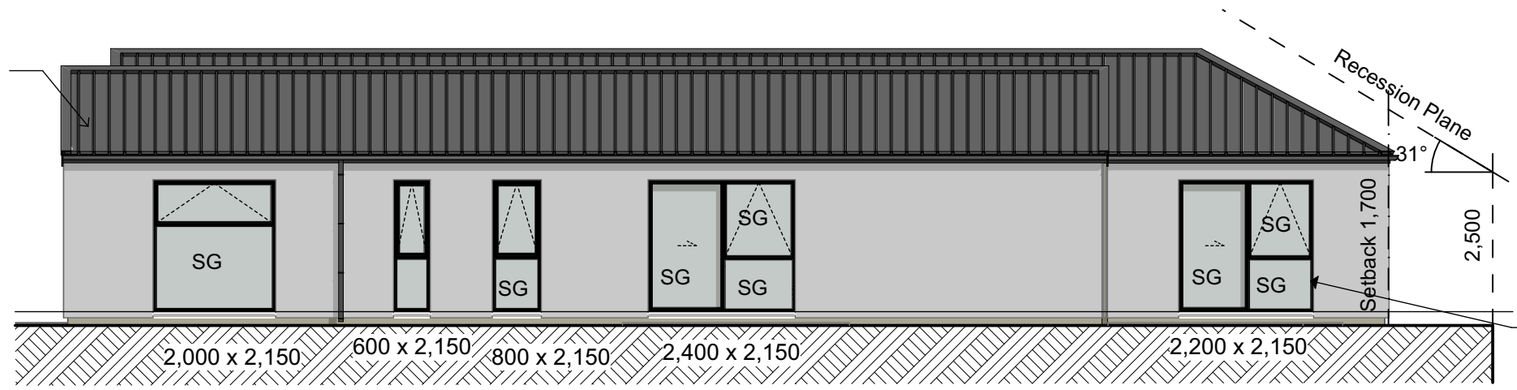
Exterior cladding-
- Resene Integra Panel over 20mm nominal cavity
- Vertical Cedar Shiplap Board cladding over 20mm cavity, as per elevations



South Elevation 1:100



West Elevation 2 1:100



West Elevation 1:100

All external joinery to be compliant with H1/As1. Aluminium joinery with double glazed, thermally improved spacer with low e glass meeting with R0.50 value

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SHEET TITLE: Elevations

SHEET 7

DRAWING SCALE: 1:100

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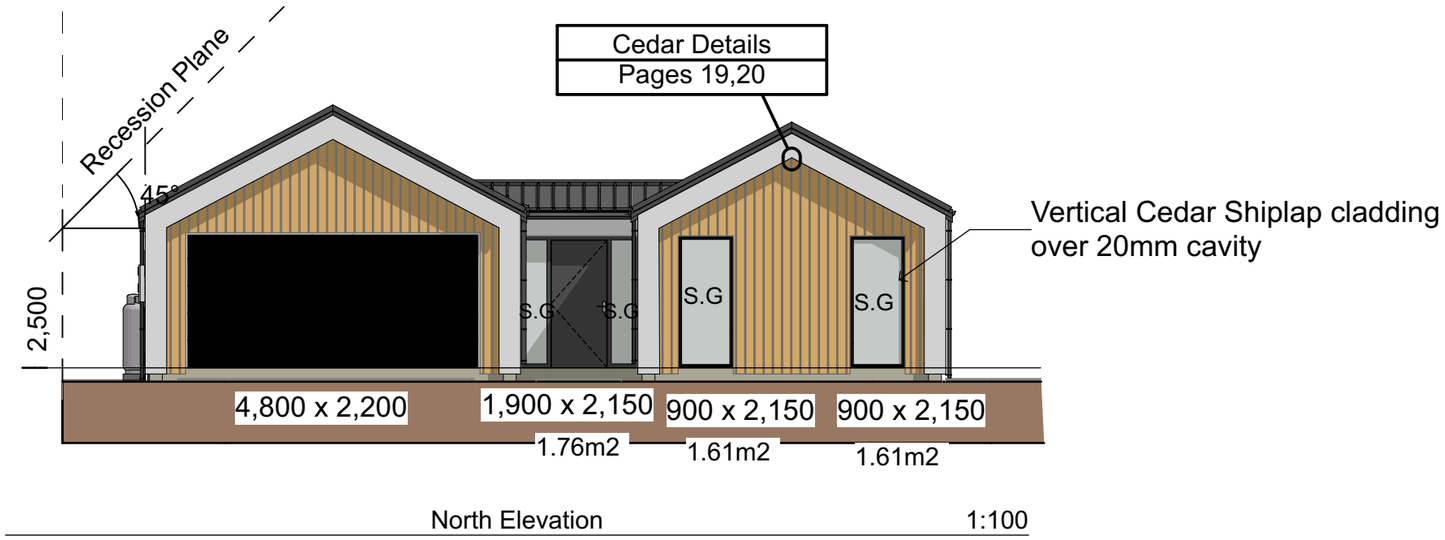
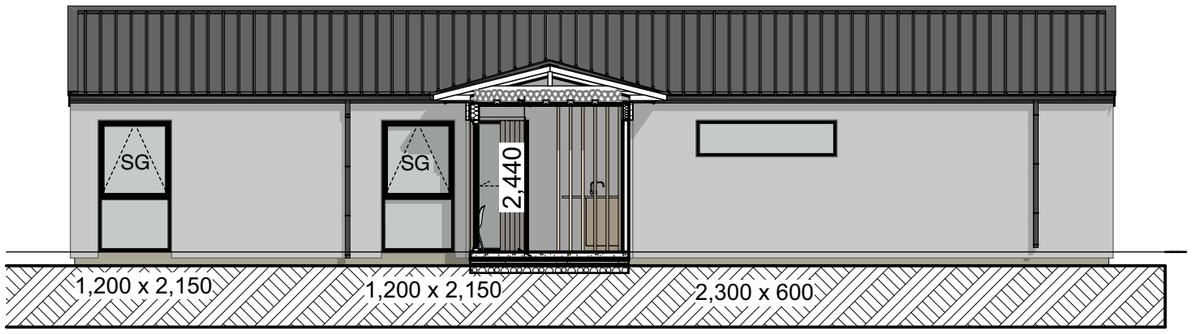


North Elevation 1:100

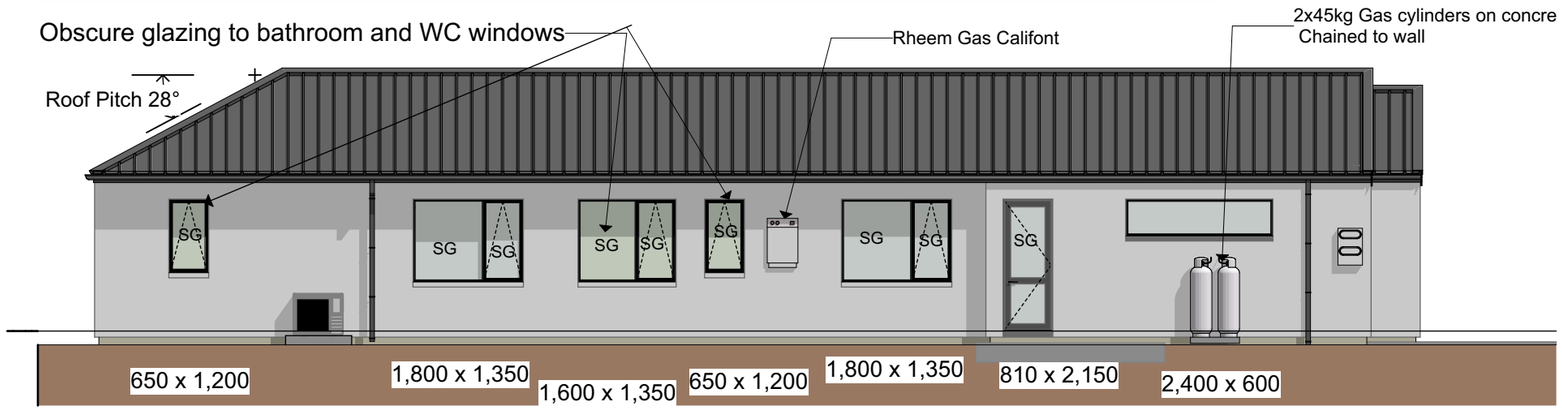
Risk Factor	Description	Risk	Score
Wind Zone	High	M	1
Number of Storeys	Single Storey	L	0
Roof/Wall Intersection Design	Partly exposed (e.g. hip and gable roof with no eaves)	M	1
Eaves Width	0-100mm wide	VH	5
Envelope Complexity	Moderately complex shape with no more than 2 cladding types.	M	1
Deck Design	None	L	0
			Total Score: 8

Selected Claddings:

1. EIFS over nominal 20mm drained cavity
2. Vertical Cedar over 20mm cavity



East Elevation2 1:100



East Elevation 1:100

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Elevations

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SHEET 8

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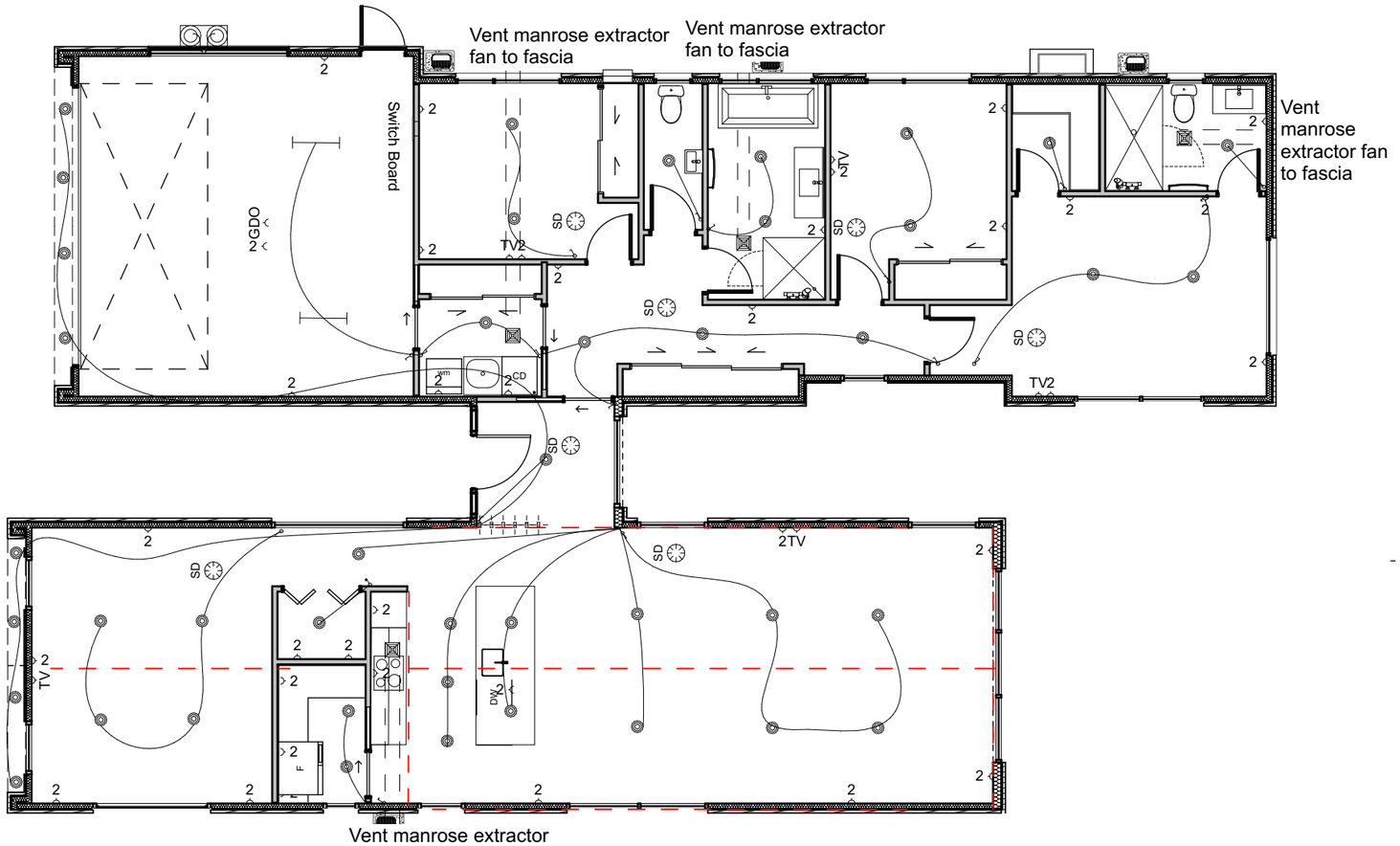

Interconnected Smoke detectors to be installed throughout dwelling complying with NZBC F7/AS1 with hush & test facilities

NOTE:
All Electrical work & Items are to comply with: NZBC F7/AS1, AS/NZS 3000, AS/NZS 3008, AS 3786, NZS 6401.

This layout is preliminary only - confirm final positioning & fitting allowance with client contract specifications.

SMOKE DETECTOR - approved interconnected smoke detectors
required within any habitable space - first alert or similar.

Electrical Safety Reg 2012, Only IC or IC-F Downlights to be Installed,

Down lights to be IC-RATED Type (max 1 per 5m2)

LEGEND

- Recessed Downlight
- Strip Light
- Switch
- Pendant Light
- Satelitte Tv Point
- Telephone Jack Point
- Double Power Point
- Single Power Point
- Manrose Fan
- Automatic Garage Door Opener
- Smoke Detector
- Meter Box
- Switch Board

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SHEET TITLE:
Electrical Plan

DRAWING SCALE: 1:100

SHEET
9

ALL TIMBER USED IN BUILDING
TO BE GRADED SG8 AS PER 3604: 2011 SECTION 8. Beams/Lintels sizes shown are specified by Trussand frame manufacturer and must be confirmed by them.
They shall comply with NZS 3604:2011 SG8

T.P. = Top Plate

Roof Framing: Trusses and ceiling joists are to be H1.2 treated pinus radiata timber framing.

Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.

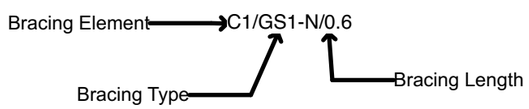
BRACING NOTES
Where the distance between bracing lines at right angles to the plates is between 5.0m and 6.0m

GS1 - 0.4m minimum length
Any 10 or 13mm gib board plasterboard fixed to one side

BL1-H - 0.4m minimum length
10 or 13mm GIB Braceline to one side only

EPB1 - 0.4m minimum length
7mm minimum H3.2 treated ECOply fixed to exterior side of wall framing, fixed according to manufacturers specifications

BRACING LEGEND

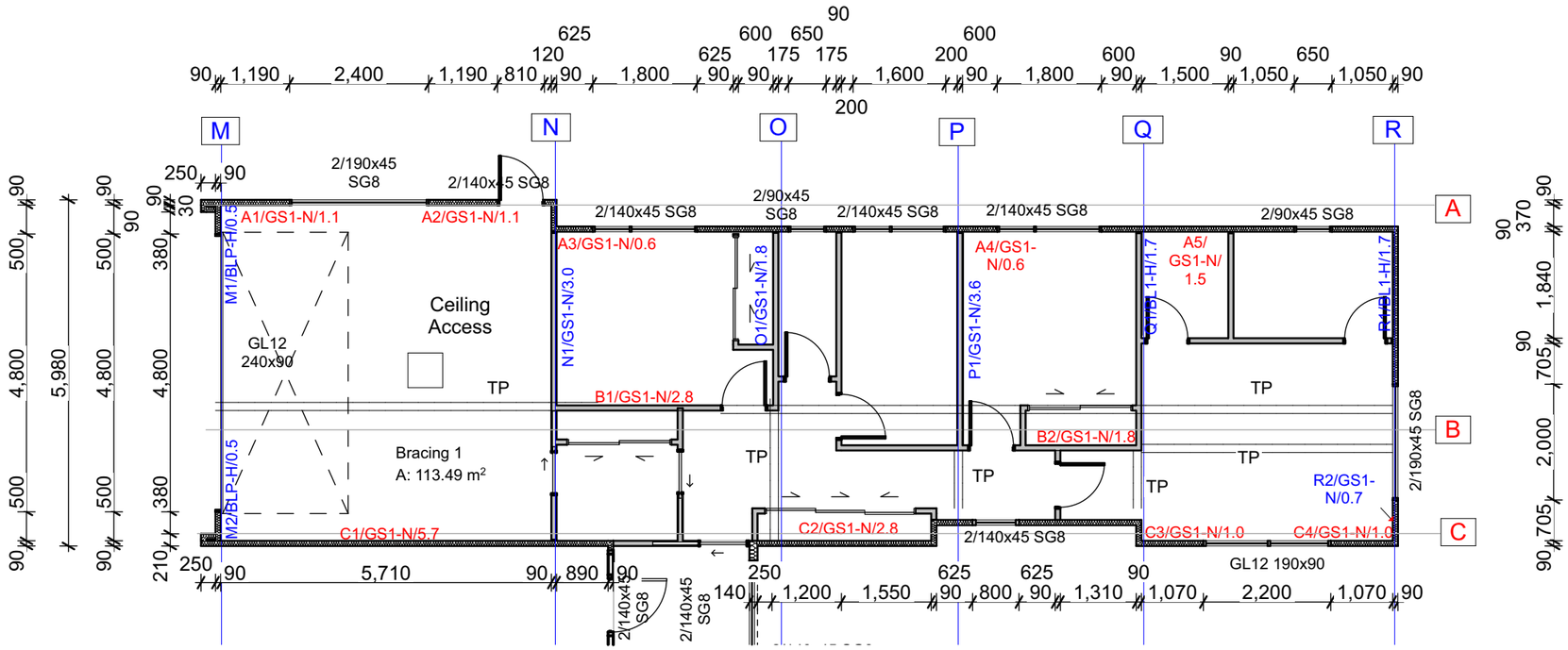


Each wall that contains one or more wall bracing elements shall be
connected at the top plate level, either directly, or through a framing member in the line of the wall, to external walls @ right
angles to it. Top plate fixing(s) of the capacity in tension or compression along the line of the wall bracing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

For each wall containing wall bracing elements with a total bracing
capacity of not more than 125 BU: to at least one such external wall by a fixing as shown in figure

8.16 of 6kN capacity (8.7.3.4 - NZS 3604:2011).
For each wall containing wall bracing elements with a total bracing
capacity of not more than 250 BU: to at least two external walls by
a fixing as shown in figure 8.16 of 6kN capacity (8.7.3.4 - NZS 3604:2011).

For each wall containing wall bracing elements with a total bracing
capacity of more than 250 BU: to at least two external walls by a
fixing as shown in figure 8.16 each having a rating of not less than
2.4kN per 100 BU (8.7.3.4 - NZS 3604:2011).



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SHEET TITLE:
Bracing Plan

DRAWING SCALE: 1:100

SHEET
10

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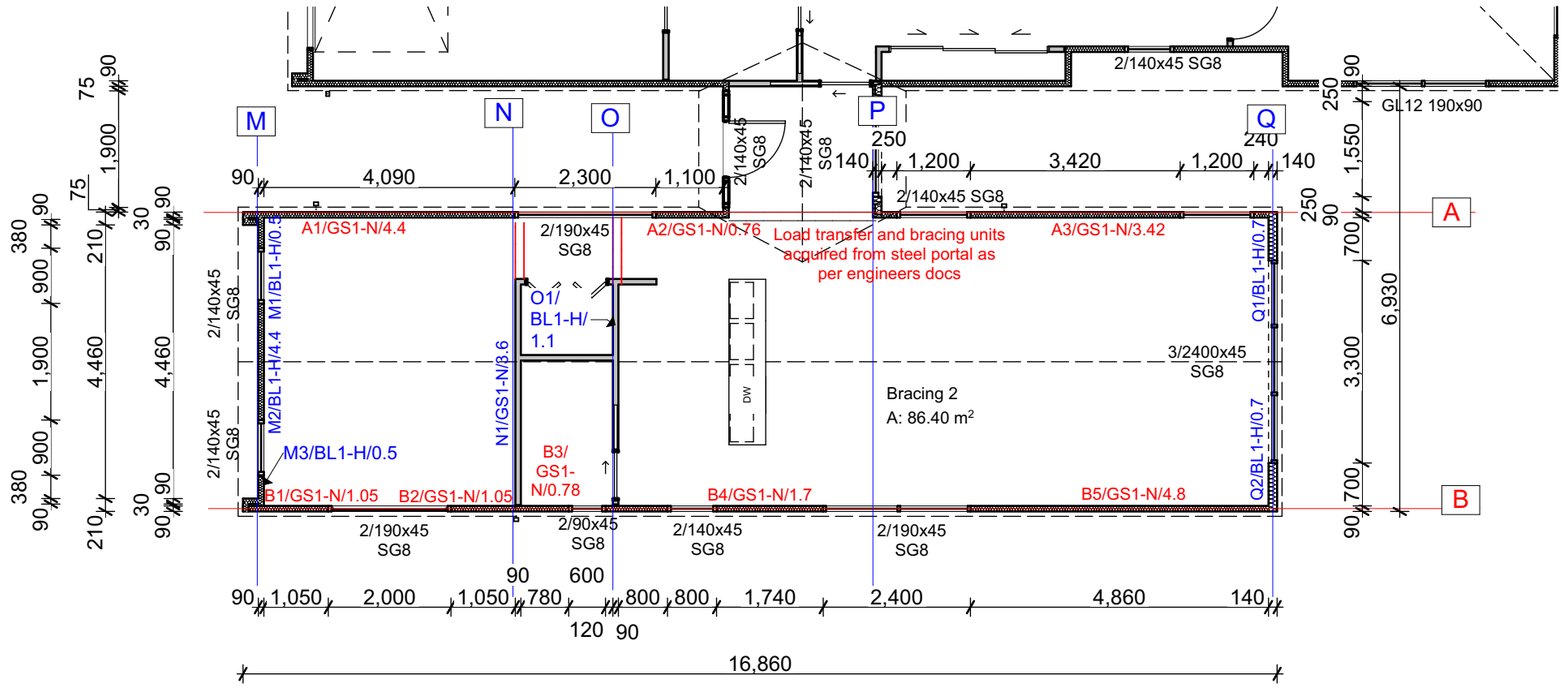

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SHEET TITLE:
Bracing Plan 2

DRAWING SCALE: 1:100

SHEET
11

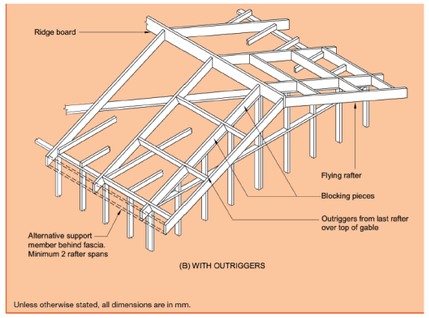


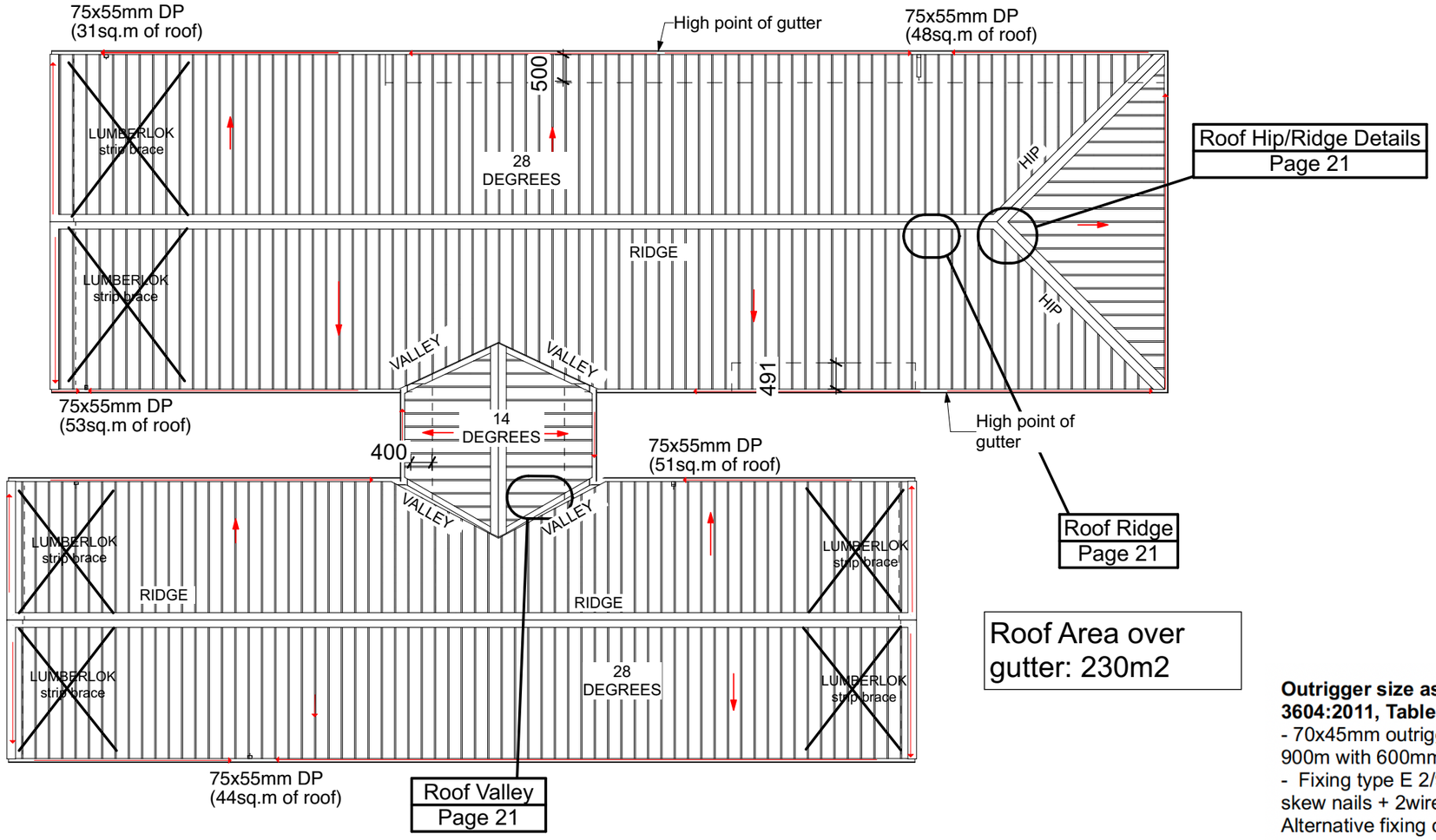
Figure 10.16 – Gable verge framing (see 10.2.1.15)

Outrigger size as per NZS 3604:2011, Table 10.9, 10.10,
- 70x45mm outrigger, spacing 900m with 600mm overhang.
- Fixing type E 2/90 x 3.15mm skew nails + 2wire dogs.
Alternative fixing capacity 4.7KN

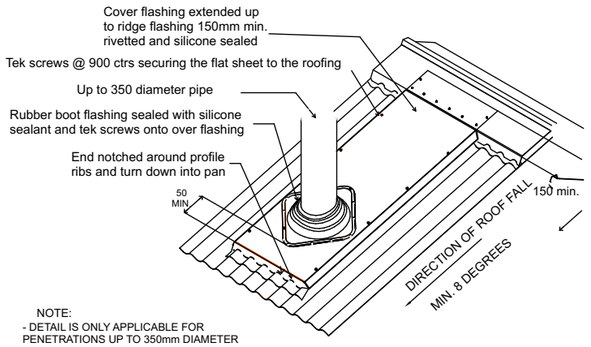
NOTES

-Lintel Sizes: Truss manufacturers to size all lintels with special loads. (truss manufacturers lintel sizes take precedence over designers sizes (refer to truss manufacturers documentation)).
-Wall, lintel and truss fixings are also to be supplied.
Truss manufacturer to confirm foundation thickenings and supply if necessary relevant documentation for point loads and thickenings. Roof trusses at 900mm ctrs with H1.2 treated pinus radiata timber members. All dimensions shown are to framing.
-Metal gutter to have minimum cross sectional area of 8700mm2
Note : Down pipes are to be as indicated 75x55mm (min.) (capacity of 55m2 of the floor plan) (Roof Pitch 25-35°).
-Colorsteel 5 Rib roofing fixed over self supporting building paper on 70x45 SG8 H1.2 pinus radiata timber purlins laid as per manufacturers specifications, on manufacturer
designed trusses @ 28 and 14 degree pitch at 80mm and 500mm, 400mm and 350mm (gable end) soffits
-End purlin spacing (eave and ridge) to be fixed at 600mm crs as per Table 11 NZBC E2/AS1. Type C2
-Refer to manufacturers documentation for roof bracing details, and any specific lintel requirements regarding girder trusses.
- Roof Framing: Trusses and ceiling joists are to be H1.2 treated pinus radiata timber framing
- R7.0 Ceiling Insulation

Valley boards - Radiata Pine H3.1 timber treatment

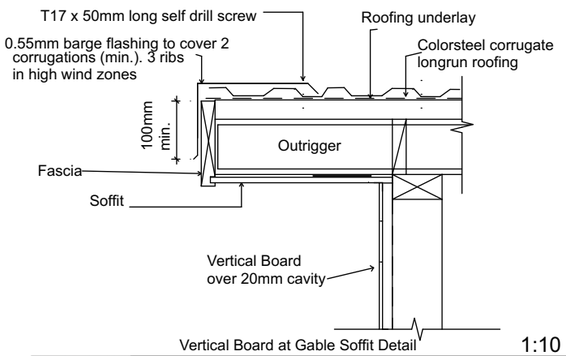


Roof Area over gutter: 230m2



NOTE:
- DETAIL IS ONLY APPLICABLE FOR PENETRATIONS UP TO 350mm DIAMETER

Pipe Penetration Detail 1:20



Vertical Board at Gable Soffit Detail 1:10

Outrigger size as per NZS 3604:2011, Table 10.9, 10.10,
- 70x45mm outrigger, spacing 900m with 600mm overhang.
- Fixing type E 2/90 x 3.15mm skew nails + 2wire dogs.
Alternative fixing capacity 4.7KN

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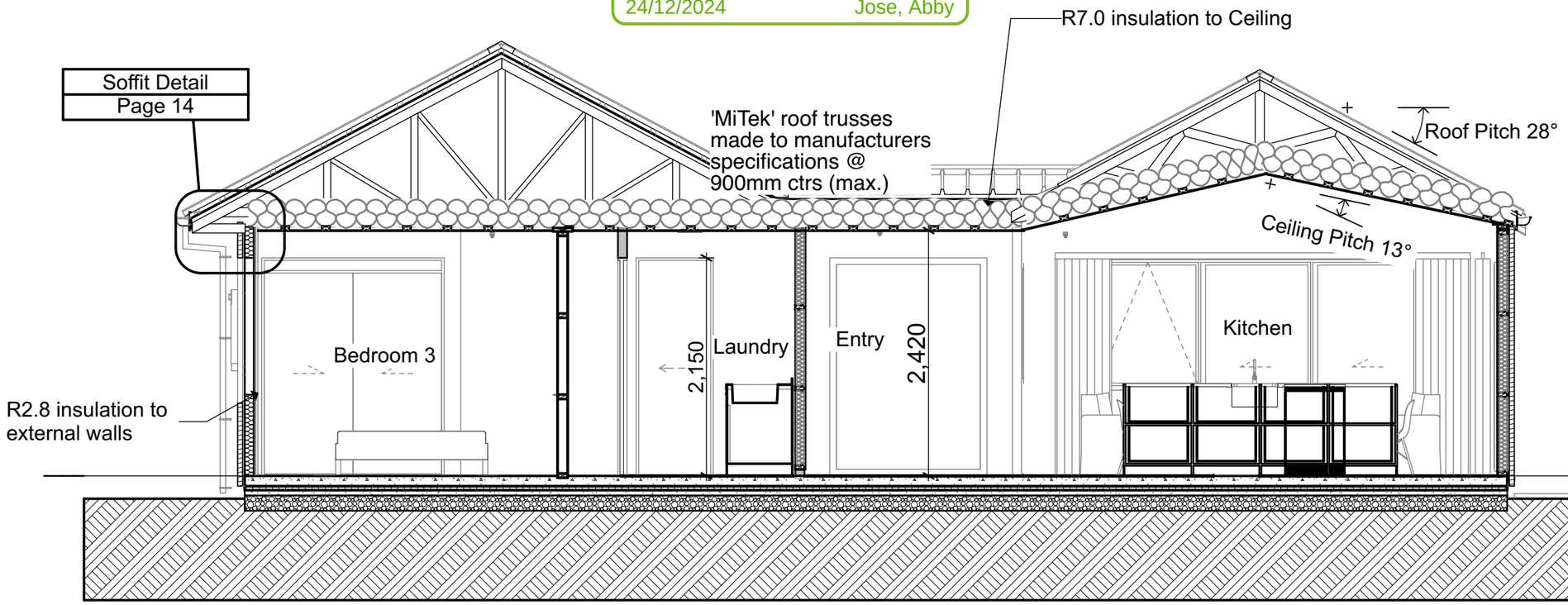
SHEET TITLE:
Roof Plan

DRAWING SCALE: 1:100

SHEET
12

CONSTRUCTION NOTES
-It is the main contractors or surveyors responsibility to check and verify all dimensions and levels on site before commencement of work
-Dimensioned measurements are to take precedence over scaling.
-The territorial authority shall be notified of any changes made during construction.
-All construction work is to conform to NZBC 1991 & amendments & NZS 3604:2011.
-All timber fixed to concrete shall be separated from concrete with 'Malthoid' damp proof course.
-Site measure all windows & external doors before manufacture.
-All glazing to be in accordance with NZS 4223:2016. -These plans are to be read in conjunction with written specifications attached.
-All timber treatments to be to NZS 3602:2011 & B1/AS1



Section C 1:50

Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.

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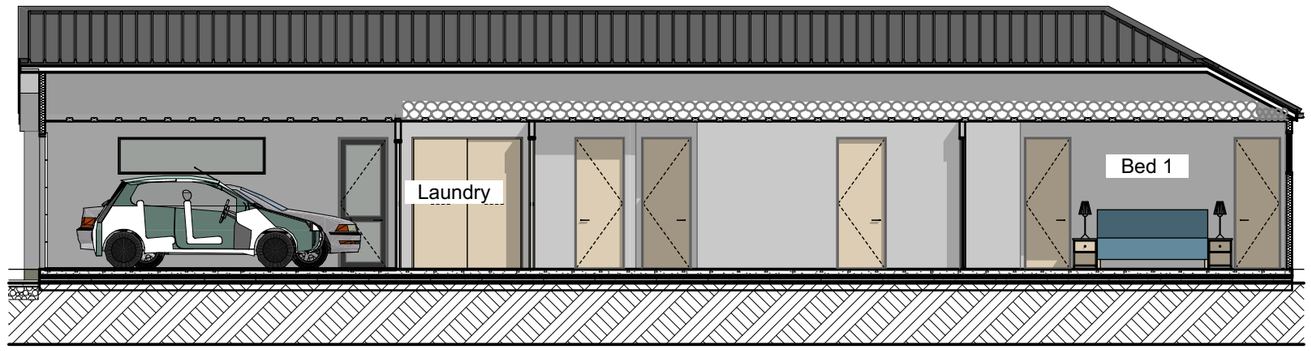
SHEET TITLE:
Cross Section

DRAWING SCALE: 1:50

SHEET
13a

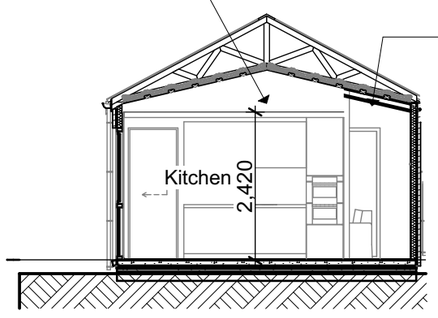
Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.



Cross Section C 1:100

Bulkhead dropping ceiling height to 2,400mm above kitchen cabinets, pantry and study ares

Hall between kitchen and lounge to continue 13 degree slope



Section B 1:100

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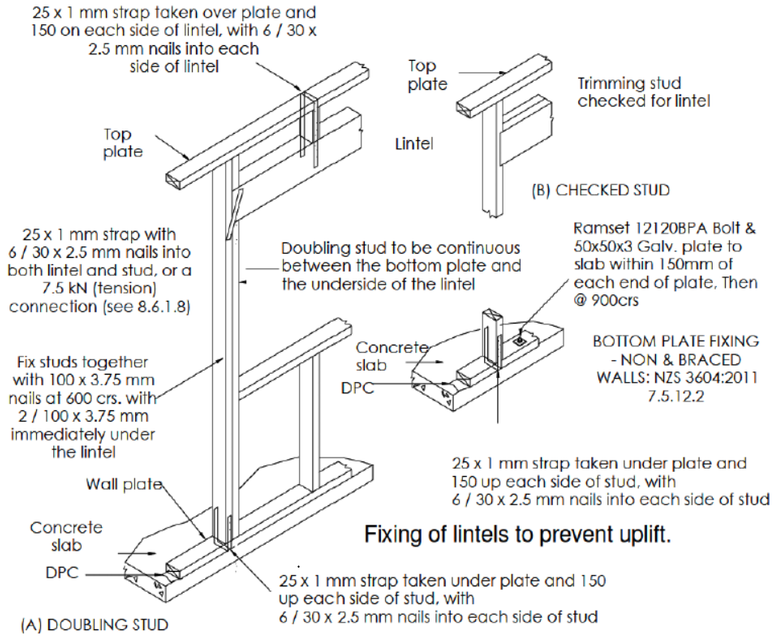
SHEET TITLE:
Cross Section

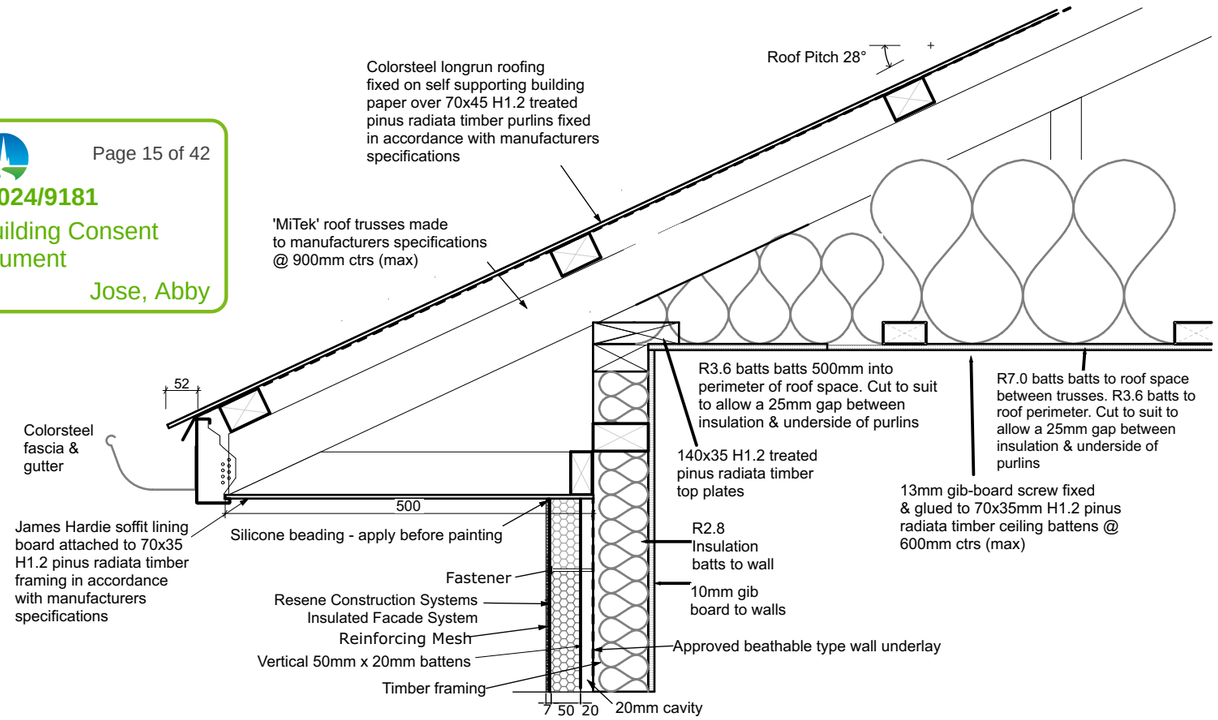
DRAWING SCALE: 1:100

SHEET
13b

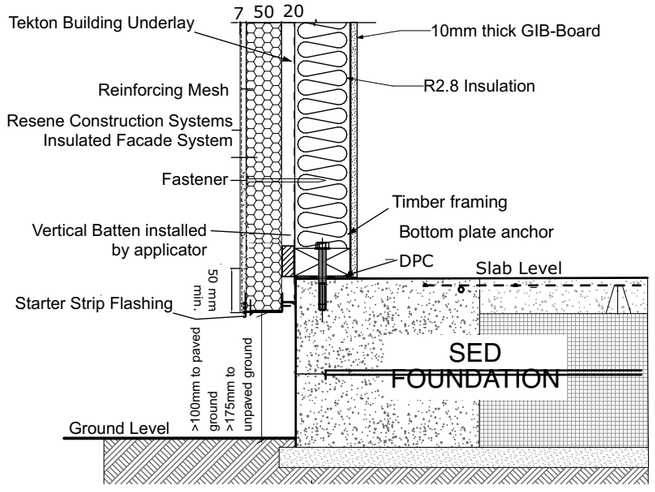


Fixing of lintels to prevent uplift.

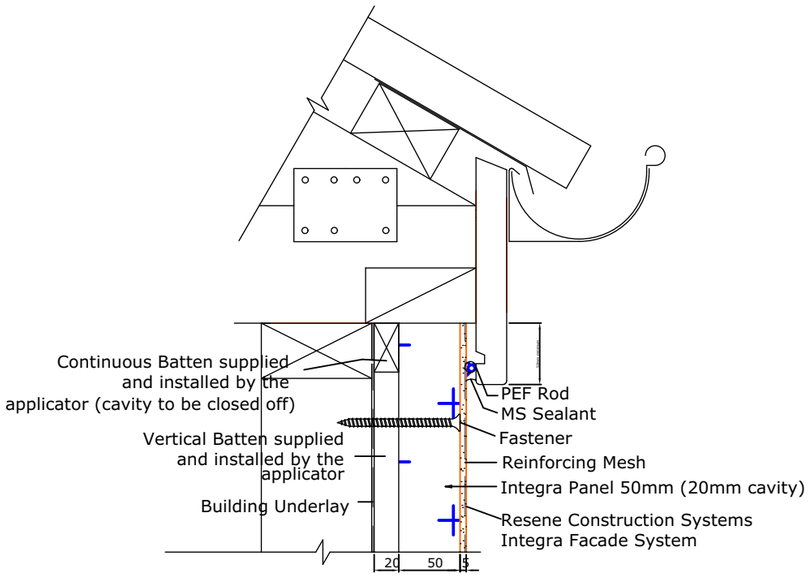
NTS Wall Framing Detail



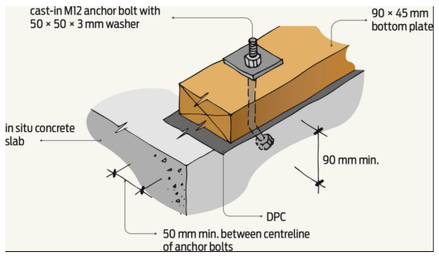
Soffit Details 1:10



Foundation Detail 1:10



Soffit - Face Fixed Fascia 1:5



7.5.12.1 Cast-in anchors

Anchors shall be M12 bolts set within 150 mm of each end of the *plate*, *spaced* at a maximum of 1200 mm centres, bent to prevent turning and projecting sufficiently to allow a washer and fully threaded nut above the timber.

(a) For *internal* and *external walls*, where the slab edge is formed with in-situ concrete, anchors shall be set not less than 90 mm into the concrete, maintaining a minimum edge distance of 50 mm.

Bottom Plate Connection NTS

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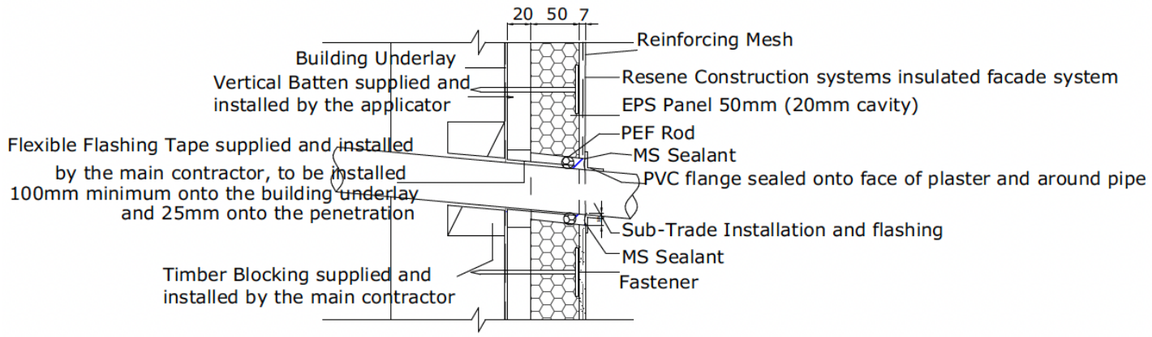
SHEET TITLE:
Details

DRAWING SCALE: 1:10

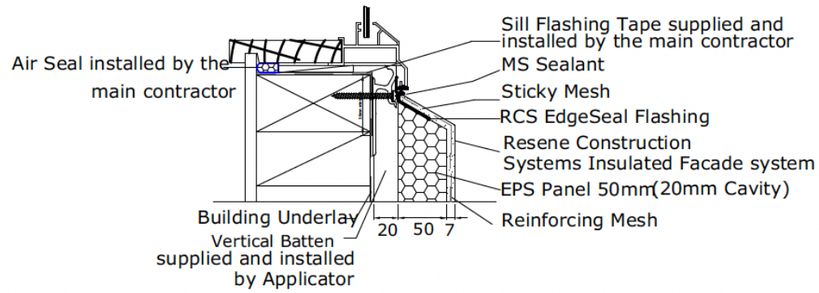
SHEET
14

Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.



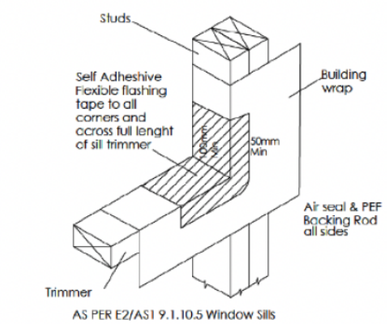
The responsibility for the penetration is the responsibility of the main contractor, where possible and practical use a flange.
It is important that there is adequate support for the penetration in the form of timber packing. The penetration should be angled slightly away from the cladding so any moisture is diverted away from the cladding.

Pipe Penetration Details

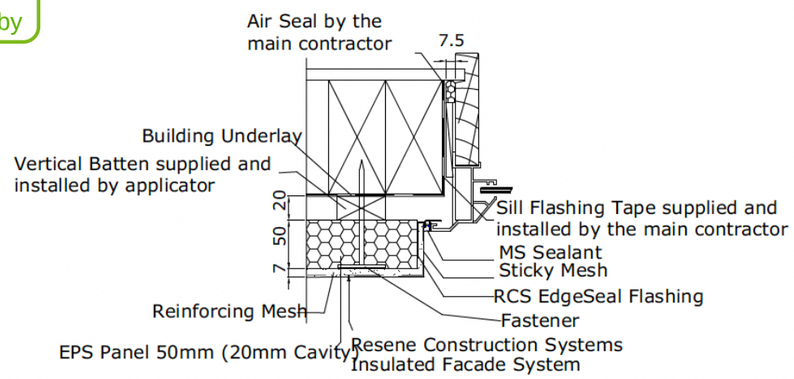


Allow a 25mm Gap between the back of the joinery and external facing timber framing to allow the sill flashing to fit.

Window Sill Detail

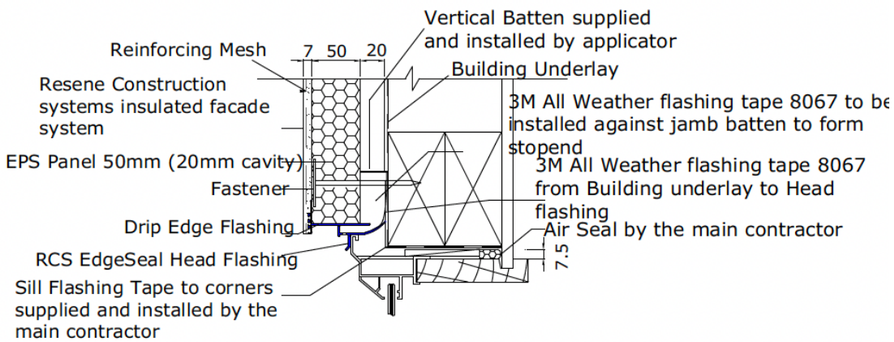


NTS Sill wrap detail



Allow a 25mm Gap between the back of the joinery and external facing timber framing to allow the sill flashing to fit.

Window Jamb Detail



RCS EdgeSeal Head Flashing to extend past the aluminium window by 10mm

Window Head

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DRAWING SCALE:

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15

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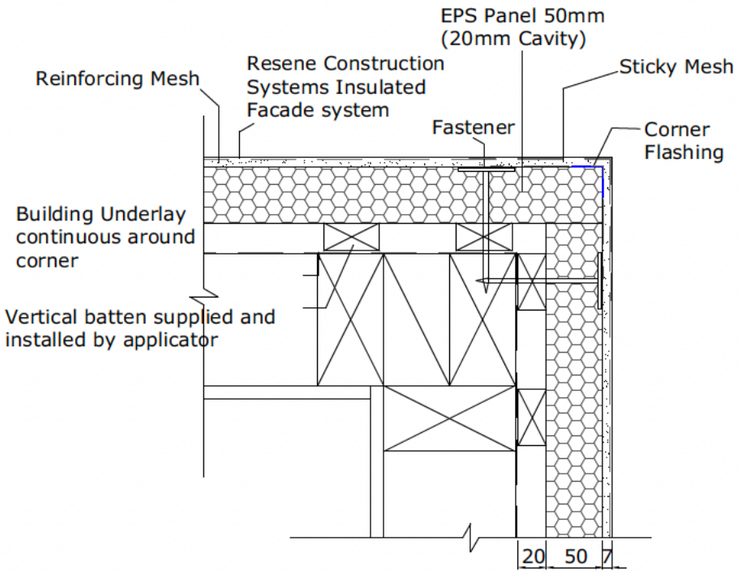
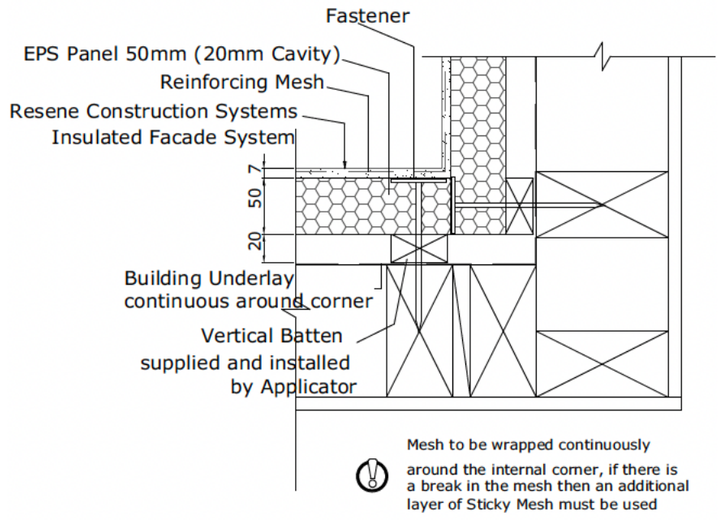
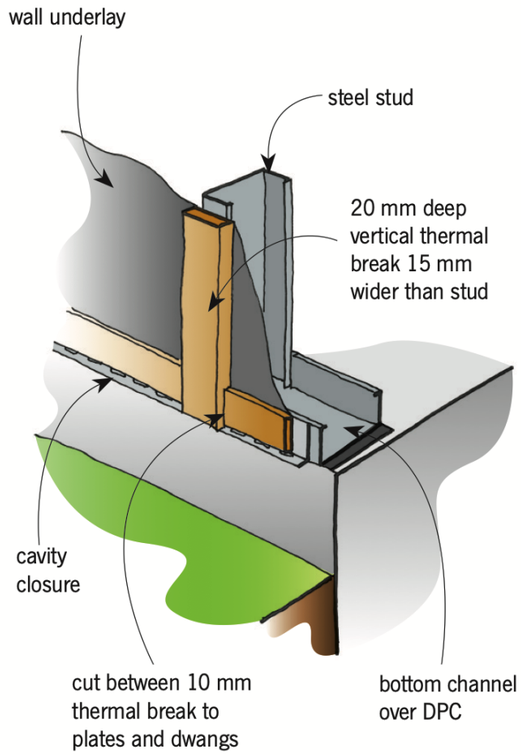


External Corner Details



Internal Corner Details



Thermal Break Installation Details

Christchurch City Council
Page 17 of 42
BCN/2024/9181
Approved Building Consent Document
24/12/2024 Jose, Abby

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16

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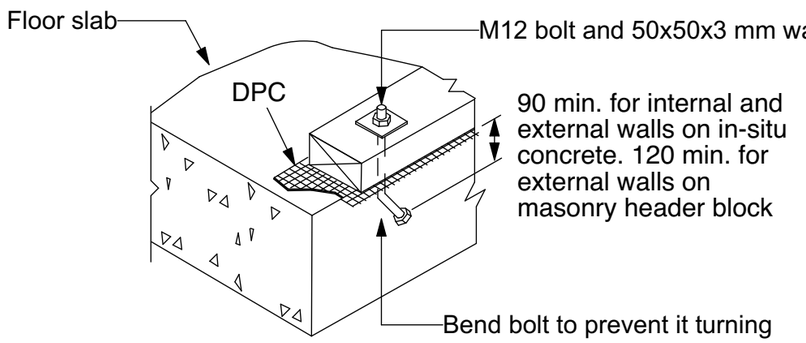

Bottom Plate Fixing Detail

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SHEET
17

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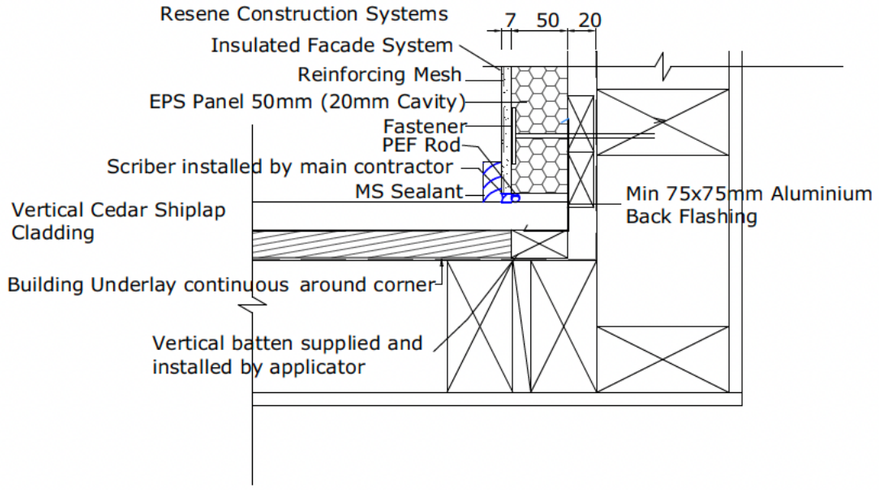
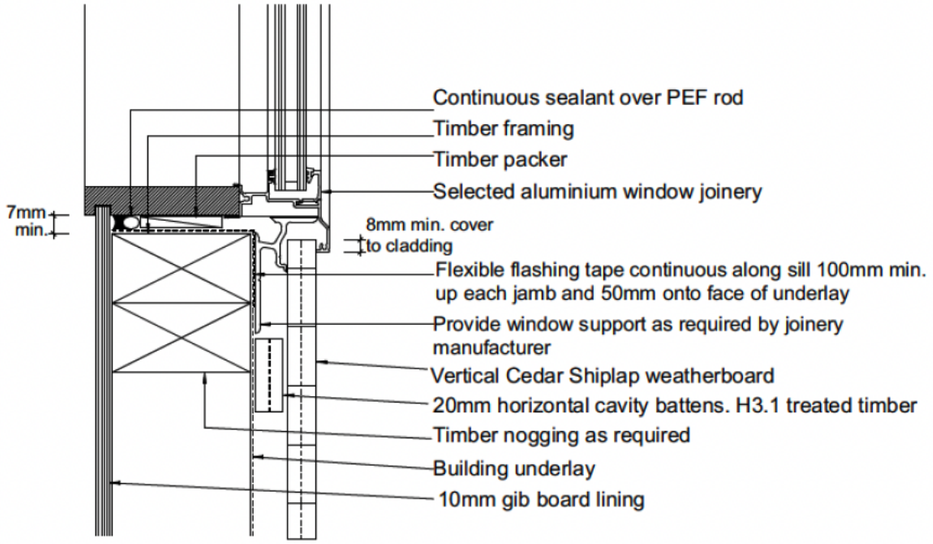
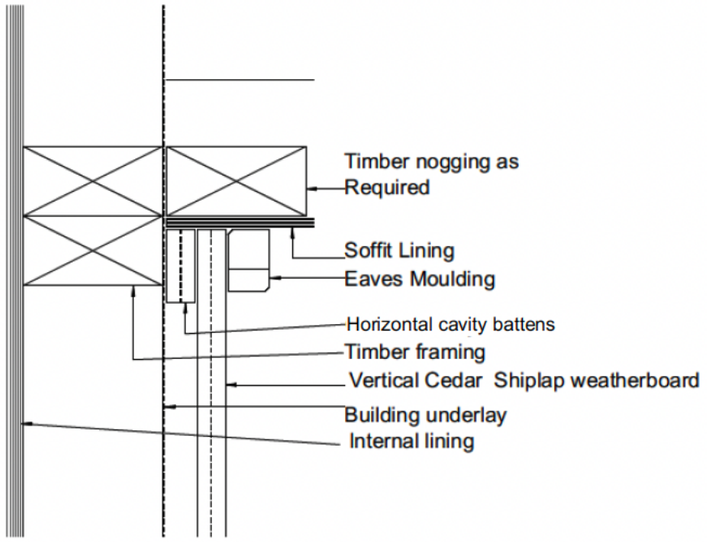


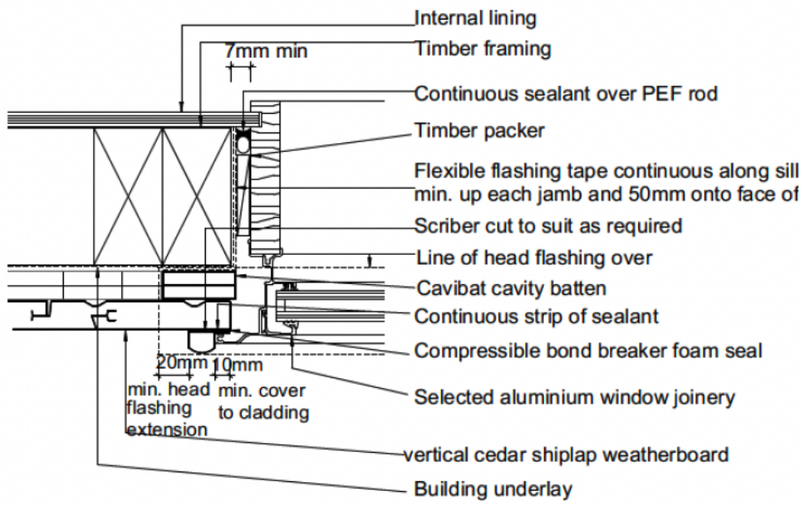
Internal Corner with Vertical Shiplap Detail



Shiplap Window Sill Detail 1:5



Shiplap to Soffit Detail 1:5



Shiplap Window/Door Jamb Detail 1:5

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SHEET TITLE:
Vertical Shiplap Details

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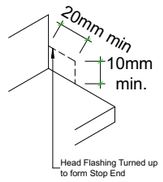
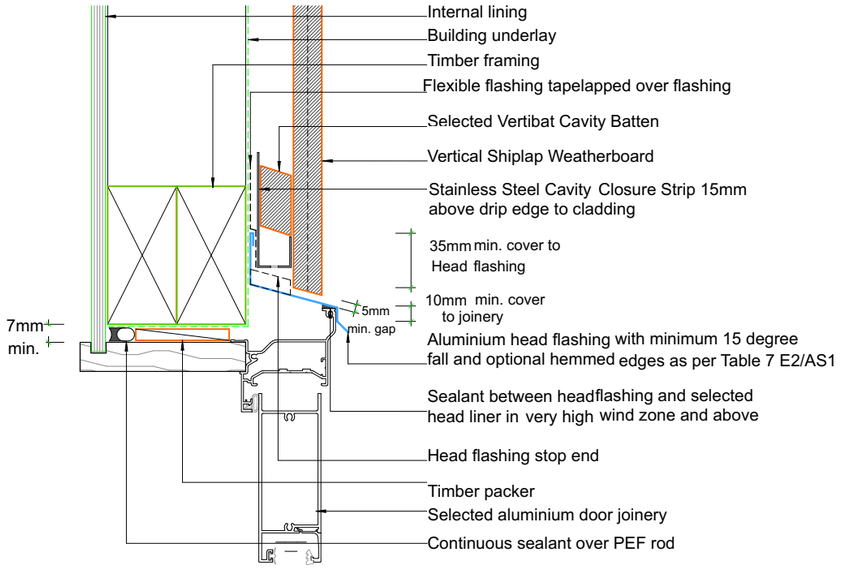
SHEET
18

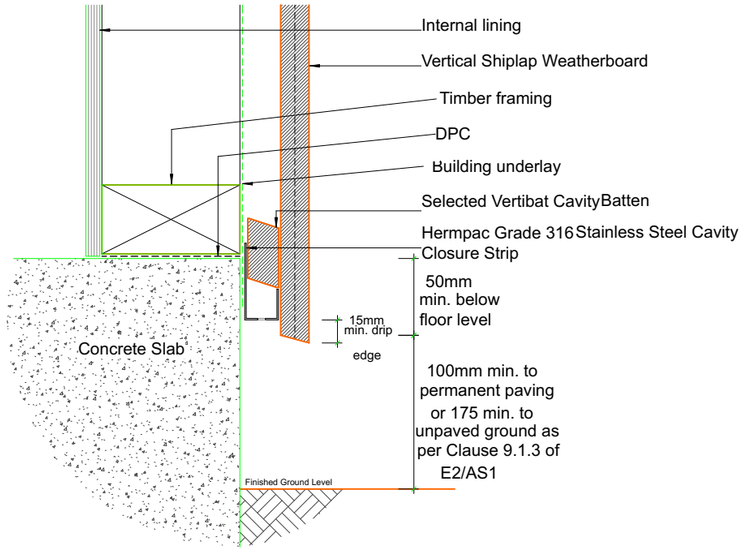
NOTES
- Use Grade 316 Stainless Steel Fixings. All weatherboard fixings pre-drilled maximum 1mm diameter smaller than the nail/screw gauge.
- All Hermpac timber products, cut ends and edges to be precoated as per Installation specifications.
- Where metal components may come in contact with the exposed face of the Accoya, please check to confirm if a bond break/separation barrier is required.
- For non-hemmed corner flashings, ensure a minimum 75mm cover to weatherboards beyond the point where BRANZ Bulletin 411 compliant weatherboard lap or rebate combinations terminate at the corner junction.
- Refer to NZBC Acceptable Solution E2/AS1 Table 21 for the separation requirements between CCA treated battens and metal flashings.
- Prior to installation, refer to Accoya® Wood Information Guide V3.9.





Shiplap Window/Door head Detail 1:2

NOTES:
- Use Grade 316 Stainless Steel Fixings. All weatherboard fixings pre-drilled maximum 1mm diameter smaller than the nail/screw gauge.
- All Hermpac timber products, cut ends and edges to be precoated as per Installation specifications.
- Where metal components may come in contact with the exposed face of the Accoya, please check to confirm if a bond break/separation barrier is required.
- For non-hemmed corner flashings, ensure a minimum 75mm cover to weatherboards beyond the point where BRANZ Bulletin 411 compliant weatherboard lap or rebate combinations terminate at the corner junction.
- In Extra High Wind Zone and above, the 75mm cover requirement remains and hemmed edges must also be used.
- Refer to NZBC Acceptable Solution E2/AS1 Table 21 for the separation requirements between CCA treated battens and metal flashings.
- Prior to installation, refer to Accoya® Wood Information Guide V3.9.



Base of wall Cladding Detail 1:2

Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.

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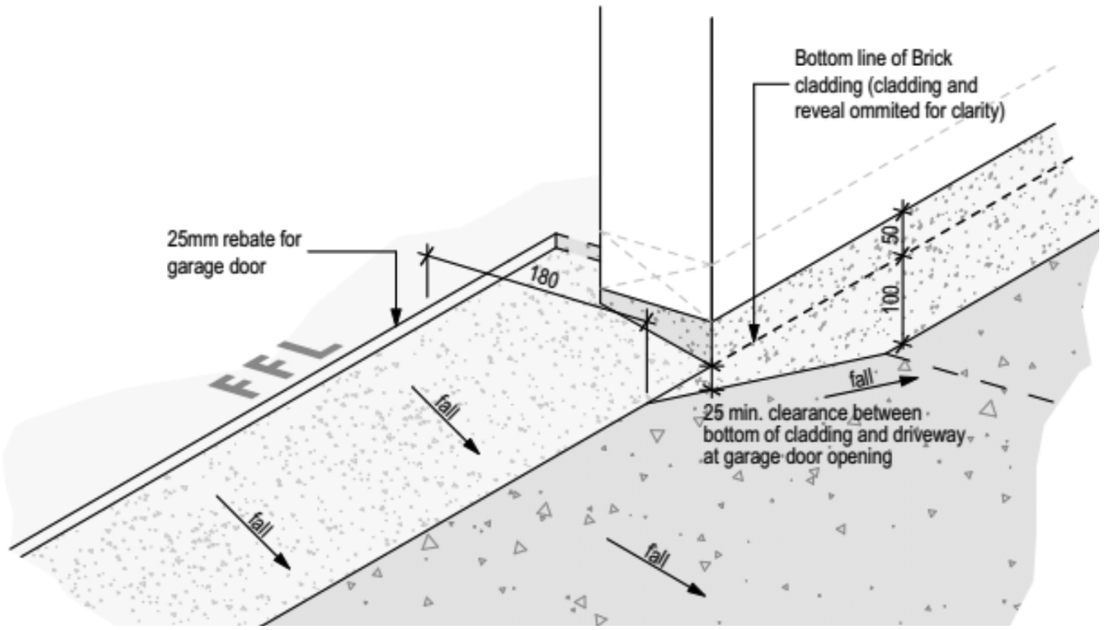
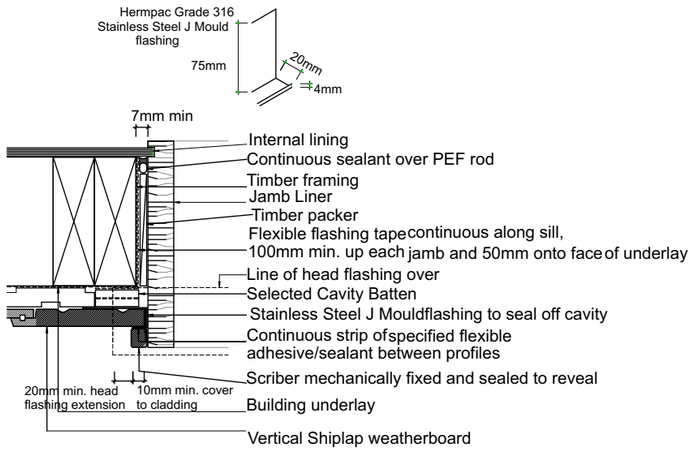
SHEET TITLE:
Vertical Shiplap Details

DRAWING SCALE:

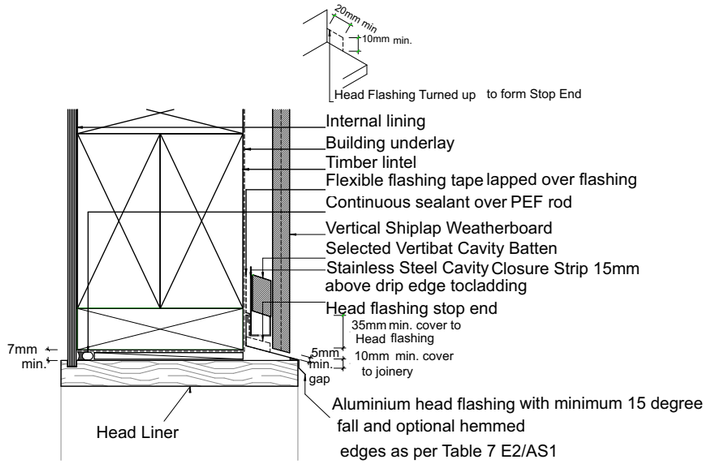
SHEET
19



1 Garage Door Rebate



Garage Door Jamb Detail



Garage Door Head Detail

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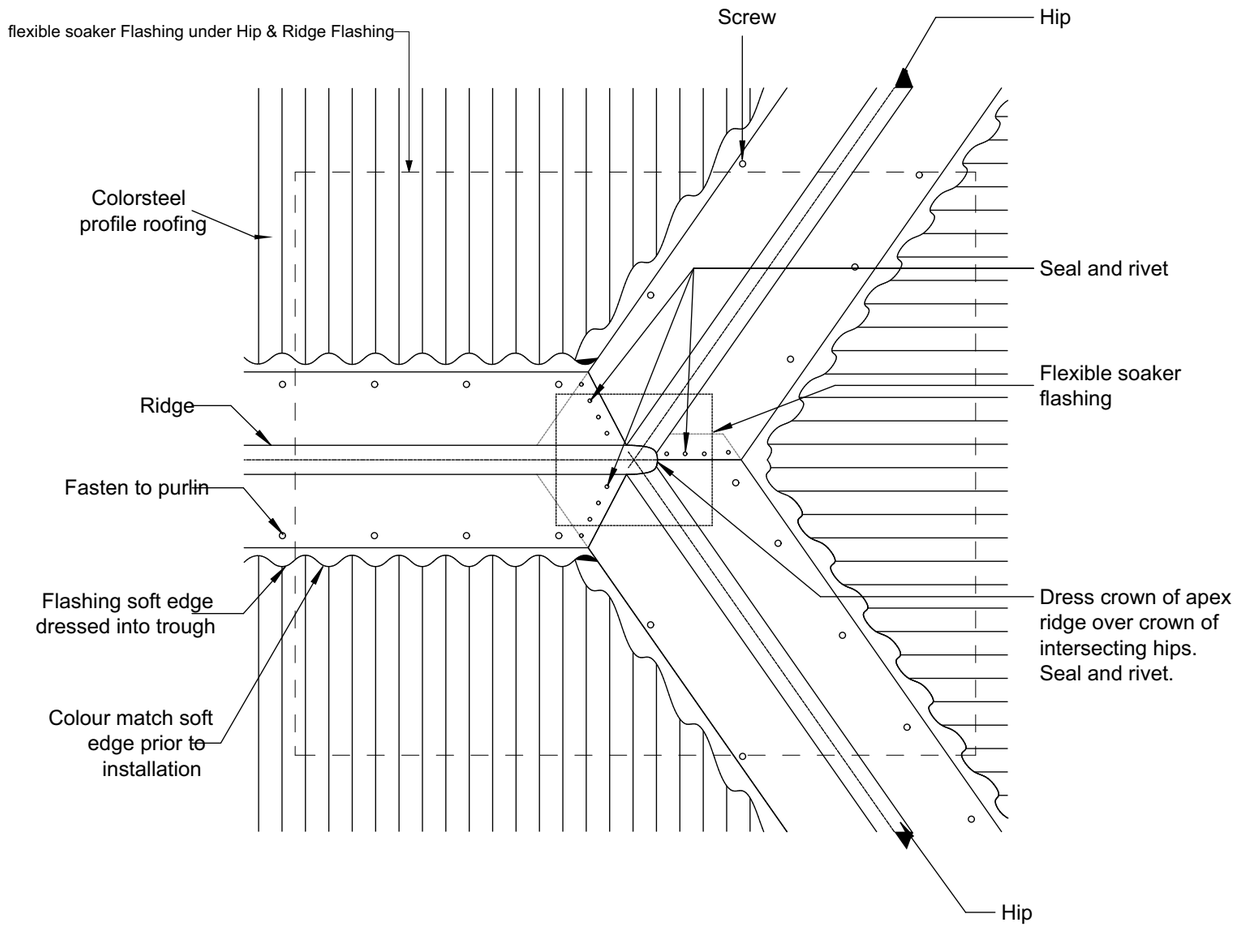
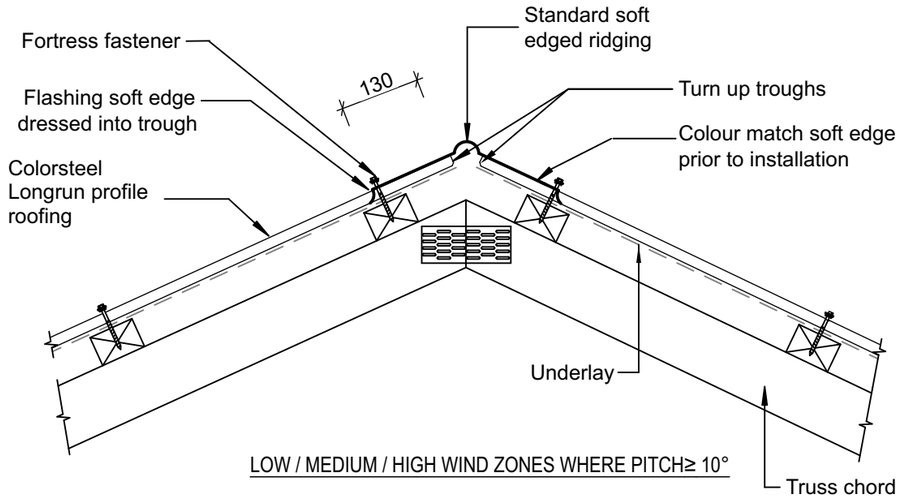
SHEET TITLE:
Garage Details

DRAWING SCALE:

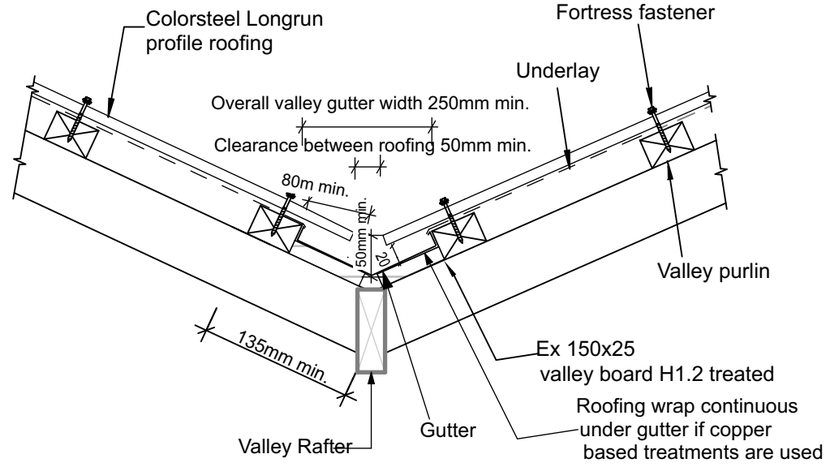
SHEET
20



Roof Hip/Ridge Details 1:10



Roof Ridge 1:10



Roof Valley 1:10

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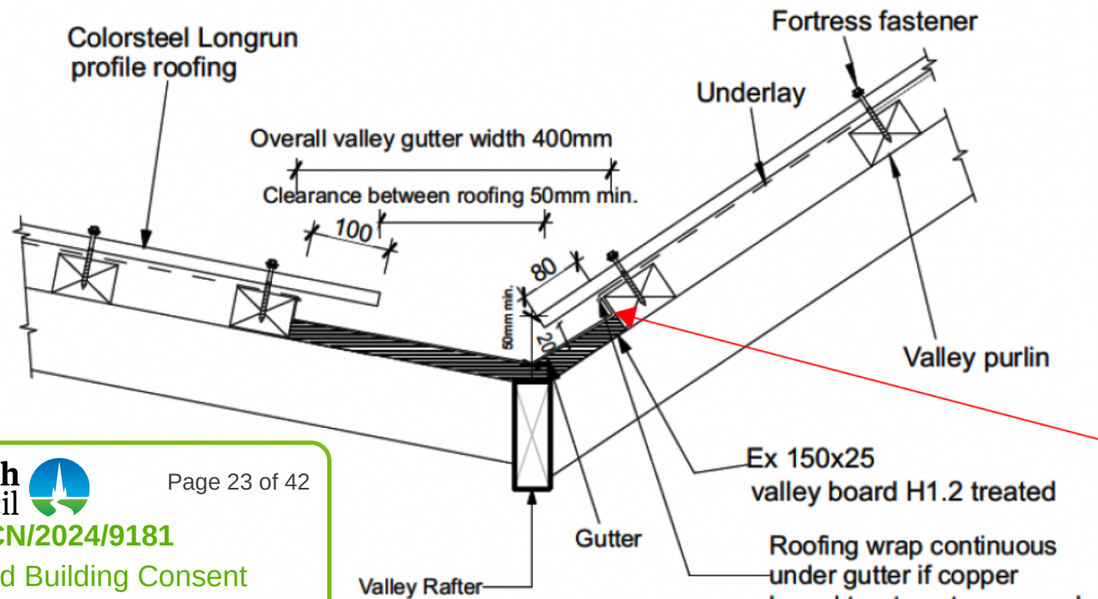
SHEET TITLE:
Roof Details

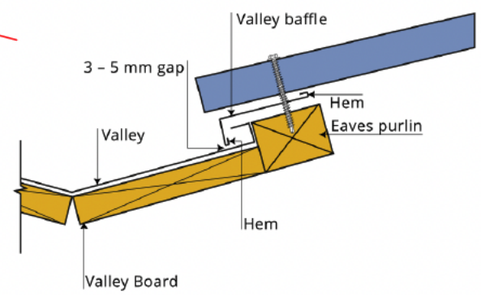
DRAWING SCALE: 1:10

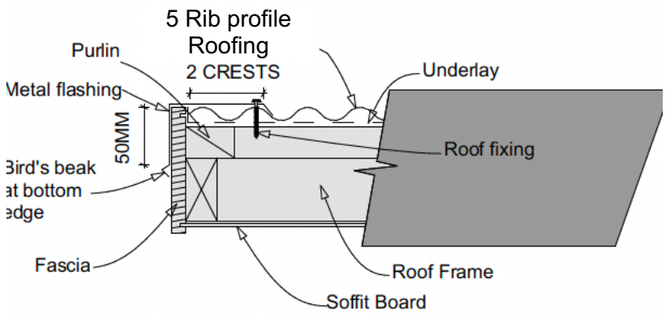
SHEET
21



Roof Valley 1:10

5.5.6A **Valley Baffle**





Corrugate Barge Detail 1:2

Table 10.10 – Purlins on their flat in all wind zones – SG 8 (see 10.2.1.16.1)

Purlin size	Max. span	Maximum spacing and fixing in the following wind zones									
		Low		Medium		High		Very high		Extra high	
		Spacing	Fixing	Spacing	Fixing	Spacing	Fixing	Spacing	Fixing	Spacing	Fixing
	(mm)	(mm)	(type)	(mm)	(type)	(mm)	(type)	(mm)	(type)	(mm)	(type)
70 x 45	900	900	S	900	T	900	T	900	T	900	U
70 x 45	900	1200	T	1200	T	1200	T	1050	U	900	U
70 x 45	900	1800	T	1800	U	1400	U	1050	U	900	U
70 x 45	1200	1200	T	1150	T	800	T	600	T	500	T
70 x 45	1200	1300	T	1150	T	800	T	600	T	500	T
90 x 45	1200	1700	T	1450	U	1000	U	750	U	650	U

Fixing type	Description	Alternative fixing capacity (kN)
S	2 / 90 x 3.15 gun nails	0.8
T	1 / 10g self-drilling screw, 80 mm long	2.4
U	1 / 14g self-drilling type 17 screw, 100 mm long	5.5

NOTE – All fixing types are determined as required for the higher uplift loads at the periphery of the roof (based on local pressure factors in AS/NZS 1170.2).

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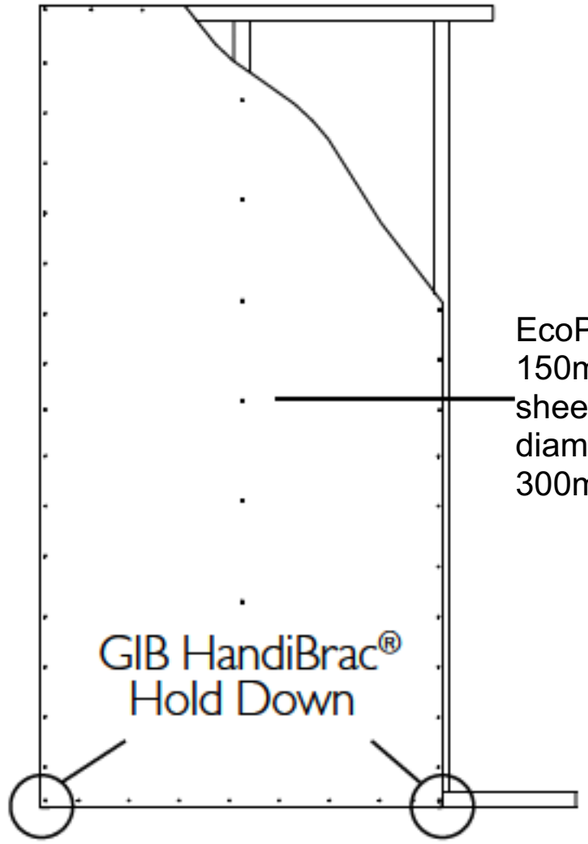
SHEET TITLE:
Roof Details

DRAWING SCALE:

SHEET
22

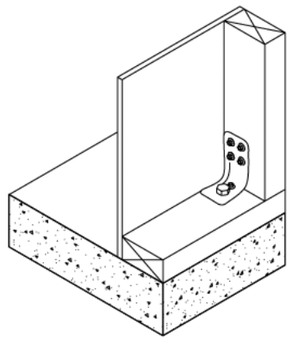
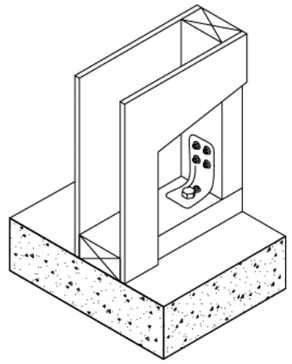
Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.



EcoPly fixed with 50x2.8mm nails at 150mm centres to perimeter of each sheet at no less than 7mm or 3 fastener diameters from sheet edge and at 300mm centres to intermediate studs

INSTALL STAINLESS STEEL FIXINGS TO ALL EXTERNAL CCA TREATED PLYWOOD BRACING ELEMENTS

Concrete Floor

External Walls	Internal Walls
	
Position GIB HandiBrac® as close as practicable to the internal edge of the bottom plate	Position GIB HandiBrac® at the stud/ plate junction

Hold-down fastener requirements

A mechanical fastening with a minimum characteristic uplift capacity of 15kN or screw bolt supplied with the bracket

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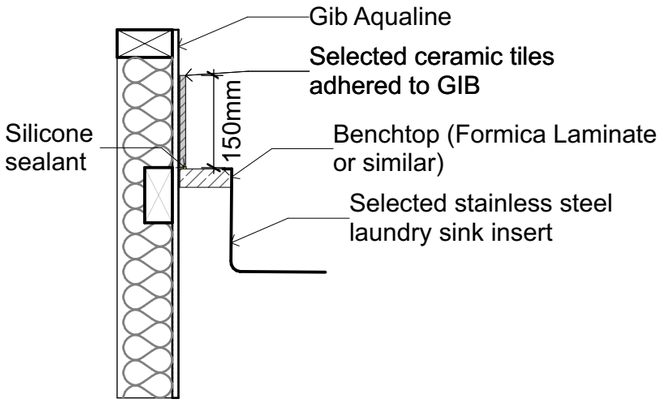
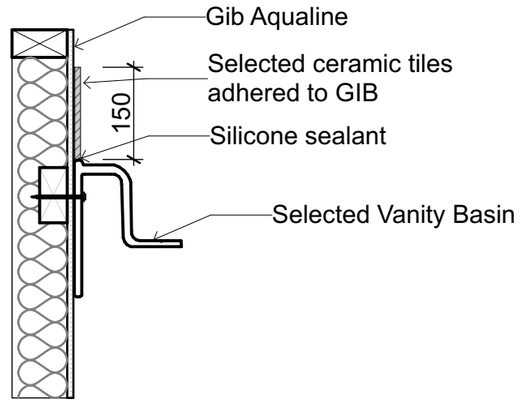
SHEET TITLE:
Gib Fixing Details

DRAWING SCALE:

SHEET
23

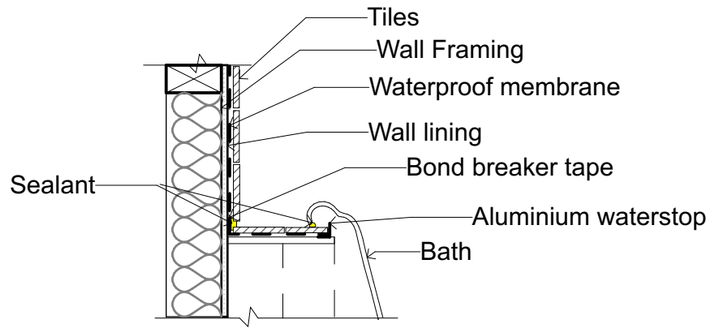


Laundry tub to Wall Detail



Vanity basin to Wall Detail

Waterproofing Detail 1:10



Bath Hob 1:10

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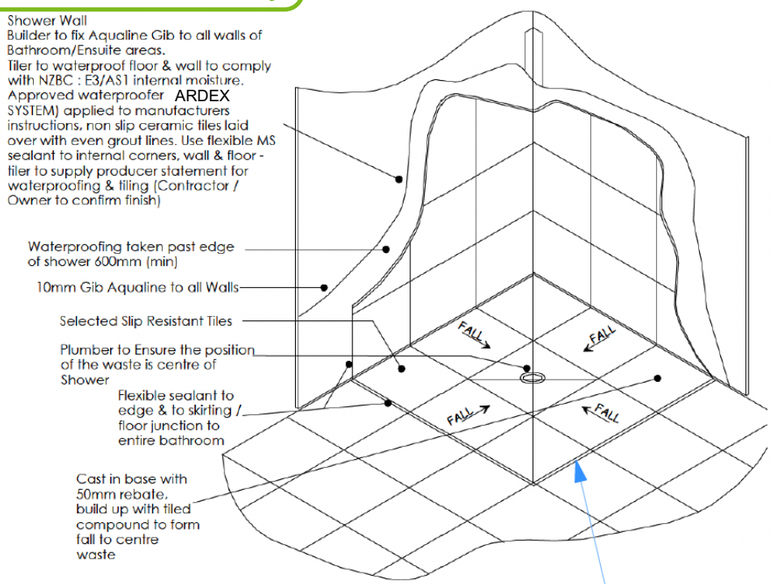
SHEET TITLE:
Bathroom Details

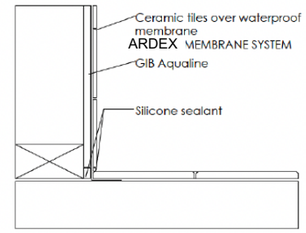
DRAWING SCALE: 1:10

SHEET
24

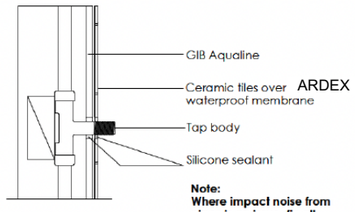
Shower Wall
Builder to fix Aqualine Gib to all walls of Bathroom/Ensuite areas.
Tiler to waterproof floor & wall to comply with NZBC : E3/AS1 internal moisture. Approved waterproofer ARDEX SYSTEM) applied to manufacturers instructions, non slip ceramic tiles laid over with even grout lines. Use flexible MS sealant to internal corners, wall & floor - tiler to supply producer statement for waterproofing & tiling (Contractor / Owner to confirm finish)



TILED SHOWER INSTALLATION DETAIL

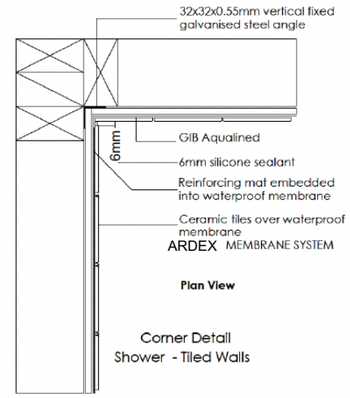


Wall/Floor Detail Tiled Walls



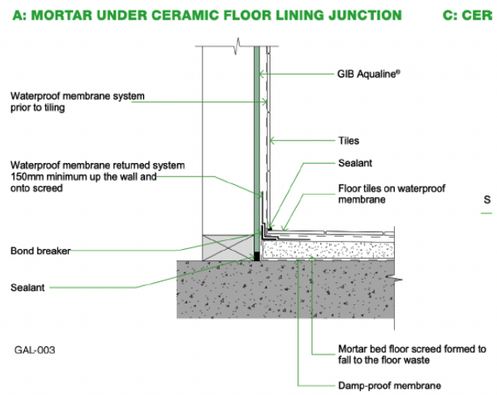
Penetration Detail
Tiled Walls

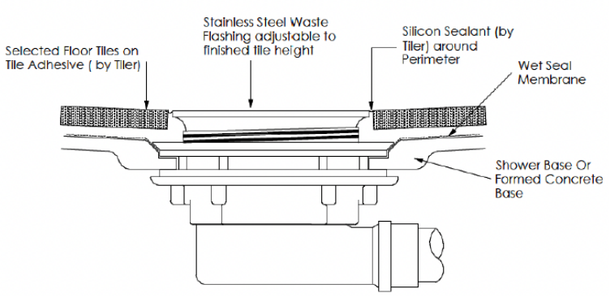
Note:
Where impact noise from pipes is an issue, fix all pipes on resilient brackets.

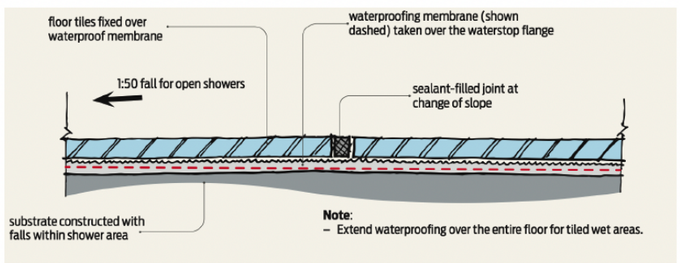


Corner Detail
Shower - Tiled Walls

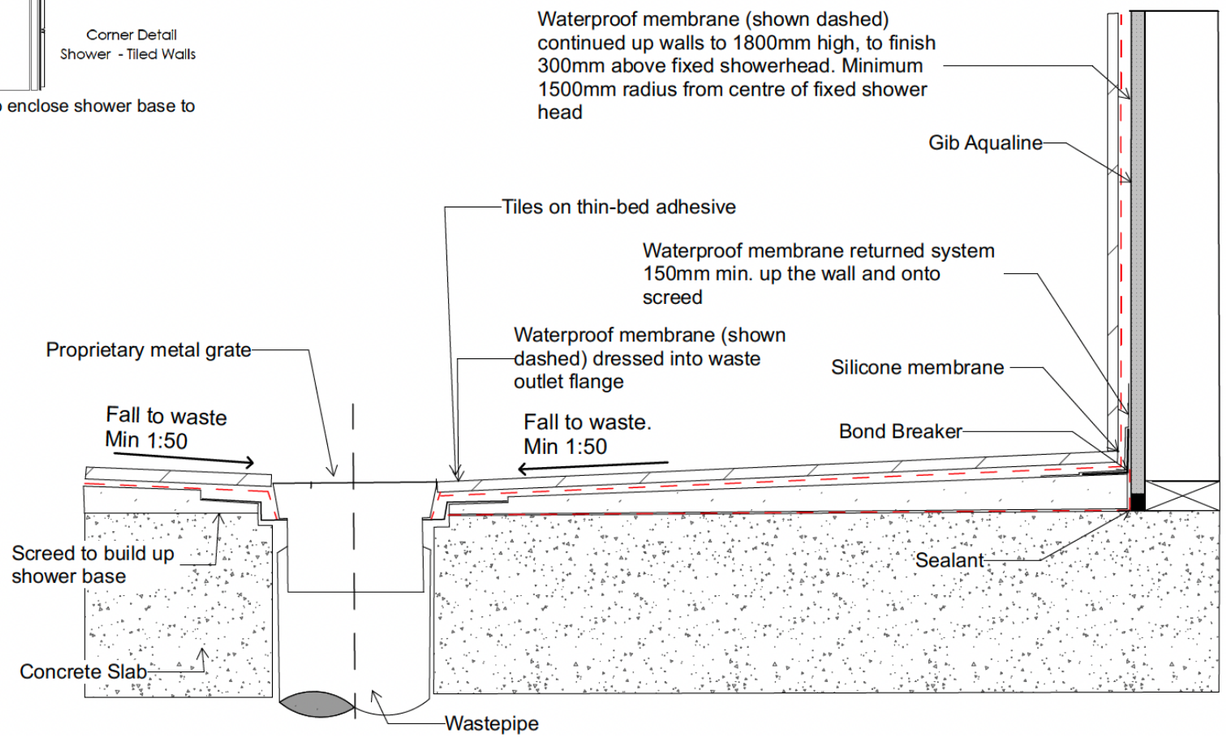
Glass framing (with door) to enclose shower base to make 1x1m enclosure.







Waterproof membrane (shown dashed) continued up walls to 1800mm high, to finish 300mm above fixed showerhead. Minimum 1500mm radius from centre of fixed shower head



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SHEET TITLE:
Tiled Shower Details

DRAWING SCALE:

SHEET
25

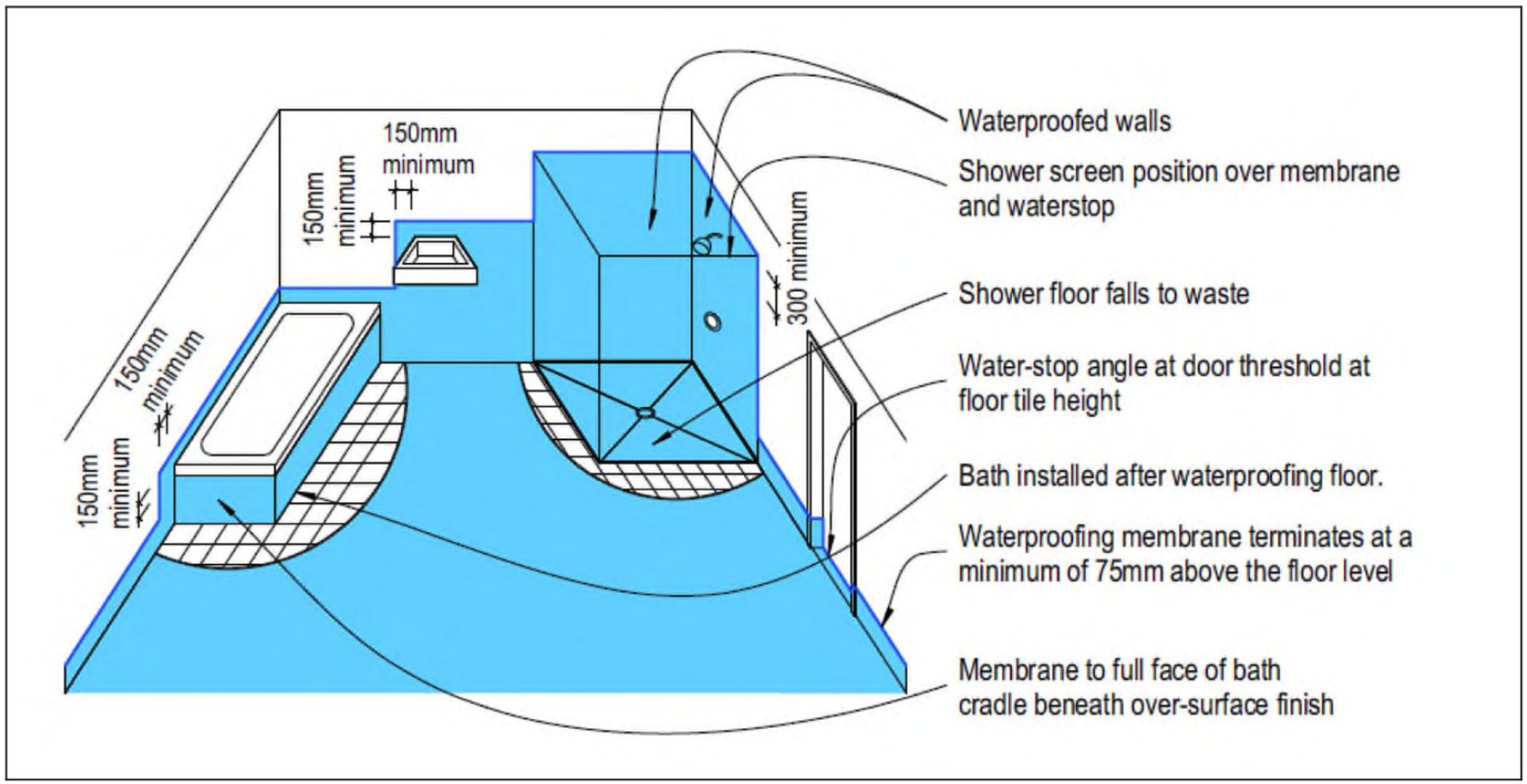

Figure 6: Typical extent of membrane in bathroom with hobless shower area

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SHEET TITLE:
Bathroom/wet area Details
DRAWING SCALE:

SHEET
26

WALL FIXING CHART

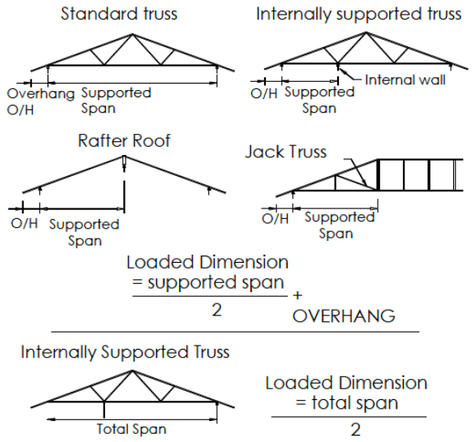
STUD TO TOP PLATE FIXING SCHEDULE

(ALTERNATIVE TO NZS 3604:2011 TABLE 8.18)

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, NZS3604:2011 for nailing schedule to resist lateral loads.
* These fixings assume the correct choice of rafter/truss to top plate connections have been made. Refer to the LUMBERLOK Truss Fixing Chart.
* Gable end wall top plate/stud connections where the adjacent rafter/truss is located within 1200mm of gable end wall with a maximum verge overhang of 750mm, requires fixing type A as shown below.
* 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

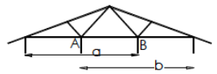


Loaded Dimension = supported span / 2 + OVERHANG

Internally Supported Truss

Loaded Dimension = total span / 2

Multiple Internal Walls



Loaded Dimension For
Wall A = a/2
Wall B = b/2

SELECTION CHART FOR FIXING LOADS - TOP PLATE TO STUD

Loaded Dimension	Loaded Dimension	Loaded Dimension	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

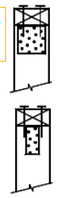
FIXING OPTIONS

FIXING TYPE A 0.7kN

2/90x3.15 plain steel wire nails driven vertically into.

FIXING TYPE B 4.7kN

CHOOSE ANY OF THE THREE OPTIONS



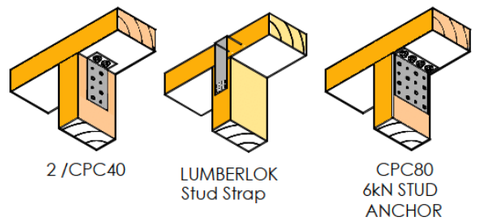
2/90x3.15 plain steel wire nails driven vertically into, plus LUMBERLOK 6kN Stud Anchor (CPC80)

2/90x3.15 plain steel wire nails driven vertically into, plus 2 x LUMBERLOK CPC40

Recommended for internal wall options to avoid lining issues

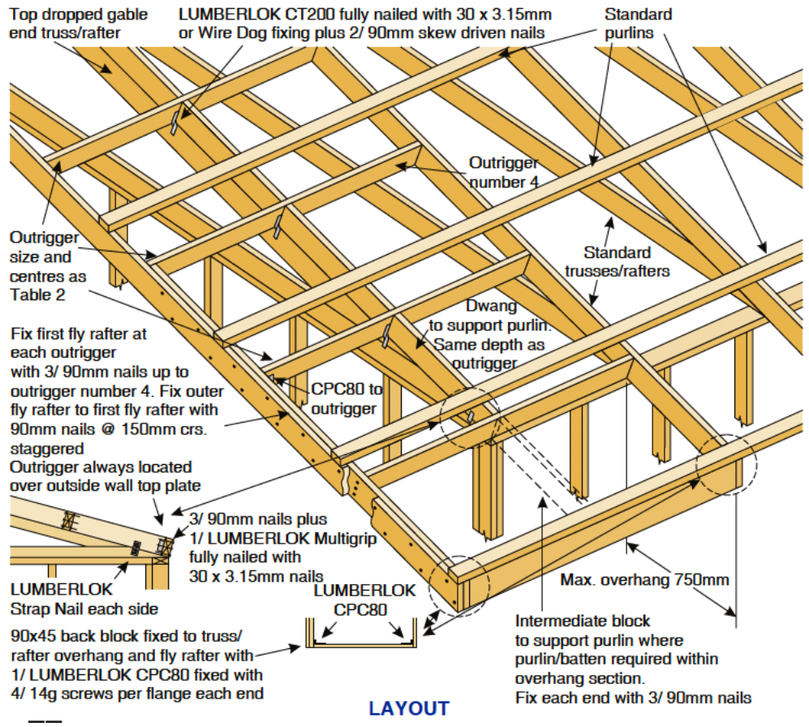
OR

2/90x3.15 plain steel wire nails driven vertically into stud, plus LUMBERLOK Stud strap (one face only)



Suitable for walls supporting roof members @ 600, 900 or 1200mm crs.

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



LAYOUT

Gable Verge Details

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SHEET TITLE:
Stud and Lintel Fixings

DRAWING SCALE:

SHEET
27

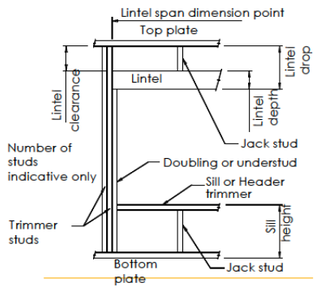
Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.

WALL FIXING CHART

LINTEL FIXING SCHEDULE

(ALTERNA TIVE TO NZS 3604:2011 TABLE 8.14 & FIGURE 8.12)

DEFINITIONS



SELECTION CHART FOR LINTEL FIXING

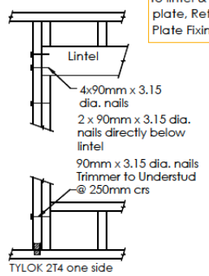
Lintel Span	Loaded Dimension (See Fig 1.8 NZS 3604:2011)	Light Roof Wind Zone					Heavy Roof Wind Zone				
		L	M	H	VH	EH	L	M	H	VH	EH
0.7	2.0	E	E	E	E	F	E	E	E	E	E
	3.0	E	E	E	F	F	E	E	E	E	F
	4.0	E	E	F	F	F	E	E	E	F	F
	5.0	E	F	F	F	G	E	E	F	F	F
	6.0	E	F	F	G	G	E	E	F	F	G
0.9	2.0	E	E	E	F	F	E	E	E	E	F
	3.0	E	E	F	F	F	E	E	E	F	F
	4.0	E	E	F	F	F	E	E	F	F	F
	5.0	E	F	F	F	G	E	E	F	F	F
	6.0	E	F	F	G	G	E	E	F	F	G
1.0	2.0	E	E	E	F	F	E	E	E	E	F
	3.0	E	E	F	F	F	E	E	E	F	F
	4.0	E	F	F	F	G	E	E	F	F	F
	5.0	E	F	F	G	G	E	E	F	F	G
	6.0	E	F	F	G	G	E	E	F	F	G
1.2	2.0	E	E	F	F	F	E	E	E	F	F
	3.0	E	E	F	F	F	E	E	F	F	F
	4.0	E	F	F	G	G	E	E	F	F	G
	5.0	E	F	F	G	G	E	E	F	F	G
	6.0	F	F	G	G	H	E	E	F	G	G

Lintel Span	Loaded Dimension (See Fig 1.8 NZS 3604:2011)	Light Roof Wind Zone					Heavy Roof Wind Zone				
		L	M	H	VH	EH	L	M	H	VH	EH
1.5	2.0	E	E	F	F	F	E	E	E	F	F
	3.0	E	F	F	F	G	E	E	F	F	F
	4.0	E	F	F	G	G	E	E	F	F	G
	5.0	F	F	G	G	H	E	E	F	G	G
	6.0	F	F	G	H	H	E	E	F	G	H
2.0	2.0	E	F	F	F	G	E	E	F	F	F
	3.0	E	F	F	G	G	E	E	F	F	G
	4.0	E	F	G	G	H	E	E	F	G	G
	5.0	F	F	G	H	H	E	E	F	G	H
	6.0	F	G	G	H	H	E	F	G	H	H
2.4	2.0	E	F	F	G	G	E	E	F	F	G
	3.0	F	F	G	G	H	E	E	F	G	G
	4.0	F	G	G	H	H	E	E	F	G	H
	5.0	F	G	G	H	H	E	F	G	H	H
	6.0	F	G	H	H		E	F	G	H	H
3.0	2.0	E	F	F	G	G	E	E	F	F	G
	3.0	F	F	G	H	H	E	E	F	G	H
	4.0	F	G	G	H	H	E	F	G	H	H
	5.0	F	G	H	H	-	E	F	G	H	H
	6.0	F	G	H	-	-	E	F	G	H	-
3.6	2.0	F	F	G	G	H	E	E	F	G	G
	3.0	F	F	G	H	H	E	F	G	G	H
	4.0	F	G	H	H	-	E	F	G	H	H
	5.0	F	G	H	-	-	E	F	G	H	-
	6.0	G	H	H	-	-	E	F	H	-	-
4.2	2.0	F	F	G	G	H	E	E	F	G	G
	3.0	F	G	H	H	-	E	F	G	H	H
	4.0	F	G	H	-	-	E	F	G	H	-
	5.0	G	H	H	-	-	E	F	H	-	-
	6.0	G	H	-	-	-	E	F	H	-	-
4.5	2.0	F	F	G	H	H	E	E	F	G	H
	3.0	F	G	H	H	-	E	F	G	H	H
	3.4	F	G	H	H	-	E	F	G	H	-
	4.0	F	G	H	-	-	E	F	G	H	-
	5.0	G	H	-	-	-	E	F	H	-	-
	6.0	G	H	-	-	-	E	F	H	-	-
4.8	2.0	F	F	G	H	H	E	E	F	G	H
	3.0	F	G	H	H	-	E	F	G	H	H
	3.2	F	G	H	H	-	E	F	G	H	-
	4.0	F	G	H	-	-	E	F	H	H	-
	5.0	G	H	-	-	-	E	F	H	-	-
	6.0	G	H	-	-	-	E	F	H	-	-

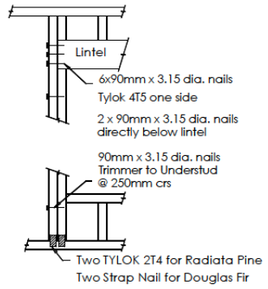
LINTEL FIXING TYPES

TYPE E
1.4kN

Fixing of jack stud to lintel & top plate, Refer to Top Plate Fixing Schedule.



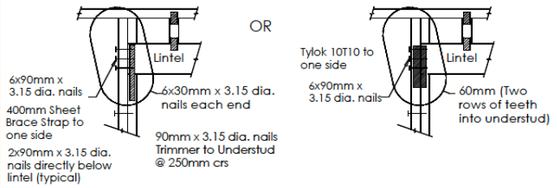
TYPE F
4.0kN

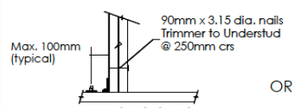


Stud numbers indicative only Refer Table 8.5 NZS 3604:2011

TYPE G
7.5kN

Fixing of jack stud to lintel & top plate, Refer to Top Plate Fixing Schedule.





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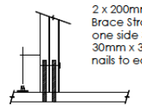
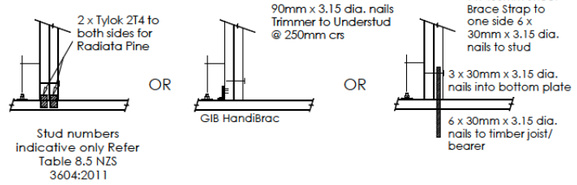
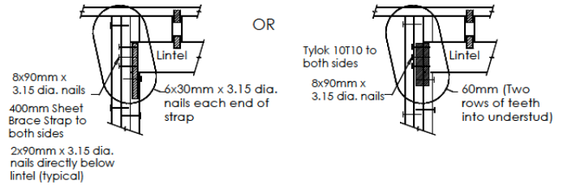
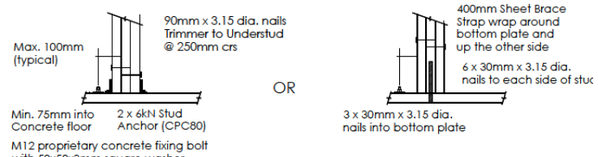
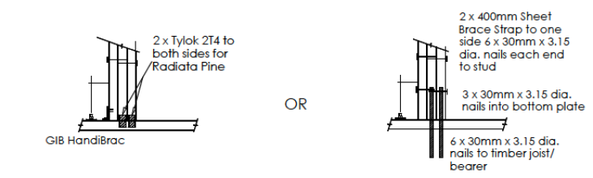




TYPE H
13.5kN







NOTES:

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

KW KATE WORNER Architectural Design

REVISION #:

ISSUED: 20/11/24

PROJECT #: #Pln

Forge Homes

11 Twin Meadows Drive
Christchurch

ADDRESS: TBA

MOBILE: TBA

#Contact E-mail jonroberts07@hotmail .com

SHEET TITLE:

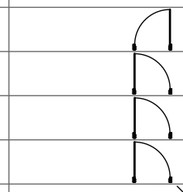
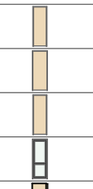
Stud and LIntel Fixings

SHEET 28

DRAWING SCALE:

Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.

All Openings Schedule

Full Element ID	Opening Name	Quantity	W x H Size	Sill height	2D Symbol	View from Side Opposite to Opening Side
D012	CI Tools Door	1	760×2,150	0		
D012	CI Tools Door	5	810×2,150	0		
D013	CI Tools Door	1	760×2,150	0		
D013	CI Tools Door	1	810×2,150	0		
D013	Pocket Door 26	1	760×2,100	0		
D013	Pocket Door 26	1	760×2,150	0		
D013	Pocket Door 26	1	810×2,150	0		
D013	Pocket Door 26	1	860×2,150	0		
D014	Sliding Folding Multi…	1	1,350×2,150	0		
D015	Door with 2 Sidelight…	1	1,900×2,150	0		
D025	CI Tools Garage Door	1	4,800×2,200	0		
D027	CI Tools Door	1	2,600×2,150	0		
D027	CI Tools Door	2	1,800×2,150	0		
D028	CI Tools Door	1	1,800×2,150	0		
W003	CI Tools Window	2	1,800×1,350	800		
W006	CI Tools Window	2	650×1,200	950		
W007	CI Tools Window	1	1,600×1,350	800		
W007	CI Tools Window	1	2,200×2,150	0		
W007	CI Tools Window	1	2,400×2,150	0		
W007	CI Tools Window	1	3,300×2,150	0		
W008	CI Tools Window	1	2,000×700	1,550		
W008	CI Tools Window	1	2,400×600	1,550		
W019	CI Tools Window	1	1,550×2,150	0		
W019	CI Tools Window	2	900×2,150	0		
W020	CI Tools Window	1	2,000×2,150	0		
W022	CI Tools Window	1	2,300×600	1,550		
W022	CI Tools Window	1	600×2,150	0		
W022	CI Tools Window	2	1,200×2,150	0		
W022	CI Tools Window	2	800×2,150	0		

LICENSED BUILDING PRACTITIONER BUILDING CONFIDENCE

KW KATE WORNER Architectural Design

REVISION #:
ISSUED: 20/11/24
PROJECT #: #Pln

Forge Homes

11 Twin Meadows Drive
Christchurch

ADDRESS: TBA
MOBILE: TBA
#Contact E-mail jonroberts07@hotmail .com

SHEET TITLE: Window and Door Details

SHEET

DRAWING SCALE:

Christchurch City Council
BCN/2024/9181
Approved Building Consent Document
24/12/2024 Jose, Abby

Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.

LICENSED BUILDING PRACTITIONER
BUILDING CONFIDENCE

KW KATE WORNER
Architectural Design

REVISION #:
ISSUED: 20/11/24
PROJECT #: #Pln

Forge Homes

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Christchurch

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SHEET TITLE:
3D View

DRAWING SCALE:

SHEET
30

Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.

LICENSED BUILDING PRACTITIONER BUILDING CONFIDENCE

KW KATE WORNER Architectural Design

REVISION #:	
ISSUED:	20/11/24
PROJECT #:	#Pln

Forge Homes

11 Twin Meadows Drive
Christchurch

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MOBILE: TBA

#Contact E-mail jonroberts07@hotmail .com

SHEET TITLE:
3D View

DRAWING SCALE:

SHEET
31

Contractor shall verify all dimensions on site, before commencing any work. All dimensions are in millimetres unless otherwise specified. All construction to comply with NZBC/NZS:3604 2011, alongside all current standards alike.

K | W KATE WORNER Architectural Design

REVISION #:	
ISSUED:	20/11/24
PROJECT #:	#Pln

Forge Homes

11 Twin Meadows Drive
Christchurch

ADDRESS: TBA

MOBILE: TBA

#Contact E-mail jonroberts07@hotmail .com

SHEET TITLE:
Birdseye Floor Plan

DRAWING SCALE: 1:100

SHEET
32

Forge Homes
Roberts House

11 Twin Meadows Drive, Casebrook, 8051

File Number 24008.065

ENGCO Consulting Engineers

AUCKLAND CHRISTCHURCH NELSON QUEENSTOWN

STRUCTURAL DRAWINGS

Issue Register

Rev	Date	Description
-	30.10.24	For Consent

Sheet List

Sheet No.	Rev	Date Issued	Sheet Title
S1	-	30.10.24	General Notes
S2	-	30.10.24	RibRaft Layout Foundation Plan
S3	-	30.10.24	RibRaft Details
S4	-	30.10.24	RibRaft Details
S5	-	30.10.24	RibRaft Details
S6	-	30.10.24	Typical Services Penetration Details
S7	-	30.10.24	Structural Details
S8	-	30.10.24	Structural Details

GENERAL

- 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.

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

100mm Floor Slab - 220mm pods
(20MPa min. TC2 Dramix 4D 80/60 Fibre Mix)
G500E SE-62 Ductile mesh on 50mm chairs

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.

REINFORCEMENT

- All reinforcing shall be New Zealand sourced and conform to AS/NZS 4671 :2001 in grade 300E 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 300E deformed bars shall be designated 'D' and Grade 300E round bars shall be designated 'R'.
- Minimum bar lap.

	H12 bars	H16 bars
L	720mm	900mm

- 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).

GEOTECHNICAL REFERENCE:

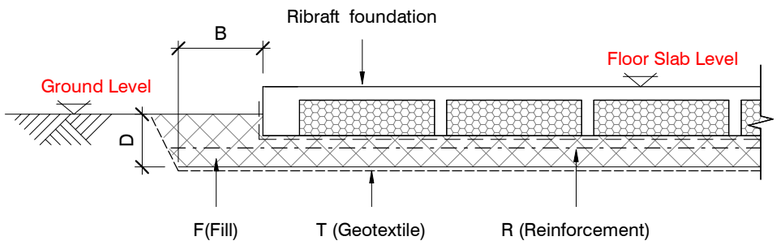
Refer: David Lovell-Smith
Foundation Soils Investigation
Ref. No: 20962
Dated: 14/04/2023
Bearing: 200kPa

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.

INSPECTIONS REQUIRED

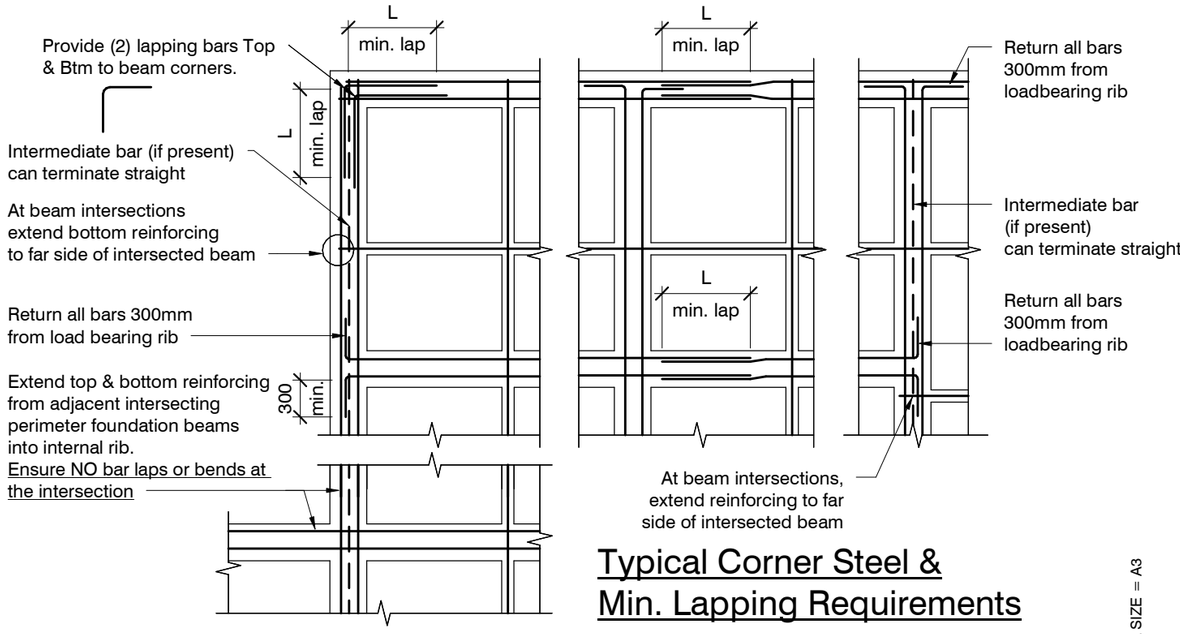
1. Confirm bearing at excavation - by ENGCO
2. Contractor to supply (4) N.D. Tests at finished compacted surface - if depth of fill is greater than 400mm.
3. Pre-pour of slab - by ENGCO



BUILDING PLATFORM

BUILDING PLATFORM TABLE:	
B	600mm
D	400-600 bgl (approx). Remove organic topsoil only.
T	N/A
R	N/A
F	AP40 or AP65 fill - 95% Dry Density. Compact in 150mm layers max.

Refer Architectural drawings for Finished Floor Level



Typical Corner Steel & Min. Lapping Requirements

N.T.S.

ORIGINAL SIZE = A3

revisions

-	30.10.24	For Consent

ENGCO Consulting Engineers
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CHRISTCHURCH | NELSON | QUEENSTOWN

KW KATE WORNER Architectural Design

Roberts House

11 Twin Meadows Drive, Casebrook, 8051

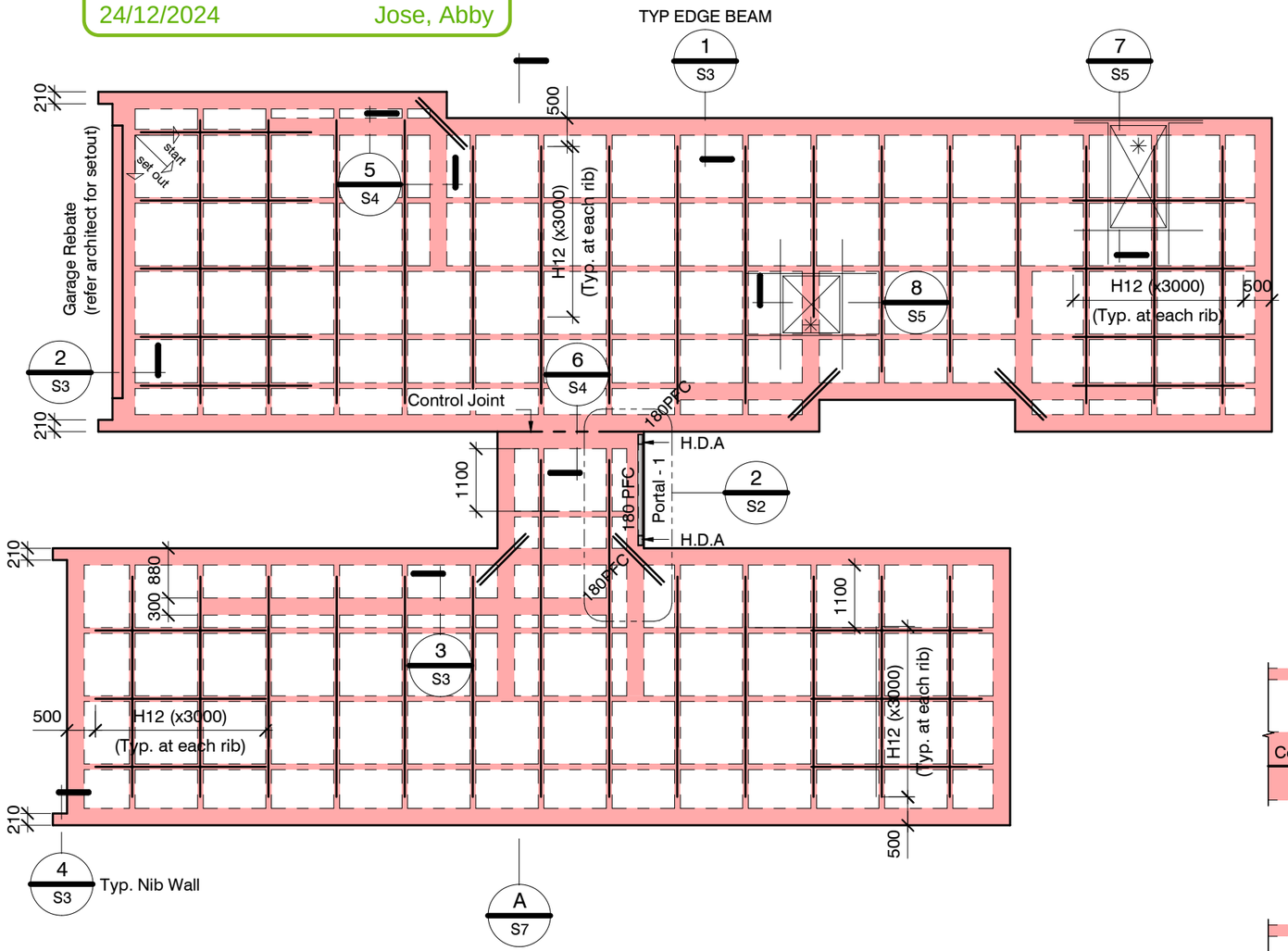
General Notes

design C. Gleeson
drawn J. Grant
appvd M.Cusiel
date October 2024

file 24008.065
dwg S1
rev. -

SLAB PLAN SETOUT:
Slab drawn to Architectural framing and DOES NOT ACCOUNT FOR ANY OVERHANG.
Use Architectural drawings for any framing overhang information which may affect slab dimensions.

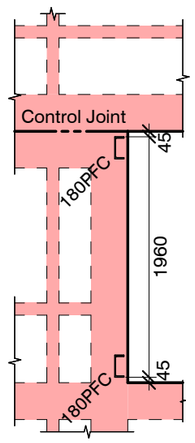
✳ 50mm shower rebate, maintain min. slab thickness Trim perimeter with H12. extending 750mm past (typ.) (or 300mm return)
Refer to Architects drawings for setout dimensions



RIBRAFT FOUNDATION LAYOUT PLAN

1 : 100

Refer Architects drawings for slab dimensions



2 S2 1 : 50

contractor shall verify all dimensions before commencing work

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 thickenings

Vertical or horizontal penetrations through the foundation edge beam or floor beam thickenings 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.

KEY:

(2) H12 (x1200) at 200 crs.

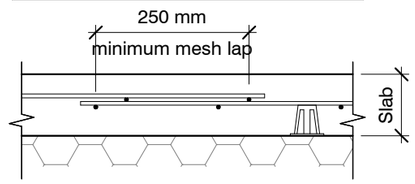
1100 x 1100 pod (typ.)

H.D.A Hold Down Anchor

100mm Floor Slab - 220mm pods
(20MPa min. TC2 Dramix 4D 80/60 Fibre Mix)
G500E SE-62 Ductile mesh on 50mm chairs

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).



ORIGINAL SIZE = A3

revisions

-	30.10.24	For Consent

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CHRISTCHURCH | NELSON | QUEENSTOWN

KW KATE WORNER Architectural Design

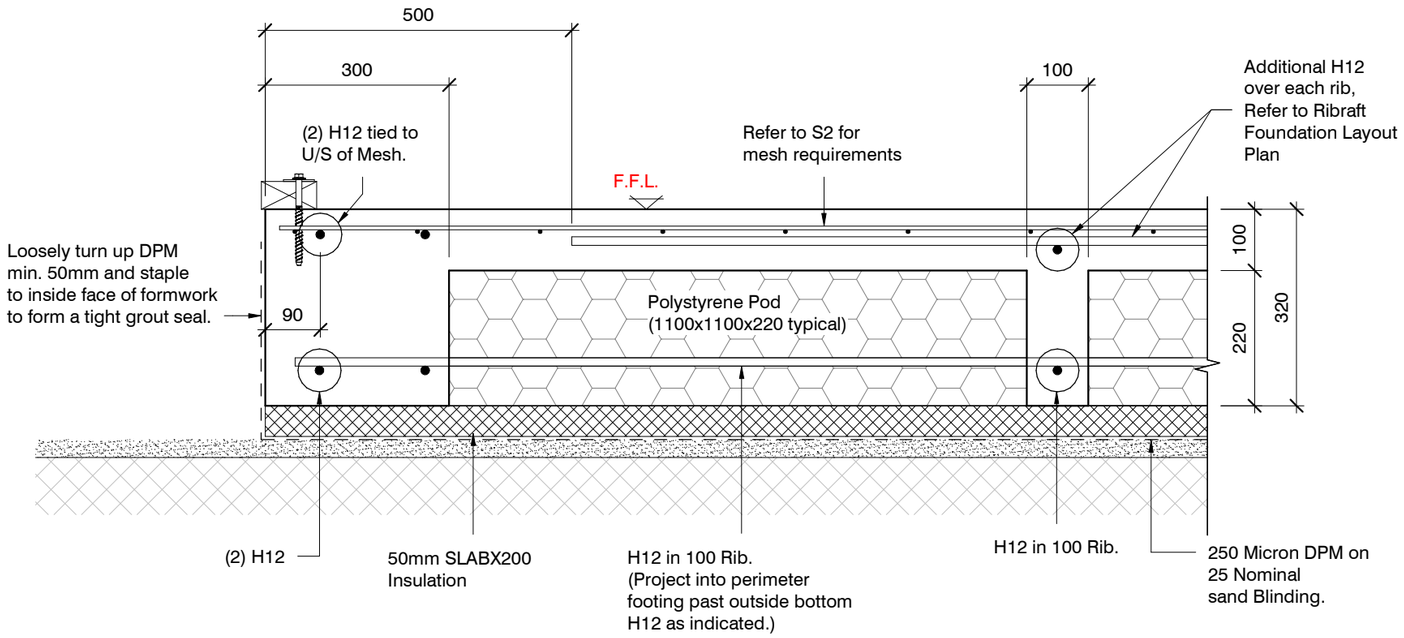
Roberts House
11 Twin Meadows Drive, Casebrook, 8051

RibRaft Layout
Foundation Plan

design C. Gleeson
drawn J. Grant
appvd M.Cusiel
date October 2024

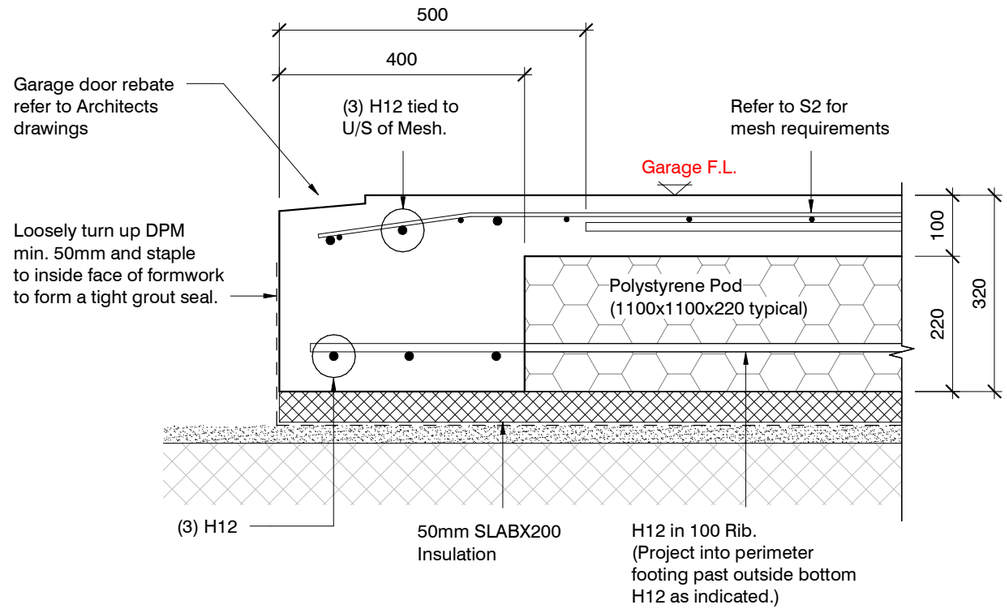
file 24008.065
dwg S2
rev. -

contractor shall verify all dimensions before commencing work



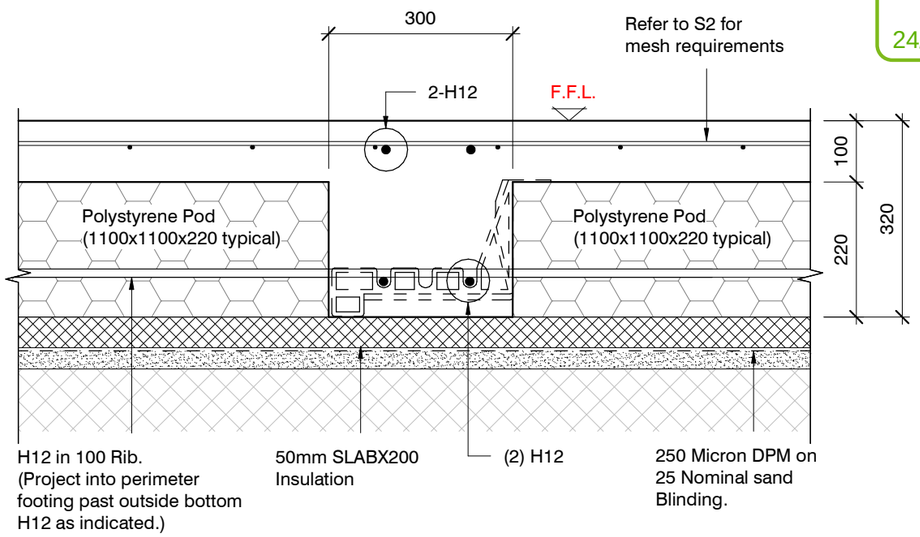
SECTION 1 / S2 — TYPICAL 300 WIDE EDGE BEAM

1 : 10



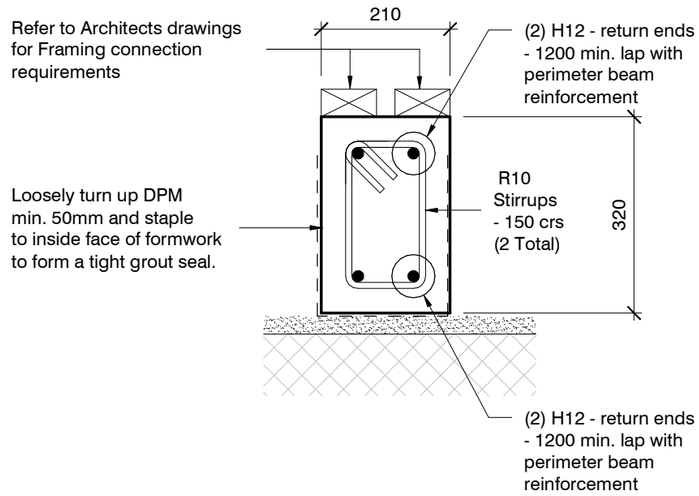
SECTION 2 / S2 — GARAGE DOOR REBATE

1 : 10



SECTION 3 / S2 — TYPICAL 300 WIDE INTERNAL BEAM

1 : 10



SECTION 4 / S2 — TYPICAL WING WALL

1 : 10

ORIGINAL SIZE = A3

revisions

-	30.10.24	For Consent

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www.engco.nz
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KW KATE WORNER Architectural Design

Roberts House

11 Twin Meadows Drive, Casebrook, 8051

RibRaft Details

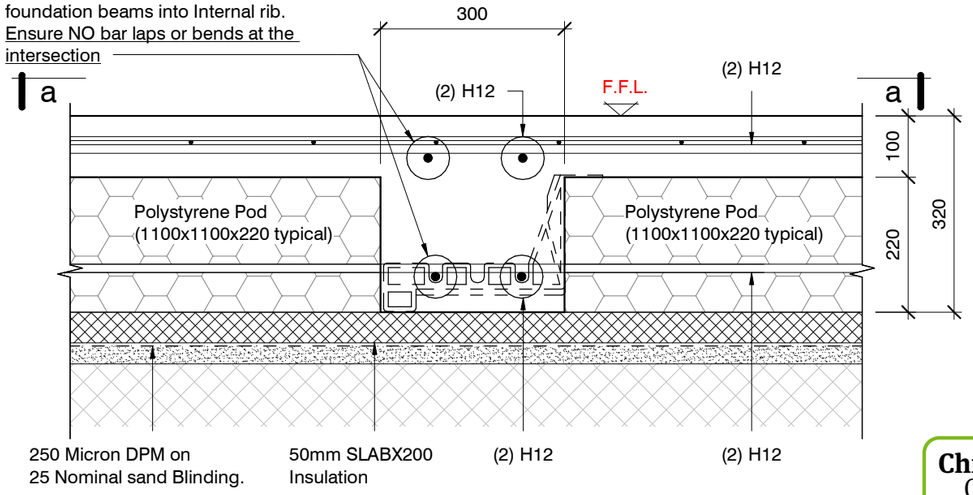
design	C. Gleeson
drawn	J. Grant
appvd	M.Cusiel
date	October 2024

file 24008.065

dwg S3

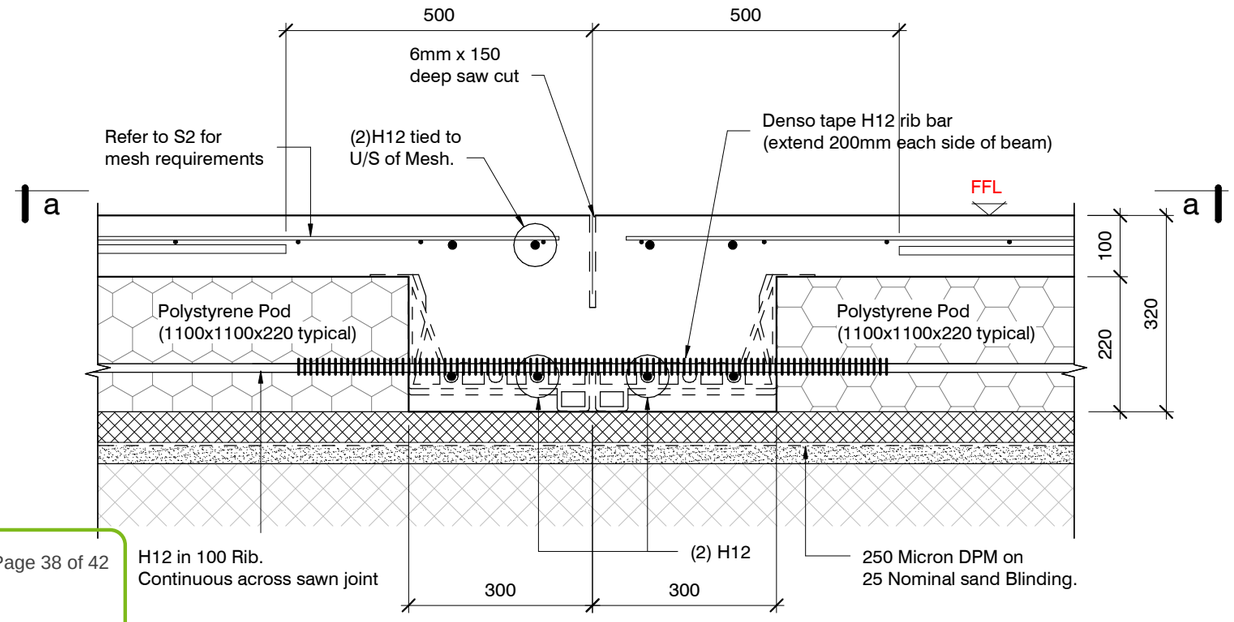
rev. -

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



SECTION 5 S2
1 : 10

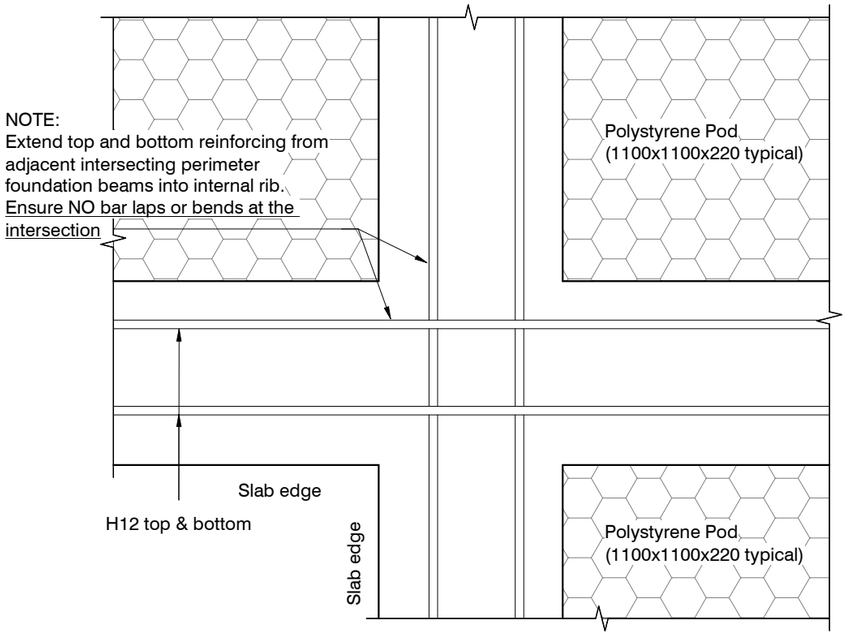
TYPICAL 300 WIDE EXTERNAL CORNER BEAMS



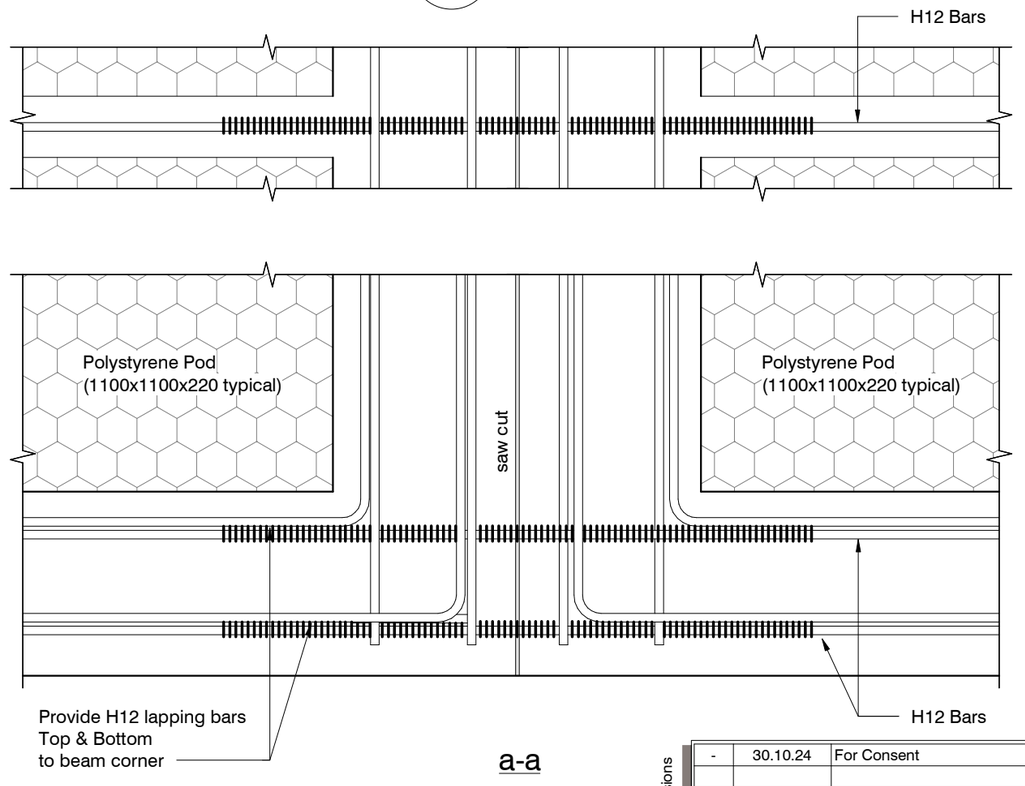
SECTION 6 S2
1 : 10

TYPICAL TIED SAWN JOINT

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



a-a



a-a

ORIGINAL SIZE = A3

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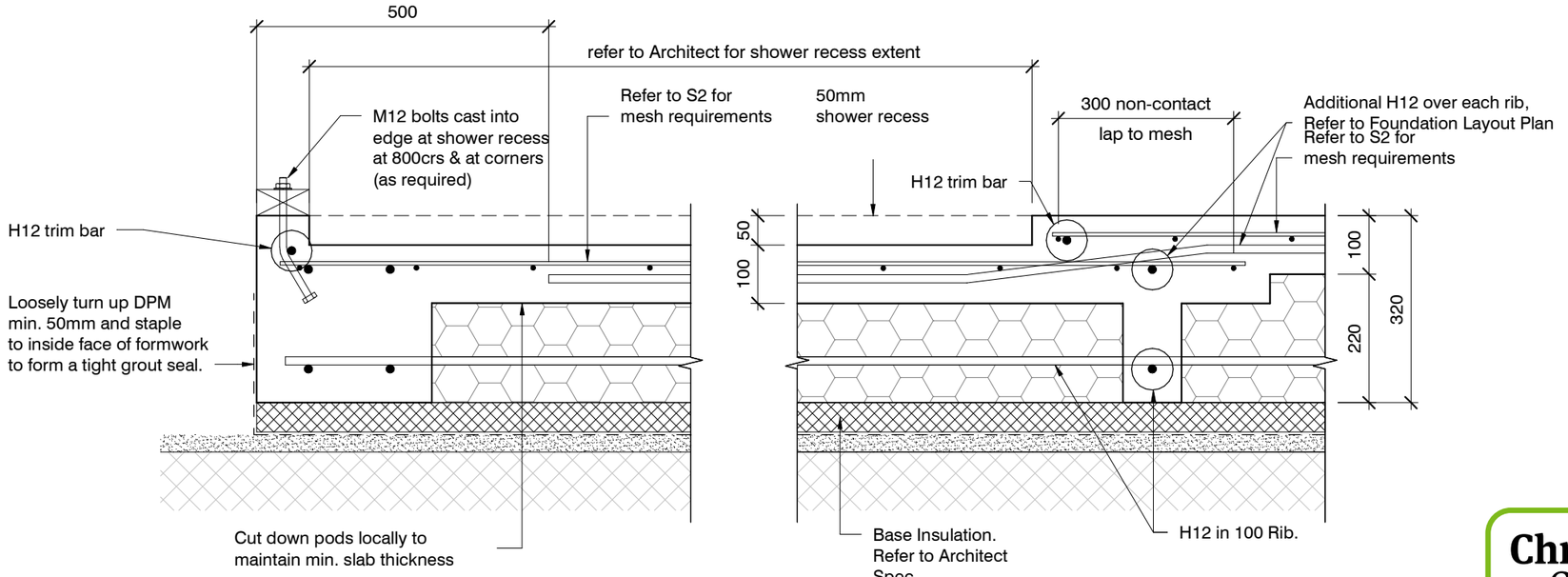
RibRaft Details

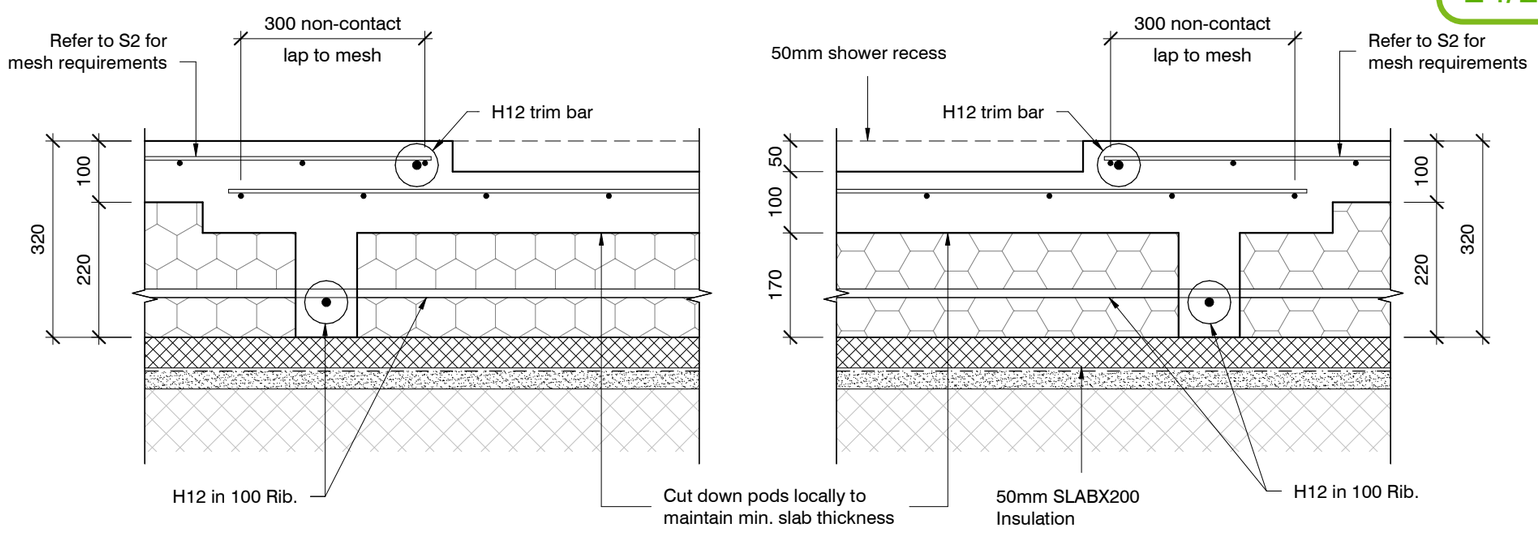
design	C. Gleeson
drawn	J. Grant
appvd	M.Cusiel
date	October 2024

file 24008.065
dwg S4
rev. -

contractor shall verify all dimensions before commencing work



SECTION 7 / S2 SHOWER RECESS
1 : 10



SECTION 8 / S2 SHOWER RECESS
1 : 10

ORIGINAL SIZE = A3

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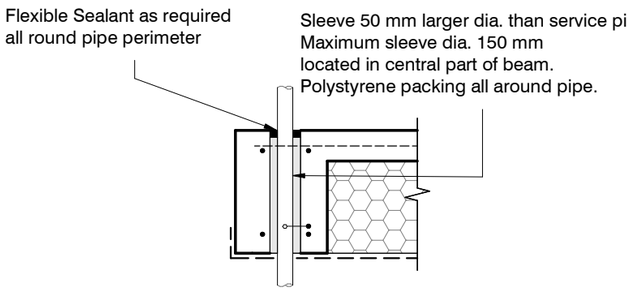
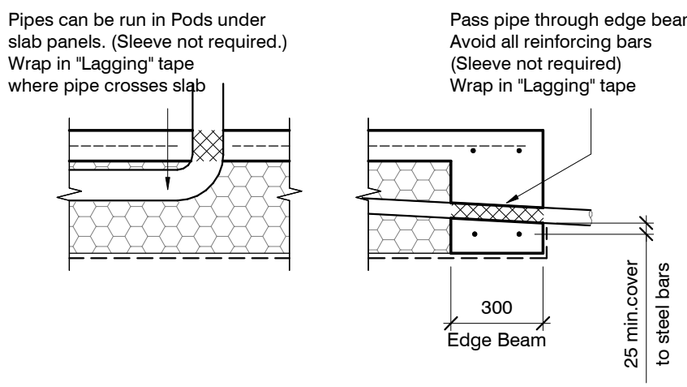
RibRaft Details

design C. Gleeson
drawn J. Grant
appvd M.Cusiel
date October 2024

file 24008.065
dwg S5
rev. -

contractor shall verify all dimensions before commencing work

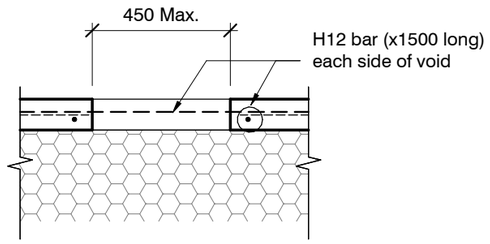




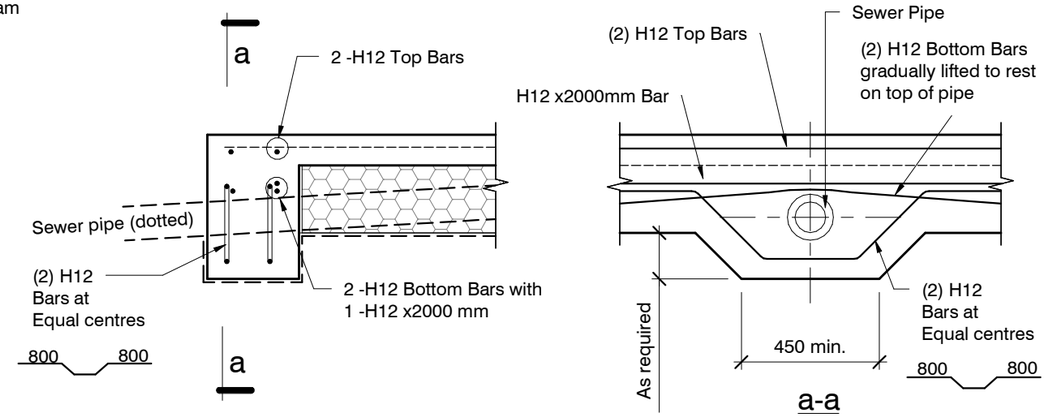
SLAB SERVICES PENETRATION DETAIL

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

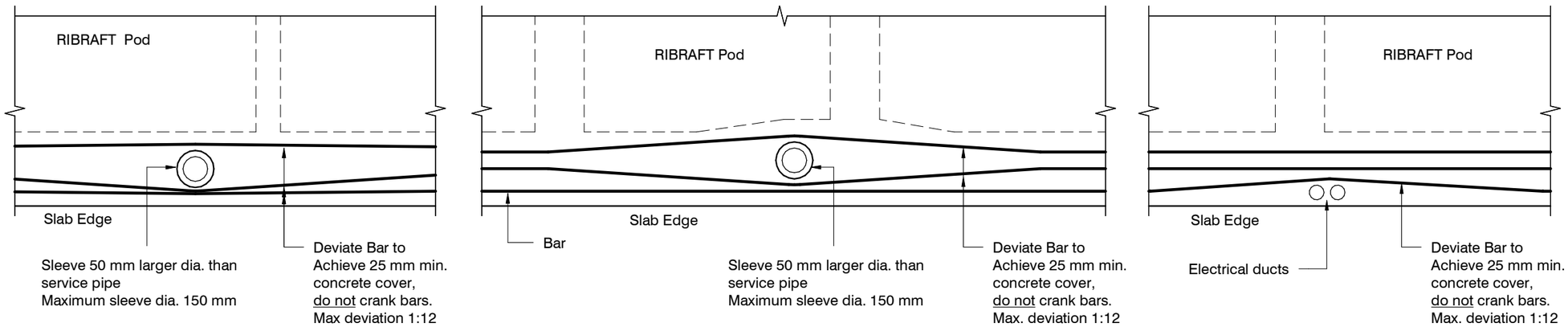
PENETRATIONS NOTE:
Where penetrations through
Floor Slab exceed 450 mm Square,
Crack Control Bars will be required.



LARGE SLAB PENETRATION DETAIL



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



Do not cut longitudinal reinforcement bars.

FOUNDATION SERVICES PENETRATION DETAILING.

Services shall not run along ribs or edge beams.

ORIGINAL SIZE = A3

revisions

-	30.10.24	For Consent

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CHRISTCHURCH | NELSON | QUEENSTOWN

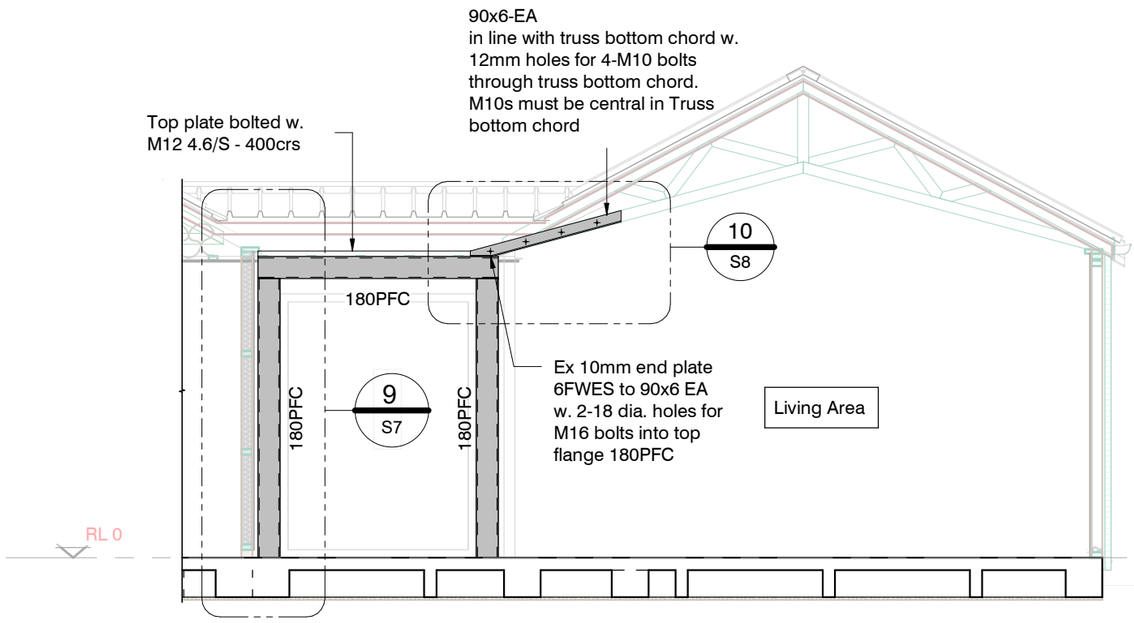
K|W KATE WORNER Architectural Design

Roberts House
11 Twin Meadows Drive, Casebrook, 8051

Typical Services Penetration Details

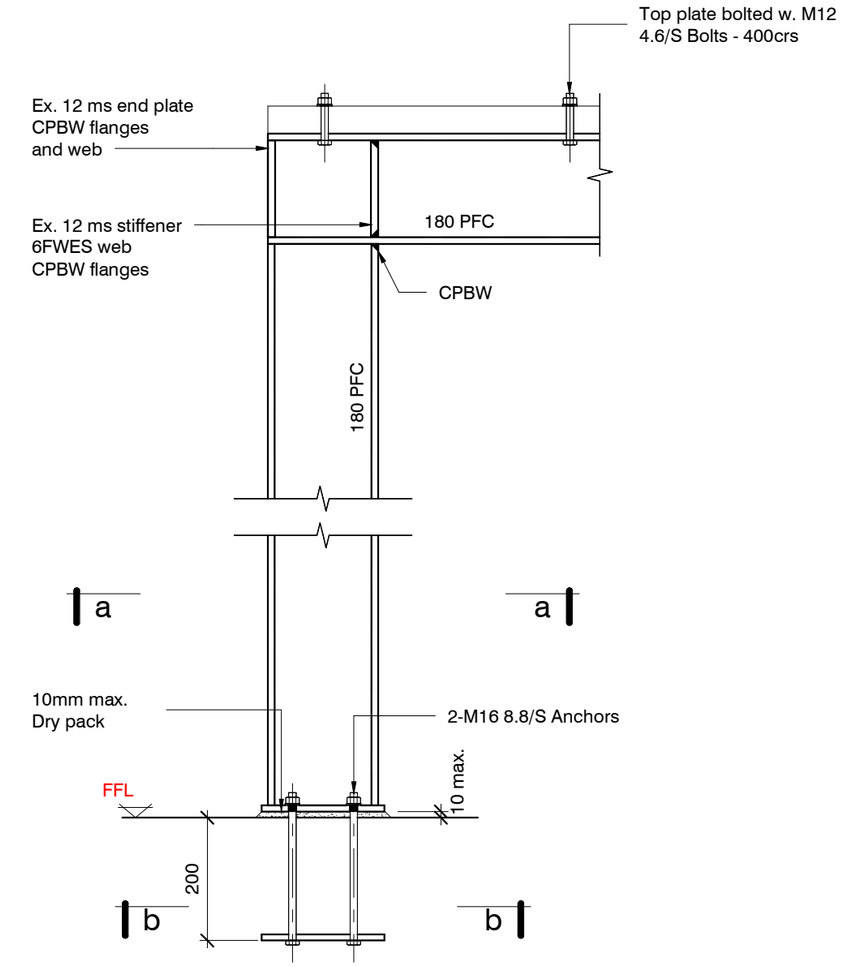
design C. Gleeson
drawn J. Grant
appvd M.Cusiel
date October 2024

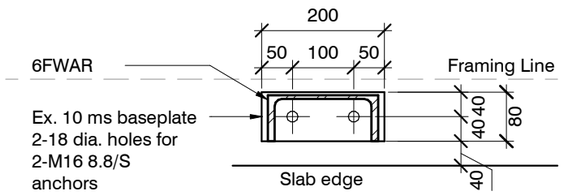
file 24008.065
dwg S6
rev. -



SECTION A / S2 — Section A

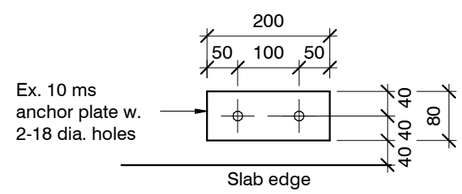
1 : 50





BASEPLATE

a-a



H.D. BOLT ANCHOR PLATE

b-b

SECTION 9 / S7 — Portal - 1

1 : 10

ORIGINAL SIZE = A3

Christchurch City Council

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BCN/2024/9181

Approved Building Consent Document

24/12/2024 Jose, Abby

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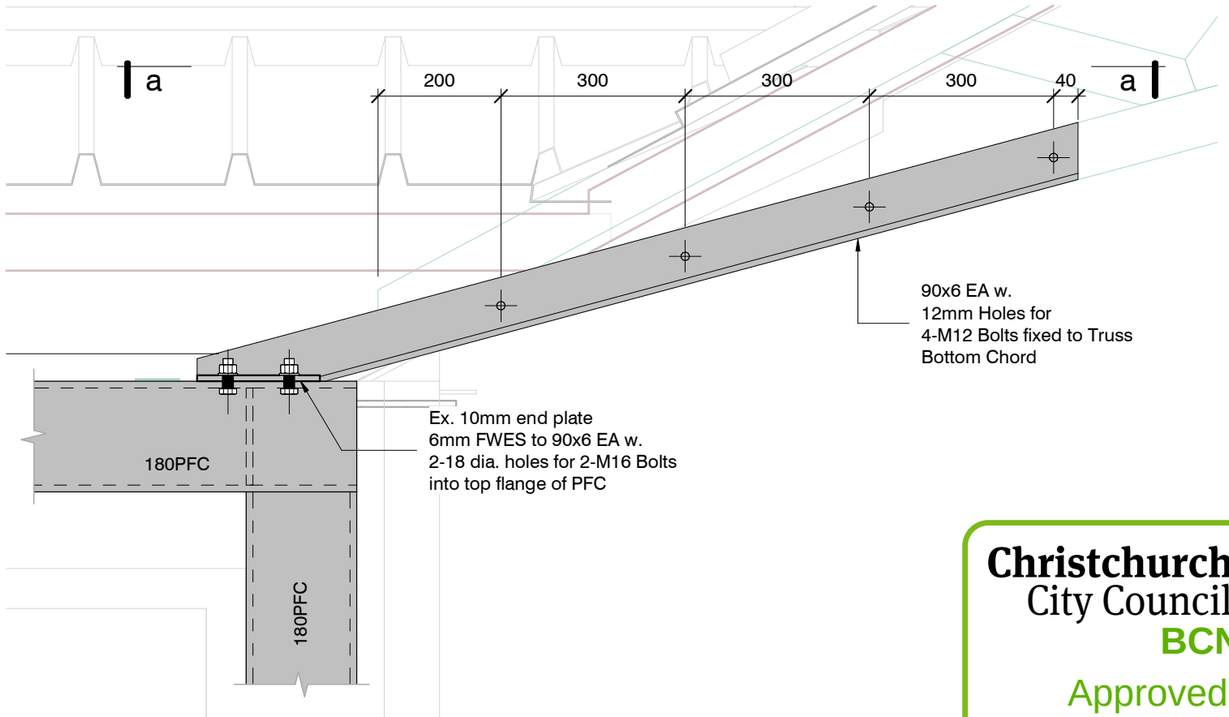
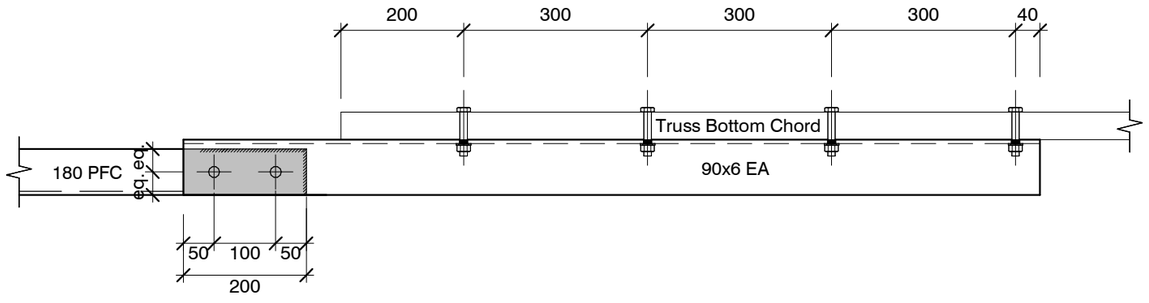
Structural Details

design	C. Gleeson
drawn	J. Grant
appvd	M.Cusiel
date	October 2024

file	24008.065
dwg	S7
rev.	-





a-a

10
S7
1 : 10

ORIGINAL SIZE = A3

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Structural Details

design C. Gleeson
drawn J. Grant
appvd M.Cusiel
date October 2024

file 24008.065
dwg S8
rev. -