# RESIDENTIAL DEVELOPMENTS

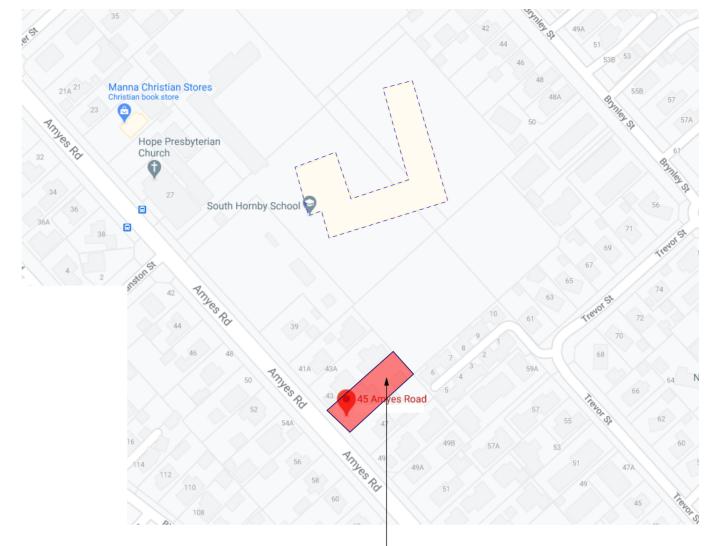
NEW HOME WITH ATTACHED GARAGE

Project No.

45 AMYES ROAD, CHRISTCHURCH Project Address

**CONSENT ISSUE - 2/06/2021** 

Christchurch City Council Page 1 of 49 BCN/2021/1243 **Approved Building Consent** Document 14/06/2021 King, Jon



- SITE LOCATION

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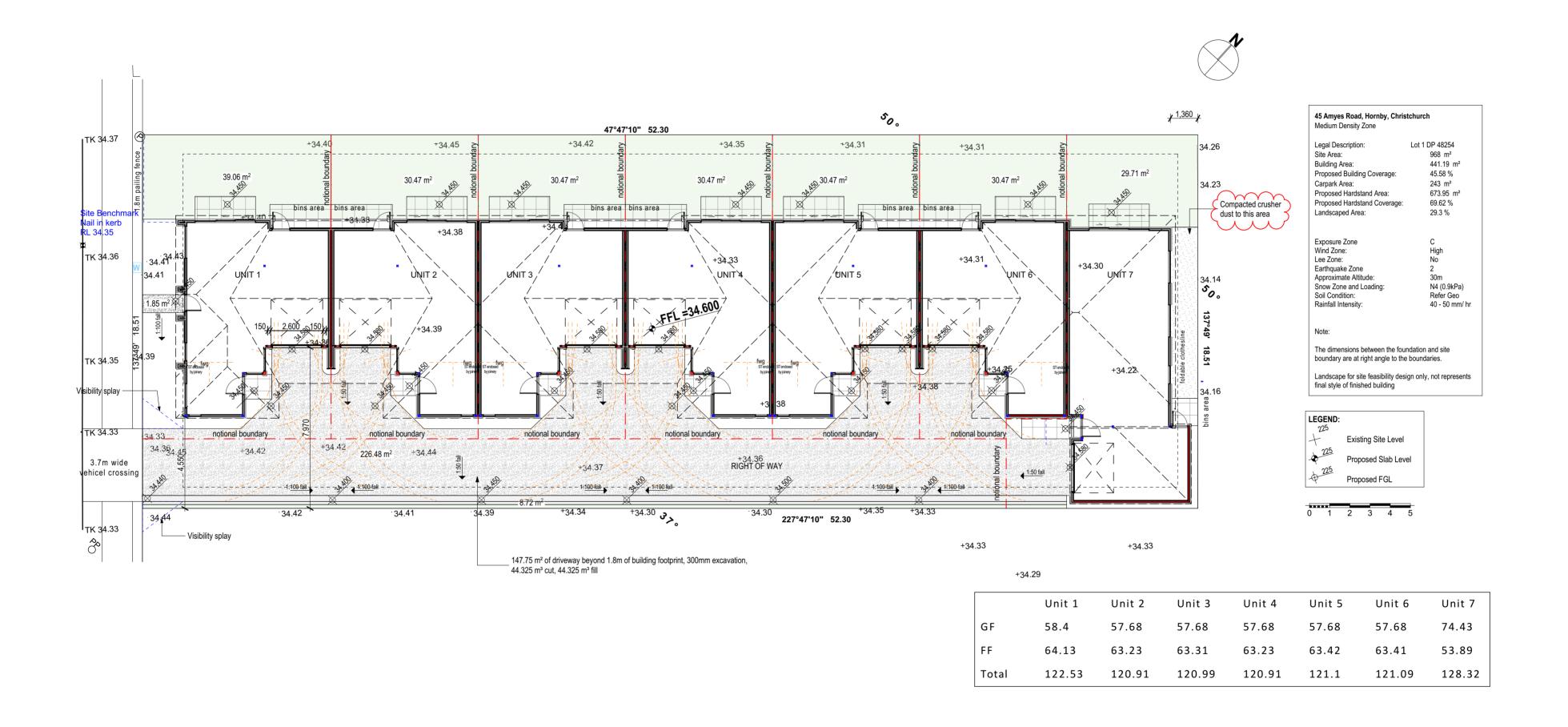
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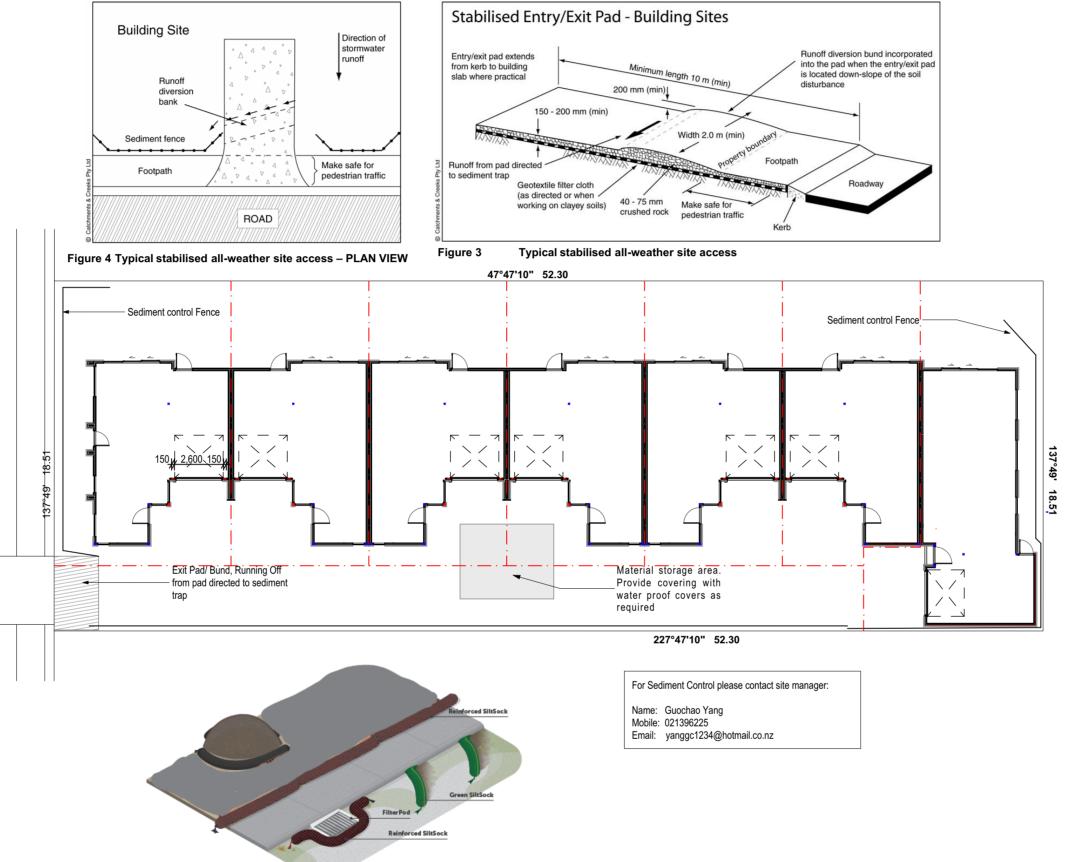












### SITE SAFETY

Where permanent fences are not provided during construction around contract working area, or when the permanent fence height is less than 1.8m, temporary fence is required perimeter to the work area.

Contractor to provide 2.0m min, high temporary chainlink metal fencing with 50mm x 50mm chainlink netting, post spacing shall be a max. of 2.5m, and

### F5.3.3

Where a construction or demolition site contains any hazard which might be expected to attract the unauthorised entry of children, the hazard shall be enclosed to restrict access by children.

Contractor to provide scaffolding and safety netting perimeter to all roof areas and where the subject to falling hazard;

It is the contractor's responsibility to comply F5/AS1 and health and safety act during construction.

### EROSION & SEDIMENT CONTROL

Pre construction planning: Project manager to oversee commissioning of sediment control on site.

All weather access: stabilise access and parking areas with gravel.

Control water at top of site.

Manage within sediment control zone: surplus soil/gravel or stockpile to be contained behind sediment fences.

Rubble pad to be created at point of entry & exit on site (Removed on completion of formed driveway)

Rubble pad to be created in accordance to guidelines provided by the local Council & Maintained in good condition through out it's period of

Sediment Control: Sediment Fence netting to be laid to street and/or areas where run off could occur.

Vegetation Buffer: Protect vegetation/grass area by management fences (Sediment Fence Netting)

Manage Litter & waste: Provide Contained Area for Waste Management.

Roof downpipes are to be connected to the installed storm water drainage as soon as practical once roof cladding has been installed. Until this point ensure water run-off from downpipes is directed away from building area but not onto neighbouring properties.

Service Trenching: Minimise trenching and amount of time that the trench is open.

Maintain & Decommission: Foreman to ensure that Sediment Control Fences are maintained and decommissioned.

### WASTE MANAGMENT GUIDELINES

Put up a clear sign informing the workers about waste reduction practices.

Allocate on area on the site for all bins. A bin for each recycle, reuse and disposal destination. Clearly label each bin by what it is intended to store.

Different waste types occur at different times of the project, such as foundation, framing, cladding and fitout times. So plan your waste separation system around this.

Arrange for materials to arrive as needed and protect them to avoid damage.

Reuse off-cuts and other 'waste' as much as you can on the job, or make them available for others to use.

Let the Site Manager know if you expect a large amount of a particular

waste, so that a reuse or recycling option can be found.

Handle and dispose of all hazardous materials in accordance with National and Local Regulations.

The Waste skip is only for materials that cannot be reused or recycled, and should be used as a last resort.

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Project - 2009 1:200@A2

RESIDENTIAL DEVELOPMENTS

ADDRESS
45 AMYES ROAD, CHRISTCHURCH

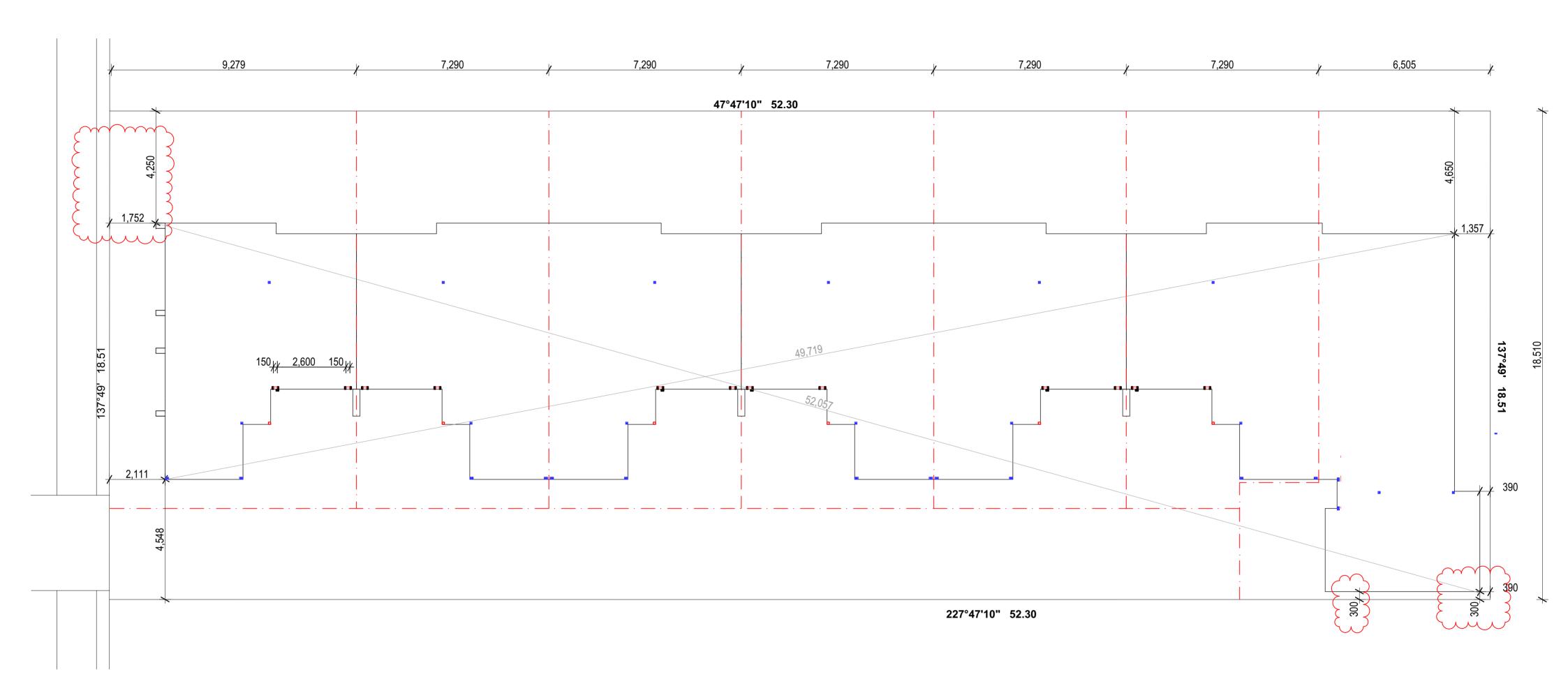
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 B
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 2021/03/30

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 2021/02/19

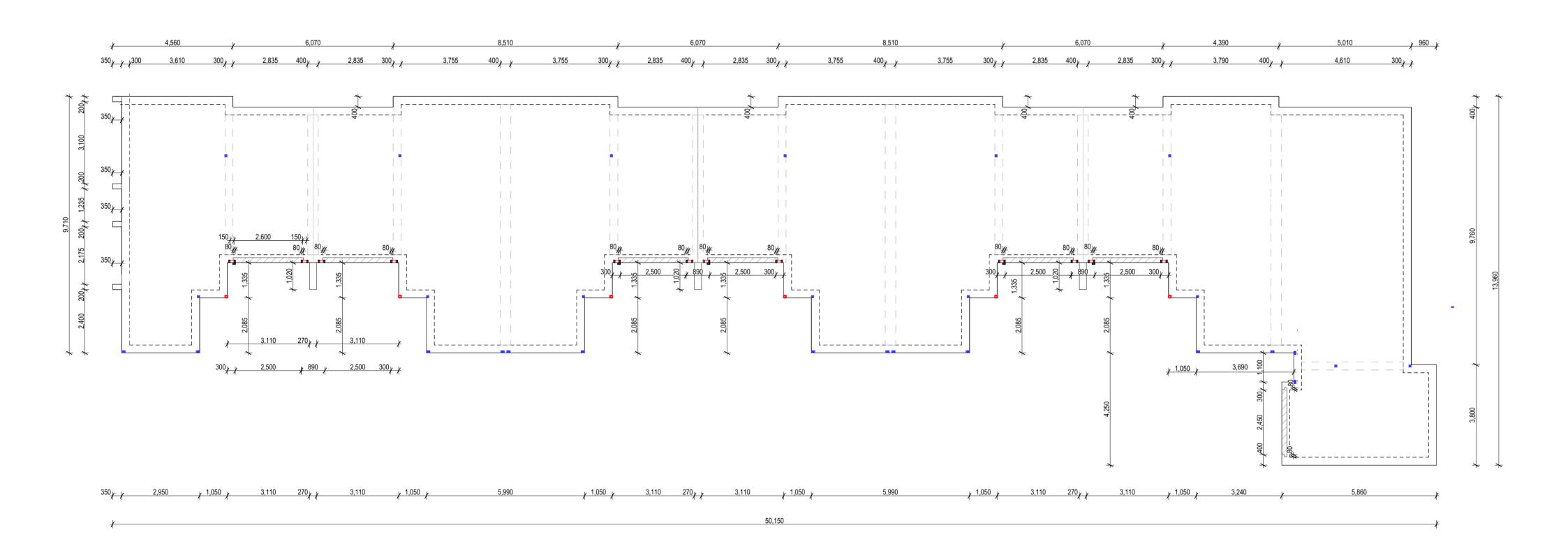
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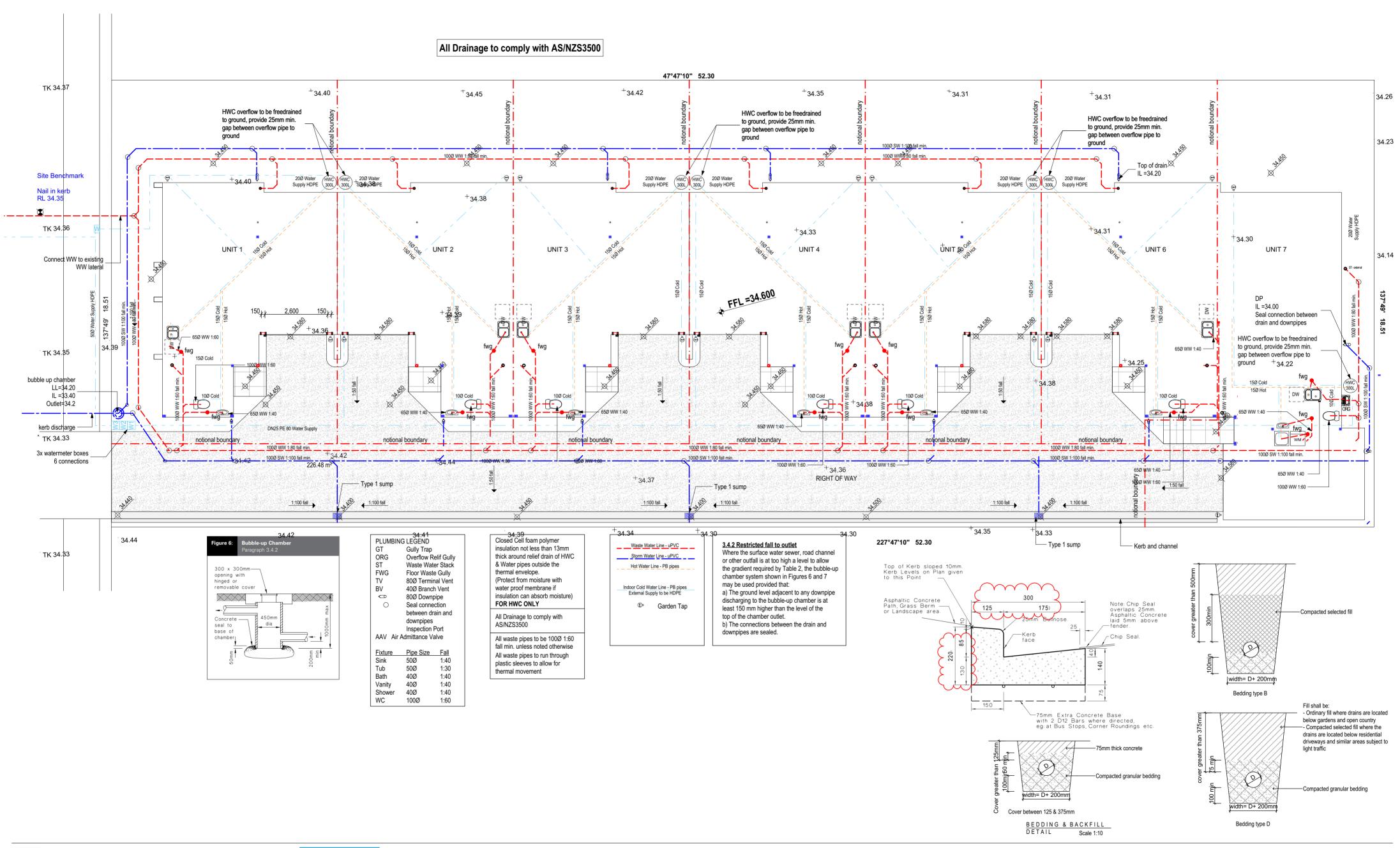




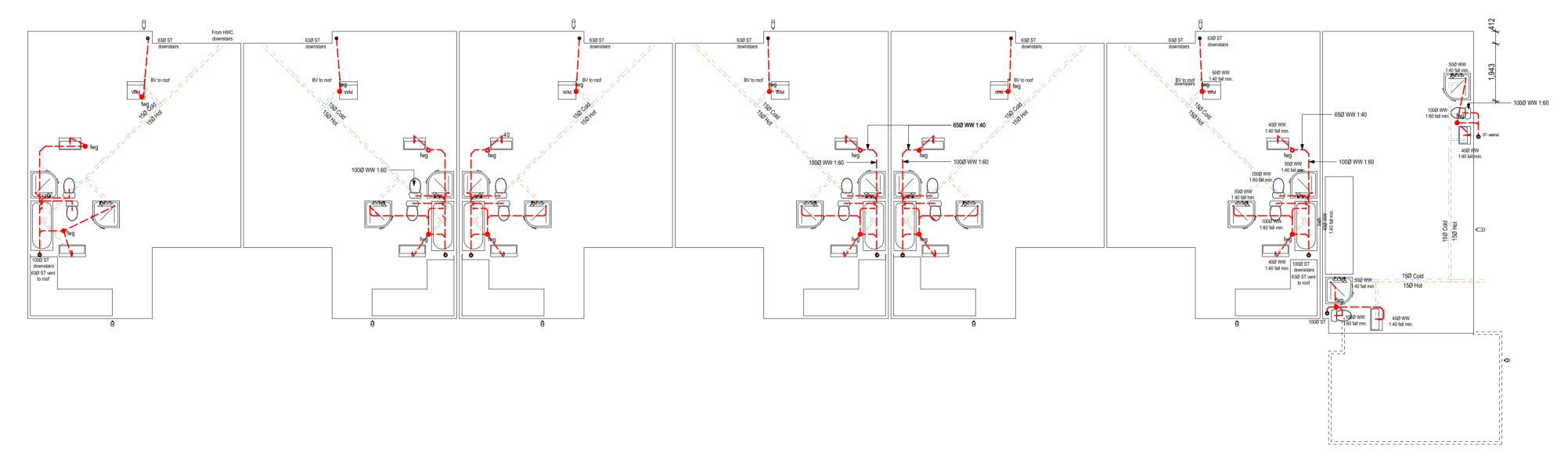


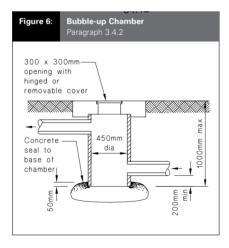


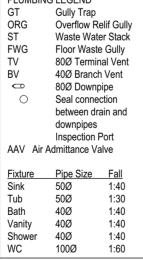












PLUMBING LEGEND

Closed Cell foam polymer insulation not less than 13mm thick around relief drain of HWC & Water pipes outside the thermal envelope.

(Protect from moisture with water proof membrane if insulation can absorb moisture)

FOR HWC ONLY

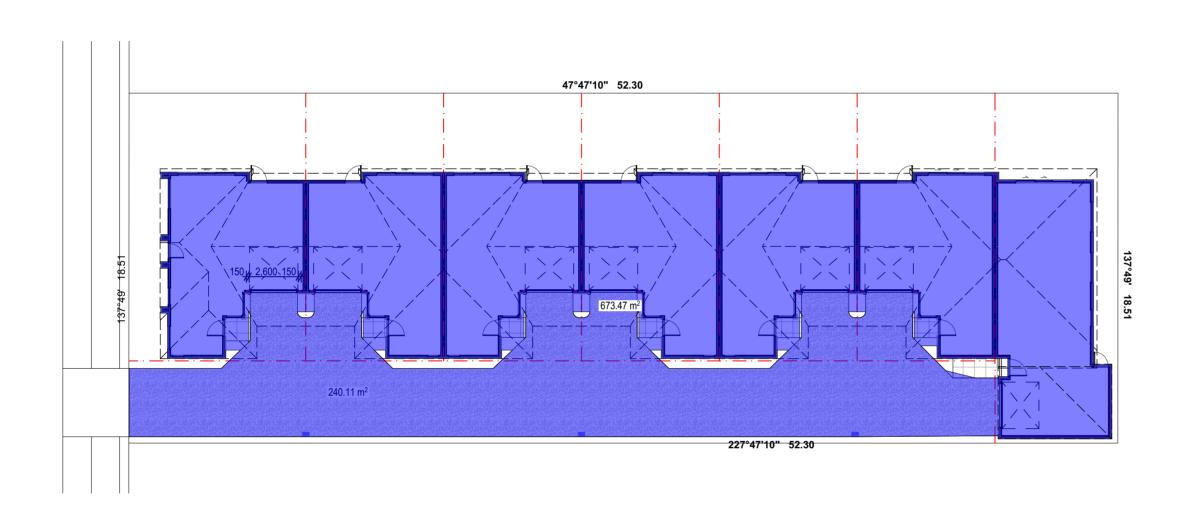
All Drainage to comply with AS/NZS3500

All waste pipes to be 100Ø 1:60 fall min. unless noted otherwise All waste pipes to run through plastic sleeves to allow for thermal movement









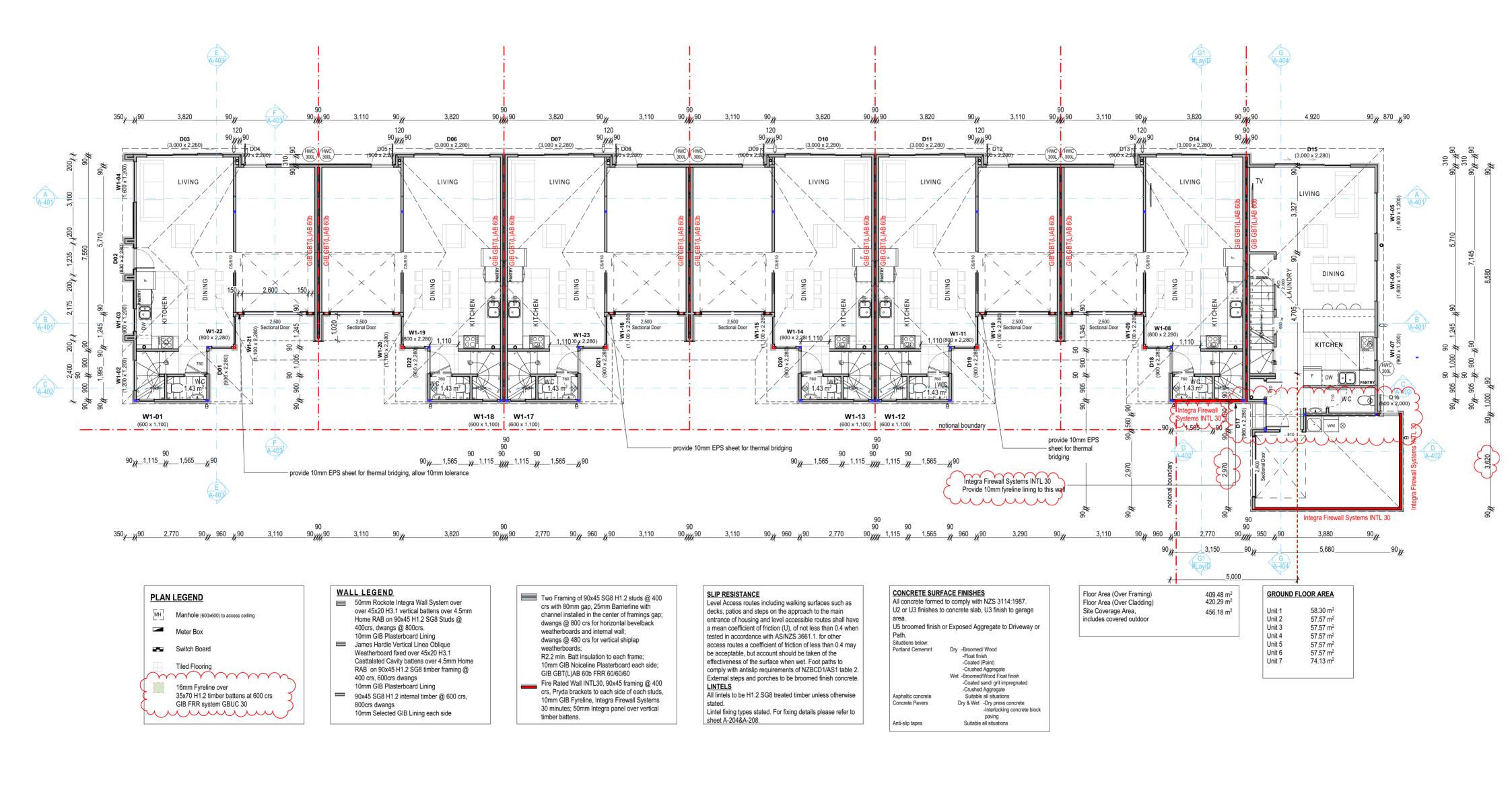
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7
GF	58.4	57.68	57.68	57.68	57.68	57.68	74.43
FF	64.13	63.23	63.31	63.23	63.42	63.41	53.89
Total	122.53	120.91	120.99	120.91	121.1	121.09	128.32





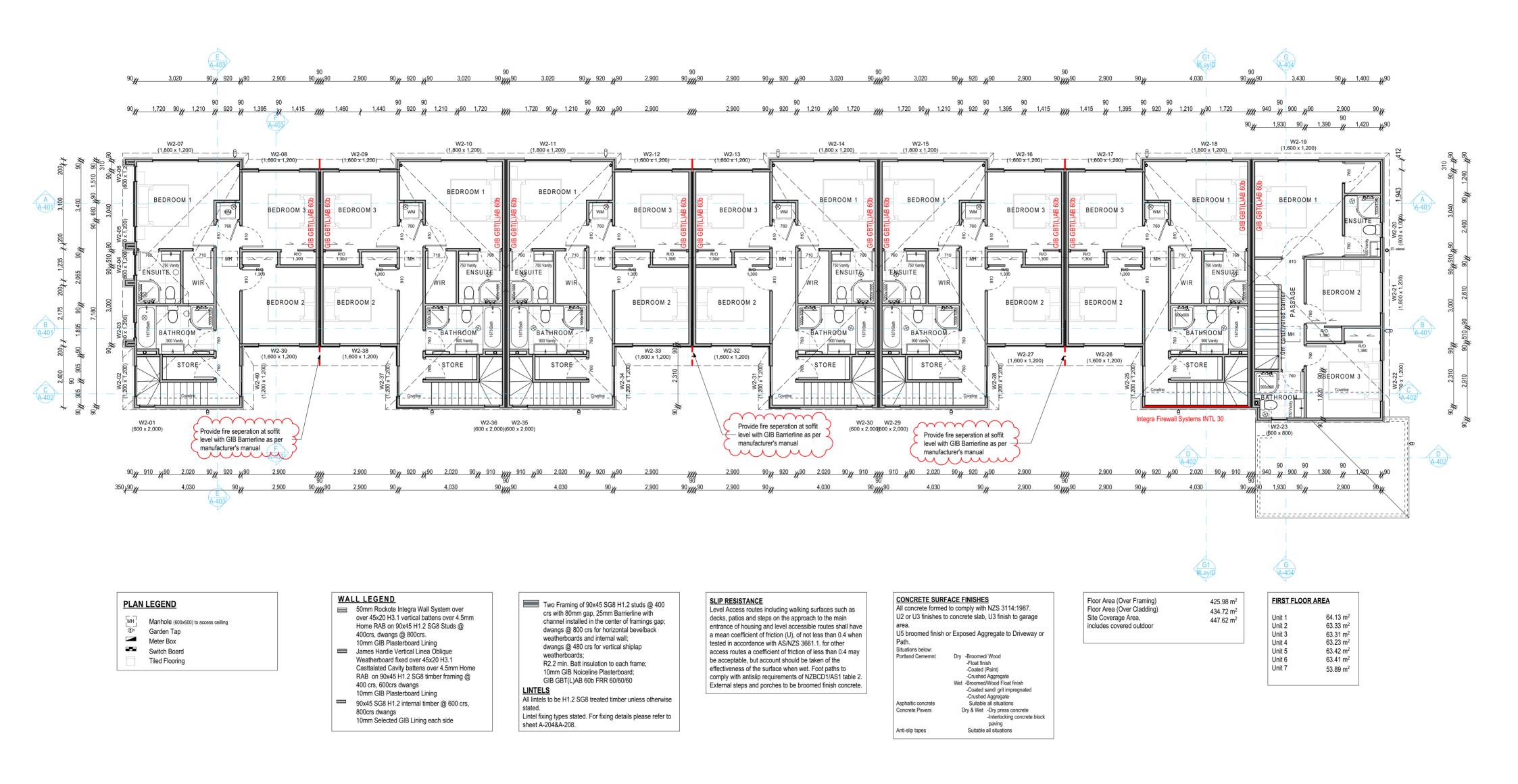
Project - 2009 1:200@A2
RESIDENTIAL DEVELOPMENTS ADDRESS 45 AMYES ROAD, CHRISTCHURCH

2021/03/30 2021/02/19 Date/Time



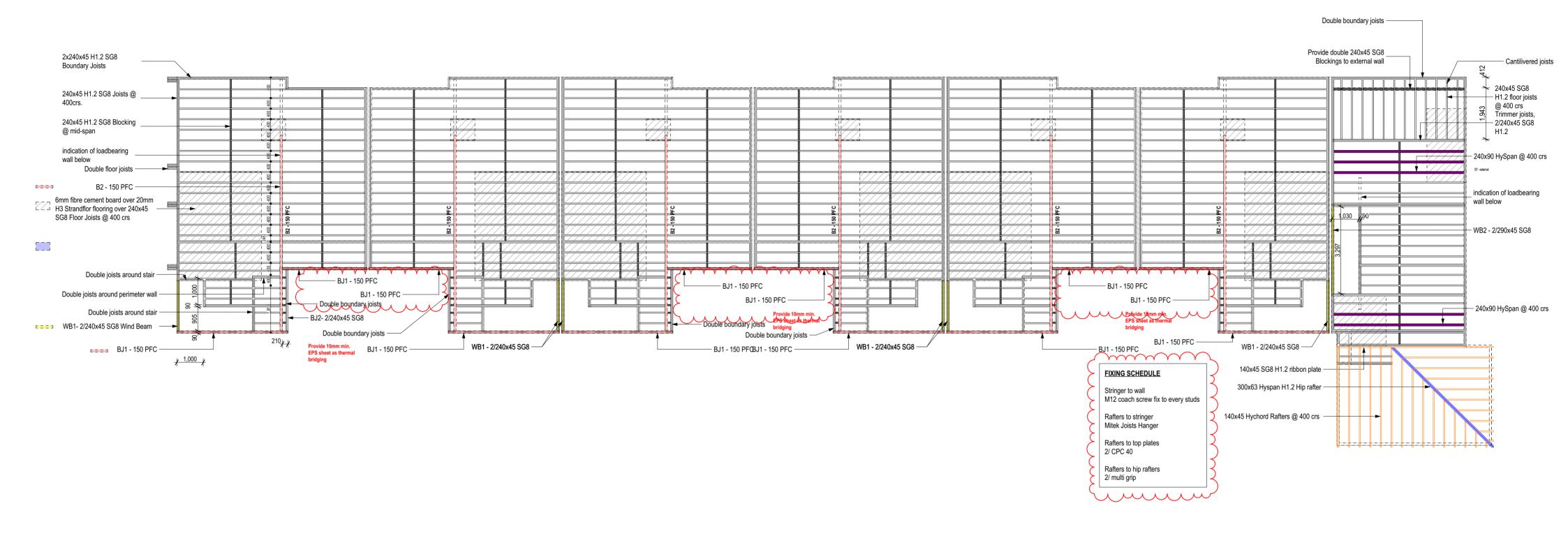






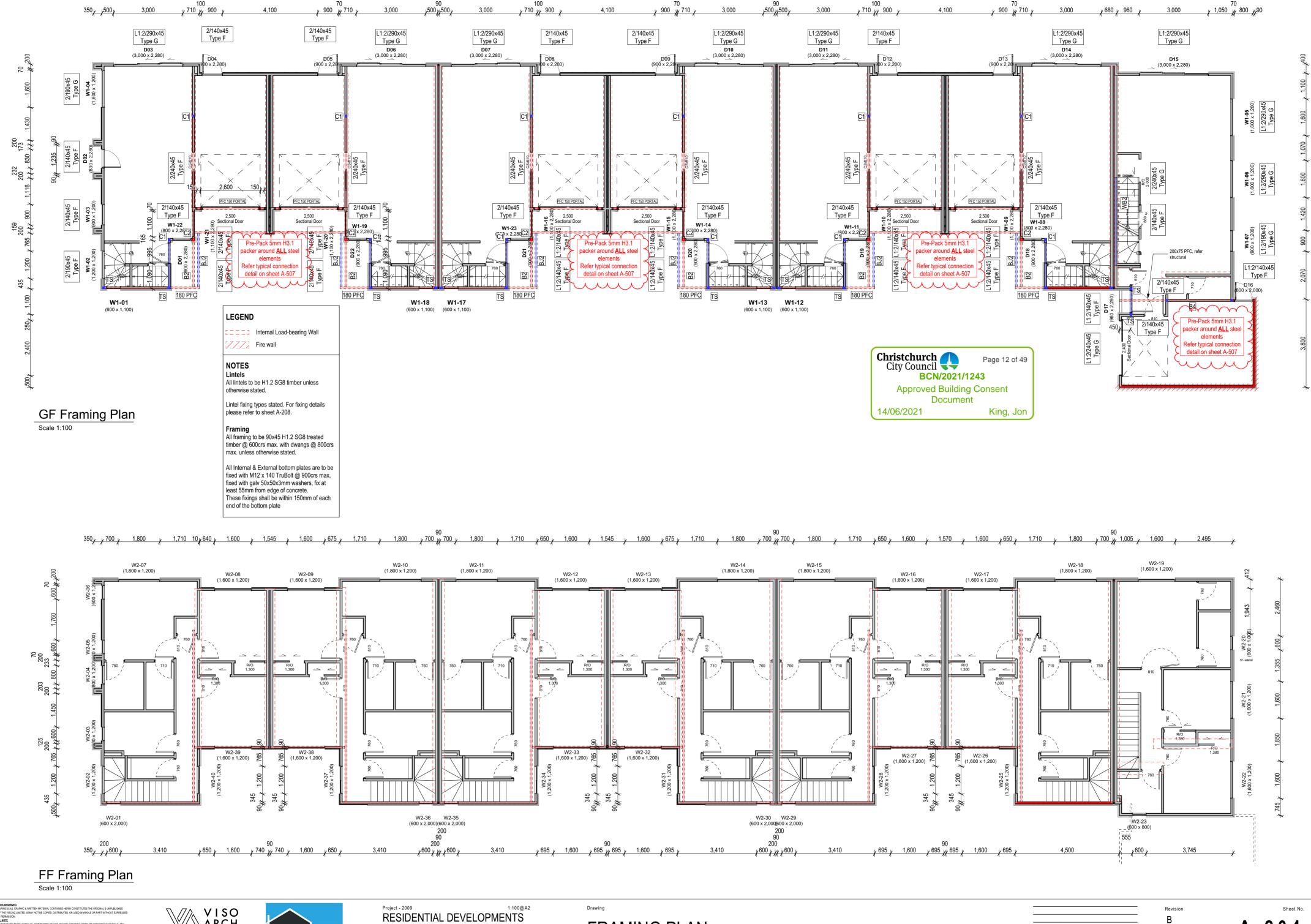












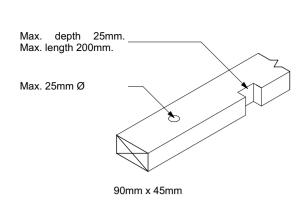
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RESIDENTIAL DEVELOPMENTS ADDRESS 45 AMYES ROAD, CHRISTCHURCH

FRAMING PLAN

2021/03/30 RFI Response Building Consen 2021/02/19



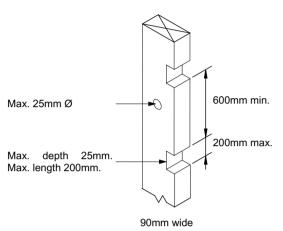
### **TOP PLATES:**

The sizes of holes or notches shall comply with dimensions as per NZS3604 Section 8.7.5. Where the size of a hole or notch exceeds these dimensions the plates shall be strengthened by one of the following methods:

(a) A 70mm x 45mm member x 600mm long nailed to the exterior side of the plate with 4/75x3.15 nails on each side of the hole or notch.

(b) A 70mm x 45mm eaves runner connected to all studs and no more than 250mm below the top plate. (c) A 70mm x 45mm blocking fitted between ceiling joists or trusses above cut top plates and the steel angle.

\*100mm min. offset between hole and notch.



### WALL STUD

Hole in the face and notches in the edge of a stud shall:

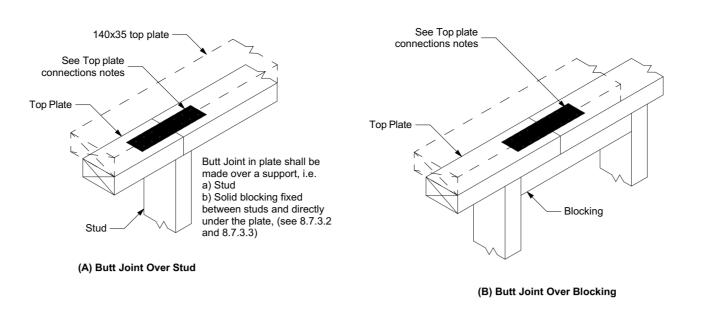
(a) Be placed anywhere over the face of the stud except that:

except that:
In brick veneer cladding, at least 50mm clear of the outside face of the stud supporting the veneer, to

prevent damage from the fixings to services.
(b) Be not more in diameter or depth than:
90mm deep studs: 25mm. This may be increased to
35mm where not more than 3 consecutive studs are

(c) Notches in studs to be spaced vertically not less than 600mm apart, irrespective of the edge containing the notch.

(d) 100mm min. offset between hole and notch.



### TOP PLATE JOINTING AS PER CLAUSE 8.7.3 NZS 3604:2011

### **Top Plate Connections**

The top plate of a wall that contains one or more wall bracing elements shall be jointed according to the rating of the highest-rated individual wall bracing elements as follows:

(a) Rating not exceeding 100 bracing units: A 3kN connection as shown or by an alternative fixing of 3kN capacity in tension or compression along the plate; (b) Rating exceeding 100 bracing units: A 6kN connection as shown or by an alternative fixing of 6kN capacity tension or compression along the plate.

### Top Plates in Line

### Connection capacity LUMBERLOK Connector

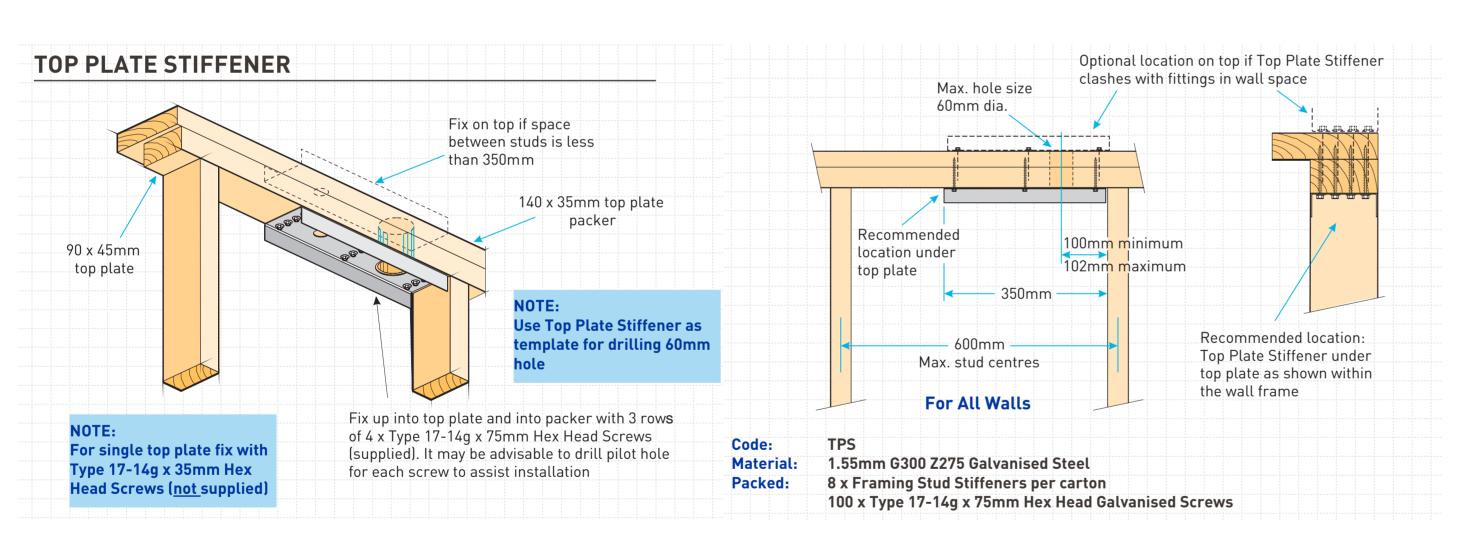
3 kN LUMBERLOK PLATE-LOK OR Tylok 6T5 OR Strap Nail 6 kN LUMBERLOK PLATE-LOK OR Tylok 6T10 OR 2 x Strap Nails

# Top Plates at Right Angles

Connection capacity LUMBERLOK Connector

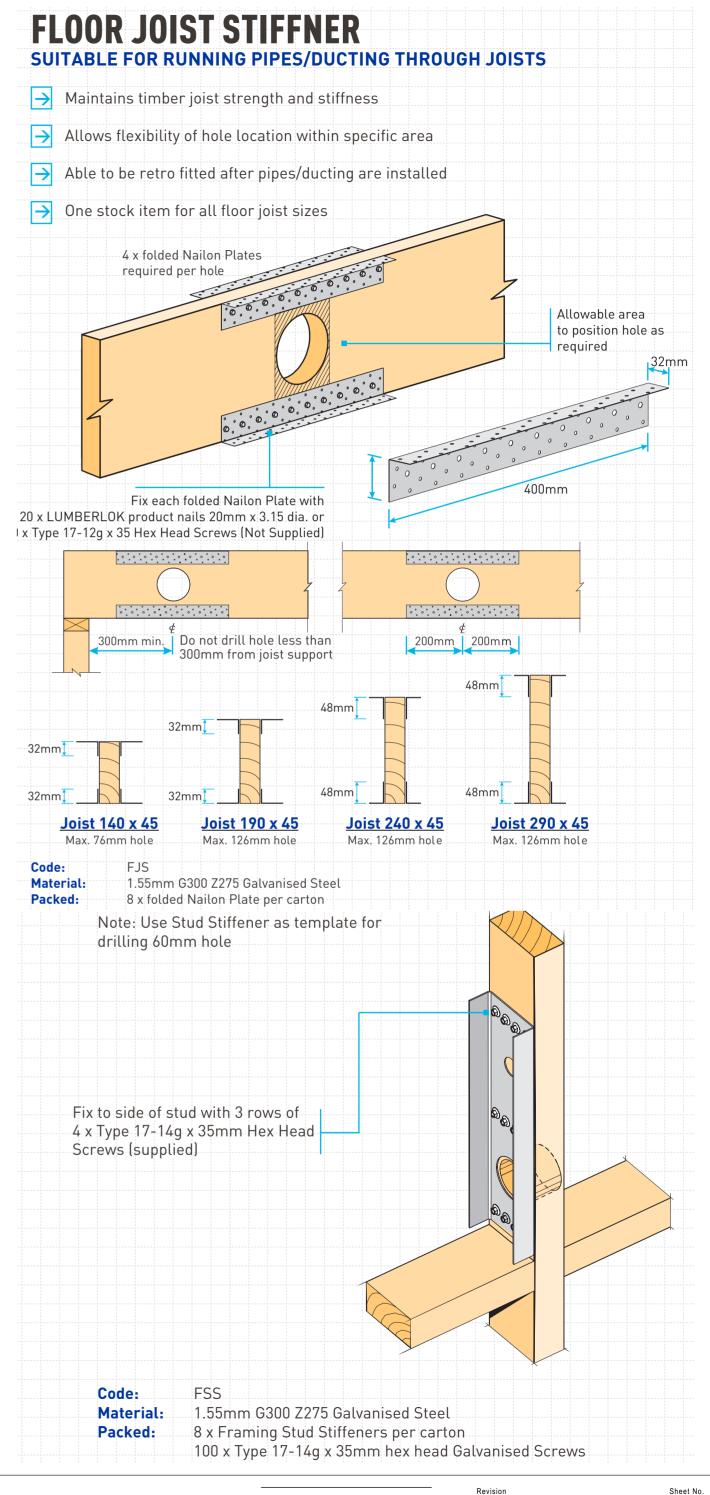
6 kN LUMBERLOK PLATE-LOK OR Tylok 6T10 OR 2 x Strap Nails 12 kN 2 x Sheet Brace Straps fixed with 6 x LUMBERLOK Product Nails

30mm x 3.15 dia. per end per strap (24 nails total)





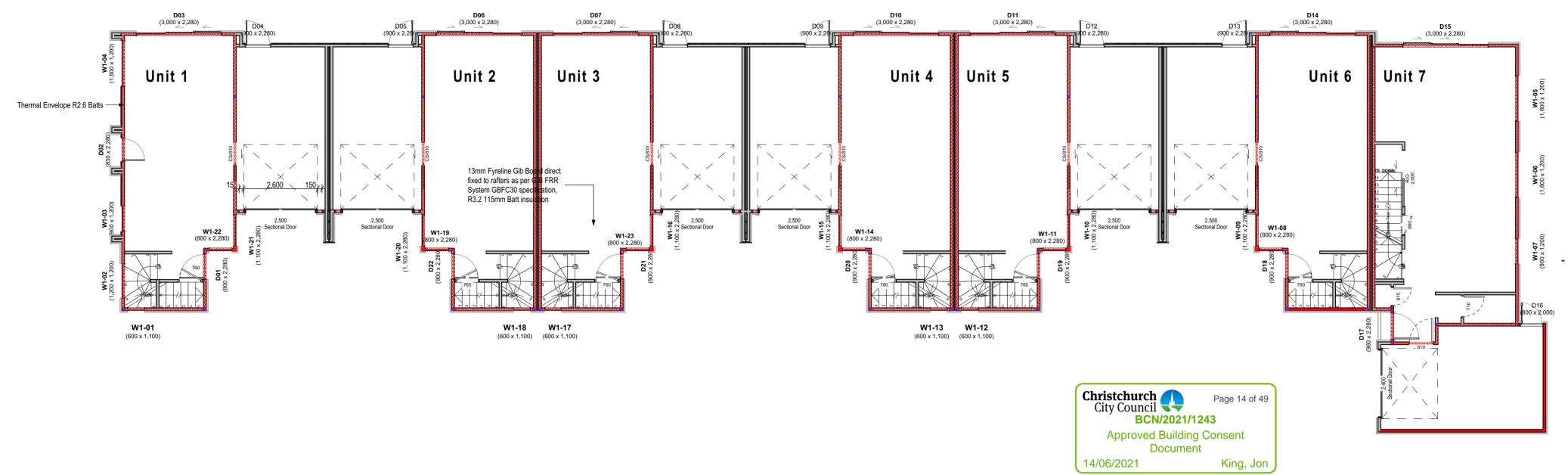
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ADDRESS 45 AMYES ROAD, CHRISTCHURCH



**GF Insulation Plan** Scale 1:100



FF Insulation Plan Scale 1:100

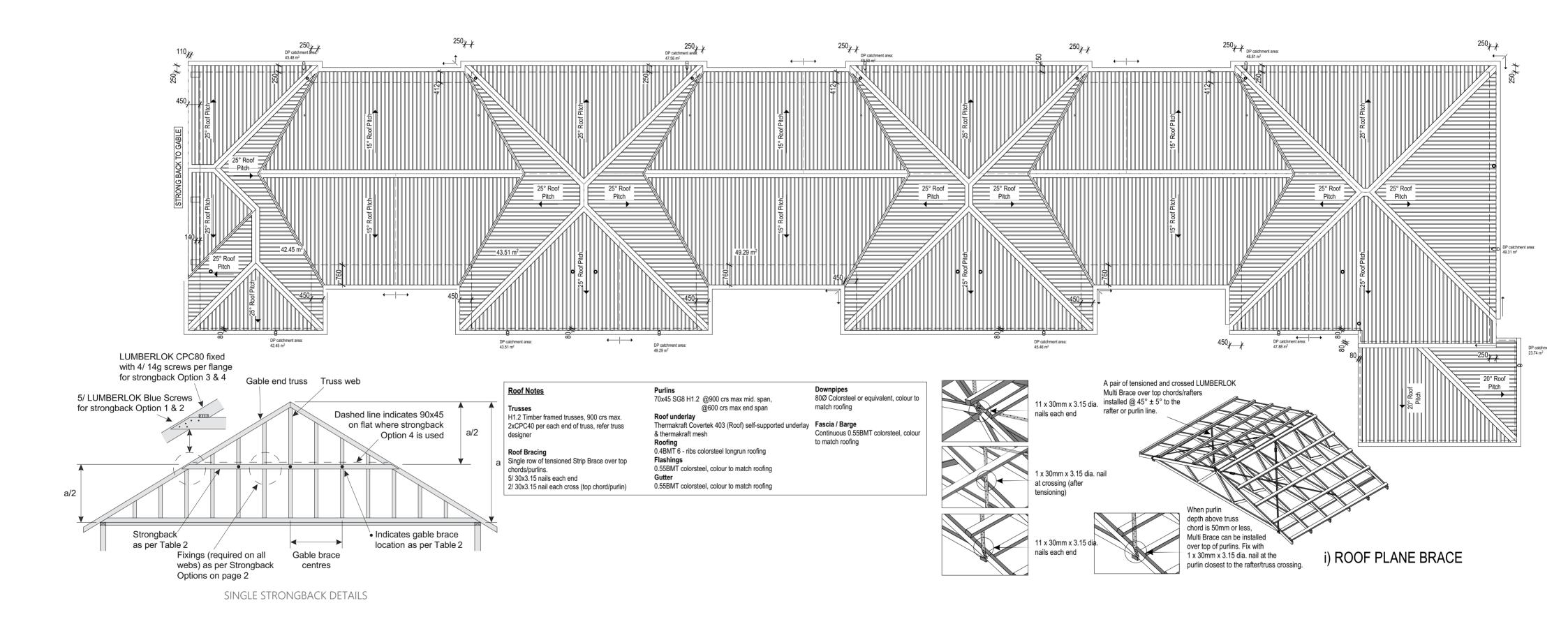




1:100@A2 RESIDENTIAL DEVELOPMENTS ADDRESS 45 AMYES ROAD, CHRISTCHURCH

**INSULATION PLAN & H1** 

RFI Response 2021/03/30 Building Consent



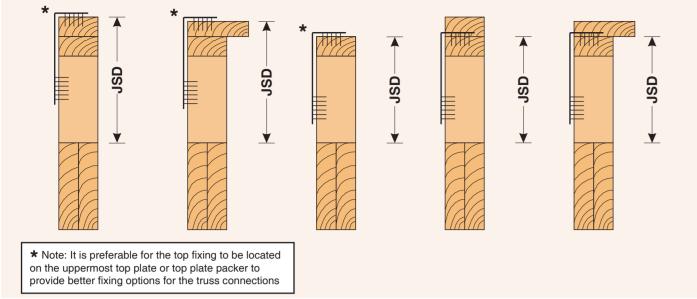




# FRAMING ARRANGEMENTS

Jack Stud Dimension Definition (JSD)

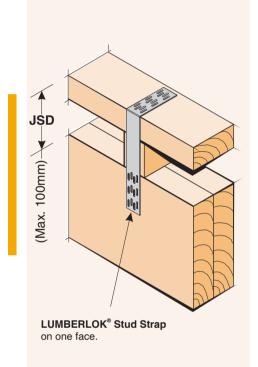




### **FIXING OPTIONS**

# FIXING 1

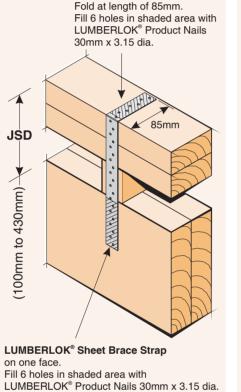
Jack Stud Dimension (JSD) up to a maximum of 100mm. Includes top plate fixed directly onto lintel i.e. no jack stud used.



Note:
Fix jack stud with 2/ 90mm x 3.15 dia. nails from top plate and 2/ 90mm x 3.15 dia. skew nails to lintel (typical)

### FIXING 2

Jack Stud Dimension (JSD) from a minimum of 100mm to a maximum of 430mm.



Note:

• JSD up to 230mm use
Sheet Brace Strap 400mm.

• JSD from 230mm to 430mm use
Sheet Brace Strap 600mm.

# FIXING 3 Jack Stud Dimension (JSD) from a minimum of 270mm. No maximum dimension. LUMBERLOK® Stud Strap on one face.

**LUMBERLOK®** Sheet Brace Strap

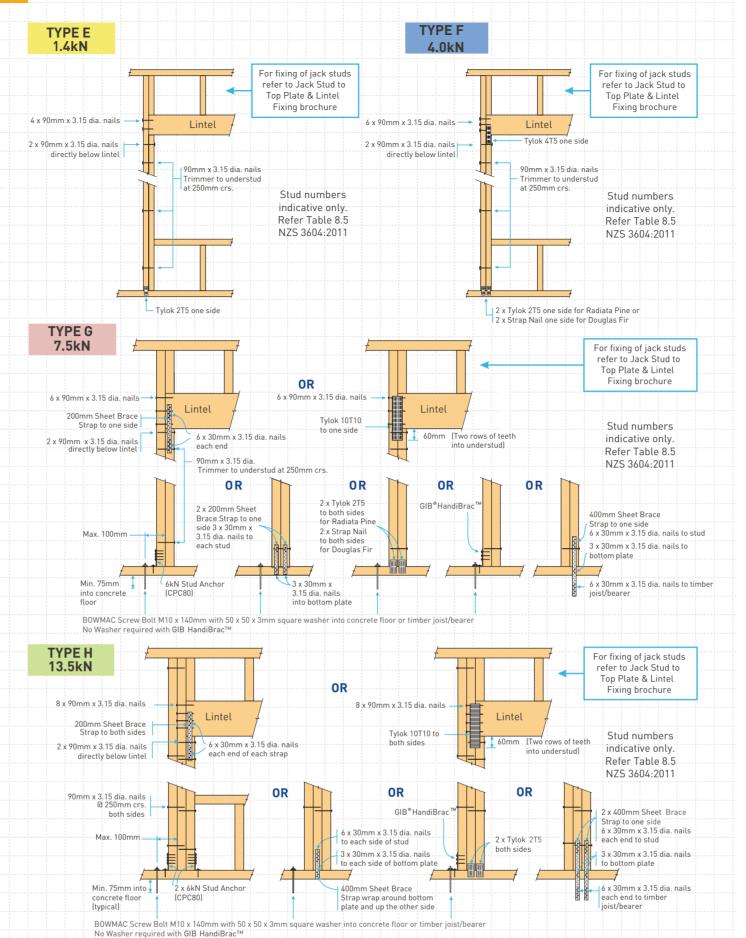
Fill 6 holes in both shaded areas of

LUMBERLOK® Product Nails 30mm x 3.15 dia.

200mm on one face.

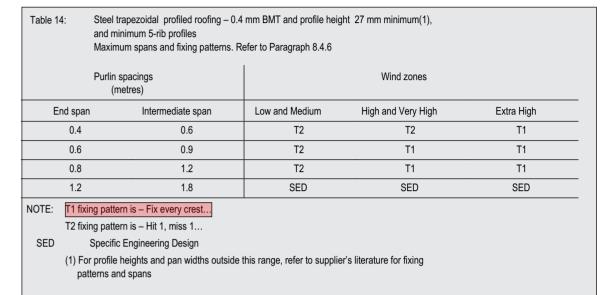
jack stud and lintel with

# LUMBERLOK® LINTEL FIXING OPTIONS ALTERNATIVE TO TABLE 8.14 & FIGURE 8.12 NZS 3604:2011

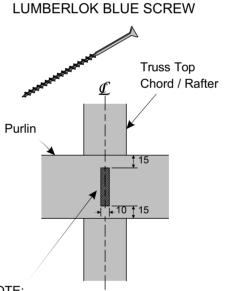


# PURLIN FIXINGS: (MiTek alternative solution to NZS3604:2011 Table 10.10)

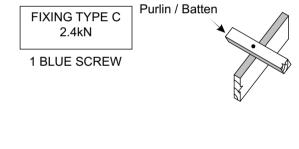
ROOF WEIGHT	MAX.	MAX. PURLIN CRS. (mm)	WIND ZONE				
NOO! WEIGHT	PURLIN SPAN (mm)		L	М	Н	VH	EH
HEAVY ROOF Tile Battens	900	370	А	А	Α	А	Α
LIGHT ROOF Tile Battens	900	370	Α	Α	В	С	С
	1200	370	Α	В	С	С	С
LIGHT ROOF Purlins	900	900	С	С	С	С	D
	1200	900	С	С	С	D	D
	1200	1200	С	С	D	E	E







Locate fixings within the shaded area. Care to be taken to avoid over tightening of screws.



FIXING TYPE
C, D or E OVER
PURLIN SPLICE

90 x 35mm block fixed to chord or rafter with 4 x 75mm nails

TYPE C
 SCREW to each purlin

• TYPE D & E 1 NAIL plus 1 SCREW to each purlin





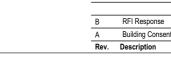


Project - 2009 1:1, 1:1.0195@A2

RESIDENTIAL DEVELOPMENTS

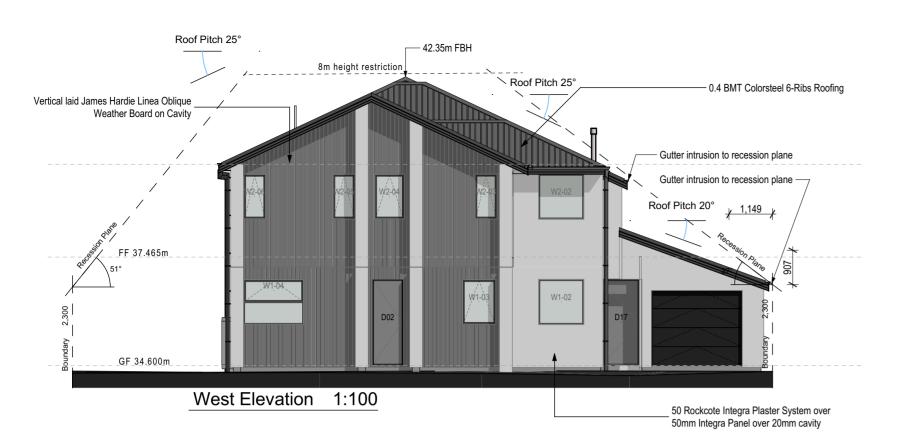
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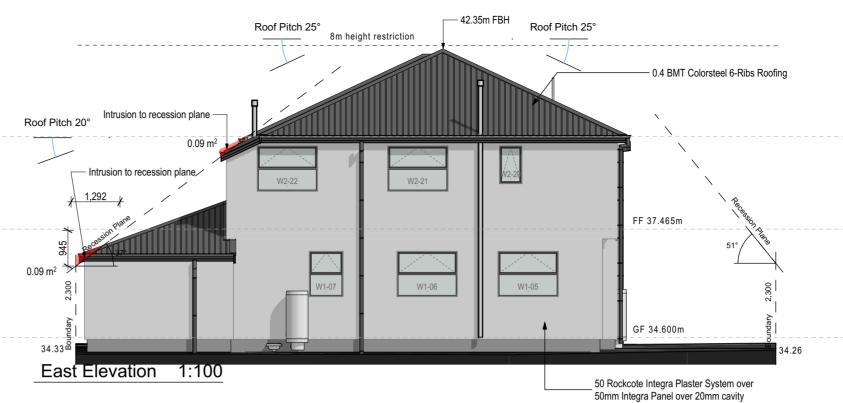
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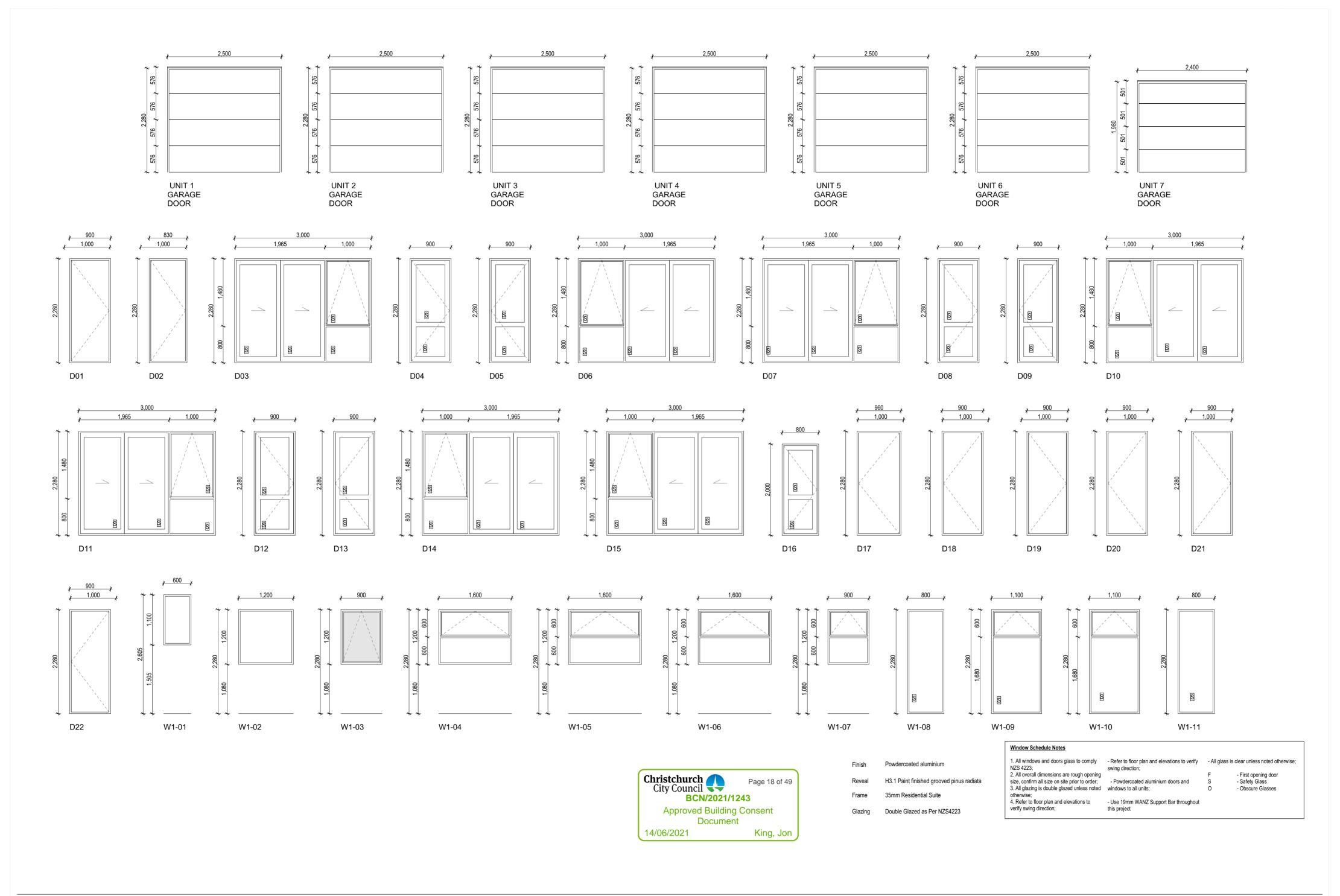
2021/03/30







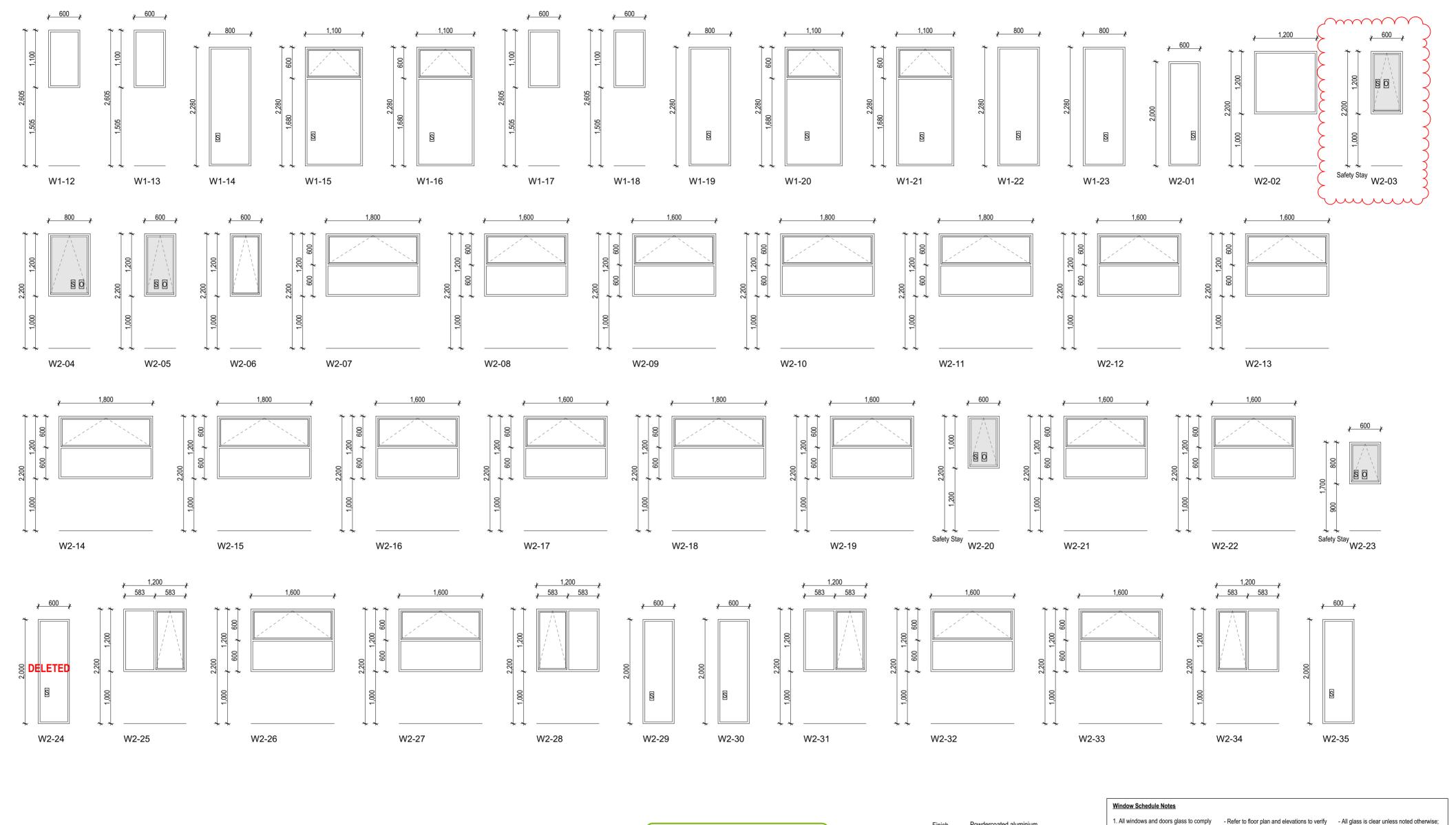








2021/02/19





Powdercoated aluminium

H3.1 Paint finished grooved pinus radiata

35mm Residential Suite

Double Glazed as Per NZS4223

1. All windows and doors glass to comply 2. All overall dimensions are rough opening

NZS 4223:

size, confirm all size on site prior to order; - Powdercoated aluminium doors and 3. All glazing is double glazed unless noted windows to all units;

otherwise;
4. Refer to floor plan and elevations to verify swing direction; this project

- Use 19mm WANZ Support Bar throughout

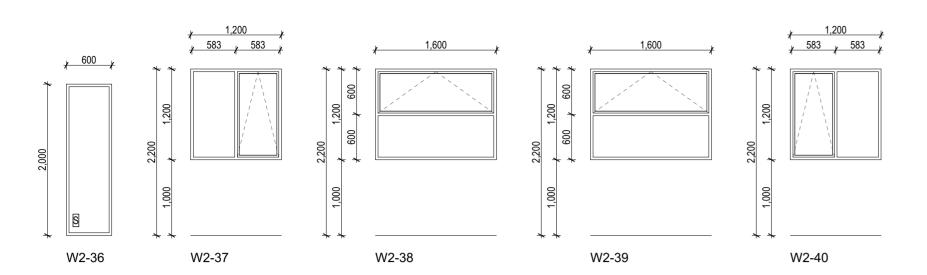
VISO ARCH jason@viso.nz 0220291099



- First opening door

- Obscure Glasses

- Safety Glass



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Powdercoated aluminium

H3.1 Paint finished grooved pinus radiata

35mm Residential Suite

Glazing Double Glazed as Per NZS4223

Window Schedule Notes

1. All windows and doors glass to comply - Refer to floor plan and elevations to verify - All glass is clear unless noted otherwise; NZS 4223; 2. All overall dimensions are rough opening

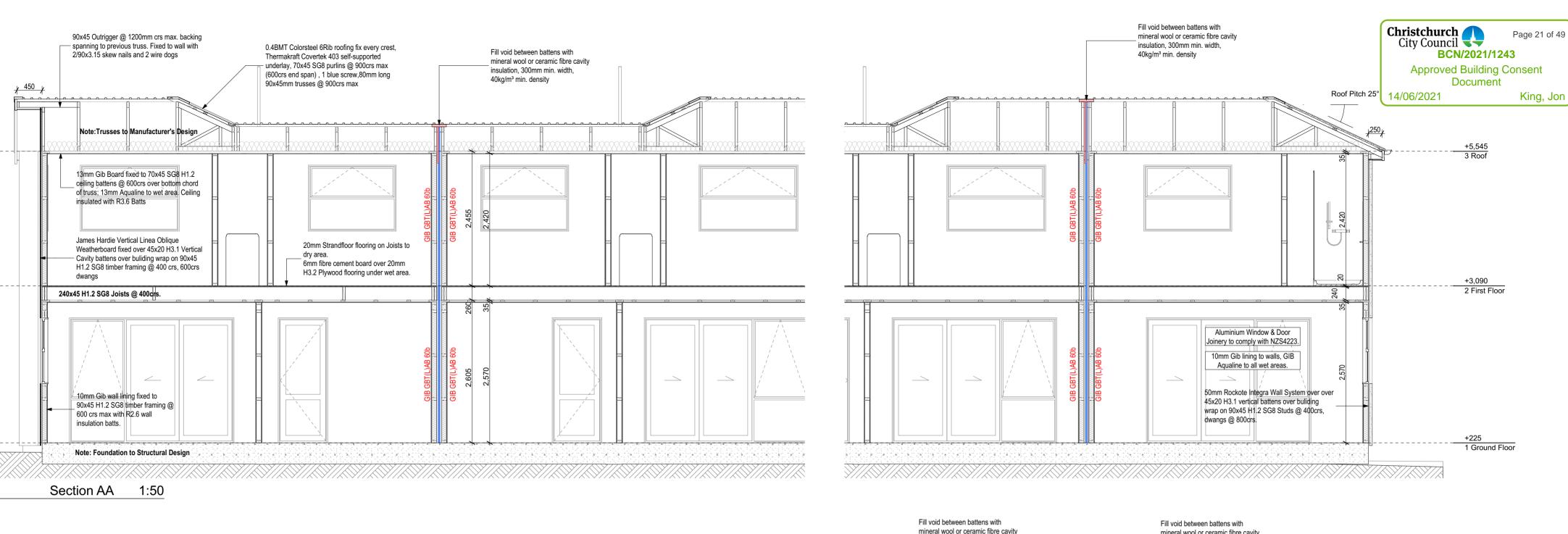
size, confirm all size on site prior to order; 3. All glazing is double glazed unless noted windows to all units; otherwise;
4. Refer to floor plan and elevations to verify swing direction;

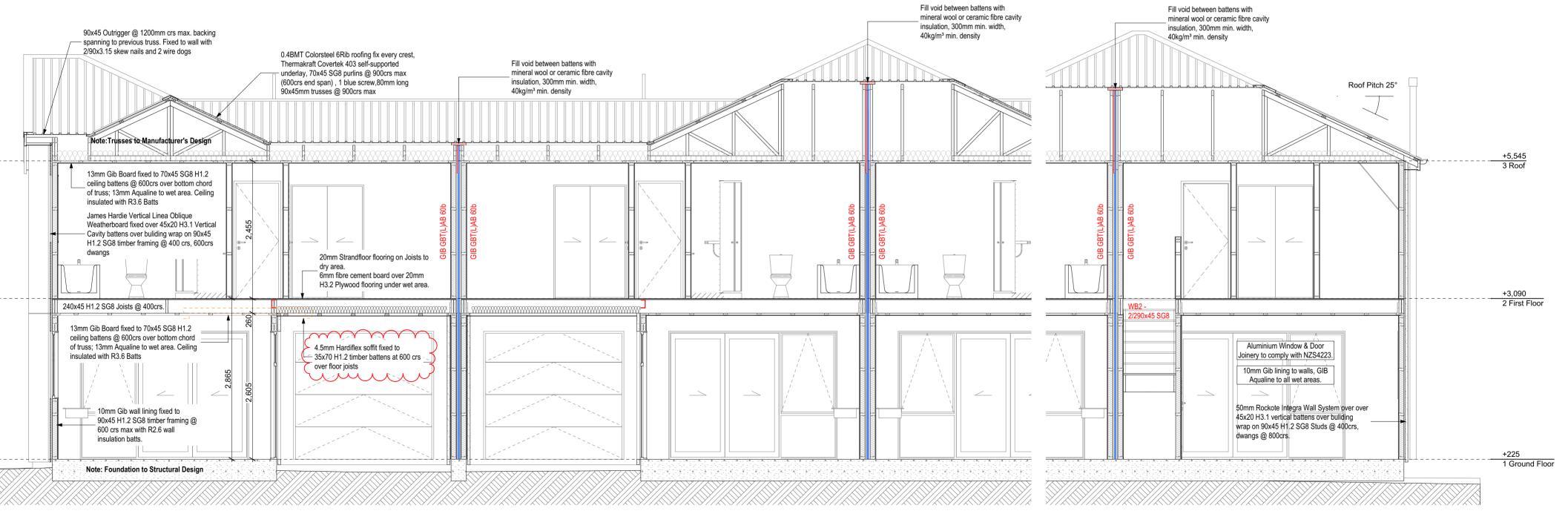
- First opening door - Safety Glass - Obscure Glasses

- Use 19mm WANZ Support Bar throughout this project









Section BB 1:50

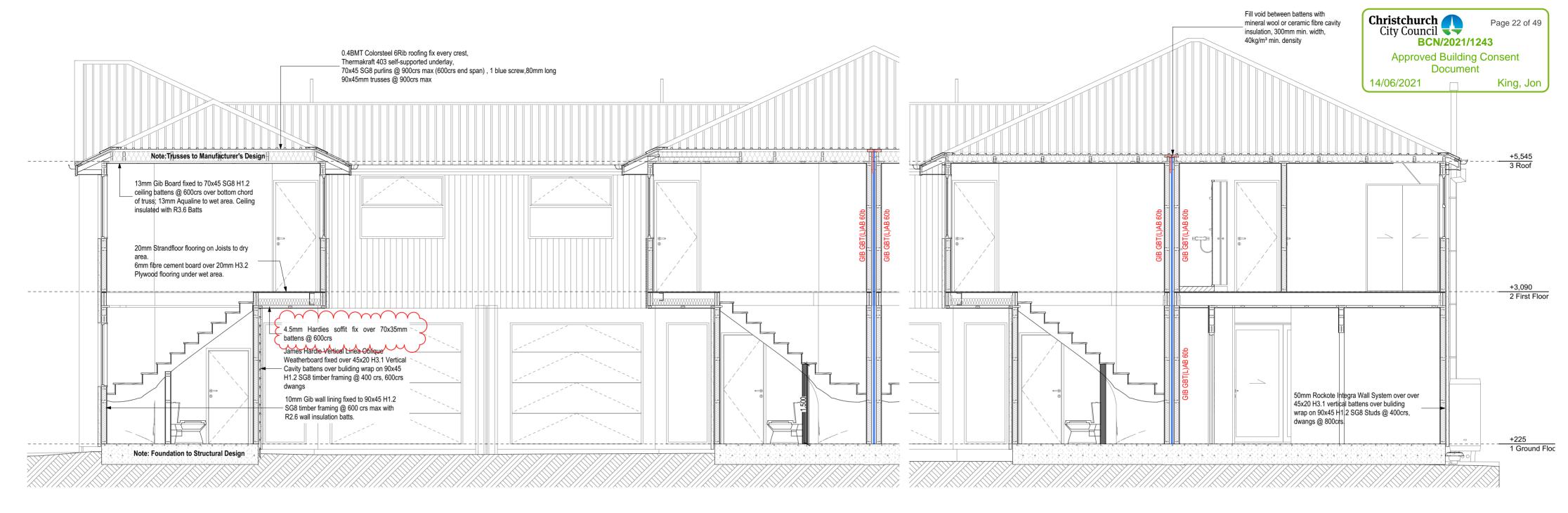




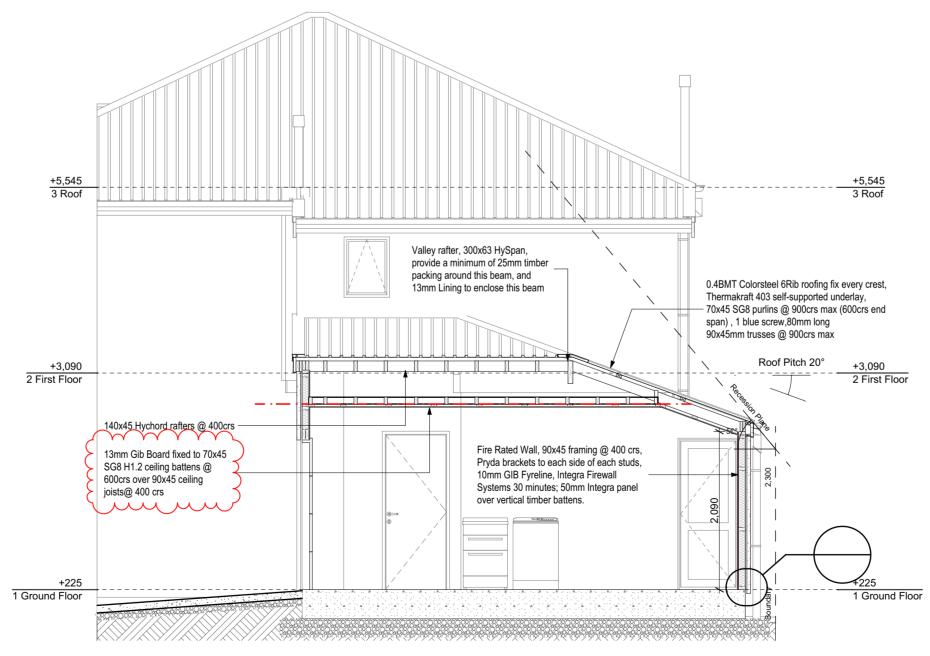
1:50@A2 RESIDENTIAL DEVELOPMENTS ADDRESS 45 AMYES ROAD, CHRISTCHURCH

**CROSS SECTIONS** 

RFI Response 2021/03/30 Building Consent



Section CC 1:50



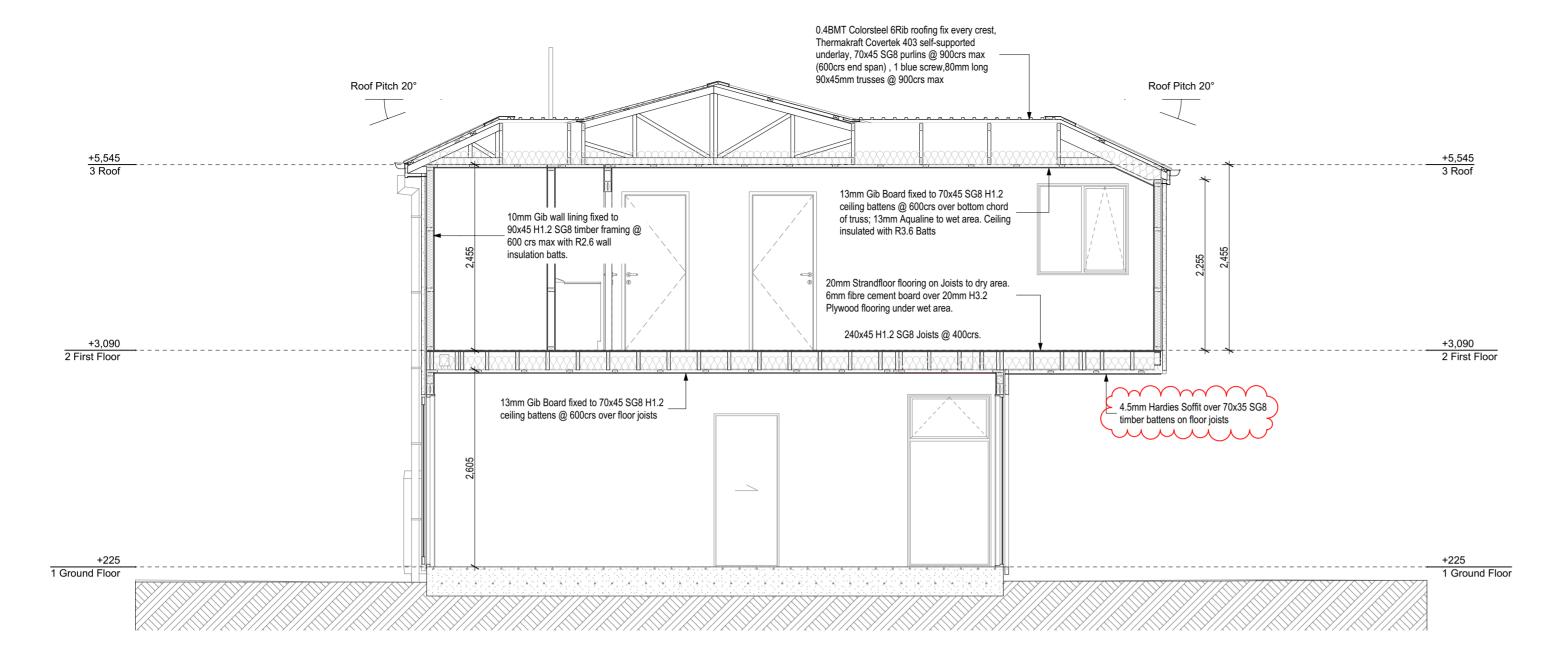
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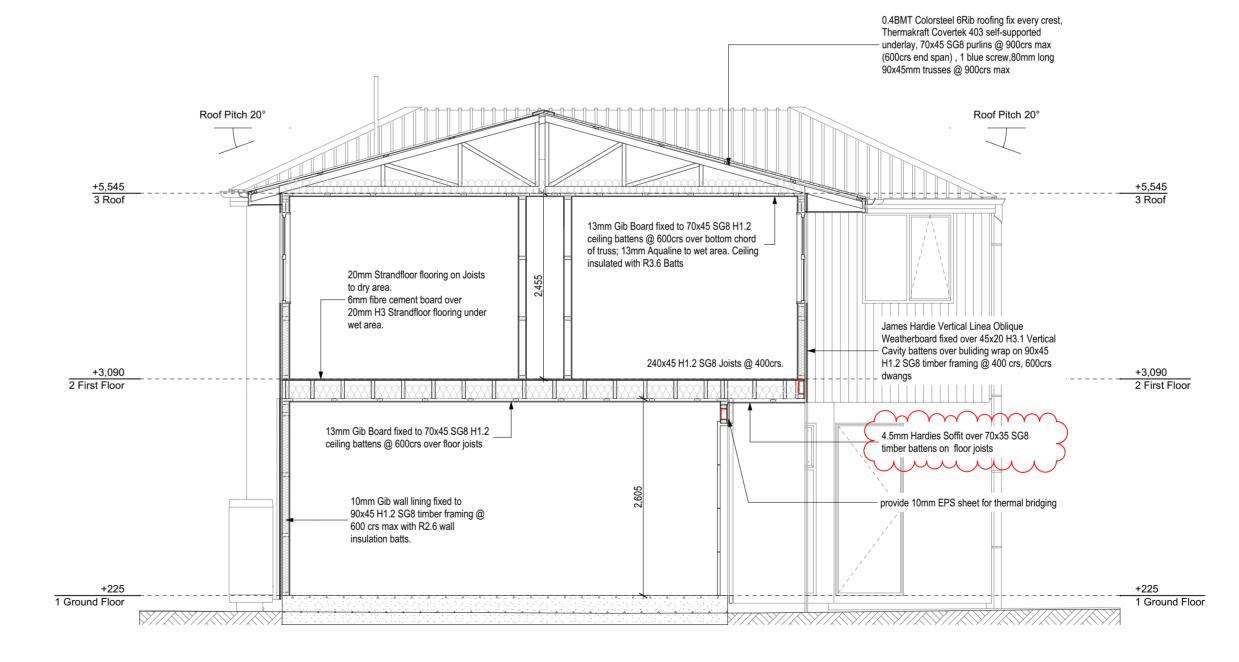


1:50@A2 RESIDENTIAL DEVELOPMENTS ADDRESS 45 AMYES ROAD, CHRISTCHURCH

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Section EE 1:50



Section FF 1:50

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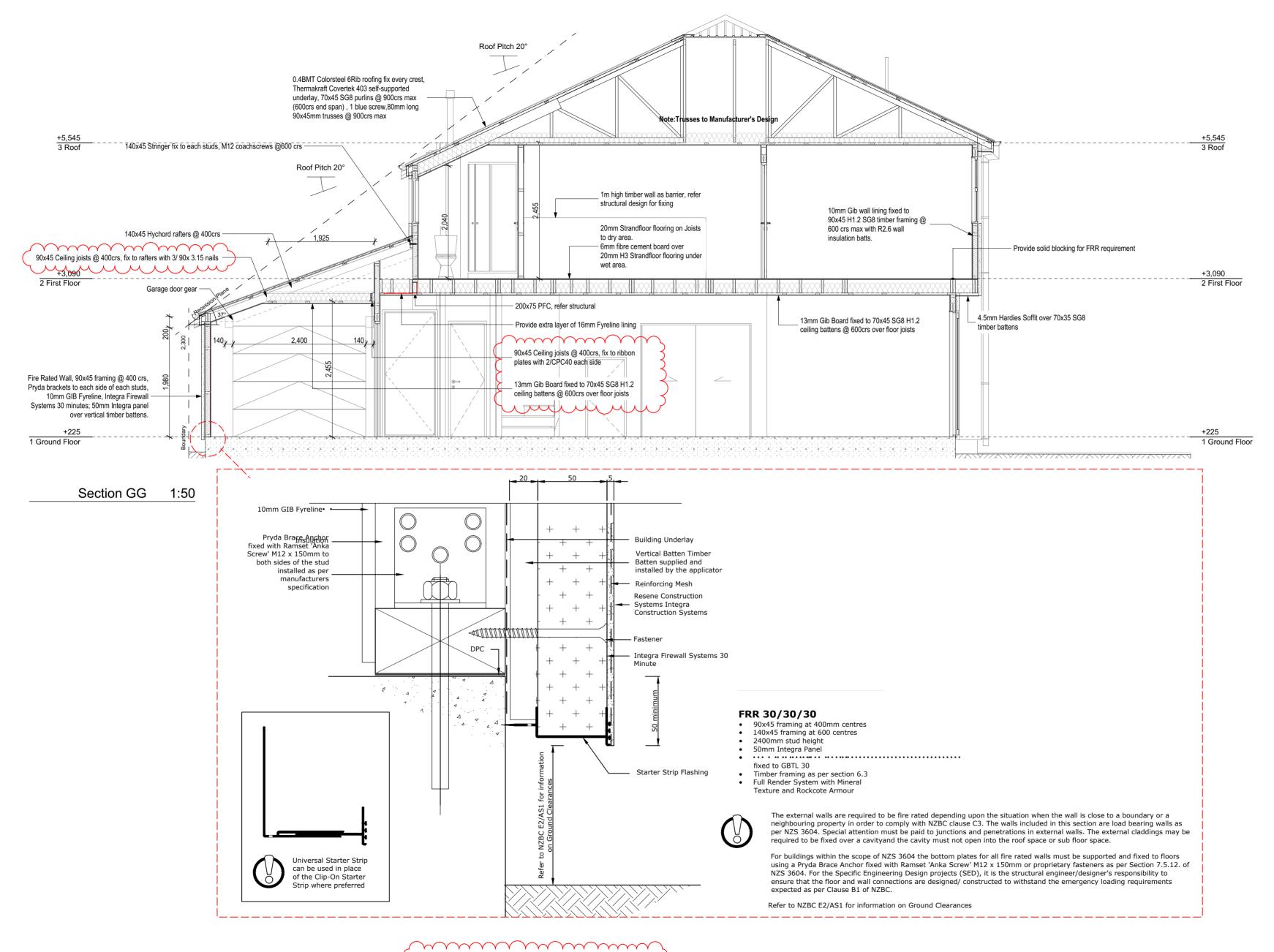
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OR JASONIQUESON.







INTL 30 FOUNDATION EDGE DETAIL

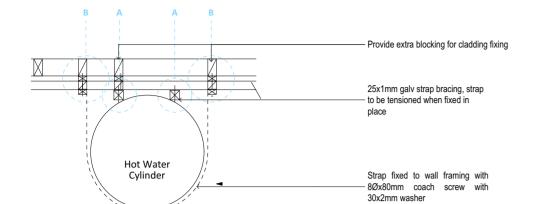
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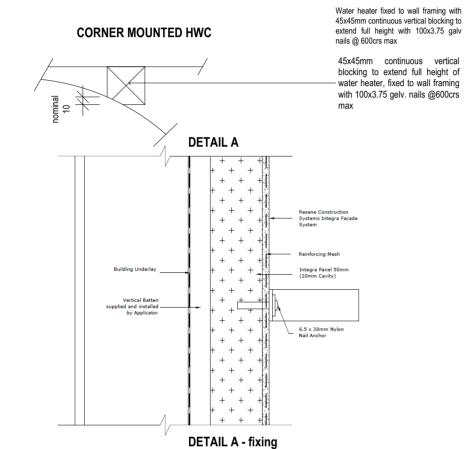


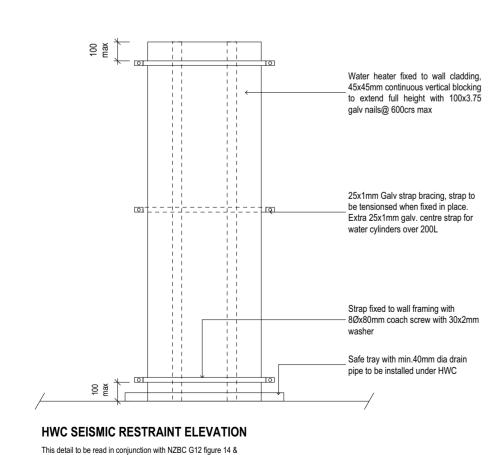


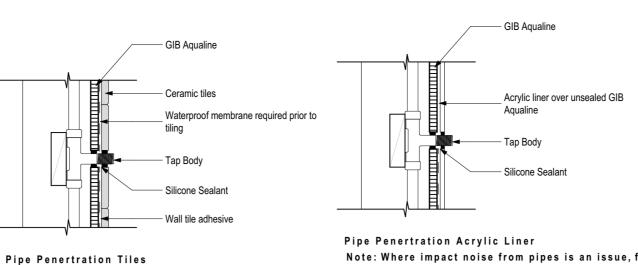
ADDRESS 45 AMYES ROAD, CHRISTCHURCH

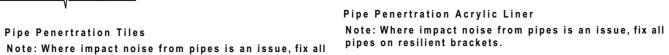


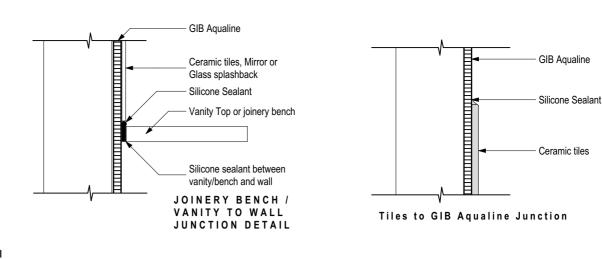


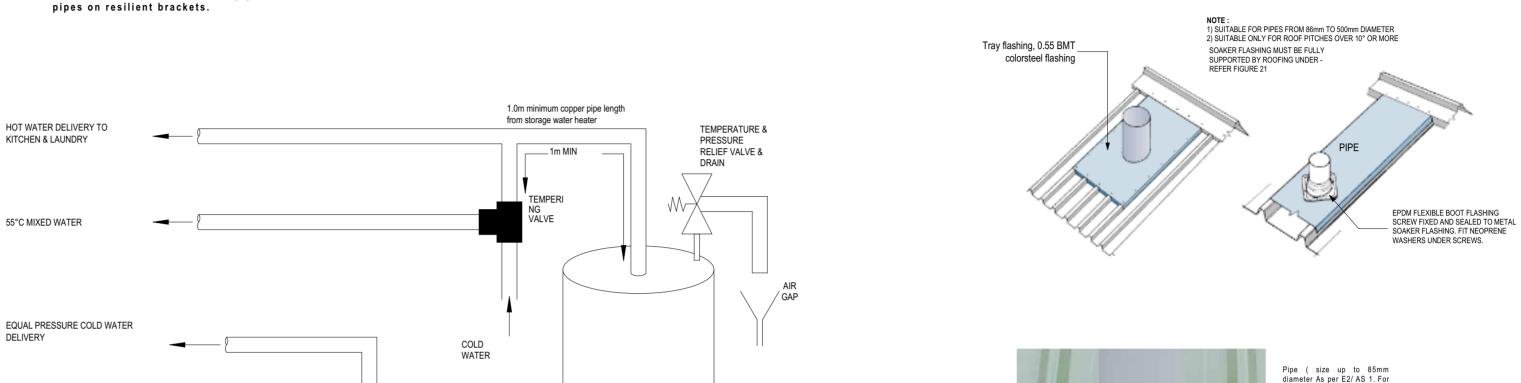


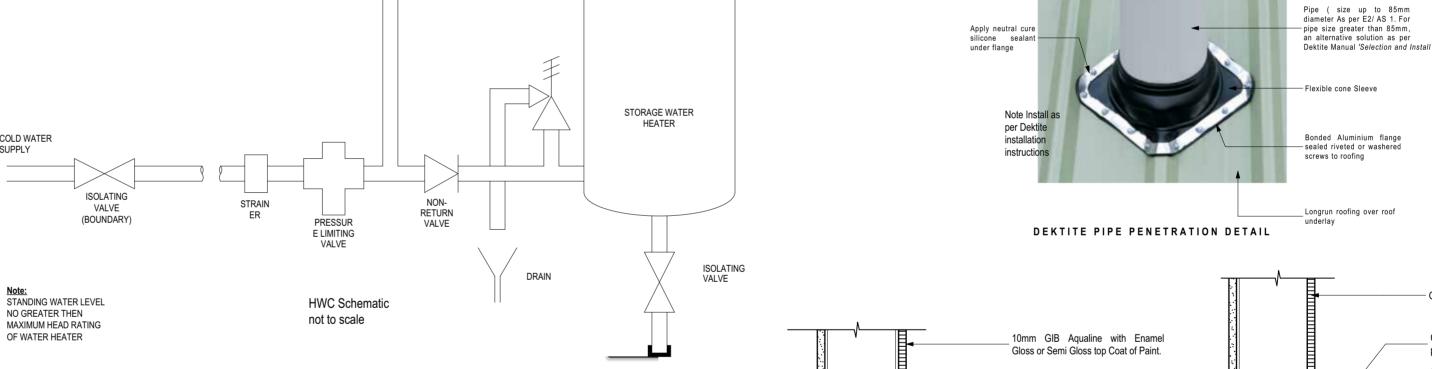


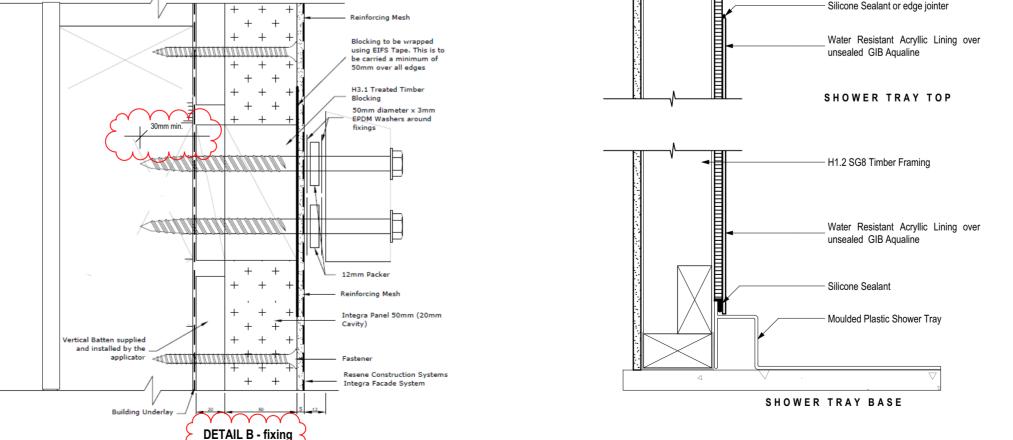


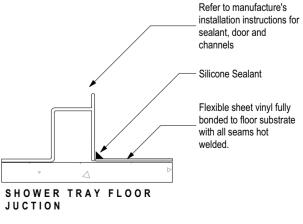












С

with all seams hot

parapgraph 6.11.4





1:5, 1:1@A2 RESIDENTIAL DEVELOPMENTS

ADDRESS 45 AMYES ROAD, CHRISTCHURCH

**GENERAL DETAILS** 

RFI Response 2021/04/18 B RFI Response 2021/03/30 Building Consent 2021/02/19

A -501

- GIB Aqualine

Ceramic tiles on water

proof membrane Ceramic tiles with grouted

joints, on adhesive

- Silicone Sealant

proof membrane

Ceramic tiles on water

COLD WATER

G12/AS1 6.14.3:

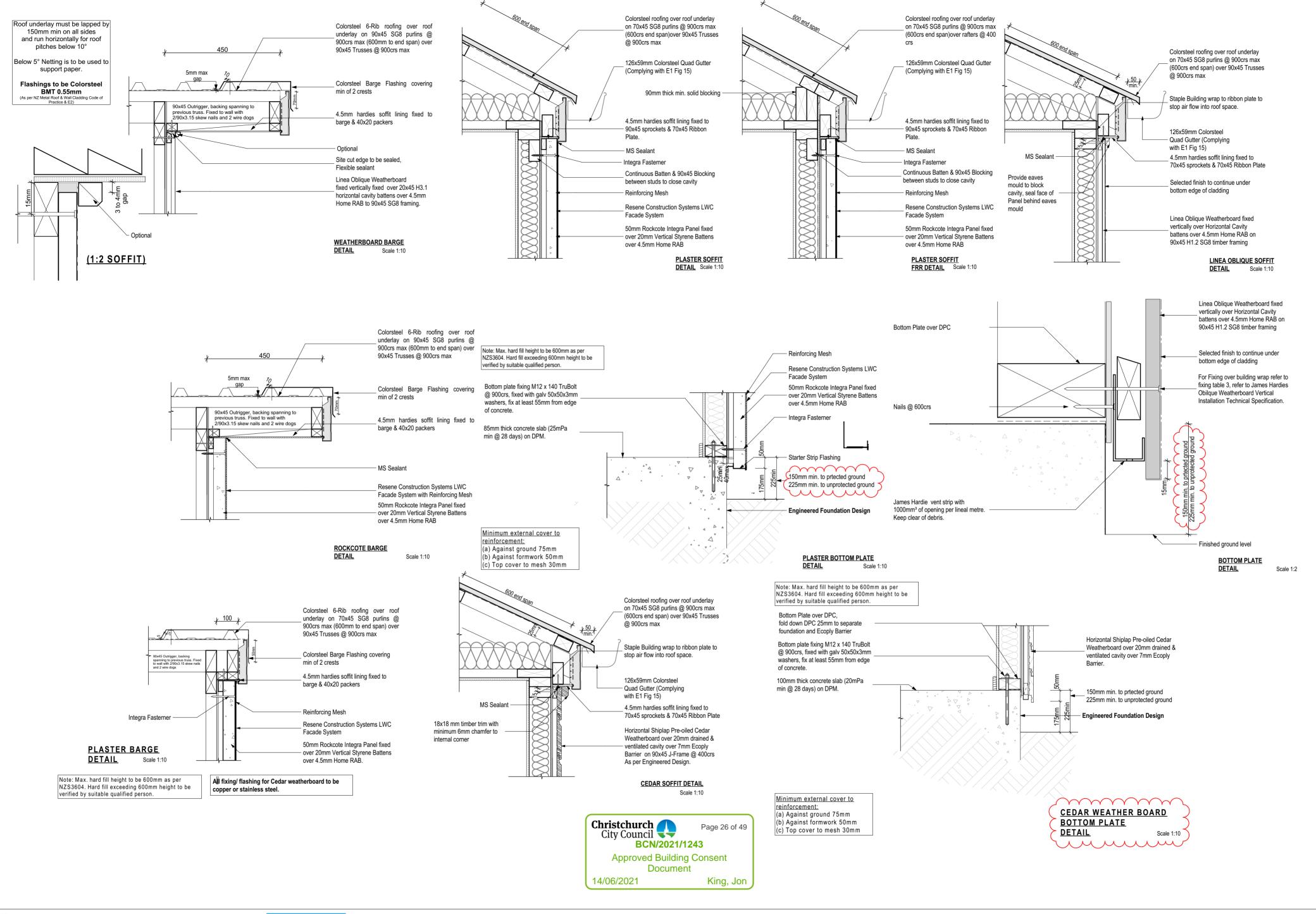
Irrespective of wheather a mixing device is installed, the

storage water heater control thermostat shall be set at a

temperature of not less than

60°C to prevent the growth of Legionella bacteria.

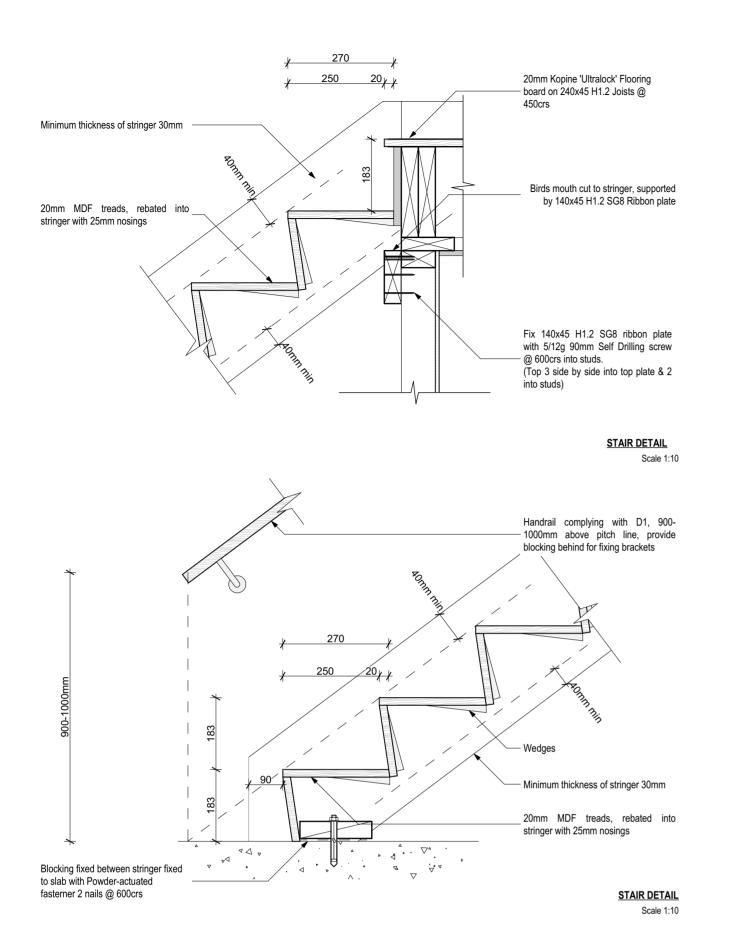
SUPPLY

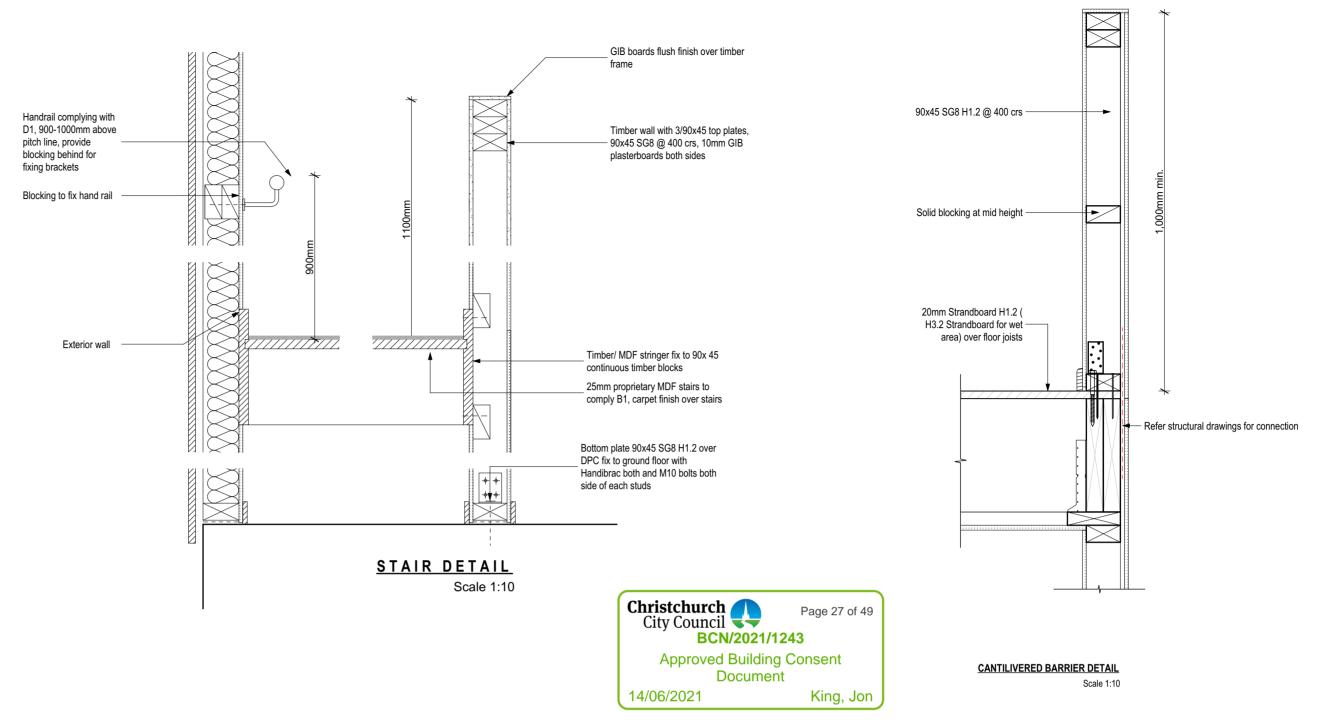


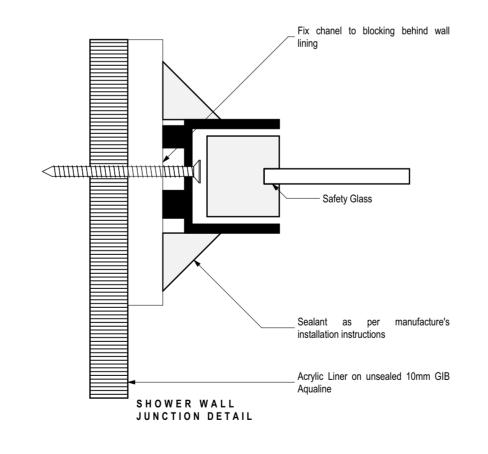


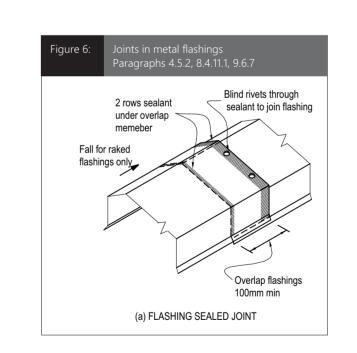


45 AMYES ROAD, CHRISTCHURCH



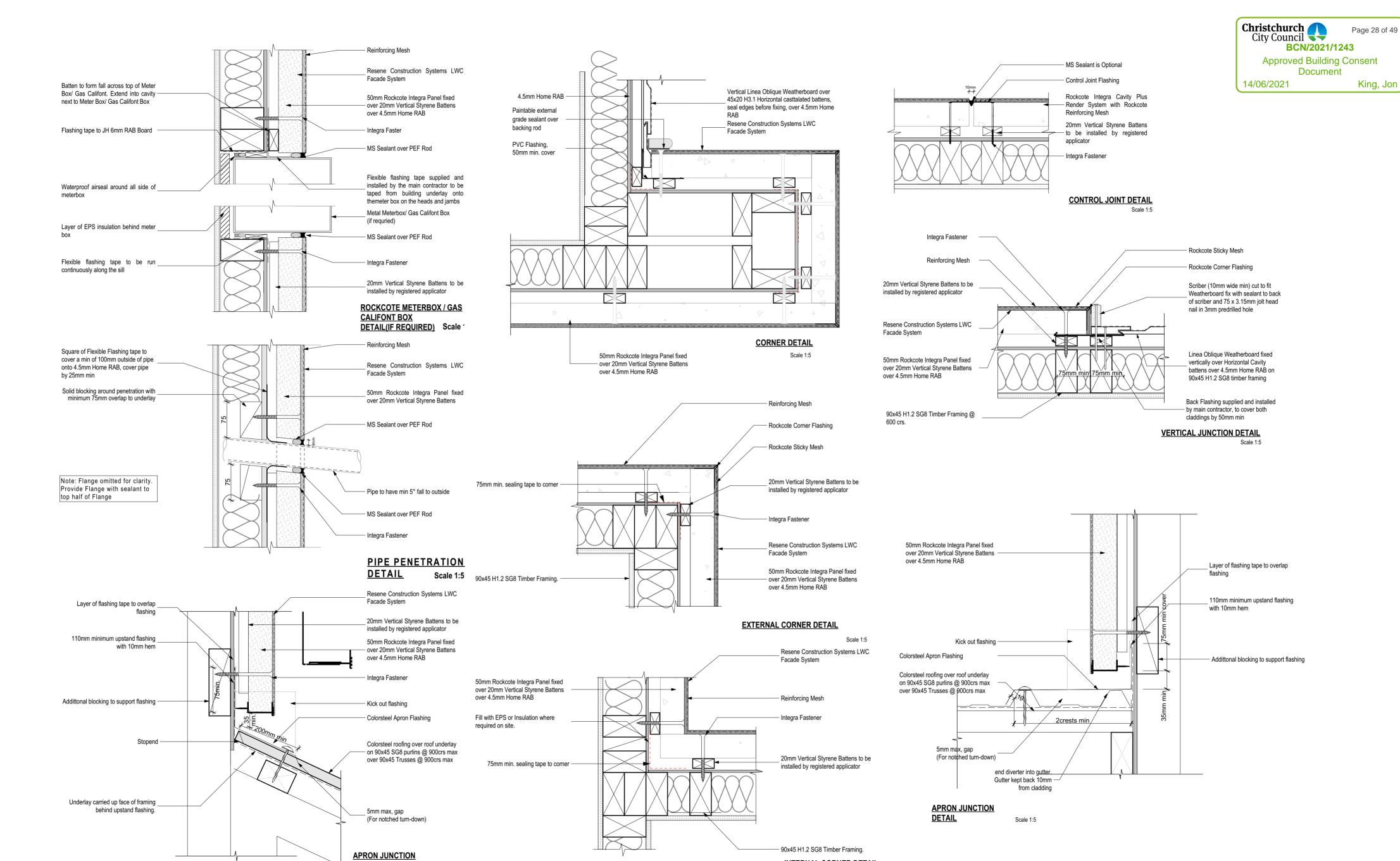












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GENERAL NOTE
- ALL CONTRACTORS MUST VERRY ALL DIMENSIONS ON SITE BEFORE STARTING WORK OR ORDERING MATERIALS, ANY
CONTRACTORS MUST VERRY ALL DIMENSIONS ON SITE BEFORE STARTING WORK OR ORDERING MATERIALS, ANY
CONTRACTORS MUST VERRY ALL DIMENSIONS ON SITE BEFORE STARTING WORK OR ORDERING MATERIALS, ANY
CONTRACTOR SHALL MILEDIATELY REPORT ANY ANYOMAUSE FOUND TO THE DESIGNER. CONTRACT SANDS BI 0020291099





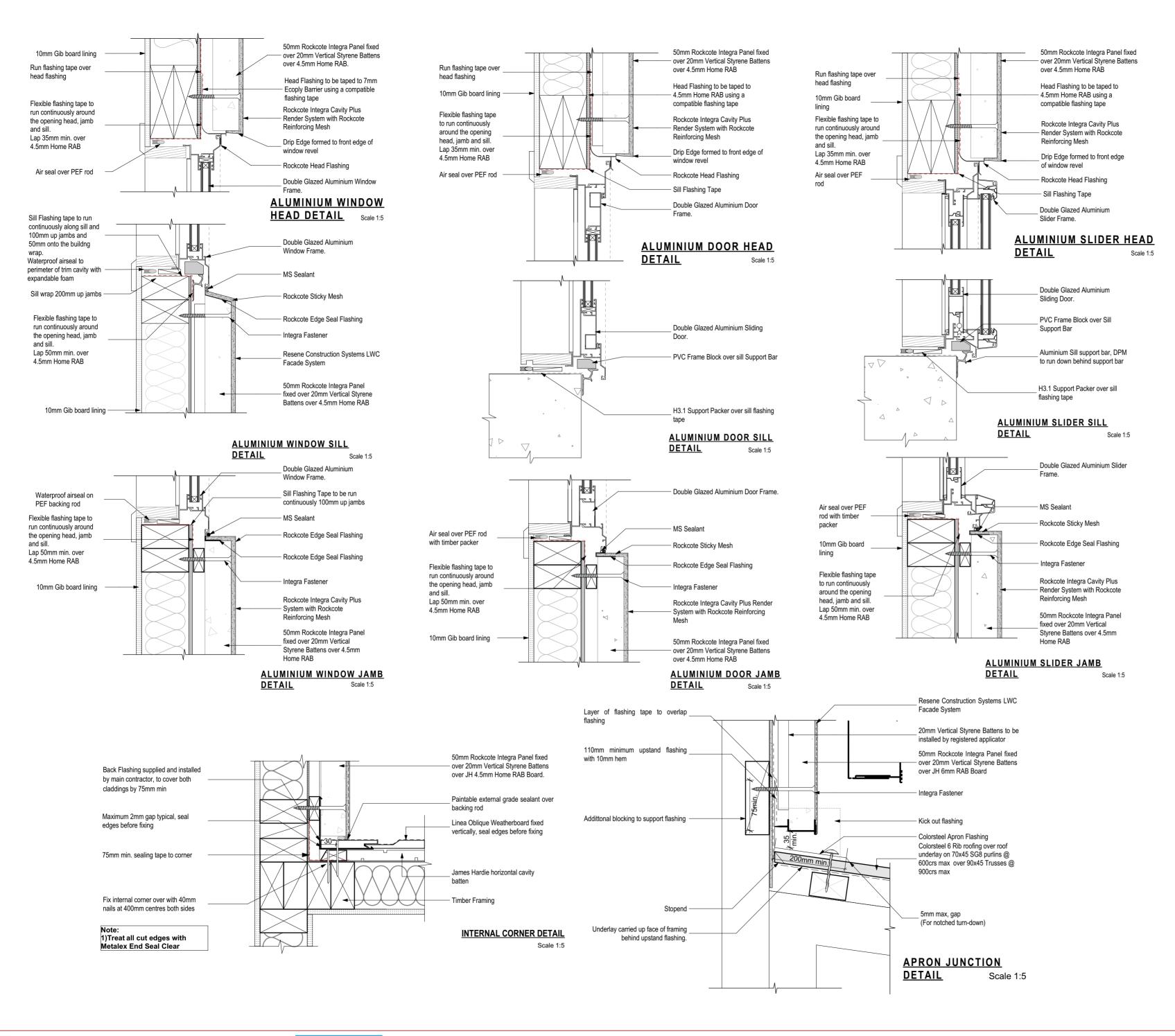
<u>DETAIL</u>



Scale 1:5

**INTERNAL CORNER DETAIL** 

A - 5 0 4



Christchurch City Council Page 29 of 49
City Council BCN/2021/1243

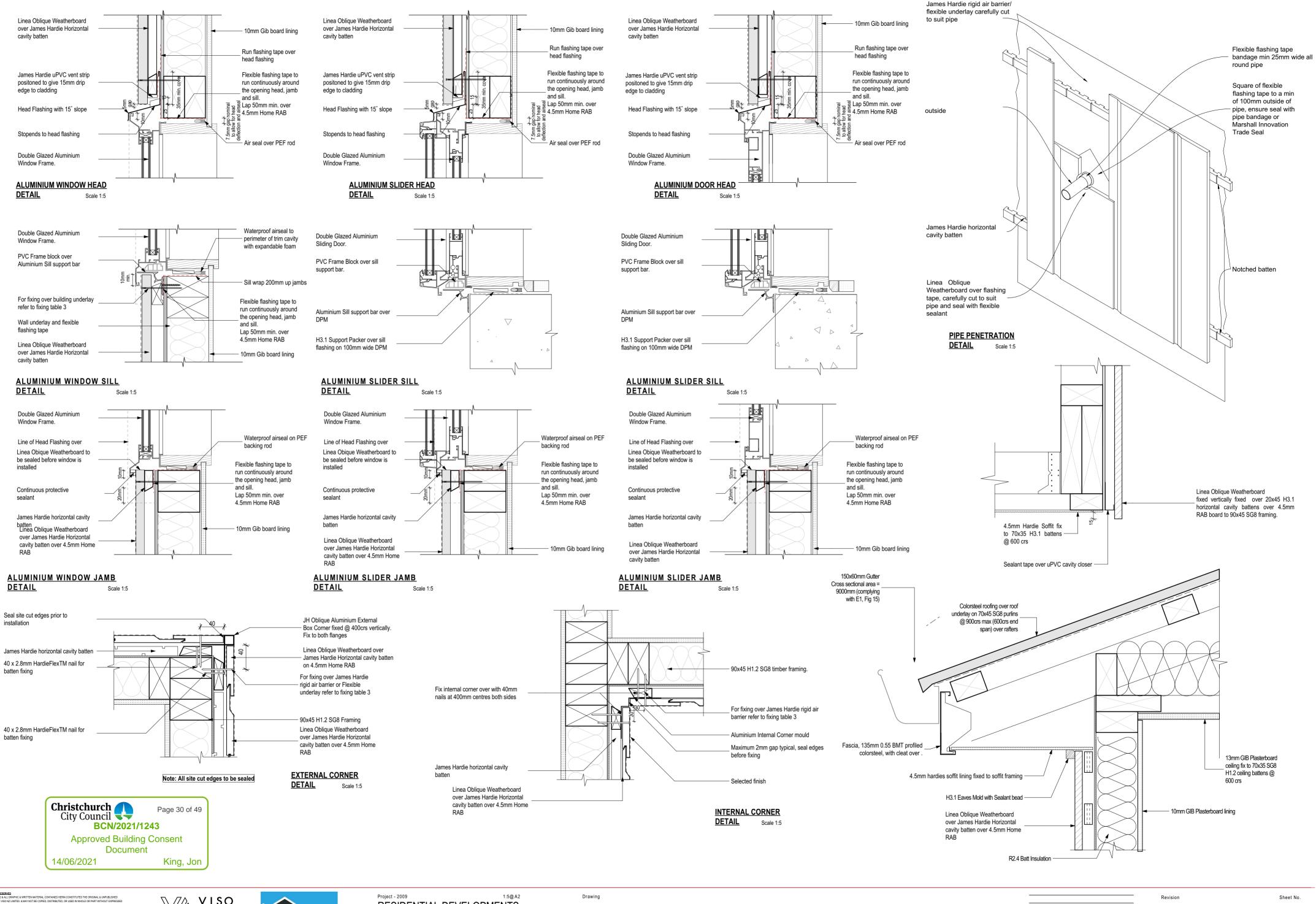
Approved Building Consent Document
14/06/2021 King, Jon

R

2021/03/30

RFI Response

Building Consent



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GENERAL MOST
- ALL CONTRACTOR MUST VEREFY ALL DIMENSIONS ON SITE BEFORE STARTING WORK OR ORDERING MATERIALS, ANY
CONTRACTORS MULL MILEMENTET VIEW PREPORT ANY ANNOMALIES FOUND TO THE DESIGNER, CONTRACT JASON BI 022/2019/09





Project - 2009

RESIDENTIAL DEVELOPMENTS

ADDRESS
45 AMYES ROAD, CHRISTCHURCH

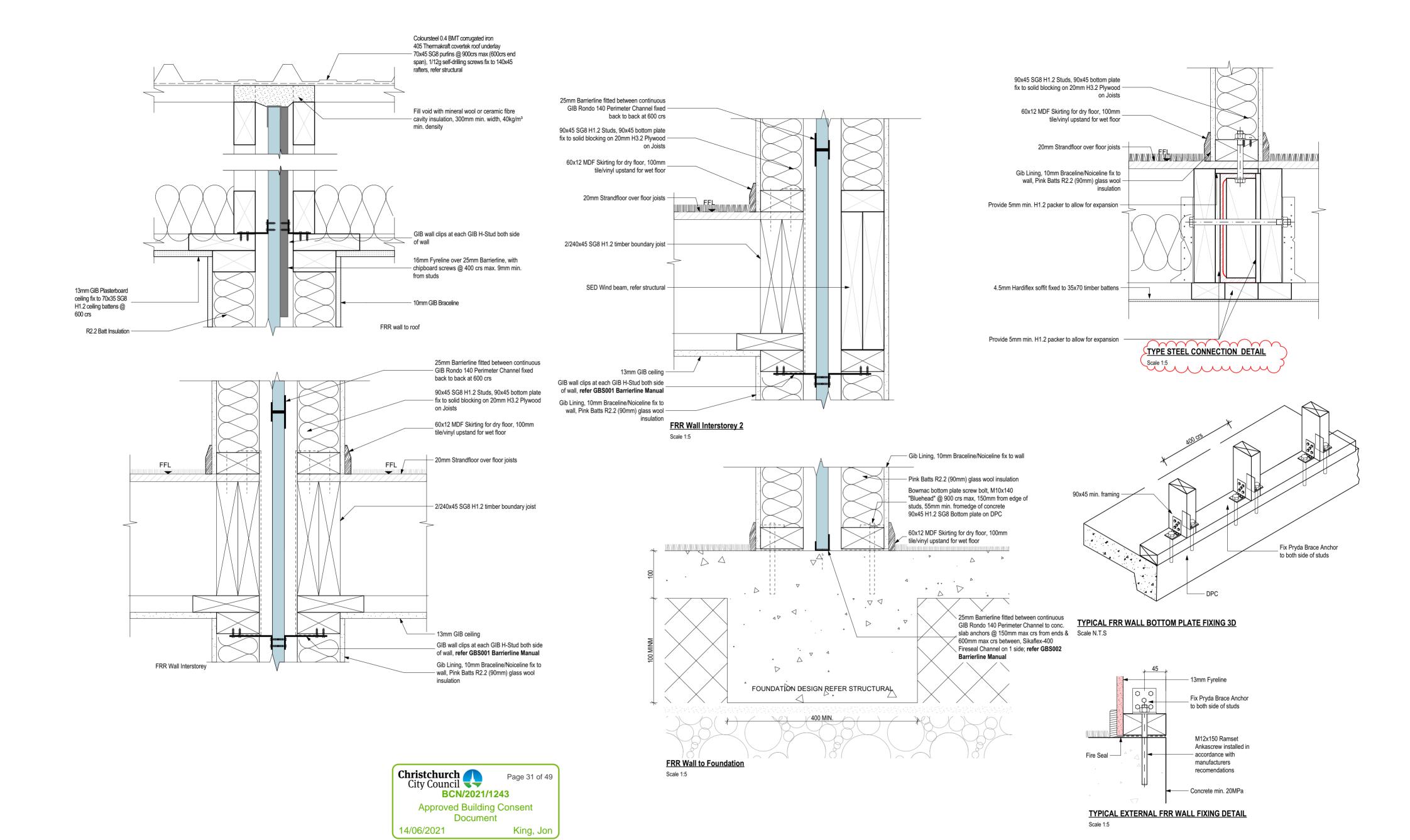
**CONSTRUCTION DETAILS 5** 

 B
 RFI Response
 2021/03/30

 A
 Building Consent
 2021/02/19

 Rev.
 Description
 Date/Time

Revisio B



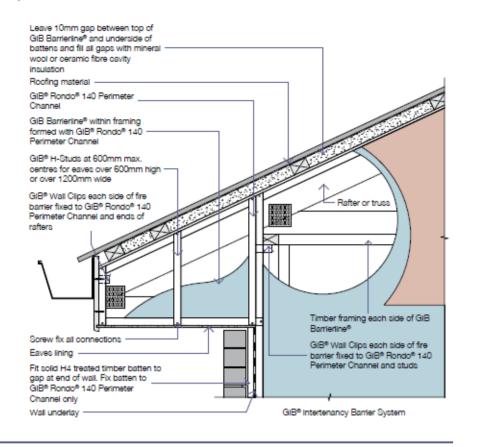




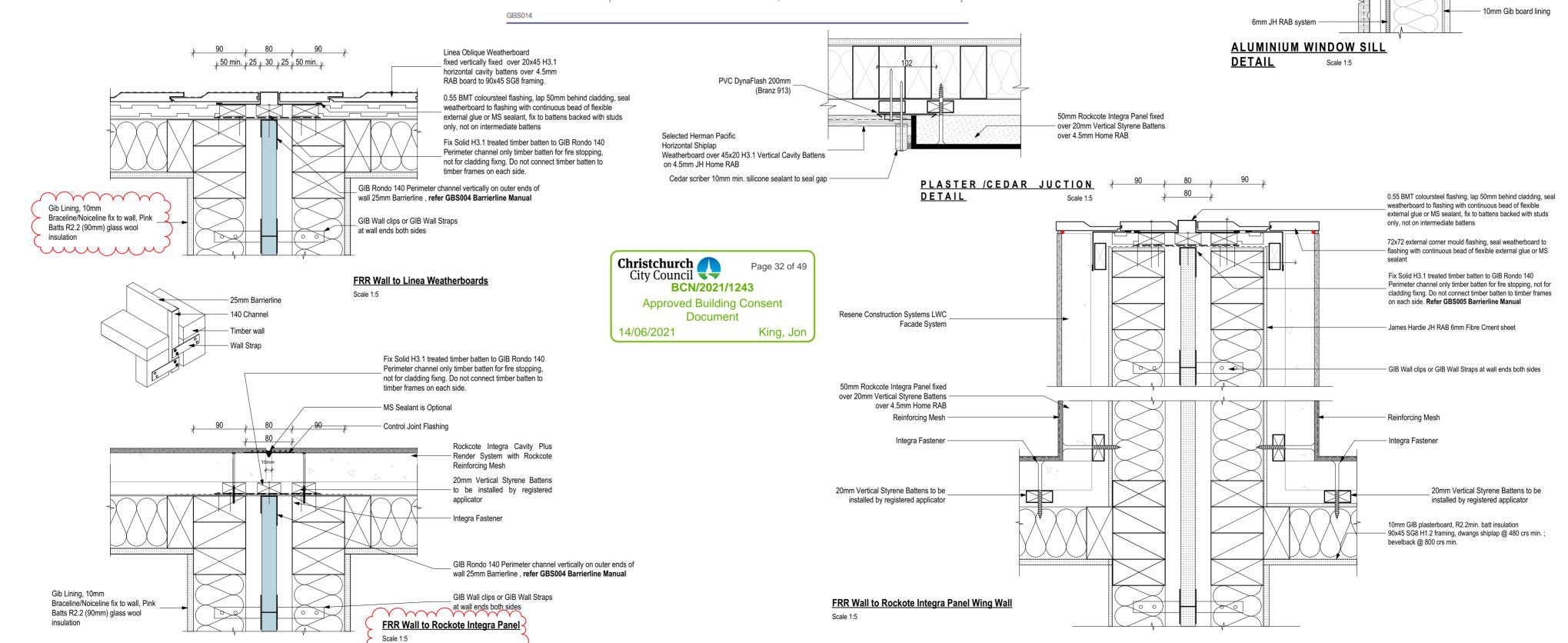


### EAVES DETAIL (SIDE ELEVATION)

GBS013



ROOF VOID DETAIL WITH HORIZONTAL SHEETING (SIDE ELEVATION) Back to back GIB® Rondo® 140/ Perimeter Channels insta - Truss chord Nominal 10mm gap between top of GIB Barrierline® and roof batten Truss bottom chord 16mm GIB Fyreline® fixed to GIB Barrierline® with chipboard screws at 400mm x 400mm max. centres Trimmer placed in trusses each side of wall to allow fixing of GIB® Wall GIB Barrierline® GIB Barrierline® installed vertically







RESIDENTIAL DEVELOPMENTS ADDRESS 45 AMYES ROAD, CHRISTCHURCH

**CONSTRUCTION DETAILS 7** 

2021/04/18 RFI Response 2021/03/30 Building Consen

Selected Herman Pacific

Weatherboard over 45x20 H3.1 Vertical Cavity Battens on 4.5mm JH Home RAB

Cavity closure strip set

15mm above drip edge

Stopends to head flashing

Flexible flashing tape to run

opening head, jamb and sill.

continuously around the

Lap 50mm min. over JH

Sill Flashing tape to run

continuously along sill

and 100mm up jambs

JH RAB System.

Waterproof airseal to

perimeter of trim cavity

with expandable foam

Sill wrap 200mm up

jambs.

and 50mm onto the 6mm

RAB board.

to cladding

Horizontal Shiplap

Flexible flashing tape

lapped over flashing

Cavibat Cavity Battens

Sealant between head

Double Glazed Aluminium

**ALUMINIUM WINDOW** 

HEAD DETAIL Scale 1:5

Double Glazed Aluminium

Selected Herman Pacific

Weatherboard over 45x20

on 4.5mm JH Home RAB

Horizontal Shiplap

H3.1 Vertical Cavity

Battens

Window Frame.

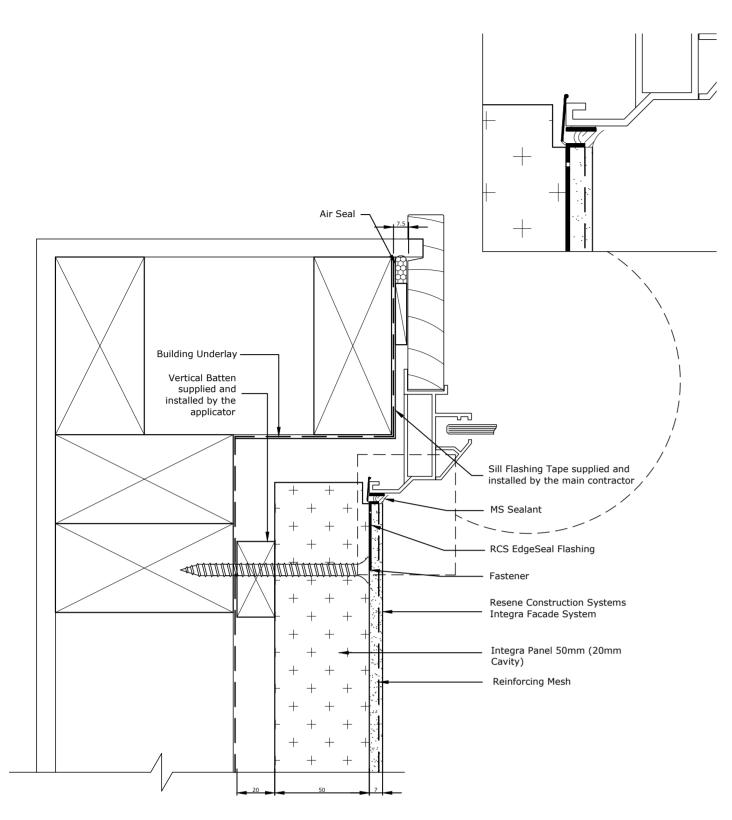
flashing and window

60mm min. cover to

Head flashing\_

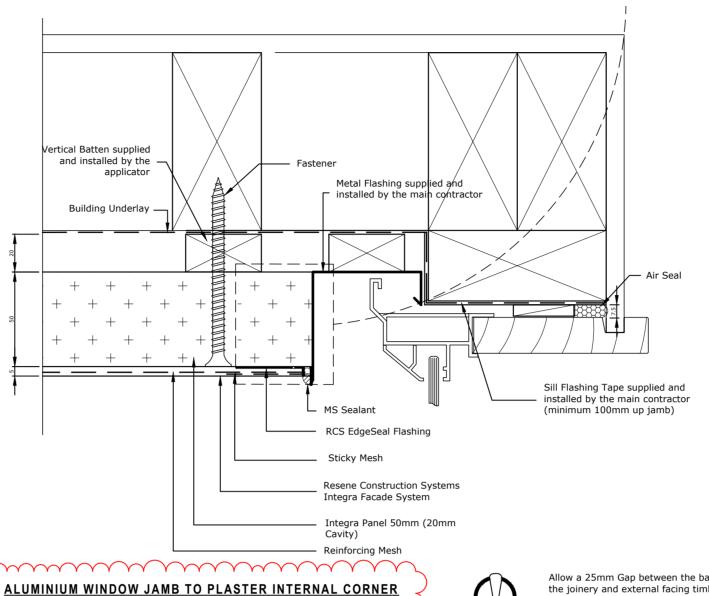
10mm †

to joinery

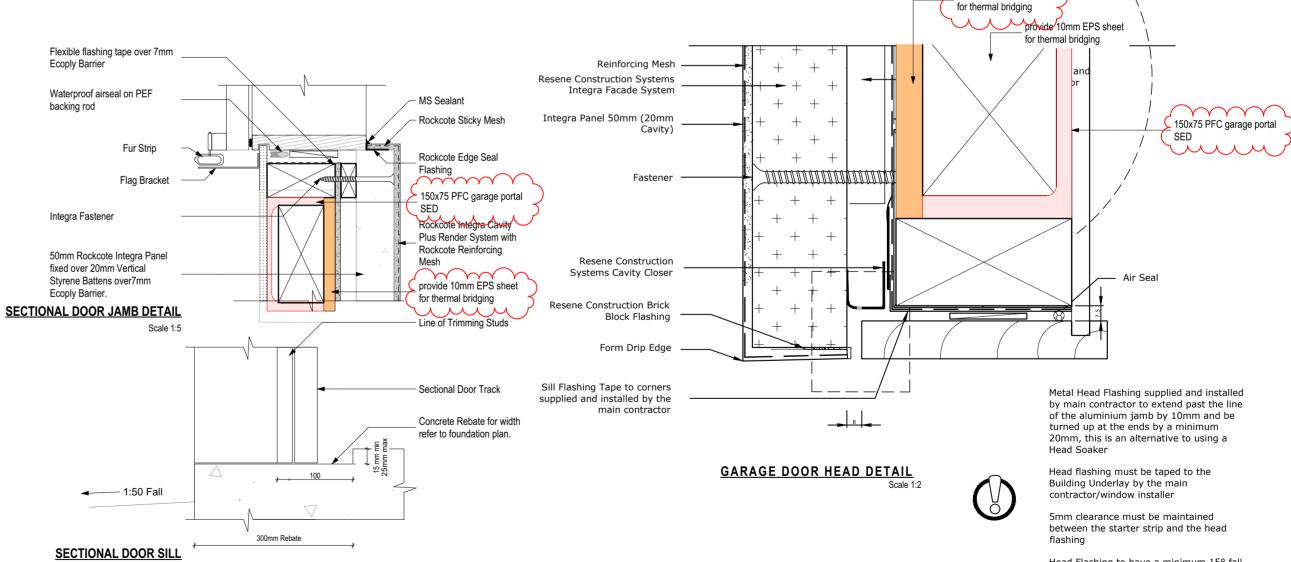


Allow a 25mm Gap between the back of the joinery and external facing timber framing to allow the jamb flashing to fit.

**ALUMINIUM WINDOW JAMB TO PLASTER INTERNAL CORNER** DETAIL 1 (70mm ~ 100mm) Scale 1:2



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



Head Flashing to have a minimum 15° fall

The Head Flashing must be installed so that it extends 10mm either side of the jamb extrusion.





DETAIL 1 (less than 70mm)

MI MI MI MI MI

provide 10mm EPS sheet

Roofing underlay

Colorsteel Valley flashing with continuous roofing underlay, supported

on 150x25mm H3.2 valley board.

Trapezoidal notched

flashing

profile





pitches below 10°

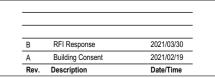
Below 5° Netting is to be used to

support paper.

Flashings to be Colorsteel BMT 0.55mm (As per NZ Metal Roof & Wall Cladding Code of Practice & E2)



VALLEY DETAIL Scale 1:10



RIDGE TO HIP DETAIL Scale 1:10

A - 5 1 0

Page 34 of 49

King, Jon

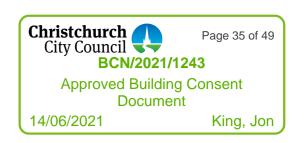
BCN/2021/1243 Approved Building Consent Document

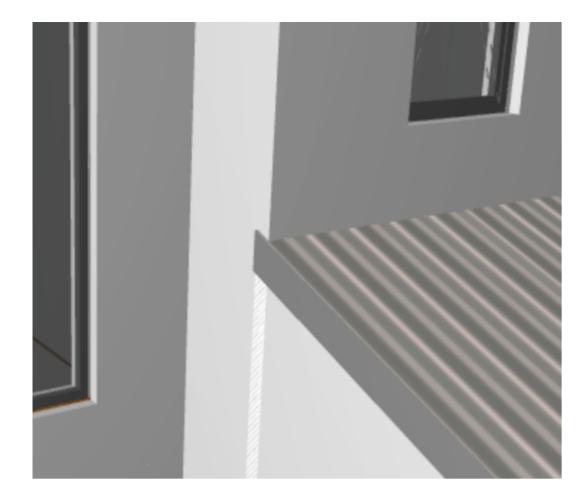
5mm max. gap between pan & edge of — flashing

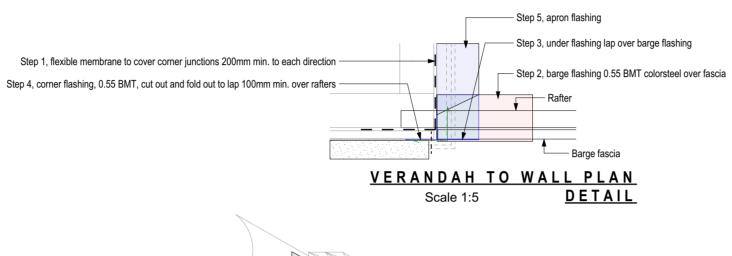
Underlay

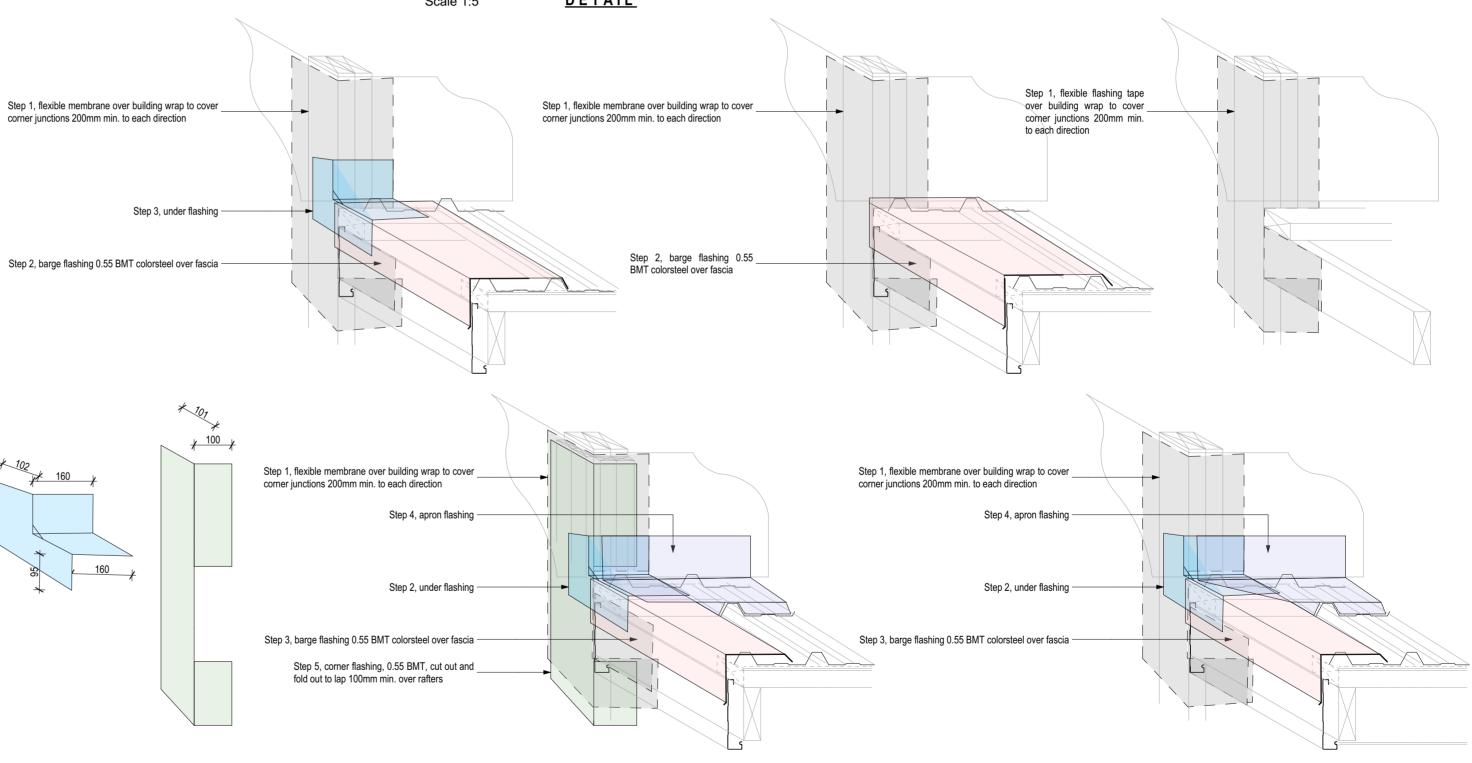
\_ Turndown notched

over ribbed profiles

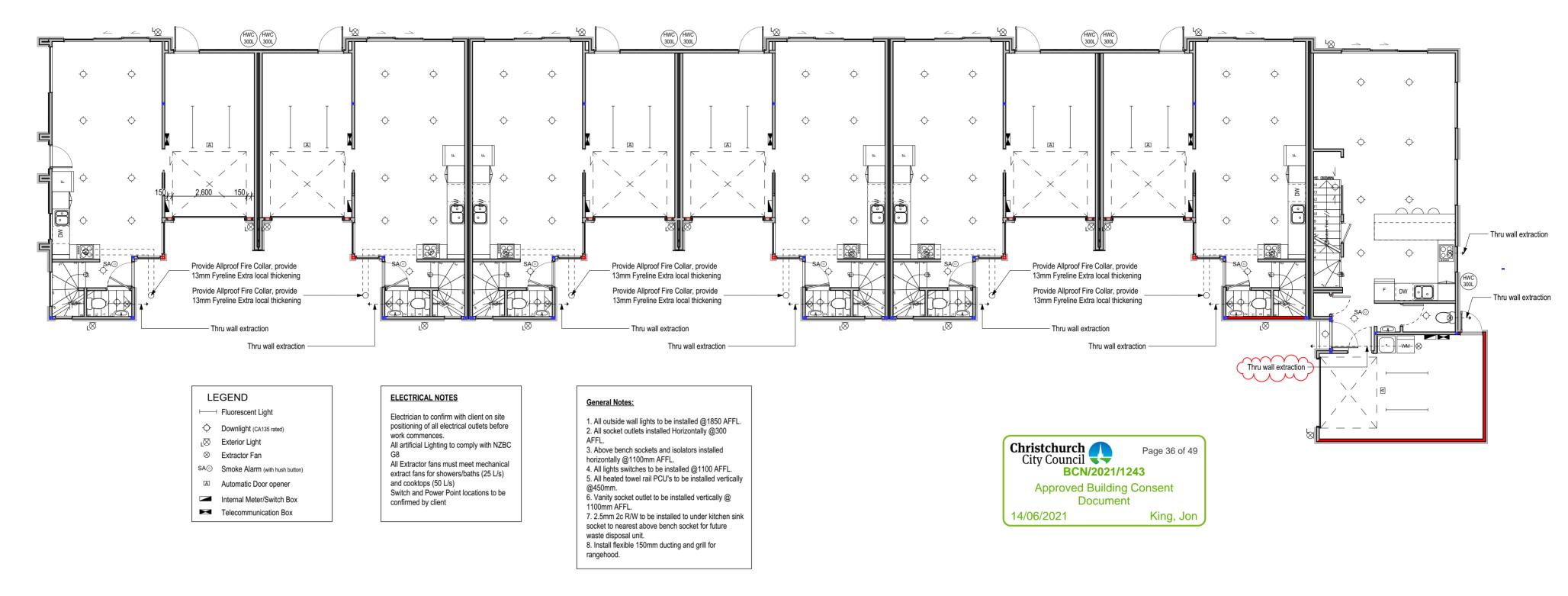




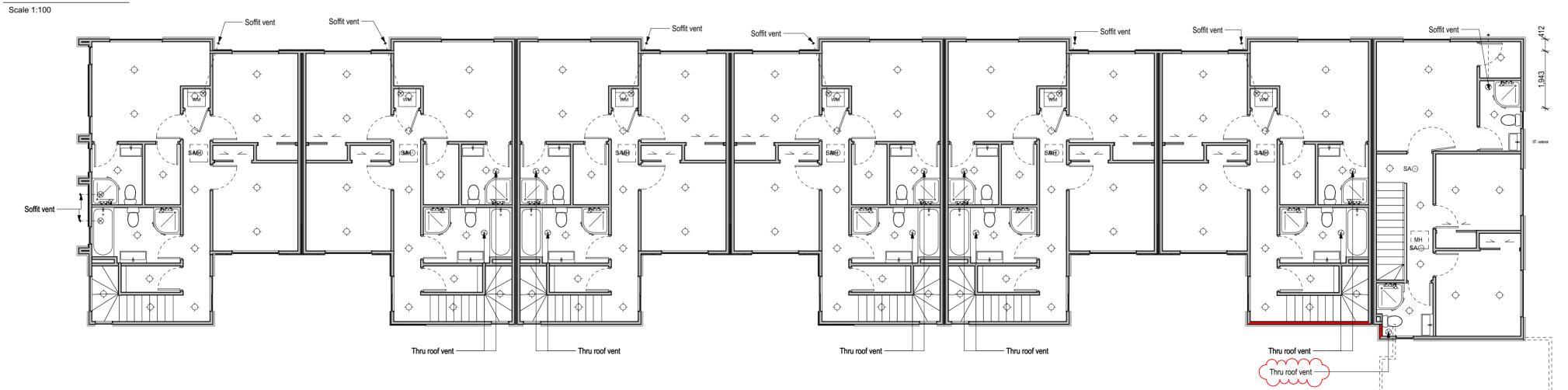












FF Electrical Plan

Scale 1:100

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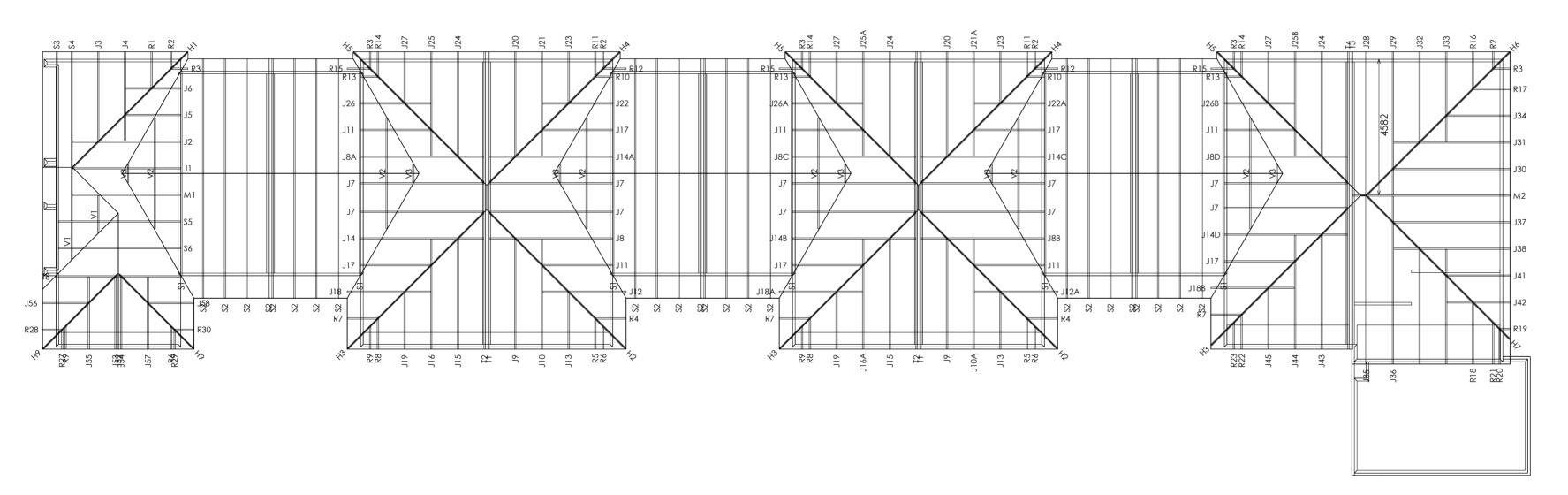
MUST VERREY ALL DIMENSIONS ON SITE BEFORE STARTING WORK OR ORDERING IMTERIAL S. ANY IMMEDIATELY REPORT ANY ANNOMALIES FOUND TO THE DESIGNER CONTACT. JASON BI (22020109)





Roof Bracing Layout







65 Wickham St. PO Box 19-765, Christchurch

91 Adams Drive, Pukekohe, Auckland

0800 PRENAIL (0800 7736245)

JOB No **90122** 

Client: Beyond Homes Job Name: New House Address: 45 Amyes Road

Pitch: 25.000 Roof Material: Longrun Iron Soffit Overhang: 450 & 250 & 80

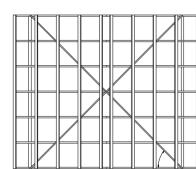
Wind Area: High Snow Load: 0.441

Trusses And Rafters At 900 Centres Unless Stated Otherwise

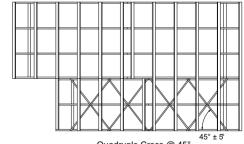
**DRAWN BY** Josh Thompson

DATE 20 Jan,2021 PAGE 1 of

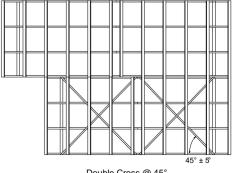
# **Roof Bracing Details**



45° ± 5°
Single Cross @ 45°



Quadruple Cross @ 45°

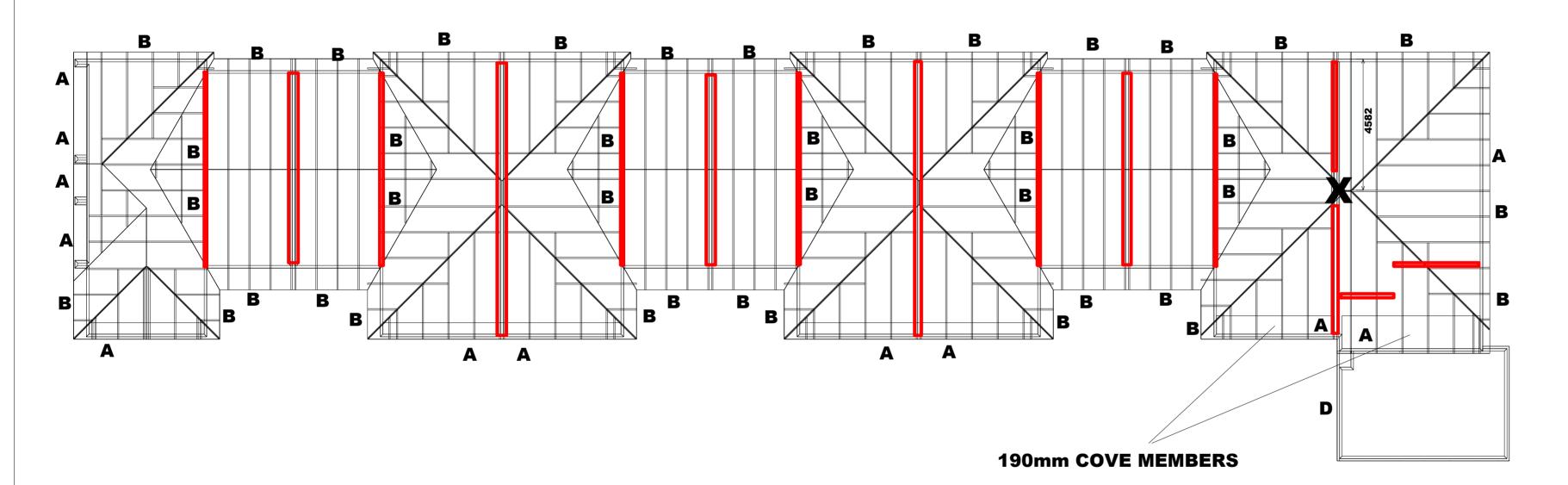


Double Cross @ 45° (as diagram above)

#### NOTES:

Refer to: Lumberlok roof bracing brouchure 07/2006





X=Type FP1 375x375 Slab Pad = Load Bearing Walls Not Requiring Slab Thickening (Under 10kN)

Architect / Engineer to confirm all top floor loads are transferred to foundation / slab below All Other lintels / beams by architect / engineer



65 Wickham St. PO Box 19-765, Christchurch 91 Adams Drive, Pukekohe, Auckland

0800 PRENAIL (0800 7736245)

#### JOB No **90122**

Client: Beyond Homes
Job Name: New House
Address: 45 Amyes Road

Pitch: 25.000
Roof Material: Longrun Iron
Soffit Overhang: 450 & 250 & 80
Wind Area: High

Trusses And Rafters At 900 Centres Unless Stated Otherwise

DRAWN BY Josh Thompson

DATE 20 Jan,2021 PAGE 1 of

Snow Load: 0.441

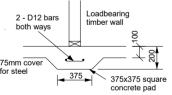
These lintels have been sized as per the GANGLAM and FLITCH BEAM selection manuals as provided by MiTek NZ Ltd.

HYSPAN lintels have been sized as per the HYSPAN selection charts.

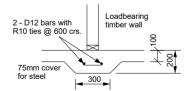
Unless otherwise stated all lintels are as per NZS3604 2011

LINTEL	SIZE	
Α	2/90x45	MSG8
В	2/140x45	MSG8
С	2/190x45	MSG8
D	2/240x45	MSG8
Е	2/290x45	MSG8
F		

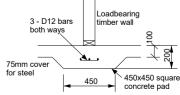
#### **Slab Thickening Details**



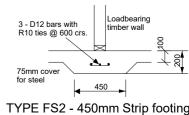
TYPE FP1 - 375x375mm Pad



TYPE FS1 - 300mm Strip footing



TYPE FP2 - 450x450mm Pad







RAWING NO.	DRAWING NAME	REV
000	COVER SHEET	A
8001	GENERAL NOTES 1	A
6002	GENERAL NOTES 2	A
101	SITE PLAN	A
201	FOUNDATION LAYOUT	С
202	FOUNDATION TYPICAL DETAILS 1	В
203	FOUNDATION TYPICAL DETAILS 2	A
301	BEAM LAYOUT 1	С
302	BEAM TYPICAL DETAILS	В
401	BRACING PLAN GROUND FLOOR	A
3402	BRACING PLAN FIRST FLOOR	В

SITE LOCATION

STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BUILDING

45 AMYES ROAD, HORNBY, CHRISTCHURCH, CANTERBURY, 8042, NZL

**BUILDING CONSENT** 

PROJECT NO.: 20334





### **GENERAL**

- 1. PROVIDE SAFE WORKING CONDITIONS AT ALL TIMES. COMPLY IN FULL WITH HEALTH AND SAFETY IN EMPLOYMENT ACT IN GENERAL AND NZBC F5/AS1.
- 2. IF IN DOUBT ASK.
- 3. THE CONTRACTOR IS TO LOCATE ALL SERVICES BEFORE CONSTRUCTION AND REPORT ALL POSITIONS AND CLASHES IN WRITING TO THE ARCHITECT AND ENGINEER.
- 4. IT IS THE CONTRACTORS RESPONSIBILITY TO ARRANGE AND PASS ALL NECESSARY COUNCIL AND ENGINEERING INSPECTIONS.
- 5. MAIN CONTRACTOR TO PROVIDE PERIDOT WITH PS3 CERTIFICATE FOR ALL COMPLETED WORKS IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
- PERIDOT DOES NOT PROVIDE PS4 CERTIFICATES FOR ITEMS NOT INSPECTED BY PERIDOT.
- 7. ALL DURABILITY SHALL BE IN ACCORDANCE WITH CLAUSE B2 OF NZBC.
- 8. PERIDOT DOES NOT CERTIFY CLAUSE B2 OF THE BUILDING CODE FOR ANYTHING RELATING TO WATERPROOFING OR WEATHER TIGHTNESS - REFER COUNCIL FOR THESE INSPECTIONS / CERTIFICATIONS.
- 9. THE DESIGN ADEQUACY INCORPORATED IN THESE DRAWINGS IS SUBJECT. TO THE REQUIREMENTS INCLUDED IN THE SPECIFICATION FOR THE WORKS AND THE DESIGN ASSUMPTIONS INCORPORATED INTO THE CALCULATIONS AND REPORTS FOR THE PROJECT.
- 10. THE DRAWINGS SHOW THE DESIGN INTENT. SHOP DETAILING IS THE RESPONSIBILITY OF THE CONTRACTOR
- 11. ALL SPECIFICATIONS, CODES AND THE LIKE REFERENCED EITHER DIRECTLY OR BY INFERENCE SHALL BE THE LATEST PUBLISHED VERSIONS.
- 12. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN MILLIMETRES & ALL LEVELS ARE IN METRES. FOR OVERALL DIMENSIONS REFER TO ARCHITECTURAL PLANS.
- 13. THESE STRUCTURAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, ENGINEERING & SPECIALIST DRAWINGS & SPECIFICATIONS.
- 14. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING FROM DRAWINGS.
- 15. ALL DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER FOR RESOLUTION BEFORE PROCEEDING WITH WORK.
- <sup>16.</sup> SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE BUILDER.
- 17. DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION & NO PART SHALL BE OVER-STRESSED. TEMPORARY STRUCTURES, FORMWORK, FALSEWORK, TEMPORARY BRACING, SHORING & THE LIKE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 18. ALL MATERIALS & WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT CODES OF PRACTICE EXCEPT WHERE VARIED BY THE SPECIFICATION AND/OR DRAWINGS.
- 19. WHERE PROPRIETARY PRODUCTS ARE SPECIFIED IN THE DOCUMENTS. THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE PRODUCT FOR APPROVAL. ALL MATERIALS & WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION.
- 20. SUBSTITUTIONS ARE TO BE MADE ONLY WITH THE APPROVAL OF THE ENGINEER.
- 21. ALL TIMBER CONSTRUCTION TO COMPLY WITH NZS3604:2011 TIMBER-FRAMED BUILDINGS UNLESS SPECIFIED OTHERWISE.

- 22. THE CONTRACTOR SHALL SUBMIT PRECAST CONCRETE PANEL AND STRUCTURAL STEELWORK SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCEMENT OF WORK. REVIEW OF THE SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR THE CORRECTNESS OF THE SHOP DRAWINGS, SITE DIMENSIONS, OR FOR ENSURING THAT THE WORK IS CARRIED OUT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 23. WHERE THE ENGINEERS ARE ENGAGED FOR INSPECTIONS AND/OR SUPERVISION, A MINIMUM OF 24 HOURS NOTICE SHALL BE GIVEN.
- 24. COMMON ABBREVIATIONS:

#### **GENERAL**:

COS	- CHECK / CONFIRM ON SITE
C/C or CRS	- CENTRES OR CENTRE TO CENTRE
RTAD	- REFER TO ARCHITECTS DRAWINGS & DETAILS
UNO	- UNLESS NOTED OTHERWISE
NTS	- NOT TO SCALE
DPM	- DAMP PROOF MEMBRANE
ES	- EACH SIDE
FCL	- FINISHED CUT LEVEL
EXTG	- EXISTING

- SMALL END DIAMETER SED TBA - TO BE ADVISED **TBC** - TO BE CONFIRMED TYP - TYPICAL

FFL - FINISHED FLOOR LEVEL

- RADIUS

(F/E)GL - (FINISHED / EXISTING) GROUND LEVEL U/S - UNDERSIDE DIA - DIAMETER

#### CONCRETE / REINFORCING:

RAD

RC	- REINFORCED CONCRETE
PC	- PRECAST CONCRETE
CJ NF FF EF	- CONSTRUCTION / CONTROL JOINT - NEAR FACE - FAR FACE
B (1) T (1) CVR H V SC	<ul> <li>- EACH FACE</li> <li>- BOTTOM (NUMBER DENOTES LAYER)</li> <li>- TOP (NUMBER DENOTES LAYER)</li> <li>- COVER</li> <li>- HORIZONTAL</li> <li>- VERTICAL</li> <li>- SAWCUT</li> </ul>

#### STEELWORK:

CHS	- CIRCULAR HOLLOW SECTION
EA	- EQUAL ANGLE
RHS	- RECTANGULAR HOLLOW SECTION
SHS	- SQUARE HOLLOW SECTION
UA	- UNEQUAL ANGLE
UB	- UNIVERSAL BEAM
UC	- UNIVERSAL COLUMN
FSBW	- FULL STRENGTH BUTT WELD
FWAR	- FILLET WELD ALL ROUND
TOS	- TOP OF STEEL

#### **INSPECTIONS**

- 1. SUBSOIL CONDITIONS AND BEARING CAPACITY (GEOTECHNICAL ULTIMATE: 200KPa) TO BE VERIFIED AFTER FOOTPRINT IS CUT AND BEFORE FILL PLACEMENT.
- 2. ALL REINFORCING STEEL FOR ANY ONE CONCRETE POUR MUST BE COMPLETELY PLACED AND TIED PRIOR TO INSPECTION.
- 3. ALL STRUCTURAL BEAMS, COLUMNS AND CONNECTIONS MUST BE INSPECTED AND APPROVED BY ENGINEER PRIOR TO CONCEALMENT.
- 4. PRE-LINE AND PRE-STOP INSPECTION FOR BRACING ELEMENTS PRIOR TO CONCEALMENT.

NOTE: MINIMUM 48 HOURS NOTICE IS REQUIRED FOR INSPECTIONS.

DRAWING REFERENCE NO.

#### CONCRETE

- SLAB FINISHES & JOINERY REBATES REFER TO ARCHITECTURAL DETAILS.
- 2. ALL WORKMANSHIP & MATERIALS SHALL BE IN ACCORDANCE WITH NZS3101 & NZS3109, CURRENT EDITION WITH AMENDMENTS EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- 3. ALL CONCRETE PLACED DIRECTLY FROM THE CONCRETE TRUCK SHALL HAVE A MAXIMUM AGGREGATE SIZE OF 19mm, CONCRETE PLACED USING A CONCRETE PUMP SHALL HAVE A MAXIMUM AGGREGATE SIZE OF 13mm.
- 4. CONCRETE & FORMWORK SHALL COMPLY WITH THE REQUIREMENTS OF NZS3109.
- 5. ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON PLASTIC OR CONCRETE CHAIRS AT NOT GREATER THAN 1.0m CENTRES BOTH WAYS.
- 6. ALL CONCRETE SHALL BE HIGH OR SPECIAL GRADE IN ACCORDANCE WITH NZS3109 TO THE FOLLOWING STRENGTHS:

17.5 MPa SITE CONCRETE **FOUNDATIONS** 25 MPa **GROUND FLOOR SLABS** 25 MPa

- CONCRETE QUALITY TESTING SHALL BE IN ACCORDANCE WITH NZS3109, SECTION 9.
- 8. SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
- CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.
- DIMENSIONAL TOLERANCES ARE TO CONFORM WITH NZS3109 & TO NZS3114.
- 11. ALL CONCRETING SHALL CONFORM TO NZS3109, SECTION 7.
- 12. ALL CONCRETE SHALL BE CURED AS DEFINED IN NZS3109, CLAUSE 7.8.
- 13. SAWCUT SLAB WHERE SHOWN WITHIN 24 HOURS OF POURING.
- 14. REFER ARCHITECTS DRAWINGS FOR DPC / WATERPROOFING REQUIREMENTS AND DETAILS.
- 15. NO PENETRATIONS. CHASES OR EMBEDMENTS OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER.
- 16. NO CONCRETE TO BE DROPPED MORE THAN 1.5M. TREMIE INTO PLACE AND VIBRATE ALL CONCRETE.

#### **FOUNDATION**

- 1. MATERIALS AND WORKMANSHIP TO COMPLY WITH NZS 3109.
- 2. ALL CONCRETE SHALL BE MINIMUM 25 MPA FIBRE MIX CONCRETE. FIBRE TYPE/DOSAGE MIN 15KG/M3 OF DRAMIX 3D 80/608G OR ANY EQUIVALENT FIBRE MIX APPROVED BY THE ENGINEER (SPECIFICATION TO BE SUBMITTED TO PERIDOT ENGINEERING LIMITED PRIOR TO CASTING)
- 3. MINIMUM CONCRETE COVER TO REINFORCEMENT (FINISHES NOT INCLUDED):

TO DRY INTERIOR WITH DPM: TO EXTERIOR WITH DPM: TO EXTERIOR AGAINST EARTH: 75mm

- 4. EXCAVATE BUILDING FOOTPRINT TO THE MINIMUM DEPTH NOTED OR UNTIL ALL TOPSOIL IS REMOVED. WHICHEVER IS GREATER. BACKFILL WITH COMPACTED AP40. ALL FILL SHALL BE CRUSHED AGGREGATE, PLACED AND COMPACTED IN 200mm LAYERS.
- 5. BACKFILL SHALL EXTEND OUTWARDS FROM THE BUILDING FOOTPRINT MINIMUM 300mm, OR BATTER SLOPE 2:1, WHICHEVER IS GREATER
- 6. POLYSTYRENE PODS 1100 X 1100 X 300mm (TYP.)
- 7. SLAB THICKNESS 85mm MIN. OR 110mm MIN. WITH UNDERFLOOR HEATING
- 8. BEAM WIDTHS MAY BE INCREASED BEYOND THOSE SPECIFIED TO ALLOW BETTER FIT OF POLYSTYRENE PODS SUBJECT TO THE FOLLOWING ADDITIONAL REINFORCEMENT REQUIREMENTS U.N.O.:

WIDTH INCREASE: ADDITIONAL LONGITUDINAL STEEL:

UP TO 50mm NONE REQUIRED. 50-150mm HD12 TOP AND BOTTOM 150-250mm 2/HD12 TOP AND BOTTOM

9. SLAB THICKENINGS SHOWN ON TRUSS LAYOUT PLANS MAY BE IGNORED.



**BUILDING CONSENT** 

DRAWING NO

20334-S001

Α

**GENERAL NOTES 1** 

N.T.S

**Peridot Structural** BEYOND HOMES LIMITED **Engineering Limited** STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BUILDING 45 AMYES ROAD, HORNBY, CHRISTCHURCH STRUCTURAL ENGINEERING E: leo@peridotengineering.co.

Design & Drafting



S.AMIRTHALINGAM E. LIU | G.VETHANATHAN 01/02/2021

#### REINFORCEMENT

1. ALL REINFORCING SHALL BE MANUFACTURED TO AS/NZS 4671. ALL REINFORCING TO BE AS FOLLOWS:

CODE	TYPE			
D	DEFORMED BARS, GRADE 300E TO NZS 4617 (300 MPA)			
R	PLAIN BARS, GRADE 300E TO NZS 4617 (300 MPa)			
HD	DEFORMED BARS, GRADE 500E TO NZS 4617 (500 MPa)			
HR	PLAIN BARS, GRADE 500E TO NZS 4617 (500 MPa)			

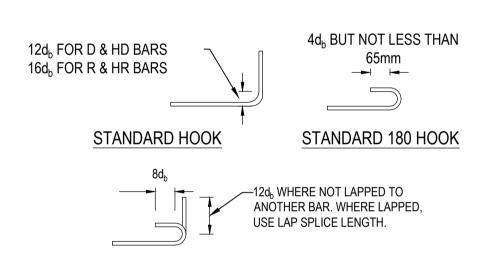
2. TYPICAL REINFORCEMENT DESIGNATIONS ARE AS FOLLOWS: 16/HD12 EF DENOTES 16 OFF, GRADE 500E DEFORMED 12mm DIA BARS IN EACH FACE.

D16 AT 300 EW T+B DENOTES GRADE 300E DEFORMED 16mm DIA BARS AT 300mm MIN CRS PLACED IN THE TOP AND BOTTOM LAYERS.

- REINFORCING BARS SHALL COMPLY WITH NZS3402. REINFORCEMENT FABRIC SHALL COMPLY WITH NZS3421 & BE SUPPLIED AS FLAT SHEETS.
- 4. REINFORCEMENT LAP LENGTHS IN CONCRETE TO COMPLY WITH THE TABLE BELOW (ALL SHALL BE STAGGERED UNLESS NOTED OTHERWISE):

BAR SIZE	MIN.	10	12	16	20	25
D	300	450	550	700	900	1100
HD	-	750	900	1200	1500	1850

- 5. MINIMUM LAP FOR MESH FABRIC SHALL BE ONE MESH GRID MODULE PLUS 25mm.
- HOOKS & BENDS ARE TO BE IN ACCORDANCE WITH NZS3109 UNLESS OTHERWISE NOTED.



WALL OR SLAB BAR BENT AROUND ANOTHER BAR

BAR DIA. (mm)	MINIMUM DIA. OF BEND
6-20	5 BAR DIA.
24-40	6 BAR DIA.

- REINFORCEMENT IS REPRESENTED DIAGRAMATICALLY. IT IS NOT NECESSARILY SHOWN IN THE TRUE PROJECTION.
- 8. SPLICES IN THE REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS SHOWN. THE WRITTEN APPROVAL OF ENGINEER SHALL BE OBTAINED FOR ANY OTHER SPLICES WHERE THE LAP LENGTH IS NOT SHOWN.
- WELDING OF THE REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS. ONLY D REINFORCEMENT IS TO BE WELDED NOT HD.
- 10. PIPES OR CONDUITS SHALL NOT BE PLACED WITHIN THE CONCRETE COVER TO REINFORCEMENT WITHOUT THE APPROVAL OF THE ENGINEER.

#### 11. CONCRETE COVER TO ALL REINFORCEMENT IN mm:

EXPOSURE CLASSIFICATION	CONCRETE (MPa)				
	17.5	20	25	30	40
INTERIOR: DRY : B2	30	25	25	20	20
EXTERIOR : INLAND : A2	50	40	35	30	20
INTERIOR : WET : B1	65	50	40	35	30
CAST AGAINST GROUND	75	75	75	75	75

- 12. EPOXY GROUT SHALL NOT BE USED WHERE THE FIXINGS ARE SUBJECT TO ELEVATED TEMPERATURES (SUCH AS REQUIRED TO MAINTAIN SUPPORT DURING FIRE). IF IN DOUBT CONTACT THE ENGINEER.
- 13. EPOXY GROUT SHALL BE RAMSET EPCON C8. UNLESS NOTED OTHERWISE ON THE DRAWINGS. PREPARATION AND INSTALLATION OF THE EPOXY SHALL BE STRICTLY IN ACCORDANCE WITH MANUFACTURER'S LITERATURE. EPCON C8 SHALL NOT BE USED IN OVERHEAD APPLICATIONS INSTEAD USE CHEMSET 101 FOR OVERHEAD APPLICATIONS.
- 14. EPOXY GROUTING DEPTHS FOR REINFORCING BARS INTO CONCRETE (EPCON C8) SHALL BE AS FOLLOWS:

В	AR SIZE	10	12	16	20	25
F	IOLEØ	16Ø	18Ø	22Ø	26Ø	30Ø
	D	160	200	270	350	500
	HD	210	270	380	490	640

15. UNLESS NOTED OTHERWISE ON THE DRAWINGS THE EPOXY GROUTING DEPTHS FOR THREADED ROD INTO CONCRETE SHALL USE RAMSET EPCON C8 AND SHALL BE INSTALLED TO THE DEPTH AND DIAMETER HOLES AS NOTED BELOW.

THREAD SIZE	M10	M12	M16	M20	M24
HOLE Ø (mm)	12	14	18	24	26
DEPTH (mm)	90	110	125	170	210

16. BARS PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE SITE BENT UNI ESS SPECIFICALLY SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER.

#### STRUCTURAL TIMBER

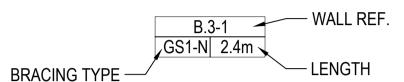
- 1. ALL LIGHT TIMBER FRAMED CONSTRUCTION SHALL COMPLY WITH NZS
- 2. ALL INTERNAL TIMBER IDENTIFIED ON THE STRUCTURAL DRAWINGS IS TO BE KILN DRIED GRADE SG8 (UNLESS NOTED OTHERWISE) AND MUST COMPLY WITH THE REQUIREMENTS OF NZS 3622.
- 3. ALL EXTERNAL TIMBER TO BE PLANAR GAUGED G8 UNLESS NOTED OTHERWISE.
- THE MINIMUM LEVEL OF TIMBER TREATMENT AND PROTECTION TO TO BE IN ACCORDANCE WITH NZS 3602 AND AS OUTLINED IN NZS 3604 - SECTION 4 (DURABILITY).
- 5. FRAMING AND STRUCTURAL TIMBER SHALL BE SEPARATED FROM CONCRETE OR CONCRETE MASONRY IN ACCORDANCE WITH CLAUSE 2.3.3 OF NZS 3604.
- 6. ALL STEEL FIXINGS TO TIMBER ARE TO MEET THE PROTECTION REQUIREMENTS OF NZS 3604 - SECTION 4 (DURABILITY).
- UNLESS NOTED OTHERWISE, A MINIMUM LEVEL OF CONNECTIVITY BETWEEN TIMBER MEMBERS IS EXPECTED IN ACCORDANCE WITH NZS 3604.
- THE MAXIMUM MOISTURE CONTENT PERMITTED IS 16% UNLESS THE TIMBER HAS SPECIFICALLY BEEN DESIGNED FOR EXTERNAL USE. INTERNAL TIMBER THAT HAS A HIGHER MOISTURE CONTENT THAN THIS LIMIT MUST BE PROPPED AND KEPT DRY UNTIL THE MOISTURE CONTENT HAS RETURNED TO LESS THAN 25%.
- STEEL FASTENERS DETAILED ARE GENERALLY FROM THE MITEK LUMBERLOK AND BOWMAC RANGE. IT IS ACCEPTABLE TO USE EITHER SIMPSON STRONG TIE OR PRYDA AS AN ALTERNATIVE.
- 10 LEAD HOLES TO BE 0.8 TIMES THE DIAMETER OF THE FASTENER
- 11. FOR TRUSSES NO DEFECTS TO OCCUR WITHIN 150 mm OF ANY CONNECTION.
- 12. USE GRADE H5 WHERE TIMBER IS IN DIRECT CONTACT WITH GROUND. GRADE H4 WHERE EXPOSED TO WEATHER AND BORIC TREATED WHERE FULLY ENCLOSED. TIMBER TREATMENT SHALL COMPLY WITH THE TIMBER PRESERVATION AUTHORITY PUBLICATION - 'TIMBER PRESERVATION IN NEW ZEALAND SPECIFICATION'.
- WHERE TIMBER TRUSSES HAVE BEEN SHOWN ON THE DRAWINGS THE CONTRACTOR SHALL ENGAGE A TRUSS MANUFACTURER TO DESIGN THE TRUSSES. DETAILED SHOP DRAWINGS FOR THE FABRICATION OF TIMBER TRUSSES SHALL BE SUBMITTED TO THE MAIN CONTRACTOR FOR COMMENT PRIOR TO FABRICATION.
- 14 MINIMUM TIMBER TO STEEL CONNECTION IS TO BE BE WITH A 6 mm THICK STEEL PLATE WITH 2/M12 BOLTS WITH 50X50X4 WASHERS.
- 15. ALL BOLTS AND NUTS TO HAVE WASHERS UNDER HEAD AND NUT (OTHER THAN A COACH BOLT OR SCREW HEAD). BOLTS TO BE RE-TIGHTENED IMMEDIATELY PRIOR TO COVERING.
- 16. COMPOUND TIMBER MEMBERS (I.E. BUILT-UP MEMBERS) COMPRISING UP TO THREE INDIVIDUAL MEMBERS SHOULD BE FIXED TOGETHER USING 3.15 DIA. NAILS AT 250 mm CRS IN A STAGGERED ARRANGEMENT. NAILS SHALL PENETRATE AT LEAST 75% OF THE THICKNESS OF THE LAST FRAMING MEMBER. ALTERNATIVELY. BOLT INDIVIDUAL FRAMING MEMBERS TOGETHER USING GRADE 4.6 M10 BOLTS AT 1.0m CRS MAX.

- 17. UNLESS NOTED OTHERWISE, ALL TIMBER PLATES AND PACKERS TO BE FIXED TO STEELWORK WITH M12 BOLTS AND WASHERS (AS BELOW) AT 1.0 m CRS WITH NOT LESS THAN TWO FIXINGS TO EACH MEMBER, COORDINATE HOLES WITH STEEL FABRICATOR AS REQUIRED.
- 18. WASHER SIZES SHOULD BE AS SHOWN IN THE TABLE BELOW:

BOLT DIAMETER	SQUARE WASHER (mm)	ROUND WASHER (mm)
M12	50x50x4	60x4
M16	65x65x5	75x5
M20	65x65x5	75x5

#### **BRACING**

1. BRACING WALL PANEL LABEL SCHEME:



BRACING ELEMENT - INCLUDING SIDE OF WALL TO APPLIED.

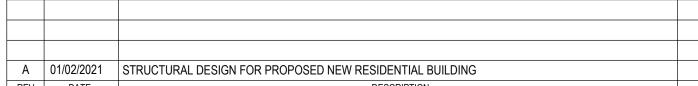
- 2. BRACING TYPES REFER TO THE CURRENT GIB EZYBRACE MANUAL AND SHOULD BE FIXED, INCLUDING HOLD-DOWNS, IN ACCORDANCE WITH MANUFACTURER'S DETAILS. THE EXCEPTIONS ARE AS FOLLOWS:
  - PF STEEL PORTAL FRAME SEE DETAILS
  - PCM REINFORCED CONCRETE MASONRY SEE DETAILS
  - RC REINFORCED CONCRETE SEE DETAILS
  - PLY PLYWOOD SHEATHING SEE DETAILS
- 3. PROVIDE STANDARD GIB BRACING PANELS ALONG CEILING AS PER GIB MANUFACTURER'S SPECIFICATIONS.
- 4. LENGTH SHOWN ARE THE MINIMUM LENGTH OF THE BRACING ELEMENT -ACTUAL WALL LENGTHS MAY DIFFER ( REFER TO ARCHITECT FOR ALL WALL DIMENSIONS). IF BRACING LENGTH IS NOT ACHIEVABLE CONTACT ENGINEER.



**BUILDING CONSENT** 

Design & Drafting





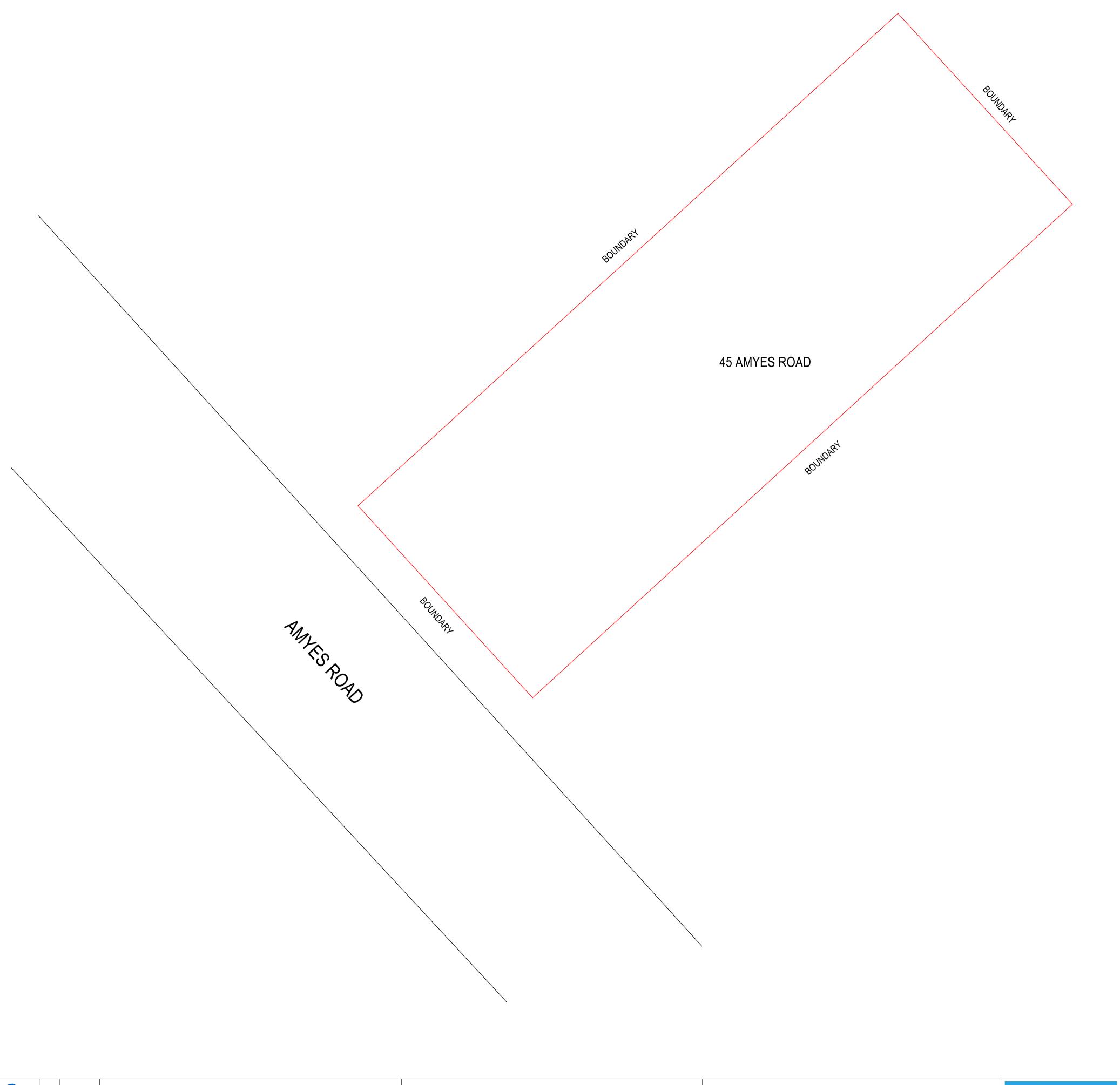






N.T.S

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## NOTES:

- 1. SITE PLAN REFERS TO CANTERBURY MAPS AND NEW HOME BY VISO ARCHITECTURE, DATED 25 APRIL, REF.: 1869.
- 2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

Christchurch City Council Page 42 of 49
City Council BCN/2021/1243
Approved Building Consent Document
14/06/2021 King, Jon

# **BUILDING CONSENT**



Α	01/02/2021	STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BUILDING	2094 A-101
REV	DATE	DESCRIPTION	DRAWING REFERENCE NO.



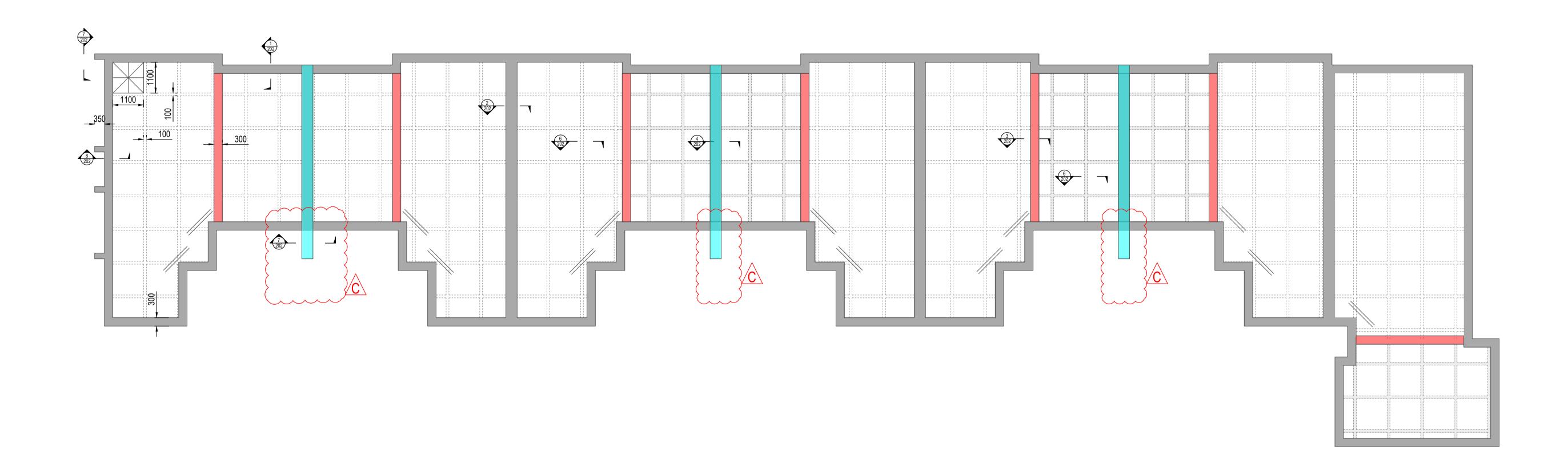


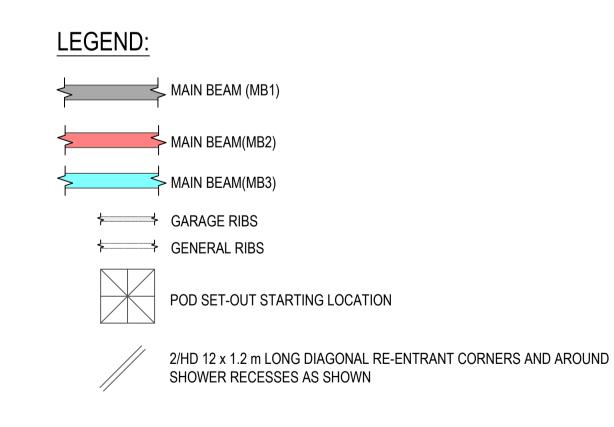
	CLIENT					
	BEYOND HOMES LIN	1ITED				
	PROJECT					
46	STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BU					
42	45 AMYES ROAD, HORNBY, CHRISTCHURCH					
)	DESIGNED	DRAWN	APPROVED	DATE		
	S.AMIRTHALINGAM	E. LIU	G.VETHANATHAN	01/02/2021		

	DRAWING TITLE		
	SITE PLAN		
DING			
	SCALE	DRAWING NO.	
	N.T.S.		20334-S101









### NOTES:

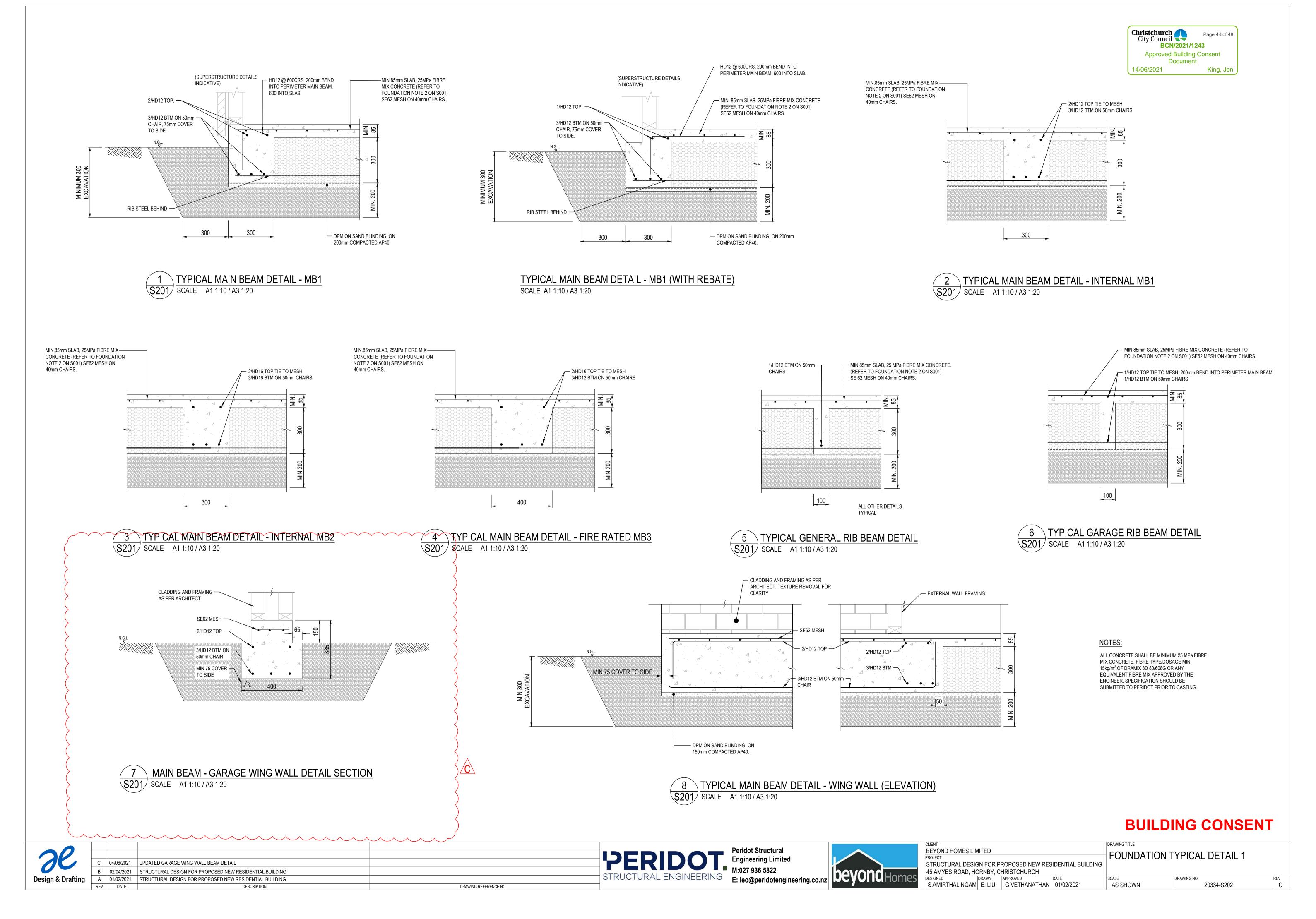
- MINIMUM EXCAVATION DEPTH SHALL BE 525mm FROM FFL, OR 300mm FROM NGL, OR UNTIL ALL TOPSOIL, ORGANIC SOIL, AND SOFT SOIL HAS BEEN REMOVED, WHICHEVER IS GREATER.
- 2. ALL DIMENSIONS REFER TO NEW HOME BY VISO ARCHITECTURE, DATED 15 JANUARY 2021, REF.: 2009.
- 3. ALL DIMENSION ARE MILLIMETER UNLESS NOTED OTHERWISE.
- 4. BEAM WIDTHS MAY BE INCREASED BEYOND THOSE SPECIFIED TO ALLOW BETTER FIT OF POLYSTYRENE PODS SUBJECT TO THE FOLLOWING ADDITIONAL REINFORCEMENT REQUIREMENTS U.N.O.:

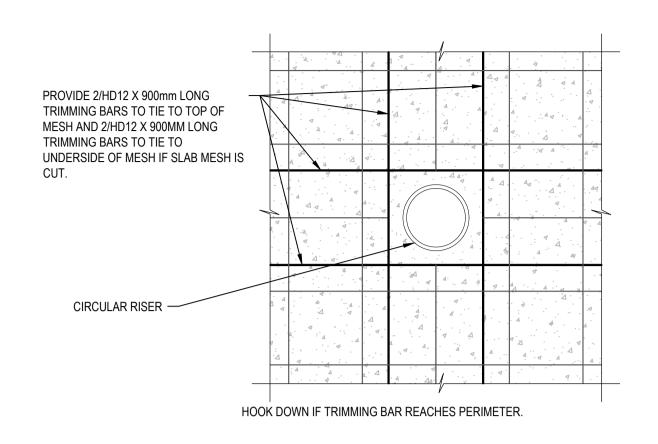
WIDTH INCREASE: ADDITIONAL UP TO 50mm NONE REQU 50-150mm HD12 TOP A 150-250mm 2/HD12 TOP

SE: ADDITIONAL LONGITUDINAL STEEL:
NONE REQUIRED.
HD12 TOP AND BOTTOM
2/HD12 TOP AND BOTTOM

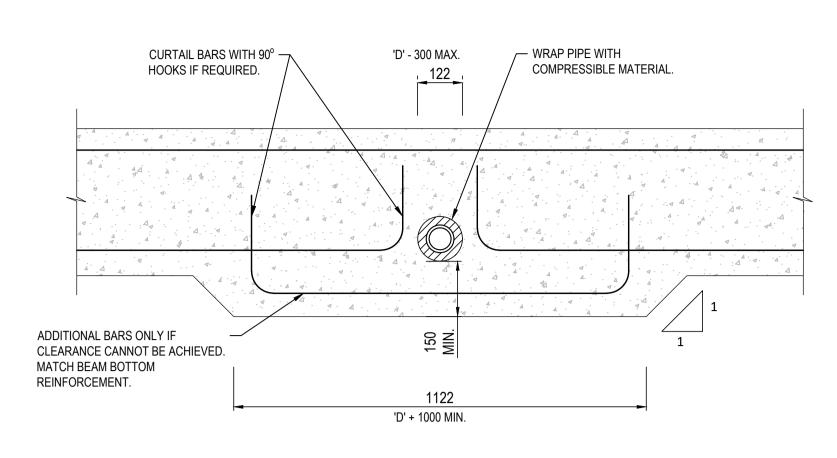
# **BUILDING CONSENT**



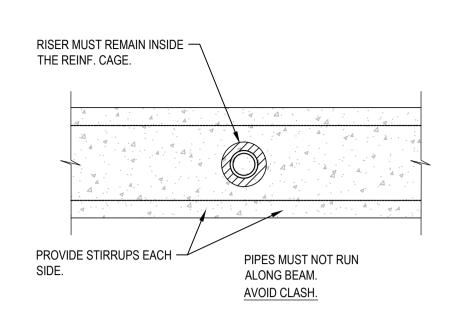




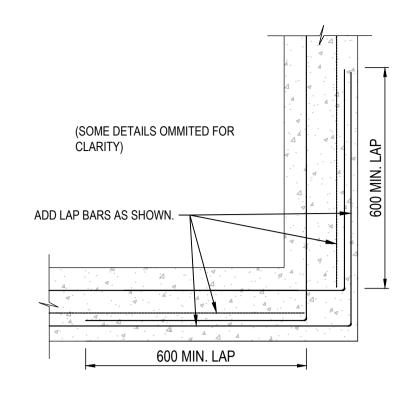
TYPICAL SLAB PENETRATION (CIRCULAR) N.T.S.



TYPICAL HORIZONTAL BEAM PENETRATION N.T.S.

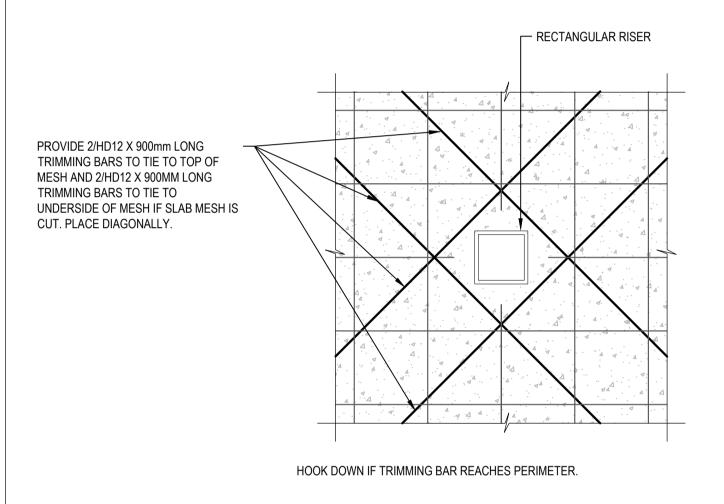


TYPICAL VERTICAL BEAM PENETRATION N.T.S.

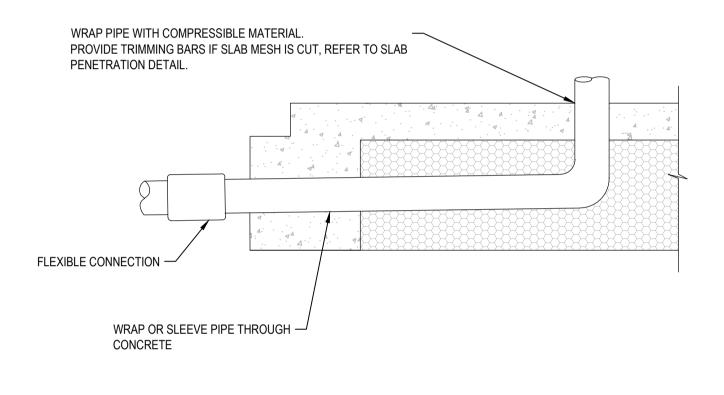


(CONTINUOUS "Z" SHAPE LAP BARS AT CORNERS LESS THAN 600mm LONG)

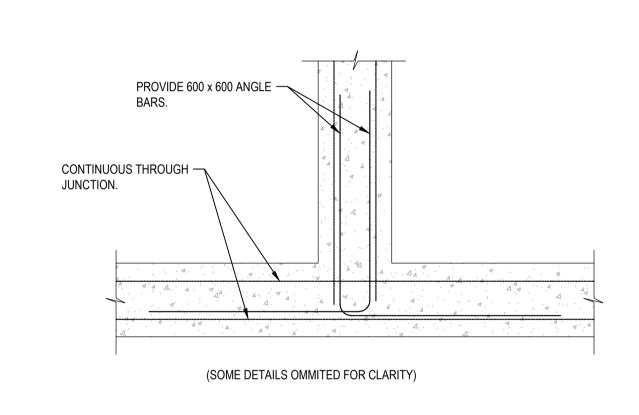
TYPICAL BEAM CORNER DETAIL (PLAN)



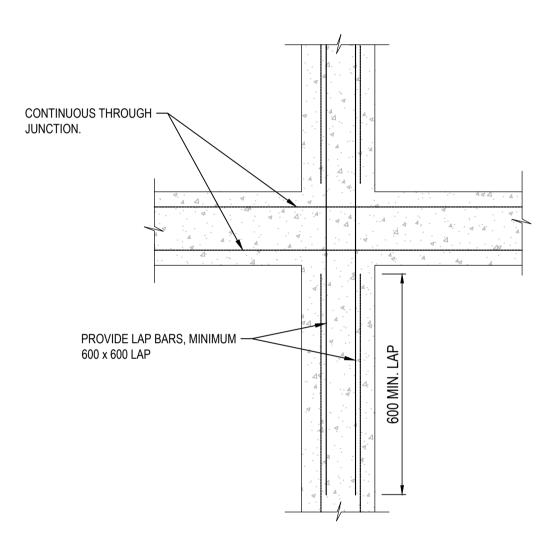
TYPICAL SLAB PENETRATION (RECTANGULAR)



TYPICAL PIPE PENETRATION



TYPICAL BEAM T-JUNCTION (PLAN)



TYPICAL BEAM INTERSECTION (PLAN)



#### NOTES:

1. ALL DIMENSION ARE MILLIMETER UNLESS NOTED OTHERWISE.

Α

# TYPICAL SHOWER RECESS

FOR MAXIMUM 50mm SHOWER REBATE ONLY

A1 1:10 / A3 1:20

1100 x 1100 x 300 POLYSTYRENE INFILLS ( REFER FOUNDATION LAYOUT FOR SET OUT

50mm MAX SHOWER

REBATE



(SOME DETAILS OMMITED FOR

PROVIDE TRIMMING BARS AROUND RECESS - REFER TO PLAN.

CLARITY)



- BEND MESH DOWN ENSURING MINIMUM CONCRETE COVER REQUIREMENTS ARE MET.

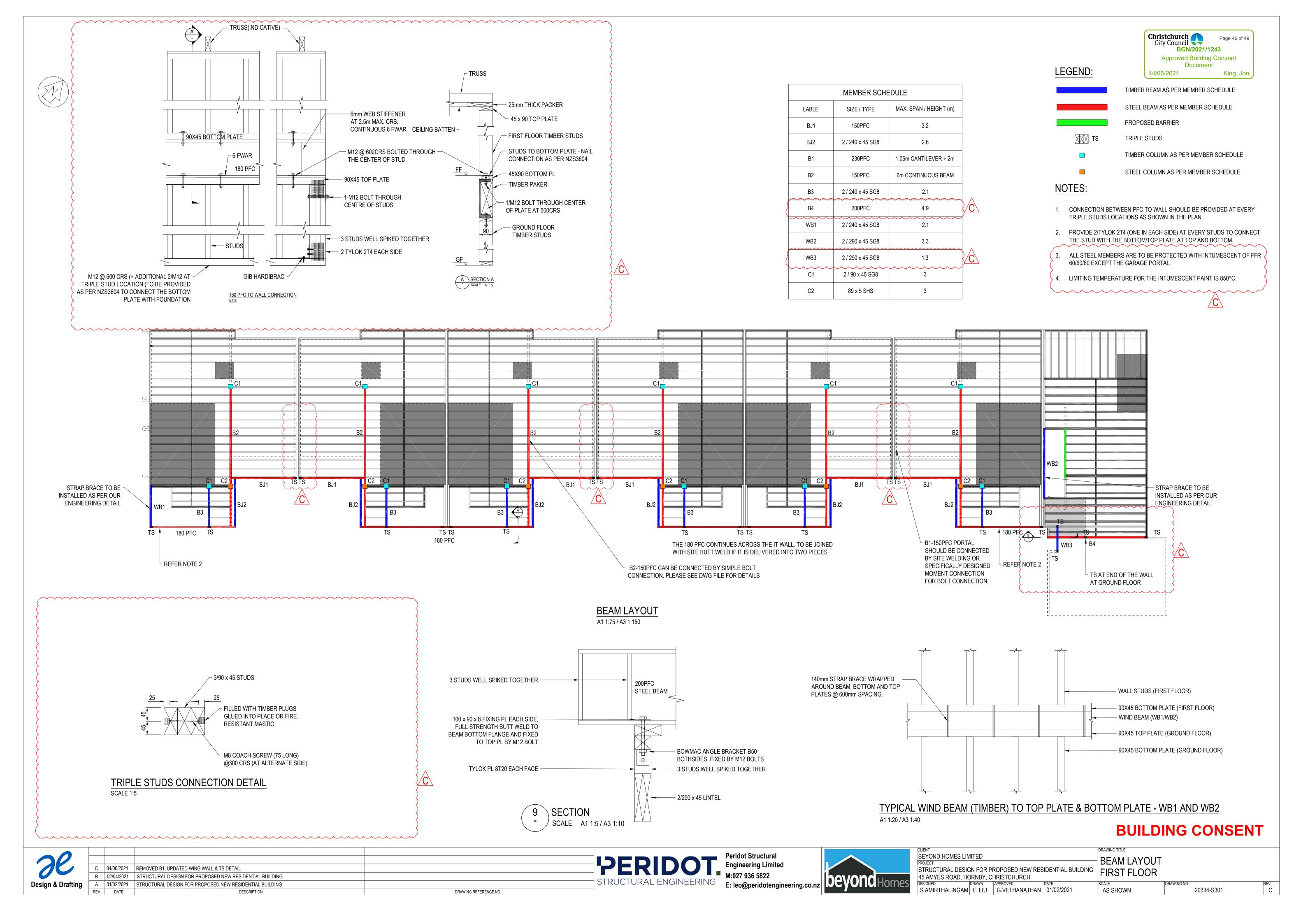


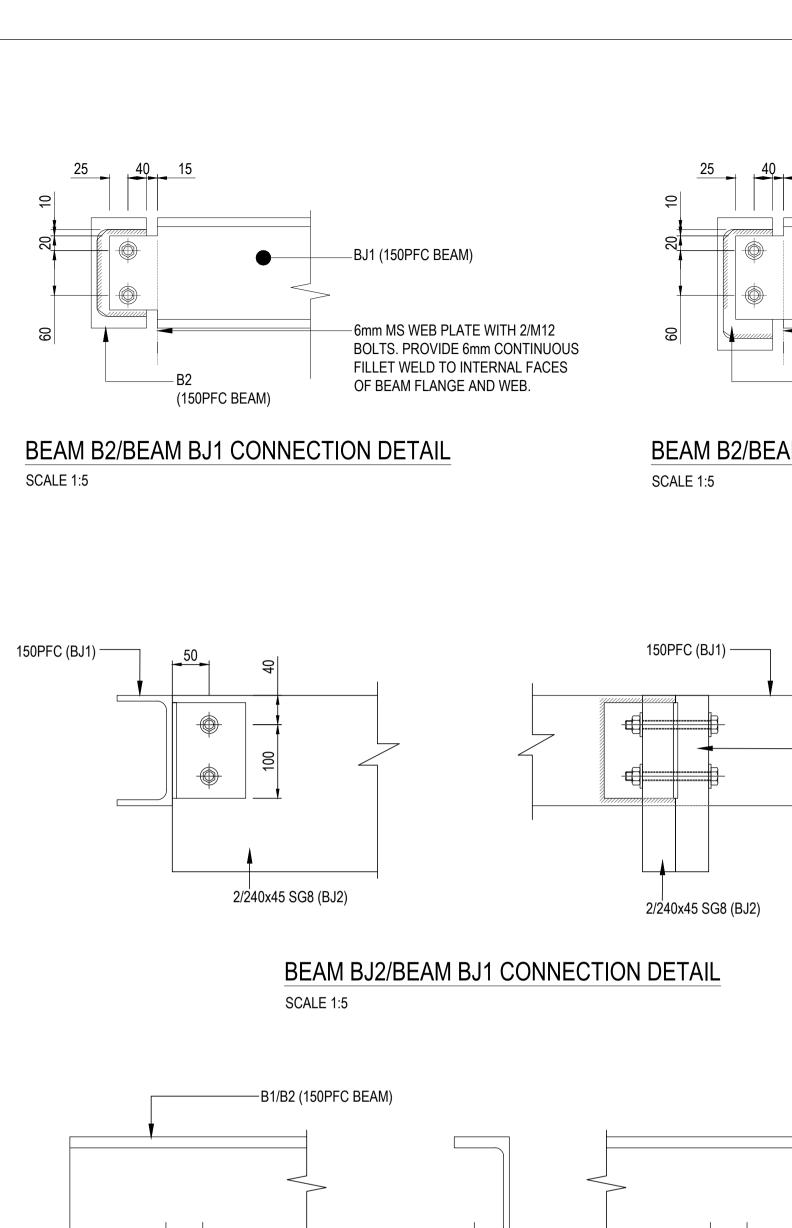


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	<b>BUILDING CONSENT</b>
CLIENT	DRAWING TITLE
BEYOND HOMES LIMITED	FOUNDATION TYPICAL DETAIL 2
PROJECT	FOUNDATION ITPICAL DETAIL Z
STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BUILDING	

45 AMYES ROAD, HORNBY, CHRISTCHURCH DESIGNED DRAWN APPROVED DRAWING NO. S.AMIRTHALINGAM E. LIU G.VETHANATHAN 01/02/2021 20334-S203 AS SHOWN





89x5 SHS POST WITH

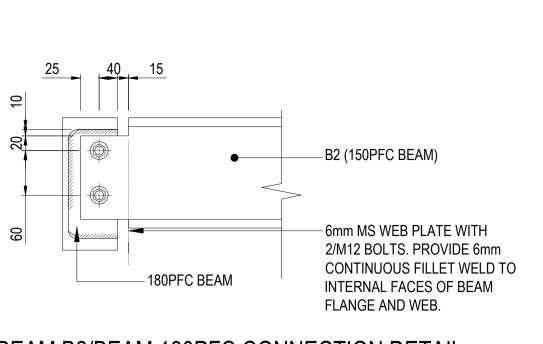
AND 2/M12 BOLTS.

EDGES SHOWN.

210x90x6 MS ENDPLATE

FILLET WELD ALONG 2

PROVIDE 6mm CONTINUOUS



2/M12 BOLTS CONNECTED

LONG) WELDEd (6mm CFW)

-B1/B2 (150PFC BEAM)

-89x5 SHS POST WITH

FILLET WELD ALONG 2 EDGES SHOWN.

AND 2/M12 BOLTS.

210x90x6 MS ENDPLATE

PROVIDE 6mm CONTINUOUS

THROUGH THE BJ2 AND 100x100x6mm THK MS

ANGLE PLATE (130mm

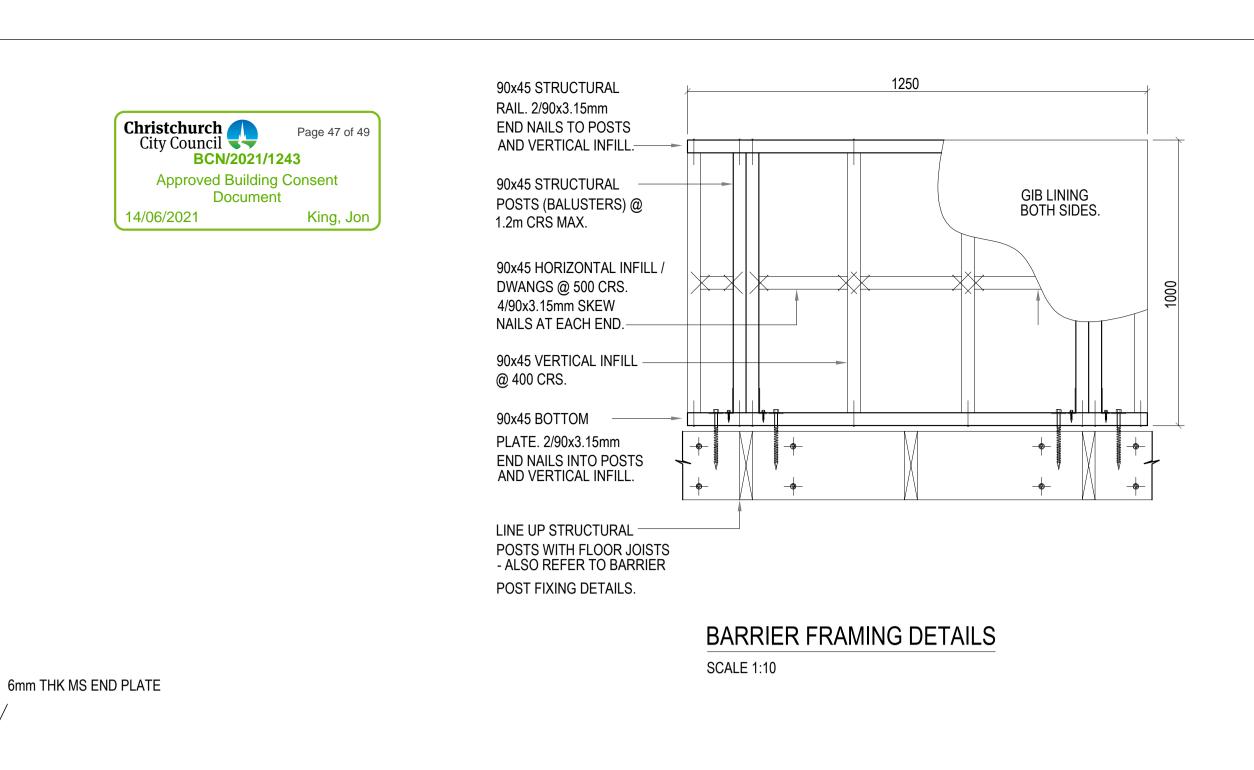
TO THE 150PFC.

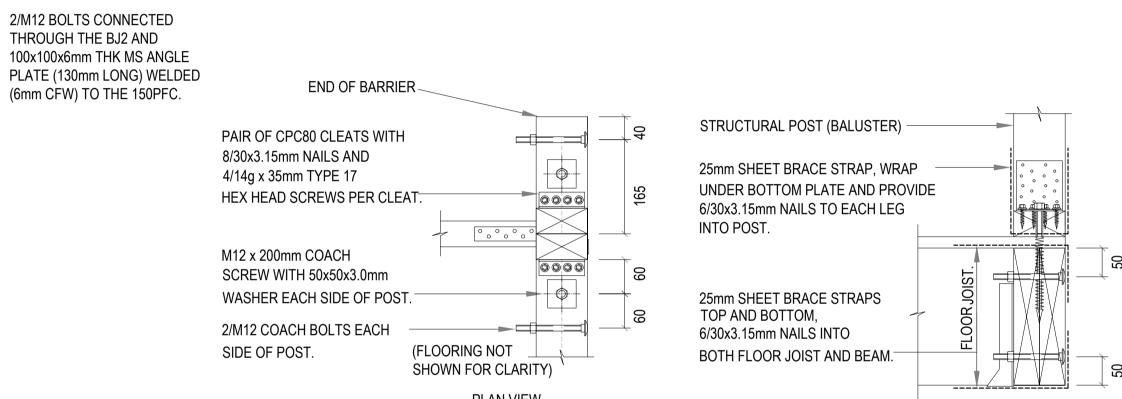
180PFC

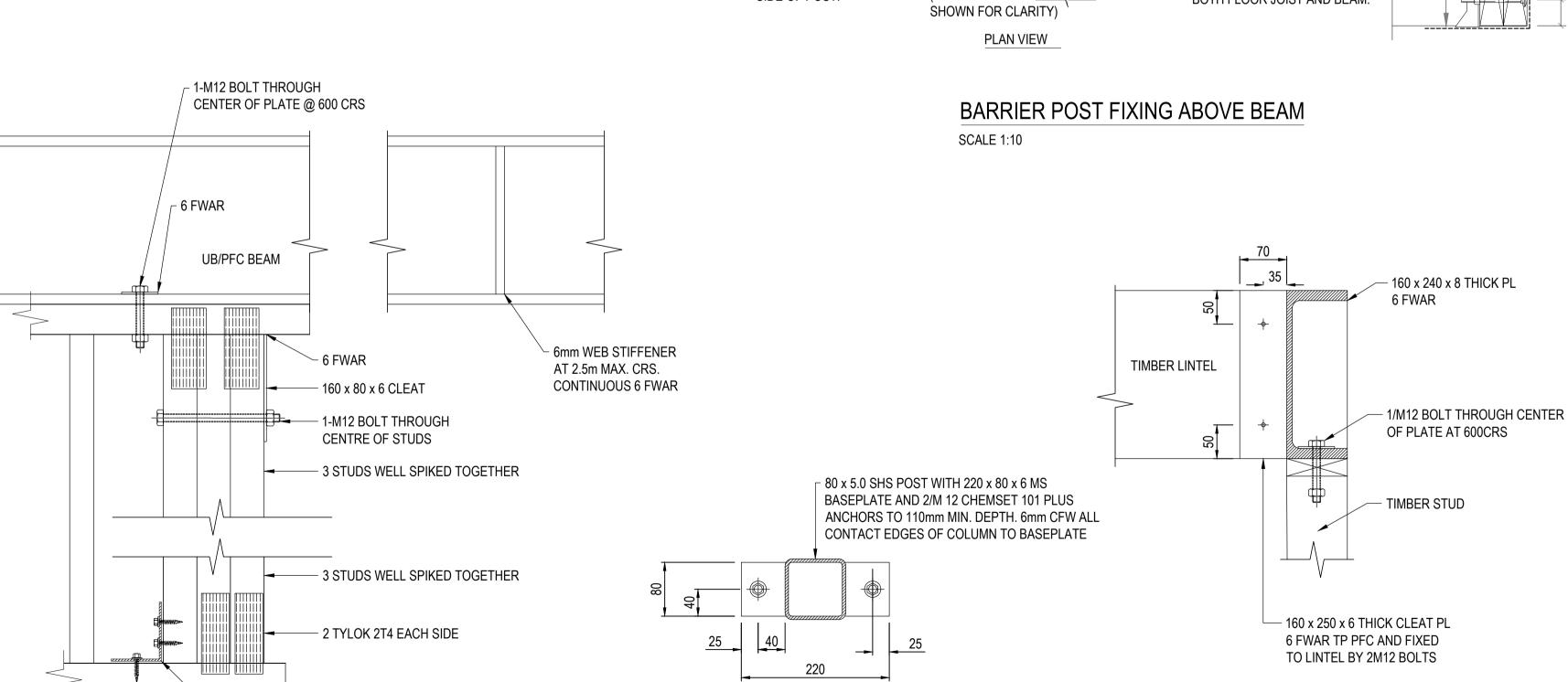
2/240x45 SG8 (BJ2)

SCALE 1:5

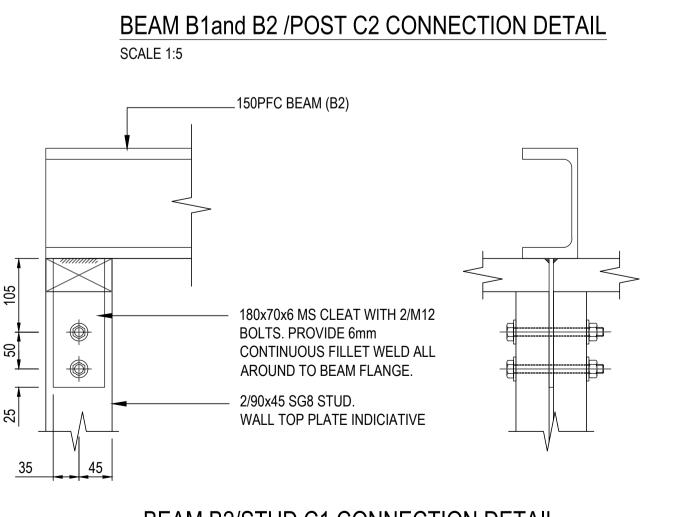








TYPICAL BASEPLATE DETAIL





**Peridot Structural** STRUCTURAL ENGINEERING E: leo@peridotengineering.co.r

- GIB HARDIBRAC

PFC TO WALL CONNECTION

\_ 180PFC

BEAM BJ2/BEAM 180PFC CONNECTION DETAIL

2/240x45 SG8 (BJ2)

2/M12 BOLTS CONNECTED

THROUGH THE BJ2 AND

BEYOND HOMES LIMITED STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BUILDING 45 AMYES ROAD, HORNBY, CHRISTCHURCH S.AMIRTHALINGAM E. LIU G.VETHANATHAN 01/02/2021 AS SHOWN

DRAWING TITLE BEAM TYPICAL DETAILS REV B

20334-S302

**BUILDING CONSENT** 

lack A lack SECTION A

401 SCALE N.T.S.



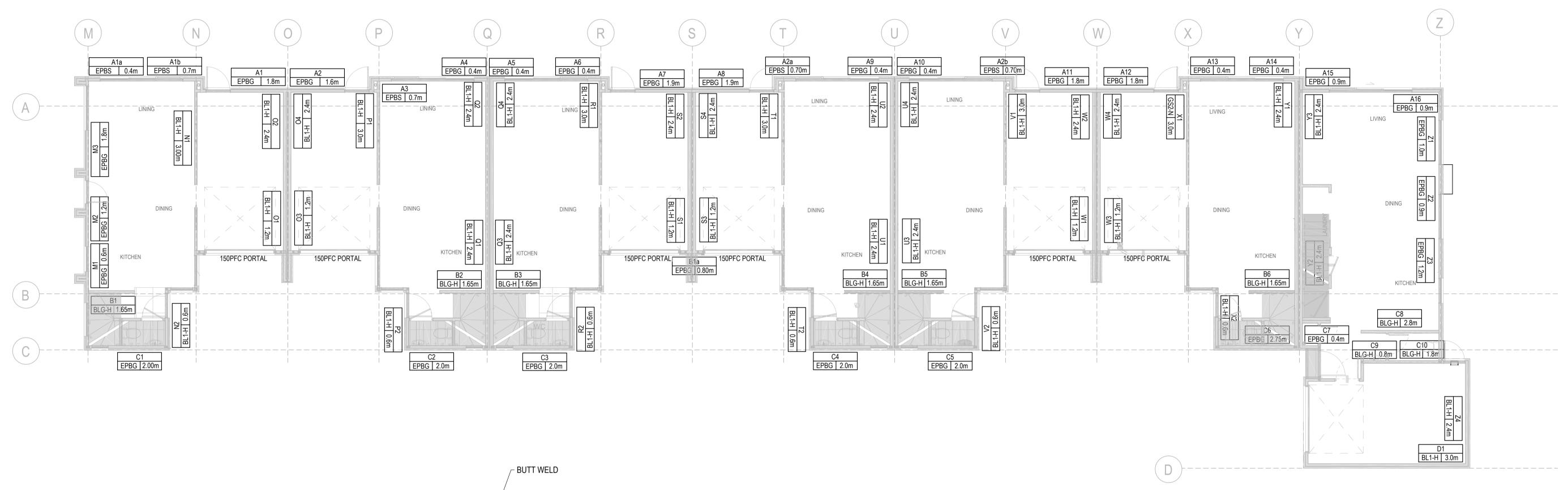
DATE

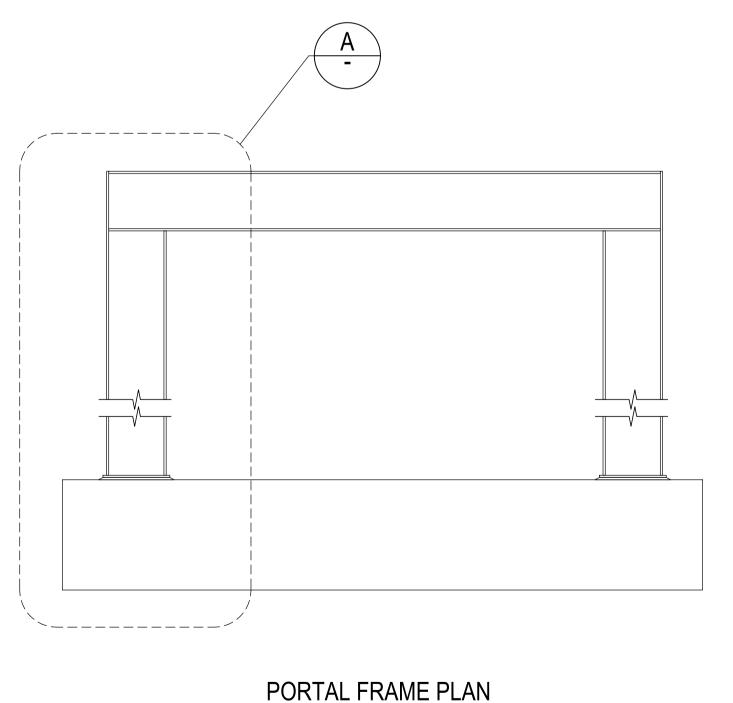
STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BUILDING A 01/02/2021 STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BUILDING DESCRIPTION DRAWING REFERENCE NO.

N.T.S.

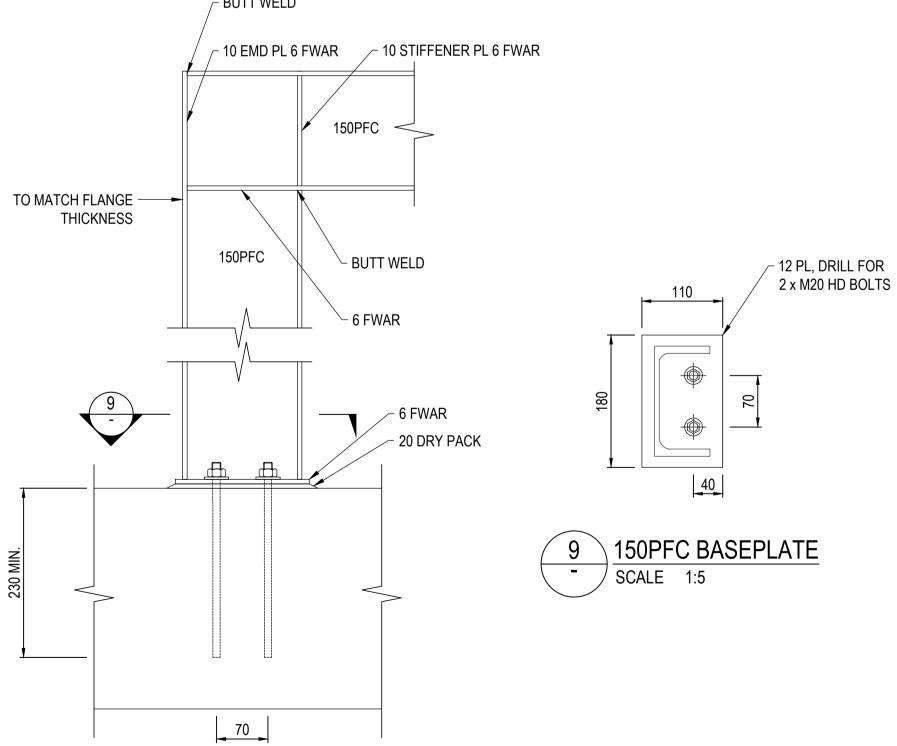








SCALE 1:10



YPORTAL FRAME DETAIL

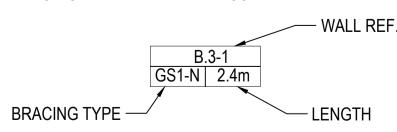
SCALE 1:5

# **GENERAL NOTES:**

- 1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S, ENGINEER'S AND SPECIALIST'S DRAWINGS AND SPECIFICATIONS.
- 2. DO NOT SCALE FROM THIS DRAWING IN EITHER PAPER OR DIGITAL FORM. USE WRITTEN DIMENSIONS ONLY.

### LEGEND:

BRACING WALL PANEL LABEL SCHEME:



--- BRACING ELEMENT - INCLUDING SIDE OF WALL TO BE APPLIED.

### INSPECTION SCHEDULE:

- 1. PRE-LINE INSPECTION PROPOSED BRACING ELEMENTS.
- 2. PRE-STOP INSPECTION PROPOSED BRACING ELEMENTS.

MINIMUM 48 HOURS NOTICE IS REQUIRED FOR ALL INSPECTIONS.

# **BUILDING CONSENT**



Design & Drafting

A 01/02/2021 STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BUILDING
REV DATE DESCRIPTION DRAWING REFERENCE NO.





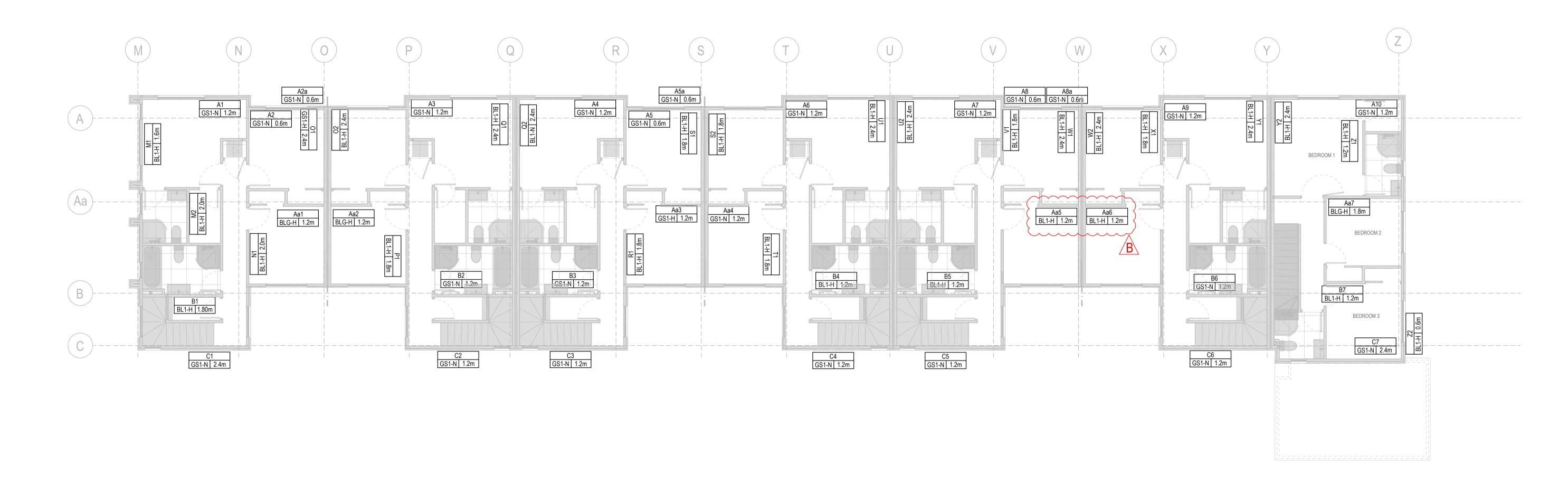
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PROJECT					
STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BUILDIN					
45 AMYES ROAD, HORNBY, CHRISTCHURCH					
DESIGNED	DRAWN	APPROVED	DATE		
S.AMIRTHALINGAM	E. LIU	G.VETHANATHAN	01/02/2021		

BRACING PLAN NG GROUND FLOOR

A1 1:75 / A3 1:150 20334-S401





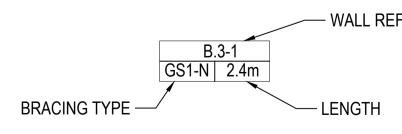


### **GENERAL NOTES:**

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- 2. DO NOT SCALE FROM THIS DRAWING IN EITHER PAPER OR DIGITAL FORM. USE WRITTEN DIMENSIONS ONLY.

### LEGEND:

BRACING WALL PANEL LABEL SCHEME:



--- BRACING ELEMENT - INCLUDING SIDE OF WALL TO BE APPLIED.

### INSPECTION SCHEDULE:

- 1. PRE-LINE INSPECTION PROPOSED BRACING ELEMENTS.
- 2. PRE-STOP INSPECTION PROPOSED BRACING ELEMENTS.

MINIMUM 48 HOURS NOTICE IS REQUIRED FOR ALL INSPECTIONS.

# **BUILDING CONSENT**

REV B



B 02/04/2021 STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BUILDING A 01/02/2021 STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BUILDING REV DATE DRAWING REFERENCE NO.





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	CLIENT					
	BEYOND HOMES LIMITED					
PROJECT						
- 12	STRUCTURAL DESIGN FOR PROPOSED NEW RESIDENTIAL BUILDING					
_	45 AMYES ROAD, HORNBY, CHRISTCHURCH					
5	DESIGNED	DRAWN	APPROVED	DATE		
	S.AMIRTHALINGAM	E. LIU	G.VETHANATHAN	01/02/2021		

BRACING PLAN FIRST FLOOR

A1 1:75 / A3 1:150 20334-S402