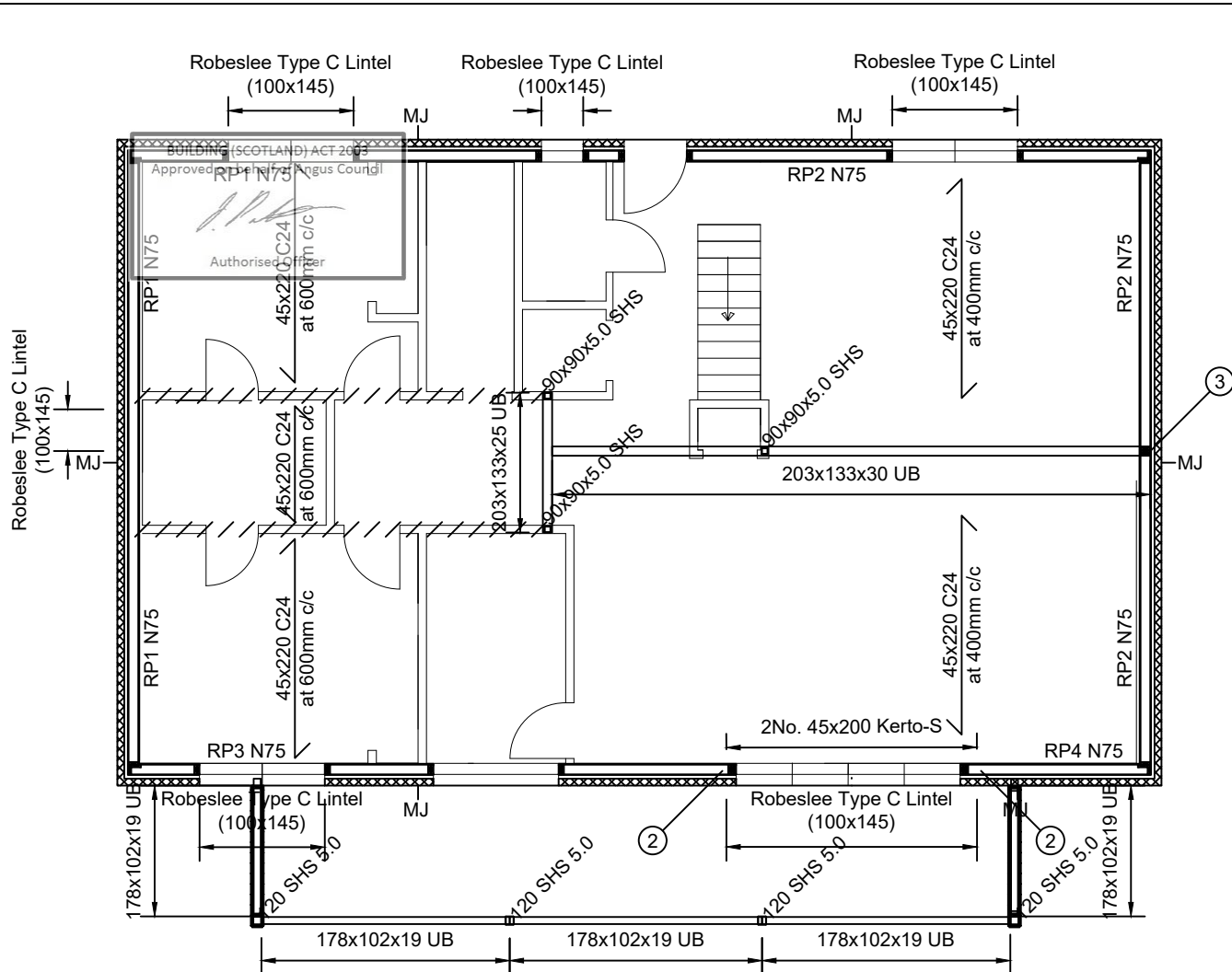
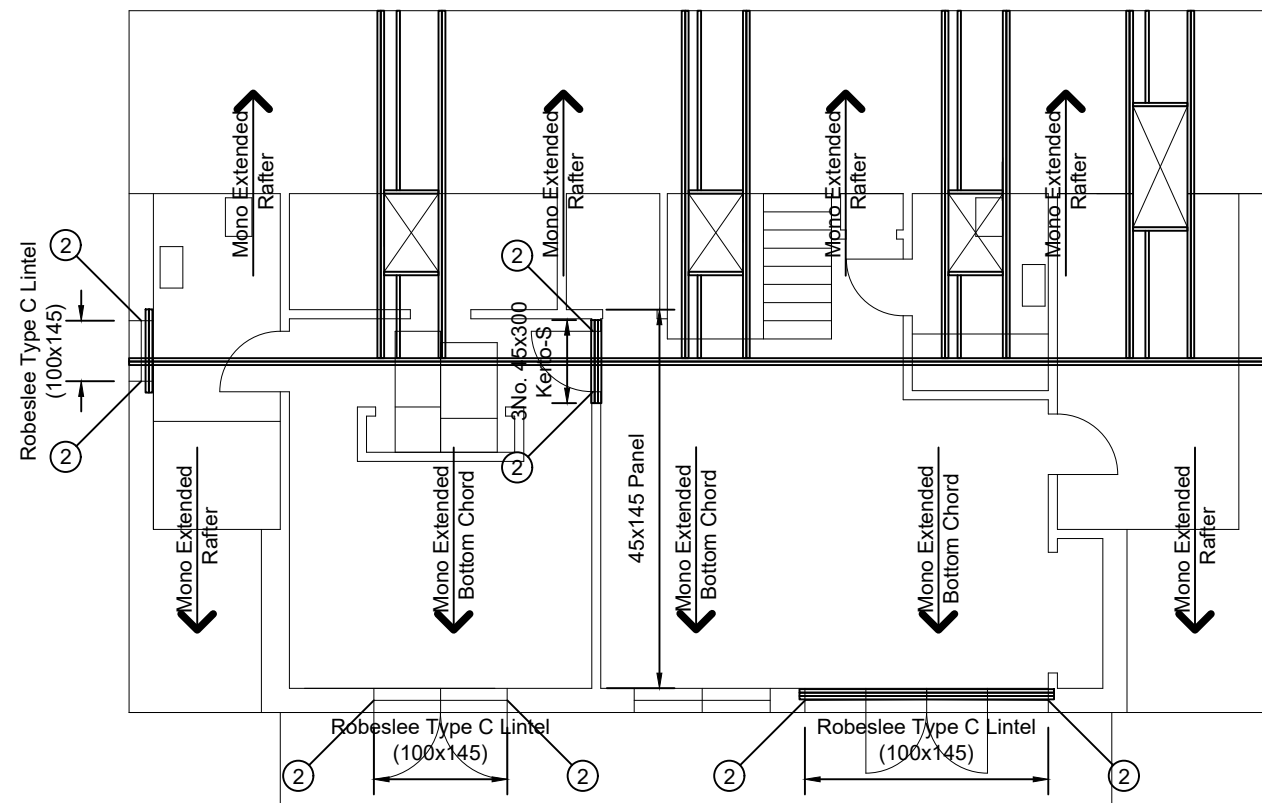


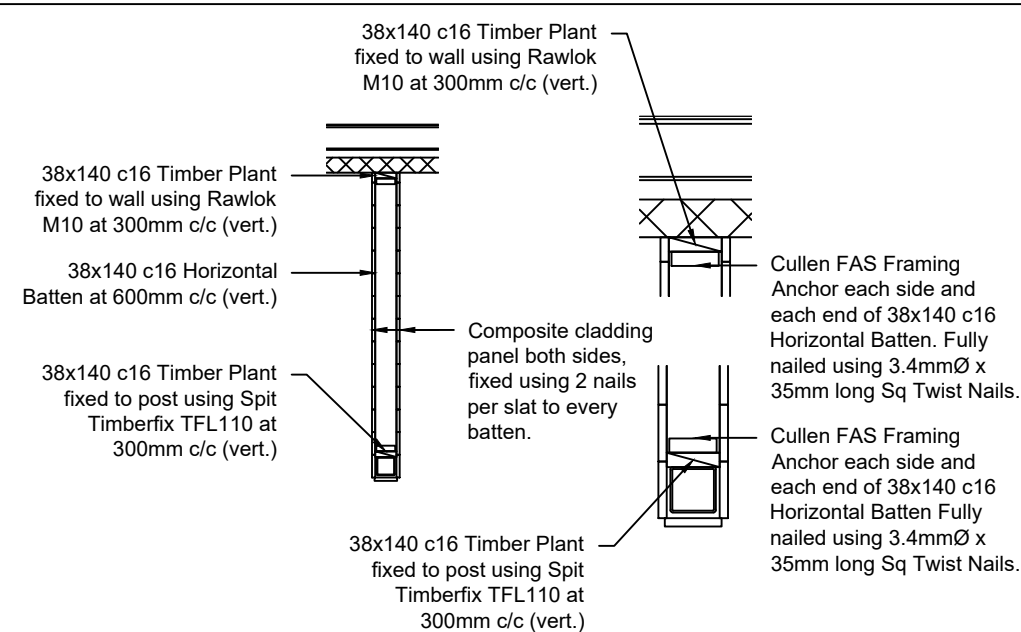
All existing foundations conflicting with the positions of the new foundations are to be removed.



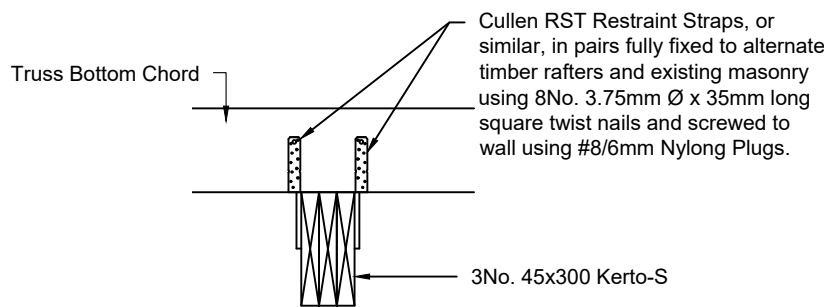
GROUND FLOOR LAYOUT (1:100)



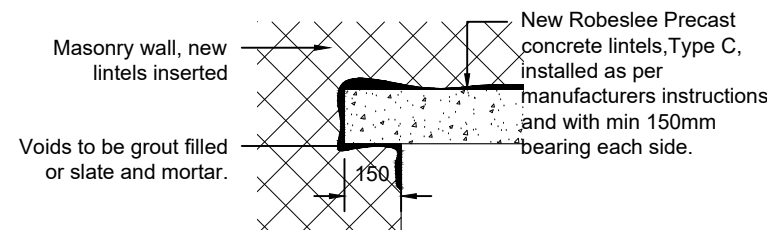
ROOF LAYOUT (1:100)



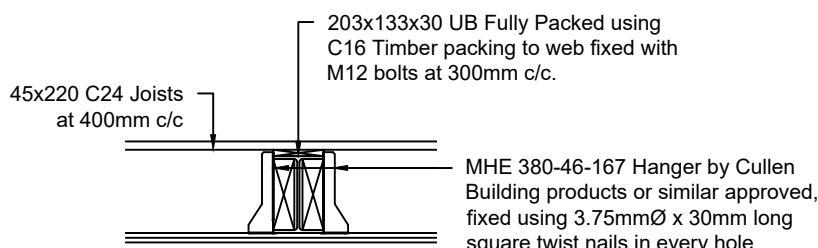
BALCONY REVEAL DETAILS (1:20)



FIRST FLOOR INTERNAL LINTEL DETAIL (1:20)



LINTEL TO EXISTING WALL (1:20)



203x133x30 UB FLOOR BEAM DETAIL (1:20)

General

All dimensions are in millimeters unless noted otherwise.

Dimensions shall not be scaled from this drawing. Any dimension not shown should be checked on site or verified by the engineer.

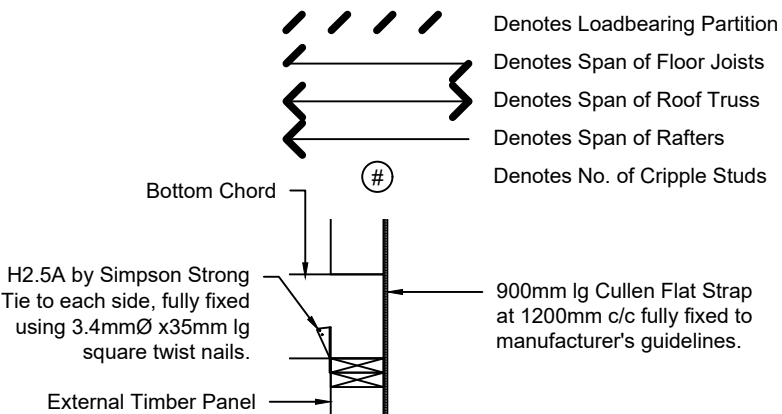
This drawing is to be read in conjunction with latest revisions of all relevant engineers and architects drawings.

For setting out refer to the architects drawings.

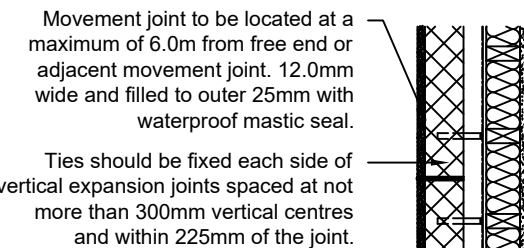
Design Loads

Design Loading to be taken from BS6399: Part 1: 1996: Code of Practice for Dead and Imposed Loads, BS 6399: Part 2: Code of Practice for Wind Loads, BS 6399: Part 3: 1998: Code of practice for Imposed Roof Loads.

Floors	qk = 1.50 kN/m ²
Rafter	qk = 0.60 kN/m ²
C/Tie	qk = 0.25 kN/m ²



BOTTOM CHORD TO TIMBER FRAME DETAIL (1:20)



MOVEMENT JOINT DETAIL (1:20)

A	Warrant Issue	CDL	17/03/25
Rev:	Description:	By:	Date:
Client:	Mr J.McIntosh	Unit 2.7 Discovery House Technology Park Dundee DD2 1SW Tel: 01382 561112 Email: info@griffendesign.co.uk	
Site:	Herdhill, Kirriemuir	Griffen Design	
Type:	Comment/Approval	Scale: Varies	Date: 04/02/2025
Title:	Ground & First Floor Layouts & Details	Drawn: CDL	Checked: NDM
Project No: 255533		Plot: A3	Revision: A
Drawing No: 02			
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General

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For setting out refer to the architects drawings.

Timber Specification

Studs

External: 38x140 C16 at 600mm c/c
Internal: 38x89 C16 at 600mm c/c

Floor Joists

1F - 45x220 C24 Joists at 400/600mm c/c. Spans and Spacing as noted on plan.

Lintels

External: 3No 45x195 C24 (UNO)
Internal: 2No 45x145 C16 (UNO)

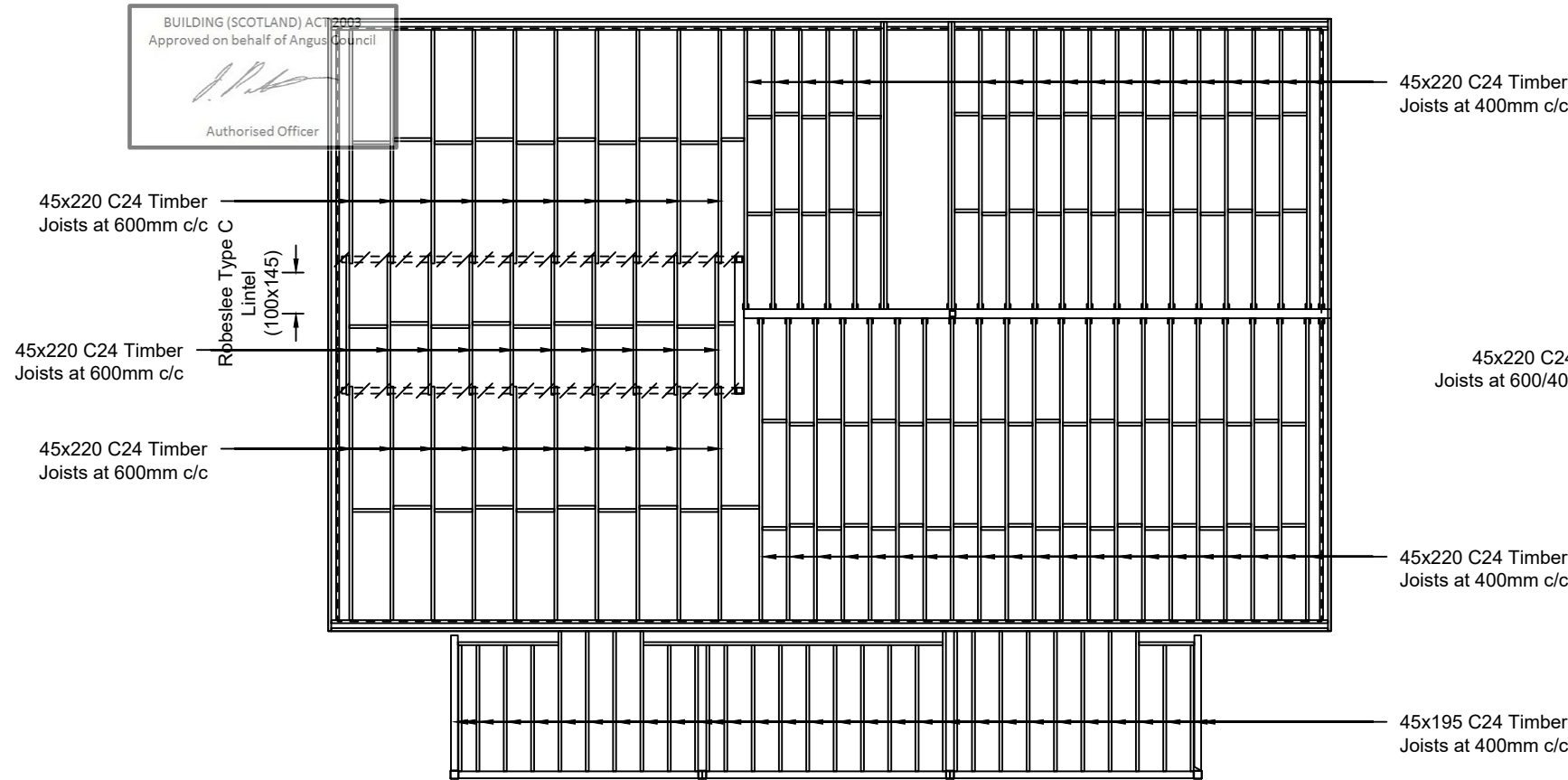
Cripple Studs

External: Span < 1.81m 2No 38x140 C16
Span < 1.81m 2No 38x140 C16
Internal: 2No 38x89 C16

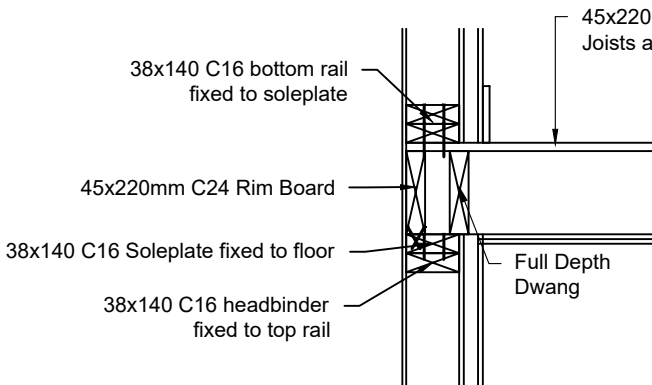
Soleplate fixings to be Spit SC9-60 At 400mm c/c.

Holding down straps to be Cullen ST-PFS-50 at each end of panel, each side of openings or at 1800mm c/c.

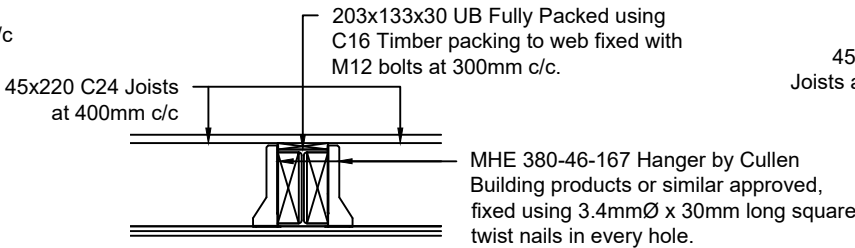
Wall Ties to be Cullen FT-50 at 375mm Vert Centres x 600mm Horz. centres (4.4/m²). Wall ties to be fixed directly to studs using 3.35mmØ x 50mm long annular ring shank nails as supplied by manufacturer. Top row of ties should be 3 courses below top of brickwork. Ties should be fixed at the sides of window and door openings spaced at not more than 300mm vertical centres and within 225mm of the jambs. This spacing is also required at each side of vertical expansion joints.



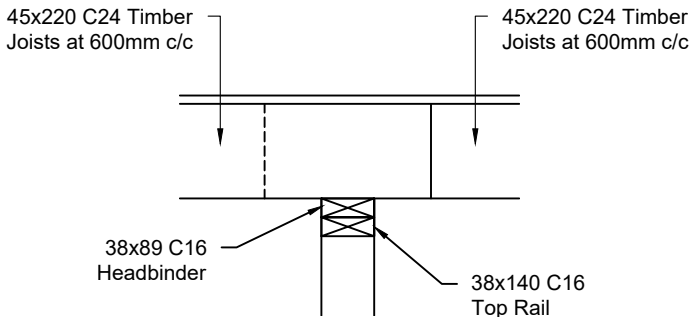
FIRST FLOOR JOIST LAYOUT (1:100)



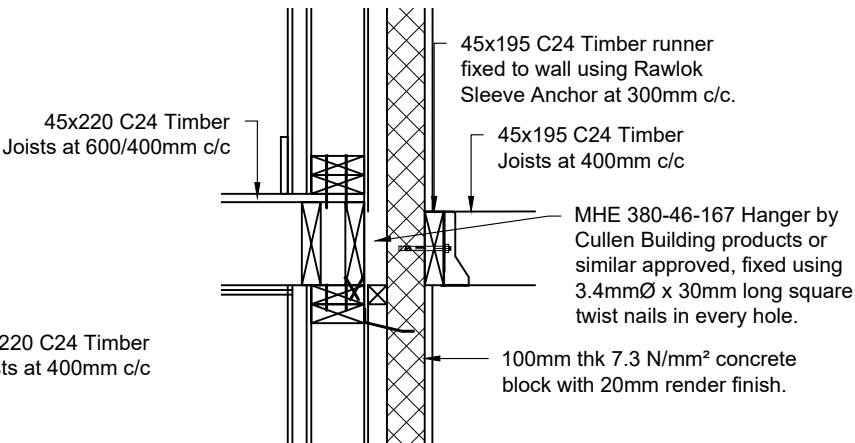
INTERMEDIATE FLOOR
DETAIL (1:20)



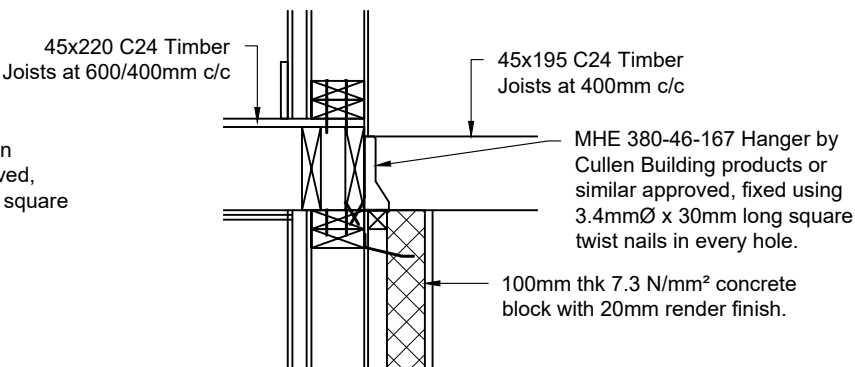
203x133x30 UB FLOOR
BEAM DETAIL (1:20)




JOIST DETAIL (1:20)

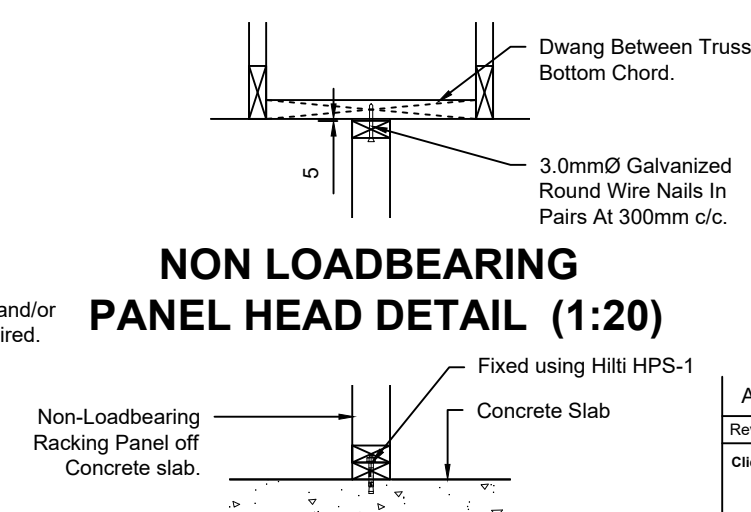
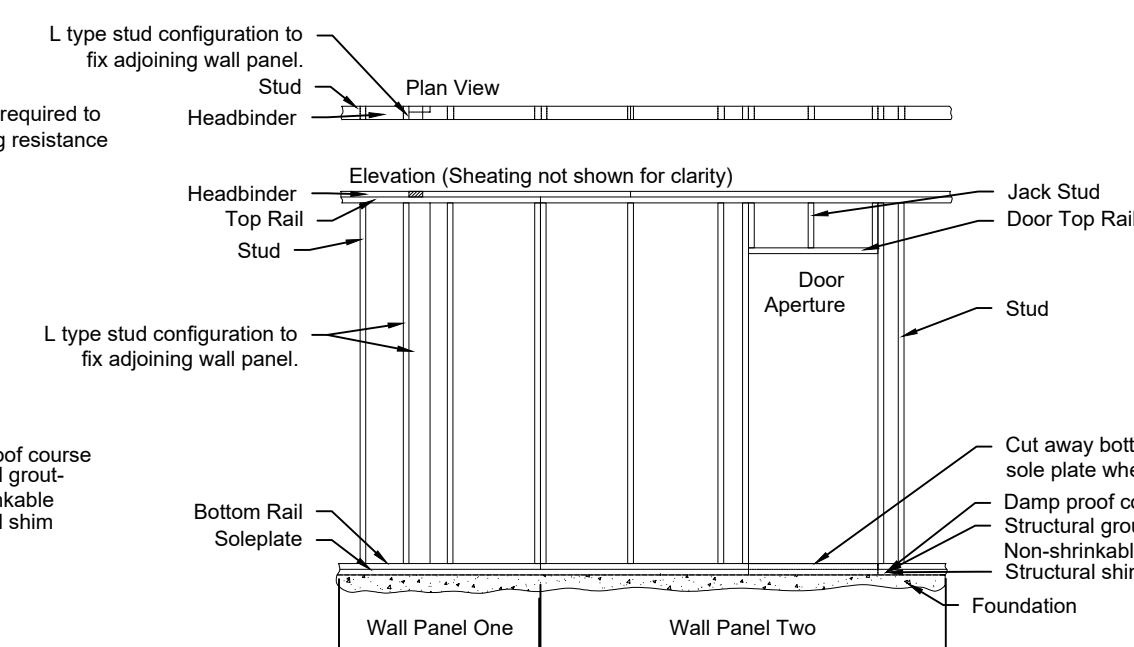
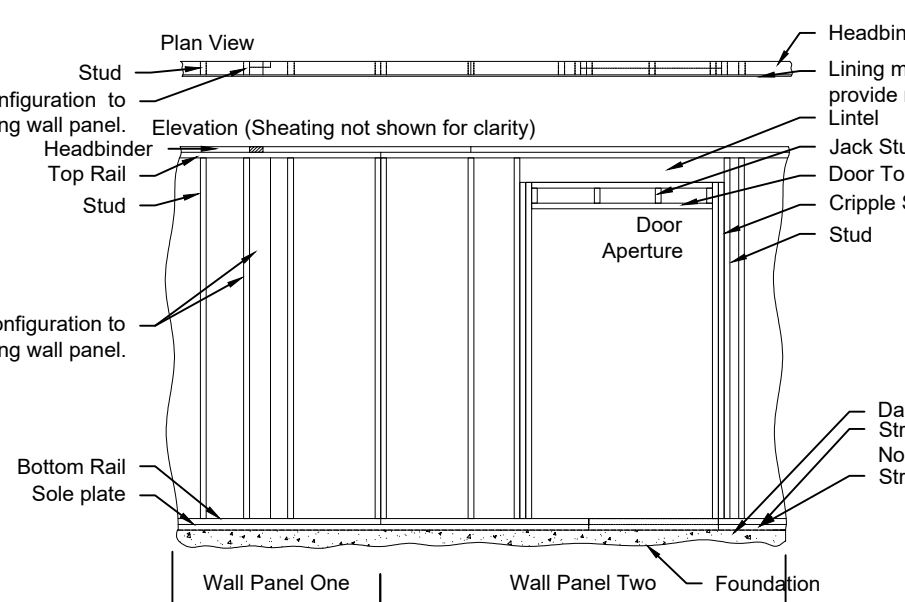
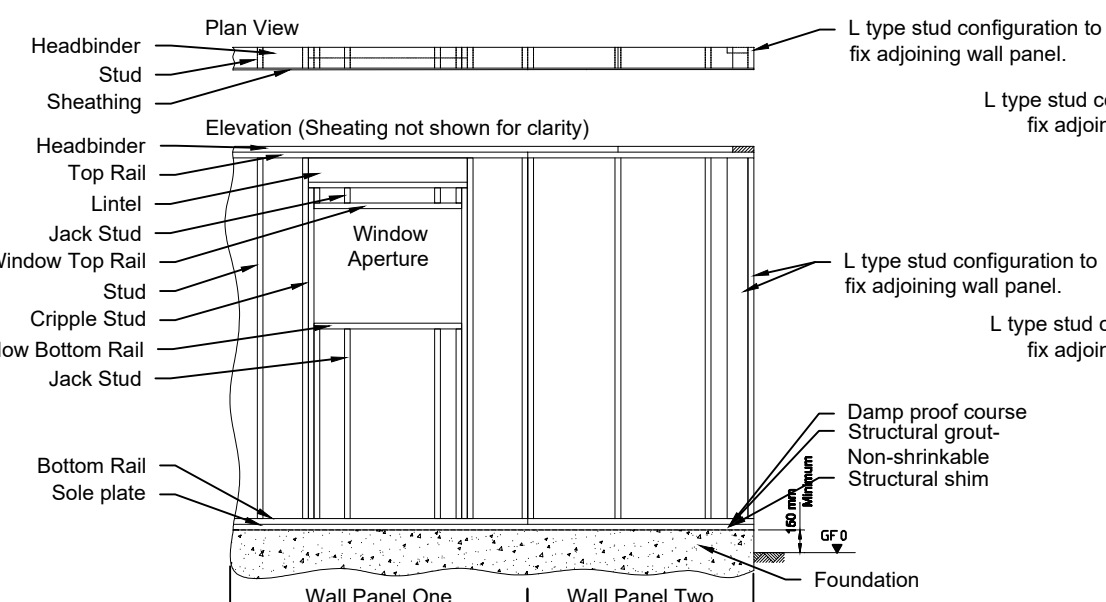
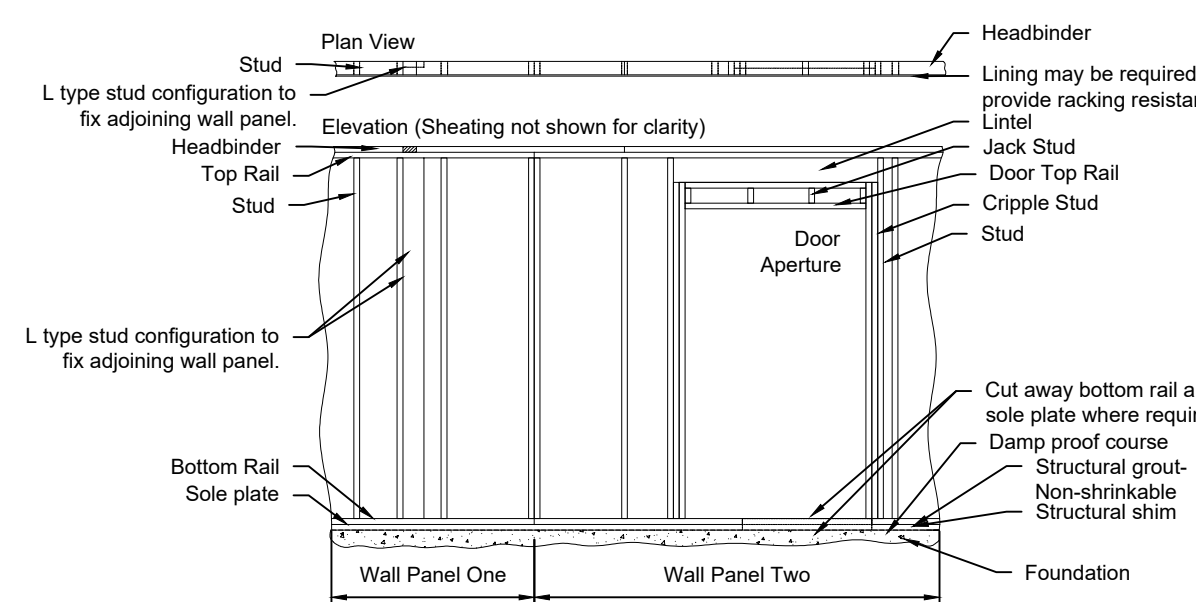
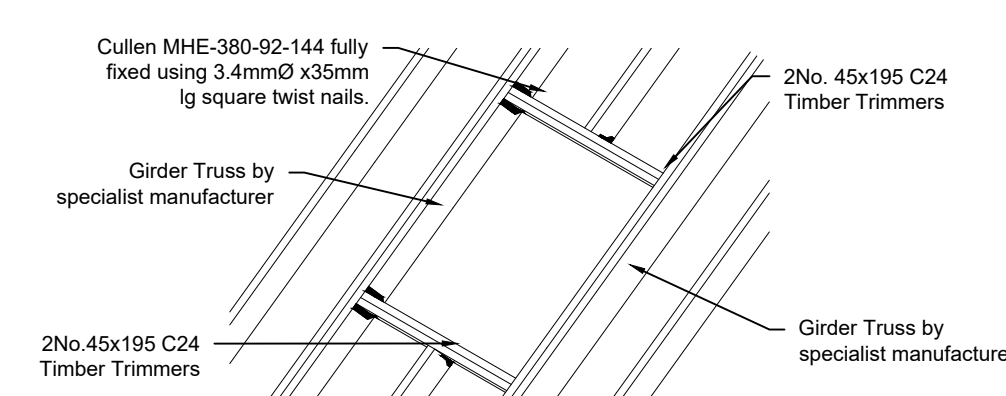
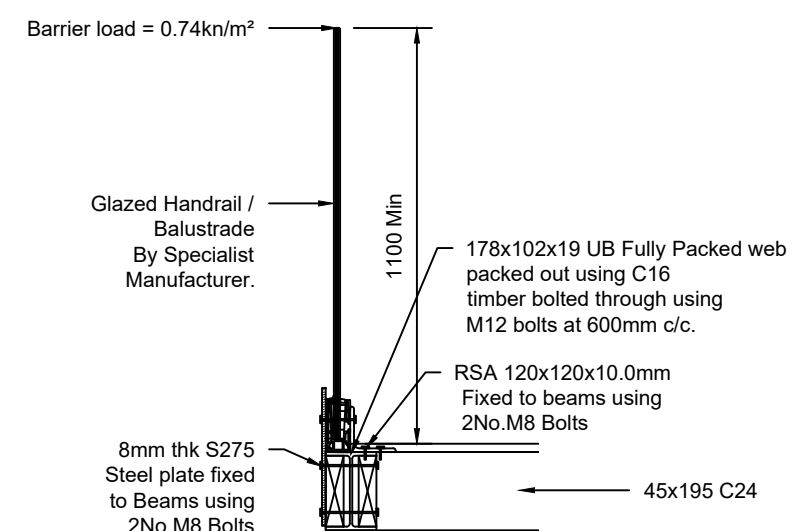
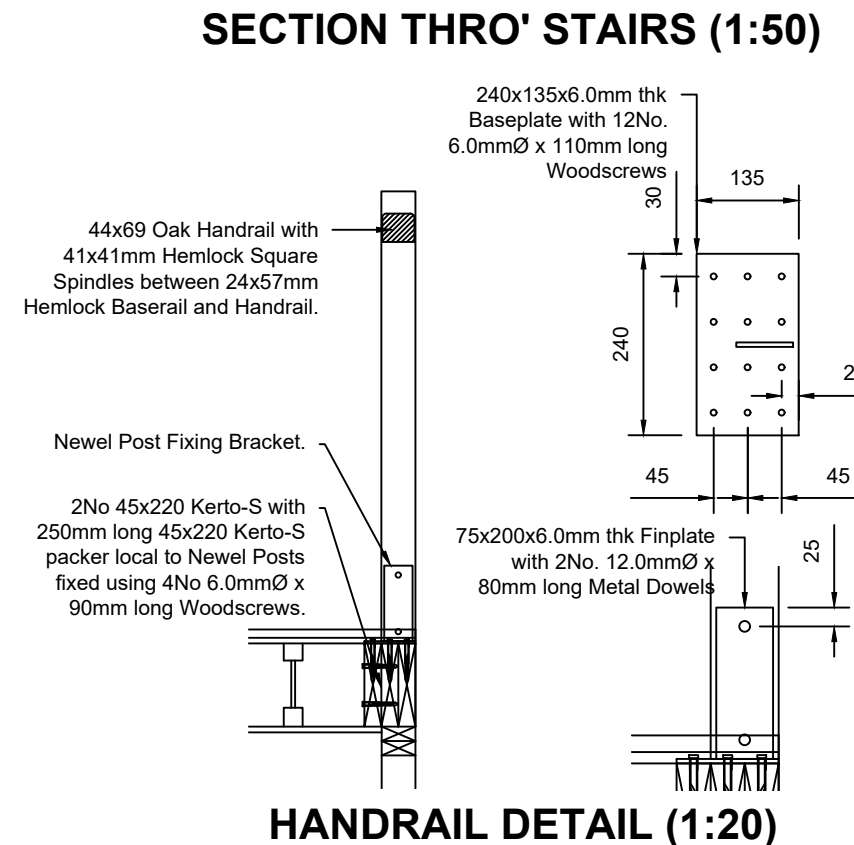
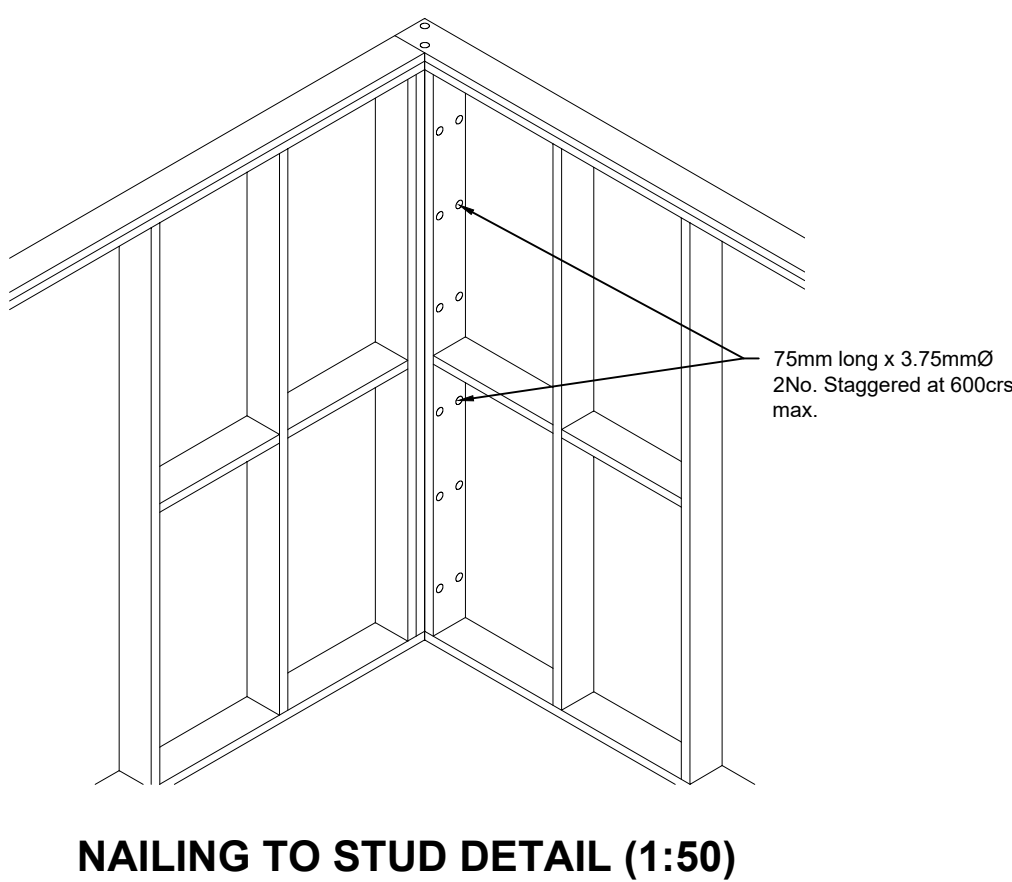
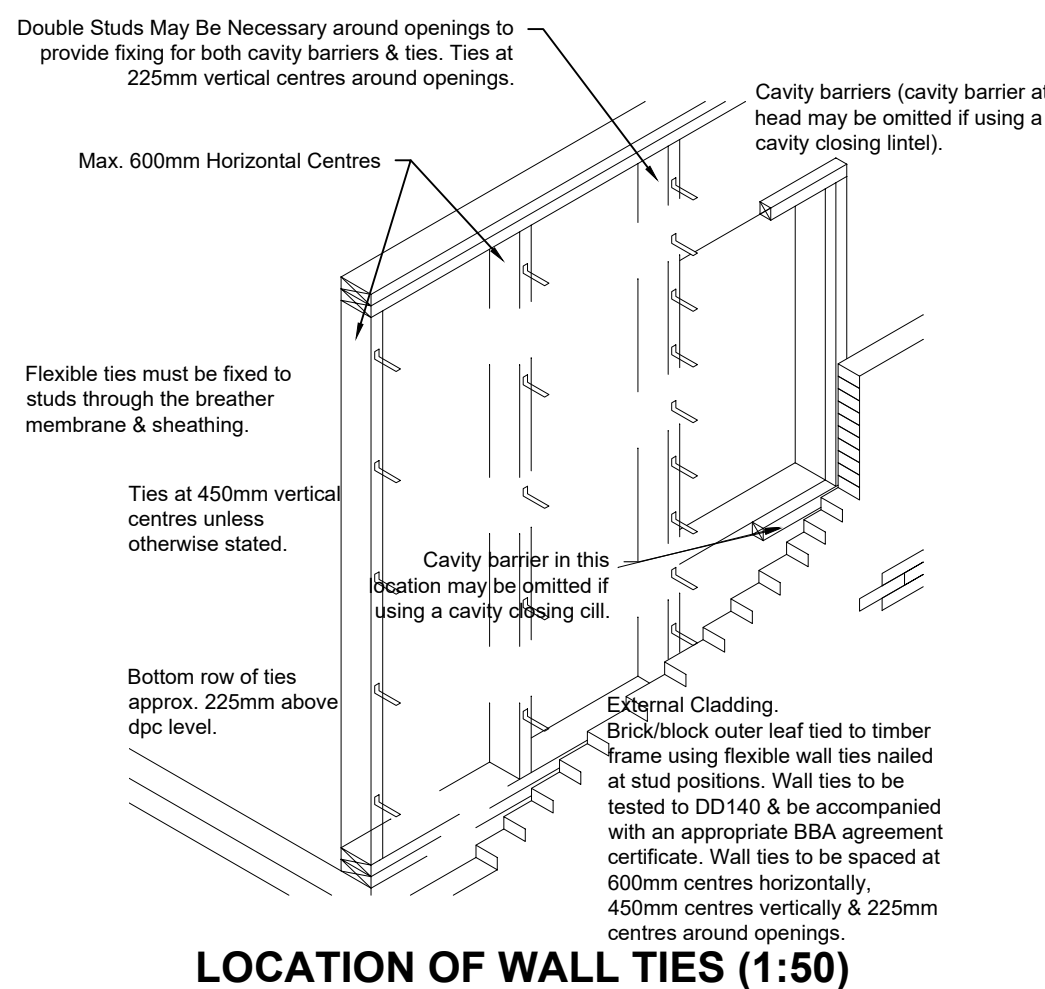
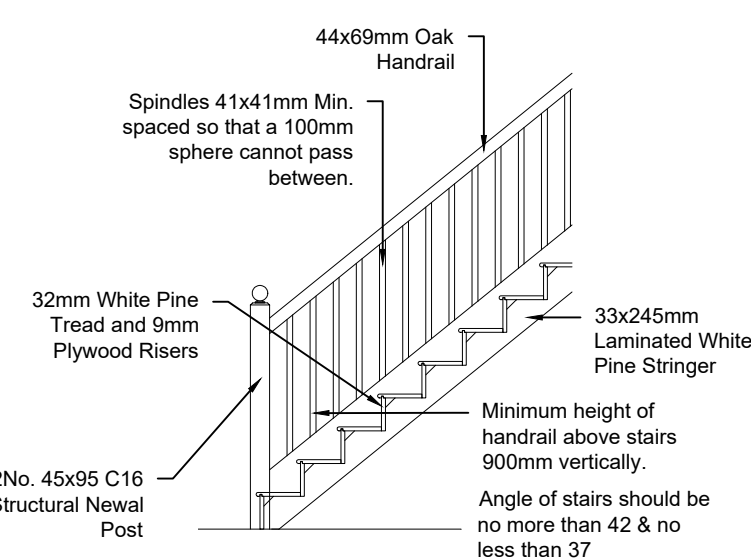
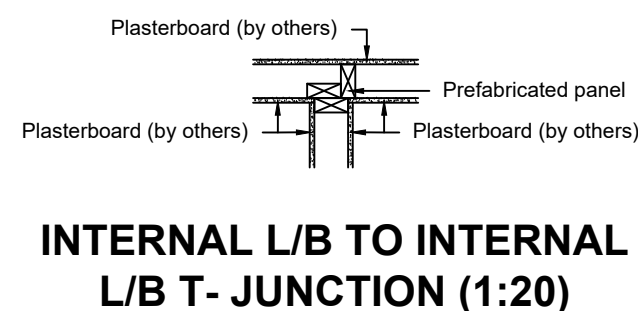
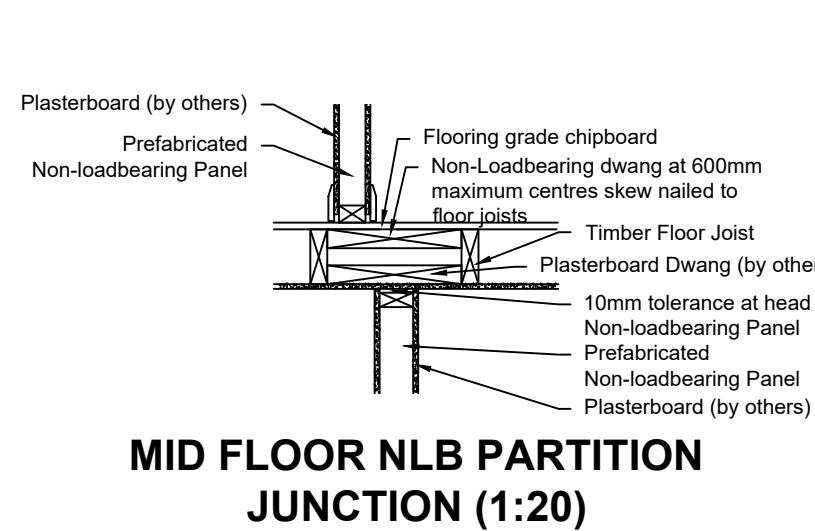
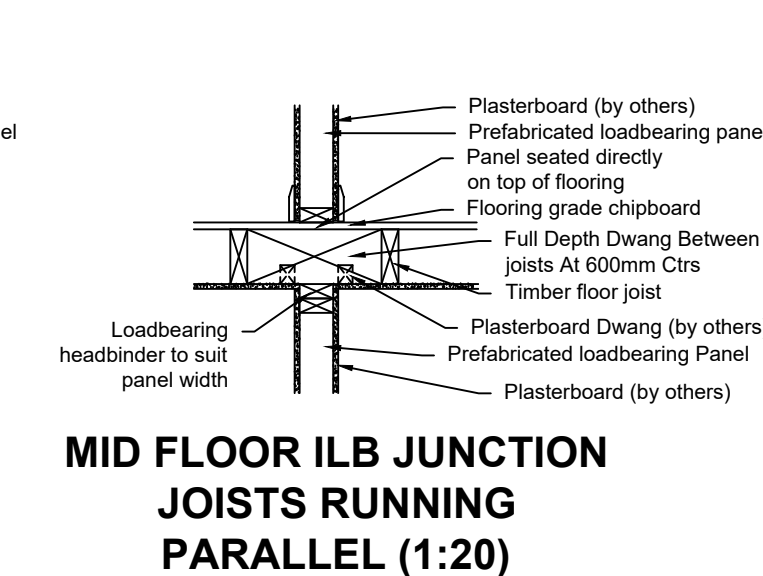
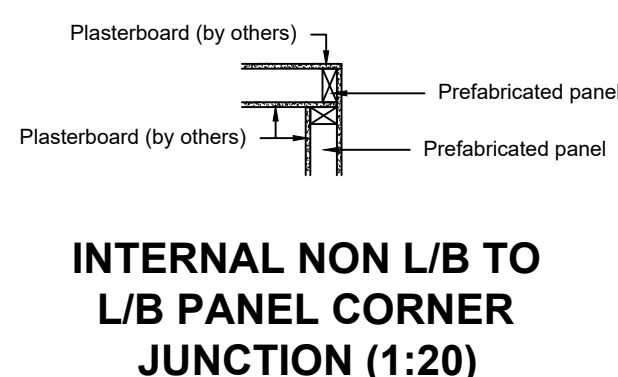
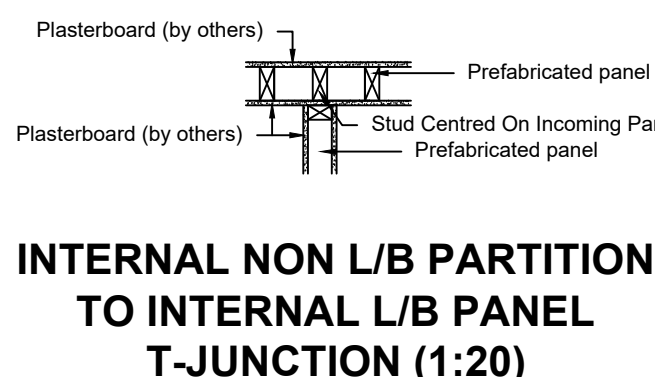
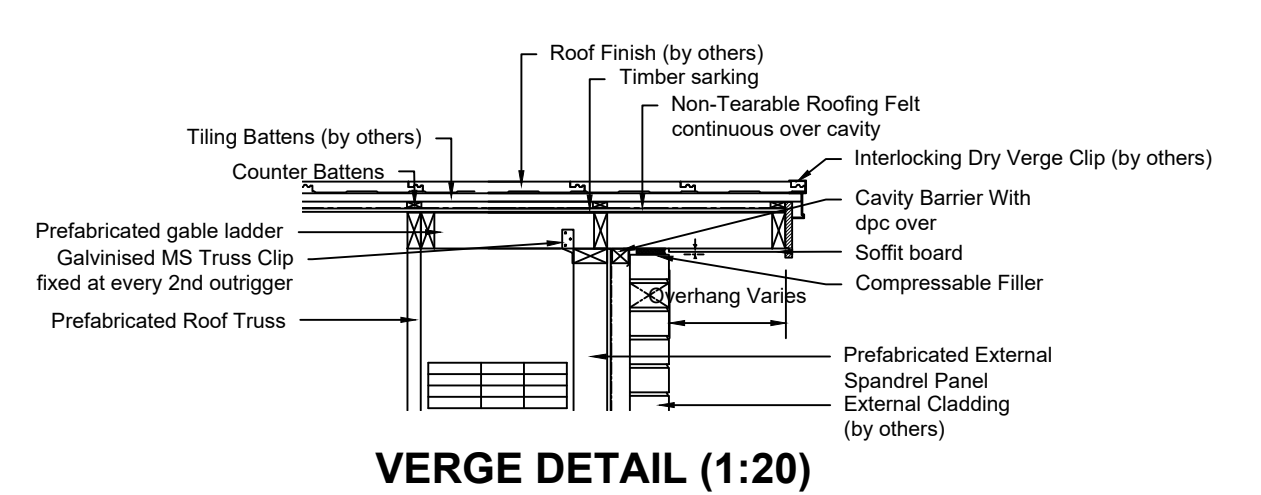
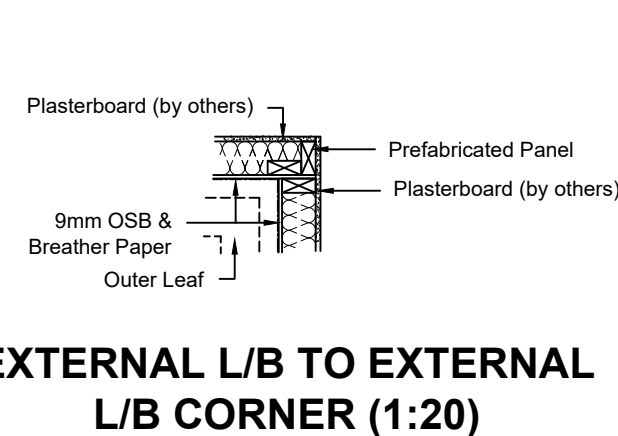
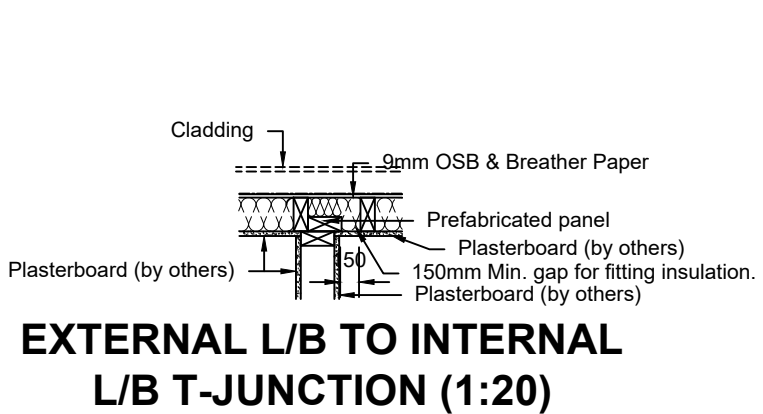



INTERMEDIATE FLOOR
DETAIL (1:20)
(Balcony with Masonry)

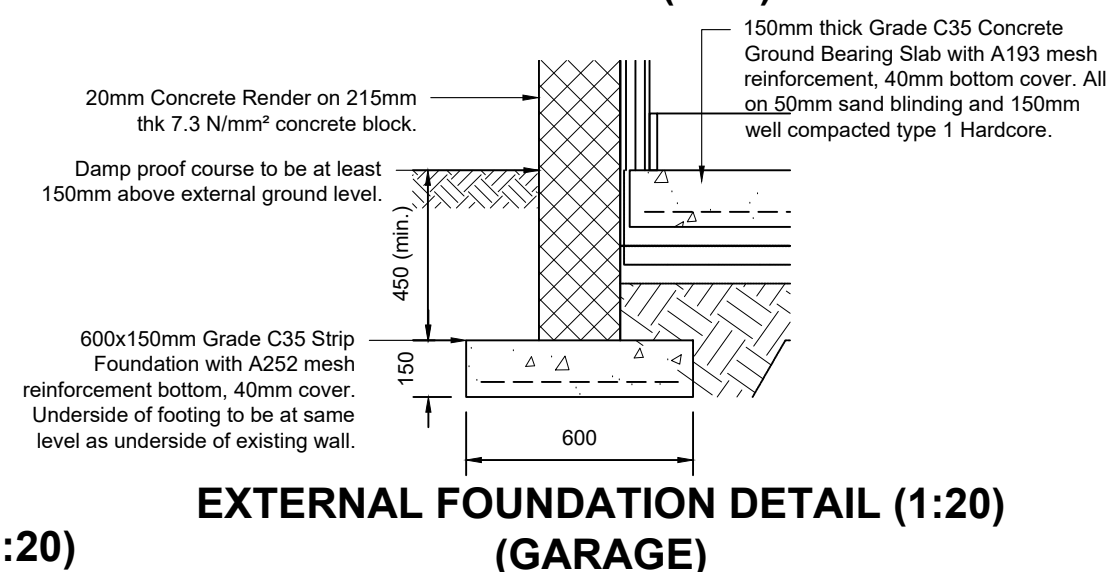
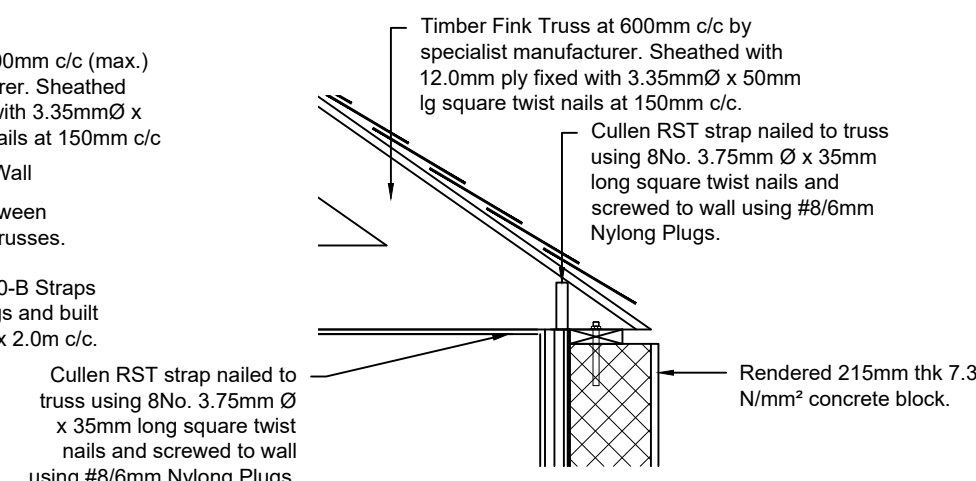
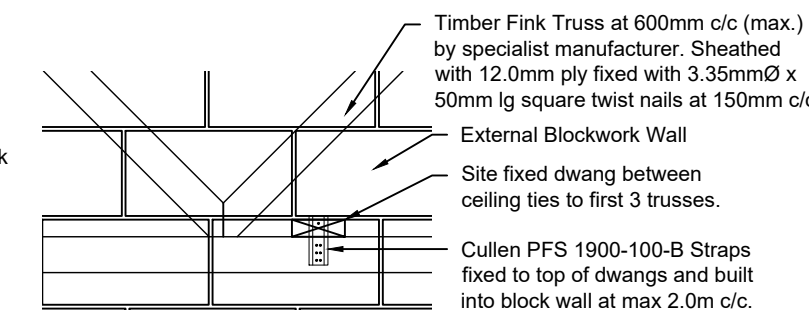
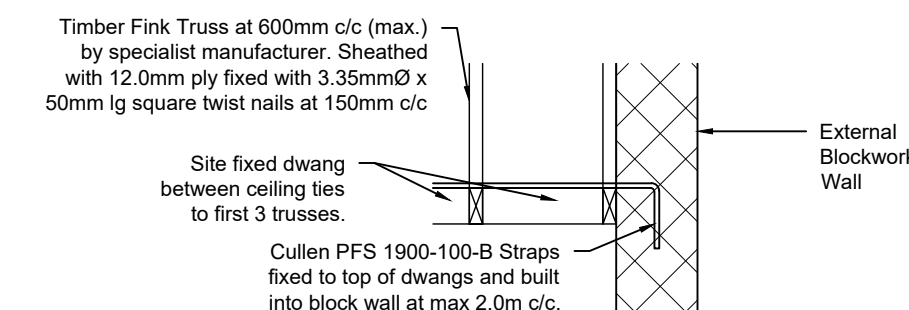
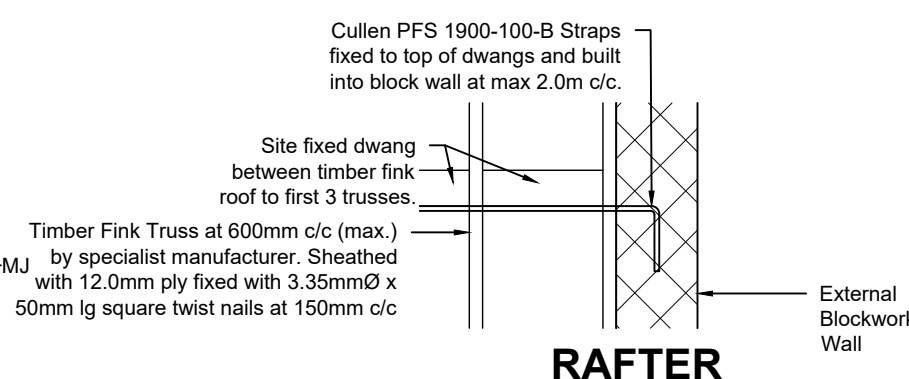
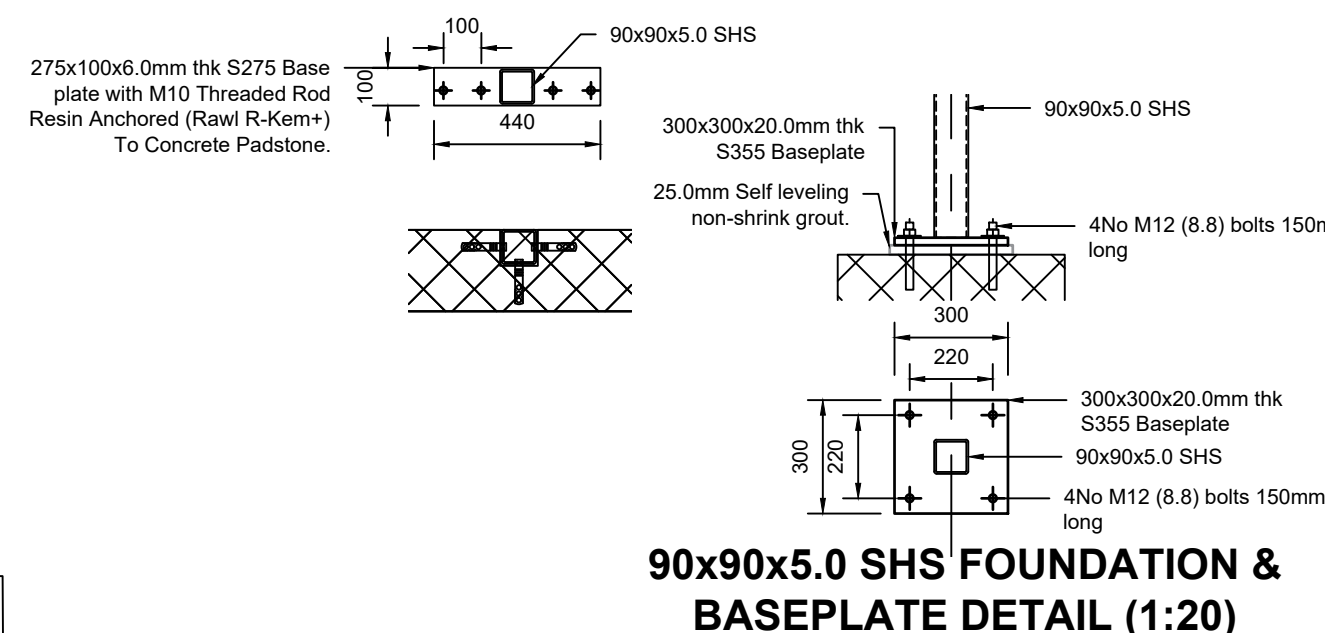
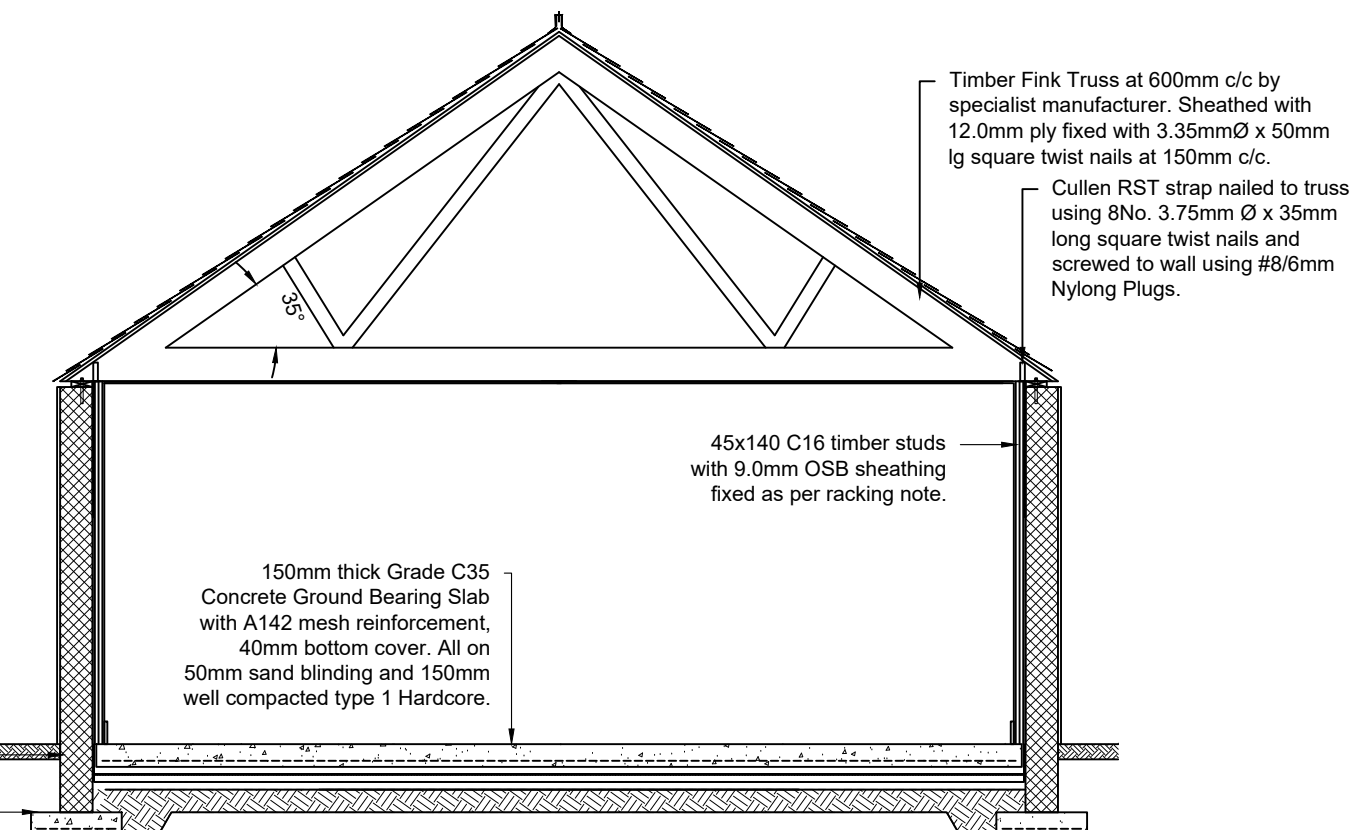
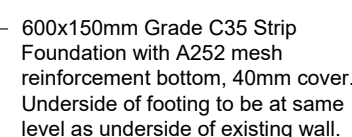
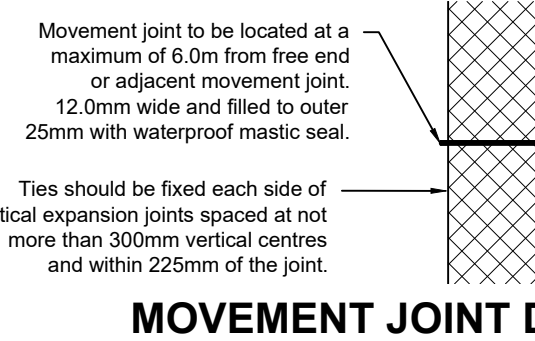
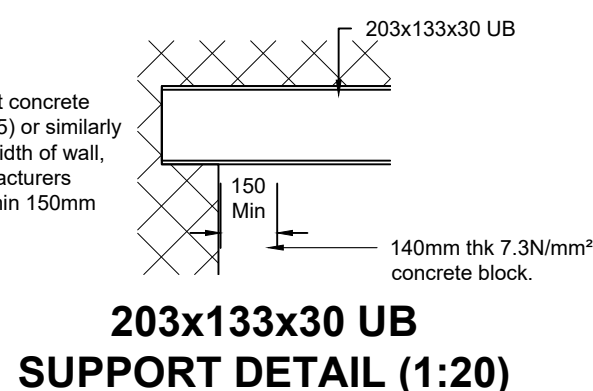
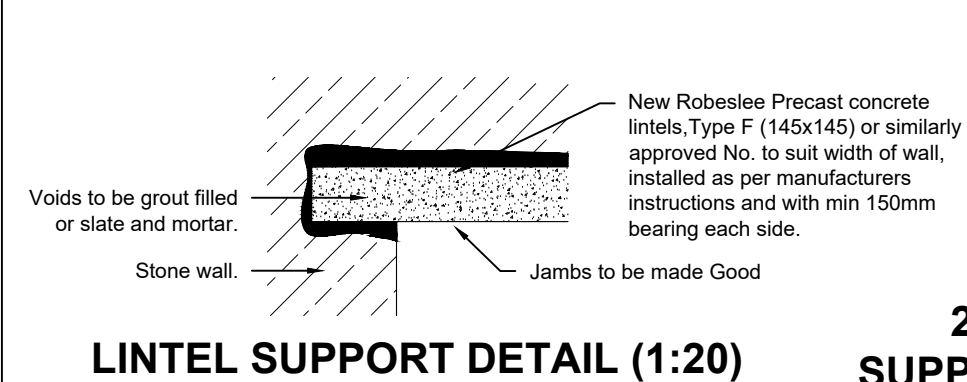
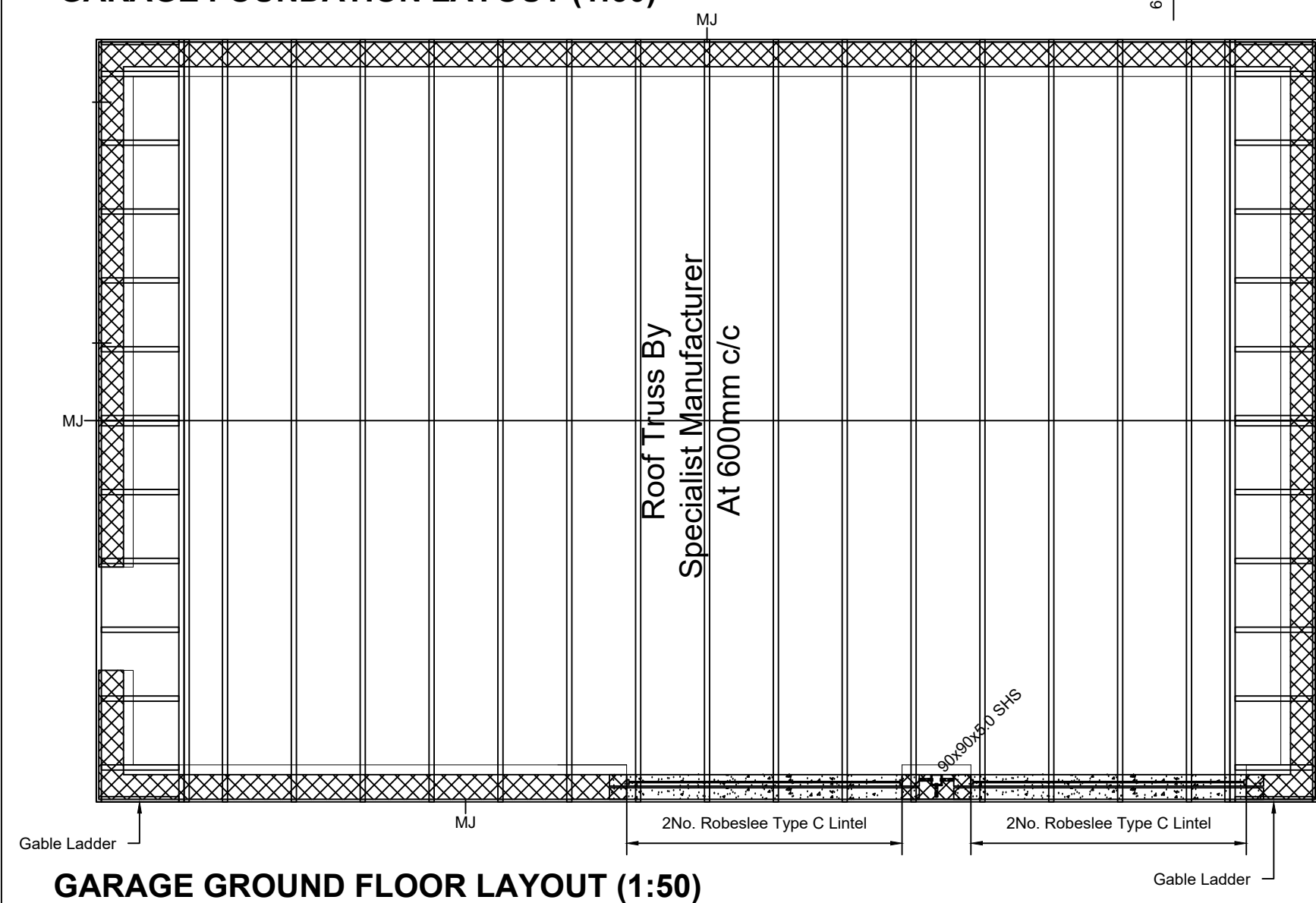
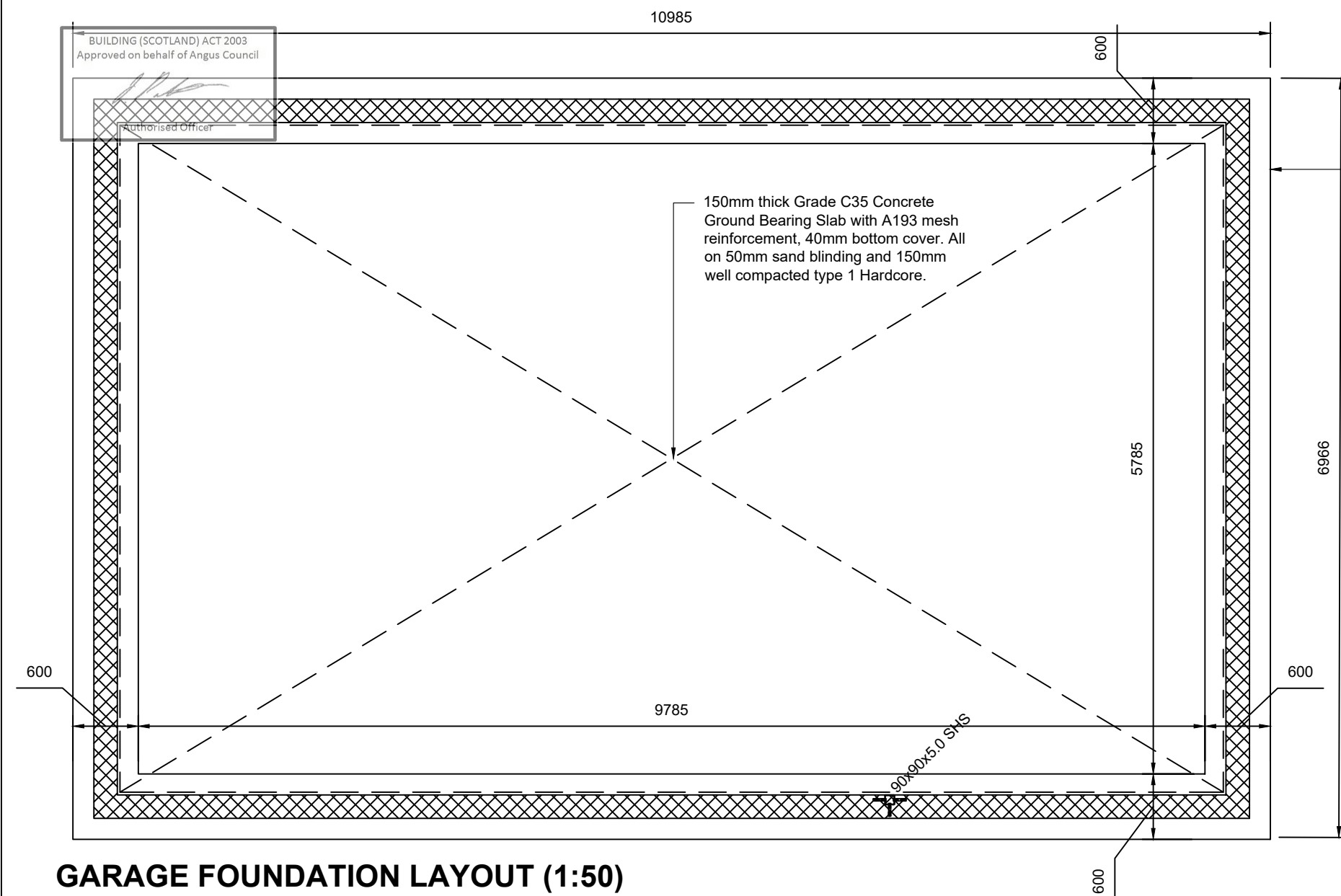


INTERMEDIATE FLOOR
DETAIL (1:20)
(Balcony without Masonry)

A	Warrant Issue	CDL	17/03/25
Rev:	Description:	By:	Date:
Client:	Mr J.McIntosh	Unit 2.7 Discovery House Technology Park Dundee DD2 1SW Tel: 01382 561112 Email: info@griffendesign.co.uk	
Site:	Herdhill, Kirriemuir		
Type:	Comment/Approval	Scale: Varies	Date: 04/02/2025
Title:	Ground & First Floor Joist Layout	Drawn: CDL	Checked: NDM
		Plot: A3	
		Project No: 255533	Revision: A
		Drawing No: 04	
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A Warrant Issue		CDL 17/03/25	
No: Description:		By: Date:	
Client: Mr J McIntosh		Unit 2.7 Discovery House Technology Park Dundee DD2 1SW Tel: 01382 561112 Email: info@griffendesign.co.uk	
		----	
Site: Herdhill, Kiriemuir			
Type:	Comment/Approval	Date:	04/02/2025
Spec:	Varies	Drawn:	CDL
Title:	Standard Details	Checked:	NDM
Project No:	255533	Issued:	06
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General

All dimensions are in millimeters unless noted otherwise.

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This drawing is to be read in conjunction with latest revisions of all relevant engineers and architects drawings.

For setting out refer to the architects drawings

Roof Truss

Roof truss to be designed, detailed and manufactured by specialist roof truss manufacturer to BS 5268:Part 2: Structural Use of Timber, Code of Practice for Permissible Stress Design, Materials and Workmanship, BS 5268: Part 3: 1998; Code of Practice for Trussed Rafter Roofs, Code of Practice BS 5268: Part 6.1: 1996 Section 1 and The Building Regulations 1991 Approved Document A.

Roof truss to be at 600mm maximum spacing.

Layout and calculations to be submitted to the Engineer at least 7 working days prior to installation.

A truss layout plan is to be available on site at all times.

No notches for services are permitted on roof timbers.

Truss connections shall be of proprietary manufacture (Catnic, Cullen, SST or similar approved).

All bracing members to be 25 x 100 C16 and nailed with 2N 3.35mmØ x 75mm long galvanised round wire nails to every truss rafter they cross.

Adjacent ends of bracing members to be fixed close together.

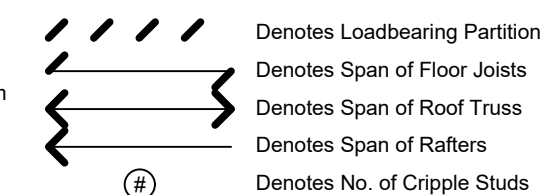
Long braces and binders may be lap jointed provided the overlap is nailed to at least two truss rafters.

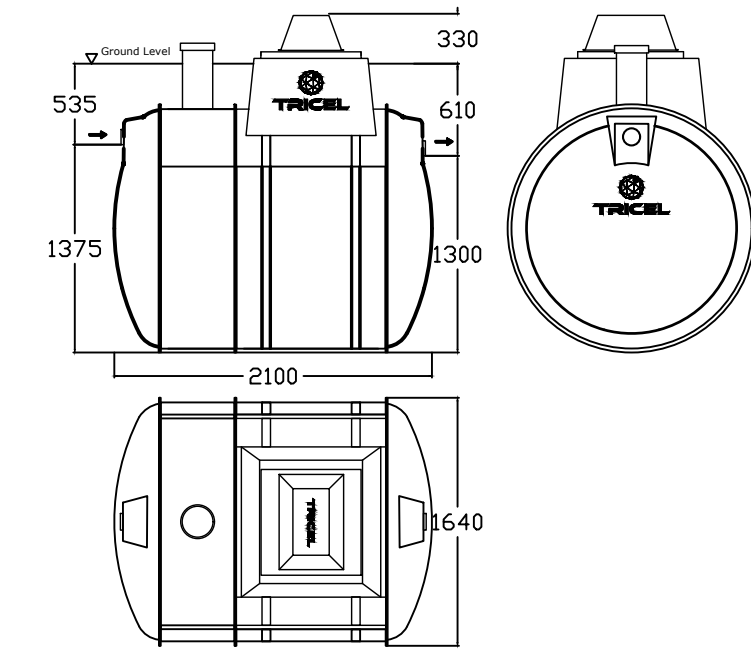
Contractor Designed Elements

The following items are Contractor Designed elements and have been noted on Schedule 1 of the SER Ltd. Certificate of Design.

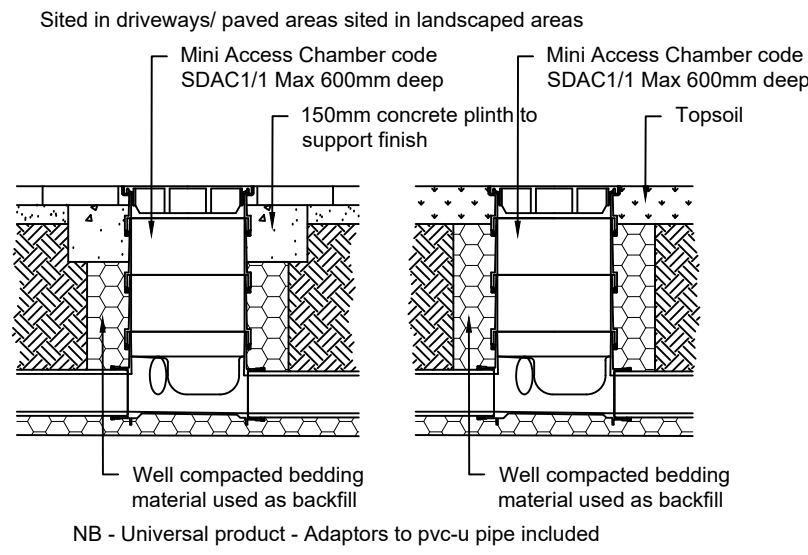
- ### 1. Roof Trusses

Full structural design calculations, layouts and details are required to be submitted at least 7 working days prior to manufacturer to allow co-ordination of design elements.

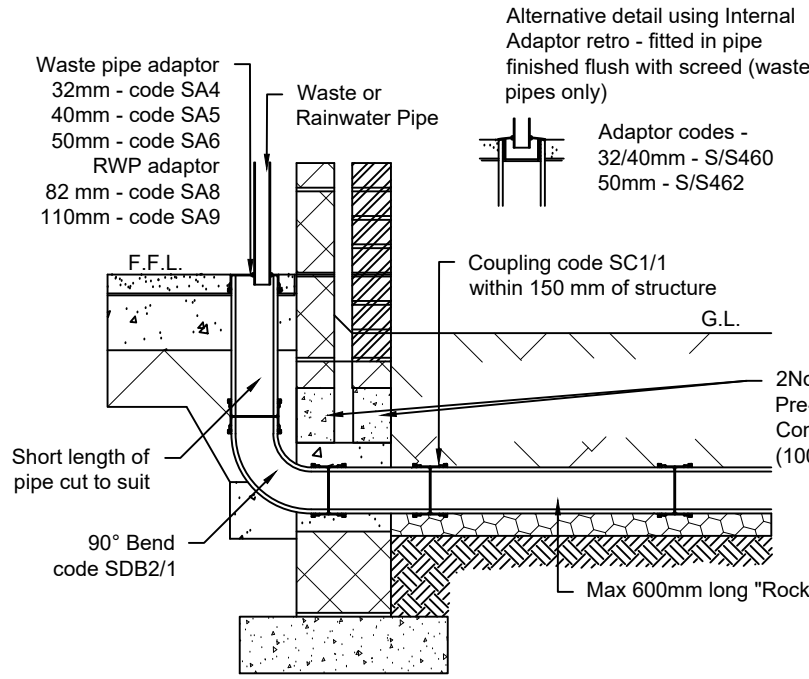




TRICEL NOVO UK PK 6 WASTEWATER
TREATMENT PLANT (1:50)

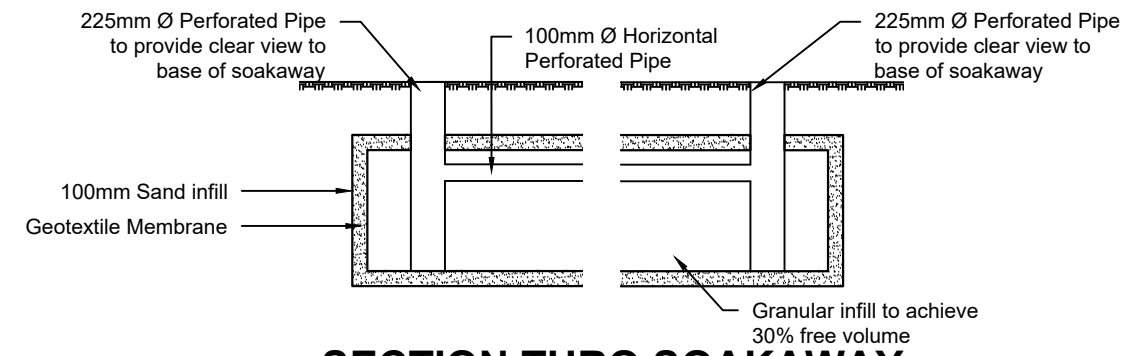


MINI ACCESS CHAMBER
INSTALLATION DETAIL (1:20)

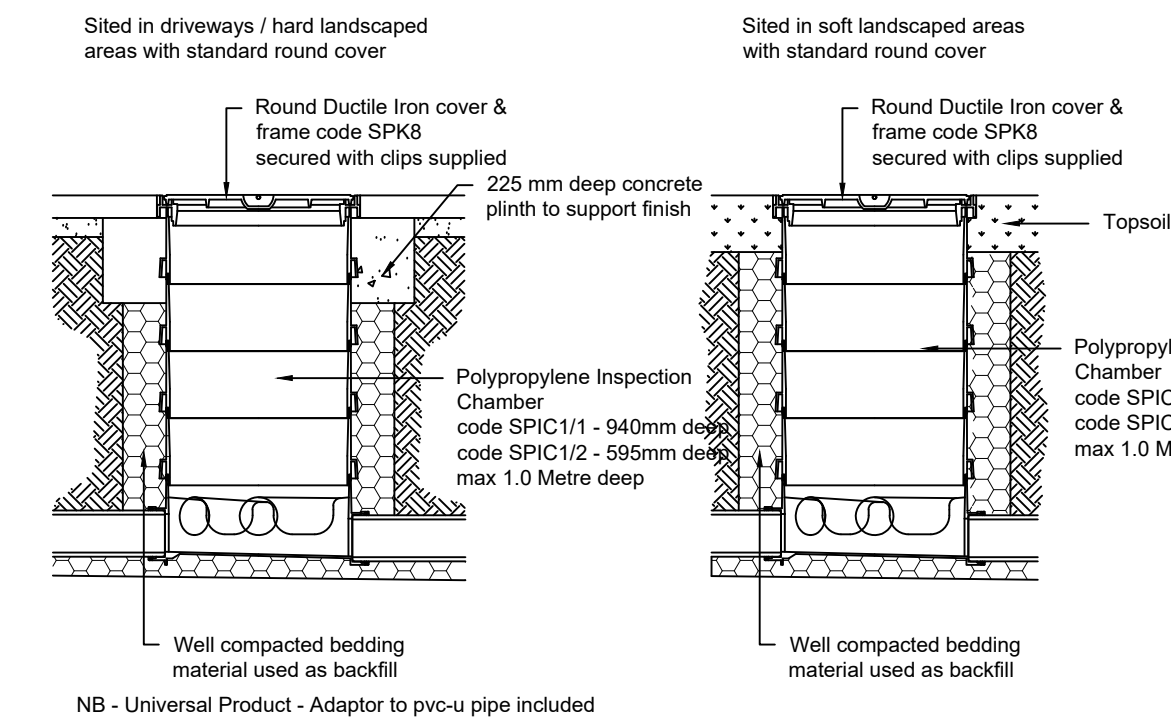
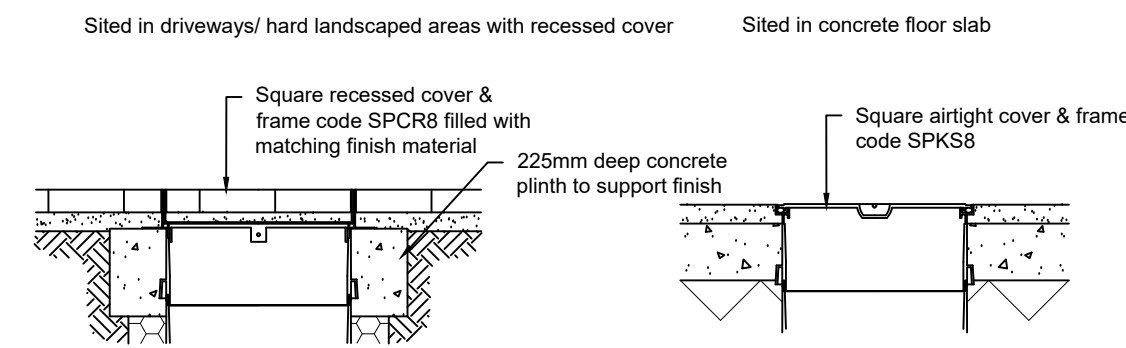


INTERNAL WASTE PIPE
CONNECTION DETAIL (1:20)

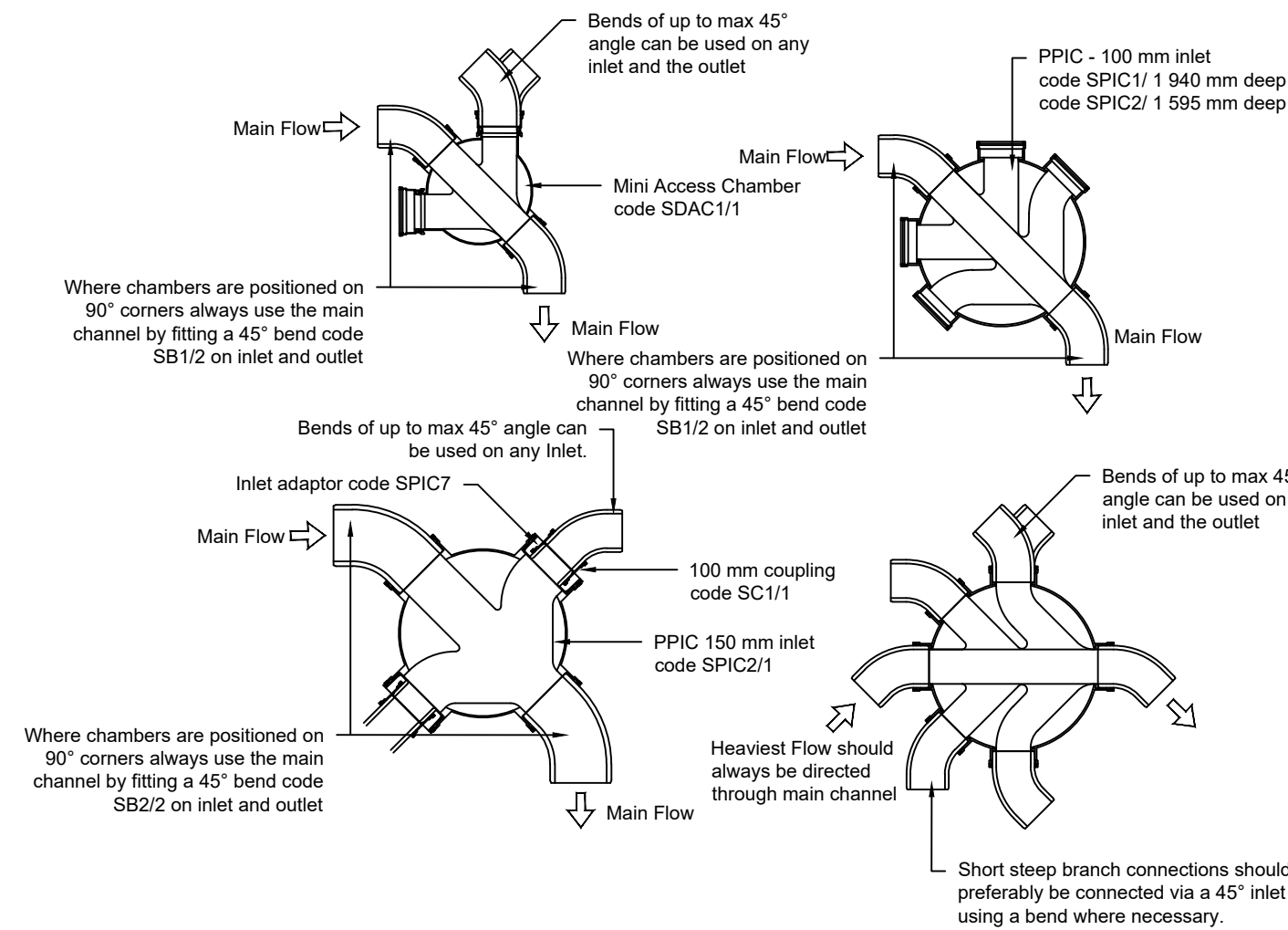
SECTION THRO' SOAKAWAY (1:20)



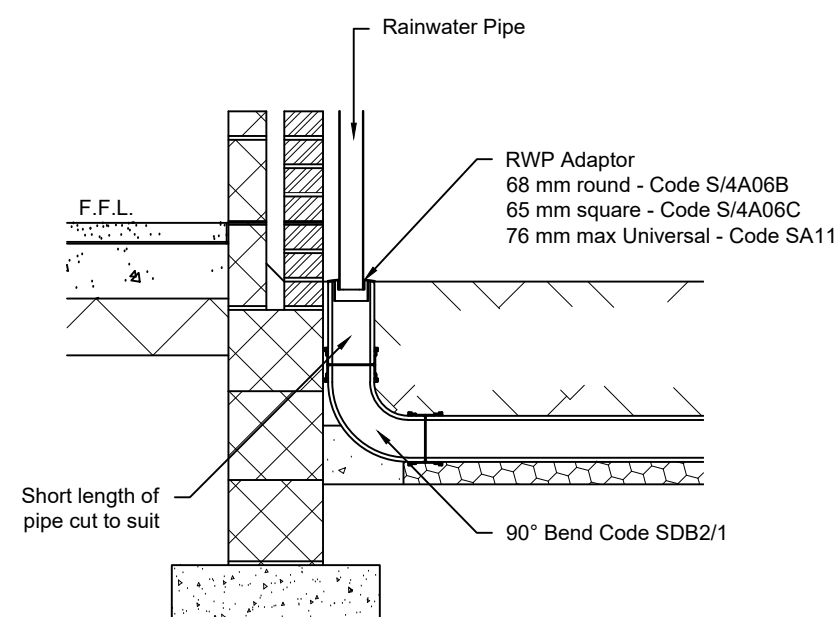
SECTION THRO SOAKAWAY
INSPECTION WELL (1:50)



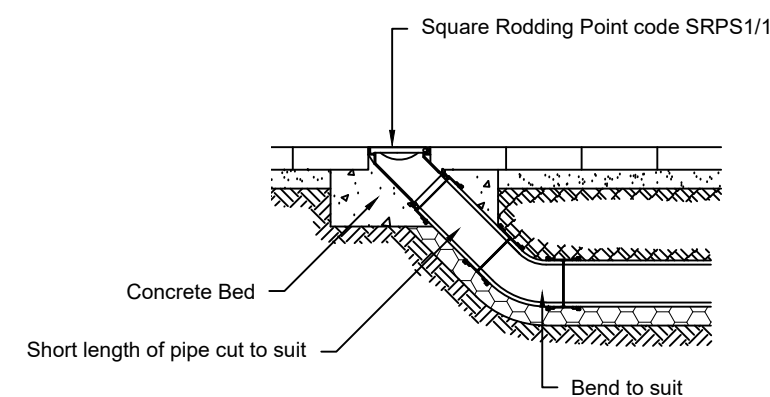
POLYPROPYLENE INSPECTION CHAMBER
INSTALLATION DETAIL (1:20)



MINI ACCESS CHAMBER / PPIC INSTALLATION DETAIL (1:20)



EXTERNAL RAINWATER PIPE
CONNECTION DETAIL (1:20)



RODDING DETAIL (1:20)

DRAINAGE LAYOUT (1:100)

TRICEL Novo UK6 suitable for Population Equivalent of 6 persons, installed in strict accordance with the manufacturers written instructions with concrete base and full concrete surround. Concrete surround to extend around shaft to within 150mm of ground level. Note: P version may be required to suit existing outlet levels. A pump is incorporated to allow for higher outlet to connect to existing drainage outlet for Strathview. Care should be taken to ensure outfall can be achieved.

Estimated location of outfall from Strathview septic tank as per CA-R-1136041 Registered and land drainage.

Connect to existing outfall pipe with branch connection.

8.0m x 1.5m x 1.5m Deep drainage trench foul soakaway with Granular infill to achieve 30% free volume.

100m Ø Tee Piece with overflow to silt trap

Surface Water Disconnecting Manhole

Foul Water Disconnecting Manhole with sampling chamber

Backfill trench around and between pipes with puddle clay to prevent surface water overflow entering treatment plant outfall.

100mmØ UPVC wavin coil perforated pipe laid to connect to existing Field Drains

General
All dimensions are in millimeters unless noted otherwise.
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This drawing is to be read in conjunction with latest revisions of all relevant engineers and architects drawings.
For setting out refer to the architects drawings.

Drainage Design By Stuart Burke Associates
See Drawing:
1. SBA1715_107_0001 - Proposed Drainage Layout REV01

B Drainage Layout incorporating existing outlet.		NDM 01/04/25
A Warrant Issue		CDL 17/03/25
Rev	Description	By Date
Client	Mr J.McIntosh	
Unit 2.7 Discovery House Technology Park Dundee DD2 1SW Tel: 01382 561112 Email: info@griffendesign.co.uk		
Site: Herdhill, Kirriemuir		
Type: Comment/Approval	Scale: Varies	Date: 04/02/2025
Title: Drainage Layout & Details	Project No: 255533	Drawn: NDM Checked: NDM Revision: B
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We enclose copies of the following drawings:

[illegible]

Nailing Schedule

1301010 (SCOTLAND) ACT 2006
Approved on behalf of Angus Council

Gun Nails (Paslode Electro Galv'd or Equal & Approved)

Type I	3.10 x 75mm Smooth Shank
Type II	3.10 x 90mm Smooth Shank

Note: Gun nails incur additional cost and clients or erectors who wish to use these will be charge accordingly.

Manual Nailing

Type A1	82mm Red Head Masonry Nails & Washers Galv'd or equal
Type A2	7.50 x 80mm HUS Universal Screw Anchors Galv'd or equal
Type B	38mm Lost Heads Galv'd
Type C	3.35 x 65mm Lost Heads Galv'd
Type D	38mm Oval Brads Bright
Type E	50mm Oval Brads Bright
Type J	3.35 x 65mm Ring Shank (Sheradised annular)
Type K	3.75 x 75mm Galv'd Wire
Type L	4.00 x 100mm Galv'd Wire
Type M	3.00 x 50mm Galv'd Wire
Type N	30 x 3.75mm Square Twist (Sheradised)

Note: HUS nails incur additional cost and clients or erectors who wish to use these will be charge accordingly.

Plasterboard Nails

Type F	2.65 x 40mm Annular Nails Yellow Chromated
Type G	2.65 x 50mm Annular Nails Yellow Chromated
Type H	2.65 x 65mm Annular Nails Yellow Passivated

Plasterboard Screws

Type F13.50	x 38mm Drywall Screws Dark Grey Finish
Type G1	3.50 x 51mm Drywall Screws Dark Grey Finish
Type H1	4.20 x 65mm Drywall Screws Dark Grey Finish

Location / Operation

Wallplate (Max 50mm thick)
to underbuilding:



Wallplate (Max 50mm thick)
to concrete floors:

Nailing Requirements

1 No 80mm Masonry Nails -
& Washers face nailed or equal
at 600mm centres.

1 No Hilti HUS 7.5 x 80
Universal Screw Anchors or equal
at 600mm centres.

Manual Nails Gun Nails

Type A1 N/A

Type A2 N/A

Joists to wallplate & Headbinders:

1No each side -

Type K Type I

Header Joists & Edge Joists to
Wallplate & Headbinders:

450mm centres -

Type L Type II

Header Joists to Floor Joists:

2No each joist -

Type L Type II

Mid Span / Stiffening Dwangs:

2No each end -

Type L Type II

Full Depth Dwangs:

2No each end -

Type L Type II

External Wall Panels + Parallel
Loadbearing Panels to Joists:

300mm centres -

Type L Type II

Internal Loadbearing Panel to Joists:

1No to each crossing point -

Type L Type II

Loadbearing Panel to Panel
(Bungalow & 1st Floor):

300mm centres -

Type L Type II

Loadbearing Panel to Panel
(GF of 2 Storey):

150mm centres -

Type L Type II

Internal Non-Loadbearing Panel
to External Panel:

2No every 600mm -

Type L Type II

Internal Partitions Panel to Panel:

2No every 600mm -

Type L Type II

Headbinder to Top of Panels
or at Eaves Level:

Single Storey 300mm ctrs -
Two Storey 300mm ctrs -
Three Storey 200mm ctrs -
Four Storey 150mm ctrs -

Type L Type II

Spandrel Panels to Headbinders: 200mm centres -

Type L Type II

Spandrel Panel to Panel:

300mm centres -

Type L Type II

Trussed Rafters to Headbinders: 1No each side of each end skew nailed -

Type K N/A

Gable Ladders Dwangs to
Spandrel Panels:

1No each side skew nailed -

Type K Type I

Gable Ladders to Trusses:

300mm centres -

Type K Type I

Location / Operation**Nailing Requirements****Manual Nails Gun Nails**

Diminishing Trusses to Main Roof
Rafters:

1No to each crossing point -

Type K

Type I

Diagonal & Longitudinal Roof Bracing:

2No each truss passing point & at
Headbinder & Spandrels.

Type K

Type I

9mm OSB Sarking:

35No per sheet -

Type M

HandNailOnly

Eaves Sarking Board:

2No to each crossing point -

Type K

Type I

Timber Sarking Boards:

2No to each crossing point -

Type K

HandNailOnly

Counter Battens:

300mm centres -

Type J

N/A

Tile Battens (If Supplied):

1No to each crossing point -

Type J

N/A

Soffit Framing:

2No each end -

Type K

Type I

600mm ctrs Soffit Lining Boards

1200mm ctrs UPVC Fascia & Soffit

2400mm Ctrs Timber Fascia & Soffit

Soffit Lining Boards:

2No to each soffit framing pass -

Type B

N/A

Soffit Ply:

150mm centres -

Type B

N/A

Fascia Boards (Timber):

3No per truss end -

Type C

N/A

Roofing Felt:

150mm centres -

Type F

N/A

Cavity Barriers / Firestops:

600mm centres -

Type L

Type II

Note: All plasterboard nails are at 150mm maximum centres working from the centre of the board outwards.

Note: Alternative plasterboard screws should be installed at 300mm maximum centres (200mm maximum centres at sheet edges. These fixings incur additional cost and clients or erectors who wish to use these will be charge accordingly.

12.5mm Plasterboard
walls and ceilings:

Centres as per plasterboard
manufacturers recommendations.

Manual Nails Screws

Type F

F1

19mm Plasterboard
Plank to Party Walls:

Centres as per plasterboard
manufacturers recommendations.

Type G

G1

19mm Plasterboard Plank to
Floor Battens (Flats Only):

35No per sheet -

Type G

G1

12.5mm over 12.5mm Plasterboard
to Stair Walls:

Centres as per plasterboard -
manufacturers recommendations.

Type G

G1

12.5mm Plasterboard over
19mm Plasterboard Plank:

Centres as per plasterboard
manufacturers recommendations.

Type H

H1

Location / Operation**Nailing Requirements****Manual Nails Gun Nails**

Chipboard to Joists / Bearers:
(Joists at 400mm ctrs)



25 per sheet -
5No at ends - 3No at intermediate
(120mm ctrs to c/board bearers at
external walls)

Type J

Type I

Chipboard to Joists / Bearers:
(Joists at 300mm ctrs)

31 per sheet -
5No at ends - 3No at intermediate
(120mm ctrs to c/board bearers at
external walls)

Type J

Type I

Whitewood T & G Flooring:

1Kg per 7m² -

Type K

Type I

Anchor Straps:

7No per strap -

Type J

N/A

Door Facings:

40No per door standard -

Type D

N/A

Door Facings:

40No per door standard -

Type E

N/A

Skirting:

2No per 600mm centres -

Type E

N/A

Ironmongery Nails

Truss Clips (TC):

12No per clip -

Type N

N/A

Joist Hangers:

(KH)

12No per hanger -

Type N

N/A

(KHL)

12No per hanger -

Type N

N/A

(KM)

08No per hanger -

Type N

N/A

(TM)

18No per hanger -

Type N

N/A

(TS)

12No Min 26No Max per hanger -

Type N

N/A

Note: All other hangers refer to
manufacturers nailing / bolting
requirements or as required by
timber frame structural engineer.

Truss Hangers:

20No per hanger -

Type N

N/A

Note: All nailing to suit truss
manufacturers hanger
requirements.

Angle Brackets (LAB/ABR):

20No per plate approx -

Type N

N/A

Note: Refer to manufacturers
nailing / bolting requirements
or as required by timber
frame structural engineer.

Cam Plates (CP):

12No per plate -

Type N

N/A

Framing Anchors (FAS):

14No per anchor -

Type N

N/A

Griffen Design Ltd.
Structural Engineering Consultancy
6 Osprey Bank, Dundee, DD2 5GE
Tel: 01382 581 586



17 March 2025

Mr J McIntosh
c/o David Wren Architect

Dear Sirs

**NEW DWELLING
AT HERDHILL, KIRRIEMUIR**

Please find enclosed the SER Certificate No. 429883 for the above project along with our drawings upon which the certificate is based. We also include our drawing register listing both the Architects and our drawings as a list of drawings forming the basis of certification. This drawing register must be submitted with our certificate and drawings.

The following items are listed as contractor designed elements and will require a form Q to finalise the design.

1. Roof Trusses
2. Glazing
3. Barriers - Balcony

Please ensure all calculations, drawings and details are issued to Griffen Design Ltd. at least 7 working days prior to fabrication. Failure to issue the information may compromise the design and can lead to delays in obtaining a completion certificate.

Changes to the structure from this point, whether to the layout, detail or material, will incur a review and an amendment may be required. An additional fee will be required should an amendment be required.

Yours faithfully,

Nathan D. Murray BEng(hons) MSc CEng MStructE
(SER Approved Certifier of Design)
For Griffen Design Ltd.
(SER Approved Body)