

GENERAL NOTES:

THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DOCUMENTATION FROM ENGINEERS, CERTIFIERS, BUILDERS AND ALL OTHER CONSULTANTS IN RELATION TO THE PROPOSED WORKS

ALL MATERIAL AND WORK CARRIED OUT MUST COMPLY WITH CURRENT BUILDING CODE REGULATIONS: NATIONAL CONSTRUCTION CODE, BUILDING CODE OF AUSTRALIA AUSTRALIAN STANDARDS, QUEENSLAND DEVELOPMENT CODE AND ANY OTHER RELEVANT CODES

WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DO NOT SCALE ANY DRAWING IN THE CASE OF PRINT OR PRINTER ERROR IF IN DOUBT, ASK

BUILDER TO CHECK AND CONFIRM ALL DIMENSIONS PRIOR TO CONSTRUCTION/MATERIAL ORDER

WINDOW AND DOOR SIZES ARE NOMINAL - REFER MANUFACTUTER FOR SPECIFIC WINDOW/FRAME SIZES & REQUIREMENTS

TERMITE PROTECTION SYSTEM FOR ALL NEW WORKS TO BE INSTALLED IN ACCORDANCE WITH AS 3660.1

ALL MATERIALS USED TO BE INSTALLED TO MANUFACTUERS SPECIFICATIONS

PROVIDE LIFT OFF HINGES TO W.C OR BATHROOM DOORS WHERE TOILET IS WITHIN 1200mm FROM THE DOOR

VEHICLE ACCESS TO BE A MAXIMUM 1:4 GRADIENT VEHICLE CROSSOVER TO COUNCIL REQUIREMENTS

CEILINGS & WALLS TO BE LINED WITH 10mm PLASTERBOARD GENERALLY - REFER BUILDING SPECIFICATIONS FOR CONFIRMATION

VILLA BOARD WALL LININGS TO WET AREAS - REFER BUILDER AND MANUFACTUERS SPECIFICATIONS

SMOKE ALARMS TO BE HARDWIRED AND INTERCONNECTED IN ACCORDANCE WITH AS 3786 AND N.C.C 3.7.2

REFER BUILDERS SPECIFICATIONS OR CLIENT FOR ALL SELECTIONS/FINISHES

ELEVATIONS ARE INDICATIVE ONLY
REFER BUILDERS SPECIFACTIONS OR OWNER TO CONFIRM ALL MATERIALS

BUSH FIRE REPORT (IF REQUIRED) BY OTHERS

STORMWATER/FLOOD REPORT (IF REQUIRED) BY OTHERS

ALL STEEL AND CONCRETE DESIGN TO BE UNDERTAKEN BY A REGISTERED ENGINEER

ENERGY EFFICENCEY REPORT BY OTHERS

PROTECTION OF OPENABLE WINDOWS TO BE IN ACCORDANCE WITH N.C.C 3.9.2.5

DOWNPIPE QUANITY TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION
THE NUMBER OF DOWNPIPES PER SQ M OF ROOF AREA RELATES TO THE SIZE/FLOW RATE OF GUTTERS SELECTED
REFER TO N.C.C PART 3.5.3 AND GUTTER MANUFACTERS SPECIFICATIONS

Building Act 1975 -
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BA5757
BA#.....
26 August 2025
Date.....

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SUSTAINABLE BUILDINGS - QDC MP 4.1

ENERGY EFFICIENCY - REFER REPORT (BY OTHERS)

ENERGY EFFICIENT LIGHTING
FOR A MINIMUM OF 80% OF THE TOTAL
FIXED INTERIOR ARTIFICIAL LIGHTING

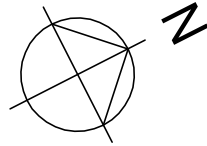
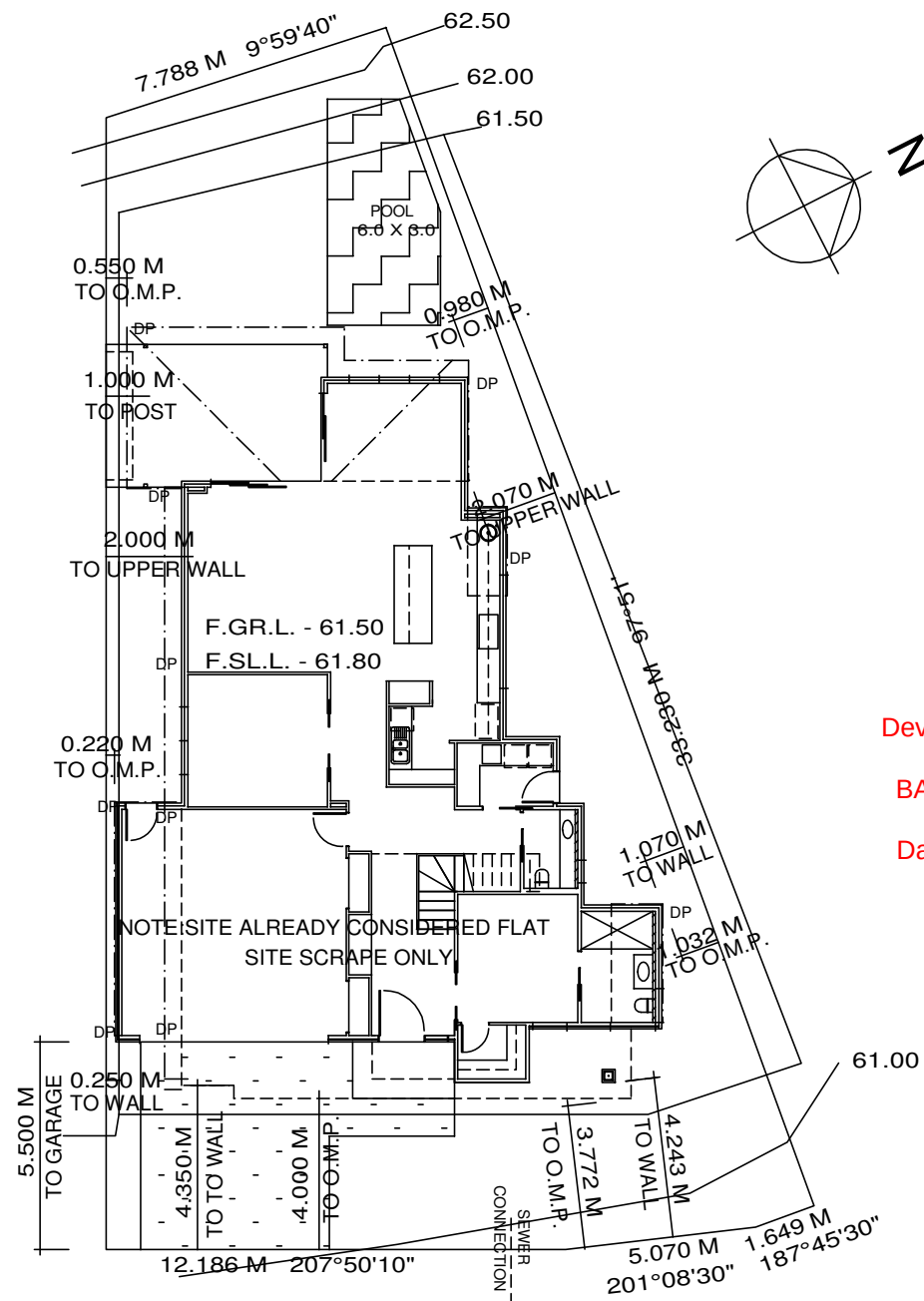
AIR-CONDITIONERS TO HAVE AN EER
OF NOT LESS THAN 2.9

ALL SHOWER ROSES TO HAVE A MINIMUM
3 STAR WATER EFFICIENCY LABELLING
AND STANDARDS RATING

ALL TOILETS TO BE DUAL FLUSH AND HAVE A
MINIMUM 4-STAR WATER EFFICIENCY LABELLING
AND STANDARDS RATING

TAPS TO L'DRY TUBS/KITCHEN SINKS/BASINS
TO HAVE A MINIMUM 3-STAR WATER EFFICIENCY
LABELLING AND STANDARDS RATING

	WILLIAM H WILSON & ASSOCIATES BUILDING & DESIGN CONSULTANTS LICENCE No 1257478 19 KEYES ST LOGANLEA 4131	PH:(07) 3200 6836 FAX:(07) 3388 4075 email:wwassociates@optusnet.com.au	© COPYRIGHT THIS DRAWING REMAINS THE PROPERTY OF WILLIAM H WILSON & ASSOCIATES & IS PROVIDED FOR THE USE AS DESCRIBED & MAY NOT BE USED OR REPRODUCED IN WHOLE OR IN PART WITHOUT WRITTEN PERMISSION
	BUILDER TO VERIFY DIMENSIONS/MATERIALS & INCLUSIONS		



Building Act 1975 -
Development Permit (Building)
BA5757

BA#.....
26 August 2025
Date.....

TJB Building Certifiers

CALLI AVENUE
LOT 140 - 419 sq m
SITE PLAN
SCALE 1:200

REAL PROPERTY DESCRIPTION

LOT 140 ON S.P.313554

PARISH OF

COUNTY

SITE AREA 419 sq m

NOTE:- STORMWATER TO COUNCIL REQUIREMENTS

- BOUNDARY PEGS TO BE SIGHTED IN POSITION
- 100 DIAM P.V.C STORMWATER PIPE (MIN 1 IN 100 FALL)
- MIN 300 GROUND COVER
- MIN 75 BEDDING SAND COVER
- CUT AND FILL BATTER (UP TO 1M HIGH) 1 IN 2
- CUT AND FILL BATTER (OVER 1M HIGH) 1 IN 4

NOTE:DOWNPIPE LOCATION TO BE CHECKED & CONFIRMED
BY PLUMBER/DRAINER

STORMWATER TO BE DIRECTED TOWARDS
STREET CHANNEL

SITE COVER - 201.353 sq m(48%)

PROPOSED DWELLING

AT LOT --- 140(No.22)
CALLI AVENUE
UPPER COOMERA
4209

FOR ----- ARDELEAN DINU

BUILDER TO VERIFY DIMENSIONS

DRAWN BY - W.H. WILSON --- 3200 6836

Building Designer Licence No.1257478

SCALE 1:200

DATE ----- 29-05-2025

SHEET ---- 2 OF 12

DRAWING number ----- W 16328

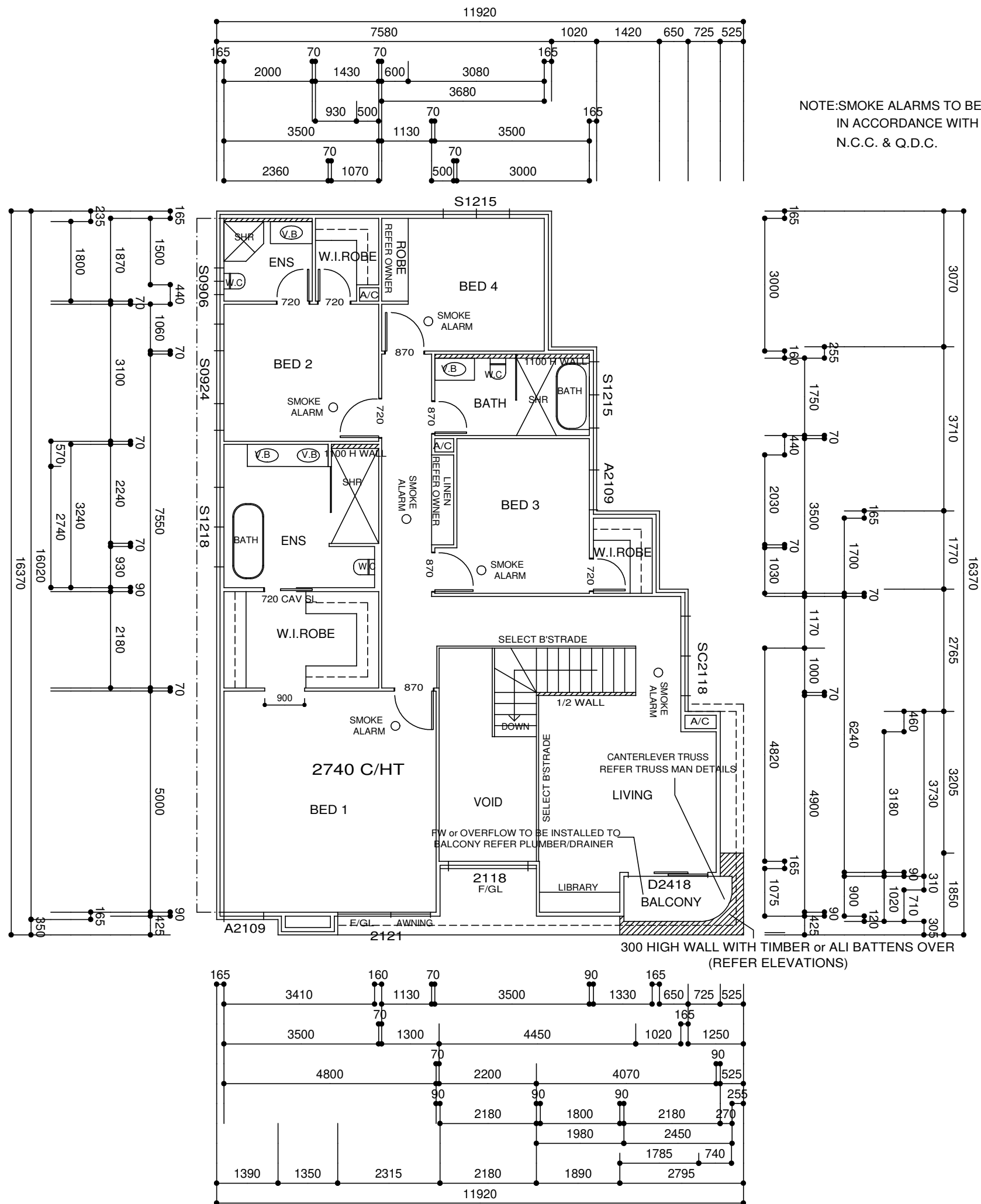
AMENDED - 03-06-2025

AMENDED - 10-06-2025

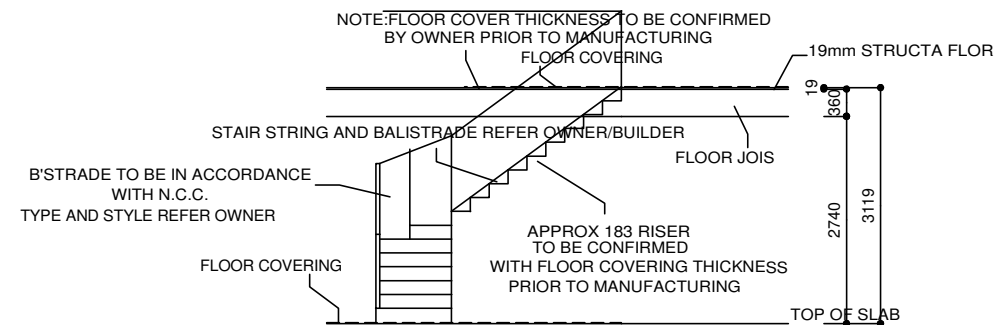
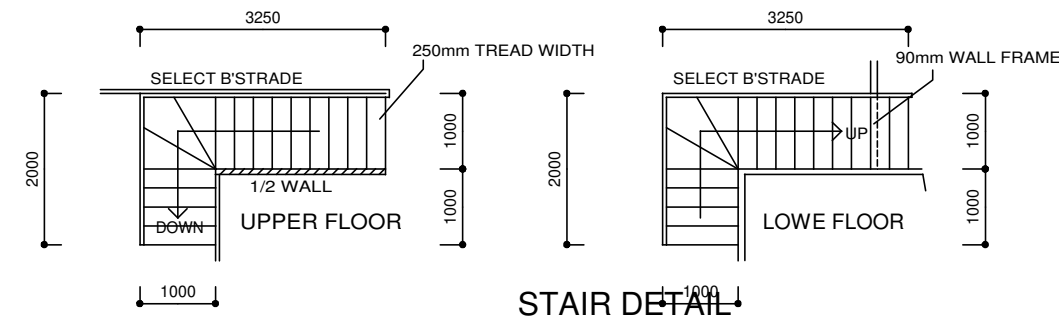
NOTE:FINAL DESIGN SUBJECT TO RELAVANT APPROVALS

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NOTE: SMOKE ALARMS TO BE IN ACCORDANCE WITH N.C.C. & Q.D.C.



NOTE: NO FLOOR COVERINGS HAVE BEEN ALLOWED FOR

PROPOSED DWELLING

AT LOT --- 140(No.22)
CALLI AVENUE
UPPER COOMERA
4209

FOR ----- ARDELEAN DINU

BUILDER TO VERIFY DIMENSIONS

DRAWN BY - W.H. WILSON --- 3200 6836

Building Designer Licence No.1257478

SCALE 1:100

DATE ----- 29-05-2025

SHEET ----- 4 OF 12

DRAWING number ----- W 16328

AMENDED - 03-06-2025

AMENDED - 12-08-2025

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NOTE: DWELLING TO BE CONSTRUCTED IN ACCORDANCE WITH N.C.C. LIVEABLE HOUSING STANDARDS

NOTE: FINAL DESIGN SUBJECT TO RELEVANT APPROVALS

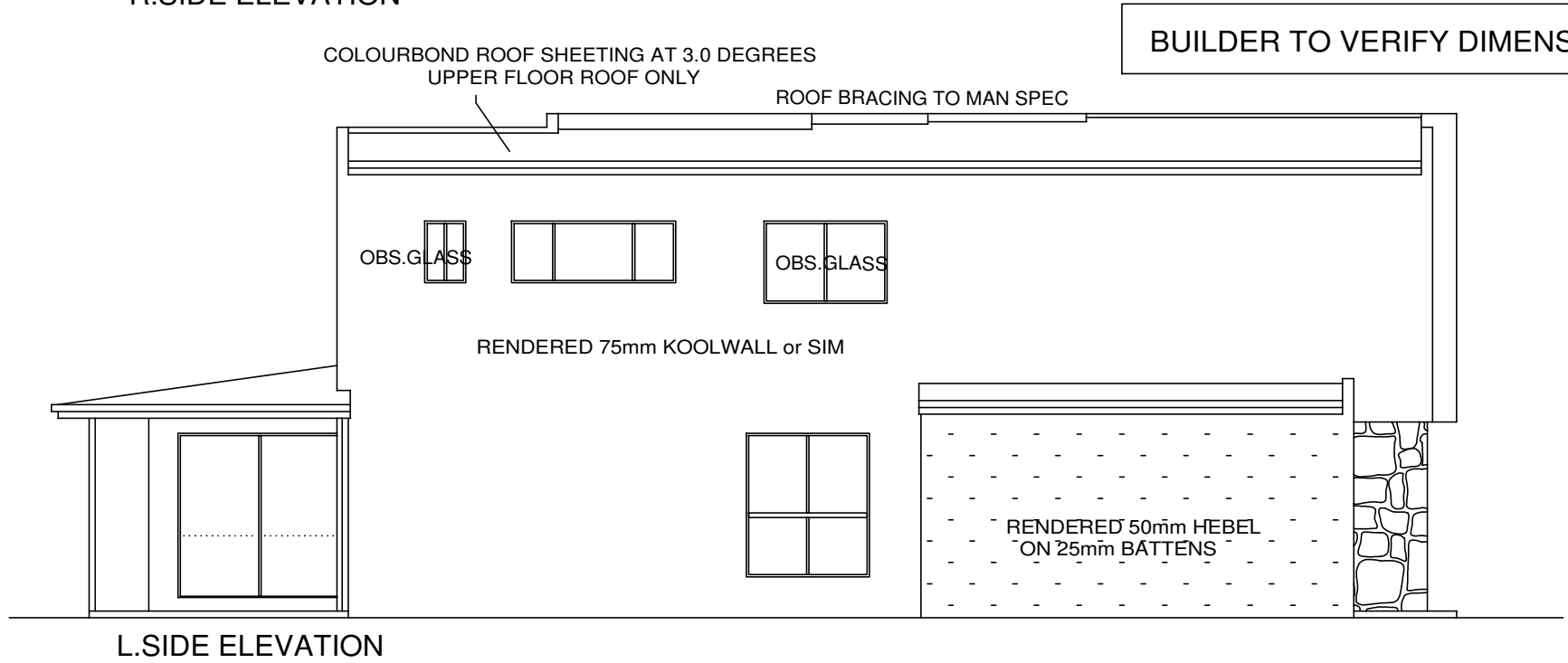
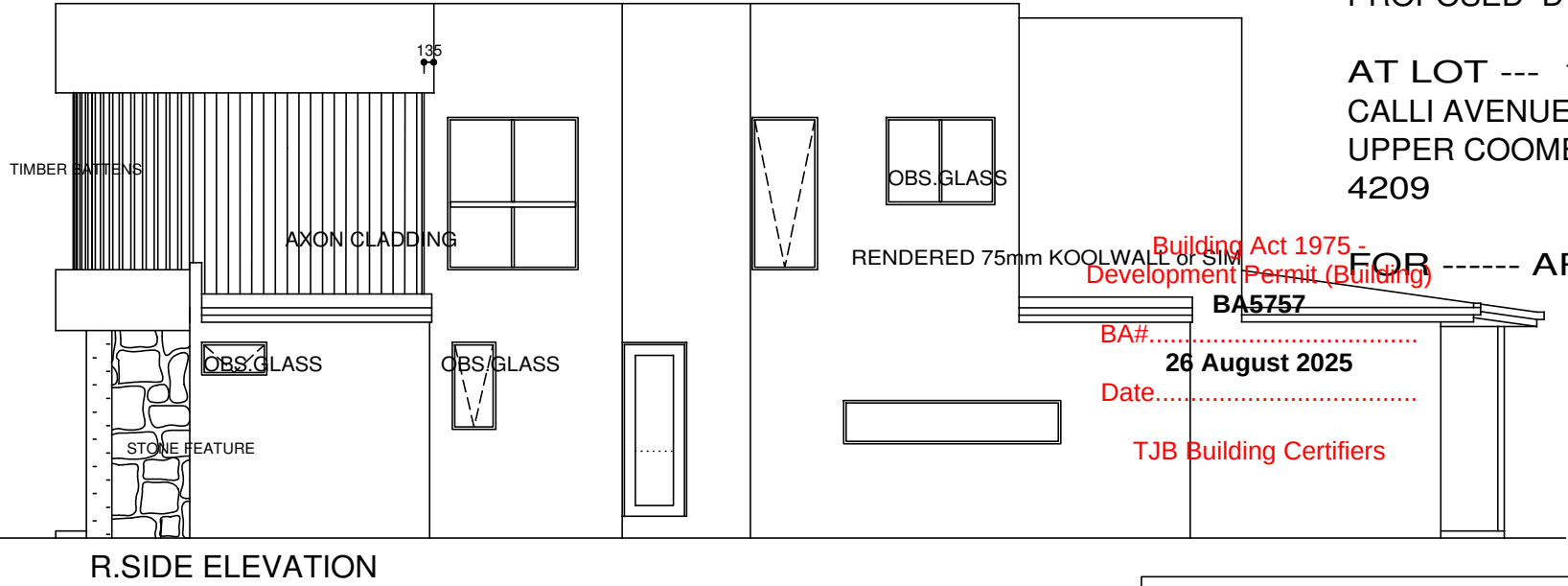
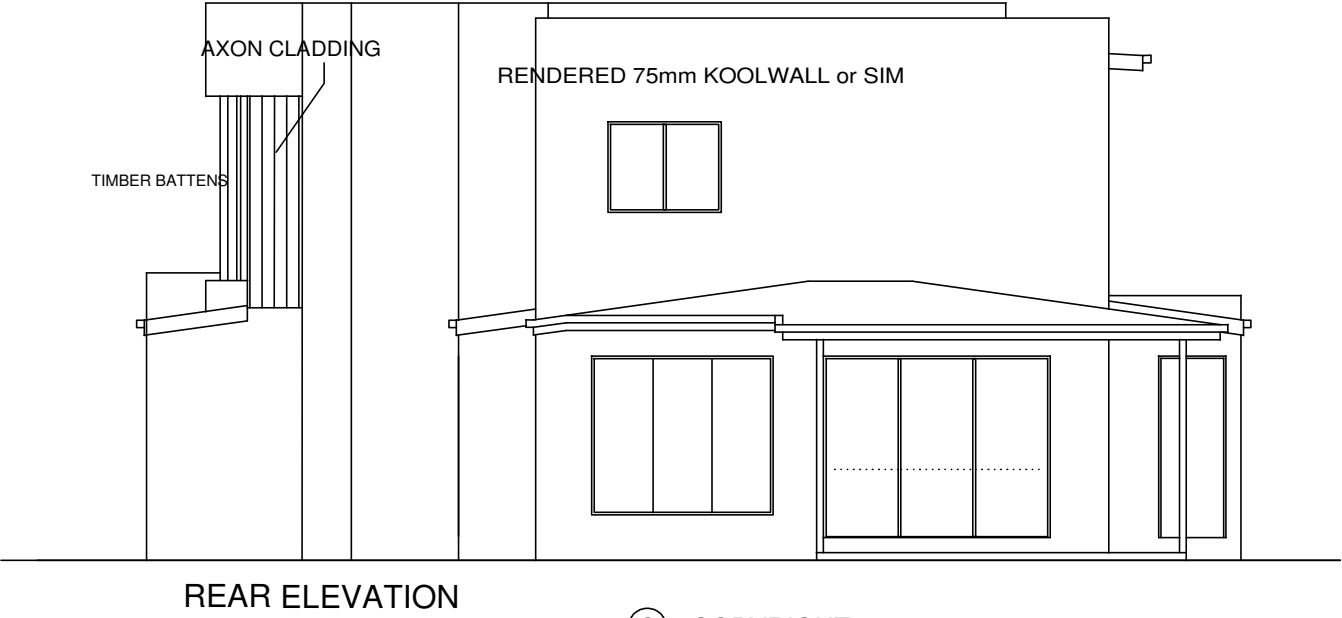
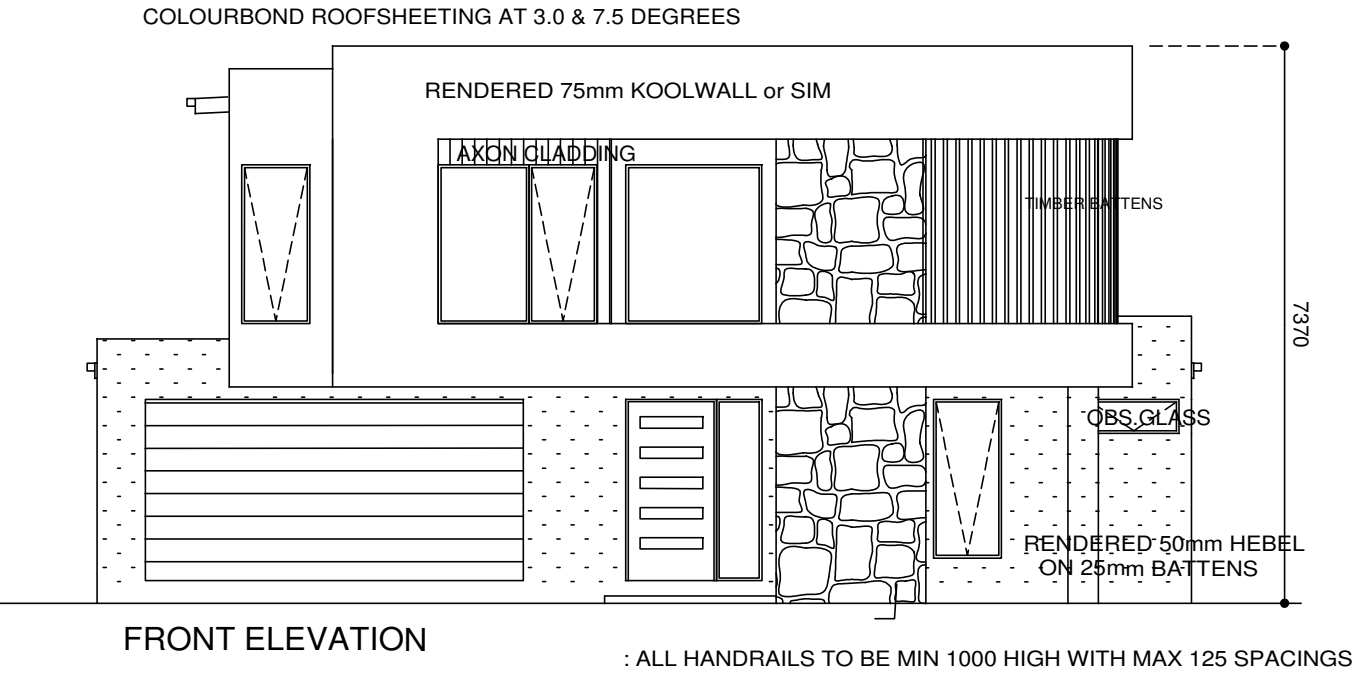
NOTE: 2400 HEAD HT TO ALL WINDOWS & DOORS (UNO)

NOTE: 2340H INTERNAL DOORS THRU-OUT

NOTE: 90mm EXTERNAL FRAME

NOTE: BULKHEAD MAY BE REQ'D UNDER UPPER FLOOR WET AREAS FOR PIPEWORK

NOTE: A/C DUCTS SUBJECT TO FINAL DESIGN & INSTALLERS DIRECTION



BUILDER TO VERIFY DIMENSIONS

PROPOSED DWELLING

AT LOT --- 140(No.22)
CALLI AVENUE
UPPER COOMERA
4209

Building Act 1975 -
Development Permit (Building)

BA#..... BA5757

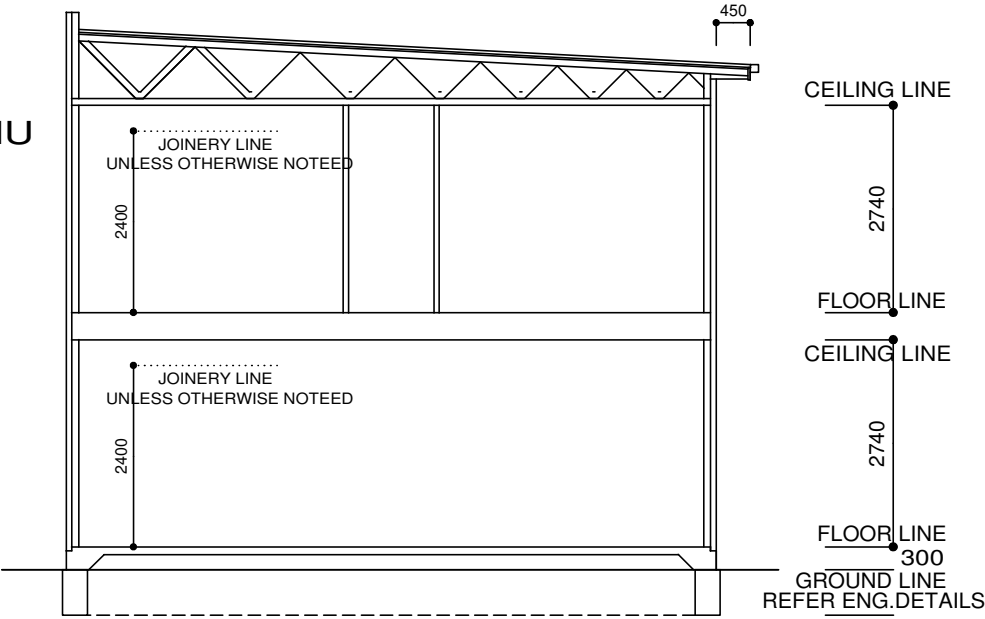
26 August 2025
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TJB Building Certifiers

FOR ----- ARDELEAN DINU

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DRU-TRUSS OR SIM GANGNAIL TRUSSES FIXED TO MAN SPEC AT 600 C/S
BINDERS AS PER MAN SPEC
METAL ROOF BATTENS AT 900 C/S
METAL CEILING BATTENS AT 600 C/S

DRAWN BY - W.H. WILSON --- 3200 6836

Building Designer Licence No.1257478

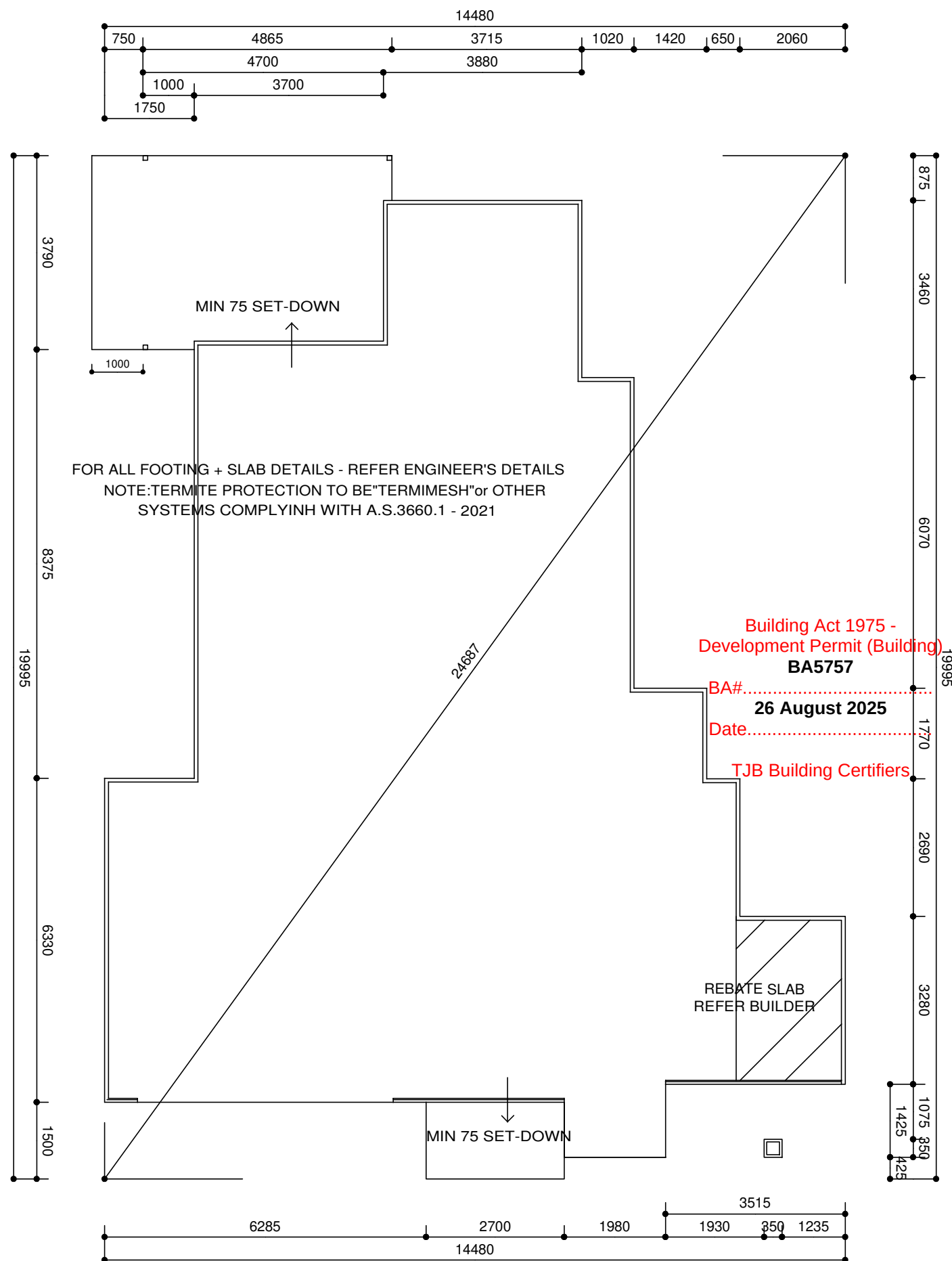
SCALE 1:100

DATE ----- 29-05-2025

SHEET ---- 5 OF 12

DRAWING number ----- W 16328

AMENDED - 10-06-2025



SET-OUT PLAN

LOWER FLOOR

TIMBER FRAME
90 MM --- MAX 2700 HIGH

LOAD BEARING

STUDS 90 X 35 MGP12 AT 450 C/S

T-PLATE 2/35 X 90 MGP12

B-PLATE 35 X 90 MGP12

NOGGING 35 X 90 MGP12

LINTELS

UP TO 1000 130 X 42 SMARTLVL 15

UP TO 1300 150 X 42 SMARTLVL 15

UP TO 1600 200 X 42 SMARTLVL 15

UP TO 1900 240 X 42 SMARTLVL 15

UP TO 2500 300 X 42 SMARTLVL 15

NON-LOAD BEARING

70 X 35 F5 SEAS AT 600 C/S

35 X 70 F5 SEAS

35 X 70 F5 SEAS

STUDS AT SIDES OF OPENINGS

35 X 90 MGP12

2/35 X 90 MGP12

2/35 X 90 MGP12

2/35 X 90 MGP12

2/35 X 90 MGP12

NOTE: ALL LINTELS SUPPORTING GIRDER TRUSSES TO BE INCREASED TO 70 mm WIDE
NOTE:- WHERE ALTERNATE STRESS GRADES ARE USED, ALL SIZES ARE TO COMPLY WITH A.S.1684.2 - 2021

PROPOSED DWELLING

AT LOT --- 140(No.22)
CALLI AVENUE
UPPER COOMERA
4209

FOR ----- ARDELEAN DINU

BUILDER TO VERIFY DIMENSIONS

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DATE ----- 29-05-2025

SHEET ---- 6 OF 12

DRAWING number ----- W 16328

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UPPER FLOOR

TIMBER FRAME
90 MM --- MAX 2700 HIGH

LOAD BEARING

STUDS 90 X 35 MGP12 AT 450 C/S
T-PLATE 2/35 X 90 MGP12
B-PLATE 35 X 90 MGP12
NOGGING 35 X 90 MGP12

LINTELS

UP TO 1000 90 X 42 SMARTLVL 15
UP TO 1300 130 X 42 SMARTLVL 15
UP TO 1600 150 X 42 SMARTLVL 15
UP TO 1900 200 X 42 SMARTLVL 15
UP TO 2500 240 X 42 SMARTLVL 15

NOTE:ALL LINTELS SUPPORTING GIRDER TRUSSES TO BE INCREASED TO 70 mm WIDE
NOTE:- WHERE ALTERNATE STRESS GRADES ARE USED, ALL SIZES ARE TO COMPLY WITH A.S.1684.2 - 2021

NON-LOAD BEARING

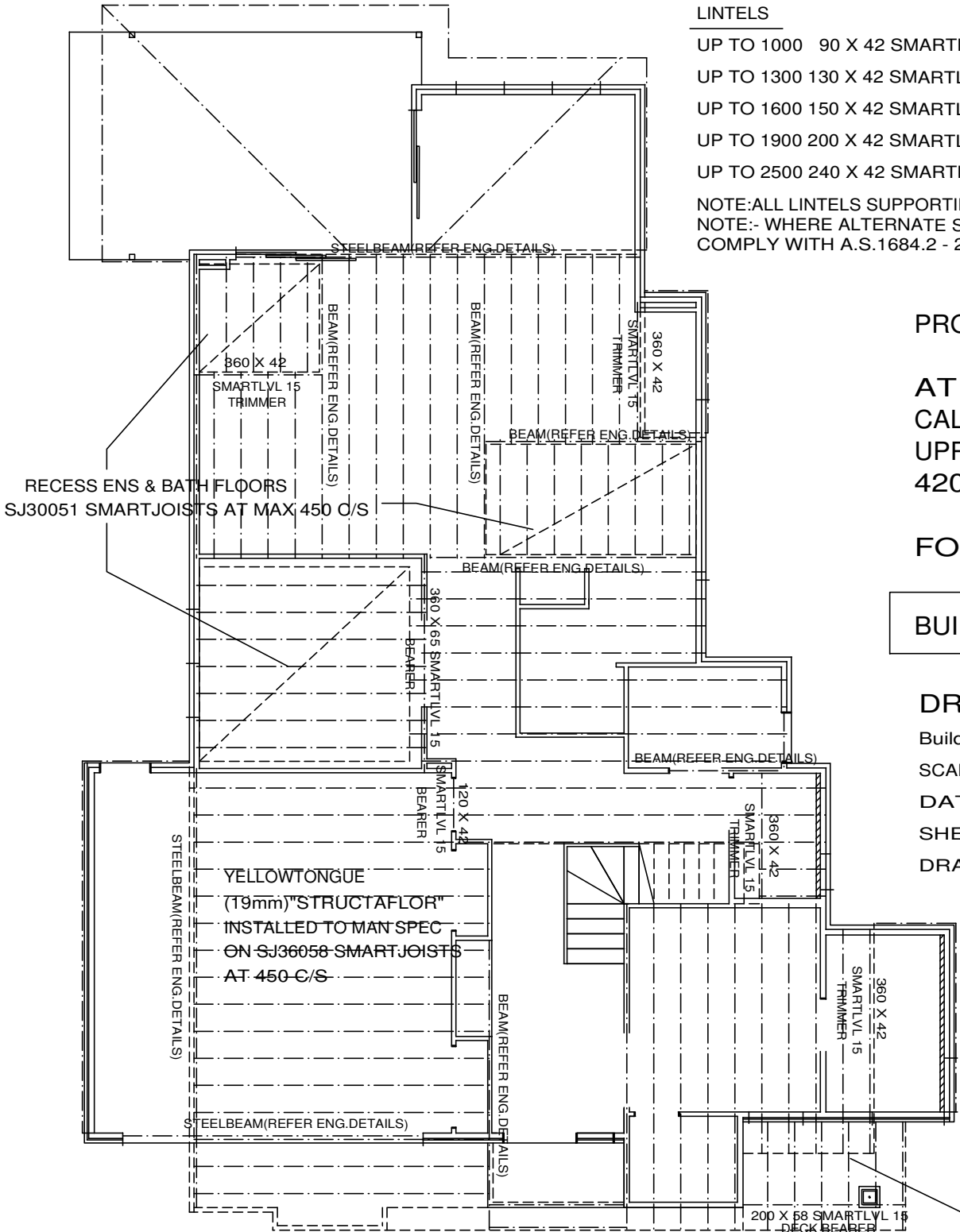
70 X 35 F5 SEAS AT 600 C/S
35 X 70 F5 SEAS
35 X 70 F5 SEAS

STUDS AT SIDES OF OPENINGS

35 X 90 MGP12
35 X 90 MGP12
2/35 X 90 MGP12
2/35 X 90 MGP12
2/35 X 90 MGP12

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SET-OUT PLAN

NOTE:FLOORING SYSTEM TO BE CHECKED & CONFIRMED BY
MANUFACTUER PRIOR TO CONSTRUCTION

PROPOSED DWELLING

AT LOT --- 140(No.22)
CALLI AVENUE
UPPER COOMERA
4209

FOR --- ARDELEAN DINU
BA5757

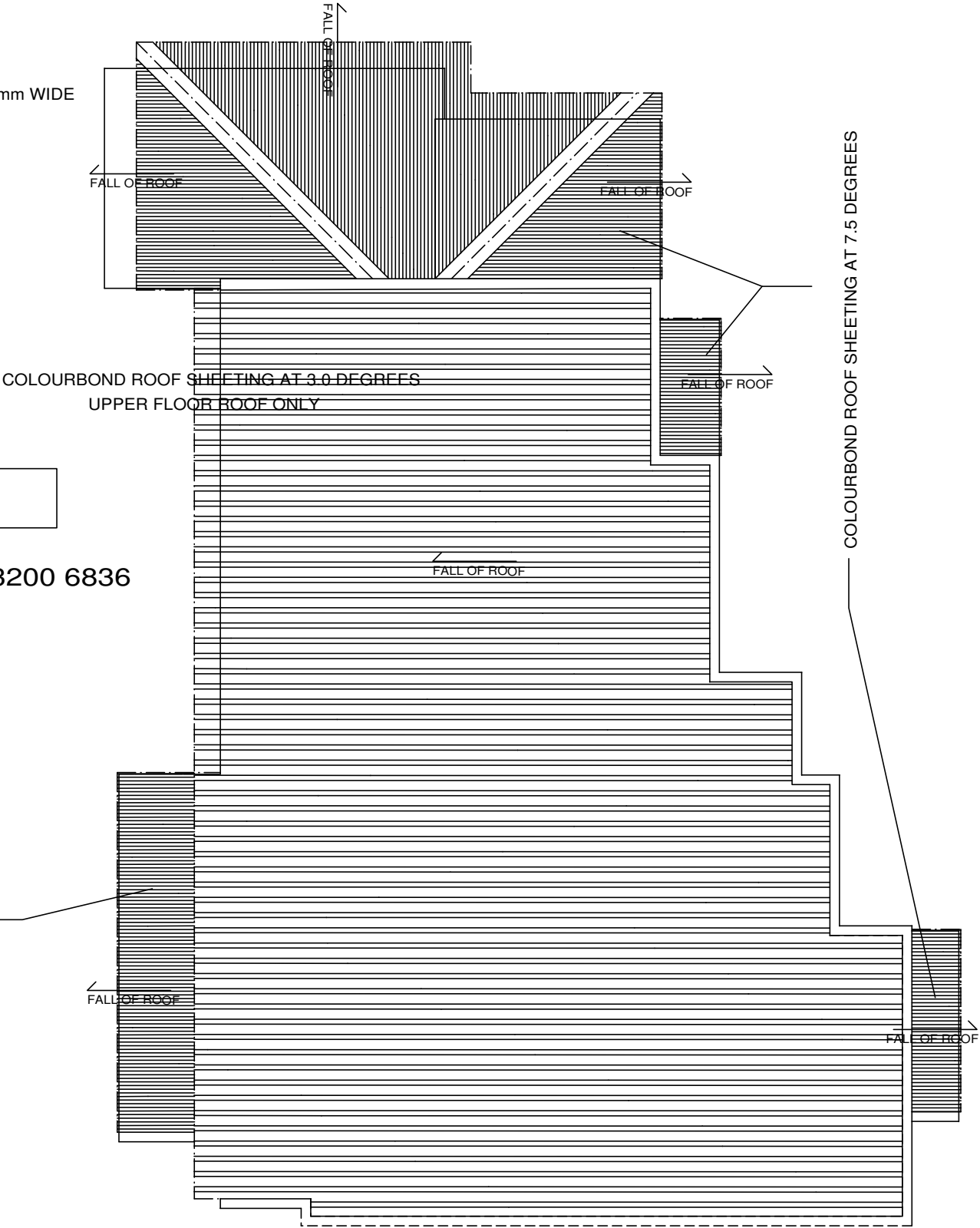
BUILDER TO VERIFY DIMENSIONS
Date.....

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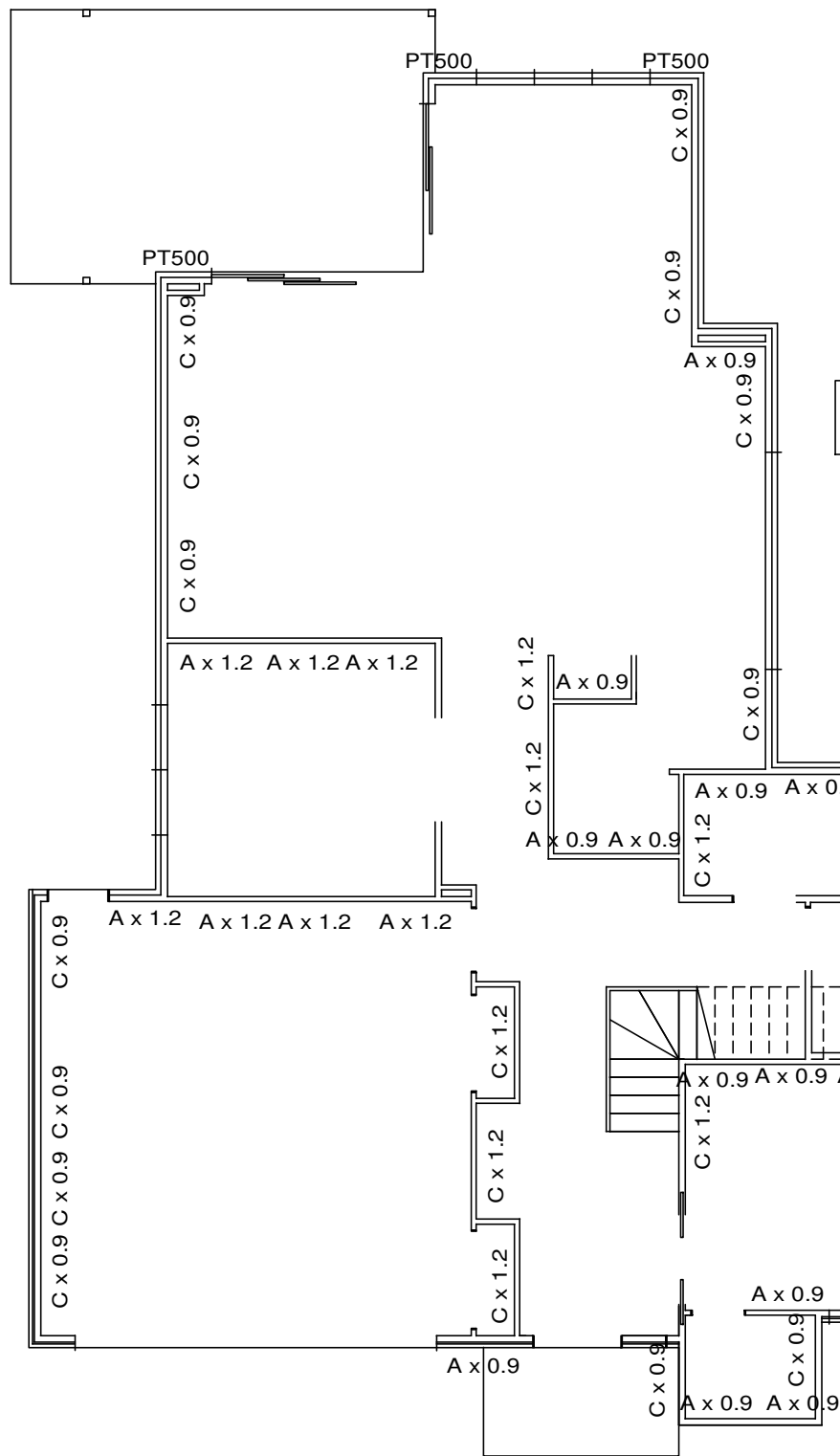
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SCALE 1:100
DATE ---- 29-05-2025
SHEET ---- 7 OF 12
DRAWING number ----- W 16328

COMPRESSED F.C.SHEETING INSTALLED
AND WATERPROOFED TO MAN SPEC
ON 170 X 42 SMARTLVL DECK JOISTS
AT MAX 450 C/S

COLOURBOND ROOF SHEETING AT 7.5 DEGREES



ROOF PLAN



PROPOSED DWELLING

AT LOT --- 140(No.22)
CALLI AVENUE
UPPER COOMERA
4209

FOR ----- ARDELEAN DINU

BUILDER TO VERIFY DIMENSIONS

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BA5757

BA#.....

26 August 2025

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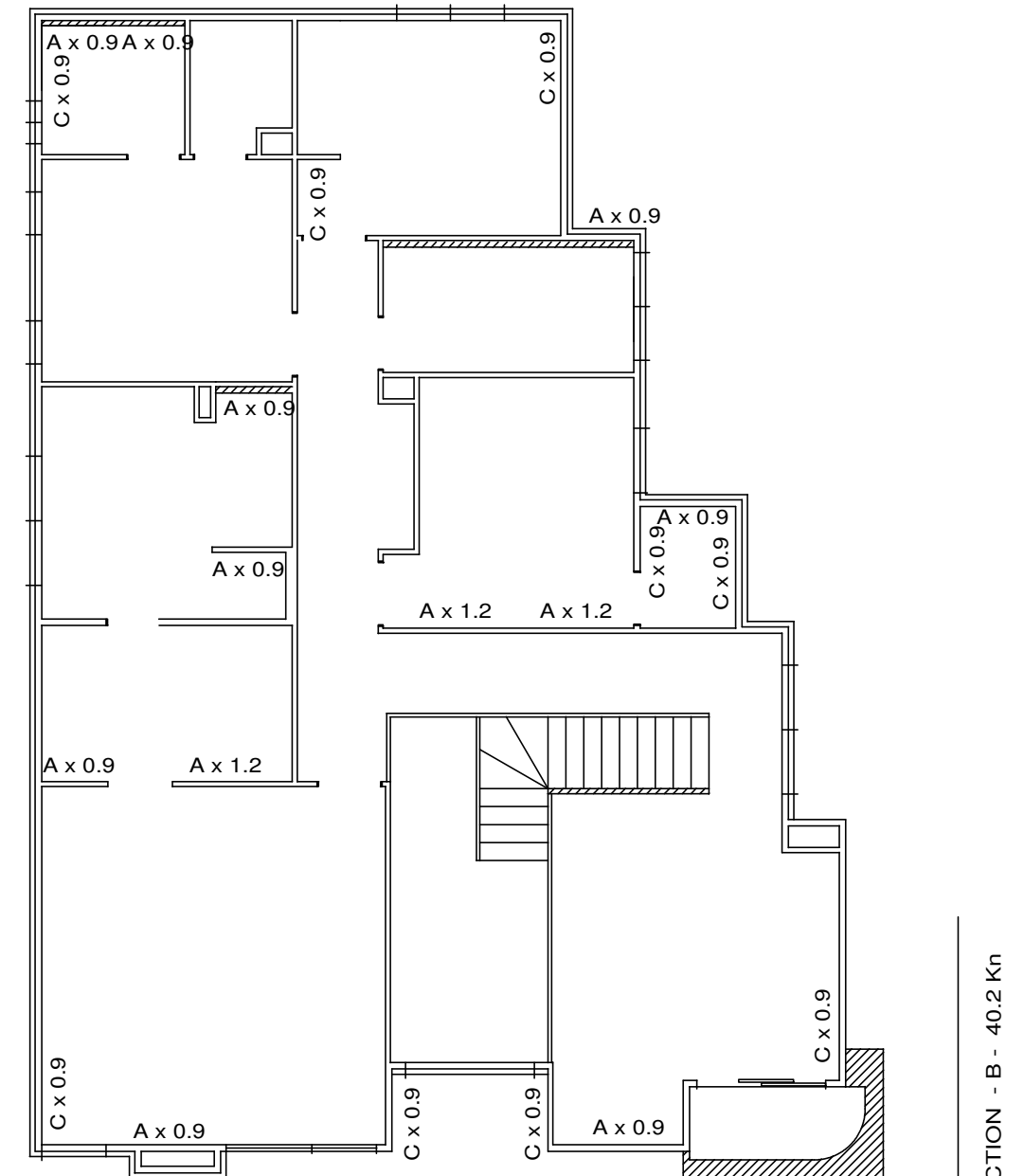
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DIRECTION - B - 105.9 Kn

DIRECTION - A - 143.1 Kn

NOTE:POWERTRUSS BRACE REFER MANUFACTURERS DETAILS
www.powertruss.com.au

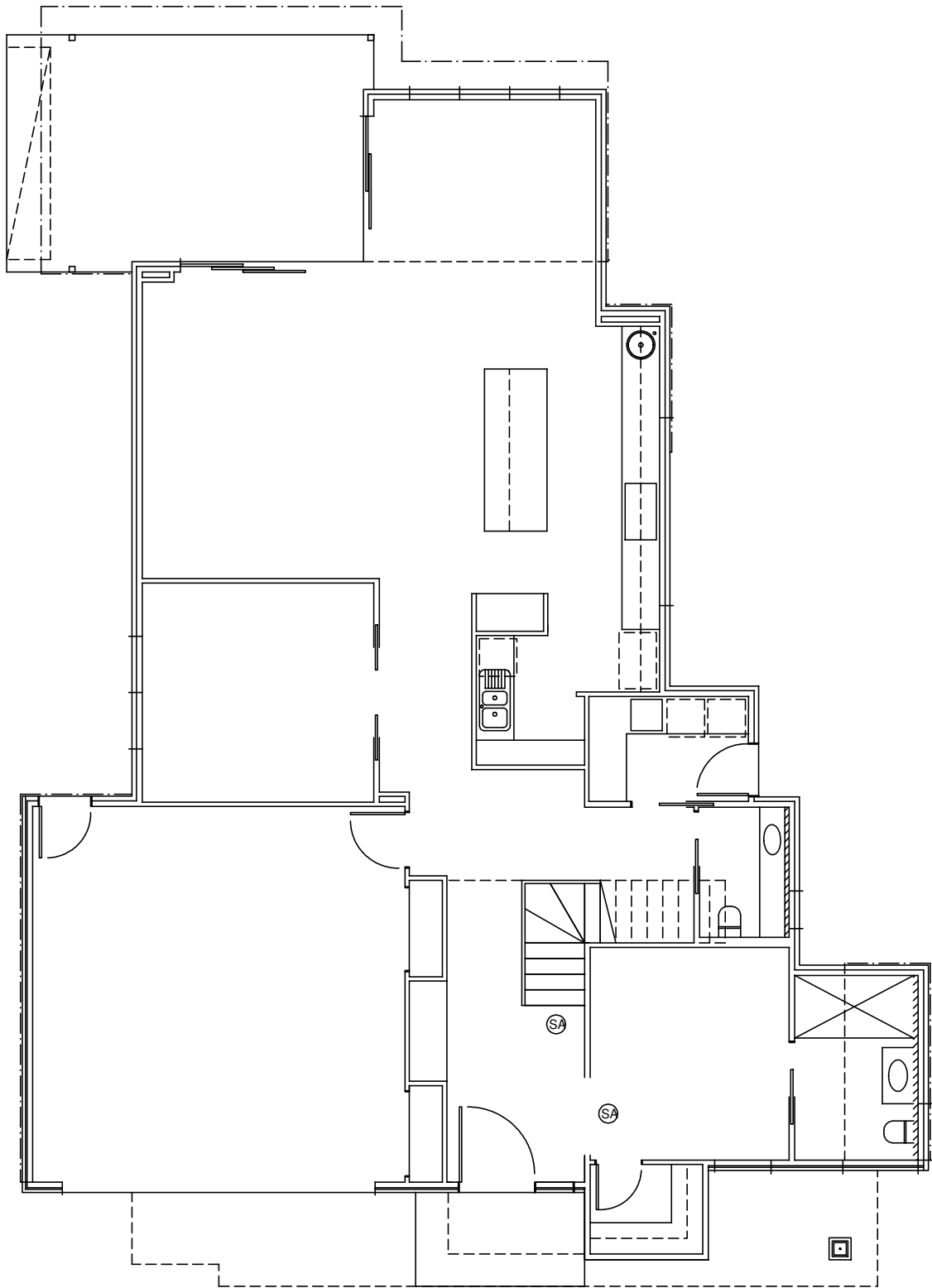
DIRECTION A	A A PT	WIND CATEGORY N3	
		BRACE	VALUE
		14.4 lm STRUCT PLY (4mmF14) at 5.2 KN/M	74.88
		8.4 lm STRUCT PLY (4mmF14) at 5.2 KN/M	43.68
		3/500 LONG POWER TRUSS at 8.9 KN/TRUSS	26.7
DIRECTION B	C C	RACKING RESISTANCE ACHIEVED	145.26 Kn
		RACKING RESISTANCE REQUIRED	143.1 Kn
		12.6 lm STRUCT PLY (4mmF14) at 5.2 KN/M	65.52
		8.4 lm STRUCT PLY (4mmF14) at 5.2 KN/M	43.68
		RACKING RESISTANCE ACHIEVED	109.2 Kn
		RACKING RESISTANCE REQUIRED	105.9 Kn



DIRECTION - A - 59.1 Kn

DIRECTION - B - 40.2 Kn

DIRECTION A	A A	WIND CATEGORY N3	
		BRACE	VALUE
		8.1 lm STRUCT PLY(4mmF14) at 5.2 KN/M	42.12
		3.6 lm STRUCT PLY(4mmF14) at 5.2 KN/M	18.72
		RACKING RESISTANCE ACHIEVED	60.84 Kn
DIRECTION B	C	RACKING RESISTANCE REQUIRED	59.1 Kn
		8.1 lm STRUCT PLY(4mmF14) at 5.2 KN/M	42.12
		RACKING RESISTANCE ACHIEVED	42.12 Kn
		RACKING RESISTANCE REQUIRED	40.2 Kn



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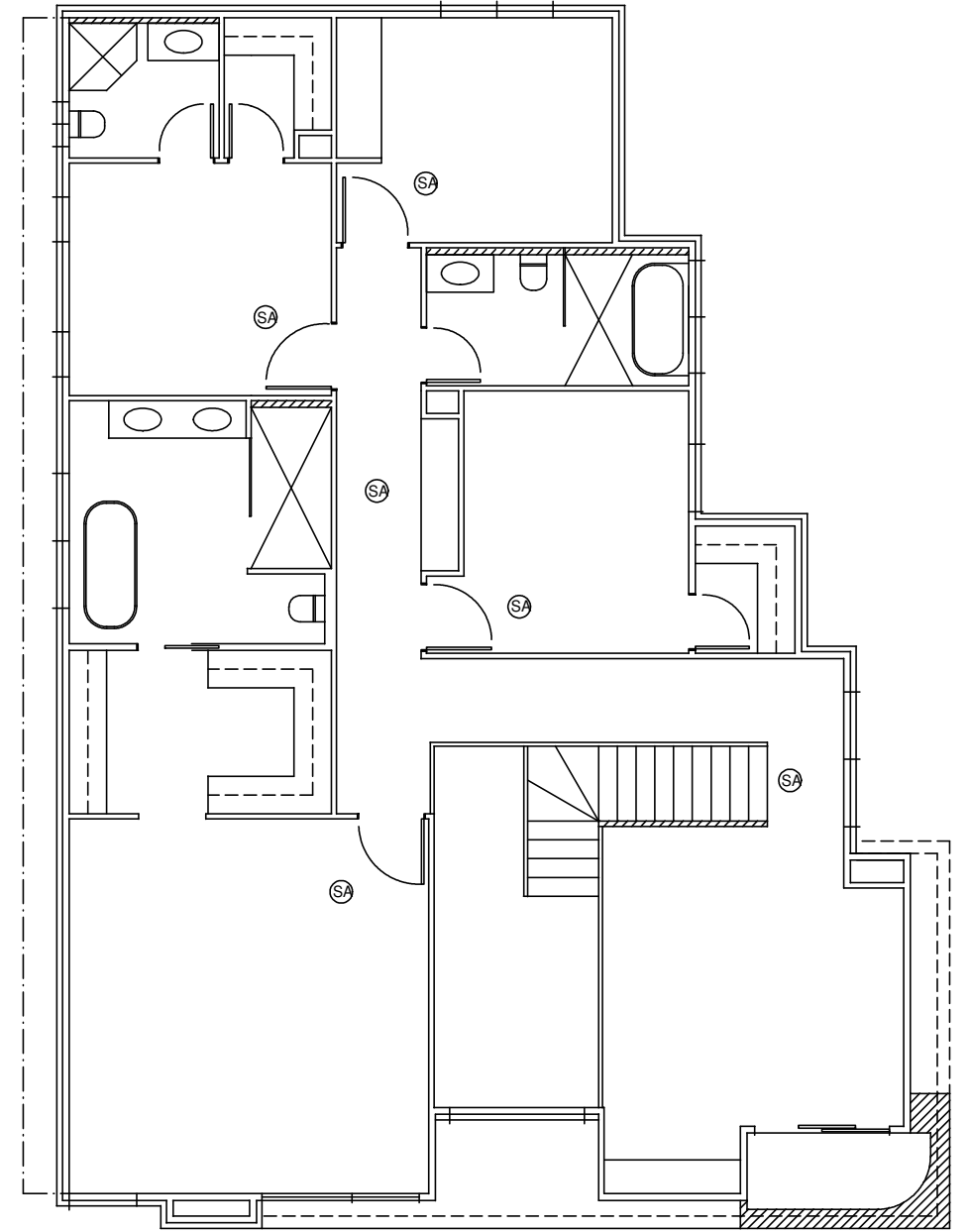
ELECTRICAL LEGEND

-  DOUBLE GPO
-  SINGLE GPO
-  TV POINT
-  PENDANT LIGHT
-  FLURO LIGHT
-  ROUND FLURO
-  OUTSIDE LIGHT - REFER BUILDER
-  LIGHT(REFER OWNER)
-  FEATURE LIGHT - REFER BUIDER
-  SMOKE ALARM
-  INTERNET/DATA
-  DOWN LIGHT
-  HEATER/FAN/LIGHT
-  OYSTER - REFER BUILDER
-  EXHAUST FAN AND LIGHT
-  DIMMER SWITCH FOR LIGHTS - REFER BUILDER
-  PHONE
-  FAN
-  FAN WITH LIGHT

PROPOSED DWELLING

AT LOT --- 140(No.22)
CALLI AVENUE
UPPER COOMERA
4209

FOR ----- ARDELEAN DINU



BUILDER TO VERIFY DIMENSIONS

DRAWN BY - W.H. WILSON --- 3200 6836

Building Designer Licence No.1257478

SCALE 1:100

DATE ----- 29-05-2025

SHEET ---- 9 OF 12

DRAWING number ----- W 16328

AMENDED - 03-06-2025

LOWER FLOOR WINDOW SCHEDULE					
CODE	CONFIG	TYPE	HEIGHT	WIDTH	JOINERY HEIGHT
2448 PANEL-LIFT		PANEL-LIFT	2400	4800	2400
2340 H x 1200 S/L		SWING DOOR /FIXED GLASS	2340 2400 INC JAMB	1800 PLUS JAMB	2400
A2109		AWNING	2100	900	2400
A04512		AWNING	450	1200	2400
A04509		AWNING	450	900	2400
A1206		AWNING	1200	600	2400
ALI.GLASS 870		SWING DOOR	2340	870	2400
0730 F/GL		FIXED	700	3000	1600
2424 F/GL		FIXED	2400	2400	2400
D2424 D2430 STACKER		FIXED/SLIDING SLIDING/SLIDING FIXED	2400	2400 3000	2400
SC2118		SLIDING	2100	1800	2400
820		SWING DOOR	2340 2400 INC JAMB	820	2400

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PROPOSED DWELLING

AT LOT --- 140(No.22)
CALLI AVENUE
UPPER COOMERA
4209

FOR ----- ARDELEAN DINU

UPPER FLOOR WINDOW SCHEDULE					
CODE	CONFIG	TYPE	HEIGHT	WIDTH	JOINERY HEIGHT
A2109		AWNING	2100	900	2400
F/GL AWNING 2121		FIXED/AWNING	2100	2100	2400
2118 F/GL		FIXED	2100	1800	2400
D2418		SLIDING DOOR	2400	1800	2400
SC2118		SLIDING	2100	1800	2400
A2109		AWNING	2100	900	2400
S1215		SLIDING	1200	1500	2400
S1215		SLIDING	900	1500	2400
S0906		SLIDING	900	600	2400
S0924		SLIDING	900	2400	2400
S1218		SLIDING	1200	1800	2400

NOTE:UPPER FLOOR BEDROOM WINDOWS MAY REQUIRE FIXED SCENES
IN ACCORDANCE WITH N.C.C.

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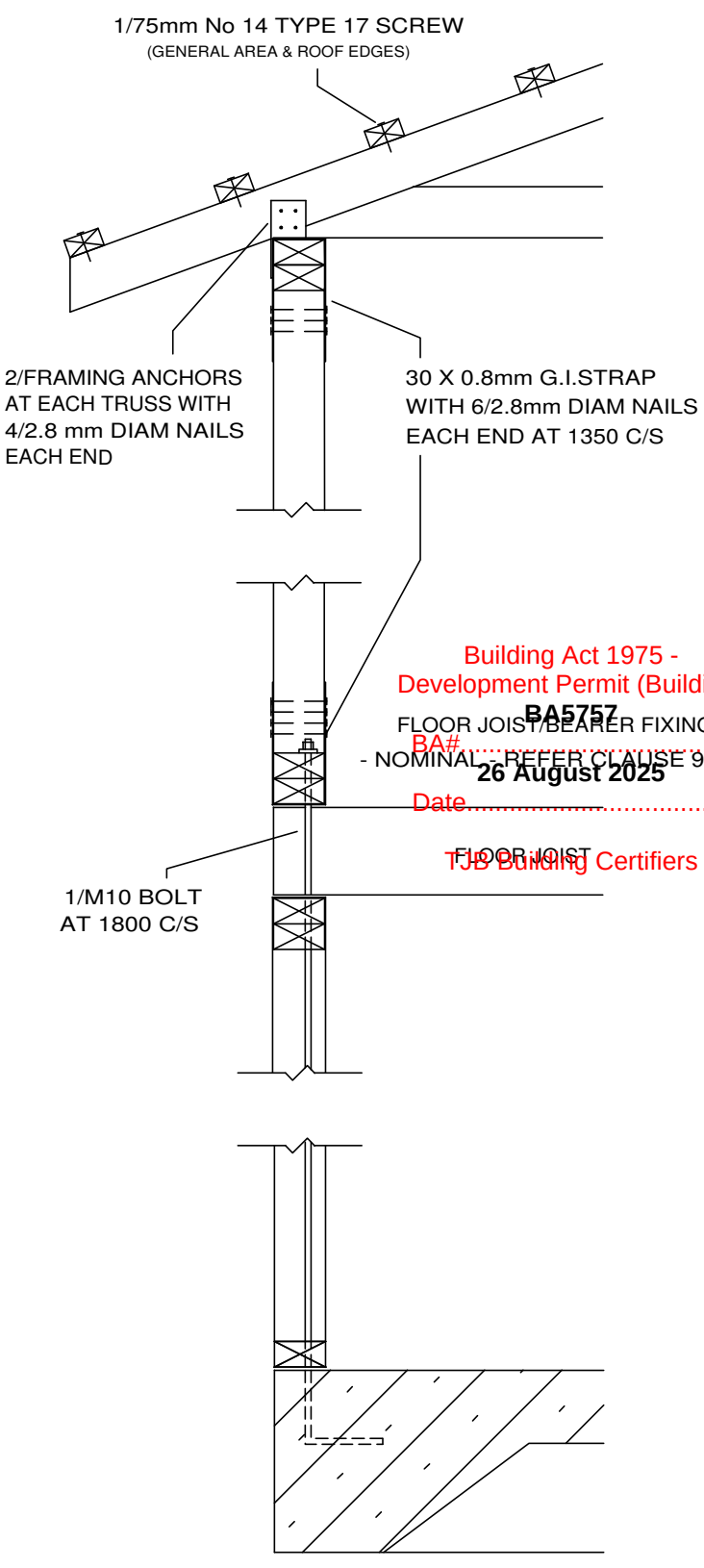
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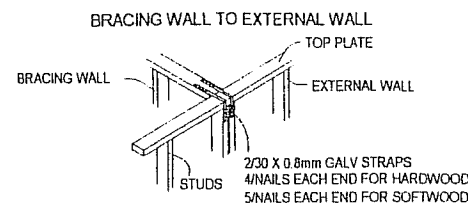
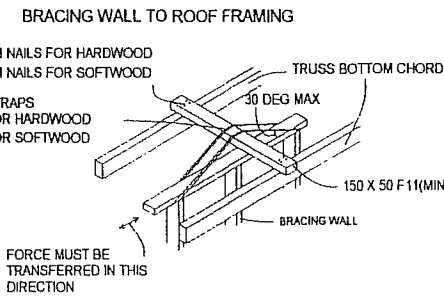
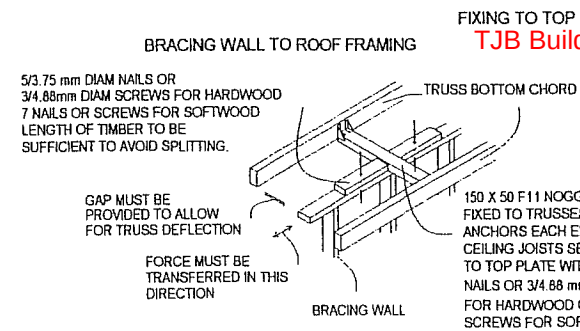
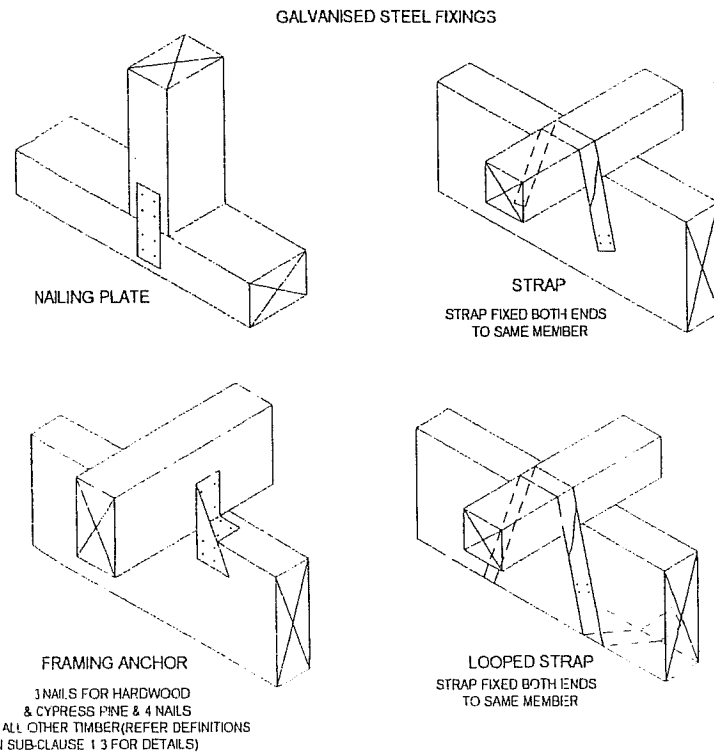
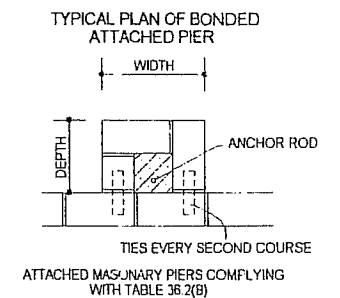
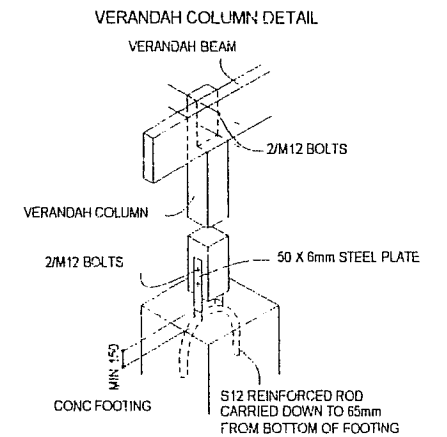
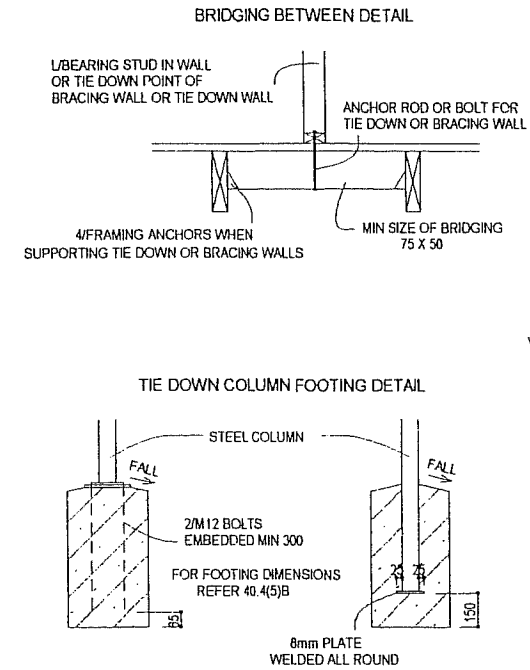
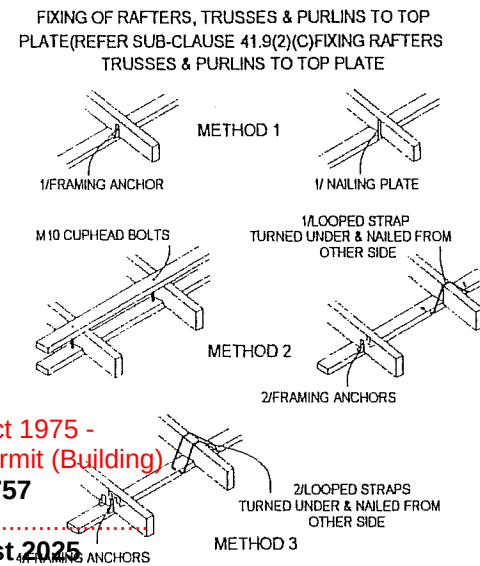
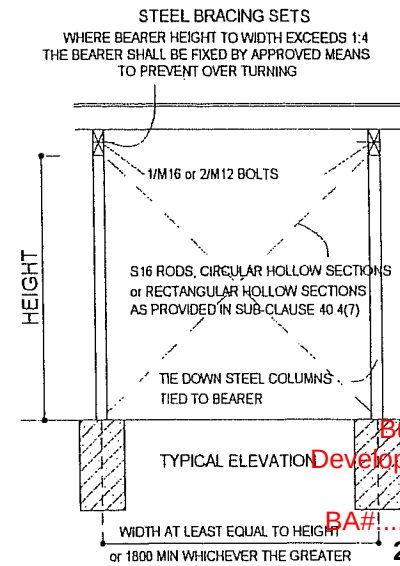
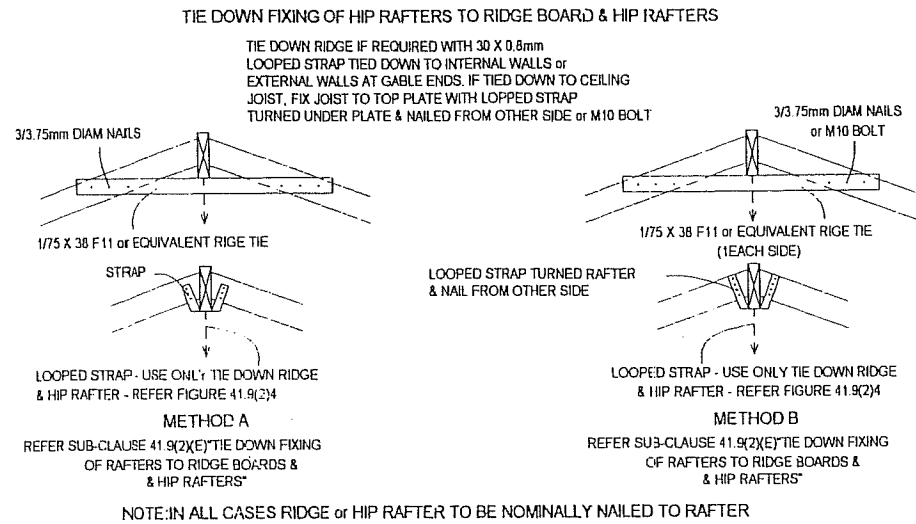
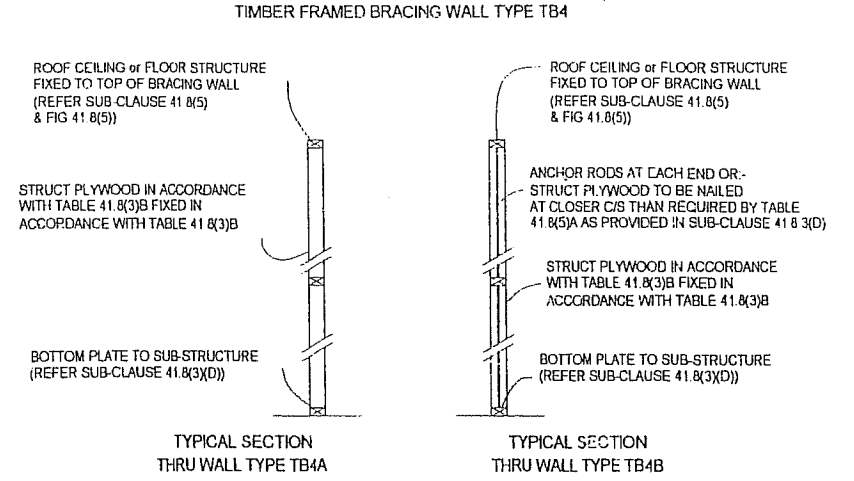
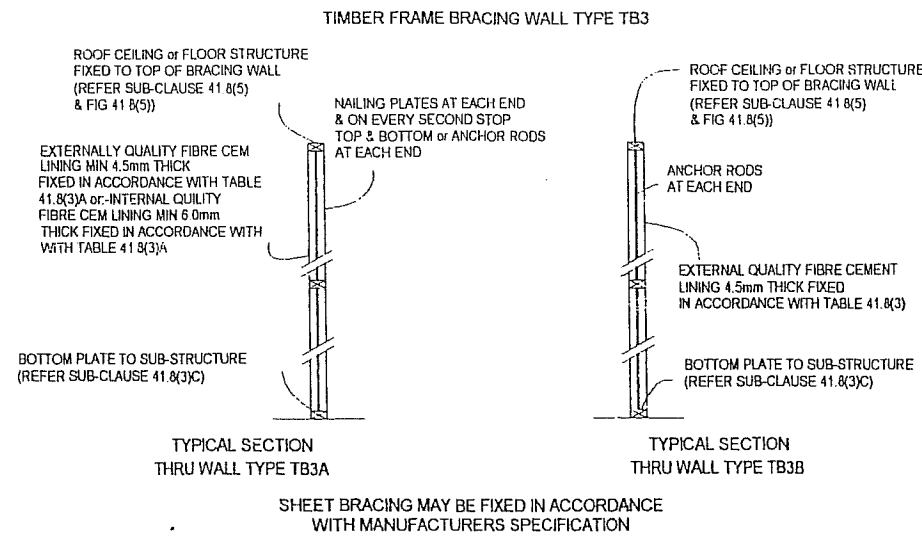
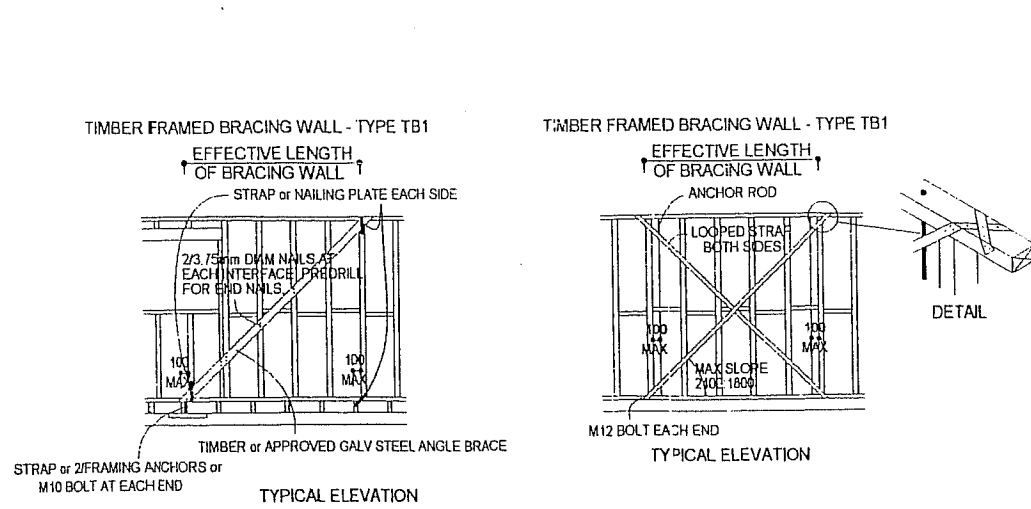
SHEET ----- 10 OF 12

DRAWING number ----- W 16328

AMENDED - 10-06-2025

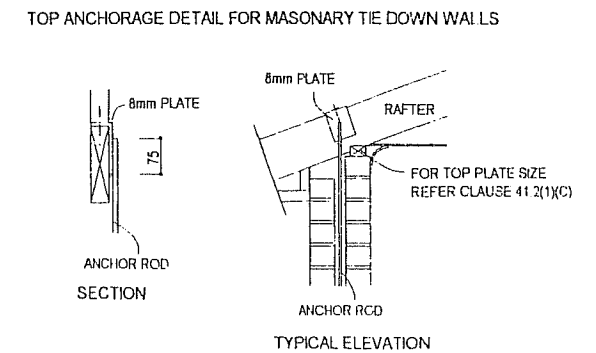
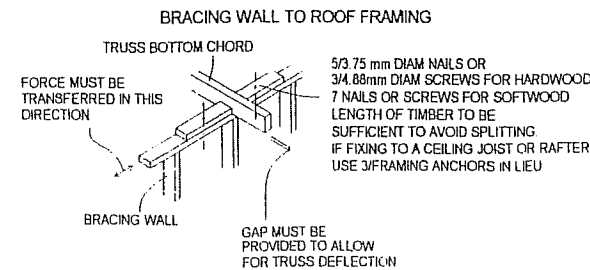
TIE-DOWN

WIND CLASSIFICATION - N3 ROOF - METAL ROOF UPLIFT LOAD WIDTH - 6230 TRUSS/RAFTER SPACING - 600 BATTEN SPACING - 900 BEARER SPAN - N/A BATTENS - J2 TRUSS/RAFTER - JD4 WALL FRAMING - JD4 JOISTS/BEARERS - JD4				
	TABLE No	UPLIFT REQ'D (KN)	FIGURE No	UPLIFT ACHV'D (KN)
	Batten to truss			
	9.14	1.5 (ROOF EDGES)	9.25(d)	4.5
		0.85 (GENERAL AREA)	9.25(d)	4.5
	Truss to top plate			
	9.13	5.1	9.21(b)	5.9
	Top plate to stud			
	9.13	7.5	9.19(d)	8.4
	Stud to bottom plate			
	9.13	7.5	9.19(d)	8.4
	Bottom plate to slab/bearer			
	9.13	14.6	9.18(d)	15.0
	Floor joist to bearer			
	N/A			
	Bearer to column			
	N/A			



NOTE THIS METHOD OF FIXING TOP OF BRACING WALL MAY BE USED IN LIEU OF ANY FIXING TO TRUSS BOTTOM CHORD OR CEILING JOISTS SHOWN ABOVE

NOTE IF BRACING WALL IS FIXED TO EXTERNAL WALL AS SHOWN ABOVE THEN NONE OF THE OTHER FIXING OPTIONS AREA REQUIRED REFER CLAUSE 41.8(5)



Issue	Issue Description	Date
A	Original Soil Test & Foundation Design	21/07/2025

Note: Where shown and applicable please refer to home builders construction plans for exact location and dimensions of HWS slabs and AC slabs, slab RL's, step locations and heights. It is the builders responsibility to ensure the latest construction plans are followed on site. If in doubt, contact STA Consulting Engineers for clarification.

(Not to Scale)

EARTHWORK DESIGN PARAMETERS

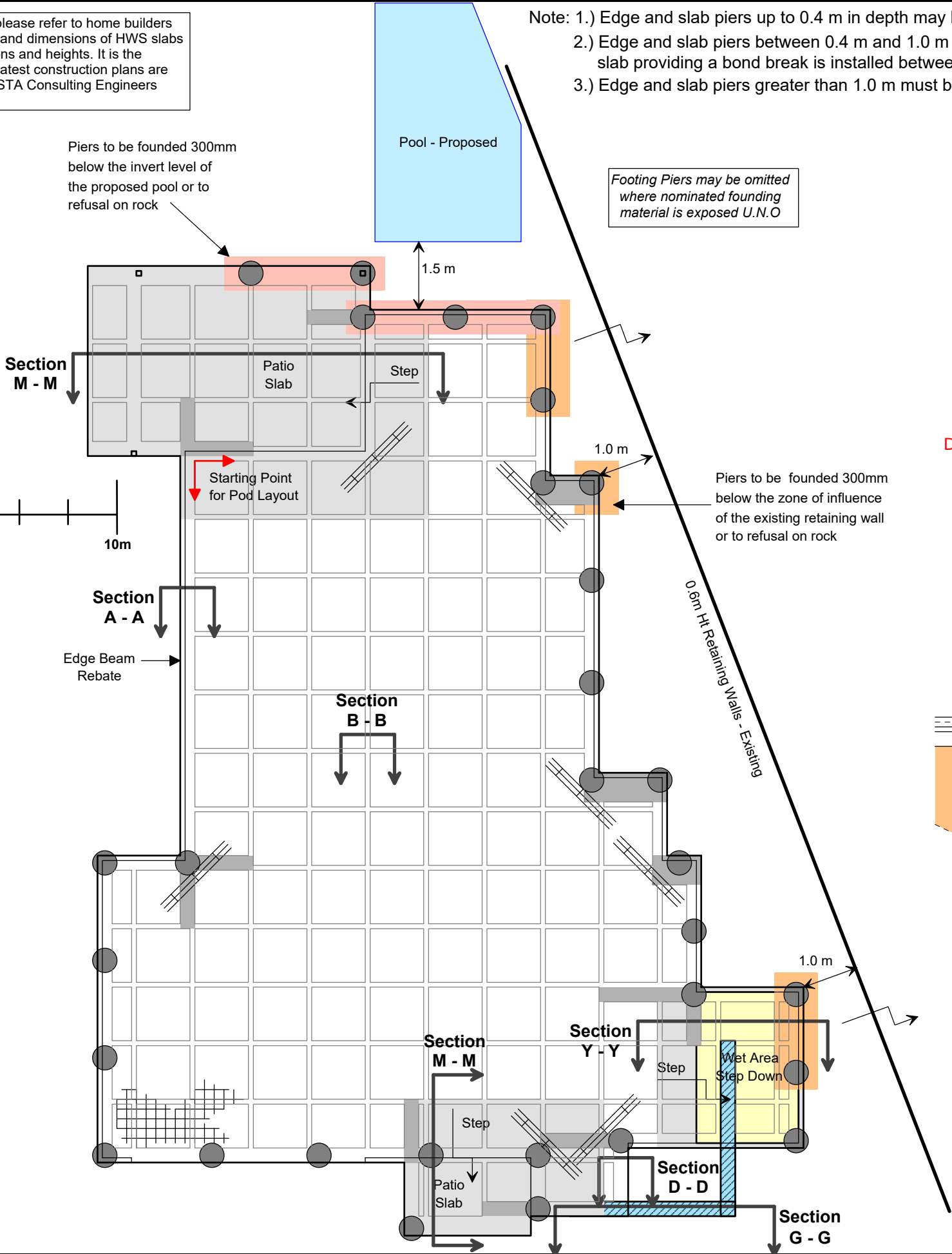
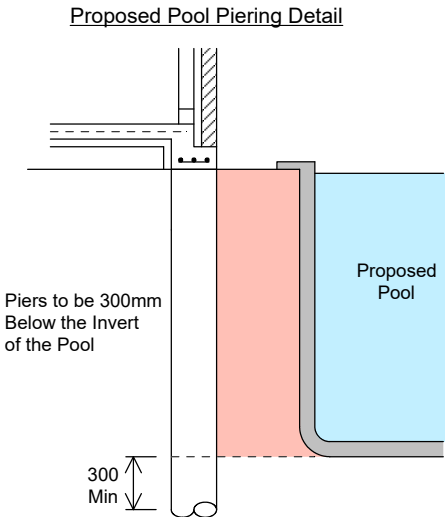
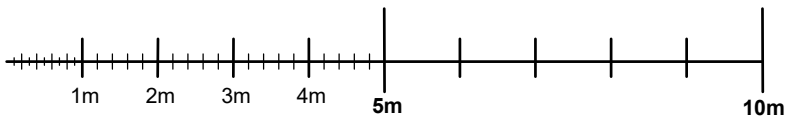
Nominated Site Works :-	Cut / Fill
Platform Height :-	61.500 m AHD
Additional Site CUT :-	SCRAPE
Additional Site FILL :-	SCRAPE

Note : Final platform heights must be in accordance with the approved architectural drawings. Where heights/ levels nominated above differ to the approved architectural drawings, STA Consulting must be notified for review prior to any works.

DESIGN PARAMETERS

Design Slab Length :-	19.995 m
-----------------------	----------

Legend :-	WM8
Symbols	Descriptions
	Section A - A
	- 3L12TM Edge Beam Reinforcement
	Section B - B
	- N12 Bar Internal Rib Reinforcement
	- Min. Waffle Pod Height 225 mm
	- 450 Dia. Edge Beam Footing Piers
	- 450 Dia. Slab Piers
	- SL 82 Slab Mesh
	- Re-Entry Steel 3L12TM, 2.0m long 40mm Edge Cover
	- Column Locations
	- 450 x 450 Pad Footings
	- 450 Diameter Isolated Pad Footings
	- Load Bearing Wall
	- Min. Slab Thickness 85 mm



- Note: 1.) Edge and slab piers up to 0.4 m in depth may be poured integral with main slab.
2.) Edge and slab piers between 0.4 m and 1.0 m may be poured integral with main slab providing a bond break is installed between top of pier and underside of edge beam.
3.) Edge and slab piers greater than 1.0 m must be poured separate to main slab.

Footing Piers may be omitted where nominated founding material is exposed U.N.O

Note : It is the builders responsibility to accurately locate and mark the position of the existing sewer line prior to any excavation.
Where conditions on site differ from those indicated in this report, STA Consulting Engineers is to be notified prior to construction.
The foundations have been designed to place no additional surcharge on the existing sewer line.
STA Consulting Engineers takes no responsibility for the accuracy of the supplied as-constructed information.

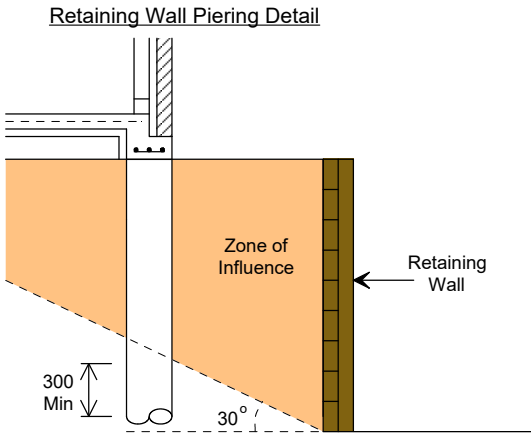
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BA#.....

26 August 2025

Date.....

TJB Building Certifiers



STA CONSULTING ENGINEERS

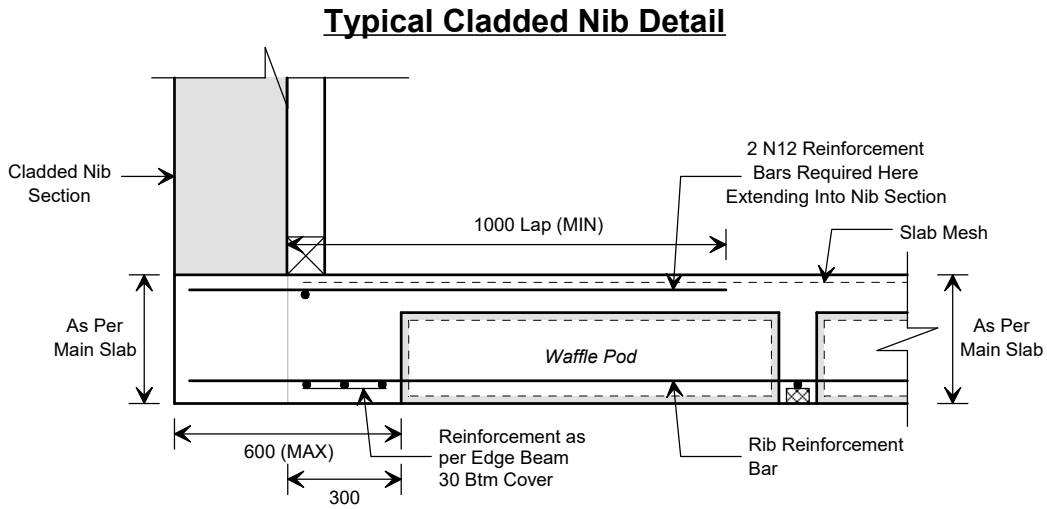
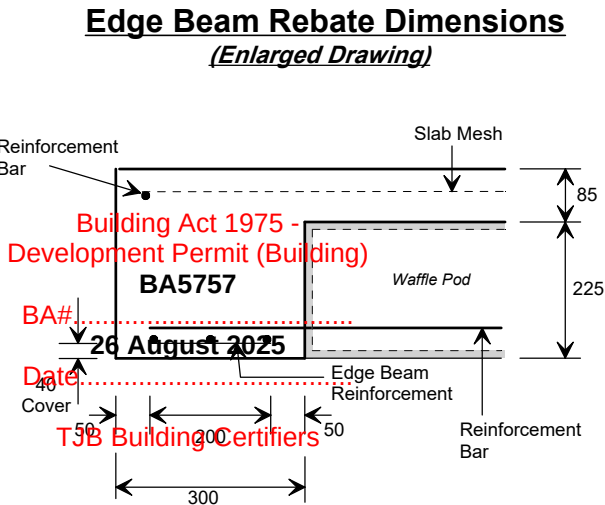
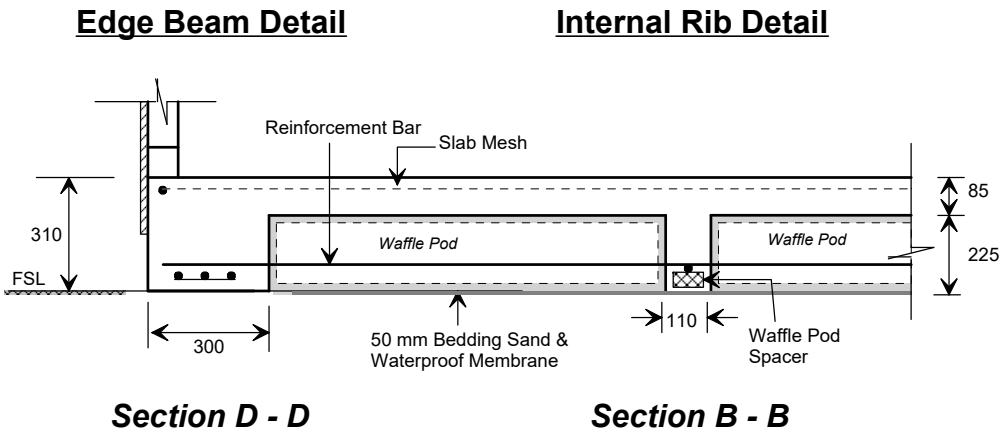
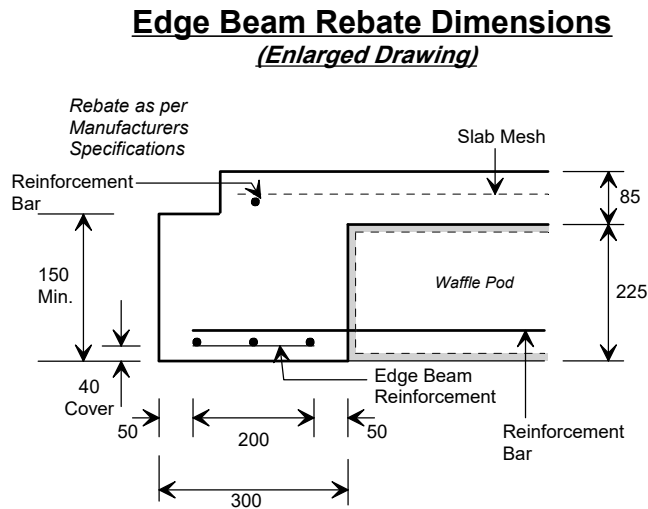
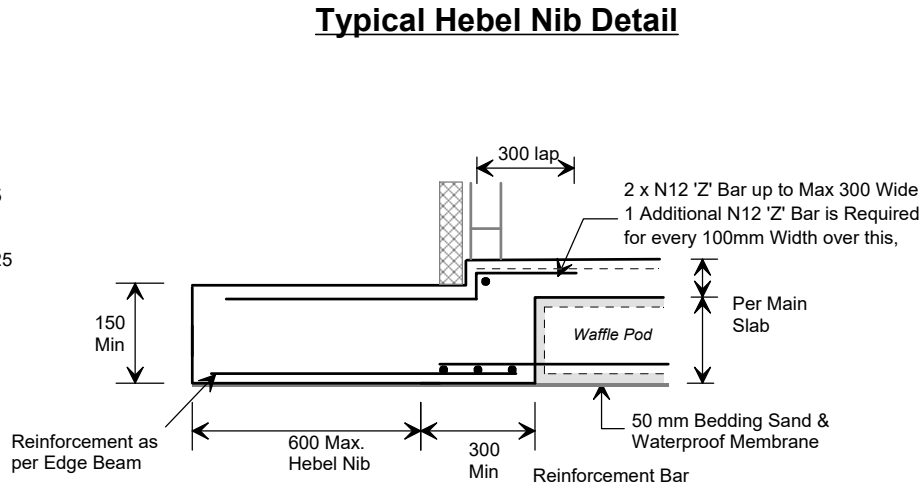
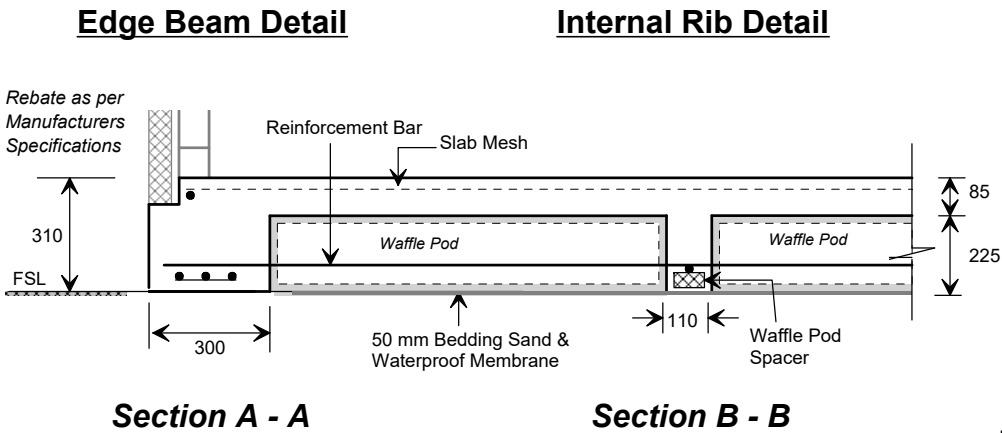
Brisbane (Eight Mile Plains) (07) 3071 7444 Gold Coast (07) 3071 7444 Newcastle (02) 4032 6450
email: bookings@staconsulting.com.au webpage: www.staconsulting.com.au

Client

Gold Homes
123 Thomsons Road KINGSHOLME 4208

Site Address

Lot 140 No.22 CALLI AVENUE UPPER COOMERA 4209



Notes :-

1. Bar Chairs are to be placed at 800 centres Maximum.
2. Slab Mesh to have 25 mm Top Cover.
3. Slab Mesh to have 35 mm Edge Cover.
4. Trench Mesh to have 40 mm Bottom Cover.
5. Reinforcement bars to have 40 mm Cover (around entire bar).
6. Slab Edge and Internal ribs MUST be vibrated.
7. The Edge Beam and Throat widths shown are the minimum dimensions as per AS2870-2011 and may be increased to suit brick veneer wall dimensions. The Edge Beam width must not exceed 330mm or additional reinforcement will be required.

Design Specification Table :

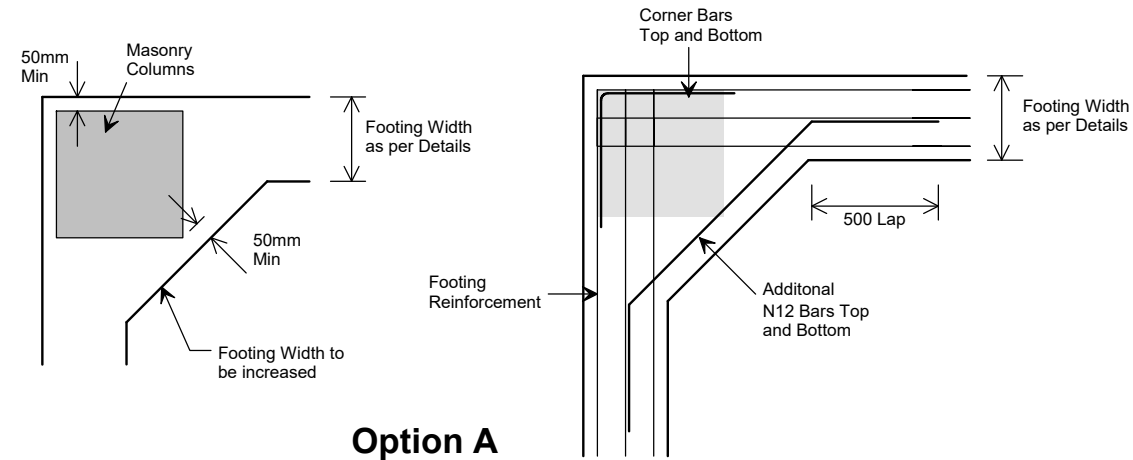
Steel Reinforcement	Product Code	Steel Strength
Slab Fabric	SL82	500 Grade
Edge Beam Reinforcement	3 L12 TM	500 Grade
Reinforcement Bars	N12 Bar	500 Grade
Waffle Pod Size (Height)	225 mm	-
Concrete Strength		Refer Table
Min. Slab Thickness		85 mm

Concrete Strength Table :

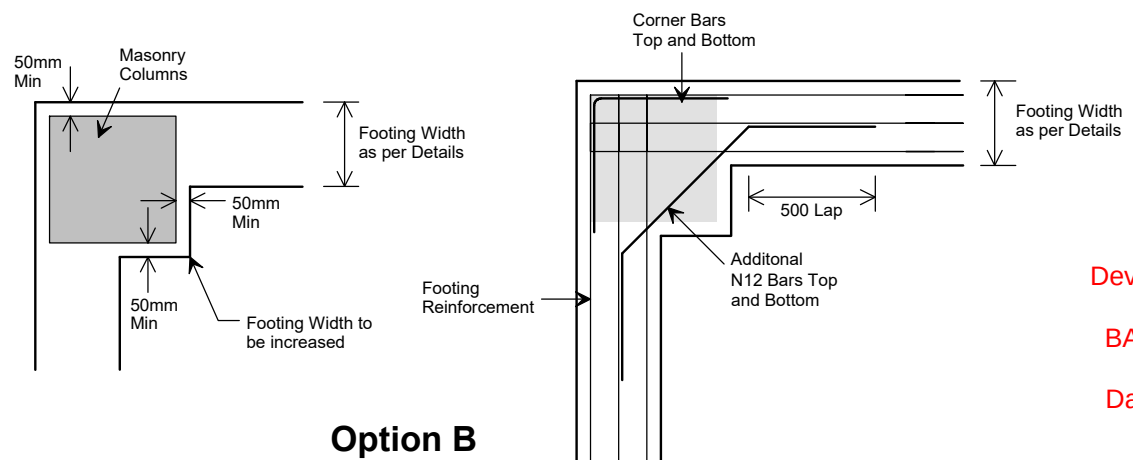
Elements	Concrete Strength F'c MPa	Slump (mm)
Bored/ Drilled Piers	20	80 - 100
Strip Footing	20	80 - 100
Slab On Ground Garage/ External	20	80 - 100
Slab On Ground Internal	20	80 - 100

Isolated Footing Width Increase at Column Locations

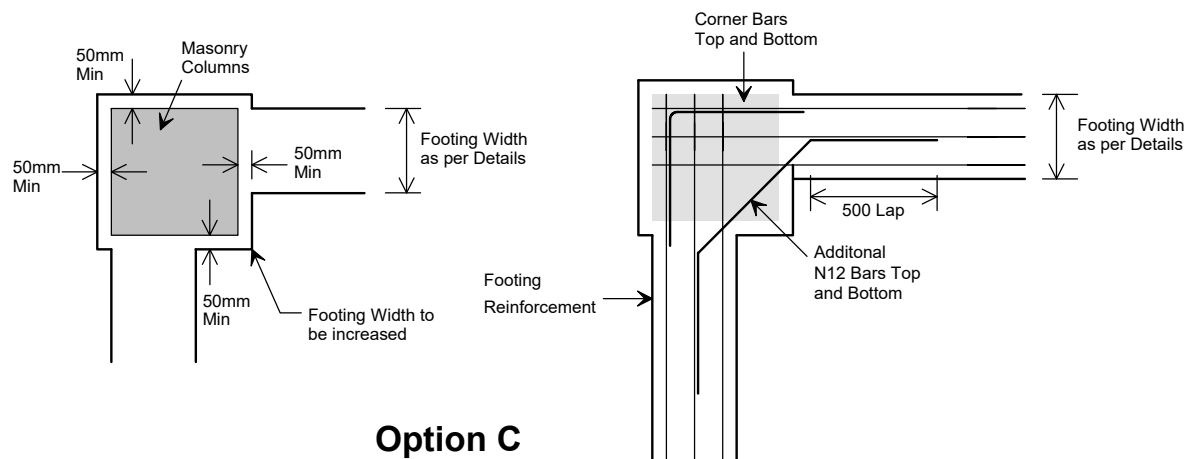
Note: The footing width is to be increased at the column locations to fully support columns
Column to have a 50mm minimum clearance to edge of footings
It is the builders responsibility to ensure the correct detail is used to suit the alignment of the column



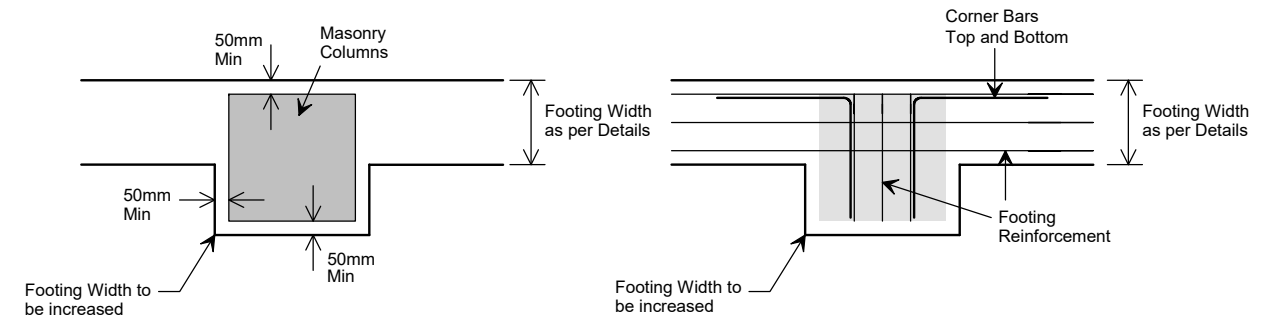
Option A



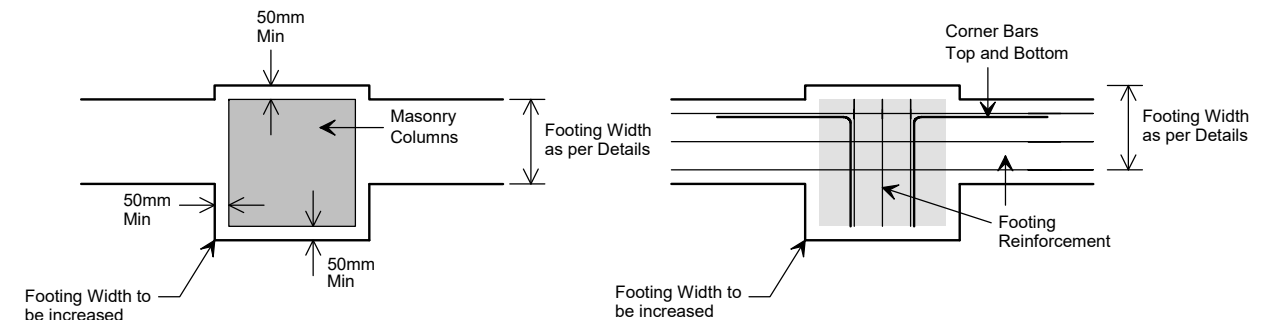
Option B



Option C



Option A



Option B

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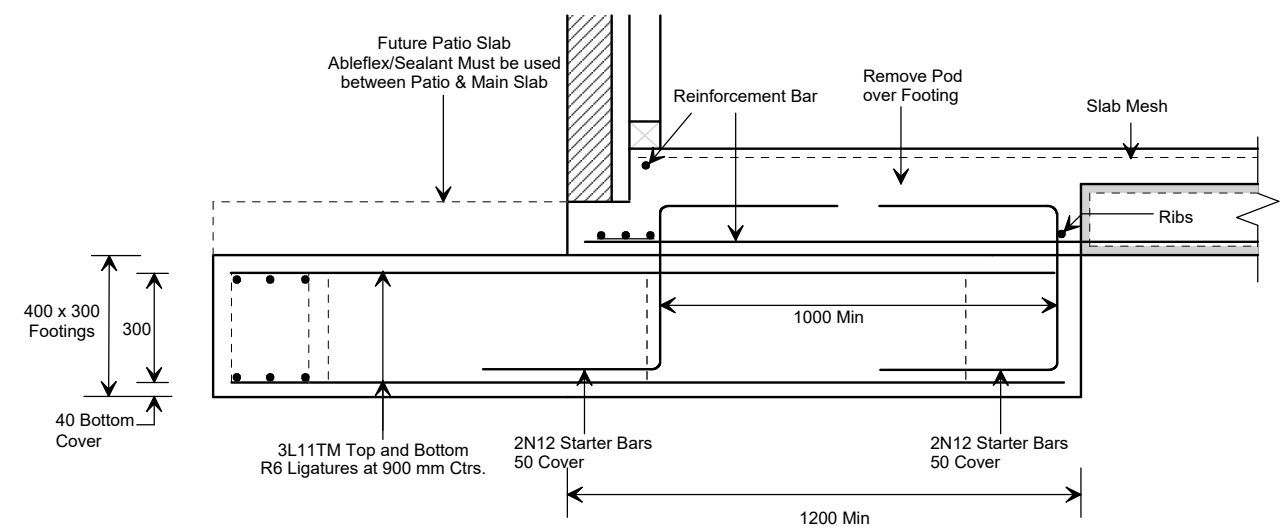
BA#.....

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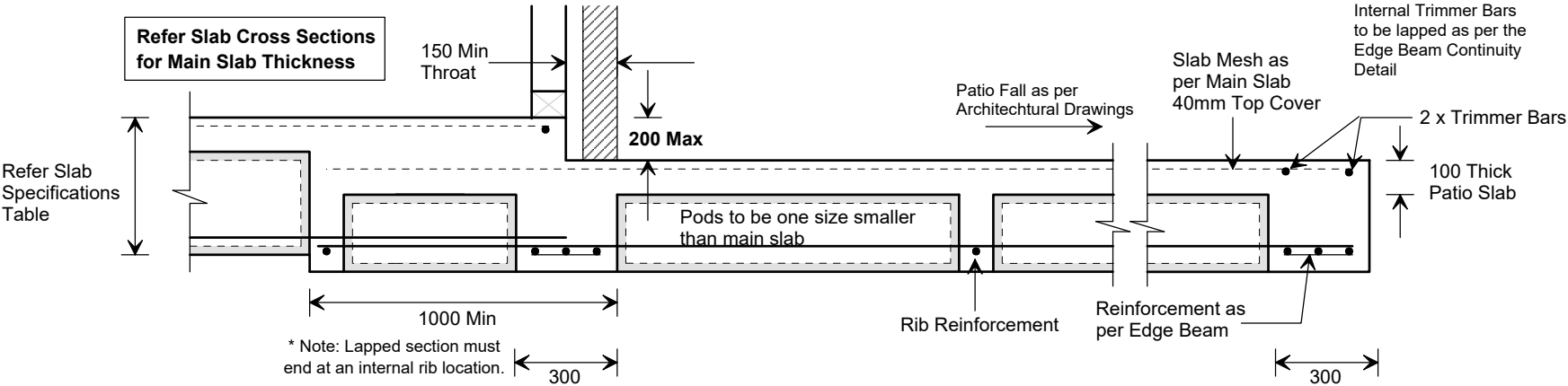
Date.....

TJB Building Certifiers

Isolated Column Detail - Section G - G



Section M - M
Reduced Size Pods in Patios



Note: Pad will require minor step to suit for pod heights and falls.
Do not reduce pods greater than one pod size (75mm max).

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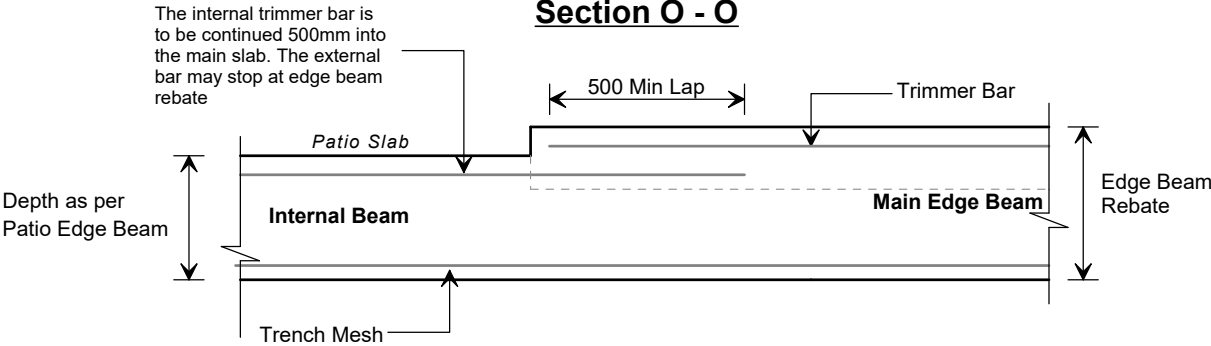
26 August 2025

Date.....

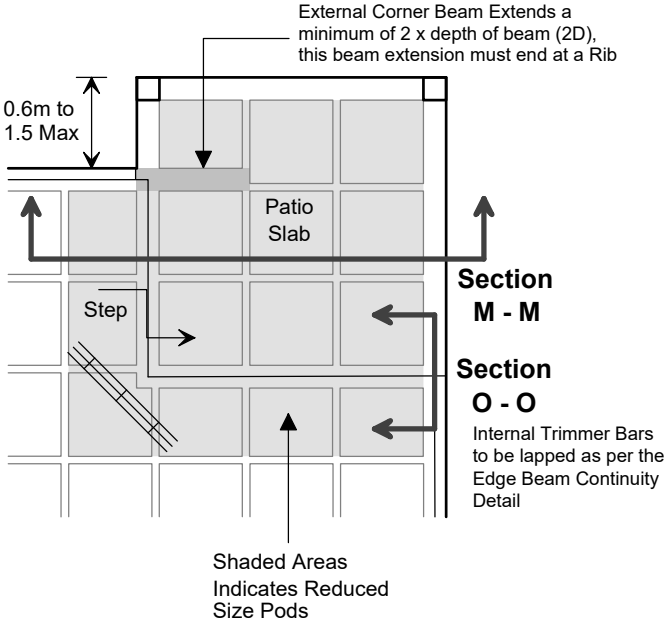
TJB Building Certifiers

Edge Beam Continuity

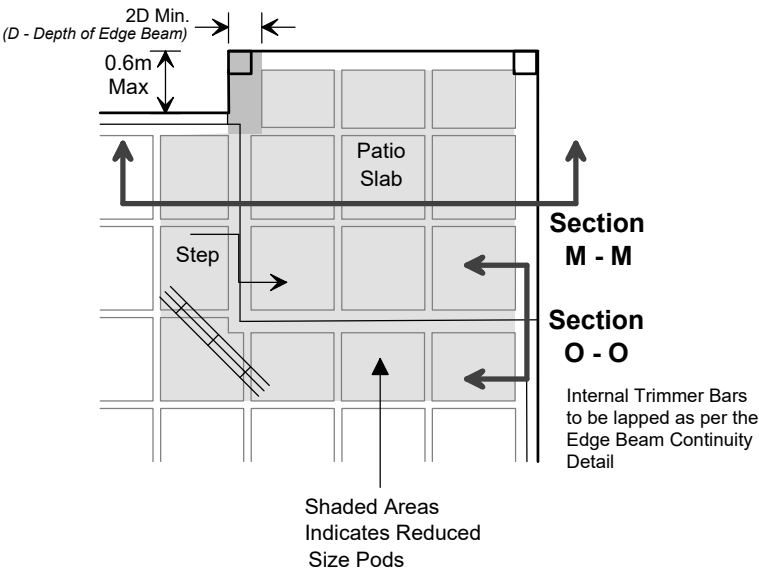
Section O - O

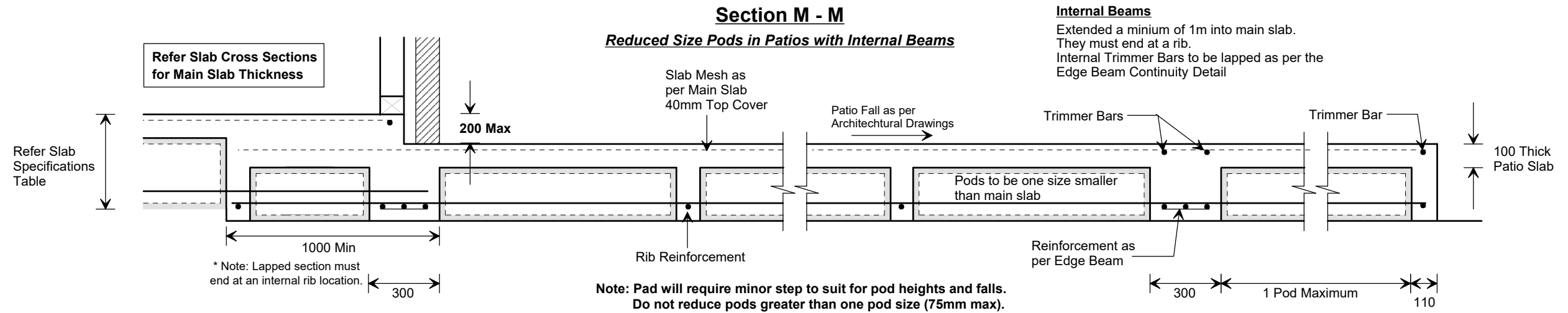


Section M - M
Reduced Size Pods in Patios
Typical Layout

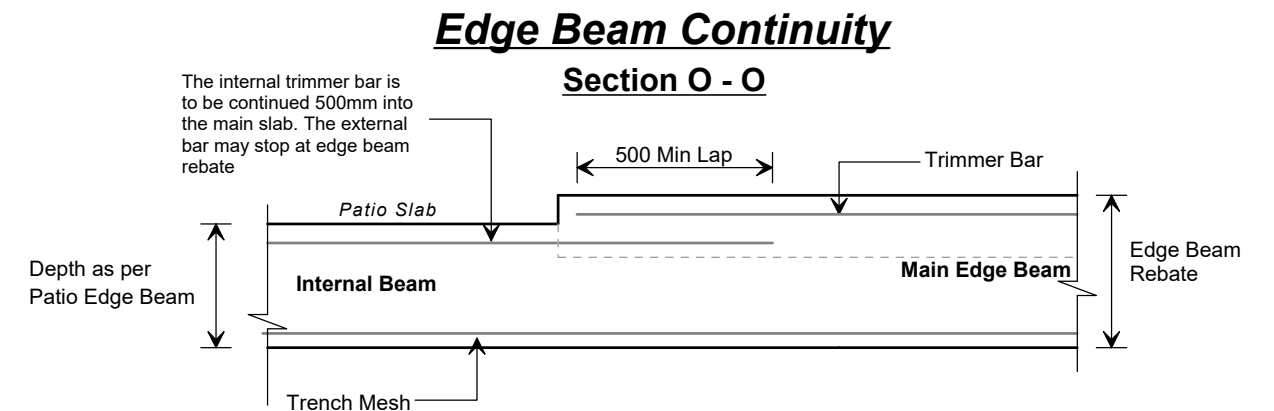
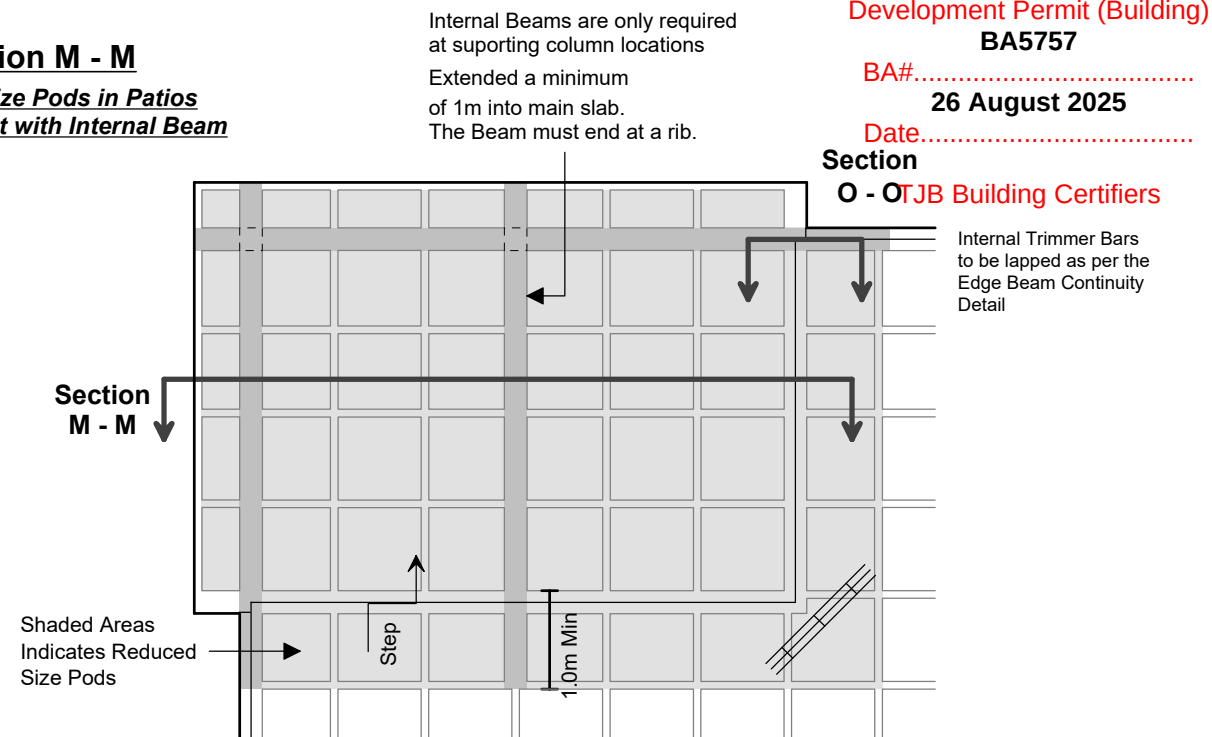


Section M - M
Reduced Size Pods in Patios
Typical Layout





Section M - M
Reduced Size Pods in Patios
Typical Layout with Internal Beam



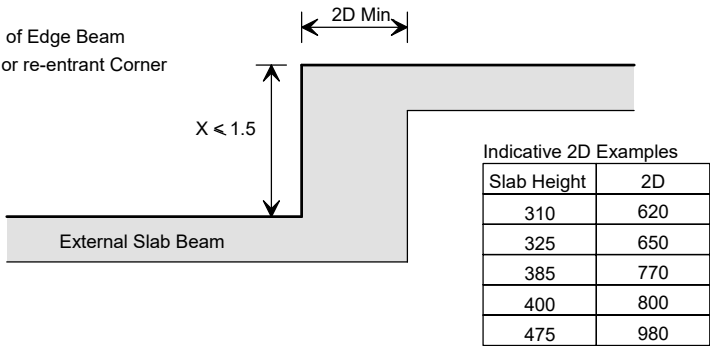
Continuity of Footing Beams

Explanation

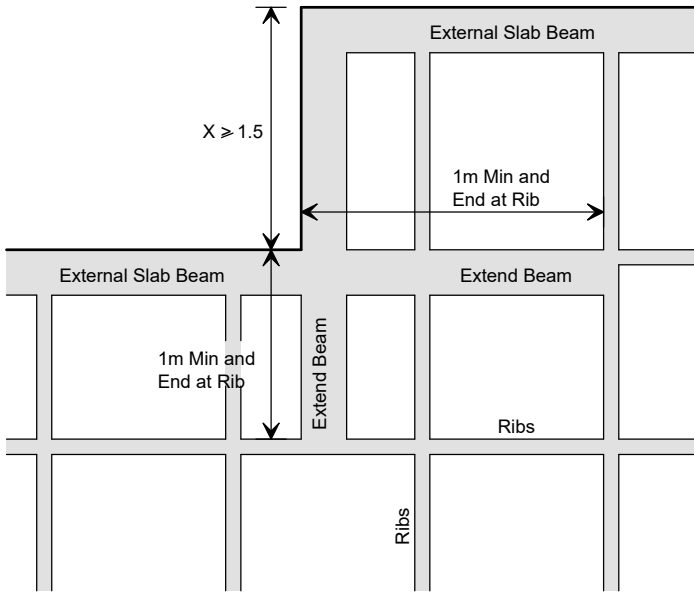
Where the external perimeter of the dwelling includes steps less than 1.5m these corner beams need to be increased in length by a distance twice the depth of the edge beam, for example a 310 slab will need 620 min width beam

Legend

D = Depth of Edge Beam
X = offset or re-entrant Corner

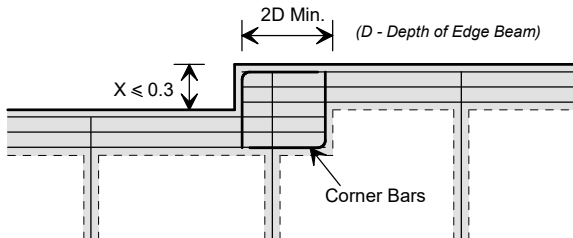


Where the external corner step is greater than 1.5m the beams are to be continued to an internal rib with a minimum length of 1m



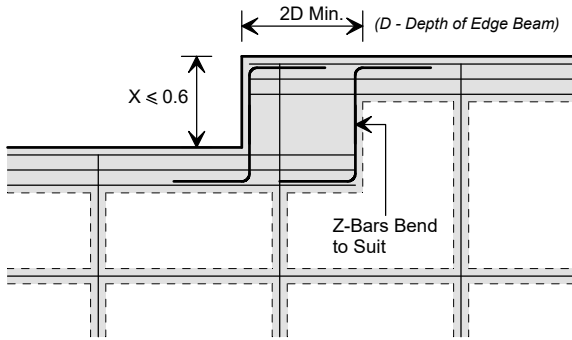
Reinforcement Layout Examples

< 300 mm External Corner

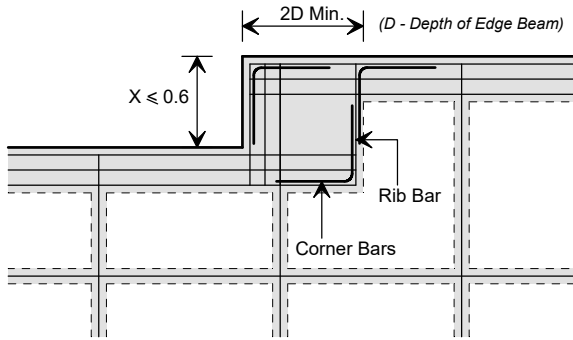


Reinforcement Layout Examples

300 to 600 mm External Corner

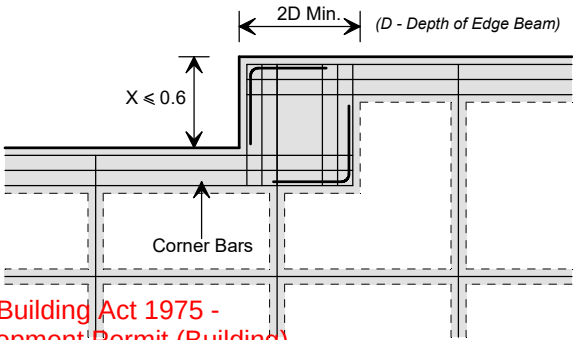


(Z-Bar Option)



(Corner Bar Option)

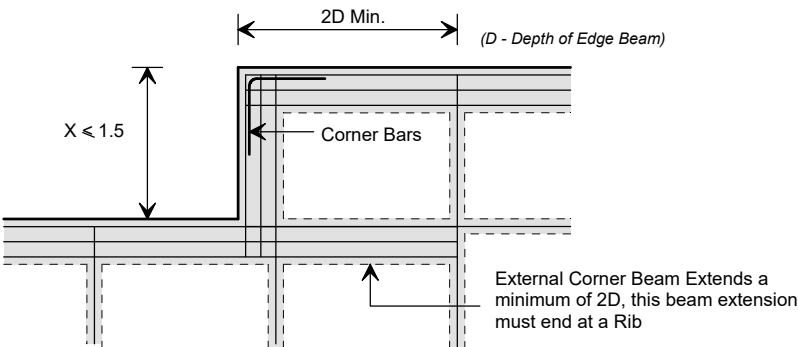
300 to 600 mm External Corner



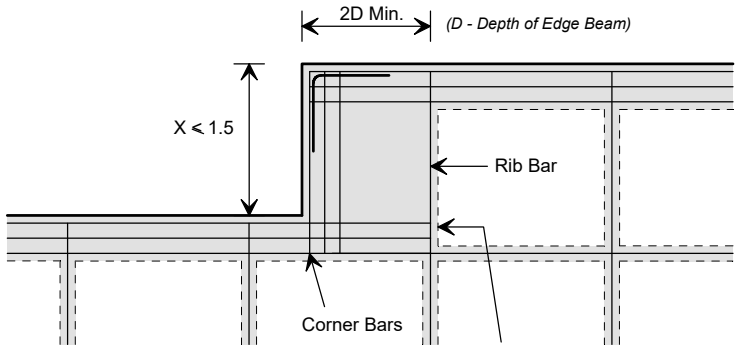
Building Act 1975 -
Development Permit (Building)
BA5757 Trench Mesh Option

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Date.....

TJB Building Certifiers
600 to 1500 mm External Corner
(Where Rib is located over 300mm from 2D
Corner Pods may be placed)

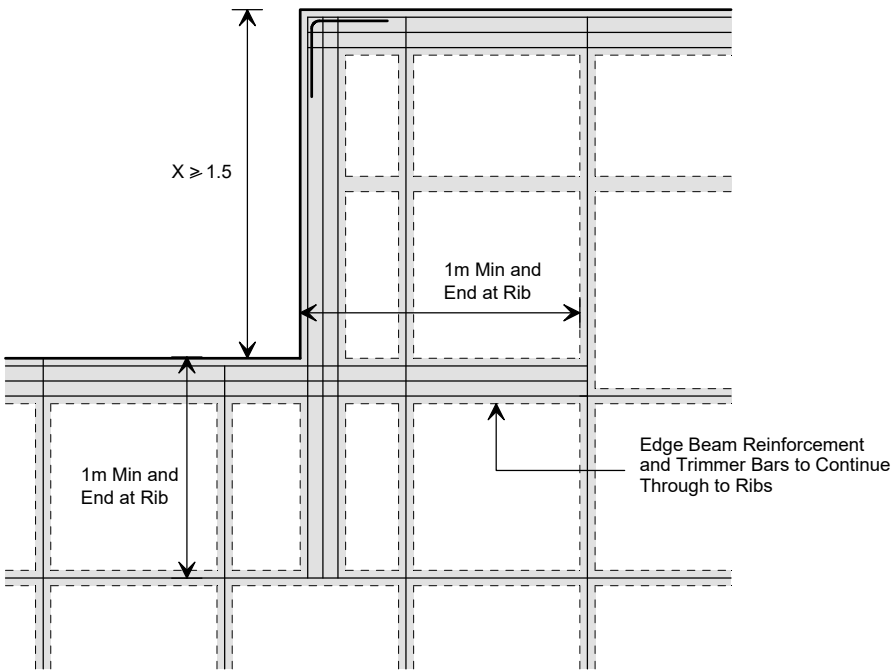


600 to 1500 mm External Corner
(Where Rib is located within 300mm of 2D from corner)



External Corner Beam Extends a minimum of 2D, this beam extension must end at a Rib

> 1500 mm External Corner

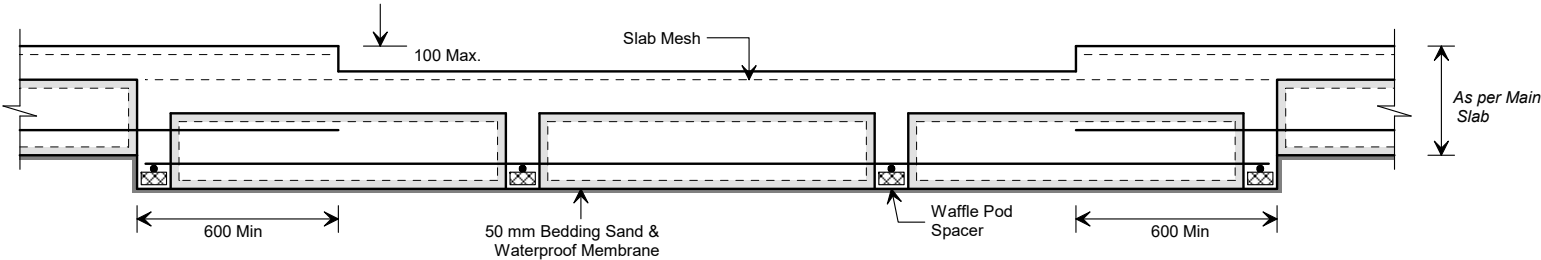


Note: The waffle pod layouts are indicative only and will vary depending on each house layout. It is the builder's/concreter's responsibility to ensure waffle pods are sufficiently held in place prior to placement of concrete. In some cases, where small cut pods are present, from a constructability point of view, it may be more practical to remove them and provide a mass concrete widened rib or edge beam in that area.

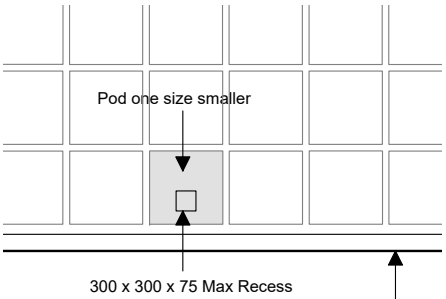
**Typical Bath Waste Recess Details
(75mm Maximum)**

Note: If the recess exceeds 75mm a minimum of 600 x 600 of pod will need to be removed under the recess.

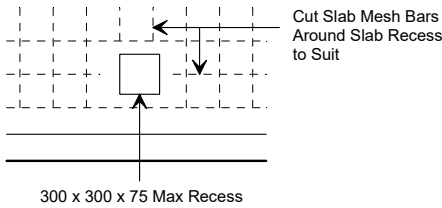
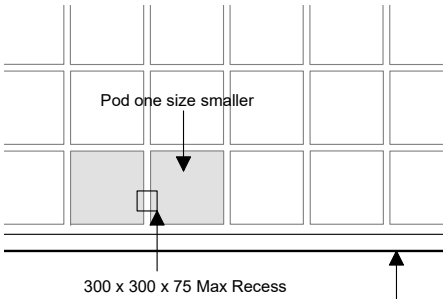
**Typical Wet Area Recess Details
Full Wet Area Recess - Section Y - Y
(100 mm Maximum)**



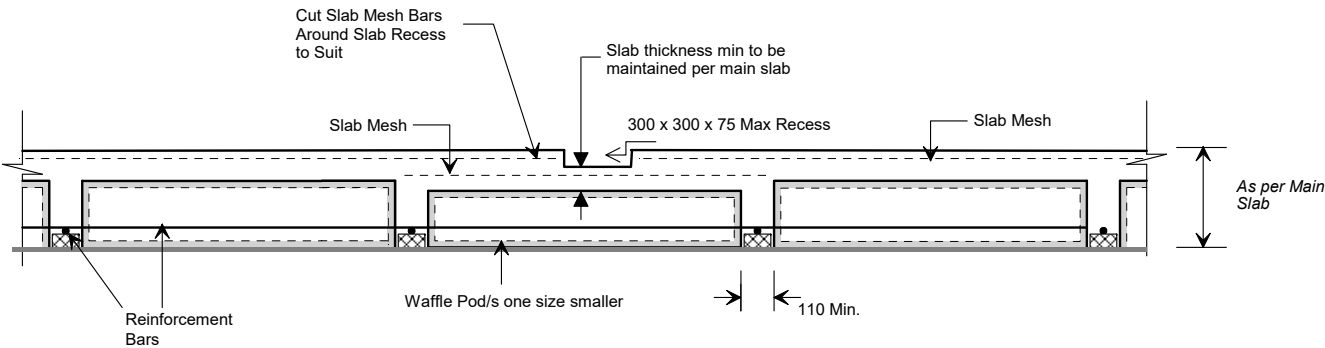
**Typical Bath Waste Recess
Slab Layout**



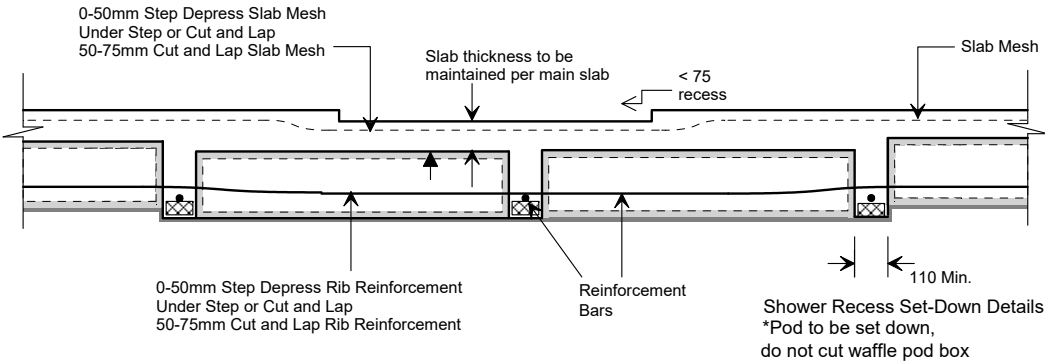
**Typical Bath Waste Recess
Slab Layout**



**Typical Bath Waste Recess
Side View**

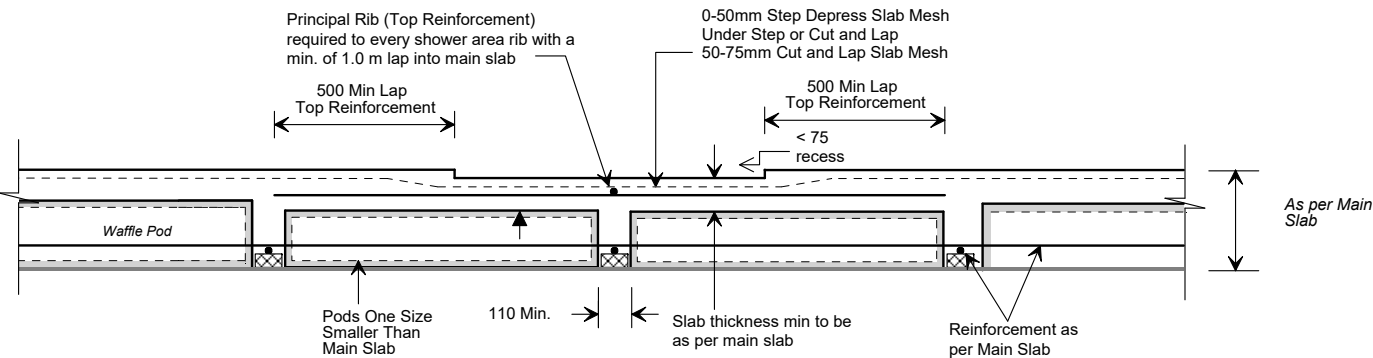


**Small Shower Recess
(Max 1 Rib Each Direction)
(75 mm Maximum Step)
(Option A)**

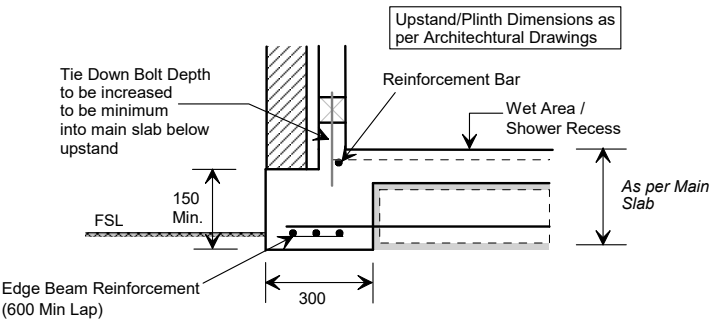
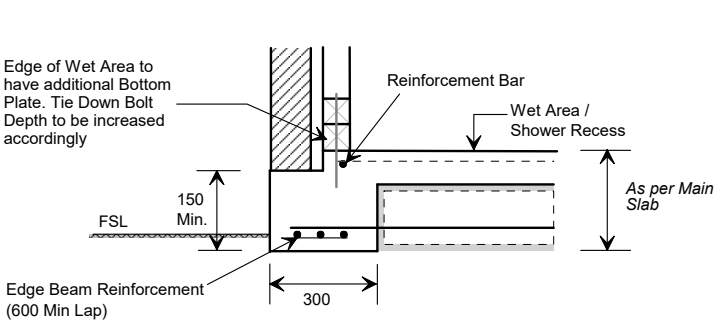


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As per Main Slab
26 August 2025
Date.....
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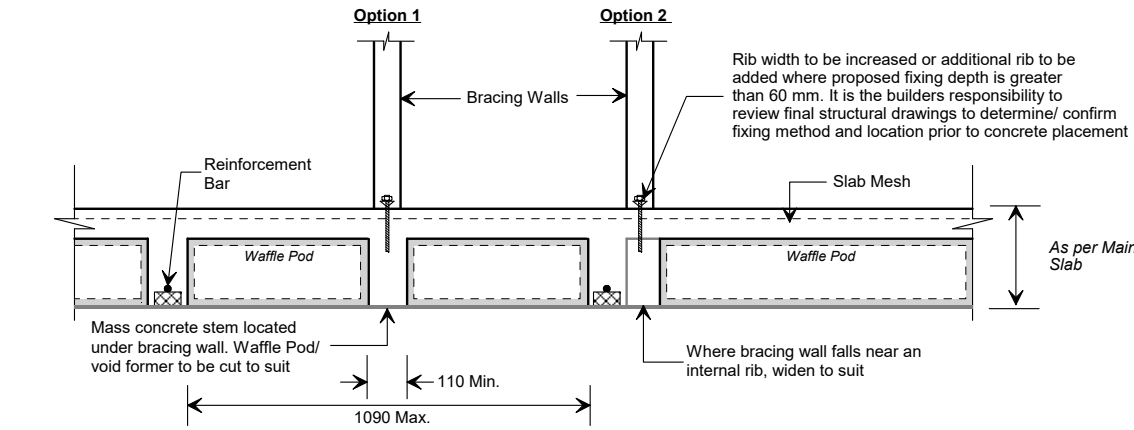
(Option B)



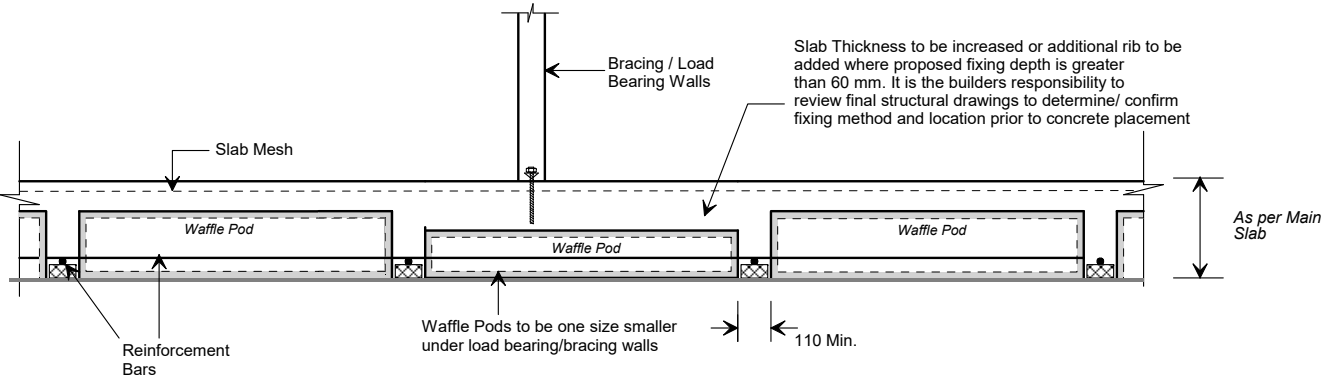
**Stepped Wet Area
Edge Beam Details**



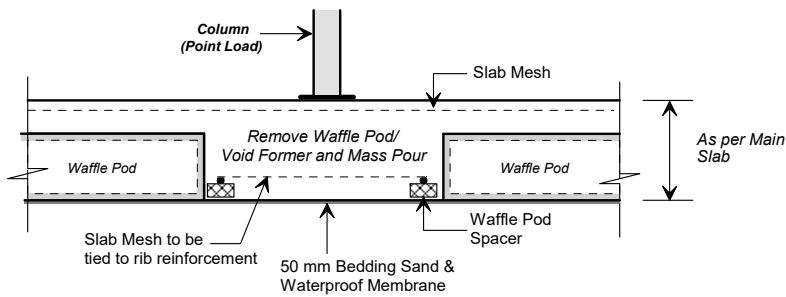
**Typical Internal Rib Widening or Reduced Pods
for Bracing Walls & Tie Downs (Option A)**



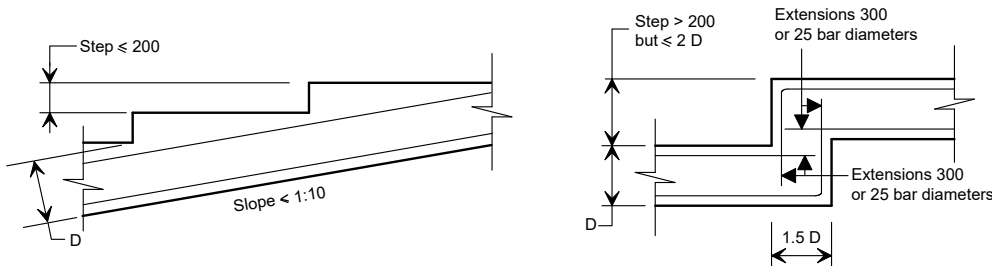
(Option B)



Typical Point Load Detail



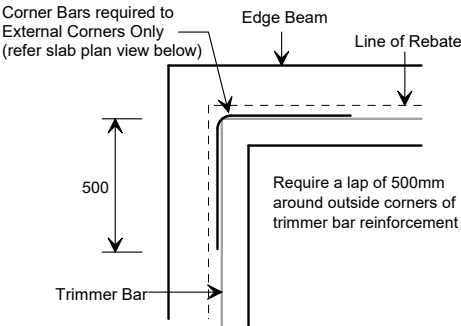
Stepped Isolated Footing Detail



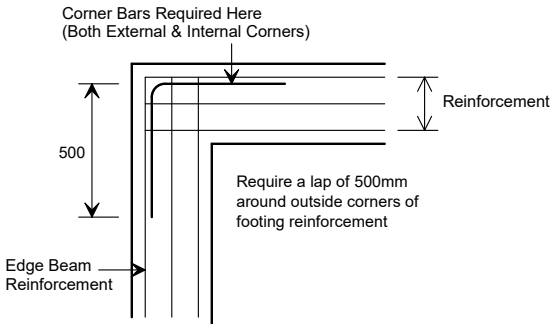
Note: The depth of the isolated footings may be reduced where refusal on shallow rock, on a boulder or partially over a small rock outcrop is encountered. Where this depth is less than 400 mm the top steel, corner bars and starter bars may be deleted. Before the edge beam becomes less than 400mm the top steel is to be lapped 500mm with the bottom steel. It is also required a minimum depth of 200mm must be maintained at all times. It is also recommended articulation joints are placed at the start and end of the rock outcrop.

Corner Bars

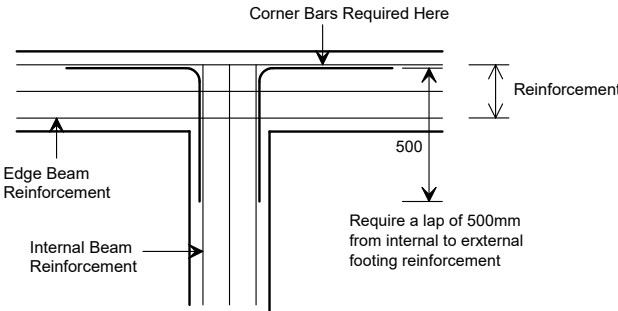
Edge Beam Top Bar Reinforcement



Edge Beam Reinforcement

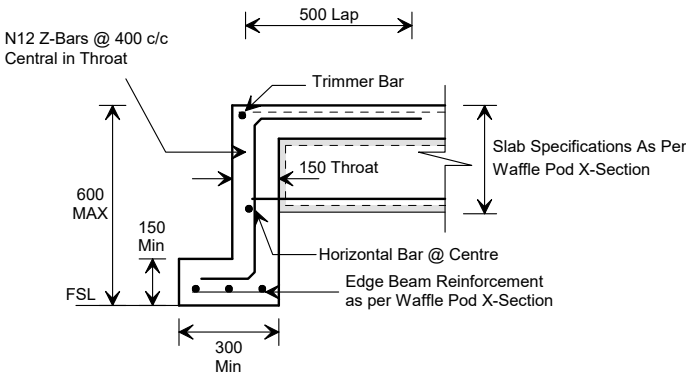


Internal Beam Reinforcement

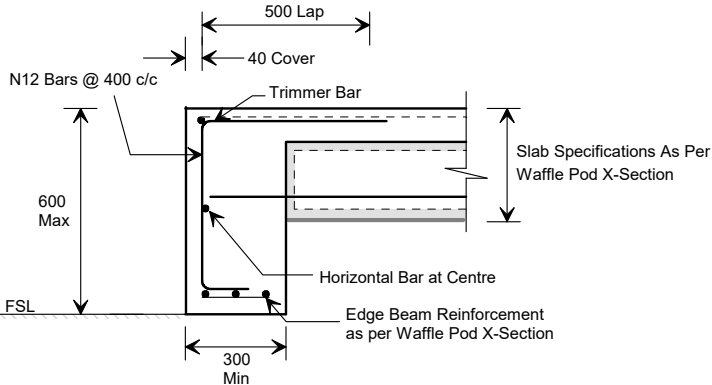


Typical Dropped Edge Details - 600mm Max

Rebated Edge



Non- Rebated Edge



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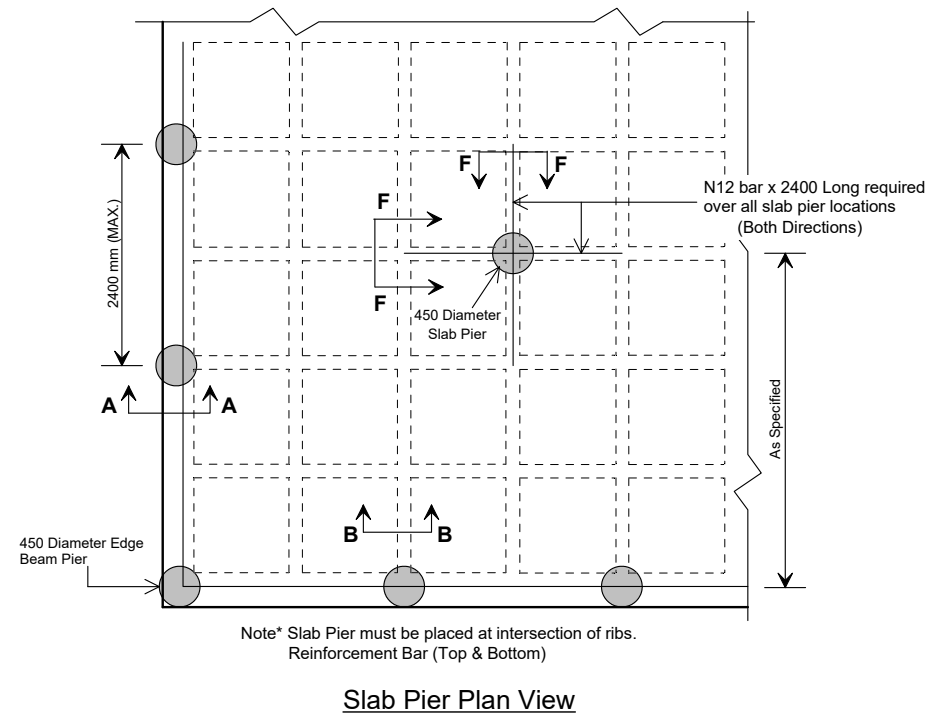
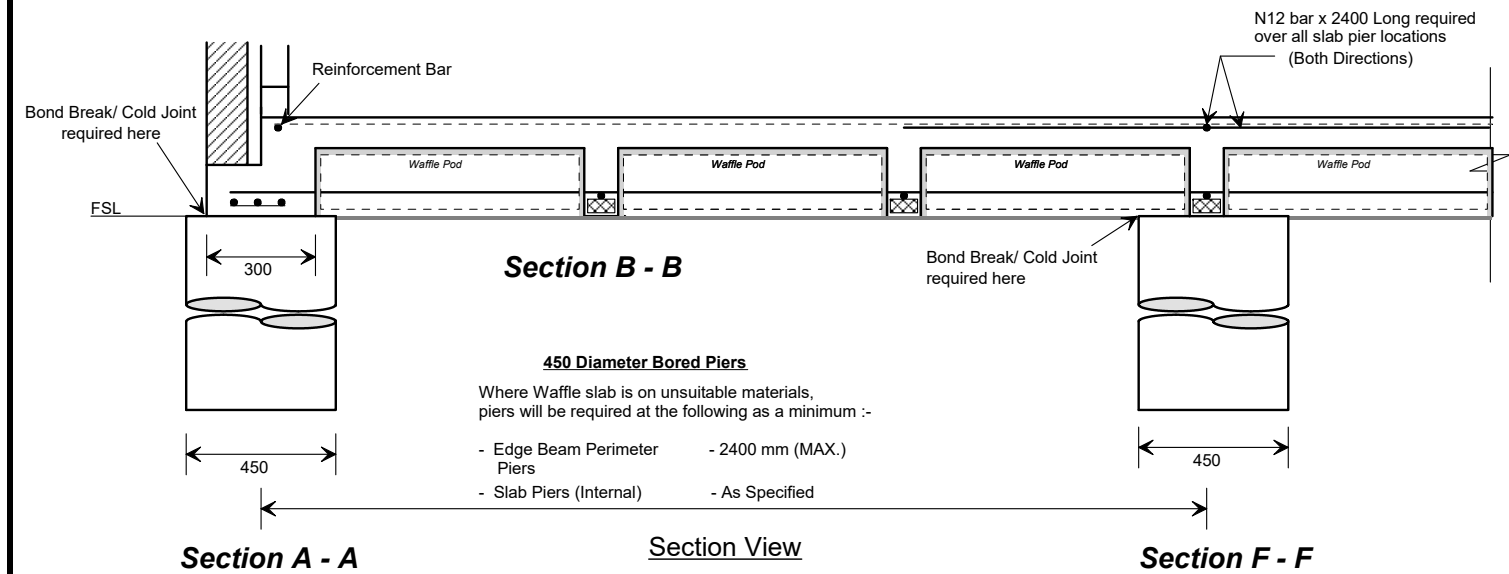
BA#.....

26 August 2025

Date.....

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Typical Edge Beam & Slab Piering Details



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BA5757
BA#.....
26 August 2025
Date.....
TJB Building Certifiers

Technical Notes

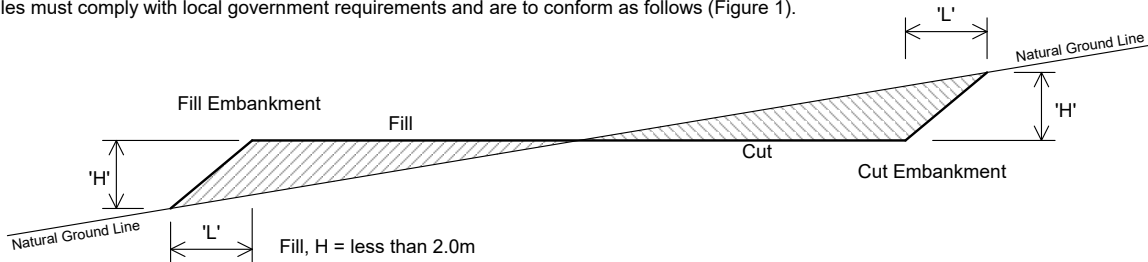
Earth Works Specifications

Batter Angles for Embankments:-

It is the builders responsibility to ensure that the site works do not undermine or place additional surcharge on any existing structures. If this can not be achieved STA Consulting Engineers must be contacted prior to any site works being undertaken.

Batter angles must comply with local government requirements and are to conform as follows (Figure 1).

Figure 1.



	Material Type (Refer Bore Logs)	Stable Rock	Sand	Silt	Clay		Soft Soils
					Firm Clay	Soft Clay	
Embankment Slopes (Height Length)	Compacted Fill	2 : 3	1 : 2	1 : 4	1 : 2	Not Suitable	Not Suitable
	Cutting	8 : 1	2 : 3	1 : 4	1 : 1	2 : 3	Not Suitable

Note: Retaining walls or other forms of soil retaining methods must be adopted where the slope ratio is greater than that indicated in the table above

Fill Material and Compaction:-

Organic material, highly reactive clays and large rocks are not suitable for use as fill. The fill is to be spread in 150 mm layers and extensively track rolled with a drott. All earthworks to be carried out in accordance with the full requirements of AS3798, Guidelines for Earthworks for Commercial and Residential Developments.

NOTE - In the instances where by significant levels of filling are observed, there will always remain the possibility of tilt as a result of differential settlement in the fill. Australian Standard (AS2870-2011) does not cater for tilting of the slab as a result of differential settlement within certified fill nor does the Australian Standard address the possible occurrence when shallow foundations are adopted.

Drainage:-

The external finished surface surrounding the dwelling must be drained to move surface water away from the building and graded to give a slope of not less than 50 mm over the first 1 m away from the building.

Reinforcement Specifications

Steel wire reinforcing fabric and bars to conform with AS1304 - Hard Drawn Steel Wire Reinforcing Fabric for Concrete) and AS1302 - Steel Reinforcing Bars For Concrete.

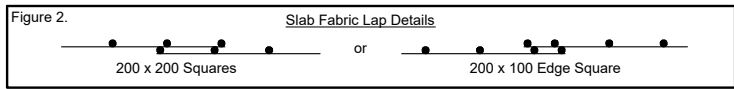
Lap Lengths

Trench Mesh - 500 mm in a straight line, or to the far face at "T" and "L" intersections

Steel Bars - "N" Bars shall have lap lengths as follows: N12 not less than 500mm and N16 not less than 700mm. Bar sizes greater than N16 to have minimum lap of 40 bar diameters

Corner Bars - required at all "T" and "L" intersections. Refer to the design drawings for the appropriate construction details.

Slab Fabric - One full panel of the fabric, so as the two outer-most transverse wires of each sheet are overlapped. As shown on the below detail (Figure 2).



Note :- Where external beams are wider than 300 mm, an extra equivalent bottom reinforcement bar is required for each 100 mm additional width. For example, a 400 mm wide edge beam will require a minimum of 4 bar trench mesh (300 mm wide).

Concrete Specifications

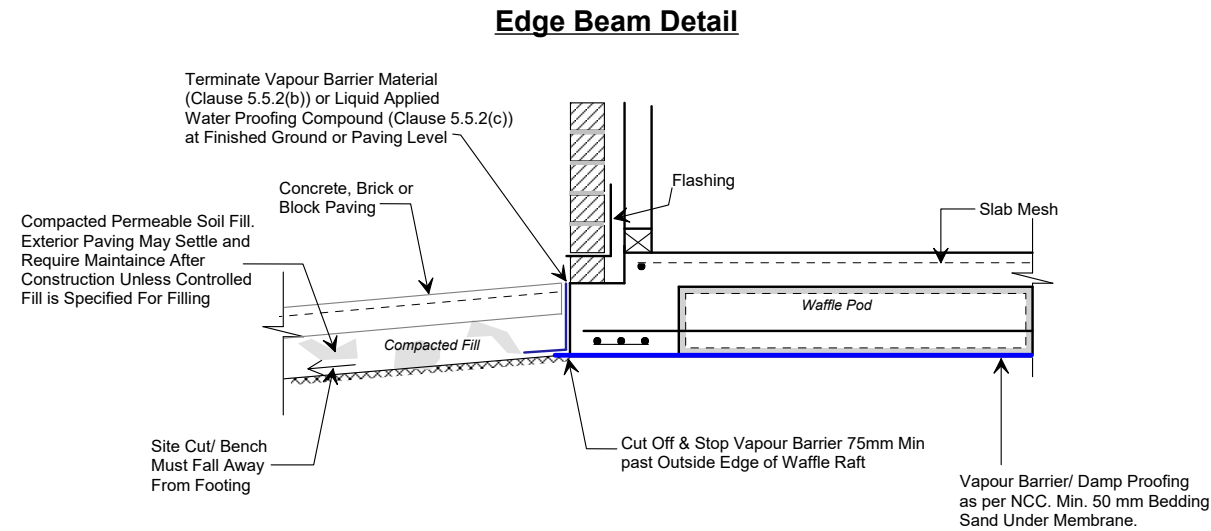
The concrete must have a strength at 28 days of not less than 20MPa unless otherwise specified on the foundation cross section, a 20 mm nominal aggregate size and have a nominal 80 -100 mm slump. Water must not be added to the mix to increase the slump to a value in excess of that specified. Concrete must be placed and compacted/vibrated with good building practice. In hot and windy conditions concrete curing must be considered. This can be done by covering with plastic sheeting, spraying with a liquid membrane curing compound or ponding water on the top surface. The concrete must be manufactured to comply with AS3600 - Concrete Structures.

Shallow Rock, Boulders & Rock Outcrops

The depth of strip footings may be reduced where refusal on shallow rock, on a boulder or partially over a small rock outcrop is encountered. Where this is less than 400 mm, top steel, corner bars and starter bars may be deleted. However before the beam depth becomes less than 400 mm, top steel is to be lapped 500 mm with the bottom steel. It is also required that a minimum edge beam depth of 200 mm be maintained at all times. It is also recommended that the external walls are articulated at the start and end of the rock outcrop.

Termite Protection

This report does not cover termite prevention, investigation of treatment. Refer to an appropriately qualified person or company for termite protection requirements.



Notes :
1. Minimum height of external pad level to internal surfaces
- impermeable surfaces i.e. concrete
- permeable surfaces i.e. paved/gravel etc. 150mm
2. Minimum slope away from the dwelling
- impermeable surfaces 1:100 for 1st metre
- permeable surfaces 1:20 for 1st metre

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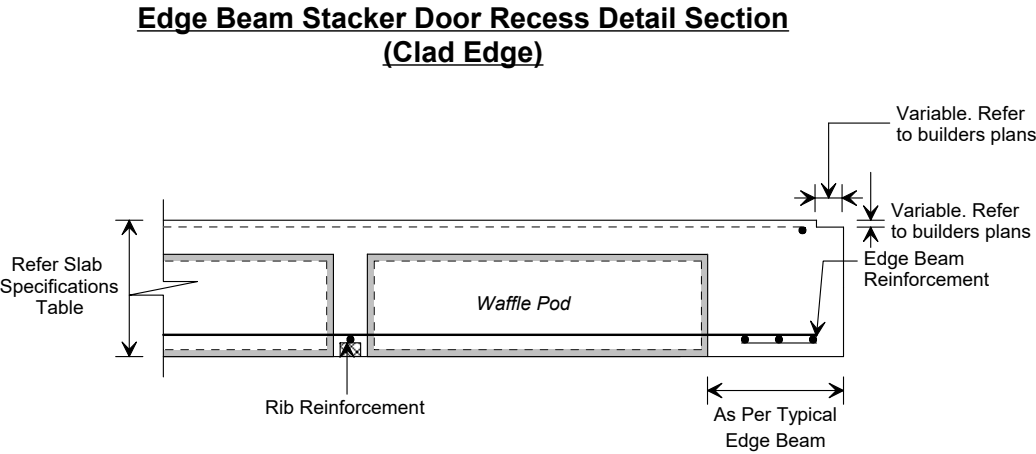
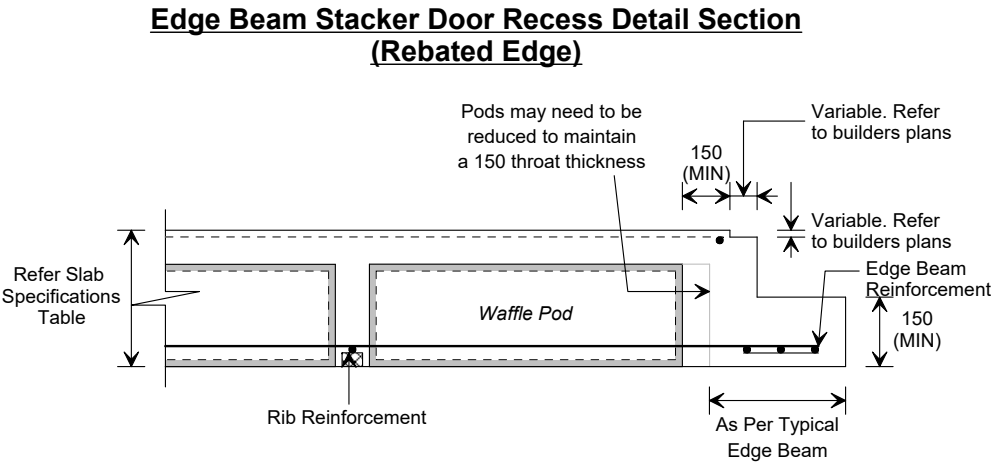
Vapour Barriers and Damp-proofing Membranes

Where required the raft or slab shall be provided with the following in accordance with AS2870-2011 'Residential Slabs and Footings' :-
QLD - Vapour Barrier (Medium Impact Resistance in accordance with 5.3.3.3, item (a) of AS2870).
NSW - Damp-proofing Membrane (High Impact Resistance in accordance with clause 5.3.3.3, item (b) and resistant to puncture and penetration, item (c)).

Installation :

1. The sheet shall be placed beneath the slab so that the bottom surface of the slab and beams, including internal beams, is entirely underlaid. The membrane shall extend under the edge beam to ground level.
Where a two pour system is adopted, the membrane shall extend over the top of the external footing and starterbars, before the bars are bent prior to the placement of slab mesh. The membrane shall extend a minimum of 0.4 m beyond the external footing perimeter to be later folded and fixed to underside of the bottom plate.
2. Lapping for continuity at joints shall be not less than 0.2 m.
3. Penetrations by pipes or plumbing fittings shall be taped or sealed with a close-fitting sleeve or made continuous with the vapour barrier or damp-proof membrane by taping or by lapping in accordance with item 2.

Typical Sliding Door Recess Details
(If / Where Required - Refer Architectural Drawings)



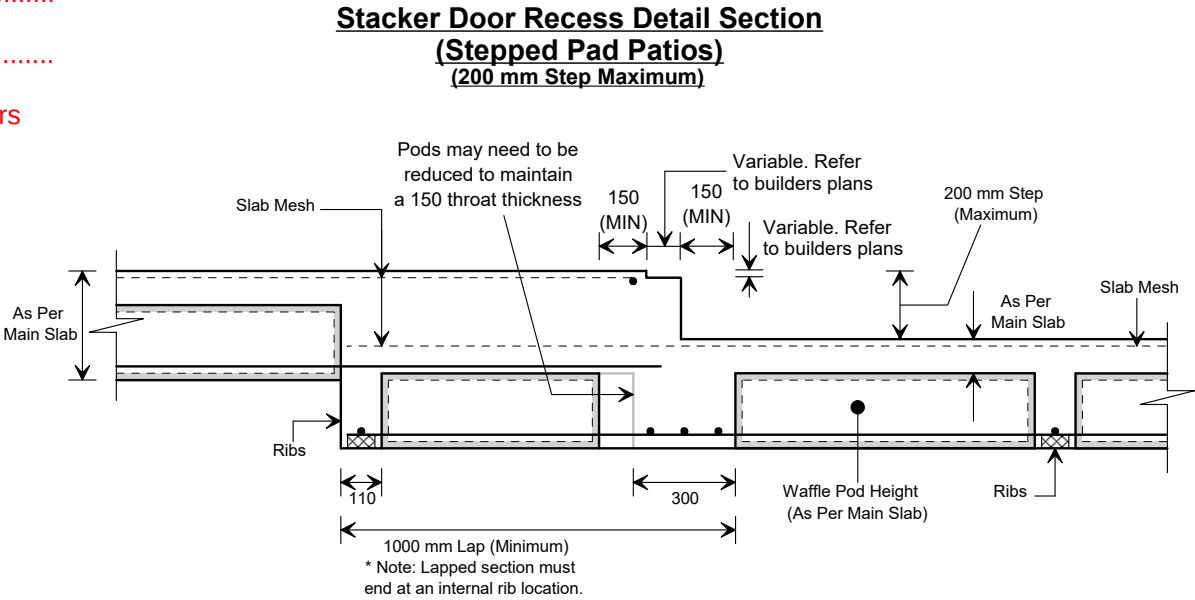
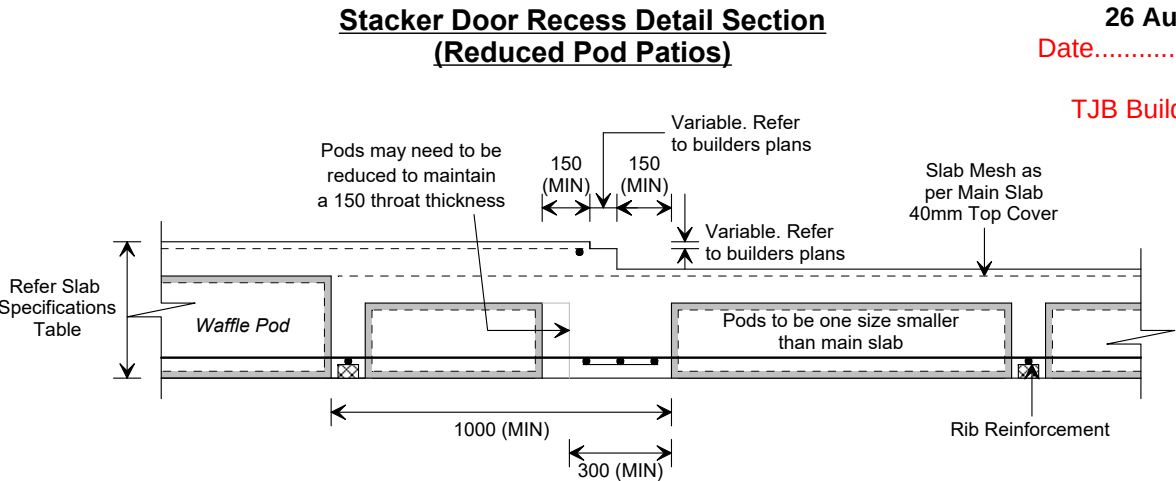
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Legend

— A.J

Articulation Joints

Natural Articulation Joints

Note: The interface between full height brick and clad walls, full height doorways, windows or door and windows with cladding over are considered to be Natural Articulation Joints.

Door Locations

Window Locations

SWG's as per Supplied Plans

Grated Drain as per Supplied Plans

Typical Articulation Notes:

1. All Brickwork joint locations and notes within this articulation plan are as per or specified directly from the recommendations of the "Articulated Walling - Technical Note 61" Prepared by Cement Concrete & Aggregates Australia (CCAA). Control joints less than 1m from a corner (including internal corners where the joint is located on a wall less than 4.5m long), may be shown as per architectural drawings for aesthetic purposes only and are not considered effective structural articulation joints.

2. STA Consulting Engineers takes no responsibility for the accuracy and/or quality of the installation of joints on site during construction. Where joints are missed or misplaced onsite STA must be contacted immediately for further review.

3. The Building Code of Australia (BCA) requires that houses incorporate articulated walls.

4. It is the home owners responsibility to ensure that practical measures also be put in place to assist with the longevity of the proposed foundations & structure. For further detail please refer to the "Foundation Maintenance and Footing Performance: A Homeowners Guide" Prepared by the CSIRO (BTF18).

5. Hebel Clad Walls are to be articulated as per the layout provided and any manufacturer's specifications. STA Consulting Engineers has designed the layout as per the specifications of TN61. It is the builders responsibility that any additional joints required as per any specific product manuals are installed to comply with these specifications

Typical Site Drainage Notes:

1. 1:20 Fall - It is a requirement of the NCC 3.1.3.3 and AS2870 Residential slabs and footings that all surface drainage shall be designed and constructed to avoid water ponding against or near the footing/slab. The ground in the immediate vicinity of the perimeter footing/slab, including the ground uphill from the slab on cut/fill sites, shall be graded to fall 50 mm minimum away from the footing over a distance of 1 m and shaped to prevent ponding of water.

2. The SWG locations shown on the attached plan have been directly allocated as per the supplied architectural drawings at the time of design. STA takes no responsibility for the points of stormwater discharge or for the location of any onsite drainage.

3. Where the local council requires site specific engineered onsite stormwater and/or sanitary drainage, STA Consulting Engineers should be contacted to provide an engineered solution to fulfill council / standards requirements.

4. It is NOT recommended that garden beds/planter boxes be located against the foundations of the proposed dwelling, due to excess moisture present within these areas and the effect they can have on the proposed foundations on site.

Additional Site Drainage Note:

Where any fall on site due to the natural slope and/or cut & fill occurs all site water must be directed away from the building foundations & around the perimeter of the proposed dwelling as per the NCC, AS2870 & AS3500. Appropriate stormwater management solutions should be obtained from a suitably qualified person. For site specific stormwater management design contact STA Consulting Engineers

Brickwork Articulation Plan

Note: Where shown refer to home builders construction plans for exact location of storm water gully pits. It is the builders responsibility to ensure the latest construction plans are prepared and followed to meet requirements of this site.

The diagram illustrates the brickwork articulation plan for a residential building. It shows the building's footprint with various articulation joints (A.J.) indicated by lines. The plan includes a driveway and a street. Key features include: a note stating 'No water is to pond between pool & dwelling', a '1 : 20 Fall (min)' slope indicated by arrows, and a 'Driveway' label. The plan also shows a 'STREET' label and a 'Driveway' label. The plan is signed by 'TJB Building Certifiers' and includes a 'Building Act 1975 - Development Permit (Building) BA5757' and a date of '26 August 2025'.

STA

CONSULTING

ENGINEERS

STA CONSULTING ENGINEERS

Brisbane (Eight Mile Plains) (07) 3071 7444 Gold Coast (07) 3071 7444 Newcastle (02) 4032 6450

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Client

Gold Homes

123 Thomsons Road KINGSHOLME 4208

Site Address

Lot 140 No.22 CALLI AVENUE UPPER COOMERA 4209

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Brickwork Articulation Guide

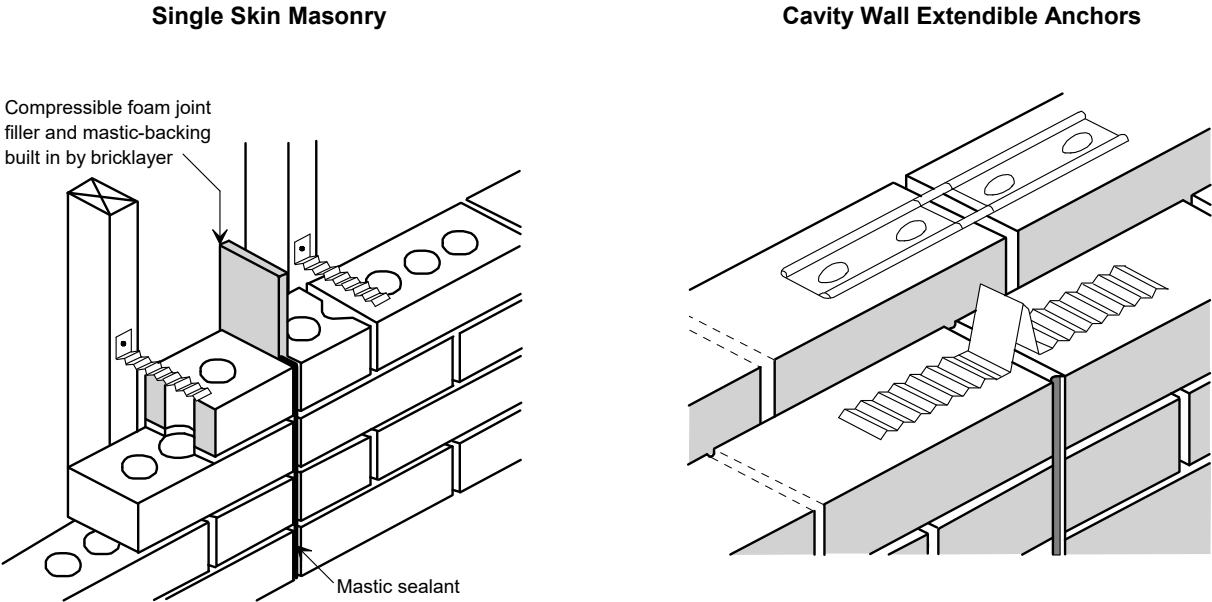
Maximum spacing of articulation joints for unreinforced masonry walls.
(After AS 4773 Parts 1 and 2 9)

Site Class	Masonry Wall Construction and Surface Finish	Joint spacing (m) for wall height / joint widths		
		Up to 4.0 m High for 10-mm Joints	4 m to 8.5 m high	
			For 10-mm Joints	For 15-mm Joints
A and S	All masonry	Maximum 8m as per AS4773.1-2010, Table 13.3		
M, M-D	External face finish masonry	5.0 m - 6.0 m	5.0 m	5.0 m - 6.0 m
	External rendered and / or painted masonry	5.0 m - 5.5 m	5.0 m	5.0 m - 5.5 m
	Internal face finish or sheeted masonry	5.0 m - 6.0 m	5.0 m	5.0 m - 6.0 m
	Internal rendered and / or painted masonry	5.0 m - 5.5 m	5.0 m	5.0 m - 5.5 m
H, H-D	External face finish masonry	5.0 m - 5.5 m	5.0 m	5.0 m - 5.5 m
	External rendered and / or painted masonry	5.0 m	5.0 m	5.0 m
	Internal face finish or sheeted masonry	5.0 m - 5.5 m	5.0 m	5.0 m - 5.5 m
	Internal rendered and / or painted masonry	5.0 m	5.0 m	5.0 m
E	Based on Engineering Principals Refer Marked Locations			

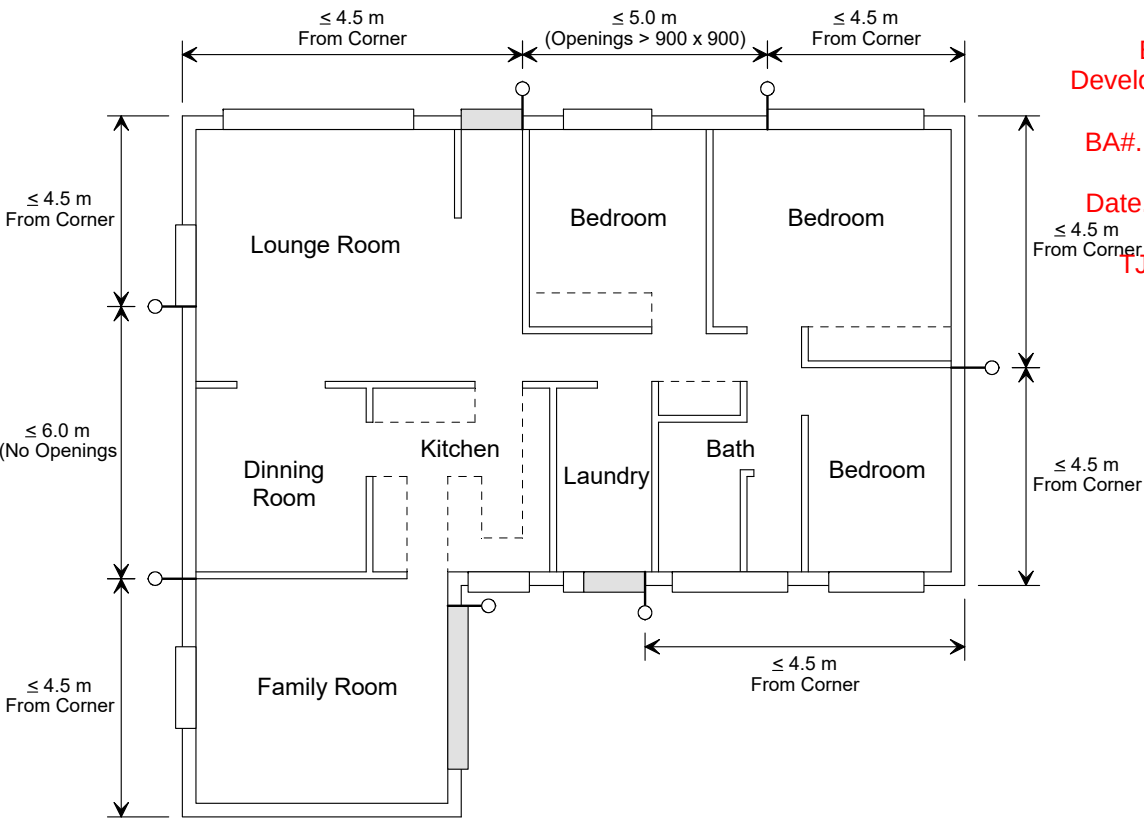
Typical Notes:
Masonry walls - whether built of bricks or blocks, made of fired clay, concrete or sand / lime - are rigid and brittle. They can thus tolerate only minor footing movement without cracking and / or causing windows and doors to become jammed. Unpainted masonry walls incorporating cement / lime mortar are the most tolerant of movement, and any cracking in the mortar joints tends to be inconspicuous. In rendered and / or painted walls, cracking may be visually unacceptable, even though structural performance is unimpaired. The solution is to provide footings that are rigid enough or to articulate the walls; the latter will usually be the more economical solution as more flexible footings can be used.

Articulation involves dividing the walls into panels separated by vertical joints that allow movement and thus reduce the risk of cracking. Footing movement is typically caused by swelling and shrinking of the foundation material. Thus the risk of movement depends on the extent to which the foundation soil reacts to changes in moisture content. AS 2870 classified site in accordance with the soil's reactivity in a range from Class A (stable) to Class E (extremely reactive). The Building Code of Australia (BCA) required that houses on all sites other than Class A and Class S (slightly reactive) incorporate articulated walls.

Typical Vertical Articulation Joint Details

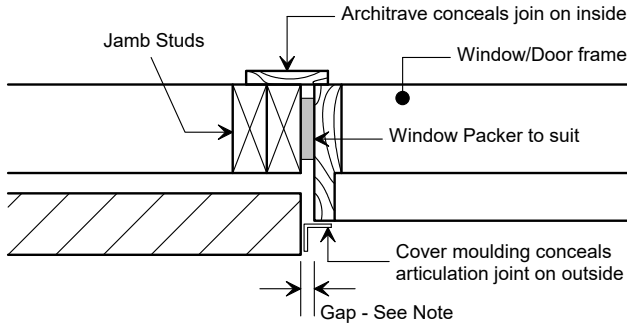


Typical location of articulation joints for brick veneer building on Class M site with face finished masonry.



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Fixing of Window /Door Frames at Articulation Joints

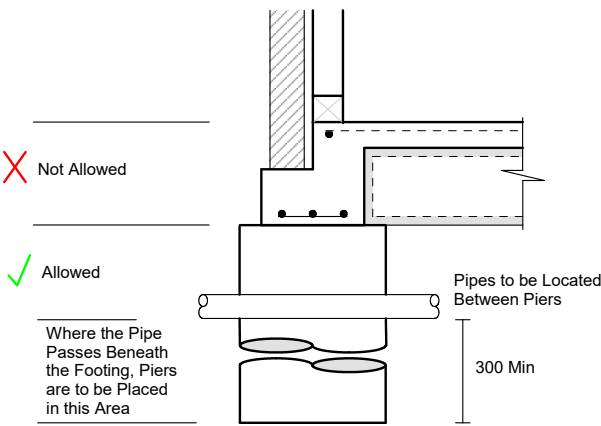


Note: Provision for horizontal movement, through opening, required to maintain typical masonry articulation joint width. (Refer manufacturer where proprietary details apply)

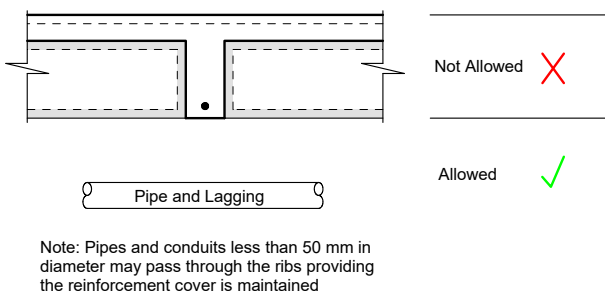
Plumbing Guidelines

Edge Beam, Internal Rib and Isolated Footing Pipe Penetrations

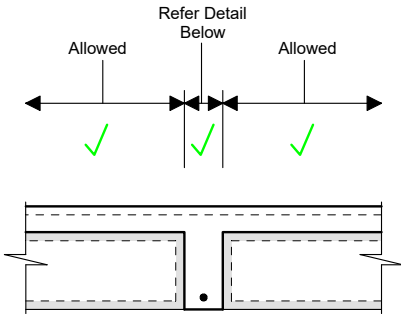
Edge Beam Footing



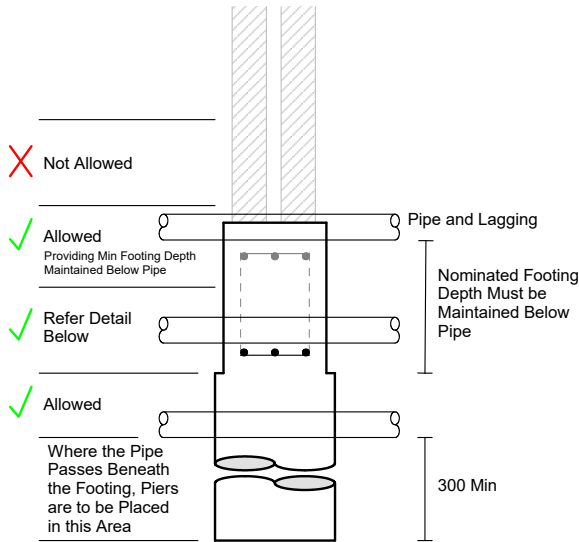
Internal Ribs



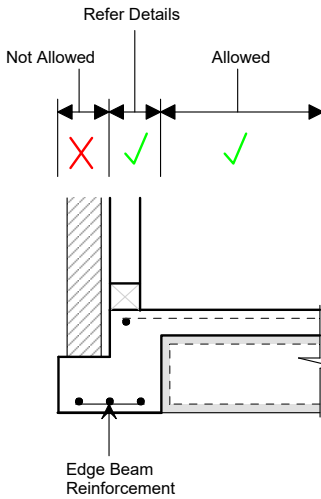
Internal Rib Vertical Penetrations



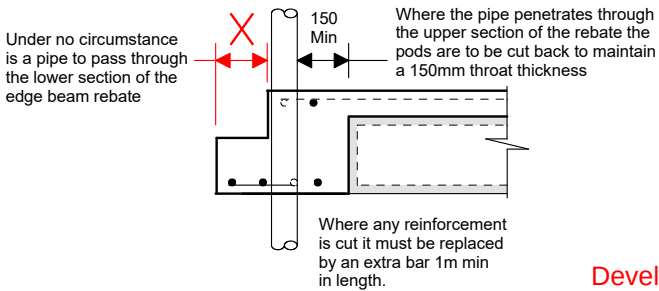
Isolated Footings



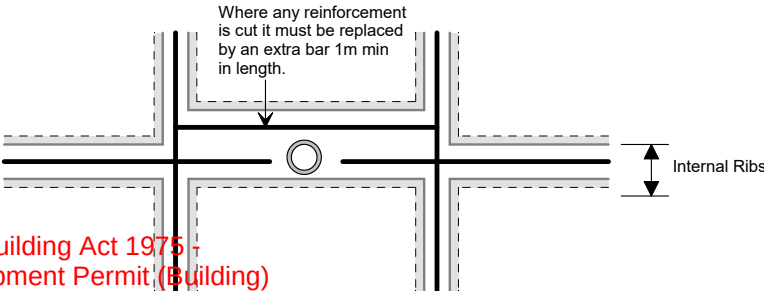
Edge Beam Footing Vertical Penetrations



Detail to Place Pipe Through Rebate Throat



Internal Rib Vertical Penetrations



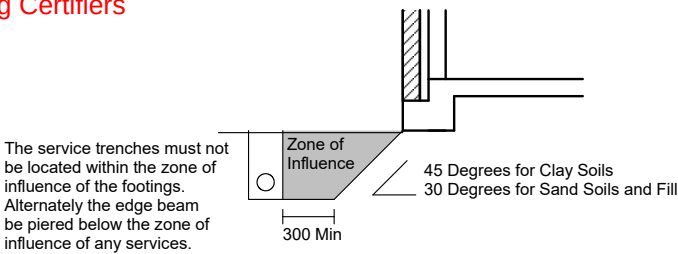
Notes:
The edge beam shall not be cut to allow for the placement of pipes. If the pipe is to be located in this area the footing must be excavated deeper to allow for the placement of the reinforcement.
The edge beam must not be jackhammered for the placement of pipes.
When the pipe penetrates the footings or slab thickenings within the lower 1/3 they must be excavated deeper to maintain the cover as specified.

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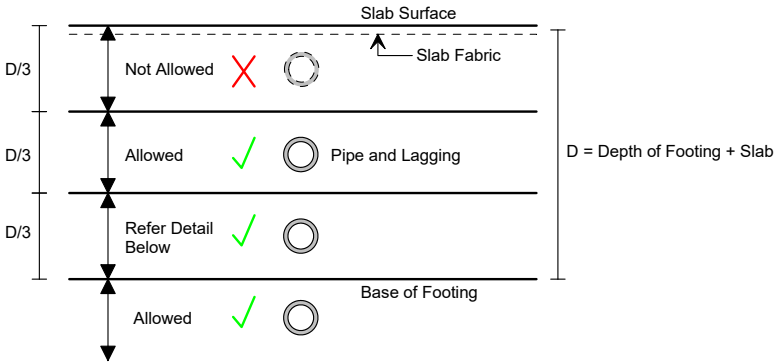
BA#.....
26 August 2025
Date.....

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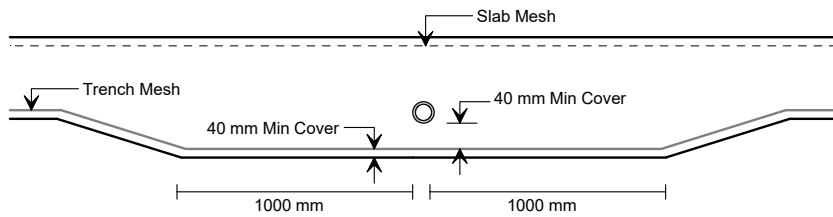
Service Line Location and Piering



Isolated Footings



Local Deepening of Edge Beam Footing or Slab Thickening



When the pipe penetrates the footings or slab thickenings within the lower 1/3 they must be excavated deeper to maintain the cover as specified.

Underslab Plumbing

Plumbing, sewage and drainage services shall be located and installed so as to ensure:

- The functioning of the footings and slabs on-ground are not impaired.
- The functioning of the services themselves are not impaired.

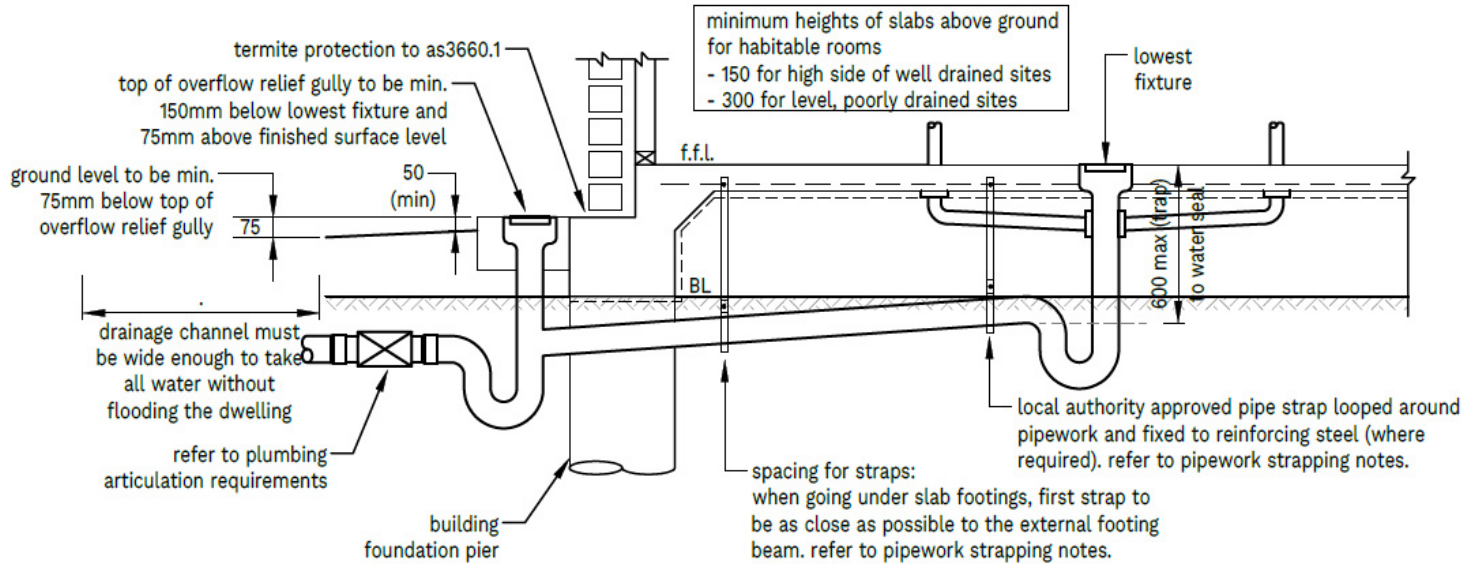
Water pipes must not be laid horizontally in slabs, but may be placed vertically as a penetration.

If pipe strapping is required it is to be tied to the slab reinforcement as per the standard plumbing guidelines pages contained within this report, or as per the sanitary drainage design report if a site specific underslab plumbing design has been completed.

Typical Plumbing Guidelines

As per the Requirements of AS2870-2011 Section 5.6.4

STA CONSULTING ENGINEERS CONFIRMS THAT PLUMBING ARTICULATION JOINTS ARE NOT REQUIRED ON SITES WITH A CHARACTERISTIC SITE CLASSIFICATION OF S OR M PROVIDING THE DETAILS ON THIS PAGE AND ANY LOCAL AUTHORITY AND NCC REQUIREMENTS ARE ADHERED TO.



Typical Detail - Service Pipe Strapping under Slab for Fixture Traps and Connection to Overflow Relief Gullies

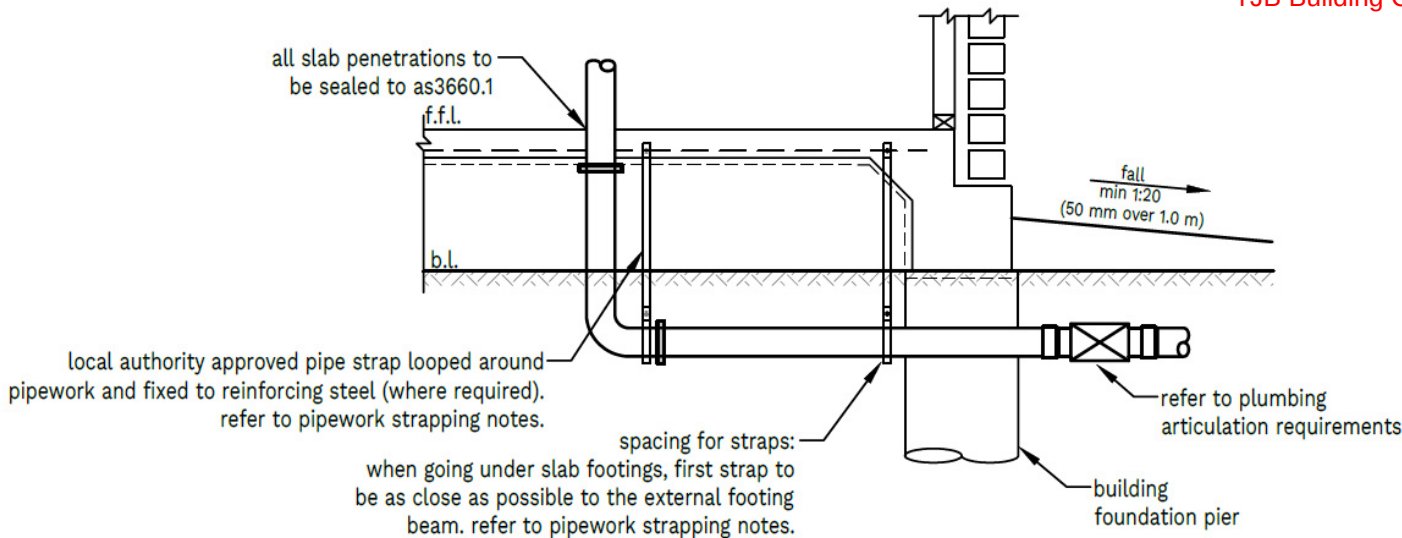
not to scale:

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TYPICAL DETAIL - SERVICE PIPE STRAPPING UNDER SLAB FOR 26 August 2025 FIXTURE TRAPS AND CONNECTION TO OVERFLOW RELIEF GULLIES

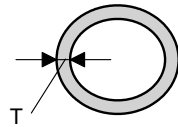
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Typical Detail - Service Pipe Strapping under Slab and Near External Footing Beams

not to scale:

Minimum Pipe Lagging



CLASS	LAGGING THICKNESS (T)
S, M	20
H1, H2, E	40

PIPEWORK STRAPPING NOTES:

- Strapping of under slab pipework is required when:
 - Class "P" Sites where uncompacted fill greater than 900mm, has been identified or as a result of cut/filling operation in the construction of the building pad and pipework is not founded in natural material. Uncompacted fill being material that which is not natural ground of such having compaction certification as per AS3798 (Level One Supervision)
- Strapping shall be placed as follows:
 - For graded PVC-U Drains Dia 150mm > Dia 100mm: (e.g. water closets & main drains), strapping to be placed at the head and then at 1200mm Max. Spacing.
 - For graded PVC-U Drains < Dia 100mm: (e.g. sink or floor waste), strapping to be placed at the head and then at 1000mm max.spacing.
 - For pipework passing under the footing, place strapping as close as practicable to the inside edge of the footing.
 - For pipework passing through the footing, place strapping at maximum spacing suited to the pipe size above, from the inside edge of the footing.
- Strapping within N.S.W.:
 - Pipework laid within uncontrolled fill greater than 900mm, unsuitable or water-charged soils is to be strapped to the slab steel reinforcement using approved non-conductive strap system similar to Platec Australia's "Quick Sticks" (or approved alternative)
 - When strapping is placed in accordance with Note 2, strapping is deemed to provide continuous support under the barrel of the pipework under the building slab.
 - Pipework laid outside of the building slab is to be laid on support piers in accordance with supplied details to be deemed as providing complete support under the pipework barrel
- Strapping to have a 50 year minimum design life

NOTES:

- All plumbing (within & beyond the footprint of the slab & footings) to be constructed in accordance with AS3500 - National Plumbing & Drainage code.
- All PVC pipe work passing horizontally through concrete must have 20 mm for 'H' or 40 mm lagging for 'E' sites. Sleeves allowing equivalent movement may be used as an alternative.
- Corrugated flexible PVC pipe should not be used for sanitary (sewer) pipes as it is not able to expand to accommodate soil movement.

ADVICE TO PLUMBERS

Ensure that no piers are accidentally dislodged during trench excavation. If this happens, advise site supervisor immediately.

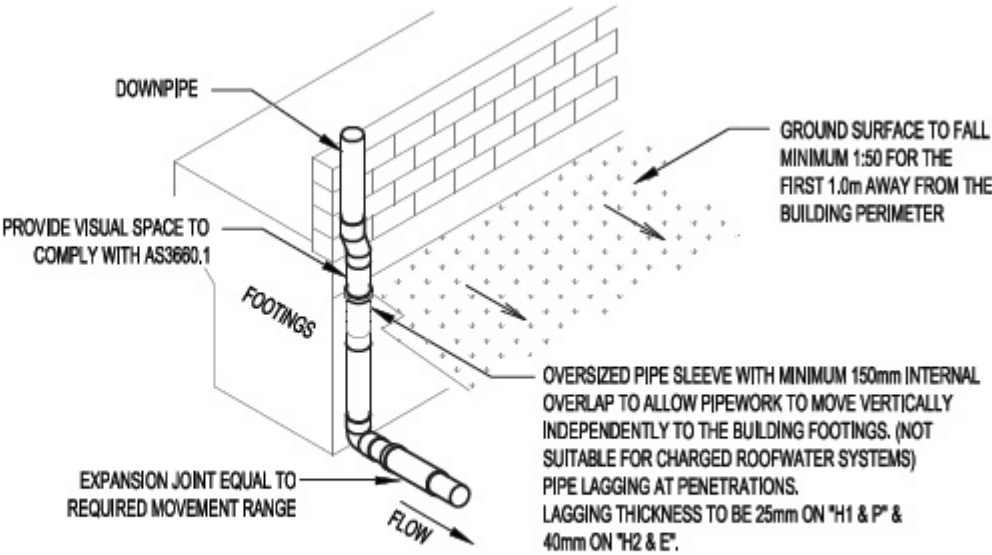
Site Classification
S

John D'Amici, MIE Aust CPEng, RPEQ 12014 NER 316291

Typical Plumbing Guidelines

As per the Requirements of AS2870-2011 Section 5.6.4

ROOFWATER ARTICULATION NOTE:
ARTICULATION JOINTS TO BE AN APPROVED PRODUCT EQUAL TO "STORM PLASTICS DWV EXPANSION JOINT SERIES" OR "PLASTEC'S FLEXI JOINT RANGE" AND ARE RECOMMENDED TO BE WRAPPED IN A SUITABLE MATERIAL TO ALLOW FULL MOVEMENT AND TO PREVENT THE INGRESS OF FOREIGN MATTER AND TREE ROOTS.
MINIMUM TRAVEL:
"H1" 60mm
"H2" 75mm
"E" 150mm
"P" BASED ON UNDERLYING CLASSIFICATION (FOR CLASS 'E' SITES WITH A COMBINED 'Ys + Yt' MOVEMENT RANGE EQUAL OR GREATER THAN 90mm, REFER BACK TO STA CONSULTING ENGINEERS FOR A SITE SPECIFIC ENGINEERED SOLUTION)



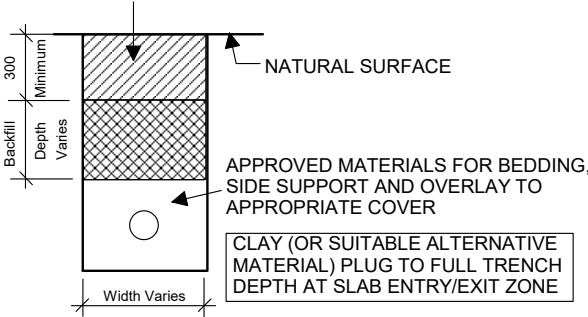
TYPICAL DETAIL - ROOFWATER DRAINAGE (CLASS 'H / E / P')
NOT TO SCALE

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Typical Detail - Backfilling of Trenches

ALL EXTERNAL TRENCHES WITHIN 1.5m OF THE BUILDING PERIMETER TO BE BACKFILLED WITH COMPACTED CLAY SOILS OR EQUIVALENT TO FORM AN IMPERMEABLE LAYER.

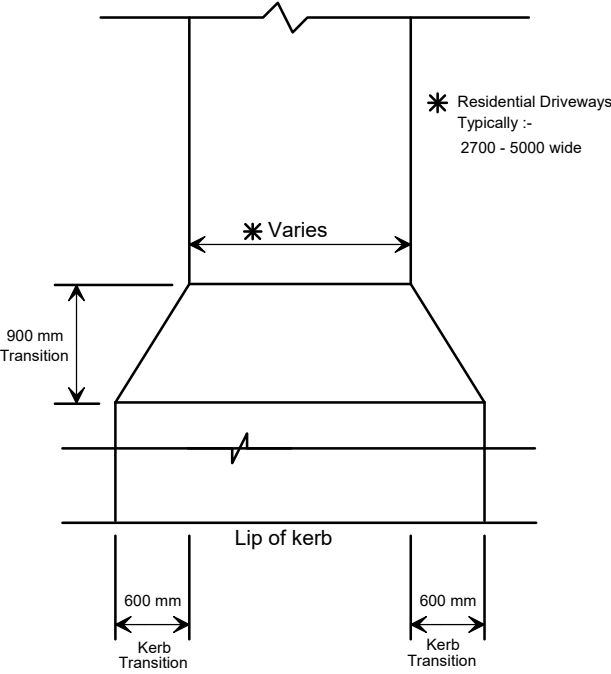
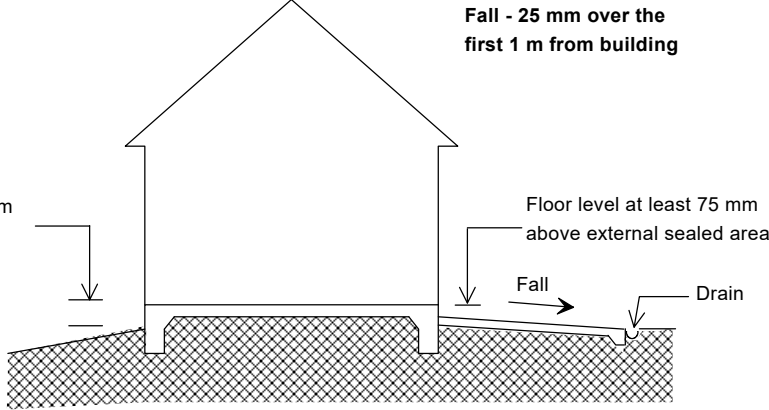
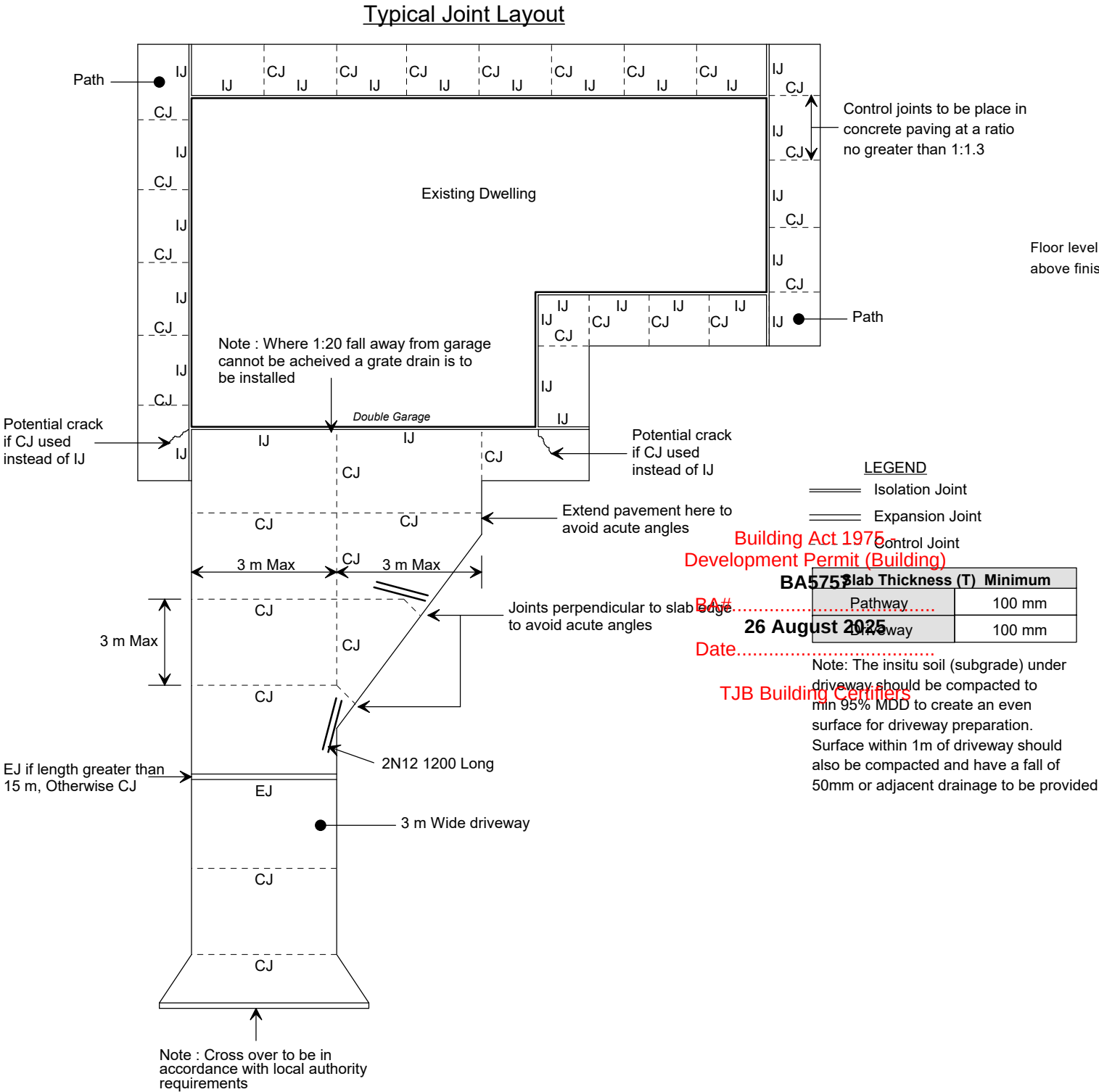


Site Classification
S

John D'Amici, MIE Aust CPEng, RPEQ 12014 NER 316291

Typical Pathway and Driveway Details - Class S, M & H1

Note: The below details are to be used as a guide only. All H2, E and P sites should have a site specific design requested to ensure details suitable for each site are specified. STA Consulting Engineers takes no responsibility for use of below details for construction in such circumstances.

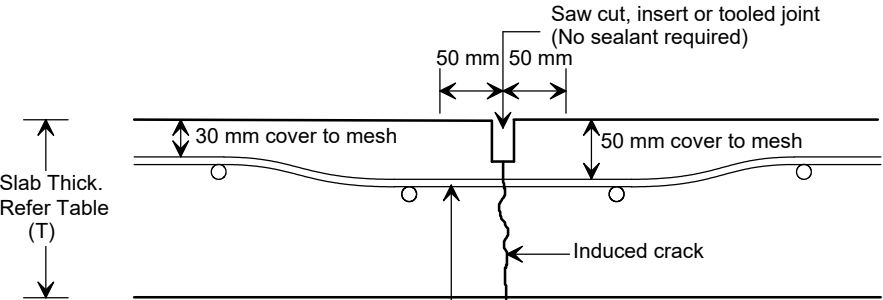


Typical Cross Over Plan View

Typical Pathway and Driveway Details - Class S, M & H1

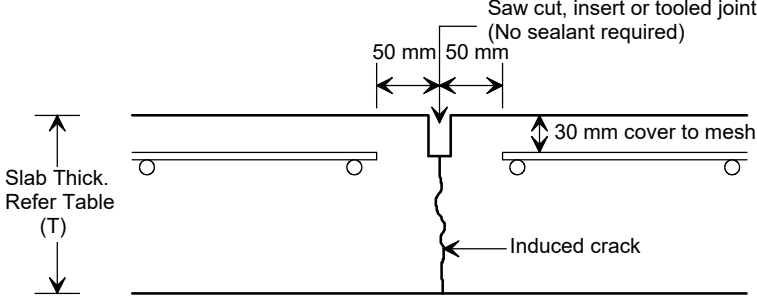
Note: The below details are to be used as a guide only. All H2, E and P sites should have a site specific design requested to ensure details suitable for each site are specified. STA Consulting Engineers takes no responsibility for use of below details for construction in such circumstances.

Typical Control Joint - CJ
Driveway/Pathway
Option A

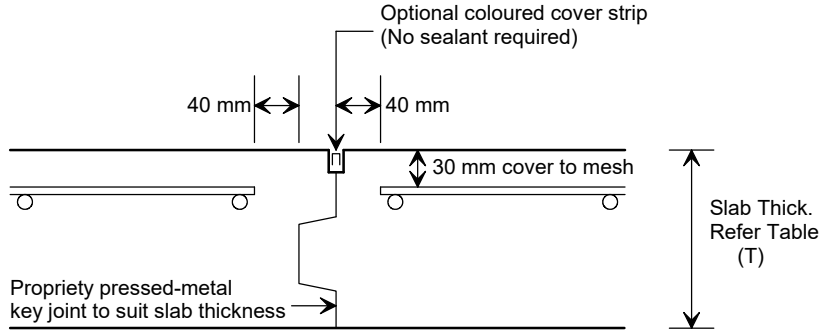


Cut every 2nd bar under joint. Uncut bar depressed to 50mm cover. Provide 2 coats cold gal spray for bars crossing joint to manufacturers specs for a width of 100mm either side of joint.

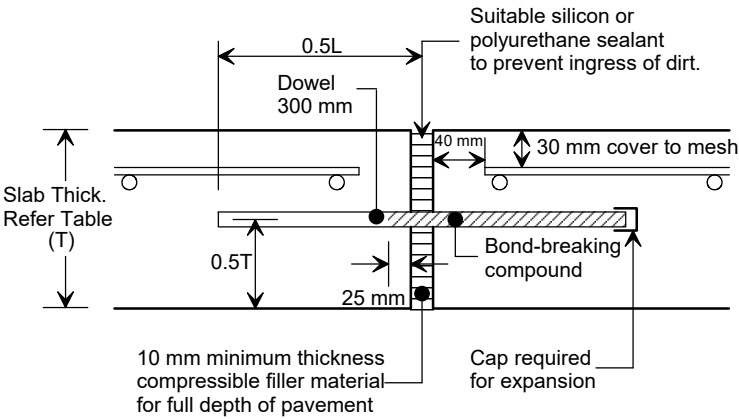
Typical Control Joint - CJ
Pathway Only
Option B
Crack-Induced Joint (Saw cut or Insert)



Typical Control Joint - CJ
Driveway/Pathway
Option C
Key Joint (Pressed-Metal or Formed)



Typical Expansion Joint - EJ

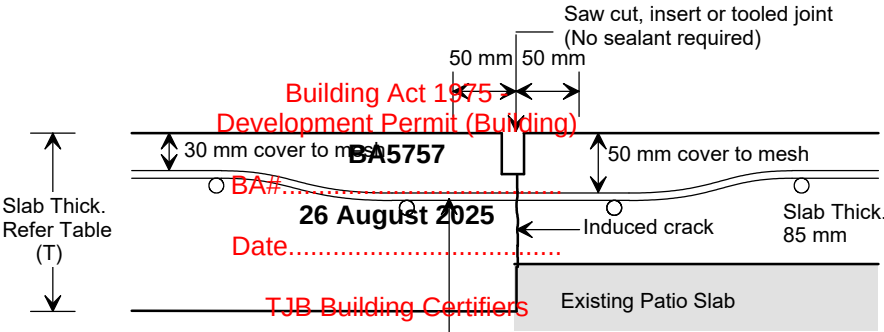


Minimum Steel Requirements :-

Site Classification	Reinforcement
Class 'S'	SL 72 Pathway
	SL 82 Driveway
Class 'M'	SL 72 Pathway
	SL 82 Driveway
Class 'H1'	SL 72 Pathway
	SL 82 Driveway

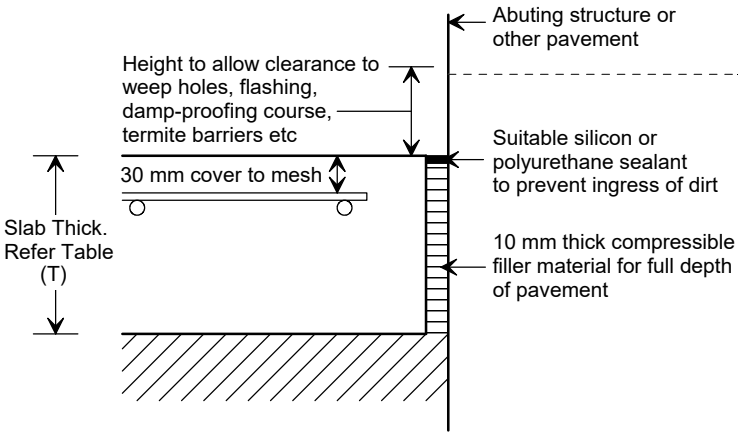
* 25MPa Concrete is to be used in all driveway slabs
* The Slab Thickness is also subject to Local Authority Requirements. It is the Subcontractor's responsibility to ensure the driveway meets any Local Authority Requirements.

Typical Control Joint - CJ
(With Patio Topping)



Cut every 2nd bar under joint. Uncut bar depressed to 50mm cover. Provide 2 coats cold gal spray for bars crossing joint to manufacturers specs for a width of 100mm either side of joint.

Typical Isolation Joint - IJ



Dowel Bar Requirements

Pavement Thickness	Dowel Type	Dowel Dimensions	Min. Dowel Length - 'L'	Max. Dowel Spacing
100 *	Round	12 mm - (see Note 1)	300	400
	Square	12 x 12mm (see note 2)	300	400
	Plate	MR (see notes 2 & 3)	(see note 3)	450
125/150 *	Round	16 mm - (see Note 1)	350	300
	Square	16 x 16mm (see note 2)	350	300
	Plate	MR (see notes 2 & 3)	(see note 3)	450

Note: All Dowel Bars are to be Hot Dipped Galvanised

Notes:

1. Round dowels should only be used where movement at the joint is in one direction, parallel to the dowels, e.g. long paths or driveways with only transverse joints.
2. Where movement at the joint is in more than one direction, both parallel to the dowels and along the joint (e.g. larger pavements having longitudinal and traverse joints intersecting), square and plate dowels should be used with purpose-made sleeves that also allow for the movement along the joint.
3. Due to the various plate dowel types, geometries and installation methods available, the manufacturer's recommendations (MR) should be followed when selecting an appropriate plate dowel system.
4. Round, Square and plate dowels can be manufactured in dowel cages to assist with proper alignment.
5. Dowels should always be provided with a bond-breaking compound plus end cap, or purpose-made dowel sleeve, on one side of the joint to allow movement at the joint.

GENERAL NOTES

1.

THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS, THE SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT.
2.

ANY DISCREPANCY ON THE DRAWINGS OR BETWEEN THE DRAWINGS AND/OR THE SPECIFICATION AND/OR THE SPECIFIED AUSTRALIAN STANDARD SHALL BE REFERRED TO THE ENGINEER AND A WRITTEN INSTRUCTION RECEIVED PRIOR TO PROCEEDING WITH THE WORK. DURING TENDERING THE TENDER SHALL ASSUME THE LARGER/GREATER CRITERIA IN TERMS OF COST IN THE ABSENCE OF OTHER INSTRUCTIONS.
3.

ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT AUSTRALIAN STANDARDS, INCLUDING ALL AMENDMENTS, NCC AND THE RELEVANT LOCAL AUTHORITIES, EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
4.

ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF-SITE WORK SHALL BE VERIFIED ON SITE BY THE CONTRACTOR BEFORE CONSTRUCTION AND FABRICATION ARE COMMENCED. THE ENGINEERS DRAWINGS ARE NOT TO BE SCALED. NO RESPONSIBILITY WILL BE TAKEN BY THE ENGINEER FOR DIMENSIONS OBTAINED BY SCALING THE DRAWINGS. ALL DIMENSIONS ARE IN mm UNLESS SHOWN OTHERWISE
5.

SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER AND BE INCLUDED IN ANY TENDER.
6.

DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE WORKS IN A SAFE MANNER INCLUDING EXCAVATIONS, TEMPORARY SUPPORT AND BRACING IN A STABLE CONDITION.
7.

ALWAYS REFER MANUFACTURERS INSTALLATION MANUAL FOR SPECIFIC FIXING REQUIREMENTS AND BEST PRACTICES, INCLUDING USE OF APPROPRIATE BRACKETS AND FIXINGS FOR EXTERNAL USE (e.g. STAINLESS STEEL, HOT DIP GALVANISED OR POWDERCOATED BRACKETS).
8.

PROPRIETARY ITEMS (E.G. PURLINS, ROOF/WALL SHEETING, BOLTS ETC.) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION
9.

THE STRUCTURE SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED FOR THE FOLLOWING DESIGN LOADS:
10.

USE A DUSTLESS DRILLING SYSTEM TO ENSURE SLAB HOLES ARE CLEAN. ALTERNATIVELY CLEAN DUST AND DEBRIS FROM HOLE WITH STIFF WIRE OR NYLON BRUSH AND BLOWER IN THE FOLLOWING SEQUENCE: BLOW X2, BRUSH X2, BLOW X2, BRUSH X2, BLOW X2.

LIVE LOADS	FLOORS	1.5kPa / 1.8kN
	DECKS/BALCONIES	2.0kPa / 1.8kN
	ROOFS	0.25kPa

AS PER AS 1170.1:2002 - STRUCTURAL DESIGN ACTIONS; SECTION 3: IMPOSED ACTIONS

WIND LOADS

WIND RATING OR WIND SPEED TO COMPLY WITH AS4055:2021 OR AS1170.2:2021 AS APPROPRIATE. REFER STA WIND ASSESSMENT REPORT OR APPROVED DOCUMENT BY OTHERS.

PLAN ABBREVIATION KEY

S/S	SINGLE SPAN	BOLT	HEX HEAD BOLT & WASHERS
C/S	CONTINUOUS SPAN	L	LINTEL-BY OTHERS IF NOT DEFINED
C/L	CANTILEVER	RB	ROOF BEAM-BY OTHERS IF NOT DEFINED
B/S	BACKSPAN	FB	FLOOR BEAM-BY OTHERS IF NOT DEFINED
F/S	FULLY SUPPORTED	VT	VOID TRIMMER-BY OTHERS IF NOT DEFINED
(O)	MEMBER OVER	LBJ	LOAD BEARING JOIST-BY OTHERS IF NOT DEFINED
(U)	MEMBER UNDER	FJ	FLOOR JOIST-BY OTHERS IF NOT DEFINED
GT	GIRDER TRUSS-BY OTHERS	SC	STEEL COLUMN-BY OTHERS IF NOT DEFINED
PLY	PLY BRACE	TC	TIMBER COLUMN-BY OTHERS IF NOT DEFINED
STRAP	STRAP BRACE	PTB/C	POWERTRUSS BRACE / COLUMN or NETBRACE
AB	METAL OR TIMBER ANGLE BRACE	or NBR	-REFER MANUFACTURER SPECIFICATION AND INSTALLATION DETAILS INCLUDING ANCHORING AT TOP/BOTTOM
C/H	CUPHEAD BOLT		

STRUCTURAL STEELWORK NOTES

1.

ALL MATERIALS, WORKMANSHIP, FABRICATION AND ERECTION SHALL COMPLY WITH THE REQUIREMENTS OF AS4100, AS/NZ4600, AS1554 EXCEPT WHERE VARIED BY CONTRACT DOCUMENTS.
2.

ALL STEEL SHALL COMPLY WITH THE FOLLOWING U.N.O. :-

WELDED SECTION

ROLLED SECTION

SHS AND RHS

CHS

FLAT PLATE

STANDARD PLATE

- GRADE 300 TO AS/NZS 3679.2

- GRADE 300 TO AS/NZS 3679.1

- GRADE 350/GRADE 450 TO AS 1163

- GRADE 250/GRADE 350 TO AS 1163

- GRADE 300 TO AS/NZS 3679.1

- GRADE 250 TO AS/NZS 3678
3.

UNLESS SHOWN OTHERWISE ON THE DRAWINGS, ALL CONNECTIONS SHALL BE IN ACCORDANCE WITH THE FOLLOWING MINIMUM REQUIREMENTS:

A.

ALL WELDS SHALL BE 6MM CONTINUOUS FILLET WELDS ALL ROUND OR BUTT WELDS TO BE COMPLETE PENETRATION BUTT WELDS.

B.

ALL TIMBER TO TIMBER & TIMBER TO STEEL BOLTS TO BE 4.6/s U.N.O.

C.

ALL STEEL TO STEEL BOLTS TO BE 8.8/s U.N.O.

D.

ALL GUSSET AND CLEAT PLATES SHALL BE 8mm THICK. UNO.

E.

ALL CAP PLATES SHALL BE 6mm THICK. UNO.

F.

ALL BASE PLATES SHALL BE 12mm THICK. UNO.
4.

ALL BOLTS SHALL BE HEX HEAD U.N.O. AND AS FOLLOWS :-

4.6/S

8.8/S

8.8/TF & 8.8/TB

- COMMERCIAL BOLTS TO AS 1111 AND AS 1112, SNUG TIGHTENED

- HIGH STRENGTH STRUCTURAL BOLTS TO AS/NZS 1252, SNUG TIGHTENED ONLY

- HIGH STRENGTH STRUCTURAL BOLTS TO AS/NZS 1252, FULLY TENSIONED
5.

ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANISED U.N.O. AND COMPLY WITH AS1720 & AS4100.
6.

ALL WELDS SHALL BE SP (SPECIAL PURPOSE) IN ACCORDANCE WITH AS1554. ALL BUTT WELDS SHALL BE FULL STRENGTH COMPLETE PENETRATION WELDS. ALL ELECTRODES SHALL BE CLASS E48.
7.

IT IS NOT PERMISSIBLE TO SUBSTITUTE DURAGAL SECTIONS FOR GALVANISED SECTIONS WITHOUT WRITTEN APPROVAL FROM STRUCTURAL ENGINEER.
8.

THE CONTRACTOR SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL, TIMBER AND OTHER ELEMENTS TO STEEL WHETHER OR NOT DETAILED ON THE STRUCTURAL DRAWINGS.
9.

THE FABRICATION AND ERECTION OF THE STRUCTURAL STEELWORK SHALL BE SUPERVISED BY QUALIFIED PERSONNEL EXPERIENCED IN SUCH SUPERVISION TO ENSURE THAT ALL REQUIREMENTS OF THE DESIGN ARE MET. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AND LEAVE IN PLACE UNTIL PERMANENT BRACING ELEMENTS ARE CONSTRUCTED, SUCH TEMPORARY BRACING IS NECESSARY TO STABILISE THE STRUCTURE DURING CONSTRUCTION
10.

THE ENDS OF ALL TUBES AND CHANNELS ARE TO BE PACKED WITH NOMINAL THICKNESS PLATES AND 3mm CONTINUOUS FILLET WELDED U.N.O.
11.

MASONRY SHALL NOT OVERHANG THE LINTEL WIDTH BY MORE THAN 25mm. WHERE STEEL UNEQUAL ANGLES ARE USED, THE LONG LEG OF THE ANGLE SHALL BE VERTICAL. ANY GAP BETWEEN THE VERTICAL LEG OF A STEEL ANGLE LINTEL AND THE MASONRY SHALL BE PACKED WITH MORTAR. BRICK LINTEL BEARING LENGTHS ONTO SUPPORTING BRICKWORK EACH END TO BE MINIMUM:

- 100mm WHERE SUPPORTING <1000mm BRICKWORK OVER

- 150mm WHERE SUPPORTING <3500mm BRICKWORK OVER

- 200mm WHERE SUPPORTING <4800mm BRICKWORK OVER

TYPICAL STEEL WASHER SIZES

TIMBER BOLT SIZES IN ACCORDANCE WITH AS1720:2010				STEEL CONNECTIONS IN ACCORDANCE WITH AS1252:2016			
BOLT DIAMETER (mm)	MIN. WASHER SIZE (mm)			BOLT DIAMETER (mm)	WASHER SIZE (mm)		
M12 CUPHEAD (C/H)	STANDARD			M12	Ø 25.7 x 3.1		
M16 CUPHEAD (C/H)	STANDARD			M16	Ø 32.4 x 3.1		
M10 BOLT / COACH SCREW	40 x 40 x 2.5 or Ø 45 x 2.0			M20	Ø 37.4 x 3.1		
M12 BOLT / COACH SCREW	50 x 50 x 3.0 or Ø 55 x 3.0			M24	Ø 48.4 x 3.1		
M16 BOLT / COACH SCREW	57 x 57 x 4.0 or Ø 65 x 4.0						

TYPICAL HOT ROLLED STEEL SECTION SIZES

SECTION	kg/m	DEPTH	WIDTH	SECTION	kg/m	DEPTH	WIDTH	SECTION	kg/m	DEPTH	WIDTH
200UC	46.2	203	203	250UB	25.7	248	124	150PFC	17.7	150	75
	52.2	206	204		31.4	252	146	180PFC	20.9	180	75
	59.5	210	205		37.3	256	146	200PFC	22.9	200	75
250UC	72.9	254	254	310UB	32.0	298	149	230PFC	25.1	230	75
	89.5	260	256		40.4	304	165	250PFC	35.5	250	90
310UC	96.8	308	305	360UB	46.2	307	166	300PFC	40.1	300	90
	118	315	307		44.7	352	171	380PFC	55.2	380	100
	137	321	309		50.7	356	171				
	158	327	311		56.7	359	172				

PROTECTIVE COATINGS FOR STEELWORK

ENVIRONMENT	LINTELS IN MASONRY	LOCATION	MINIMUM PROTECTIVE COATING	
			GENERAL STRUCTURAL STEEL MEMBERS	
MEDIUM MORE THAN 1km FROM BREAKING SURF OR MORE THAN 100m FROM SALT WATER NOT SUBJECT TO BREAKING SURF OR NON-HEAVY INDUSTRIAL AREA	R3	INTERNAL	OPTION 1	ZINC RICH PRIMER (75µm) + 2 COATS OF ACRYLIC PAINT (40µm)
			OPTION 2	1 PACK ZINC PHOSPHATE EPOXY PRIMER (100µm)
	R3	EXTERNAL	OPTION 1	HOT DIP GALVANISE 100g/m²min. + 2 PACK ZINC PHOSPHATE EPOXY PRIMER (75µm) + HIGH-BUILD EPOXY (150µm)
			OPTION 2	HOT DIP GALVANISE 300g/m²min.
HIGH WITHIN 1km FROM BREAKING SURF OR WITHIN 100m OF SALT WATER NOT SUBJECT TO BREAKING SURF OR HEAVY INDUSTRIAL AREA	R4	INTERNAL	OPTION 1	1 COAT HIGH-BUILD ALKYD PRIMER (75µm) + HIGH-BUILD ALKYD GLOSS (40µm)
			OPTION 2	1 PACK ZINC PHOSPHATE EPOXY PRIMER (100µm) + 1 COAT OF 2 PACK ACRYLIC
	R4	EXTERNAL	OPTION 1	ZINC RICH PRIMER (75µm) + 1 COAT EPOXY MIO (75µm) + 1 COAT EPOXY MIO (175µm)
			OPTION 2	INLINE GALVANISE 100g/m²min. + 2 PACK ZINC PHOSPHATE EPOXY PRIMER (75µm) + 1 COAT EPOXY MIO (175µm)
			OPTION 3	HOT DIP GALVANISE 600g/m²min.
VERY HIGH WITHIN 50m OF BREAKING SURF	R5	EXTERNAL ONLY	OPTION 1	HOT DIP GALVANISE 600g/m²min. + 2 PACK ZINC PHOSPHATE EPOXY PRIMER (75µm) + 1 COAT EPOXY MIO (175µm)

NOTE: REFER TO AS2312.1 FOR ALTERNATIVE PROTECTIVE COATINGS (MIN. +25 YEARS)

NOTE:

1.

THE OUTER LEAF AND CAVITY OF AN EXTERNAL MASONRY WALL OF A BUILDING, INCLUDING WALLS UNDER OPEN CARPORTS ARE CONSIDERED TO BE EXTERNAL ENVIRONMENTS. A PART OF AN INTERNAL LEAF OF AN EXTERNAL MASONRY WALL WHICH IS LOCATED IN THE ROOF SPACE IS CONSIDERED AN INTERNAL ENVIRONMENT.
2.

WHERE A PAINT FINISH IS APPLIED, THE SURFACE OF THE STEELWORK MUST BE CLEANED TO REMOVE ANY RUST IMMEDIATELY PRIOR TO PAINTING. FOR SEVER EXPOSURE THE SURFACE MUST BE CLEANED TO AS1627 CLASS 2.5 PRIOR TO PAINING.
3.

ALL ZINC COATINGS (INCLUDING ORGANIC ZINC) REQUIRE A BARRIER COAT TO STOP CONVENTIONAL DOMESTIC ENAMELS FROM PEELING.
4.

WHERE A PAINT SYSTEM IS APPLIED TO METALLIC COATED STEEL SURFCEs, APPROPRIATE SURFACE PREPARATION MUST BE CARRIED OUT IN ACCORDANCE WITH AS/NZS 2312.
5.

REFER TO THE PAINT MANUFACTURER WHERE DECORATIVE FINISHES ARE REQUIRED ON TOP OF THE MINIMUM COATING SPECIFIED IN THE TABLE FOR PROTECTION OF THE STEEL AGAINST CORROSION.
6.

WHERE METALLIC COATED STEEL COMPONENTS ARE FABRICATED BY WELDING, THE WELD AND ADJOINING AREAS MUST BET TOUCHED UP WITH A ZINC RICH PAINT OR EQUIVALENT COATING SYSTEM IN ACCORDANCE WITH AS/NZS 2312 AND AS/NZS 4680.

TIMBER NOTES

1.

ALL WORKMANSHIP, MATERIALS, TIMBER CONNECTIONS SHALL BE IN ACCORDANCE WITH AS 1720, AS 1684 UNLESS DESIGNED OR DETAILED OTHERWISE.
2.

ALL PROPRIETARY CONNECTORS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS DETAILS.
3.

TIMBER BEAMS/LINTELS WHERE DESIGNED BY STA AS PER DEFLECTION CRITERIA IN AS1720.3.
4.

ALL TIMBER TO BE MIN. JOINT GROUP JD5 U.N.O.
5.

BLOCKING BETWEEN JOISTS/RAFTERS/PURLINS AT MAX 1800c/c AND OVER SUPPORTS U.N.O. FIXED AS PER MANUFACTURERS SPECIFICATIONS.
6.

BINDERS WHERE REQUIRED TO BE SPECIFIED BY TRUSS SUPPLIER U.N.O.
7.

BOTTOM CHORD BRACING WHICH IS STRUCTURALLY ADEQUATE TO TRANSFER THE WIND LOADS FROM THE ROOF TRUSSES TO THE NOMINATED BRACING WALLS IS TO BE INSTALLED IF PLASTERBOARD CEILING NOT PRESENT. TO BE SPECIFIED BY TRUSS SUPPLIER U.N.O.
10.

ALL EXTERNAL AND EXPOSED ABOVE GROUND FRAMING TIMBER TO BE MIN. H3 TREATED U.N.O. PROVIDE MALTHOID STRIPS OR EQUIV OVER LVLs AND TREAT CUT ENDS FOR DURABILITY. ALWAYS REFER MANUFACTURERS SPECIFICATIONS FOR INSTALLATION REQUIREMENTS.
11.

ALL FLOOR BEARER/JOISTS MUST BE SUPPORTED BY TIMBER FLOOR BEAM, LINTEL OR LOAD BEARING WALL, NOT EXTERNAL BRICKWORK.

-		249962	ISSUE	ISSUE DESCRIPTION	DATE
REPORT NAME		STA JOB #			
Gold Homes			0	CONSTRUCTION ISSUE	05/08/25
CLIENT		CLIENT REFERENCE			
Lot 140 22 CALLI AVENUE UPPER COOMERA QLD 4209		CLIENT JOB #	-	-	-
ADDRESS		RP / SP NUMBER	-	-	-
CITY OF GOLD COAST			-	-	-
LOCAL AUTHORITY					

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S01 | -

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TABLE 9.4 A

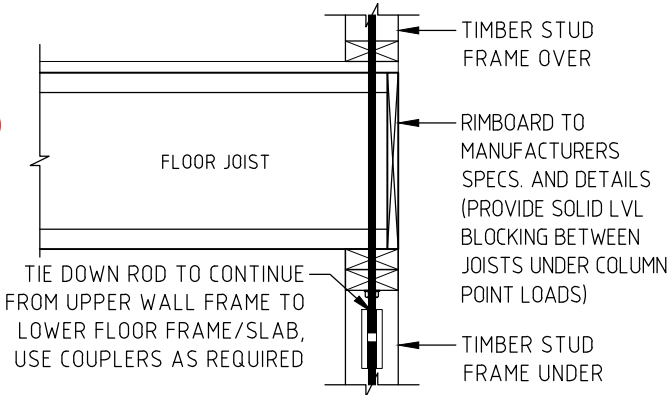
THE FOLLOWING CALCULATIONS ARE BASED ON AND TAKEN FROM:AS 1684:2021 - RESIDENTIAL TIMBER-FRAMED CONSTRUCTION.
IF TIE DOWN IS SHOWN ON PLAN, DESIGN MAY DIFFER FROM BELOW TABLE WHERE APPLICABLE.

TIE-DOWN SCHEDULE	52.54 m/s	SHEET	ULW:		6200	NOMINATED FRAME TIE-DOWN IS TO BE INSTALLED TO ALL LEVELS OF STRUCTURE.
			TRUSS SPACING:		600	
TIE-DOWN MEMBER	SPECIFIC ULW	SPACING /SPAN	UPLIFT FORCE (kN)	FIGURE No.	CAPACITY (kn)	DESCRIPTION/TYPE OF FIXING
BATTEN TO TRUSS OR RAFTER (GENERAL & EDGES)	900	600	1.8	TABLE 9.25d	3.6 (JD5)	1/14G×75 TYPE 17 BATTEN SCREW
TRUSS/RAFTER TO TOP PLATE	6200	600	5.6	TABLE 9.21c	6.9 (JD5)	2/30×0.8mm G.I LOOPED STRAPS, 3/2.8Ø NAILS PER END
TOP PLATE TO FLOOR FRAME OR SLAB	6200	450	4.2	TABLE 9.19d	6.9 (JD5)	30×0.8mm G.I STRAP LOOPED OVER/UNDER TOP/BOTTOM PLATE, 6/2.8Ø NAILS PER END TO STUD & M12 BOLT TO SLAB REFER STRAP TIE DOWN DETAILS FOR FIXING TO FLOOR SYSTEM UNDER
	6200	900	8.4	TABLE 9.19g	20.0 (JD4)	M12 ANCHOR ROD AT SPACING INDICATED IN THIS TABLE AND AT ENDS OF WALLS U.N.O.
TOP PLATE TO FLOOR FRAME OR SLAB (REDUCED ULW/HIP ENDS)	2400	900	3.2	TABLE 9.19d	6.9 (JD5)	30×0.8mm G.I STRAP LOOPED OVER/UNDER TOP/BOTTOM PLATE, 6/2.8Ø NAILS PER END TO STUD & M12 BOLT TO SLAB REFER STRAP TIE DOWN DETAILS FOR FIXING TO FLOOR SYSTEM UNDER
BEAMS/LINTELS TO FLOOR FRAME OR SLAB	6200	2100	14.0	TABLE 9.20b	14.0 (JD5)	2/30×0.8mm G.I STRAP LOOPED OVER/UNDER TOP/BOTTOM PLATE, 6/2.8Ø NAILS PER END TO 2/STUDS & M12 BOLT TO SLAB, REFER STRAP TIE DOWN DETAILS FOR FIXING TO FLOOR SYSTEM UNDER
	6200	3300	19.5	TABLE 9.20c	20.0 (JD4)	M12 ANCHOR ROD, TOP PLATE TO SLAB/FLOOR FRAME & M12 BOLT TOP PLATE TO LINTEL WITHIN 100mm OF TRUSS/RAFTER
	6200	6000	32.1	TABLE 9.20d	35.0 (JD4)	M16 ANCHOR ROD, TOP PLATE TO SLAB/FLOOR FRAME & TOP PLATE TO LINTEL WITHIN 100mm OF TRUSS/RAFTER
BEAMS/LINTELS TO FLOOR FRAME OR SLAB (REDUCED ULW/HIP ENDS)	2400	2900	6.8	TABLE 9.20b	6.9 (JD5)	30×0.8mm G.I STRAP LOOPED OVER/UNDER TOP/BOTTOM PLATE, 6/2.8Ø NAILS PER END TO STUD & M12 BOLT TO SLAB REFER STRAP TIE DOWN DETAILS FOR FIXING TO FLOOR SYSTEM UNDER
	2400	6000	12.4	TABLE 9.20b	14.0 (JD5)	2/30×0.8mm G.I STRAP LOOPED OVER/UNDER TOP/BOTTOM PLATE, 6/2.8Ø NAILS PER END TO 2/STUDS & M12 BOLT TO SLAB, REFER STRAP TIE DOWN DETAILS FOR FIXING TO FLOOR SYSTEM UNDER
	2400	6000	12.4	TABLE 9.20c	20.0 (JD4)	M12 ANCHOR ROD, TOP PLATE TO SLAB/FLOOR FRAME & M12 BOLT TOP PLATE TO LINTEL WITHIN 100mm OF TRUSS/RAFTER

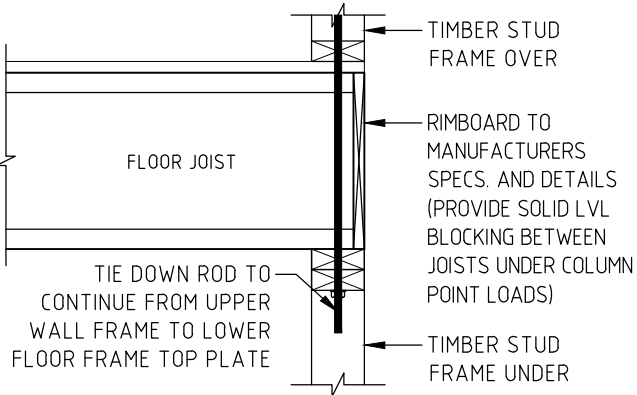
- NOTE:
- TIE DOWN MEMBERS NOT IN THIS TABLE REFER NOMINAL FIXINGS TABLES
 - THE ABOVE TABLES HAVE BEEN DESIGNED FOR TIMBER WITH A MINIMUM JOINT GROUP OF JD5 U.N.O., CONTACT STA IF JOINT GROUP OF TIMBER IN USE DIFFERS TO WHAT IS SHOWN IN TABLE.
 - AS PER 1684; THE TOP PLATE SHALL BE FIXED OR TIED TO THE LINTEL WITHIN 100mm OF EACH RAFTER/TRUSS, OR THE RAFTER/TRUSS FIXED DIRECTLY TO THE LINTEL WITH A FIXING OF EQUIVALENT TIE DOWN STRENGTH TO THAT REQUIRED FOR THE RAFTER/TRUSS.
 - FRAME, TRUSS AND ROOF BATTEN TIE DOWN MAY BE SUBSTITUTED WITH EQUIVALENT STRENGTH ALTERNATIVE PROVIDED BY TRUSS MANUFACTURER IF ACCOMPANIED BY A RELEVANT DESIGN CERTIFICATE, GIRDER TRUSS TIE DOWN BY MANUFACTURER.
 - TOP PLATE & BEAM/LINTEL TIE DOWN METHODS IN TABLE ABOVE HAVE BEEN DESIGNED ASSUMING MINIMUM 2/MGP12 (JD4) TOP/RIBBON PLATES. CONTACT STA IF TIMBER GRADE USED DIFFERS.

TABLE 9.4B - NOMINAL FIXINGS FOR TIMBER MEMBERS

FLOOR FRAMING	
BEARER TO TIMBER STUMP/POST	4/75 x 3.33mm OR 5/75 x 3.05mm MACHINE-DRIVEN NAILS PLUS 1/30 x 0.8mm G.I. STRAP OVER BEARER AND FIXED BOTH ENDS TO STUMP WITH 4/2.8mm Ø EACH END; OR 1/M10 BOLT THROUGH BEARER HALVED TO STUMP; OR 1/M12 CRANKED BOLT FIXED VERTICALLY THROUGH BEARER AND BOLTED TO STUMP PLUS 4/75 x 3.33mm 5/75 x 3.05mm MACHINE-DRIVEN NAILS
BEARER TO MASONRY COLUMN/WALL/PIER (EXCLUDING MASONRY VENEER CONSTRUCTION)	1/M10 BOLT OR 1/50 x 4mm MILD STEEL BAR FIXED TO BEARER WITH M10 BOLT AND CAST INTO MASONRY (TO FOOTING)
BEARER TO CONCRETE STUMP/POST	1/6mm Ø ROD CAST INTO STUMP, VERTICALLY THROUGH BEARER AND BENT OVER
BEARERS TO STEEL POST	1/M10 COACH SCREW OR BOLT
FLOOR JOIST TO BEARER	2/75 x 3.05 mm Ø NAILS
WALL FRAMING	
PLATES TO STUDS	PLATES UP TO 38mm THICK - 2/75mm NAILS THROUGH PLATE PLATES 38 TO 50mm THICK - 2/90mm NAILS THROUGH PLATE; OR 2/75mm NAILS SKEWED THROUGH STUD INTO PLATE.
NOGGINGS TO STUDS	2/75mm NAIL SKEWED OR THROUGH NAILED
BOTTOM PLATES TO JOISTS	PLATES UP TO 38mm THICK 2/75mm NAILS AT MAX. 600mm crs. PLATES 38 TO 50mm THICK - 2/90mm NAILS AT MAX. 600mm crs.
BOTTOM PLATES TO CONCRETE SLAB	ONE 75mm MASONRY NAIL (HAND DRIVEN AT SLAB EDGE), SCREW OR BOLT AT NOT MORE THAN 1200mm crs.
MULTIPLE STUDS	1/75mm NAIL AT 600 crs. MAX.
POSTS TO BEARERS OR JOISTS	1/M12 OR 2/M10 BOLTS (UNLESS OTHERWISE SPECIFIED)
ROOF FRAMING	
ROOF TRUSSES TO TOP PLATES & BATTENS TO ROOF TRUSSES	REFER TO TABLE 9.4a
RAFTER TO TOP PLATE - NON-COUPLED	2/75mm SKEW NAILS
VERANDAH BEAMS/ROOF BEAMS TO POST	1/M12 OR 2/M10 BOLTS (UNLESS OTHERWISE SPECIFIED FOR TIE-DOWN)



TYPICAL TIE DOWN ROD CONTINUATION DETAIL (N3+, CYCLONIC AND GREATER THAN 40m/s U.N.O.)



TYPICAL TIE DOWN ROD CONTINUATION DETAIL (N1, N2 AND LESSER OR EQUAL TO 40m/s U.N.O.)

SCALE

NTS U.N.O.

WIND LOADING 52.54 m/s

REPORT NAME

Gold Homes

CLIENT

Lot 140 22 CALLI AVENUE UPPER COOMERA QLD 4209

ADDRESS

CITY OF GOLD COAST

LOCAL AUTHORITY

STA JOB #

249962

CLIENT JOB #

SP 313554

RP / SP NUMBER

ISSUE

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05/08/25

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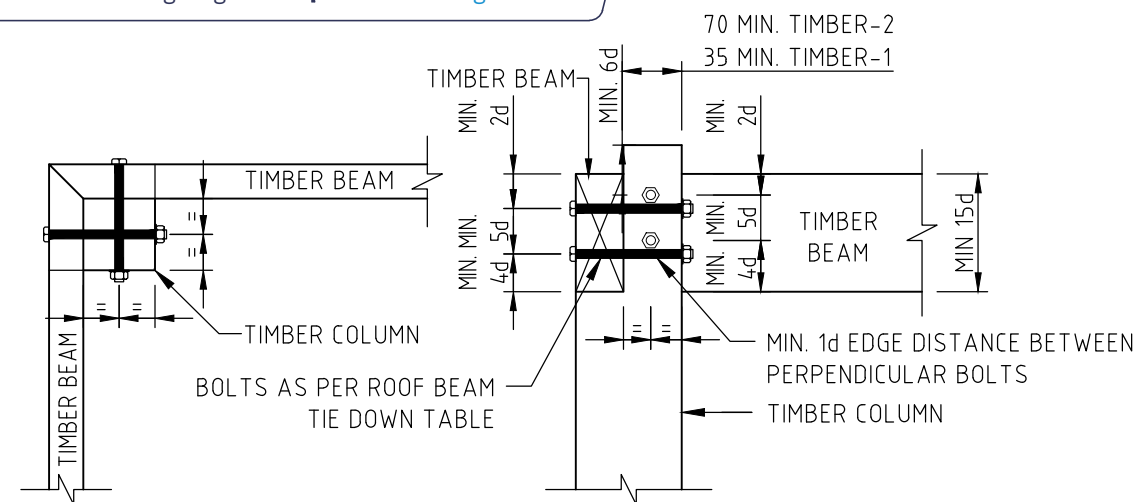
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STA CONSULTING ENGINEERS

DRG NO. DRG TOTAL

S02 | -

A3 SHEET SIZE

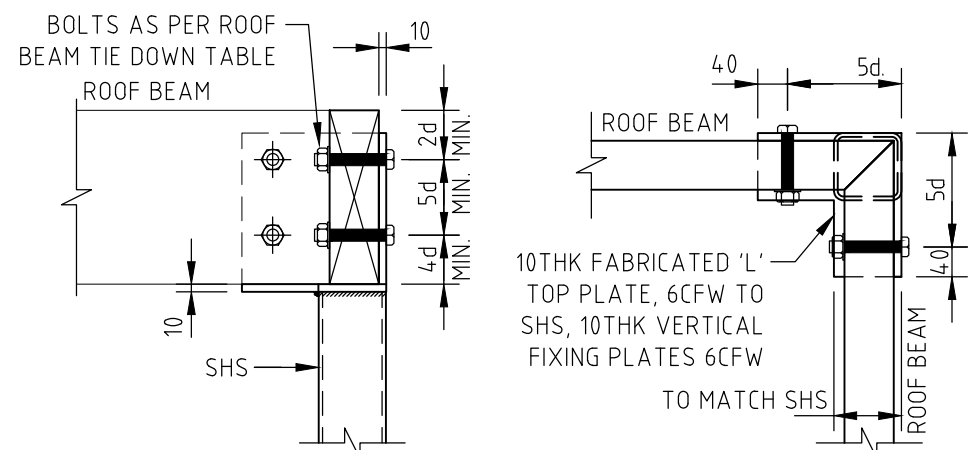


ROOF BEAM FIXING DETAIL (PLAN)

ROOF BEAM FIXING DETAIL (SECTION)

TYPICAL TIMBER ROOF BEAMS TO CORNER TIMBER COLUMN DETAIL

SCALE N.T.S.

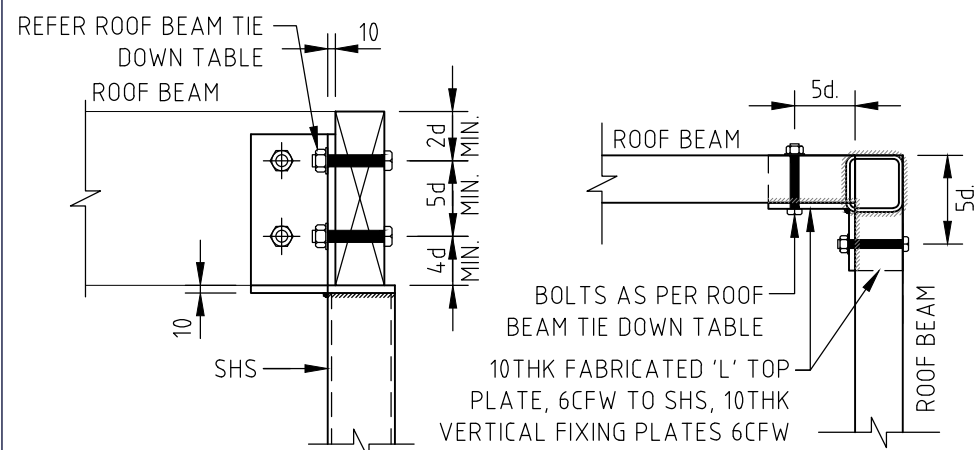


ROOF BEAM FIXING DETAIL (SECTION)

ROOF BEAM FIXING DETAIL (PLAN)

TYPICAL TIMBER ROOF BEAM TO CORNER SHS COLUMN DETAILS

SCALE NTS

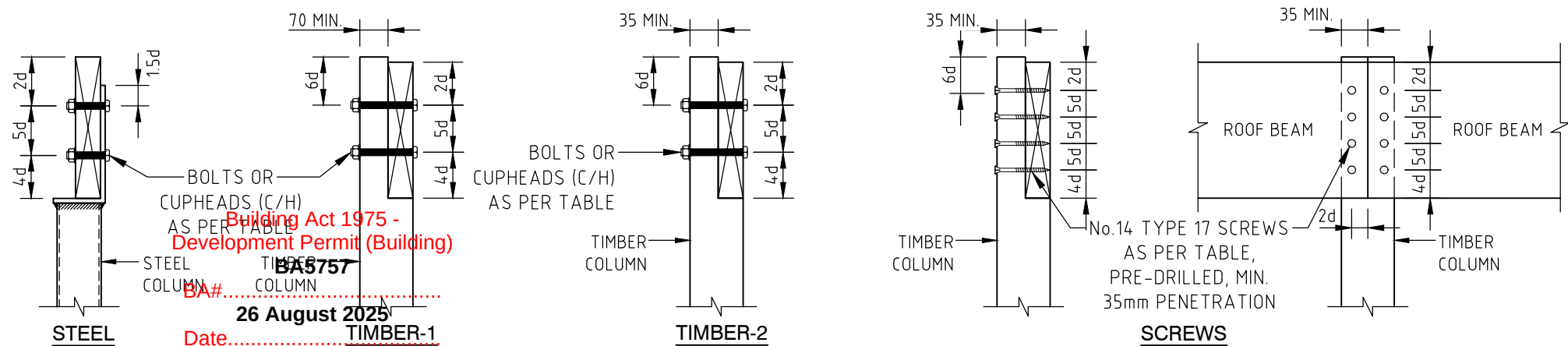


ROOF BEAM FIXING DETAIL (SECTION)

ROOF BEAM FIXING DETAIL (PLAN)

TYPICAL TIMBER ROOF BEAM TO CORNER SHS COLUMN DETAILS

SCALE NTS



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TYPICAL ROOF BEAM TIE DOWN DETAILS

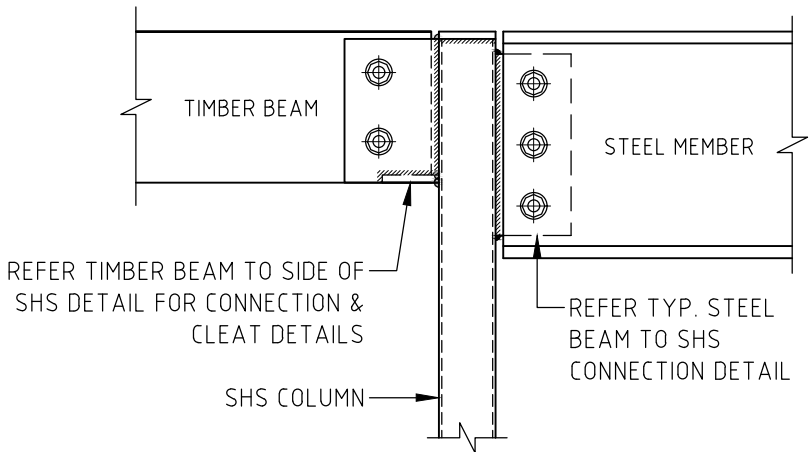
NOT TO SCALE

NOTE:

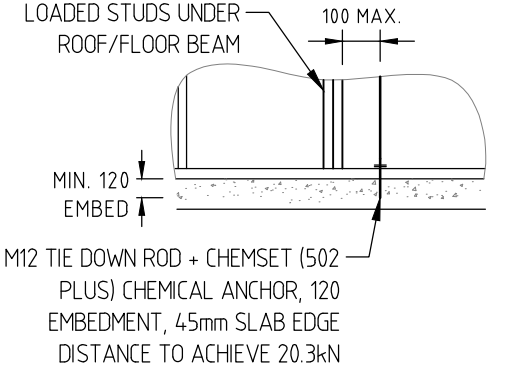
1. d= BOLT DIAMETER AND REFERS TO MINIMUM DISTANCES TO EDGE OF MEMBERS AND BETWEEN FIXINGS.
2. REFER SPECIFIC SECTION/DETAIL IN THIS DRAWING SET IF FIXING IN ROOF BEAM TO COLUMN TIE DOWN TABLE IS LISTED AS N/A.
3. THE BELOW TABLE HAS BEEN DESIGNED FOR TIMBER WITH A MINIMUM JOINT GROUP OF JD4 U.N.O., CONTACT STA IF JOINT GROUP OF TIMBER IN USE DIFFERS TO WHAT IS SHOWN IN TABLE.

[illegible]

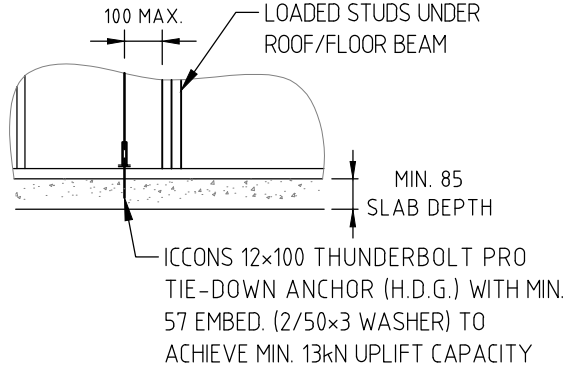
SCALE NTS U.N.O. WIND LOADING 52.54 m/s		-		249962	ISSUE	ISSUE DESCRIPTION	DATE	Smart, practical engineering solutions for residential construction Powered by STA. STA CONSULTING ENGINEERS DRG NO. DRG TOTAL S03 - COPYRIGHT © 2021 ISO 9001:2015 Certified	
		REPORT NAME		STA JOB #					
		Gold Homes				0	CONSTRUCTION ISSUE		05/08/25
		CLIENT	CLIENT REFERENCE	CLIENT JOB #	-	-	-		
		Lot 140 22 CALLI AVENUE UPPER COOMERA QLD 4209		SP 313554	-	-	-		
ADDRESS		RP / SP NUMBER							
		CITY OF GOLD COAST							
		LOCAL AUTHORITY							



TYPICAL FLOOR & ROOF BEAM TO SHS COLUMN DETAIL
NOT TO SCALE

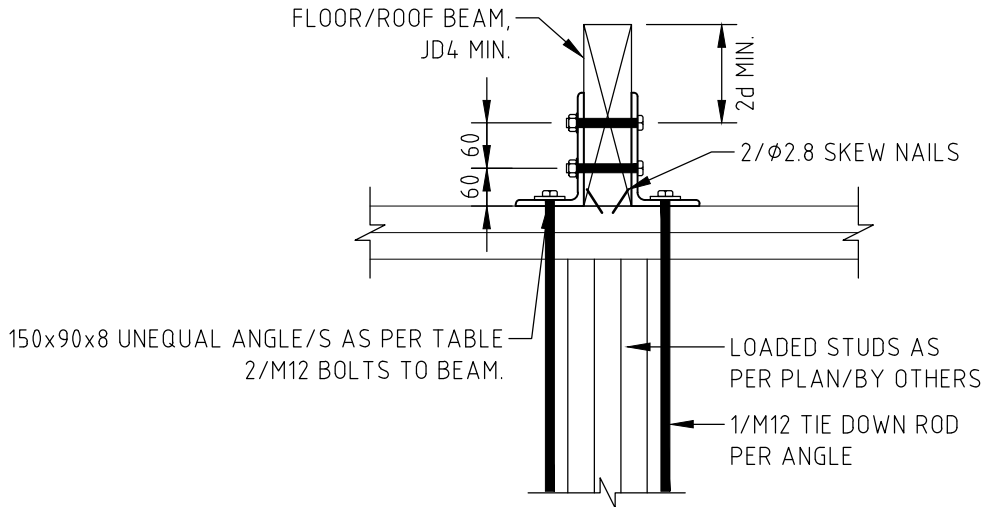


EXTERNAL WALL ON SLAB EDGE

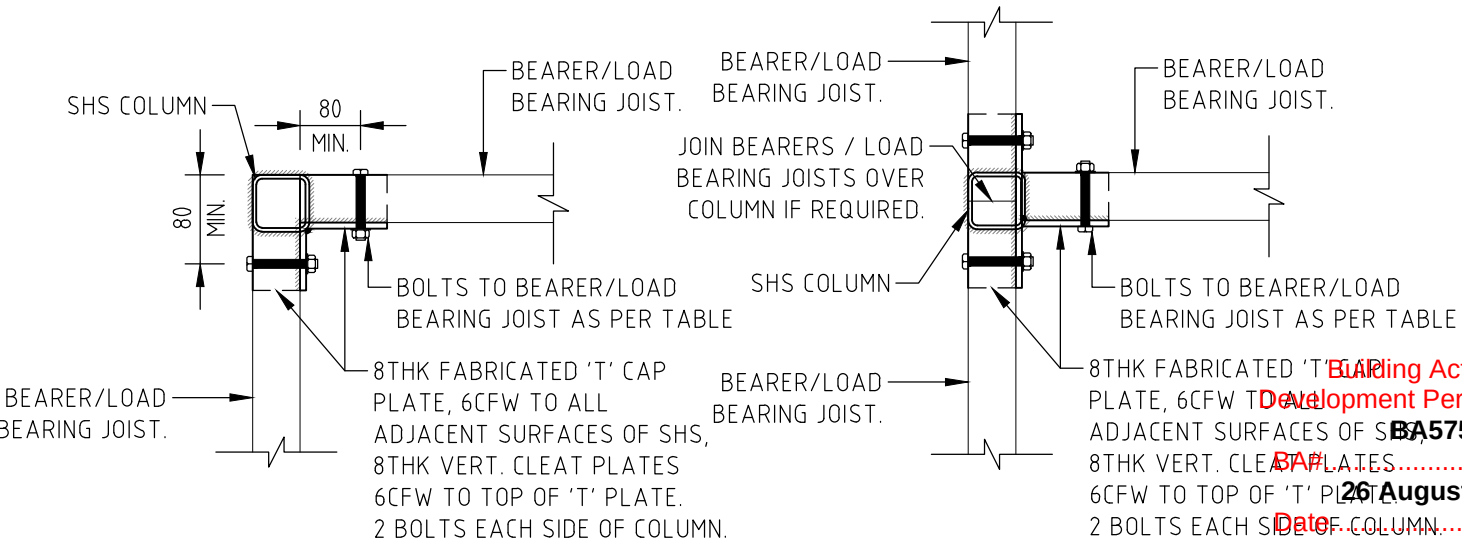


INTERNAL WALL ON INTERNAL
SLAB / WAFFLE POD

ROOF/FLOOR BEAM ROD TIE DOWN TO SLAB DETAILS
NOT TO SCALE



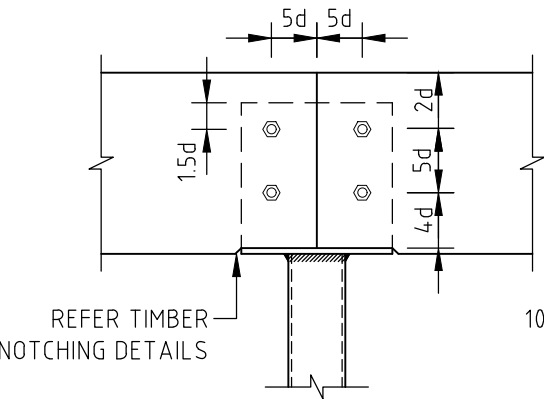
UNEQUAL ANGLE OPTION
SINGLE/DOUBLE ANGLE AS PER TABLE



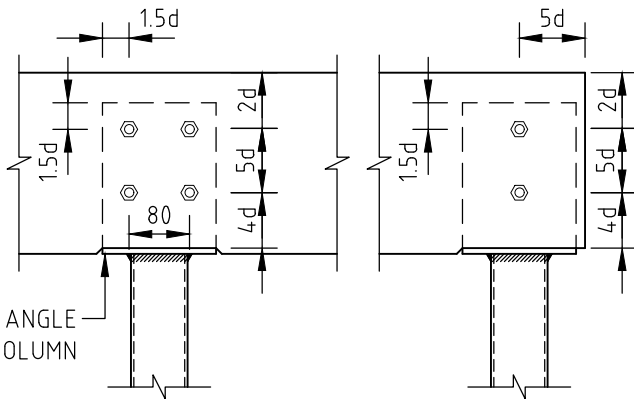
'L' BEARER / LOAD BEARING JOIST INTERSECTION

'T' CORNER BEARER / LOAD BEARING JOIST INTERSECTION

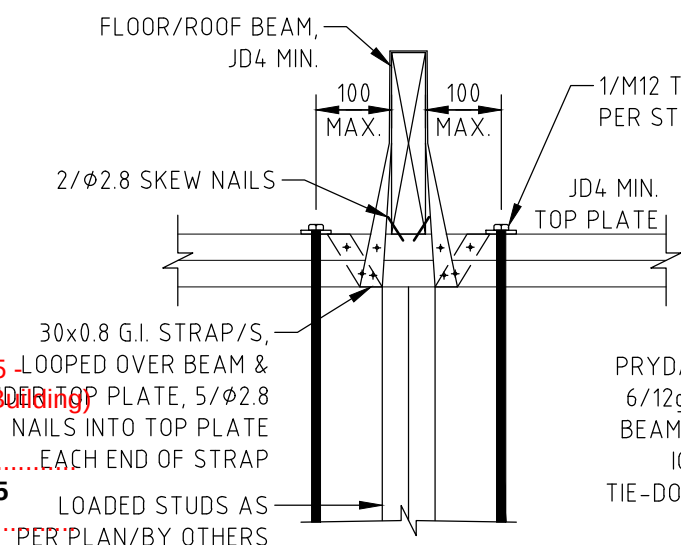
TYPICAL INLINE BEARER / LOAD BEARING JOIST INTERSECTION DETAILS
NOT TO SCALE



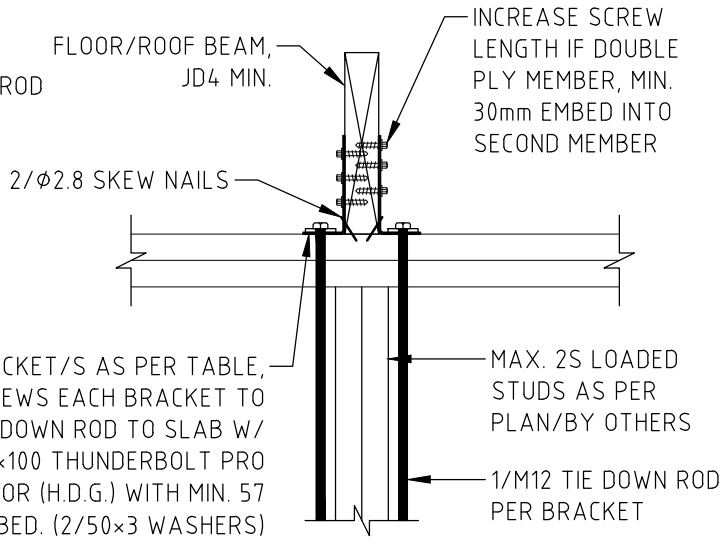
TYPICAL ABUTTING TIMBER MEMBERS OVER SHS DETAIL
NOT TO SCALE



TYPICAL NOTCHED TIMBER MEMBER OVER SHS DETAILS
NOT TO SCALE



STRAP OPTION
SINGLE/DOUBLE STRAP AS PER TABLE



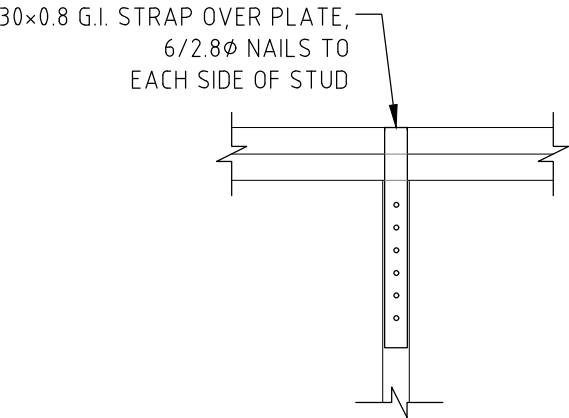
HD BRACKET OPTION
SINGLE/DOUBLE BRACKET AS PER TABLE

ROOF/FLOOR BEAM TIE DOWN DETAILS
SCALE N.T.S.

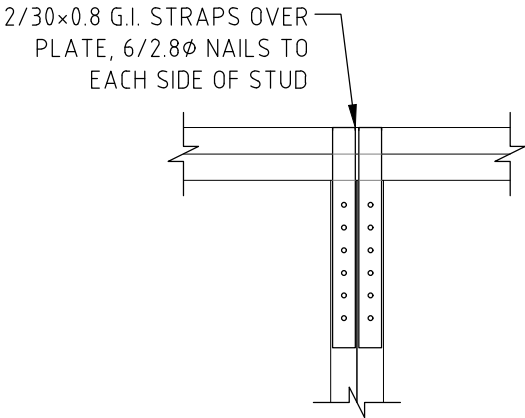
ROOF/FLOOR BEAM TIE DOWN TABLE, 52.54 m/s SHEET ROOF (JD4)																	Y = APPLICABLE METHOD NA = NOT APPLICABLE
BEAM TIE DOWN SPACING		<2000					<3000					<4000					<5000
ROOF	CONNECTION TYPE	2000 ULW	3000 ULW	4500 ULW	6000 ULW	7500 ULW	2000 ULW	3000 ULW	4500 ULW	6000 ULW	7500 ULW	2000 ULW	3000 ULW	4500 ULW	6000 ULW	7500 ULW	2000 ULW
	SINGLE TIEDOWN	Y	Y	Y	NA	NA	Y	Y	NA	NA	NA	Y	NA	NA	NA	NA	NA
	DOUBLE TIEDOWN	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	NA	NA	NA
FLOOR	SINGLE TIEDOWN	Y	Y	Y	Y	NA	Y	Y	NA	NA	NA	Y	Y	NA	NA	NA	NA
	DOUBLE TIEDOWN	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA
	SHS - M12 CUPHEADS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SHS - 2/M12	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y	Y	NA	NA	NA
	SHS - 2/M16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NA
	SHS - 4/M12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	SHS - 4/M16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

GENERAL NOTES:

1. SUITABILITY OF TIE DOWN DETAILS TO BE ASSESSED AND SPECIFIED ON A SITE SPECIFIC BASIS BY STA CONSULTING ENGINEERS ACCOMPANIED BY RELEVANT DESIGN CERTIFICATION.
2. STRAP TIE DOWN ONLY TO BE USED WHERE SHOWN ON PLAN (WHERE APPLICABLE) OR IF NOTED IN TIE DOWN TABLE.
3. REFER TO BRACING DETAILS SHEET DRAWING S05 FOR SPECIFIC BRACING TIE DOWN REQUIREMENTS. STRAP DETAILS SHOWN ON THIS SHEET ARE FOR FRAME TIE DOWN ONLY BUT MAY BE USED IF BRACING TIE DOWN REQUIREMENTS ARE MET, ADDITIONAL SCREWS OR BOLTS/RODS MAY BE REQUIRED.

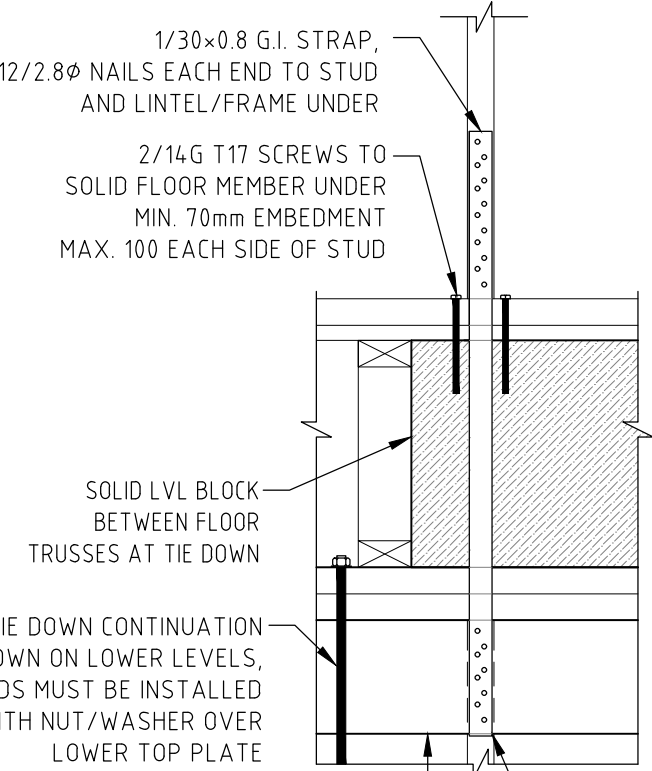


SINGLE LOOPED STRAP 6.9 kN (JD5)



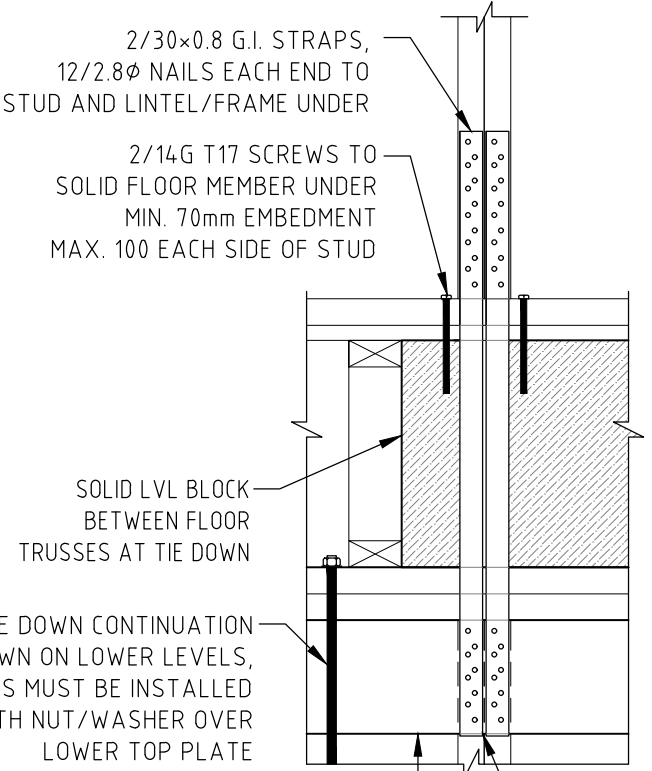
DOUBLE LOOPED STRAP 14.0 kN (JD5)

TOP PLATE CONNECTIONS
SCALE NTS



LINTEL UNDER (OR FRAME IF STUDS LINE UP) LOOP STRAP UNDER LINTEL IF REQ.

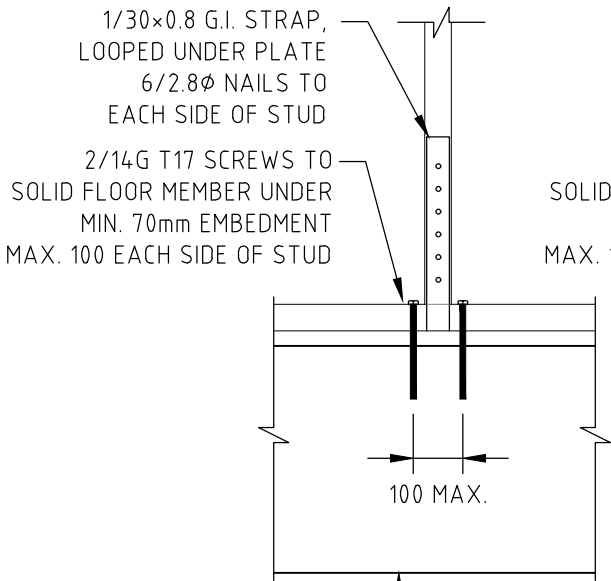
SINGLE STRAP 6.5 kN (JD5)



LINTEL UNDER (OR FRAME IF STUDS LINE UP) LOOP STRAP UNDER LINTEL IF REQ.

DOUBLE STRAP 13.0 kN (JD5)

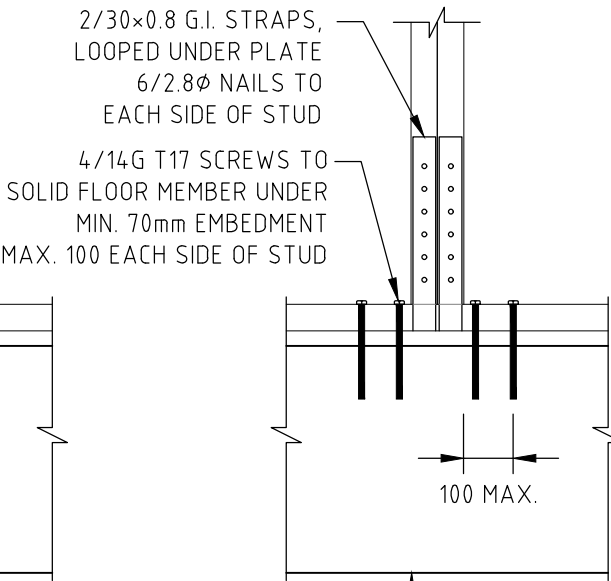
BOTTOM PLATE CONNECTIONS
LINTEL/FRAME UNDER - OPTION 1
SCALE NTS



SOLID FLOOR MEMBER (MIN. 63 WIDE)

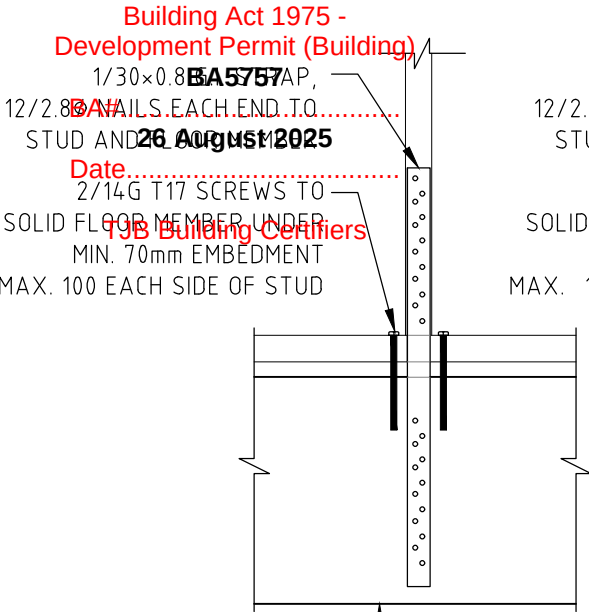
SINGLE LOOPED STRAP 6.9 kN (JD5)

BOTTOM PLATE CONNECTIONS
OVER BEAM - OPTION 1
SCALE NTS



SOLID FLOOR MEMBER (MIN. 63 WIDE)

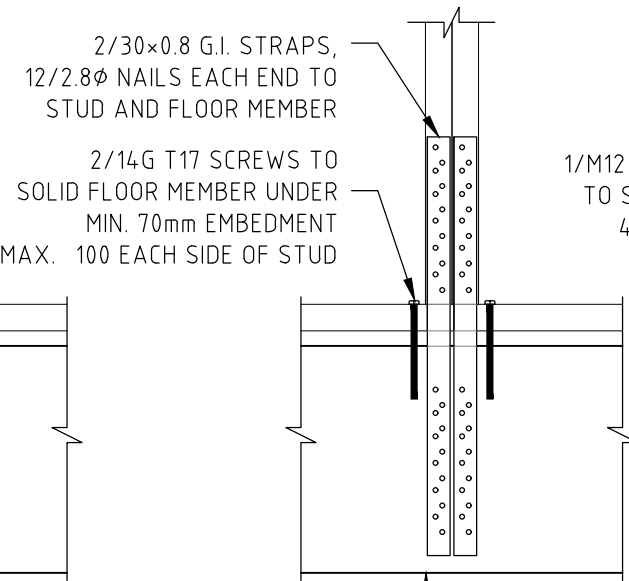
DOUBLE LOOPED STRAP 14.0 kN (JD5)



SOLID FLOOR MEMBER (MIN. 63 WIDE)

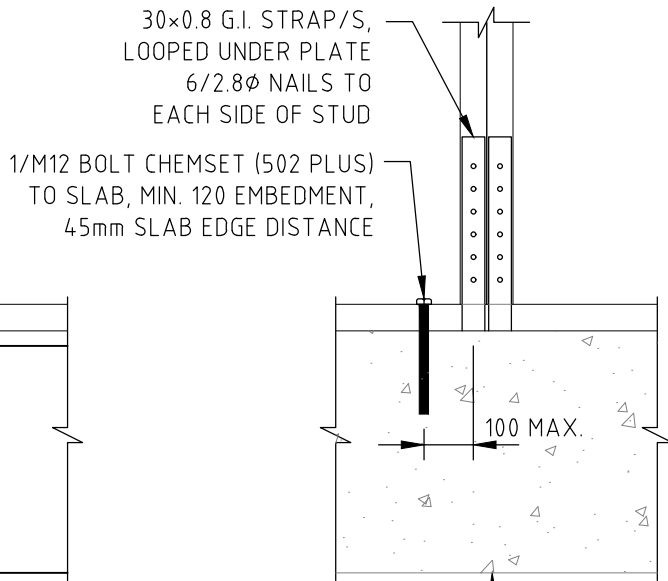
SINGLE STRAP 6.5 kN (JD5)

BOTTOM PLATE CONNECTIONS
OVER BEAM - OPTION 2
SCALE NTS



SOLID FLOOR MEMBER (MIN. 63 WIDE)

DOUBLE STRAP 13.0 kN (JD5)



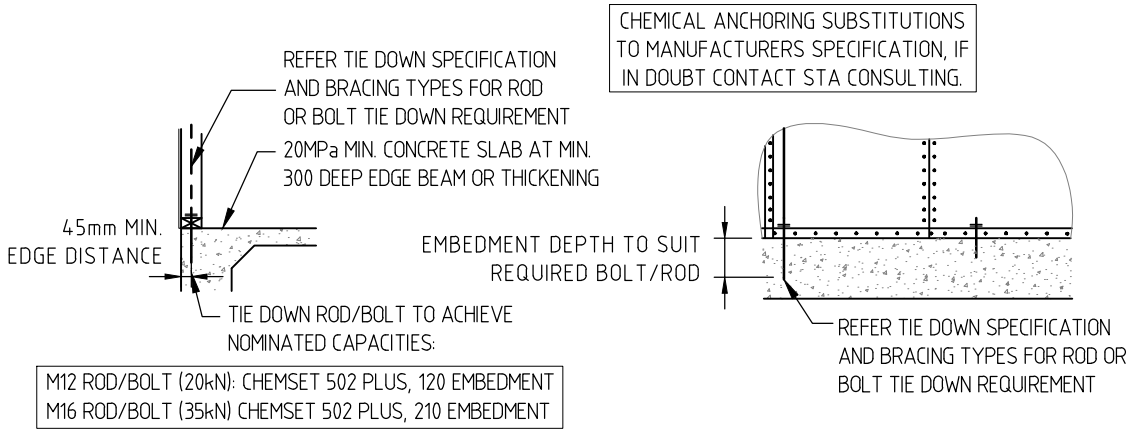
CONCRETE SLAB (MIN. 150 DEEP)

BOTTOM PLATE CONNECTION
TO SLAB
SCALE NTS

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LOCAL AUTHORITY					

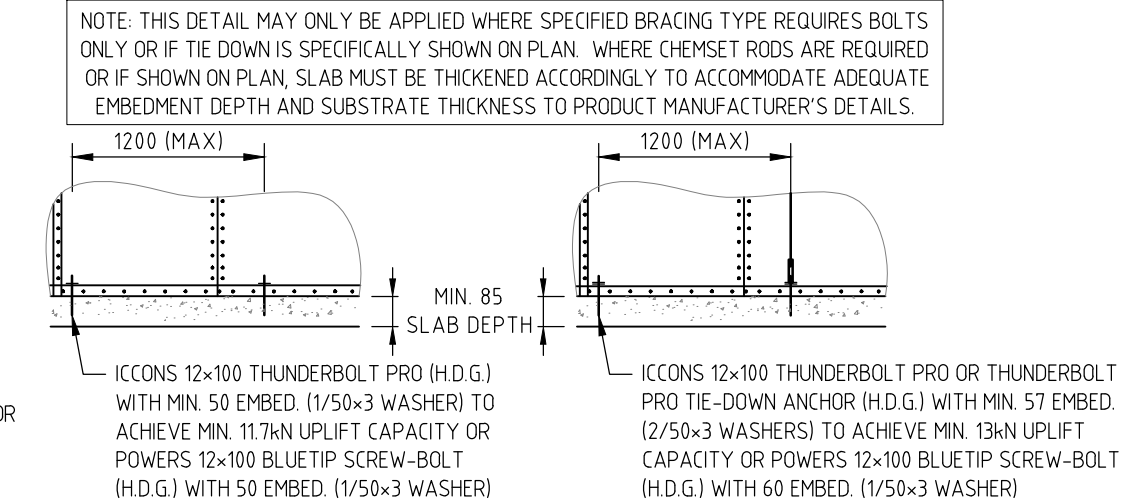
BRACING & TIE DOWN NOTES:

- PLYWOOD SHALL BE NAILED TO FRAME USING 30mm x 2.8mm Ø FLATHEAD NAILS OR EQUIVALENT. NAILS SHALL BE LOCATED MIN. 15mm FROM TOP/BOTTOM EDGES AND 10mm FROM VERT EDGES.
- M12 RODS/BOLTS TO BE PLACED AT EITHER END OF PLY BRACING PANELS & ALSO AT MAX 1200c/c AS PER BRACING TYPES PLY1/2. NOMINAL/BATTEN SCREW FIXING FOR AB/STRAP BRACES/PLY3.
- SHEATHED PANELS SHALL BE CONNECTED TO SUBFLOOR
- WHERE PLY BRACING IS FIXED TO BOTH SIDES OF A WALL, THE DEPTH OF BOTTOM PLATE SHALL BE A MINIMUM OF 45mm AND TIE DOWN IS TO BE DOUBLED AT ALL LOCATIONS
- ALWAYS REFER MANUFACTURERS INSTALLATION REQUIREMENTS AND GUIDELINES FOR PROPRIETARY PRODUCTS, DETAILS INCLUDED IN THESE DRAWINGS ARE INDICATIVE AND STA IS TO BE CONTACTED IF DETAILS DIFFER AT TIME OF CONSTRUCTION.
- NON-CRACKED CONCRETE SLABS HAVE BEEN ASSUMED FOR DESIGN OF CHEMICAL ANCHOR FIXINGS IN THIS DRAWING. STA IS TO BE CONTACTED IF CONCRETE SLAB HAS BEEN DESIGNED AS CRACKED.



TYPICAL TIE DOWN SLAB EDGE FIXING DETAIL

NOT TO SCALE

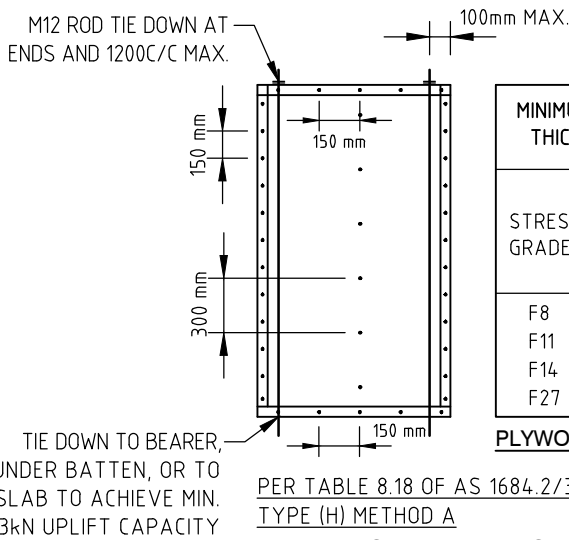


45mm BOTTOM PLATE BOLT TIE DOWN

35mm BOTTOM PLATE BOLT/ROD TIE DOWN

INTERNAL/WAFFLE POD FIXING DETAIL

NOT TO SCALE

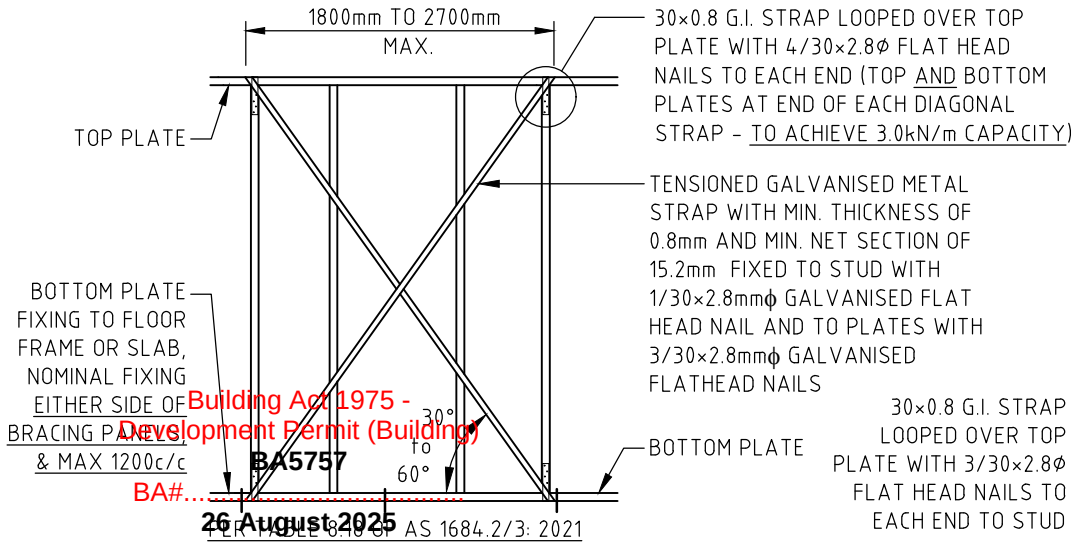


MINIMUM PLYWOOD THICKNESS (mm)			POSITION	LENGTH
			BRACING CAPACITY (kN/m)	
STRESS GRADE	STUD SPACING (mm)		INTERNAL	EXTERNAL
	450	600	≥600 - <900	≥450 - <600
F8	7	9	4.0 (JD5)	
F11	6	7	4.0 (JD5)	
F14	4	6	4.0 (JD5)	
F27	4	4.5	5.6 (JD5)	

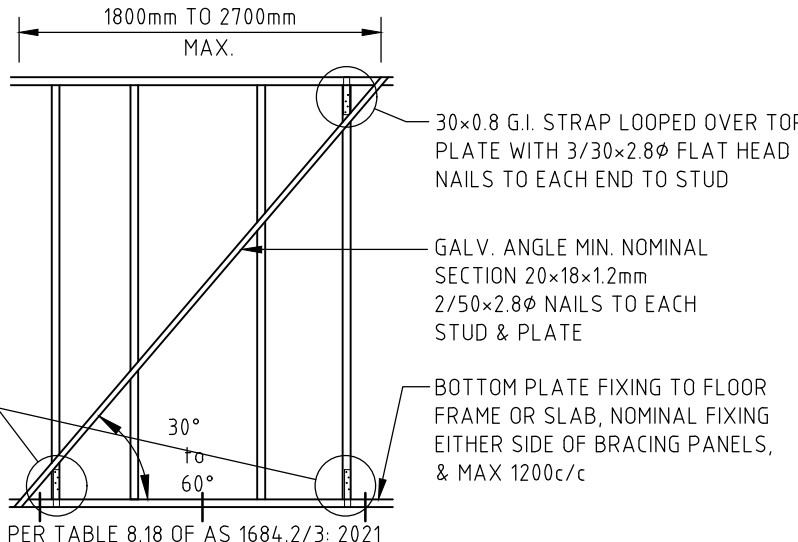
PLYWOOD BRACING (PLY-1)

(PLY-1) TYPICAL PLY BRACING DETAIL (LENGTH>450mm)

NOT TO SCALE

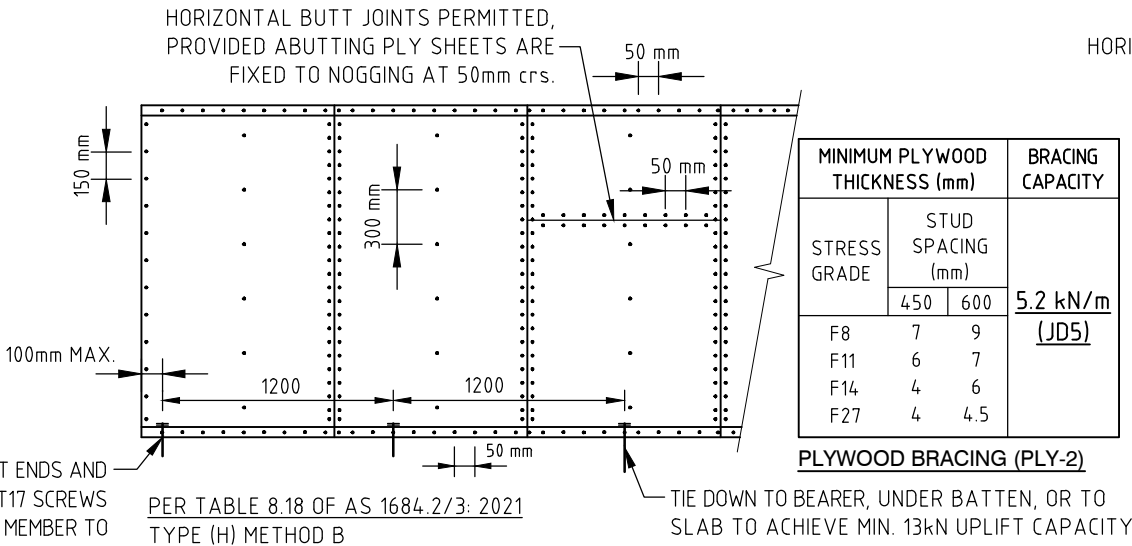
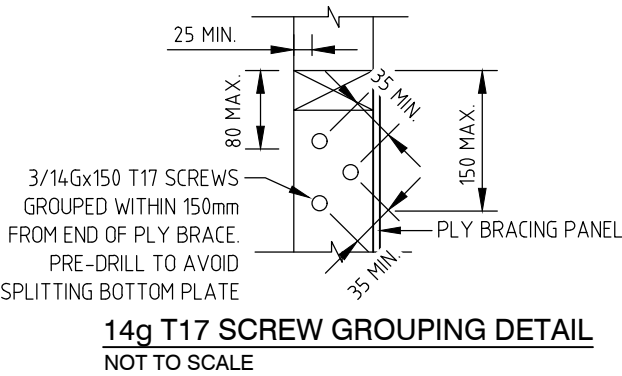


(STRAP) G.I. METAL STRAP BRACING DETAIL (1.5 / 3.0 kN/m)



(AB) METAL ANGLE BRACING DETAIL (1.5kN/m)

NOT TO SCALE

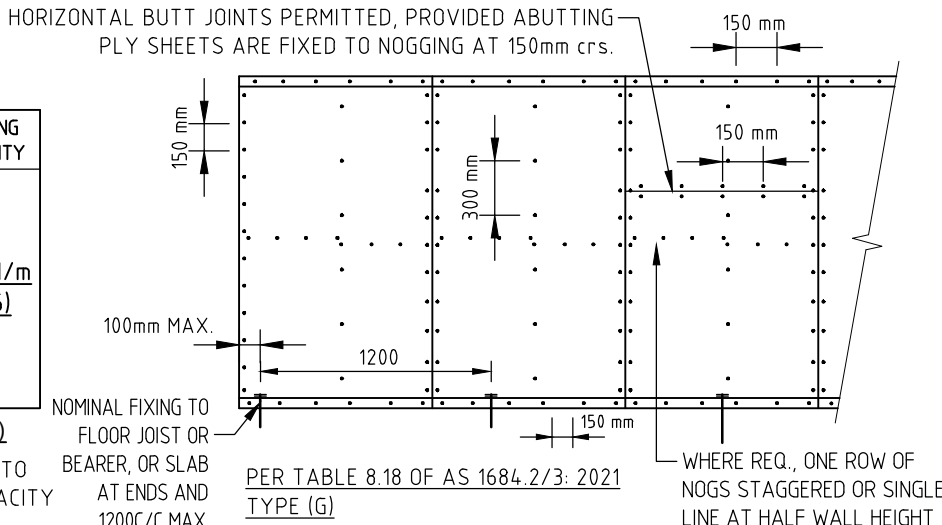


MINIMUM PLYWOOD THICKNESS (mm)			BRACING CAPACITY
STRESS GRADE	STUD SPACING (mm)		5.2 kN/m (JD5)
	450	600	
F8	7	9	5.2 kN/m (JD5)
F11	6	7	
F14	4	6	
F27	4	4.5	

PLYWOOD BRACING (PLY-2)

(PLY-2) TYPICAL PLY BRACING DETAIL (LENGTH>900mm)

NOT TO SCALE



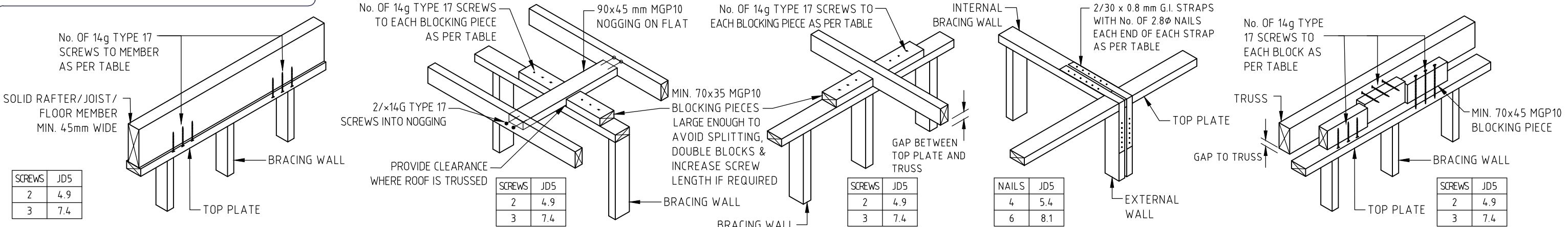
(PLY-3) TYPICAL PLY BRACING DETAIL (LENGTH>900mm)

NOT TO SCALE

MINIMUM PLYWOOD THICKNESS (mm)			BRACING CAPACITY
STRESS GRADE	STUD SPACING (mm)		<u>3.0 kN/M</u> <u>(JD5)</u>
	450	600	
NO NOGGING (EXCEPT HORIZONTAL BUTT JOINTS)			
F8	7	9	
F11	4.5	7	
F14	4	6	
F27	3	4.5	
ONE ROW OF NOGGING			
F8	7	7	
F11	4.5	4.5	
F14	4	4	
F27	3	3	

PLYWOOD BRACING (PLY-3)

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JOIST/RAFTER PARALLEL (DIRECT FIXING) TO BRACING WALL

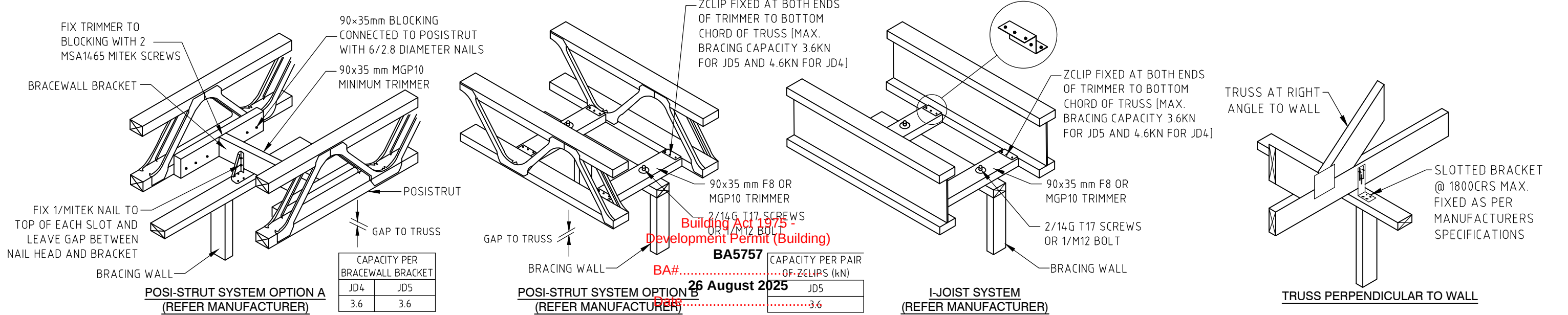
TRUSS/RAFTER PARALLEL TO WALL

JOIST/TRUSS/RAFTER PERPENDICULAR TO WALL

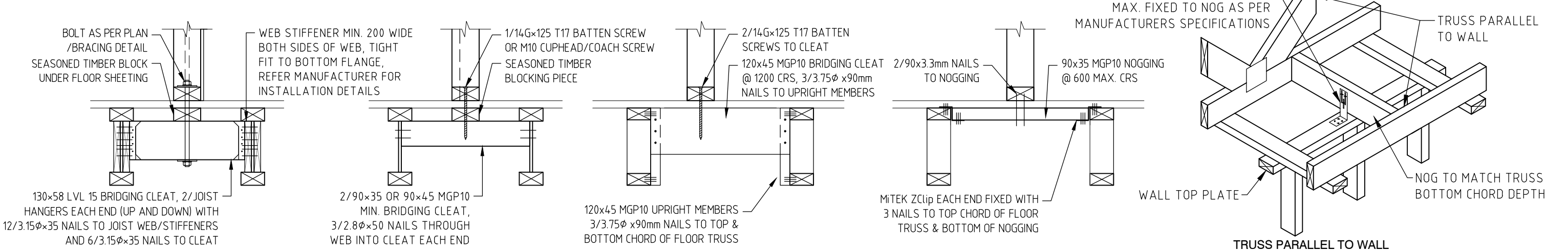
INTERNAL/EXTERNAL WALL JUNCTION

JOIST/TRUSS/RAFTER PARALLEL TO BRACING WALL

FIXING AT TOP OF BRACING WALLS TO TRUSS/RAFTER/SOLID MEMBER
NOT TO SCALE

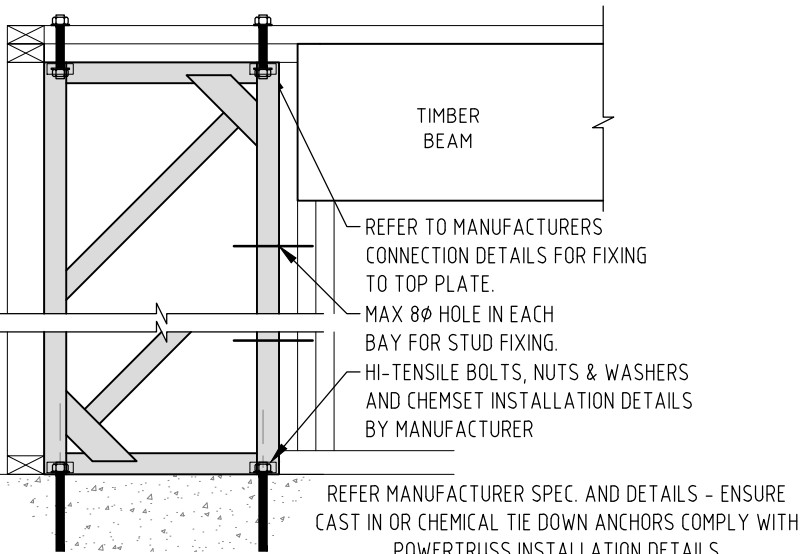
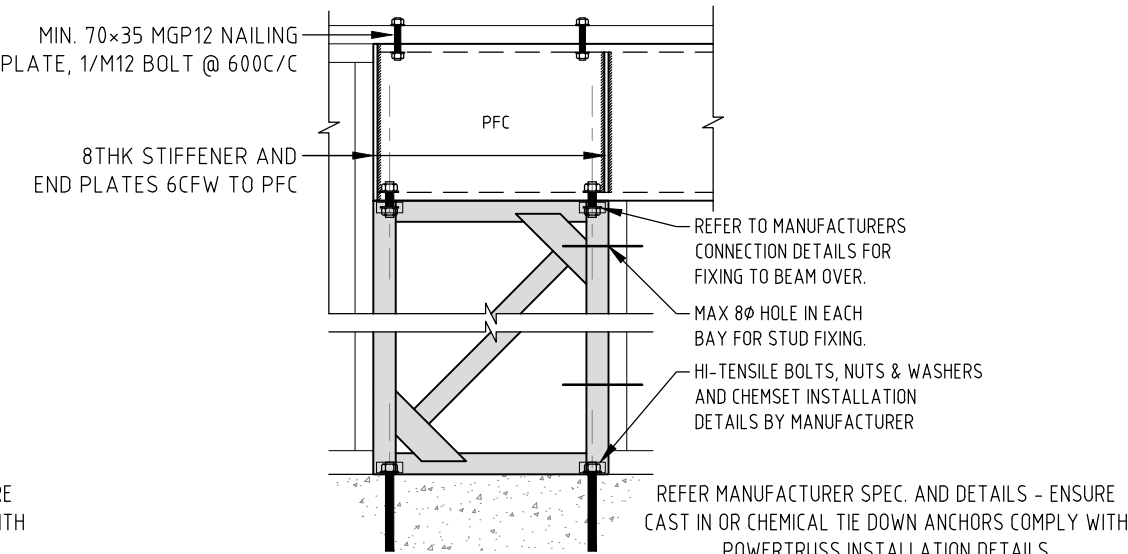
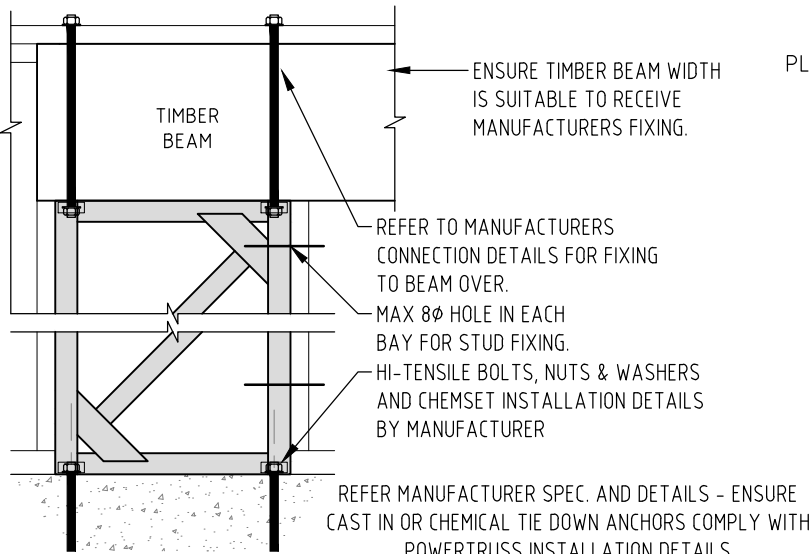


FIXING AT TOP OF BRACING WALLS TO ENGINEERED FLOOR SYSTEMS
NOT TO SCALE



BRACING AND TIE DOWN FIXING TO FLOOR SYSTEM DETAILS
NOT TO SCALE

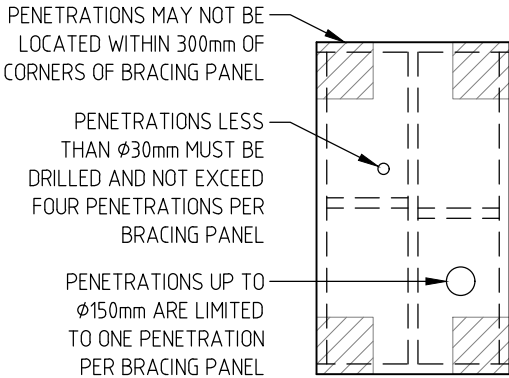
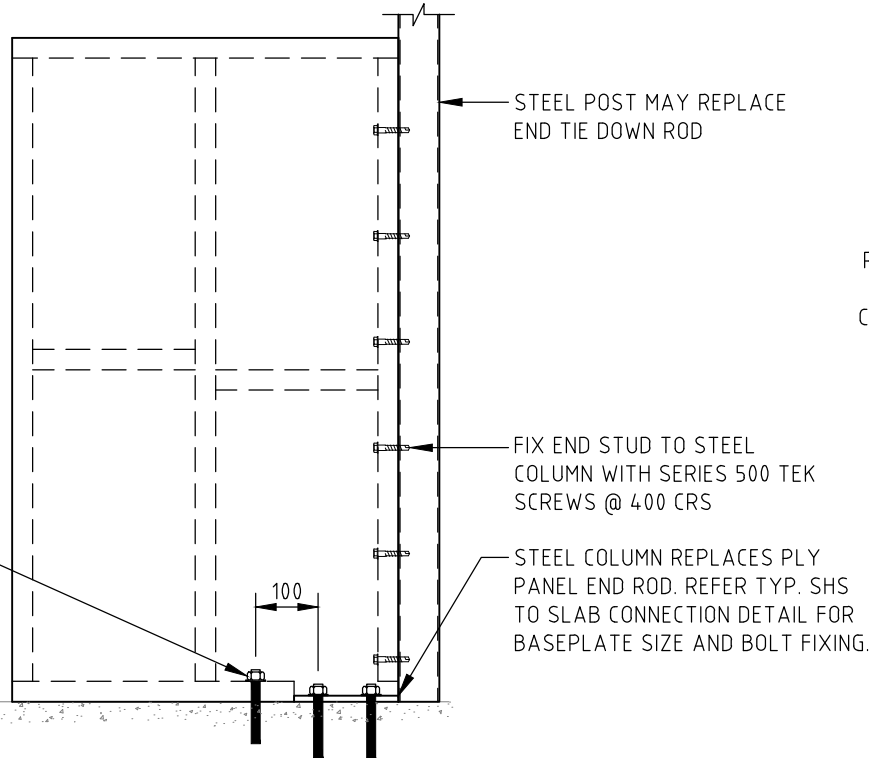
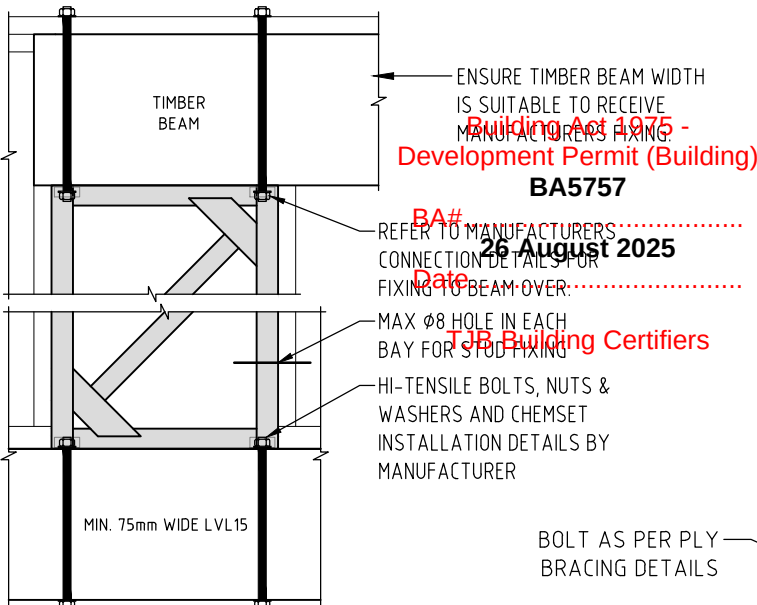
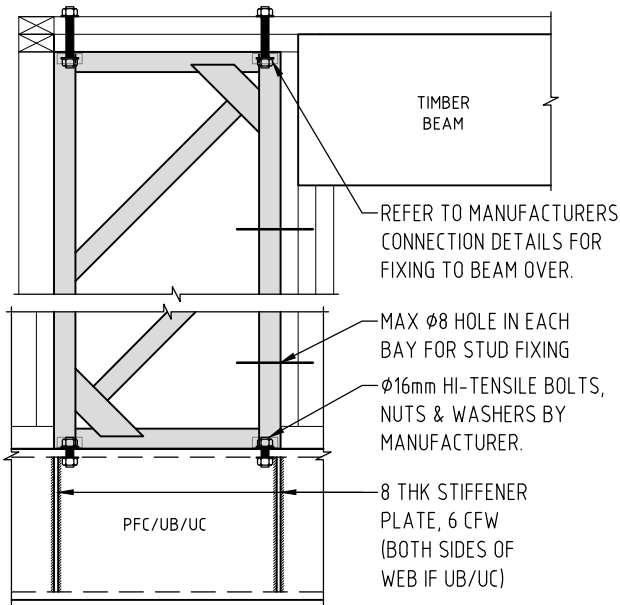
FIXING AT TOP OF INTERNAL WALLS TO TRUSS
NOT TO SCALE



TYPICAL TIMBER BEAM OVER POWERTRUSS COLUMN (PTC) / NETBRACE DETAIL
NOTE TO SCALE

TYPICAL STEEL BEAM OVER POWERTRUSS COLUMN (PTC) / NETBRACE DETAIL
NOTE TO SCALE

TYPICAL POWERTRUSS BRACE (PTB) / NETBRACE DETAIL
NOTE TO SCALE



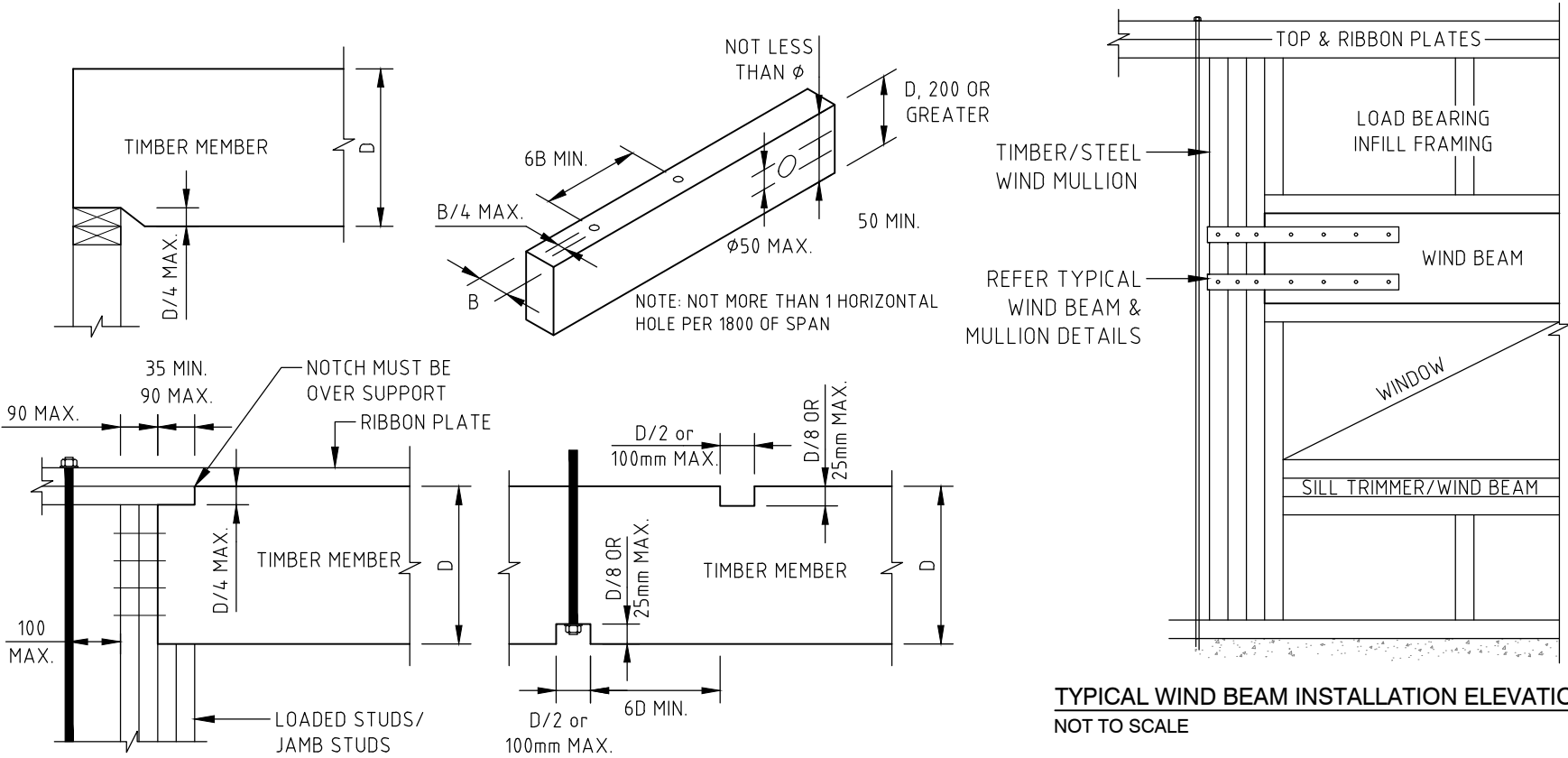
TYPICAL POWERTRUSS BRACE (PTB) / NETBRACE OVER PFC/UB/UC DETAIL
NOT TO SCALE
REFER MANUFACTURER SPEC. AND DETAILS - ENSURE TIE DOWN ANCHORS COMPLY WITH POWERTRUSS INSTALLATION DETAILS

TYPICAL POWERTRUSS COLUMN (PTC) / NETBRACE OVER TIMBER FLOOR BEAM DETAIL
NOT TO SCALE
REFER MANUFACTURER SPEC. AND DETAILS - ENSURE TIE DOWN ANCHORS COMPLY WITH POWERTRUSS INSTALLATION DETAILS

BRACING PANEL END COLUMN DETAIL
NOT TO SCALE

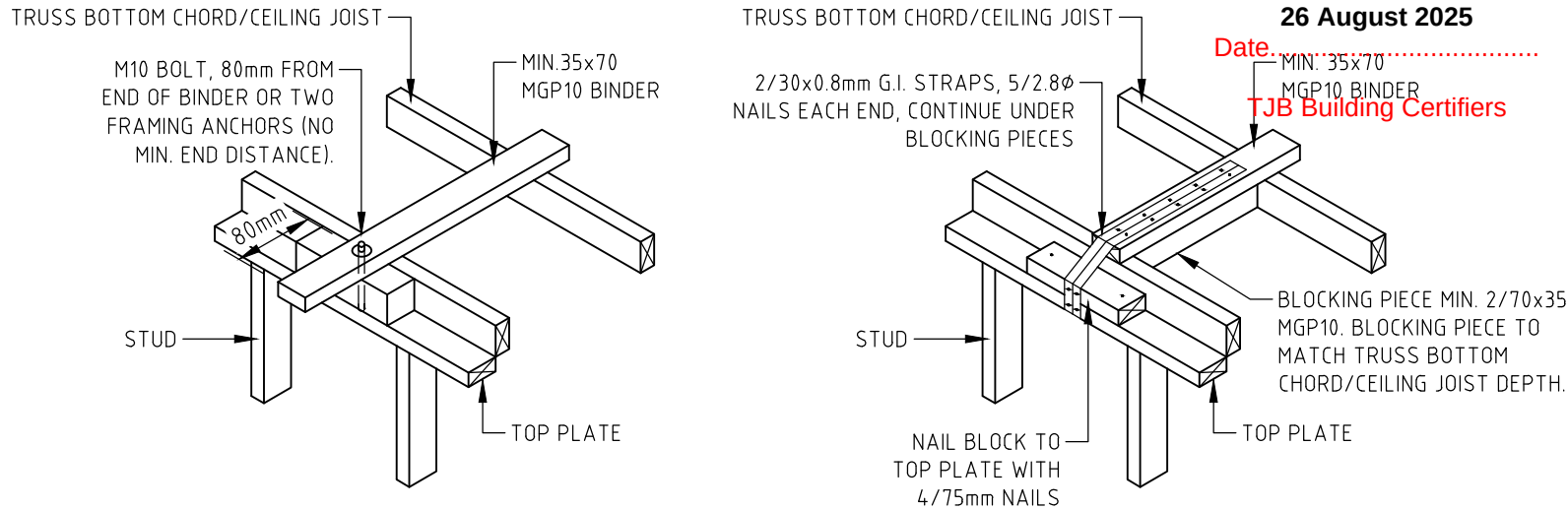
PLY BRACING PENETRATIONS DETAIL
NOT TO SCALE

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NOTE: NOTCHING DETAILS DO NOT APPLY TO GLULAM MEMBERS (PENETRATION DETAIL MAY BE USED). ADDITIONAL NOTCHING & PENETRATION DETAILS CAN BE FOUND IN AS1684 FIGURE 4.1. CONTACT STA CONSULTING SHOULD ANY NOTCHES IN TIMBER MEMBERS FALL OUTSIDE OF THESE DETAILS.

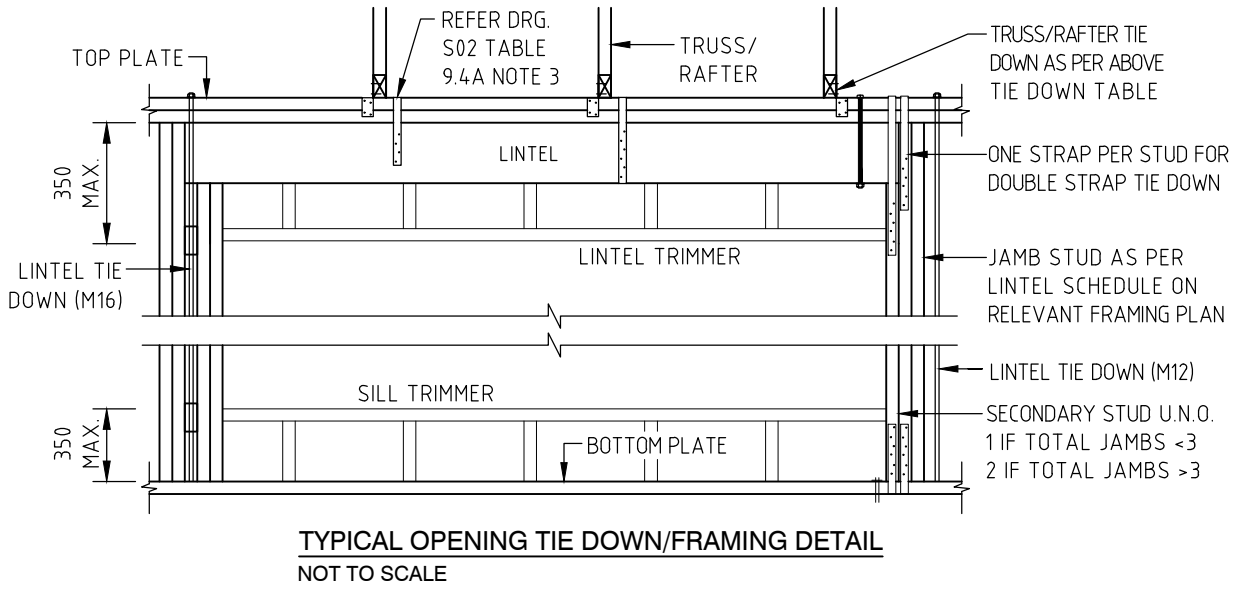
TYPICAL TIMBER MEMBER NOTCHING DETAILS
NOT TO SCALE



NON-LOAD BEARING EXTERNAL WALL LATERAL SUPPORT DETAILS
NOT TO SCALE

NOTE: NON-LOADBEARING EXTERNAL WALLS TO BE RESTRAINED BY; INTERSECTING WALLS, ENDS OF HANGING OR STRUTTING BEAMS, CONTINUOUS CEILING BATTENS; OR TIMBER BINDERS AT THE FOLLOWING SPACINGS TO SUIT WIND CLASSIFICATION:

N1 (34m/s) - N3 (50m/s) (NON-CYCLONIC):	3000mm	C1 (32m/s - 50m/s) (CYCLONIC)	2000mm
N4 (51m/s - 61m/s) (NON-CYCLONIC):	2000mm	C2 (51m/s - 61m/s) (CYCLONIC)	1350mm
N5 (62m/s - 74m/s) (NON-CYCLONIC):	1350mm	C3 (62m/s - 74m/s) (CYCLONIC)	900mm



WALL FRAMING NOTE:
WALL FRAMING WHERE DESIGNED BY STA HAS BEEN DESIGNED FOR THE ROOF TRUSS LAYOUT AS SHOWN/ASSUMED ON LAYOUT. AN ALTERNATIVE TRUSS LAYOUT WILL REQUIRE REDESIGN AT THE BUILDERS EXPENSE AND SHOULD BE SUPPLIED TO ENGINEER FOR REVIEW.

INTERNAL NON-LOADBEARING LINTEL SCHEDULE	
SPAN	MEMBER
1400	90x35 MGP10
3200	140x35 MGP10
4300	190x35 MGP10

TABLE 6.2 - FRAMING SIZES FOR NON-LOADBEARING INTERNAL WALLS		
MEMBER	MINIMUM SIZE	MAXIMUM SPACING (mm)
TOP & BOTTOM PLATES	35x70	-
COMMON STUDS OF MAXIMUM HEIGHT		
<2700	70x35	600
<3600	90x35 OR 2/70x35	600
<4200	90x45 OR 2/90x35	600
STUDS SUPPORTING LINTELS	AS FOR COMMON STUDS	-

Building Act 1975 -
Development Permit (Building)
BA5757

BA#.....
26 August 2025
Date.....
MIN. 35x70 MGP10 BINDER
TJB Building Certifiers

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CITY OF GOLD COAST			-	-	-
LOCAL AUTHORITY					

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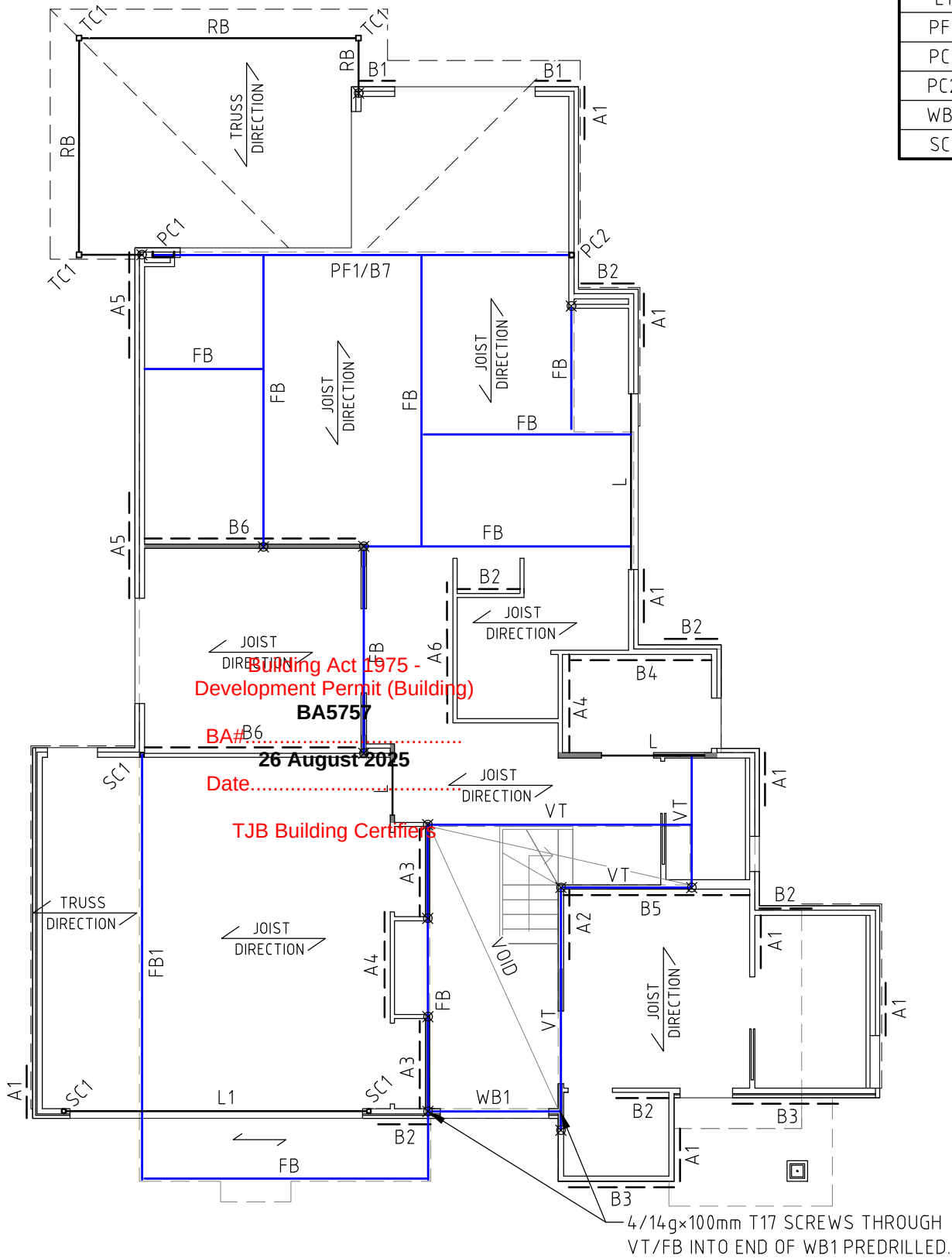
BRACING FOR DIRECTION A						
CODE	No	TYPE	LENGTH (m)	UNIT kN/m	VALUE (kN)	TOTAL (kN)
A1	8	PLY-2	0.9	5.2	4.68	37.44
A2	2	PLY-2	1.2	5.2	6.24	12.48
A3	2	PLY-2	1.5	5.2	7.80	15.60
A4	1	PLY-2	1.6	5.2	8.32	8.32
A5	2	PLY-2	1.8	5.2	9.36	18.72
A6	1	PLY-2	2.4	5.2	12.48	12.48
RESISTANCE REQUIRED: 101.00 kN						
RESISTANCE PROVIDED: 105.04 kN						

BRACING FOR DIRECTION B						
CODE	No	TYPE	LENGTH (m)	UNIT kN/m	VALUE (kN)	TOTAL (kN)
B1	2	PLY-1	0.6	5.6	3.36	6.72
B2	6	PLY-2	0.9	5.2	4.68	28.08
B3	2	PLY-2	1.8	5.2	9.36	18.72
B4	1	PLY-2	2.4	5.2	12.48	12.48
B5	1	PLY-2	3.0	5.2	15.60	15.60
B6	2	PLY-2	3.6	5.2	18.72	37.44
B7	1	PF1	-	-	25.00	25.00
RESISTANCE REQUIRED: 136.50 kN						
RESISTANCE PROVIDED: 144.04 kN						

GENERAL NOTES:

1. REFER NOTES SHEETS IN THIS DRAWING SET PRIOR TO COMMENCEMENT OF ANY WORKS
2. A SUFFICIENT FLOOR/CEILING DIAPHRAGM TO TRANSFER BRACING LOADS IS ASSUMED UNO
3. WHERE PLY BRACING IS FIXED TO BOTH SIDES OF A WALL, THE DEPTH OF BOTTOM PLATE SHALL BE A MINIMUM OF 45mm AND TIE DOWN IS TO BE DOUBLED AT ALL LOCATIONS
4. REFER NOTES SHEETS FOR TIE DOWN DETAILS AND METHODS
5. SPECIFIC GIRDER TRUSS TIE DOWN BY TRUSS MANUFACTURER
6. CONTACT STA IF LOAD BEARING WALLS DIFFER FROM TRUSS/FLOOR DESIGN BY OTHERS

MEMBER SCHEDULE		
TAG	MEMBER	COMMENT
FB1	300PFC	FLOOR BEARER C/L
L1	300PFC	LINTEL S/S
PF1	380PFC	PORTAL FRAME AT FLOOR LEVEL
PC1	380PFC	PORTAL COLUMN
PC2	89×5.0 SHS	PORTAL COLUMN
WB1	360×63 LVL13	WIND BEAM AT FLOOR LEVEL
SC1	75×5.0 SHS C350	STEEL COLUMN-REFER TYP. DETAILS



GROUND FLOOR WALL BRACING AND STEEL BEAM PLAN

SCALE 1:100

DIR. A

DIR. B

SCALE

NTS U.N.O.

DRAWING KEY: (IF SHOWN ON PLAN)

LBW: LOAD BEARING WALL UNDER -ALL EXTERNAL WALLS LBW UNO.

LOADED STUDS

M12 BOLT

M12 ROD

M16 BOLT OR 2/M12

M16 ROD OR 2/M12

SINGLE STRAP WITH M12 BOLT TO SLAB OR AS PER TIE DOWN DETAILS

DOUBLE STRAP WITH M12 BOLT TO SLAB OR AS PER TIE DOWN DETAILS

M12×100 THUNDERBOLT PRO ANCHOR + ROD

REPORT NAME

Gold Homes

CLIENT

Lot 140 22 CALLI AVENUE UPPER COOMERA QLD 4209

ADDRESS

CITY OF GOLD COAST

LOCAL AUTHORITY

249962

STA JOB #

CLIENT JOB #

SP 313554

RP / SP NUMBER

ISSUE	ISSUE DESCRIPTION	DATE
0	CONSTRUCTION ISSUE	05/08/25
-	-	-
-	-	-
-	-	-

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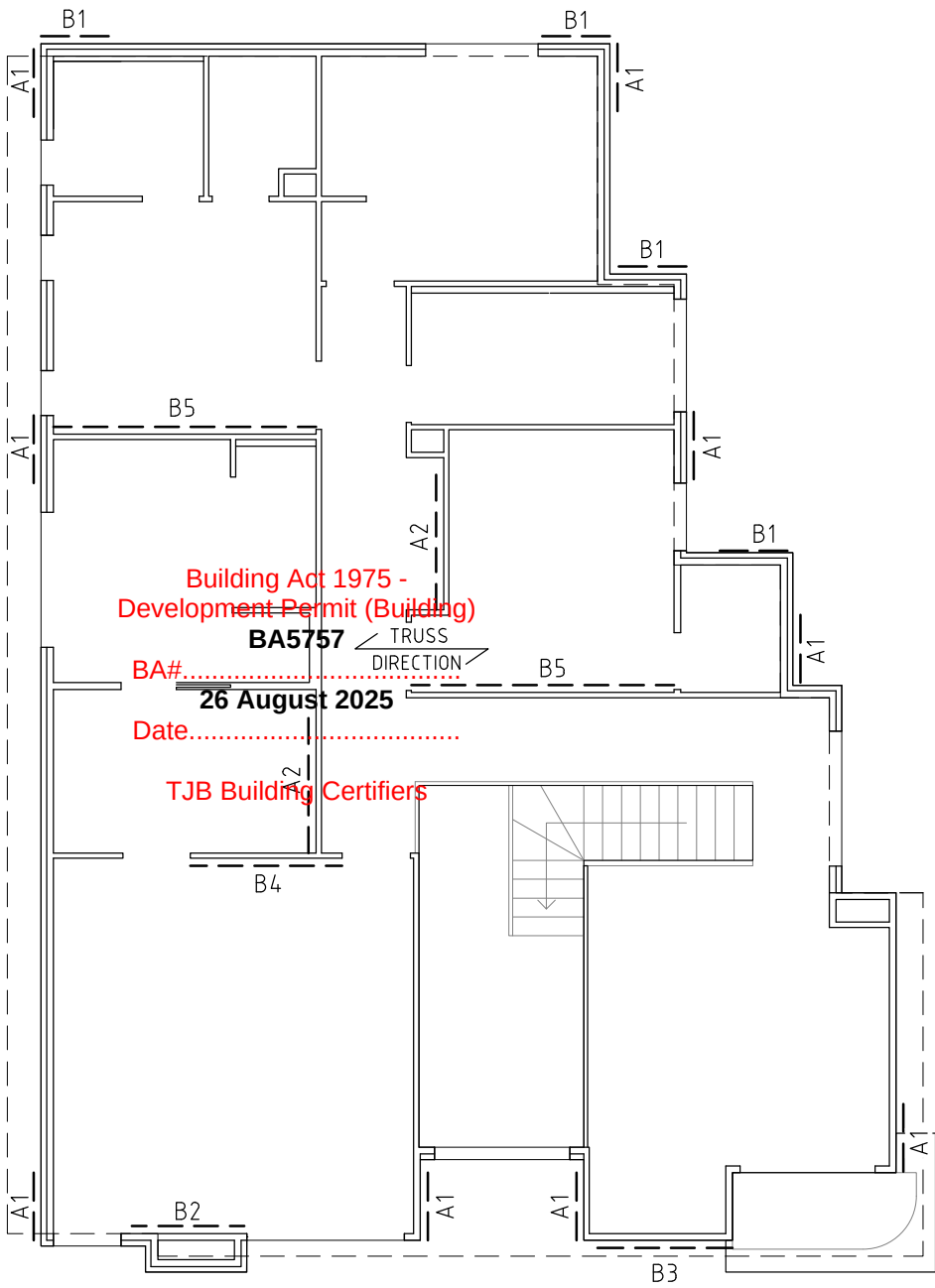
A3 SHEET SIZE

BRACING FOR DIRECTION A						
CODE	No	TYPE	LENGTH (m)	UNIT kN/m	VALUE (kN)	TOTAL (kN)
A1	9	PLY-2	0.9	5.2	4.68	42.12
A2	2	PLY-3	1.8	3.0	5.40	10.80
RESISTANCE REQUIRED: 43.00 kN						
RESISTANCE PROVIDED: 52.92 kN						

BRACING FOR DIRECTION B						
CODE	No	TYPE	LENGTH (m)	UNIT kN/m	VALUE (kN)	TOTAL (kN)
B1	4	PLY-2	0.9	5.2	4.68	18.72
B2	1	PLY-2	1.5	5.2	7.80	7.80
B3	1	PLY-2	1.8	5.2	9.36	9.36
B4	1	PLY-3	2.0	3.0	6.00	6.00
B5	2	PLY-3	3.5	3.0	10.50	21.00
RESISTANCE REQUIRED: 58.50 kN						
RESISTANCE PROVIDED: 62.88 kN						

GENERAL NOTES:

1.
- REFER NOTES SHEETS IN THIS DRAWING SET PRIOR TO COMMENCEMENT OF ANY WORKS
2.
- A SUFFICIENT FLOOR/CEILING DIAPHRAGM TO TRANSFER BRACING LOADS IS ASSUMED UNO
3.
- WHERE PLY BRACING IS FIXED TO BOTH SIDES OF A WALL, THE DEPTH OF BOTTOM PLATE SHALL BE A MINIMUM OF 45mm AND TIE DOWN IS TO BE DOUBLED AT ALL LOCATIONS
4.
- REFER NOTES SHEETS FOR TIE DOWN DETAILS AND METHODS
5.
- SPECIFIC GIRDER TRUSS TIE DOWN BY TRUSS MANUFACTURER
6.
- CONTACT STA IF LOAD BEARING WALLS DIFFER FROM TRUSS/FLOOR DESIGN BY OTHERS



FIRST FLOOR WALL BRACING PLAN
SCALE 1:100

DIR. A

DIR. B

SCALE

NTS U.N.O.

DRAWING KEY: (IF SHOWN ON PLAN)

LBW: LOAD BEARING WALL UNDER -ALL EXTERNAL WALLS LBW UNO.

LOADED STUDS

M12 BOLT

M12 ROD

M16 BOLT OR 2/M12

M16 ROD OR 2/M12

SINGLE STRAP WITH M12 BOLT TO SLAB OR AS PER TIE DOWN DETAILS

DOUBLE STRAP WITH M12 BOLT TO SLAB OR AS PER TIE DOWN DETAILS

M12x100 THUNDERBOLT PRO ANCHOR + ROD

REPORT NAME

Gold Homes

CLIENT

Lot 140 22 CALLI AVENUE UPPER COOMERA QLD 4209

ADDRESS

CITY OF GOLD COAST

LOCAL AUTHORITY

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CLIENT JOB #

SP 313554

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CONSTRUCTION ISSUE

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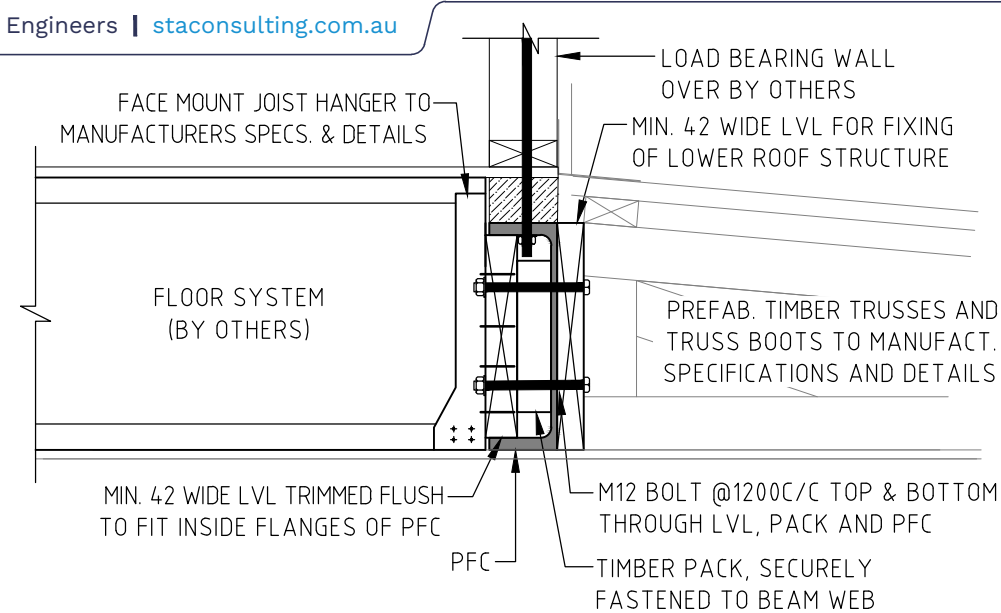
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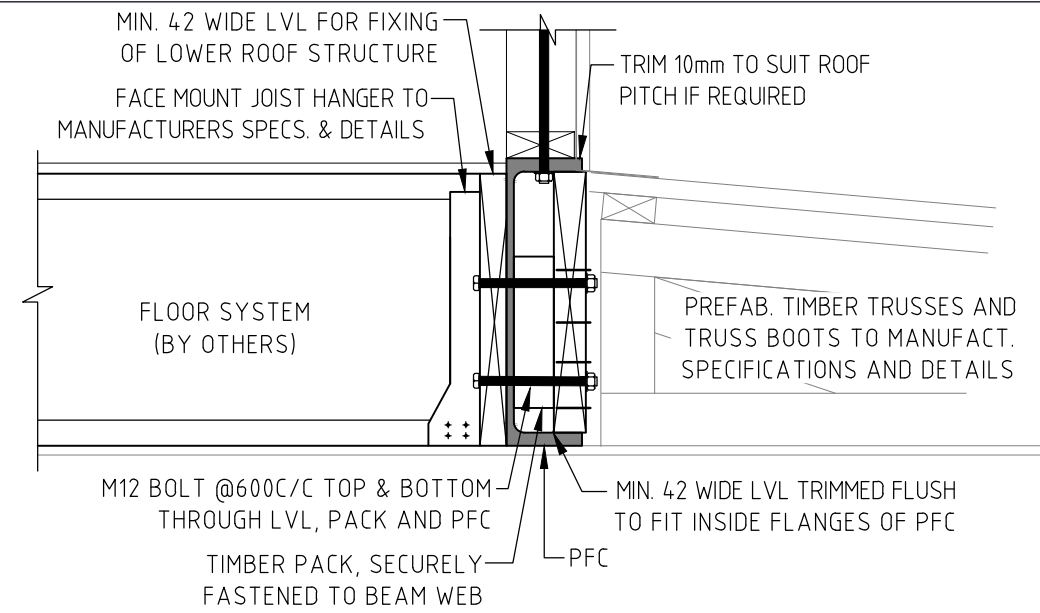
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S11 | -

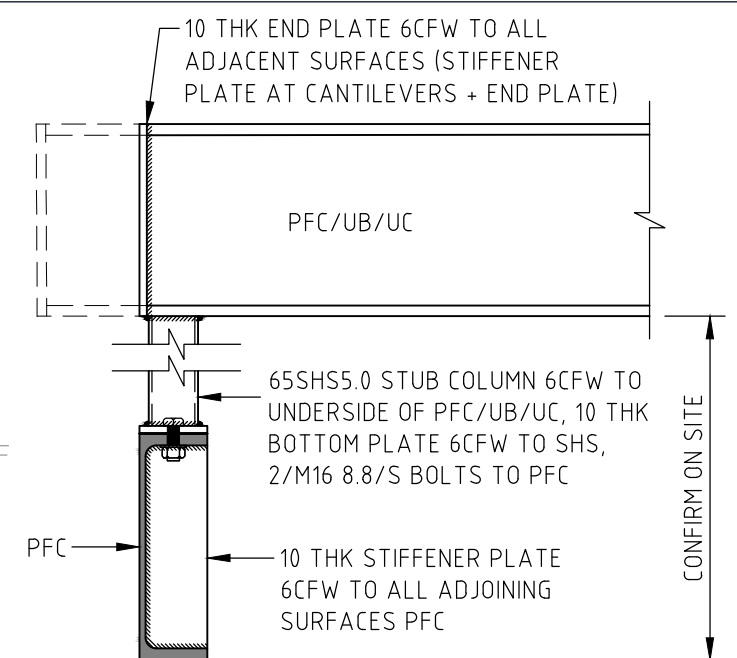
A3 SHEET SIZE



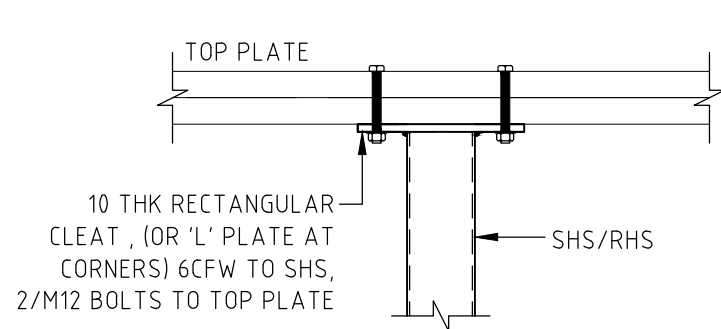
TYPICAL FLOOR/ROOF TO PFC DETAIL
SCALE NTS



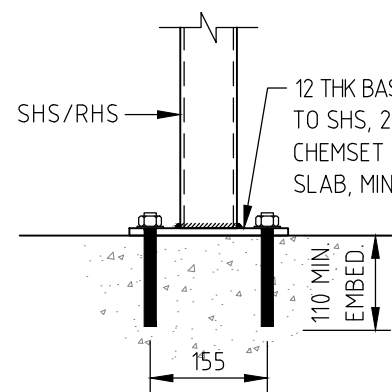
TYPICAL FLOOR/ROOF TO 380 PFC DETAIL
SCALE NTS



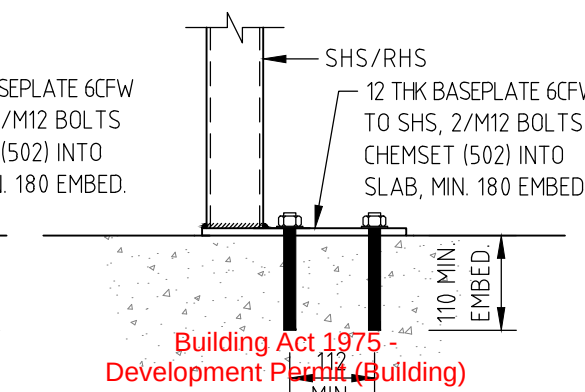
**TYPICAL PFC/UB/UC TO PFC
STUB COLUMN DETAIL**
SCALE NTS



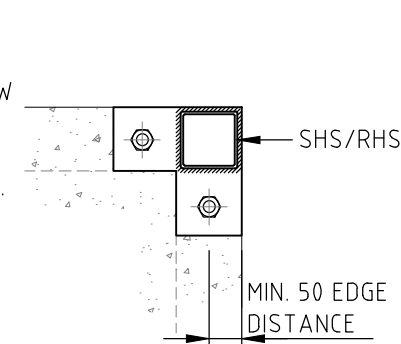
*** TYPICAL SHS TO TOP PLATE DETAIL**
SCALE NTS



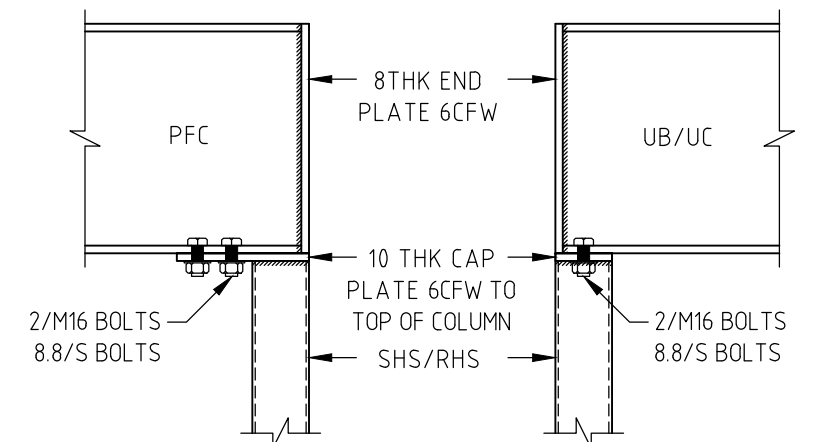
STANDARD BASEPLATE CENTRED



26 August 2025
TYPICAL SHS/RHS TO SLAB DETAILS
Date:
SCALE NTS



BASEPLATE FOR CORNERS (PLAN)



* CONTINUE SHS IF MORE THAN 140 TO TOP PLATE OR CONT. VOID MULLION

10 THK CAP PLATE, 6CFW TO TOP OF SHS (OMIT CAP PLATE IF SHS CONTINUES TO TOP PLATE)

12 THK MS PLATE 6CFW TO COLUMN
3/M16 8.8/S (250PFC+)
2/M16 8.8/S (150-230PFC)

SHS/RHS

TIMBER PLATES, MAX. 140 HIGH OTHERWISE TAKE SHS TO TOP PLATE, M12 @ 900C/C U.N.O., *

UB/UC/PFC

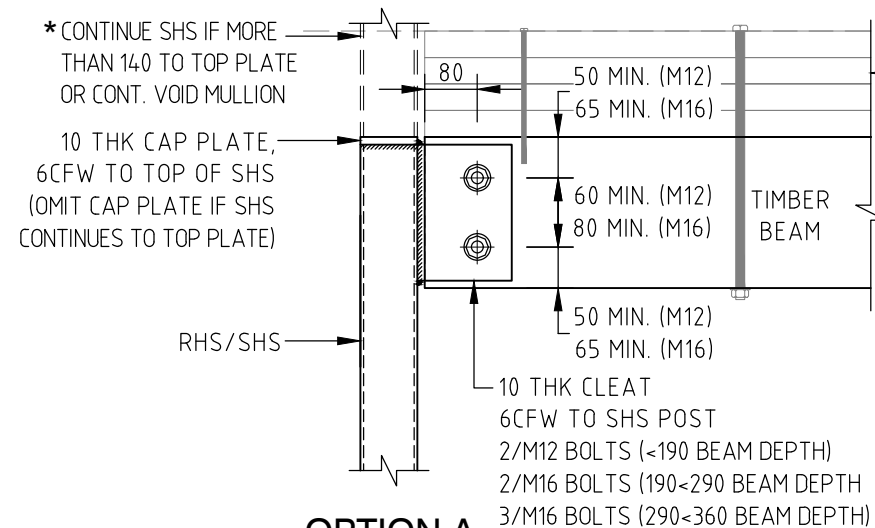
10 THK CAP PLATE 6CFW TO COLUMN,
2/M16 8.8/S BOLTS

SHS/RHS

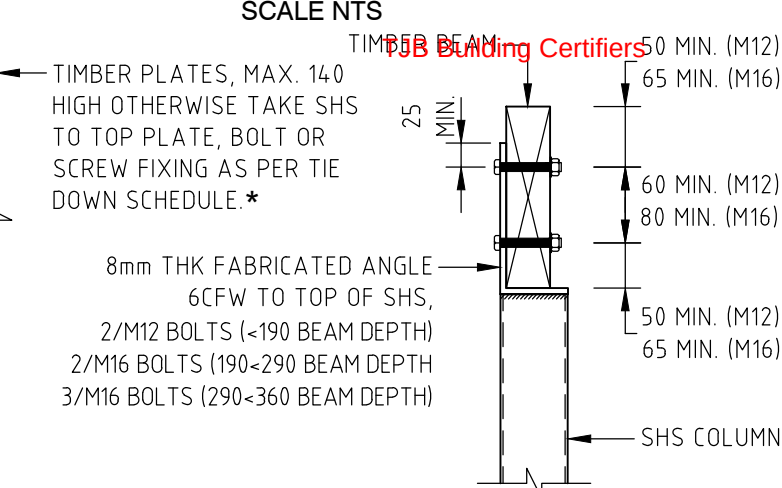
8 THK STIFFENER PLATE 6CFW (BOTH SIDES OF WEB IF UB/UC)

UB/UC/PFC

TYPICAL PFC/UB/UC TO COLUMN DETAILS
SCALE NTS



OPTION A ^{3/M}
(TO SIDE OF COLUMN)



OPTION B
(CONTINUOUS OVER COLUMN)

TYPICAL TIMBER BEAM TO COLUMN DETAILS
SCALE NTS

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Gold Homes			0	CONSTRUCTION ISSUE	05/08/2024
CLIENT	CLIENT REFERENCE	CLIENT JOB #	-	-	-
Lot 140 22 CALLI AVENUE UPPER COOMERA QLD 4209		SP 313554	-	-	-
ADDRESS		RP / SP NUMBER			
CITY OF GOLD COAST			-	-	-
LOCAL AUTHORITY					

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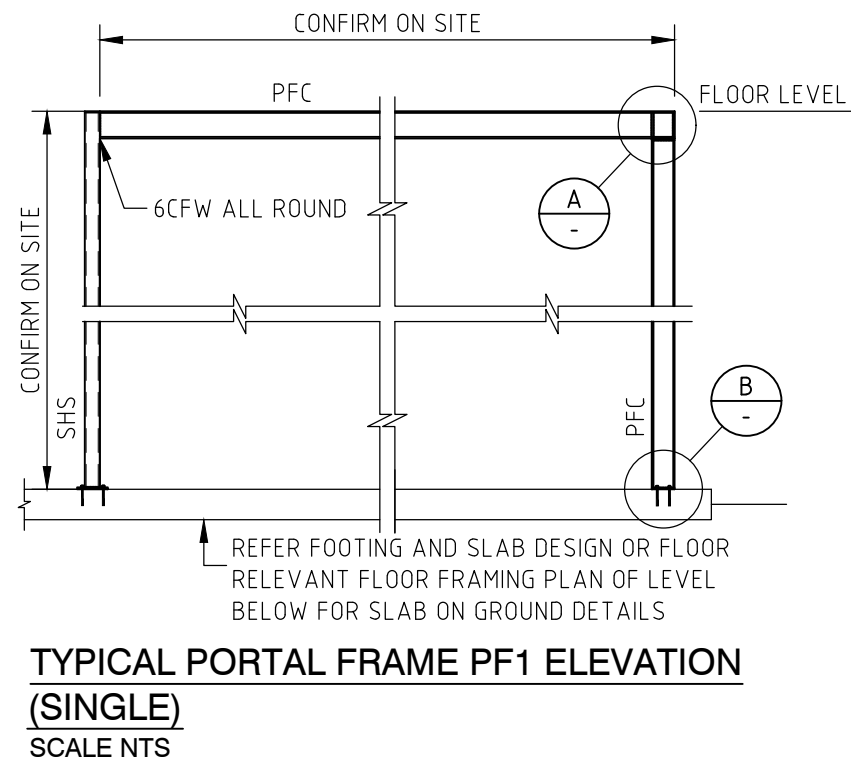
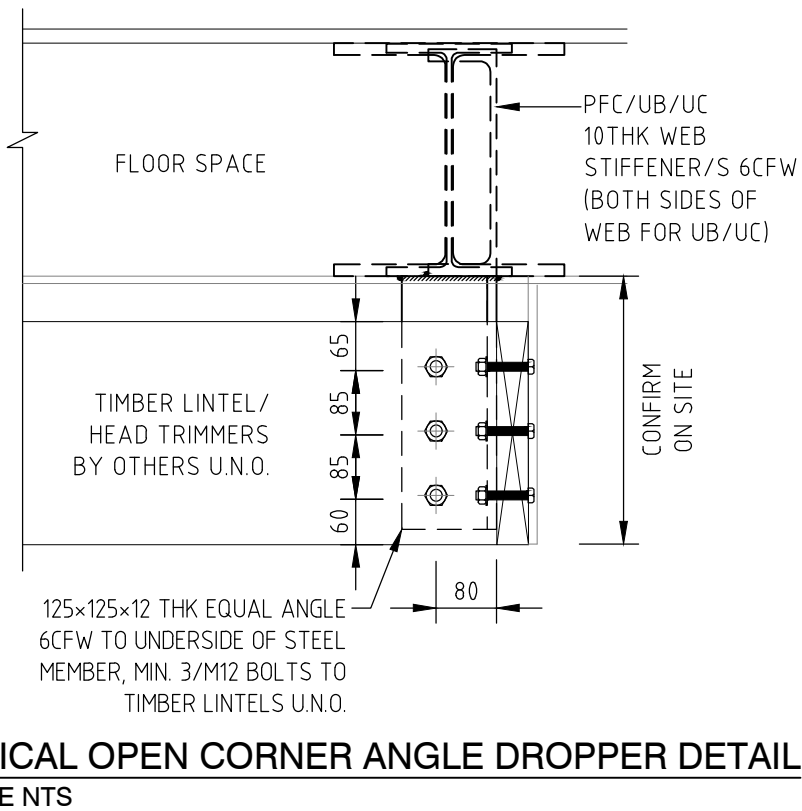
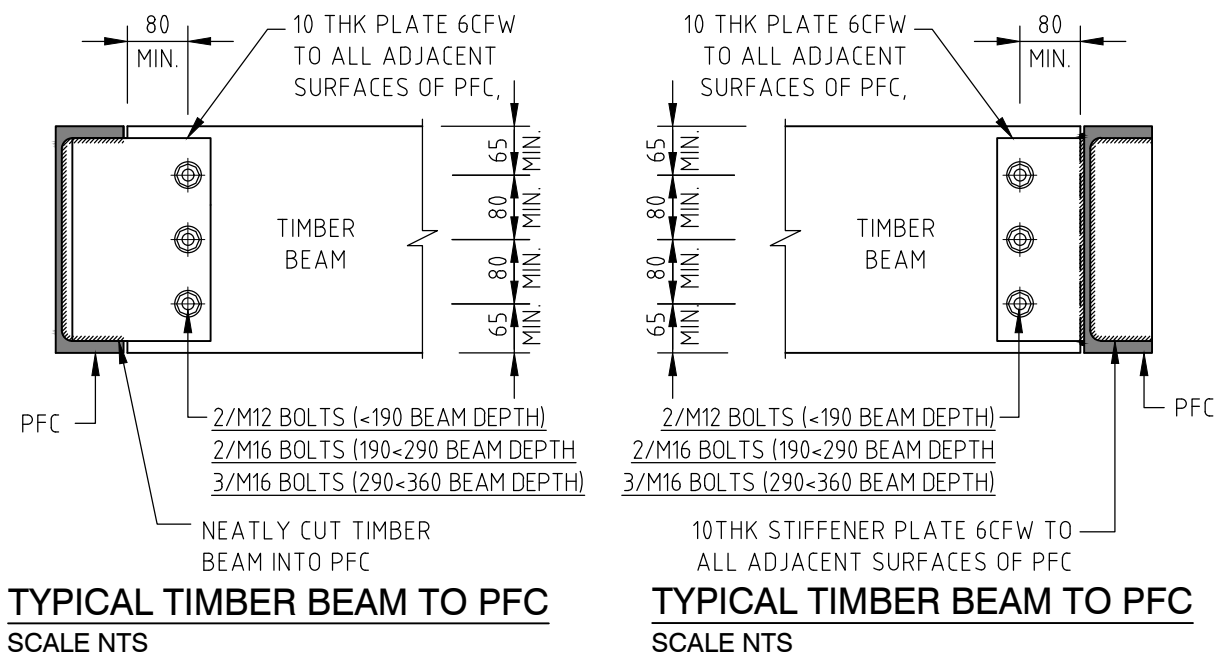
S20 | -

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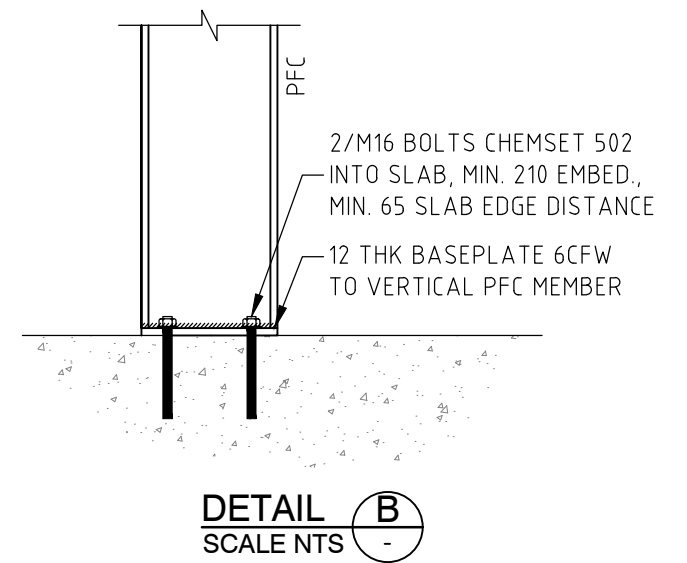
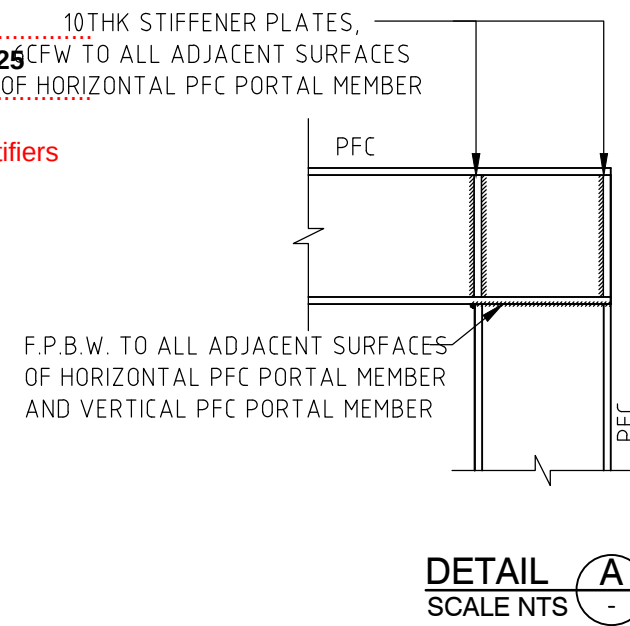
SCALE

NTS U.N.O. WIND LOADING 52.54 m/s

3 SHEET SIZE



Building Act 1975 -
Development Permit (Building)
BA5757
BA#.....
26 August 2025
Date.....
TJB Building Certifiers



REPORT NAME		249962	ISSUE	ISSUE DESCRIPTION	DATE
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CLIENT	CLIENT REFERENCE	CLIENT JOB #	-	-	-
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ADDRESS		RP / SP NUMBER	-	-	-
CITY OF GOLD COAST			-	-	-
LOCAL AUTHORITY					

STANDARD POOL NOTES

GENERAL

1. THE POOL STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS. SAMPLING AND TESTING OF CONCRETE TO BE IN ACCORDANCE WITH AS3600 CONCRETE STRUCTURES.
2. CONCRETING SHALL BE CARRIED OUT IN ONE CONTINUOUS OPERATION AND BE APPLIED USING A PNEUMATIC SPRAYING PROCESS. THE CONCRETE SHALL HAVE A MINIMUM ULTIMATE CHARACTERISTIC STRENGTH (f'c) OF 32MPa AT 28 DAYS MINIMUM AND THE MINIMUM CEMENT CONTENT OF THE MIX SHALL BE 280kg/m³ AND HAVE A MAXIMUM AGGREGATE SIZE OF 10mm. FOR POOLS IN TIDAL OR SPLASH ZONE OF SALT WATER, OR IN CONTACT WITH AGGRESSIVE WATER, THE CONCRETE STRENGTH SHALL BE INCREASED TO 40MPa. (ALL WORK IN ACCORDANCE WITH AS2783 AND RELEVANT AUTHORITIES GUIDELINES AND SPECIFICATIONS)
3. THE REINFORCEMENT MUST BE ELECTRICALLY BONDED & EARTHED.
4. COPING IS DESIGNED FOR SUPERIMPOSED LOADING OF UP TO 1.5kPa.
5. ALL DIMENSIONS GIVEN ARE FOR THE STRUCTURAL COMPONENTS OF THE POOL ONLY. DIMENSIONS OF FINISHES ARE ADDITIONAL TO THOSE SHOWN. ALL DIMENSIONS OUT OF GROUND ARE CALCULATED FROM THE NATURAL GROUND LEVEL, INCLUDING THE DEPTH OF ANY FILL AND MAY VARY ON EACH SITE.
6. PLUMBING, DRAINAGE, ELECTRICAL CONDUITS AND SECURITY FENCING SHALL BE IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AND LOCAL AUTHORITIES GUIDELINES AND SPECIFICATIONS.
7. FENCING SHALL COMPLY WITH AS1926. REFER TO AS2818 AND LOCAL AUTHORITIES GUIDELINES AND SPECIFICATIONS FOR SWIMMING POOL SAFETY REQUIREMENTS.
8. THE DETAILS ON THESE DRAWINGS REFER ONLY TO THE STRUCTURAL COMPONENTS OF THE POOL.
9. APPROVED WATERPROOFING SHALL BE PROVIDED BY OTHERS AS PER MANUFACTURERS SPECIFICATIONS.
10. POOL HYDRAULICS (WATER CIRCULATION) AND FILTRATION SYSTEM BY OTHERS.
11. POOL FOUNDATIONS SHOULD EXTEND BELOW ANY EXISTING SERVICES, & THE HORIZONTAL CLEAR DISTANCE SHOULD BE 1m MINIMUM.

SALT WATER POOL

1. IF A SALT WATER CHLORINATOR IS USED, CONCENTRATION TO BE KEPT BELOW 10,000 PPM

POOL SIZE

1. THE MAXIMUM OVERALL INTERNAL DIMENSIONS OF THE POOL SHALL NOT EXCEED 16.7 METRES IN LENGTH BY 7 METRES IN WIDTH.
2. WATER SURFACE AREA SHALL NOT EXCEED 100m².

CURING

1. IMMEDIATELY AFTER THE PNEUMATIC CONCRETE HAS BEEN PLACED, IT SHALL BE PROTECTED FROM PREMATURE DRYING BY SHADING FROM DIRECT SUNLIGHT AND SHIELDING FROM WIND. IMMEDIATELY AFTER CONCRETE HAS HARDENED IT SHALL BE THOROUGHLY WETTED AND KEPT CONTINUOUSLY WET FOR A MINIMUM OF 7 DAYS. BACKFILLING AND POOL FILLING SHALL NOT TAKE PLACE FOR A MINIMUM OF 7 DAYS.

REINFORCEMENT & COVER

1. REINFORCEMENT SHOWN 'S12' SHALL BE 12mm DIAMETER DEFORMED BARS TO AS1302. REINFORCEMENT SHALL BE SECURELY FIXED AND SUPPORTED TO OBTAIN CORRECT COVER TO BARS AS NOTED IN COVER TABLE ON THIS PAGE. UNLESS NOTED OTHERWISE ALL REINFORCING TO BE LOCATED CENTRALLY AND BAR LAPS TO BE 500mm MINIMUM.

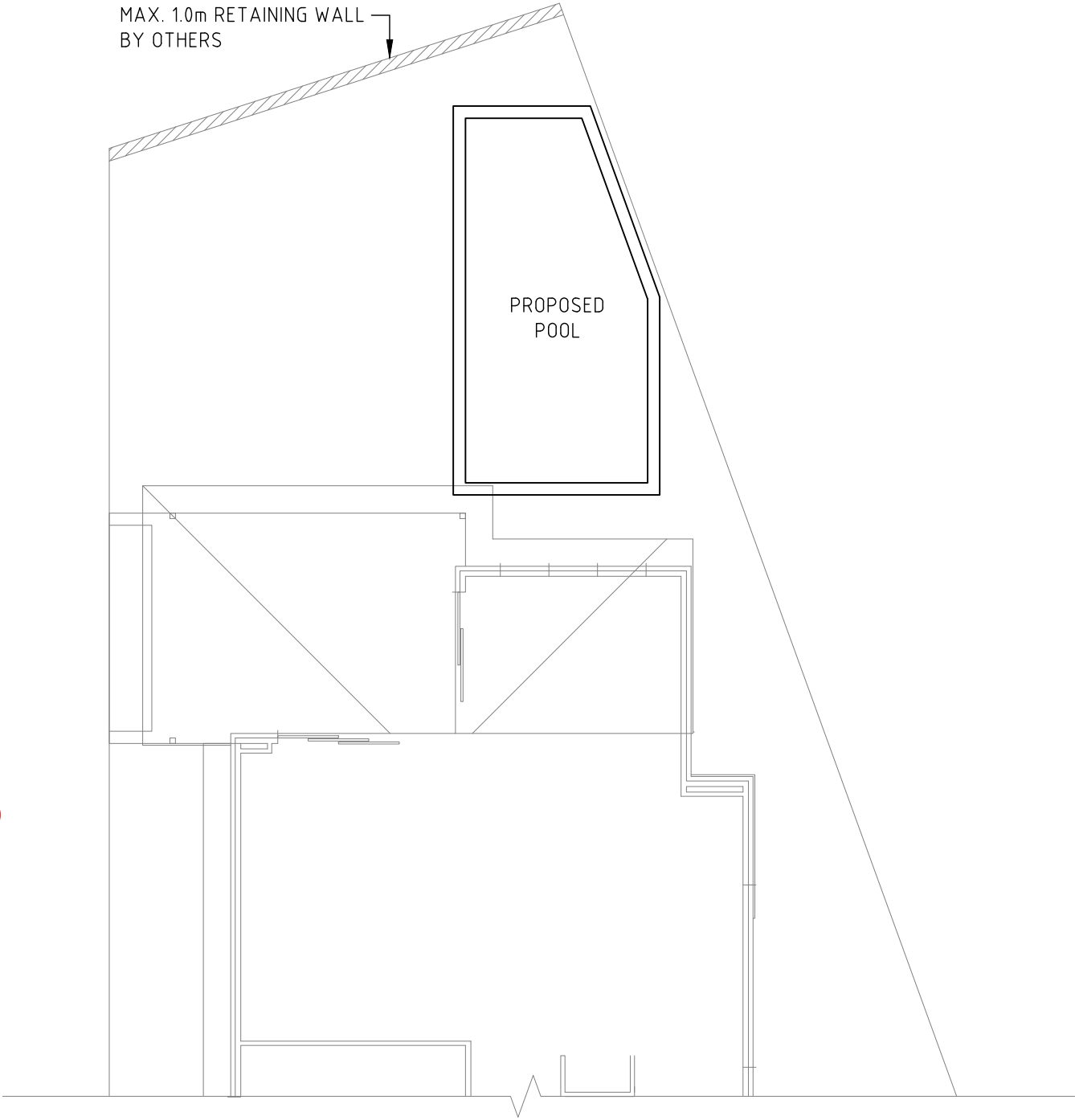
GROUND WATER

1. THE DESIGN REQUIRES THAT GROUND WATER PRESSURE TO POOL WALLS AND FLOOR SLAB BE RELIEVED BY INSTALLATION OF A HYDROSTATIC VALVE WITH MAIN DRAIN DETAIL.
2. ALL SURFACE WATER SHALL BE DIRECTED AWAY FROM THE POOL.

FOUNDATIONS

1. WHERE THE POOL IS TO BE CONSTRUCTED IN ROCKY OR CLAYEY GROUND, A 75mm LAYER OF 20mm DIAMETER MAXIMUM GRAVEL SHALL BE SPREAD UNDER PROPOSED POOL SLAB.
2. WHERE THERE ARE ANY VARYING FOUNING MATERIALS AND/OR UNDISTURBED FIRM NATURAL GROUND IS NOT ENCOUNTERED OVER THE POOL CONSTRUCTION SITE, REFER ENGINEER FOR FURTHER FOUNDATIONS DESIGN.
3. ALL TOPSOIL AND ORGANIC MATTER UNDER THE POOL SLAB IS TO BE REMOVED. THE DESIGN REQUIRES THAT THE POOL BASE BE CONSTRUCTED ON UNDISTURBED FIRM NATURAL GROUND CAPABLE OF WITHSTANDING A MINIMUM BEARING PRESSURE OF 100kPa UNLESS APPROVED BY THE ENGINEER.
4. WHERE THE POOL WALLS ARE NOT POURED AGAINST FIRM NATURAL GROUND TO THE LEVELS SHOWN ON THE DRAWING, THE DESIGN OF THE WALLS SHALL BE REVIEWED BY THE ENGINEER AND RECTIFIED AS REQUIRED.
5. IF OVER EXCAVATION IS REQUIRED TO ACHIEVE UNDISTURBED FIRM NATURAL GROUND TO THE UNDERSIDE OF THE POOL BASE, SEAT, AND BENCH AREAS, THE OVER EXCAVATION SHALL BE BACKFILLED WITH TYPICAL MAX. 20mm CLEAN GRAVEL OR CLEAN SAND.
6. HOUSE FOOTINGS CLOSE TO THE POOL SHALL BE PIERED LOWER THAN THE INVERT OF THE POOL SLAB AND EMBEDDED A MINIMUM OF 300mm INTO FIRM NATURAL GROUND OR AS SPECIFIED ON THE DRAWINGS.
7. IF PIERING OR PILING IS REQUIRED, THE PIERS MUST EMBEDDED A MINIMUM OF 300mm INTO FIRM NATURAL GROUND OR AS SPECIFIED ON THE DRAWINGS. PIERING MUST BE PROVIDED WHEN THE POOL SLAB/EDGE BEAM ISN'T BEARING INTO NATURAL GROUND. IF SPACING NOT SHOWN MAX 1800c/c

MINIMUM CONCRETE COVER TO REINFORCEMENT	
EXPOSURE CONDITION	MINIMUM CLEAR COVER (mm)
FORMED FACE OF IN SITU CONCRETE	40
EXPOSED FACE OF PNEUMATICALLY APPLIED CONCRETE	50
CONCRETE PLACED IN CONTACT WITH THE GROUND	60
FACES EXPOSED TO AGGRESSIVE WATER (SEE CLAUSE 5.1)	70



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BA5757

BA#.....

26 August 2025

Date.....

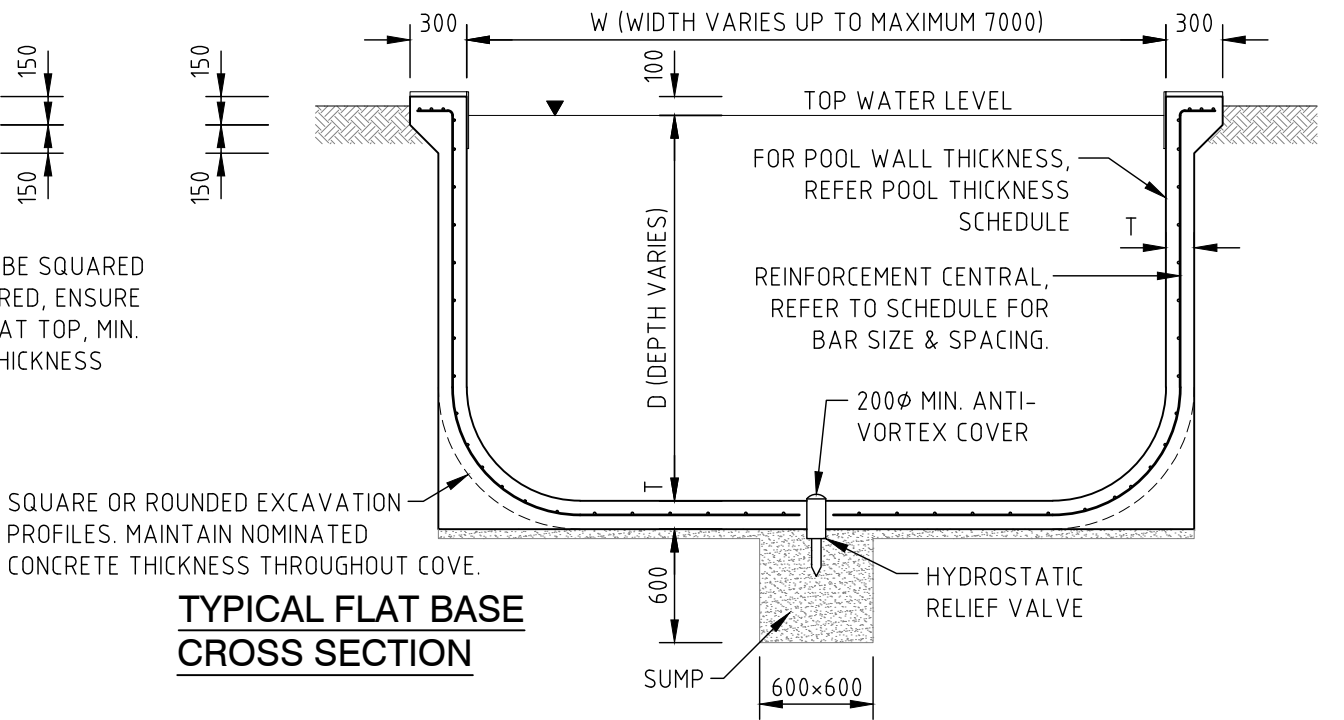
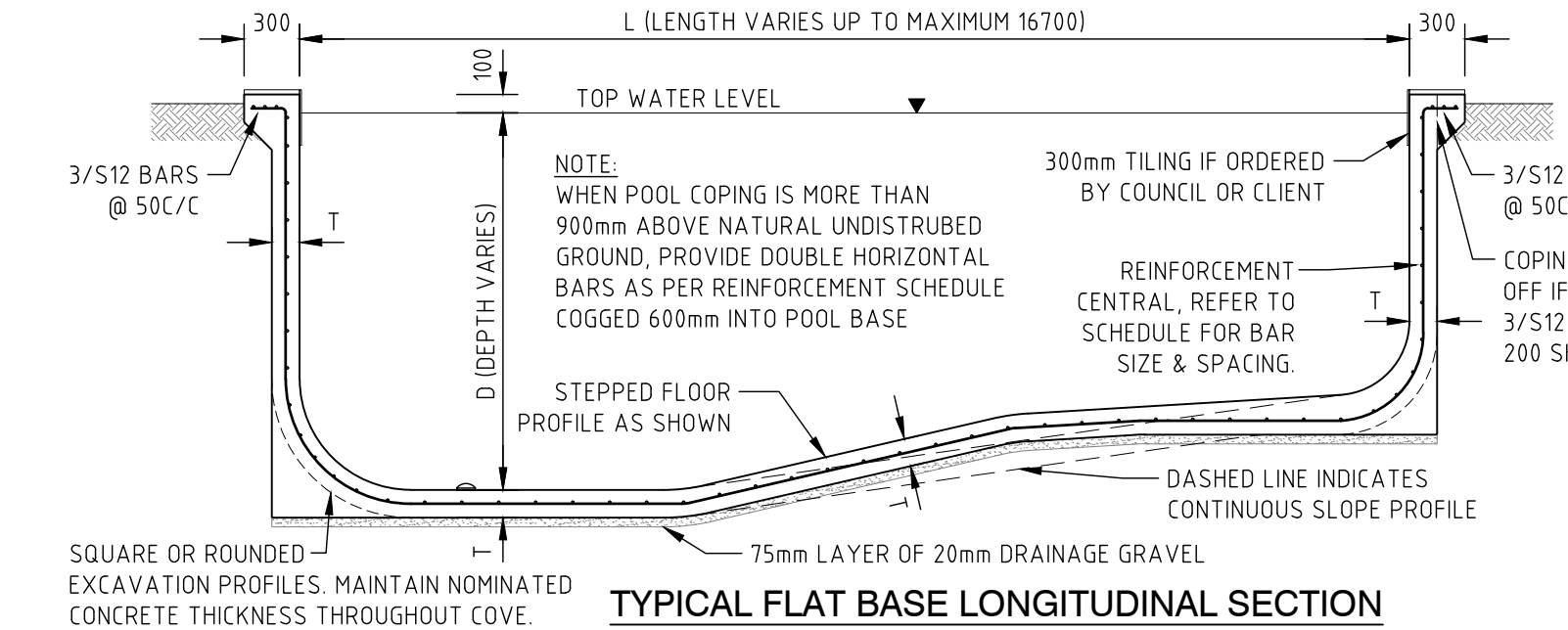
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POOL PLAN

SCALE 1:100

- ALL OF POOL SHELL TO BE FOUNDED Min 200 INTO NATURAL WEATHERED ROCK WITH MIN. BEARING CAPACITY OF 100kPa. FOUND POOL VIA PIERS IF REQUIRED, CONTACT ENGINEERS FOR DETAILS.
 - WHERE POOL SHELL DOES NOT BEAR DIRECTLY ON TO NATURAL WEATHERED ROCK PROVIDE 450Ø BORED PIERS TO NAT. WEATHERED ROCK @ 2000C/C MAX
 - ALL STEELWORK & FIXINGS AROUND POOL TO BE CORROSION TREATED FOR POOL ENVIRONMENT BY OTHERS
- IF SOIL CONDITIONS DIFFER FROM STA SITE INVESTIGATION (JOB# ES 249962) DURING EXCAVATION CONTACT STA FOR ADVICE PRIOR TO INSTALLATION OF POOL STEEL

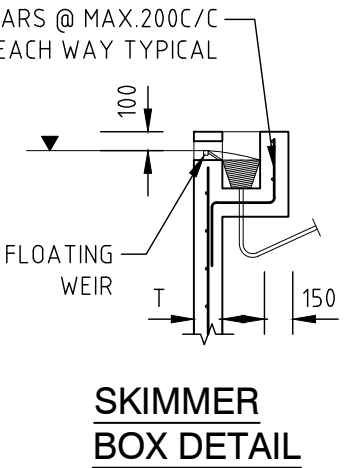
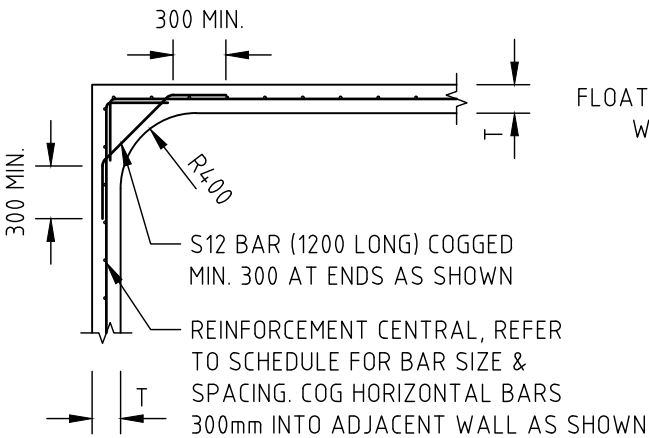
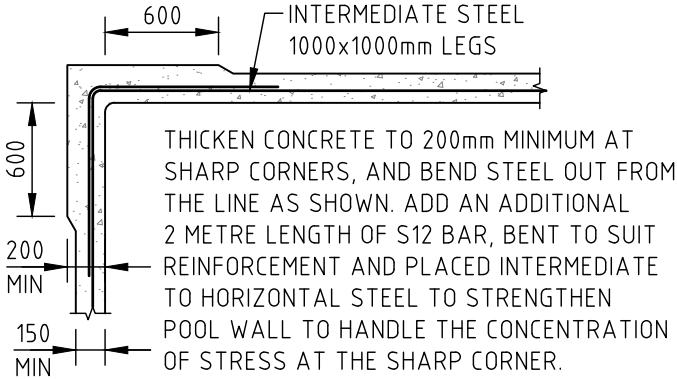
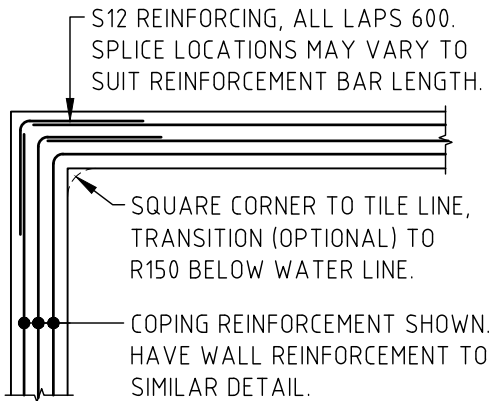
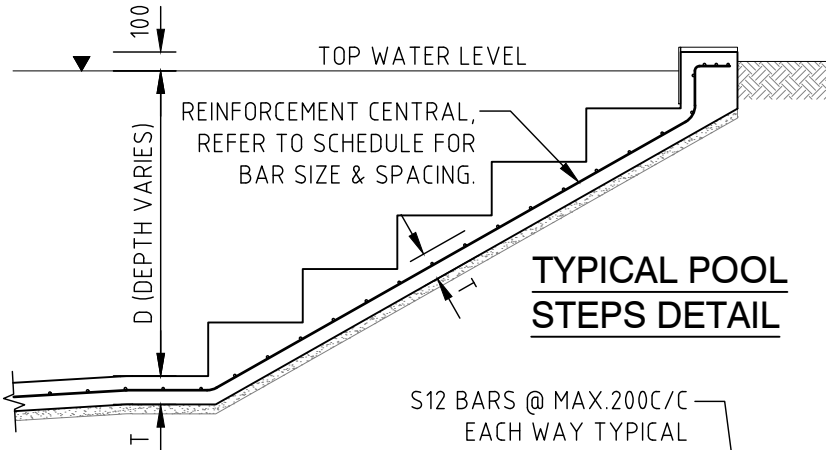
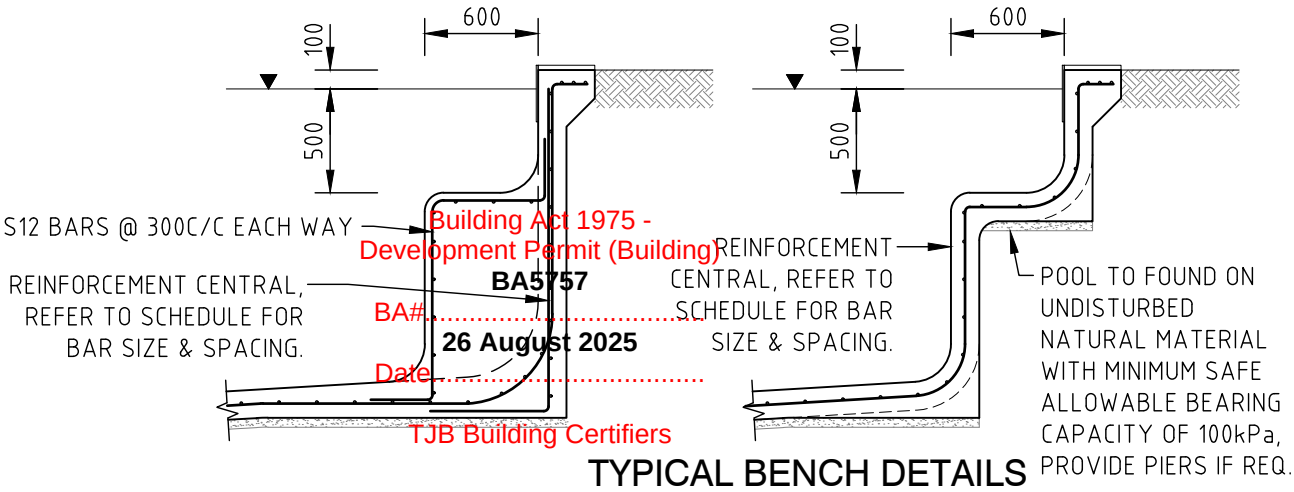
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	ADDRESS		RP / SP NUMBER	-	-	-	
	CITY OF GOLD COAST			-	-	-	
		LOCAL AUTHORITY					



POOL SIZE SCHEDULE			
200mm CONC. SHELL (T) - 2200mm MAX. POOL/SPA DEPTH			
POOL DEPTH (D)	REINFORCEMENT (CENTRAL U.N.O.)		
WALL HEIGHT	VERT.	HORIZ.	HORIZ. (WHERE WALL IS >900 OUT OF GROUND)
0-1300	S12 @ 220	S12 @ 220	S12 @ 120
1301-1800	S12 @ 180	S12 @ 220	S12 @ 120
1801-2200	S12 @ 100	S12 @ 220	S12 @ 120

THE ABOVE TABLE IS ONLY FOR A CONCRETE SHELL THICKNESS OF 200mm.

- NOTE:
- 1) MINIMUM STEEL REQUIREMENTS AS PER AS2783-1992 TABLE 2.
 - 2) VERTICAL REINFORCEMENT IS TO EXTEND TO COPING HEIGHT.
 - 3) WHERE POOL SHELL EXTENDS 900mm OR GREATER OUT OF GROUND HORIZONTAL REINFORCEMENT IS INCREASED TO ENSURE MINIMUM CRACK CONTROL REQUIREMENTS ARE SATISFIED.



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CITY OF GOLD COAST			-	-	-

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