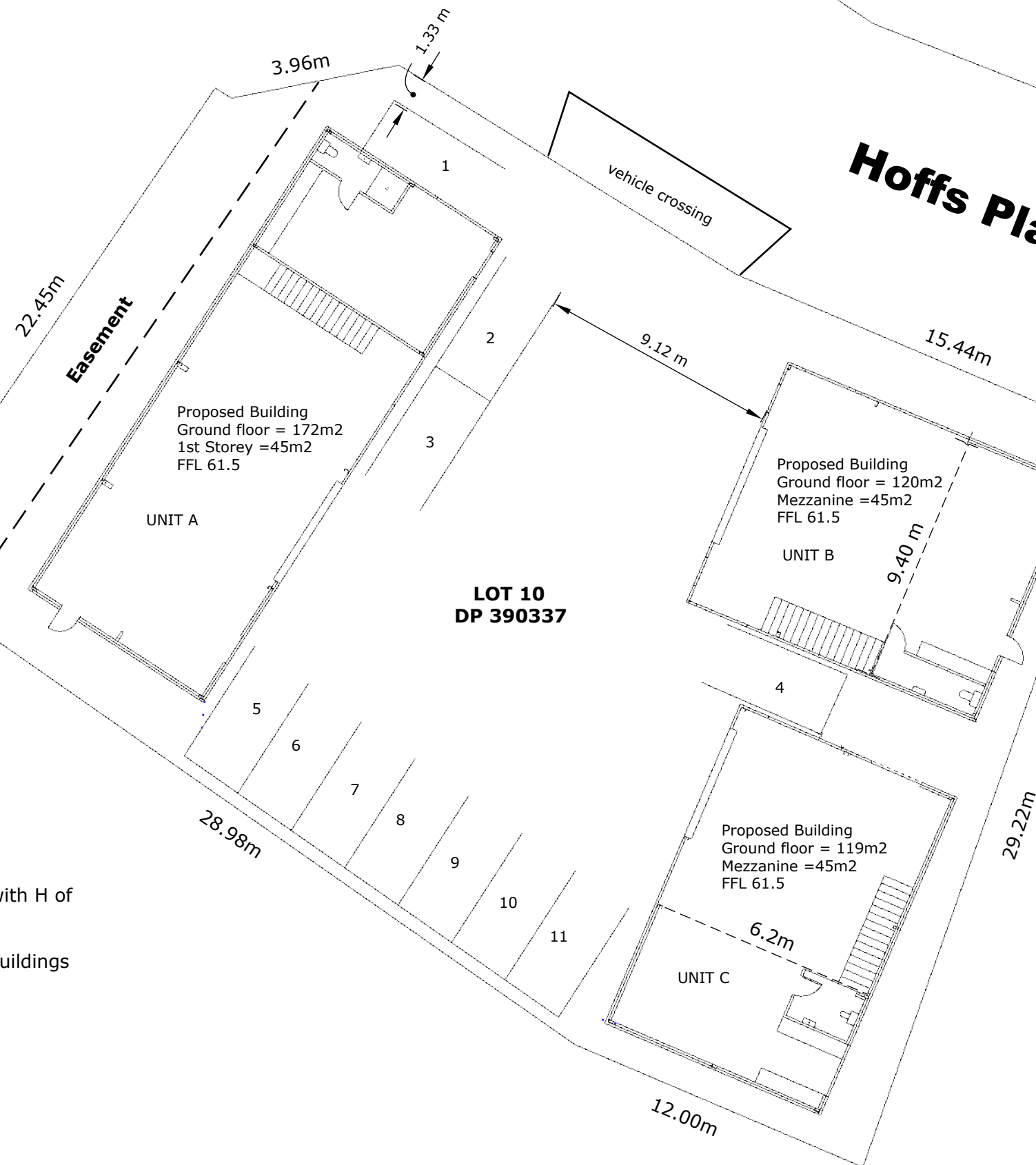


Broken Hill Road

Hoffs Place



NOTES:

Car parks to comply with H of the District Plan

0.5m setbacks from buildings
all parks 2.5m x 5m

Proposed Parking Plan

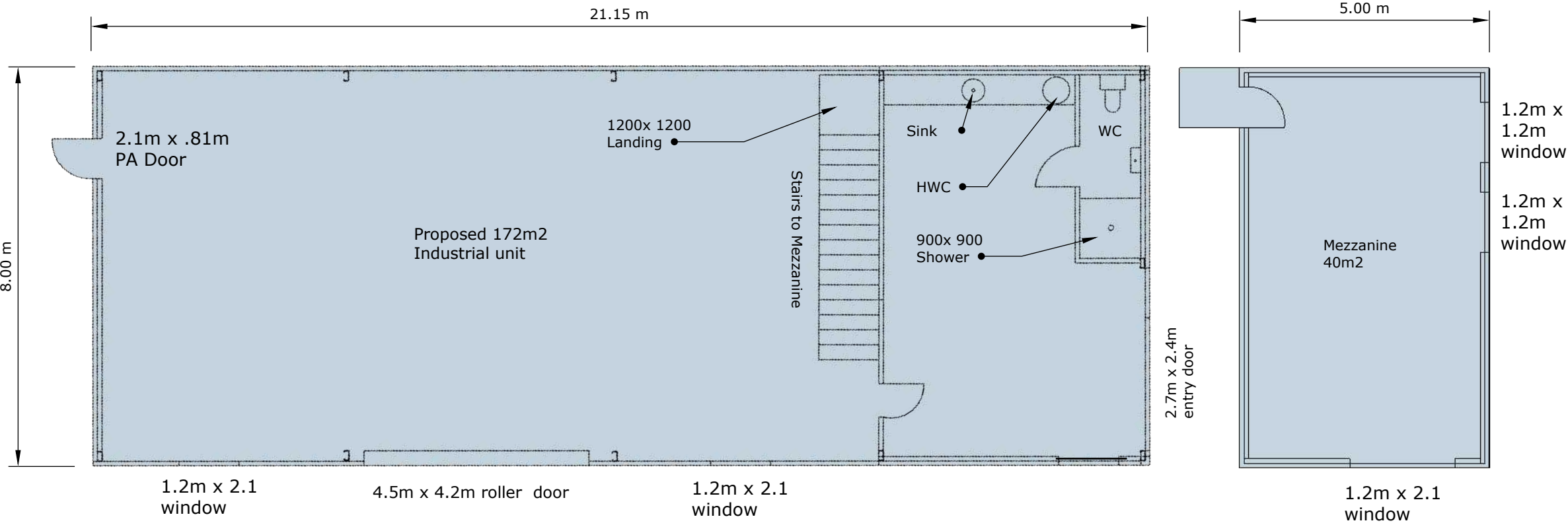
SCALE: 1:200

2 Hoffs Place, PORIRUA
Client: Brent Coutts

Connect Construction and Property Ltd
ewen.thompson@sheds.co.nz



Ventilation: Whirlybird mechanical ventilation to Warehouse
Windows greater than 5 % of floor coverage in office
and 1st floor
Extractor fan to kitchenette and WC



FIREWALLS TO WALLS AND HEIGHTS AS PER FIRE REPORT

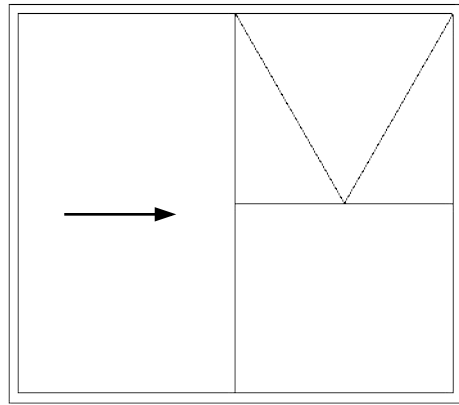
Gib Specification GBUW 120 (120/120/120)
ONE WAY FRR Timber or steel frame

Refer page 35 of attached Gib Fire rated system.

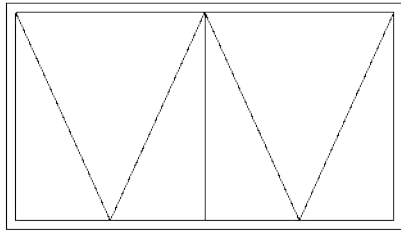
- 1) Stud spacings 600mm maximum
- 2) Frame height and dimensions to as determined by 3604 stud tables or specific design.
- 3) 2 layers of 19mm Gib Fyrelite to one side of the frame.
- 4) Use full sheets where possible.

Fasteners
Inner layer-41mm x 6g Gib Grabber High thread drywall screws
Outer layer-51mm x 7g screws as above

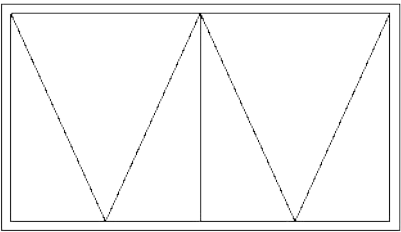
NOTE: All framing assessed as internal walls as all exterior walls are engineered as part of or steel shed structure



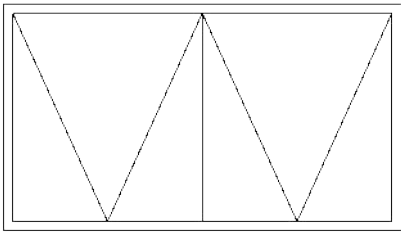
Double Glazed powder coated sliding door with sash



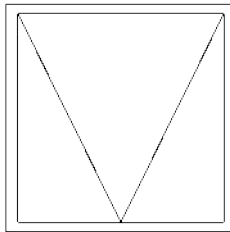
Double Glazed powder coated 2.1 x 1.2m window



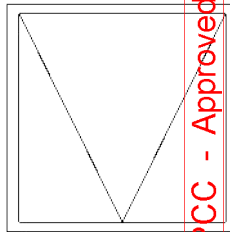
Double Glazed powder coated 2.1 x 1.2m window



Double Glazed powder coated 2.1 x 1.2m window

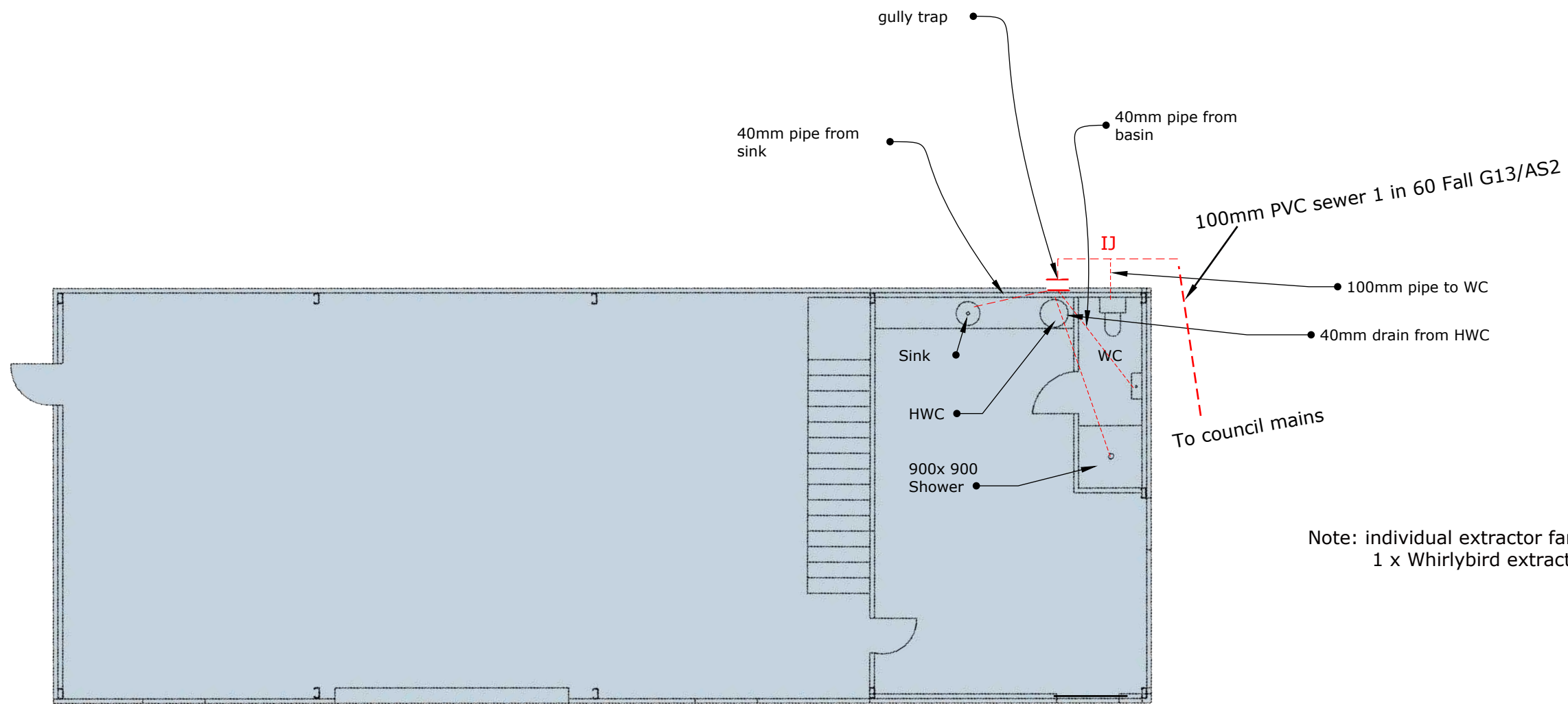


Double Glazed powder coated 1.2 x 1.2m window



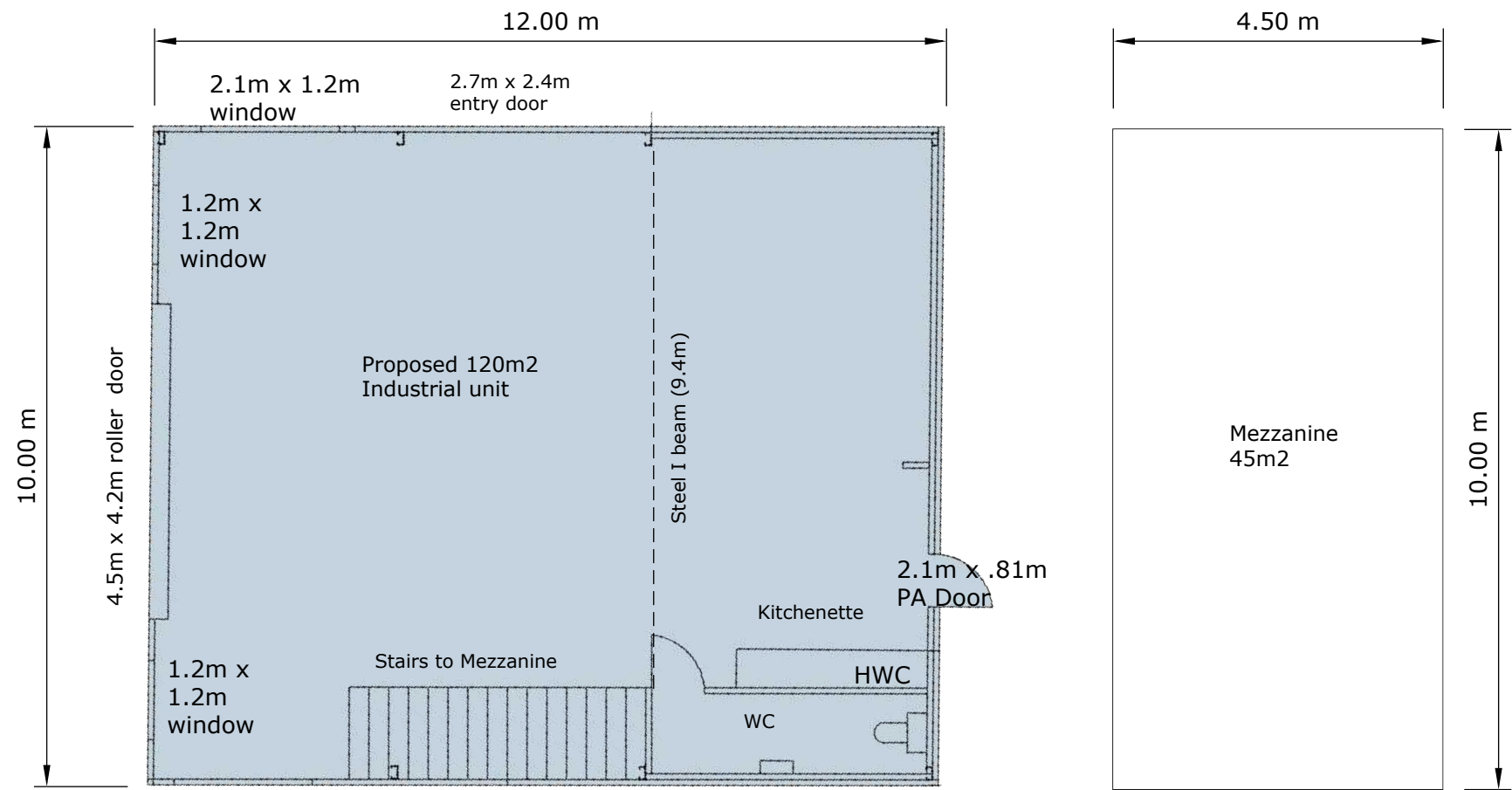
Double Glazed powder coated 1.2 x 1.2m window

PCC - Approved Building Consent Document - BCA041918 - Pg 3 of 86 - 19/10/2018 - TStraker



Note: individual extractor fans to both WC and Kitchen
1 x Whirlybird extractor to Warehouse

Ventilation: Whirlybird mechanical ventilation to Warehouse
Extractor fans to WC and kitchenette



FIREWALLS TO WALLS AND HEIGHTS AS PER FIRE REPORT

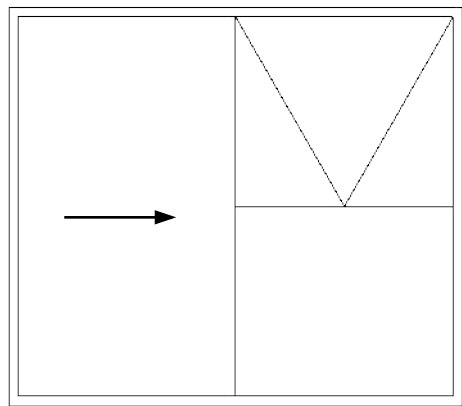
Gib Specification GBUW 120 (120/120/120)
ONE WAY FRR Timber or steel frame

Refer page 35 of attached Gib Fire rated system.

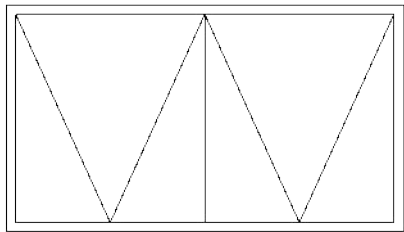
- 1) Stud spacings 600mm maximum
- 2) Frame height and dimensions to as determined by 3604 stud tables or specific design.
- 3) 2 layers of 19mm Gib Fyrelite to one side of the frame.
- 4) Use full sheets where possible.

Fasteners
Inner layer-41mm x 6g Gib Grabber High thread drywall screws
Outer layer-51mm x 7g screws as above

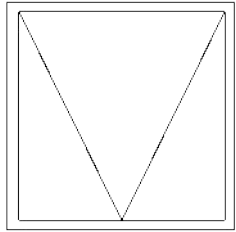
NOTE: All framing assessed as internal walls as all exterior walls are engineered as part of or steel shed structure



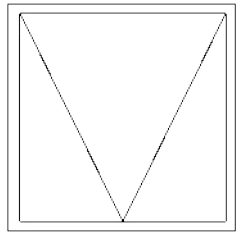
Double Glazed powder coated sliding door with sash



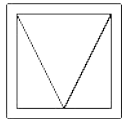
Double Glazed powder coated 2.1 x 1.2m window



Double Glazed powder coated 1.2 x 1.2m window



Double Glazed powder coated 1.2 x 1.2m window

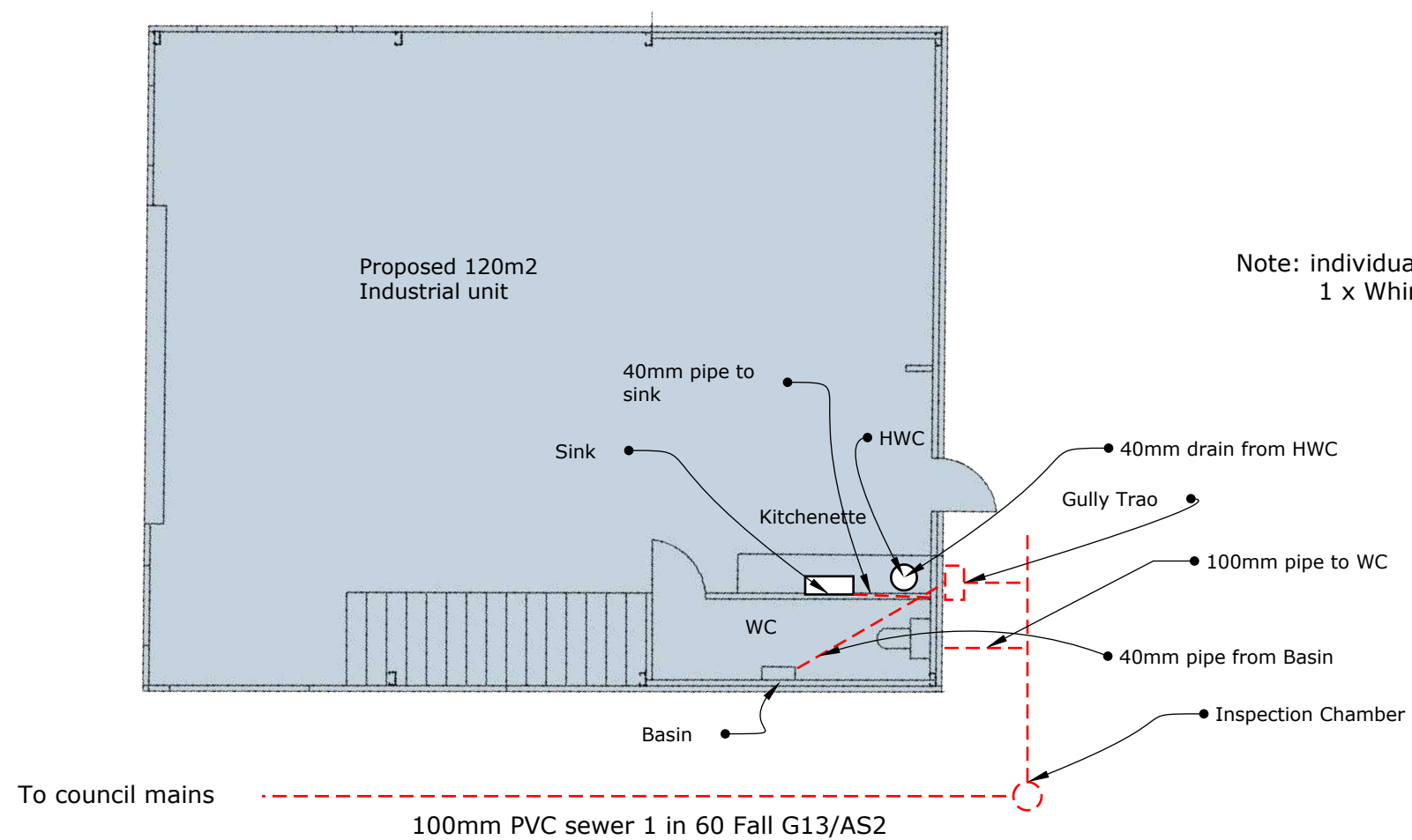


Floor plan unit B
SCALE: 1:100

2 Hoffs Place, PORIRUA
Client: Brent Coutts

Connect Construction and Property Ltd
ewen.thompson@sheds.co.nz





Note: individual extractor fans to both WC and Kitchen
1 x Whirlybird extractor to Warehouse

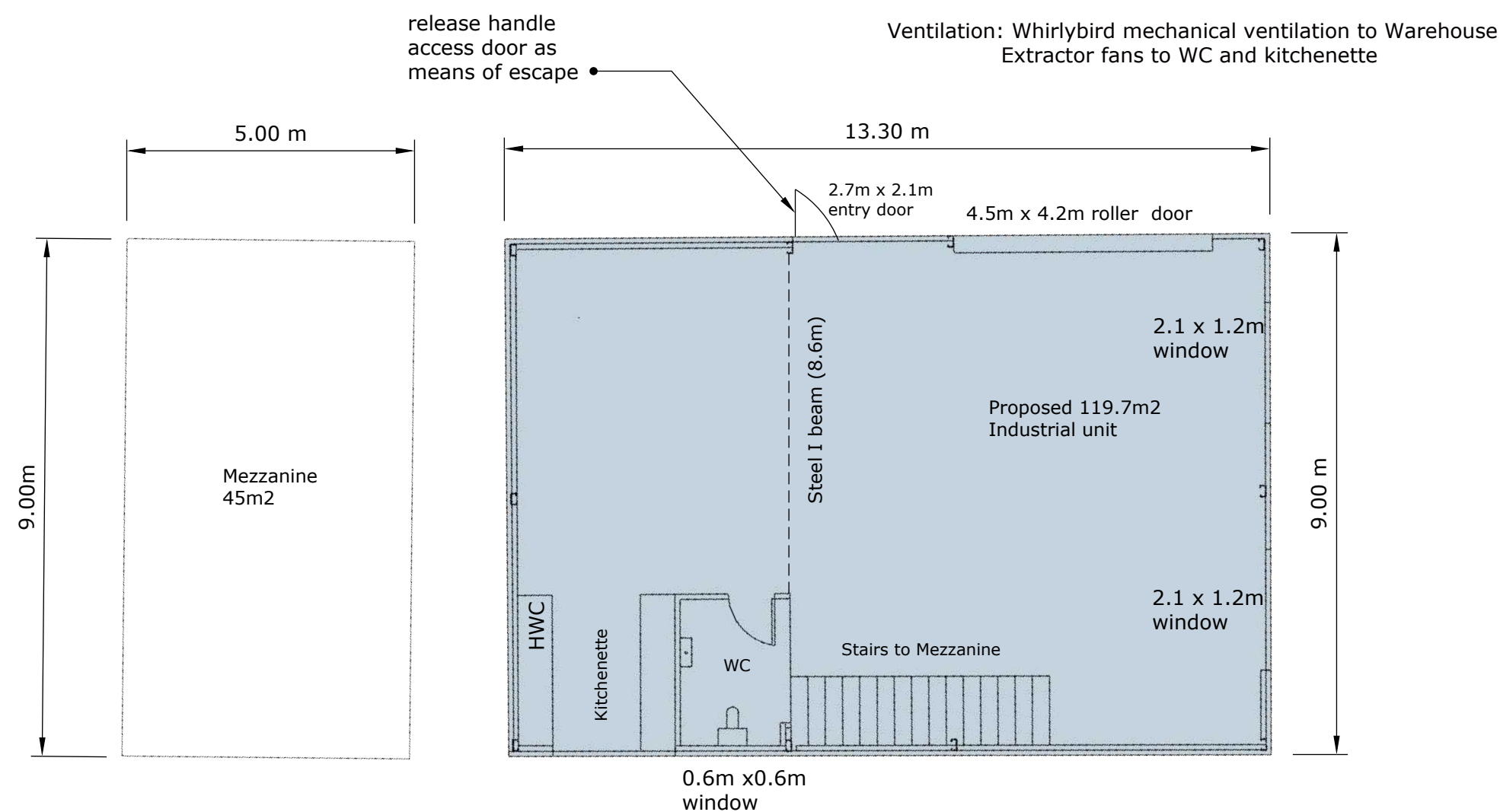
Drainage system unit B

SCALE: 1:100

2 Hoffs Place, PORIRUA
Client: Brent Coutts

Connect Construction and Property Ltd
ewen.thompson@sheds.co.nz

Wide Span Sheds
No Compromise Steel Building Solutions



FIREWALLS TO WALLS AND HEIGHTS AS PER FIRE REPORT

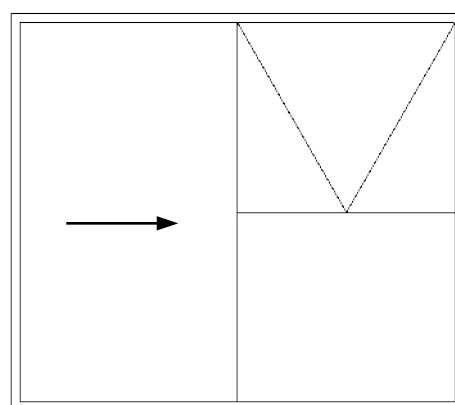
Gib Specification GBUW 120 (120/120/120)
ONE WAY FRR Timber or steel frame

Refer page 35 of attached Gib Fire rated system.

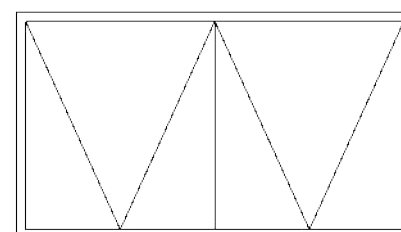
- 1) Stud spacings 600mm maximum
- 2) Frame height and dimensions to as determined by 3604 stud tables or specific design.
- 3) 2 layers of 19mm Gib Fyrelite to one side of the frame.
- 4) Use full sheets where possible.

Fasteners
Inner layer-41mm x 6g Gib Grabber High thread drywall screws
Outer layer-51mm x 7g screws as above

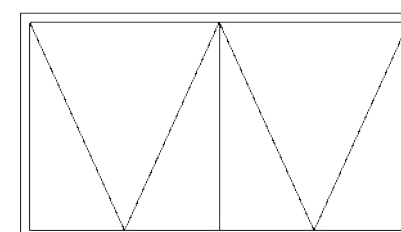
NOTE: All framing assessed as internal walls as all exterior walls are engineered as part of or steel shed structure



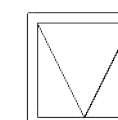
Double Glazed powder coated sliding door with sash



Double Glazed powder coated 2.1 x 1.2m window



Double Glazed powder coated 2.1 x 1.2m window



Double Glazed powder coated 0.6 x 0.6m window

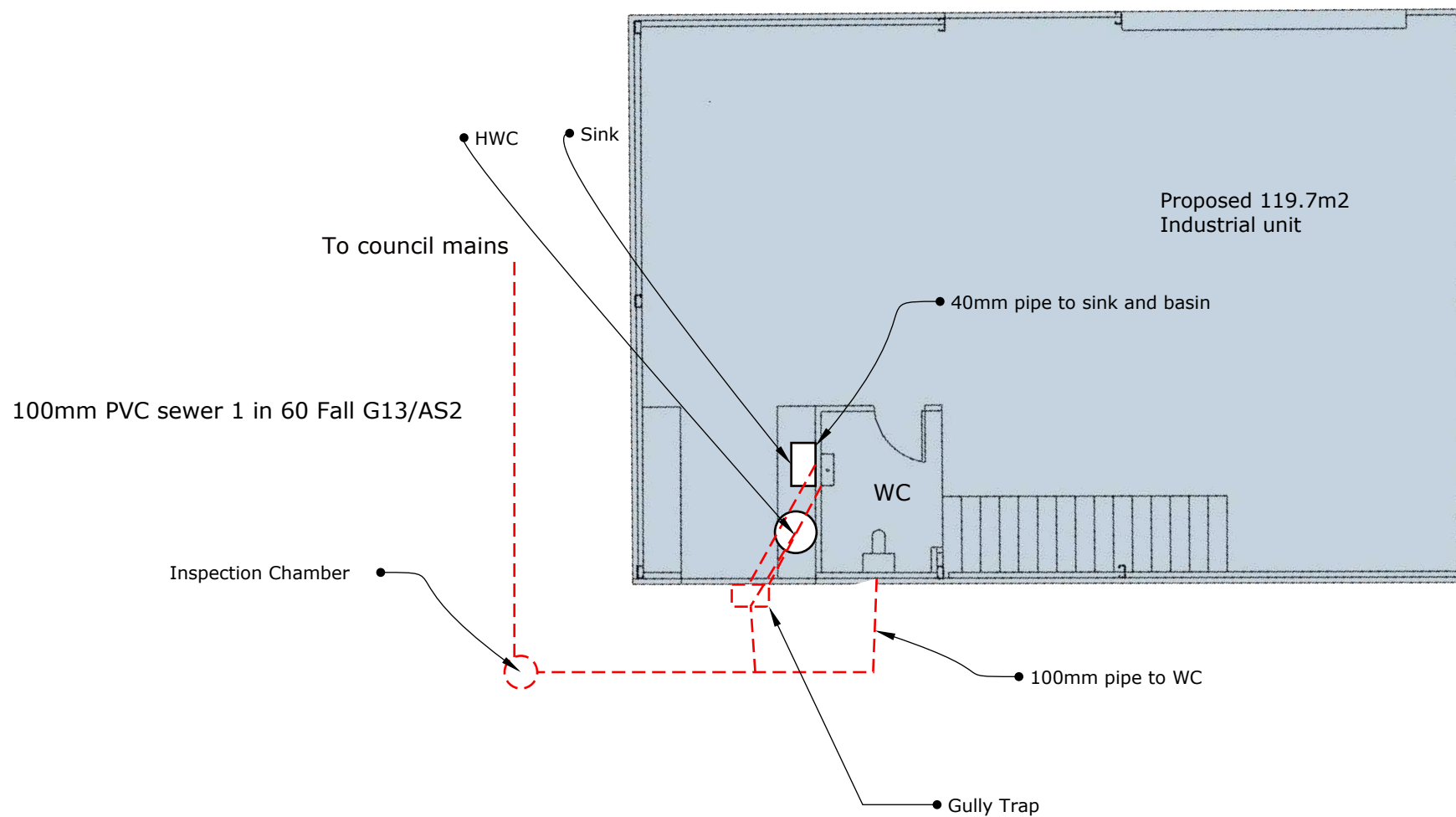
Floor plan unit C

SCALE: 1:100

2 Hoffs Place, PORIRUA
Client: Brent Coutts

Connect Construction and Property Ltd
ewen.thompson@sheds.co.nz





Note: individual extractor fans to both WC and Kitchen
1 x Whirlybird extractor to Warehouse

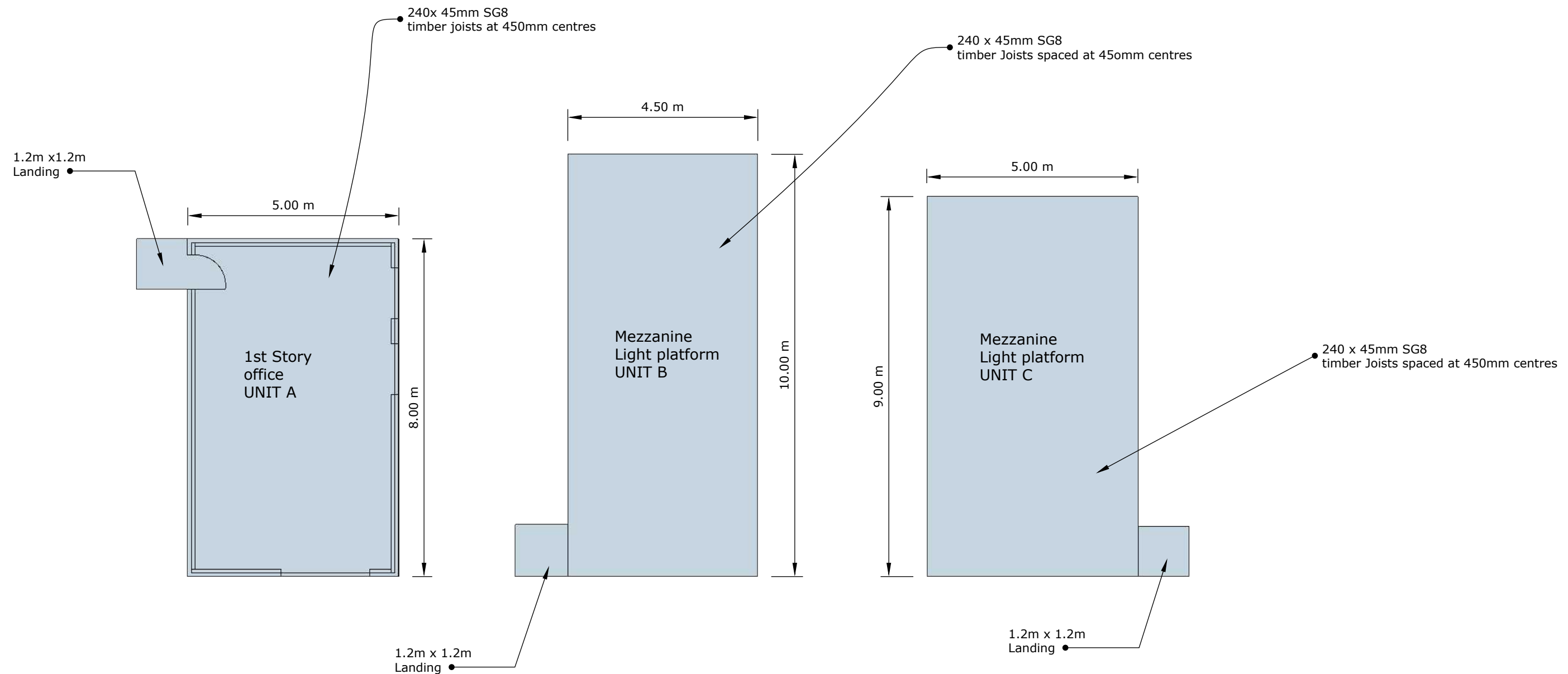
Drainage System unit C

SCALE: 1:100

2 Hoffs Place, PORIRUA
Client: Brent Coutts

Connect Construction and Property Ltd
ewen.thompson@sheds.co.nz





1. All supporting walls to be 90 x45mm timber independent from steel framing as per 3604
2. All bottom plates of supporting walls to be fixed @ 900 crs with M12 trubolts and 50x50x3 washers. (Including Stairs)
3. R3.2 Batts insulation on top of Suspended Ceiling for unit A only
4. R2.2 batts insulation to unit A walls.
5. Untreated 21mm plywood floor
6. All mezzanine support walls to be 30/30/30 (1 layer of 16mm Fyrelime GBUW30a) specification attached
7. Mezzanine support beams to be 30/30/30 (1 layer of 16mm Fyrelime) specification attached
8. Underside of stairs and mezzanines to be 30/30/30 (1 layer of 19mm Fyrelime GBUC30)
9. Gib Ceiling Diaphragms to meet bracing requirements. Gib Specification attached

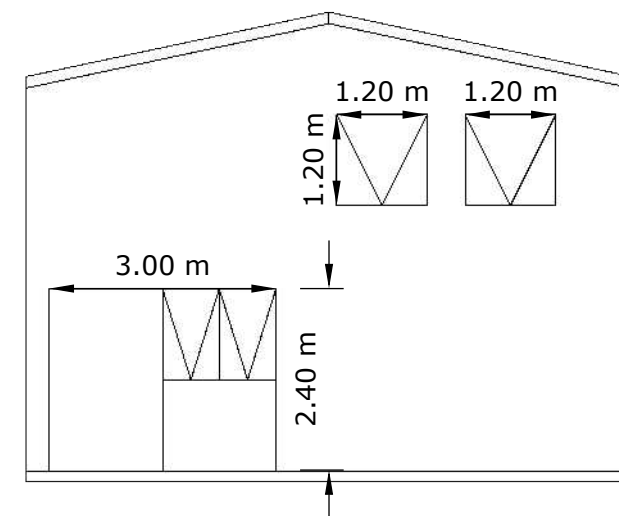
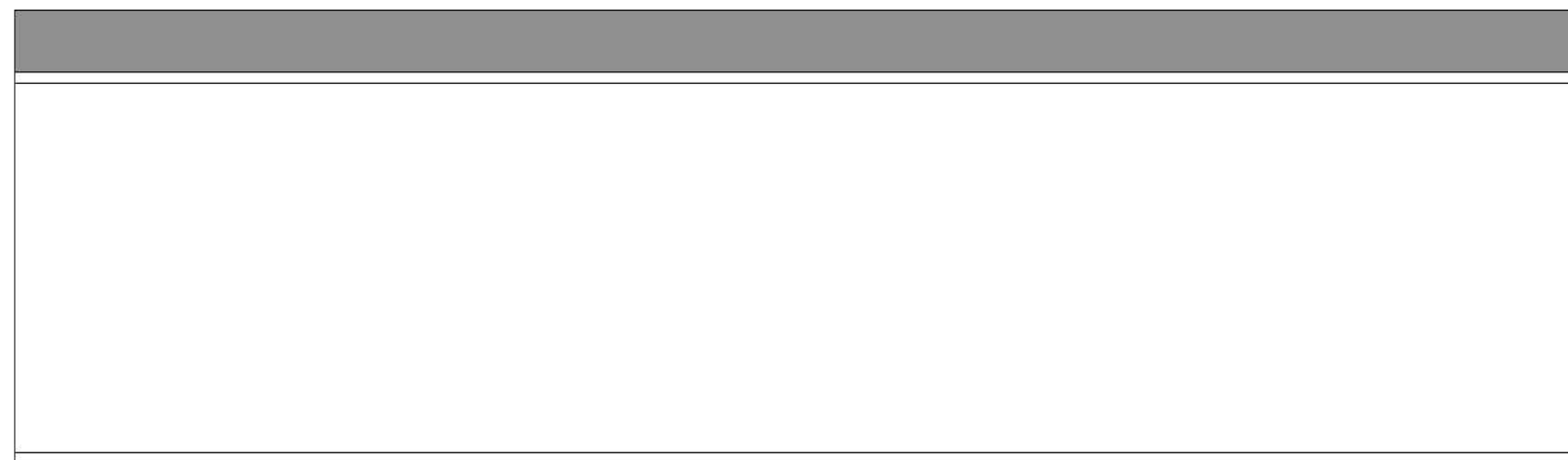
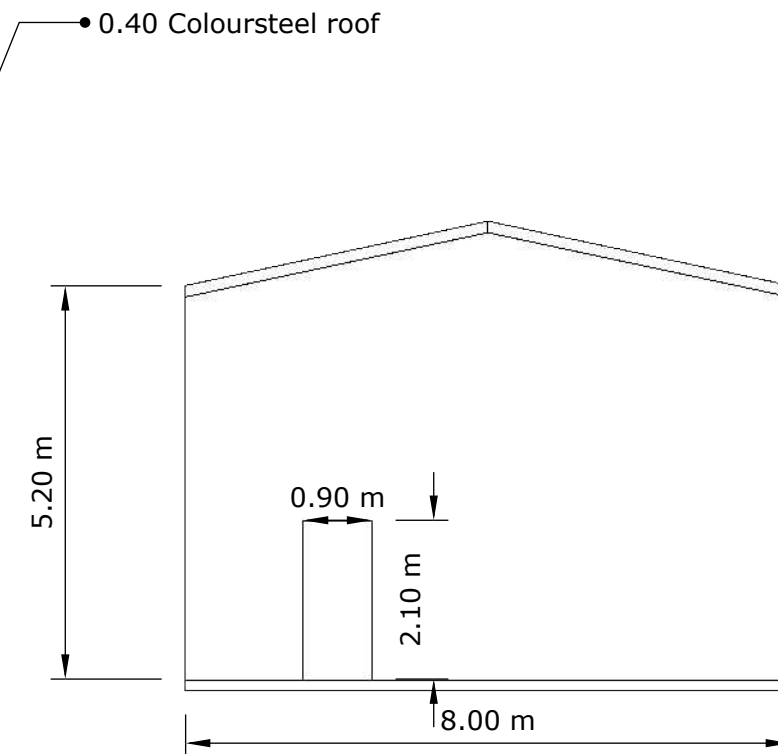
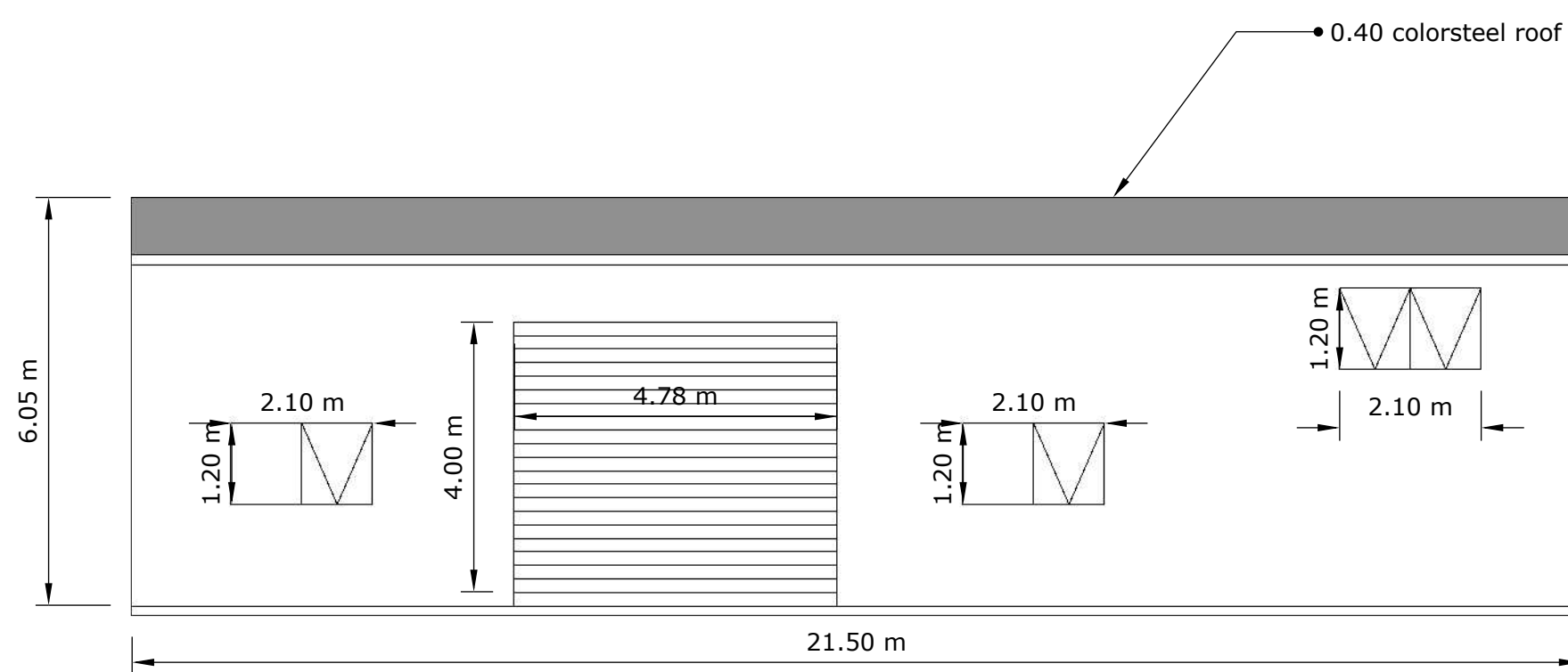
Mezzanine Floor design

SCALE: 1:100

2 Hoffs Place, PORIRUA
Client: Brent Coutts

Connect Construction and Property Ltd
ewen.thompson@sheds.co.nz





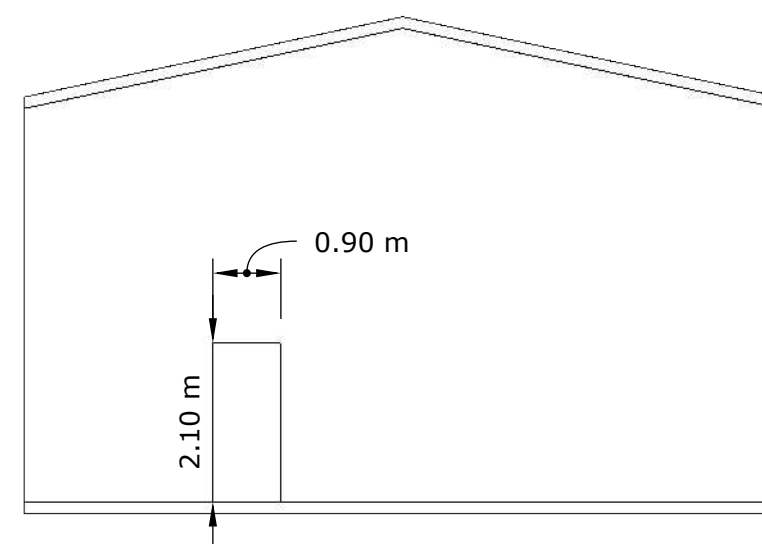
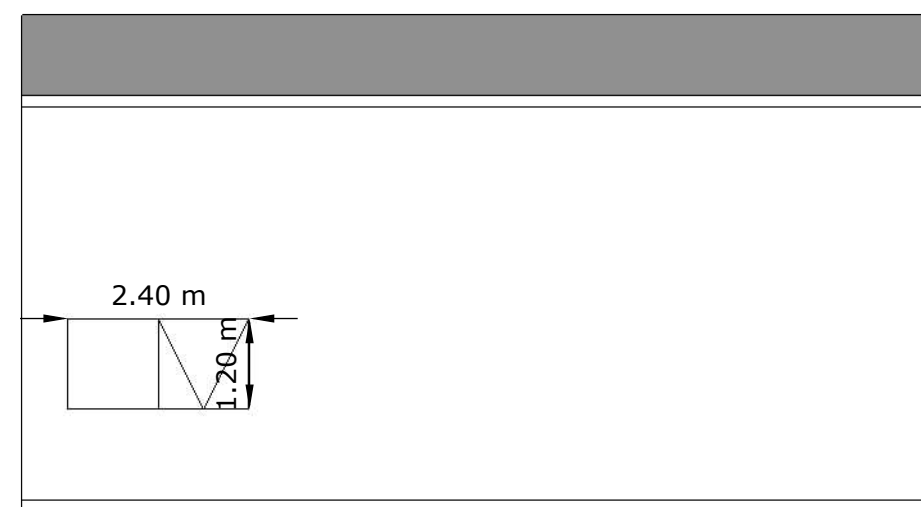
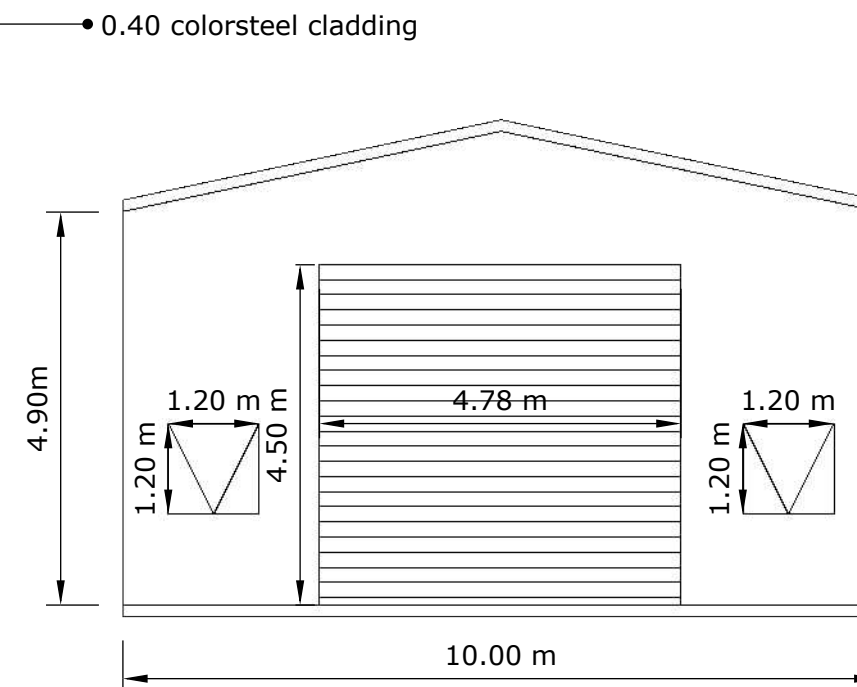
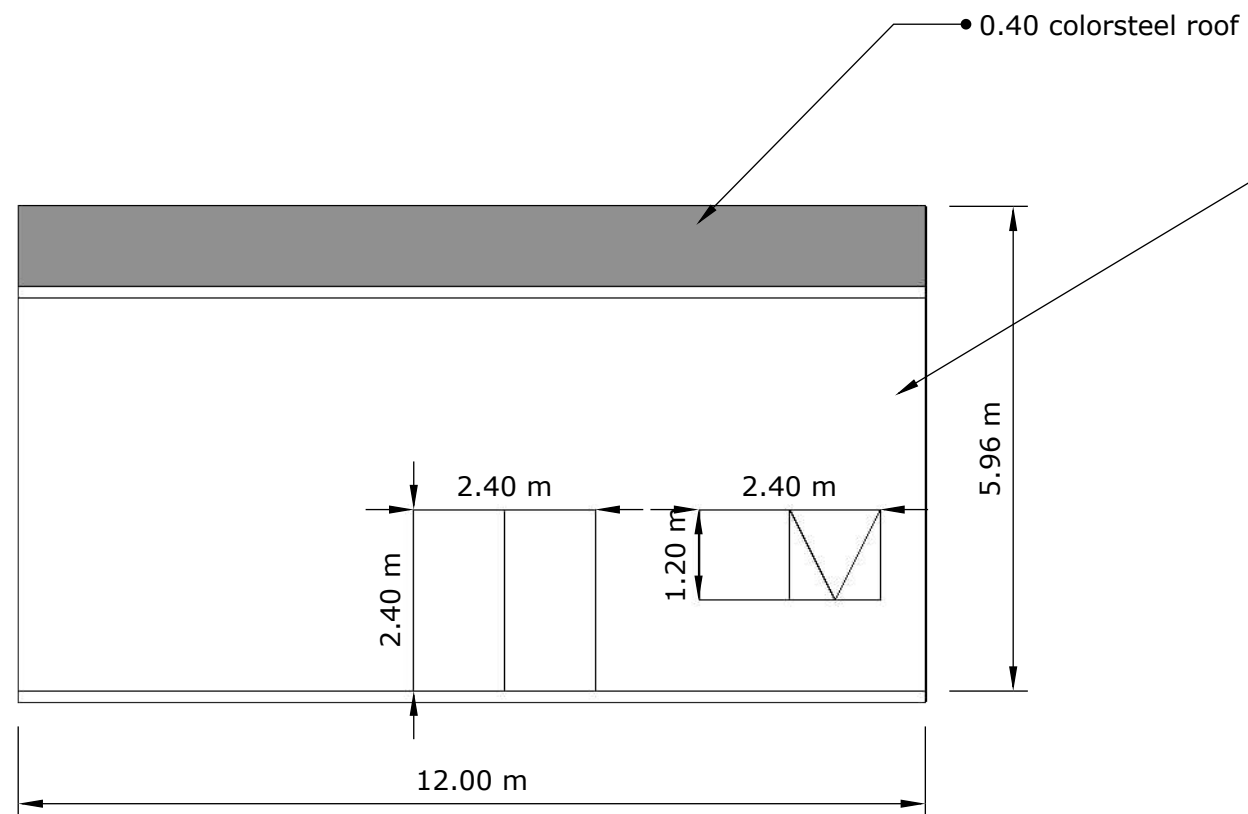
Elevations Unit A

SCALE: 1:100

2 Hoffs Place, PORIRUA
Client: Brent Coutts

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ewen.thompson@sheds.co.nz





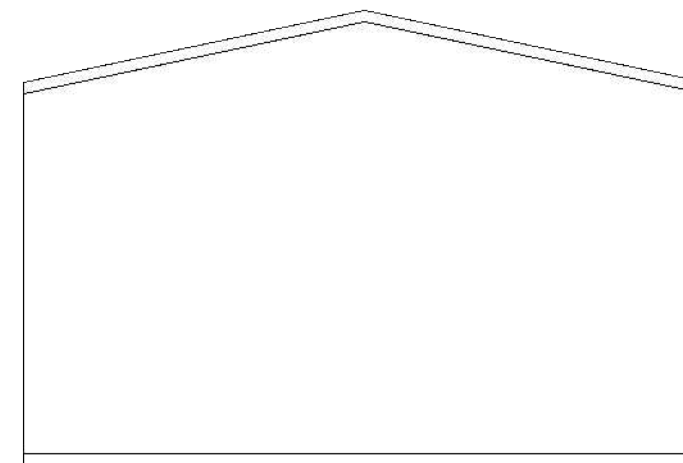
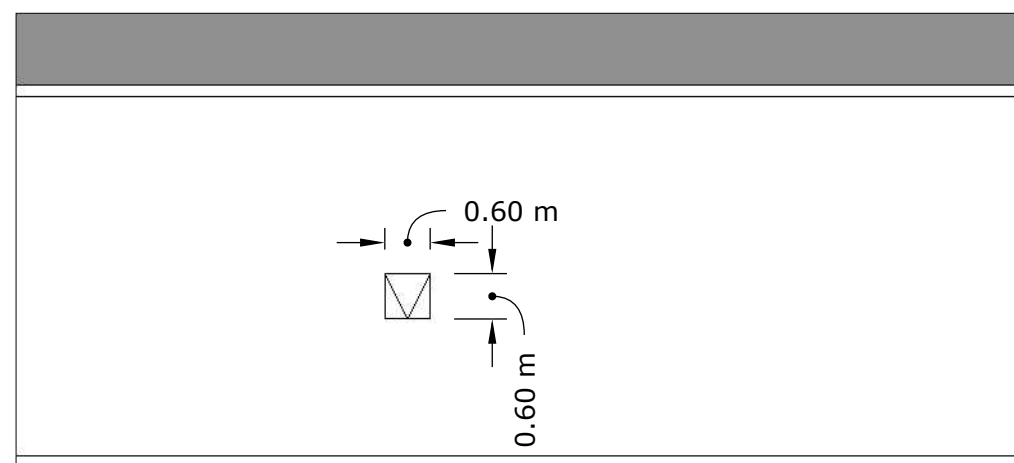
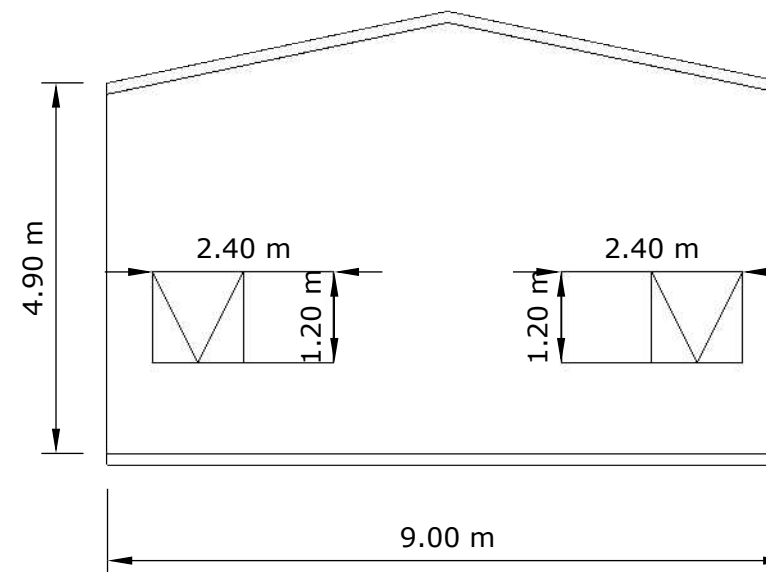
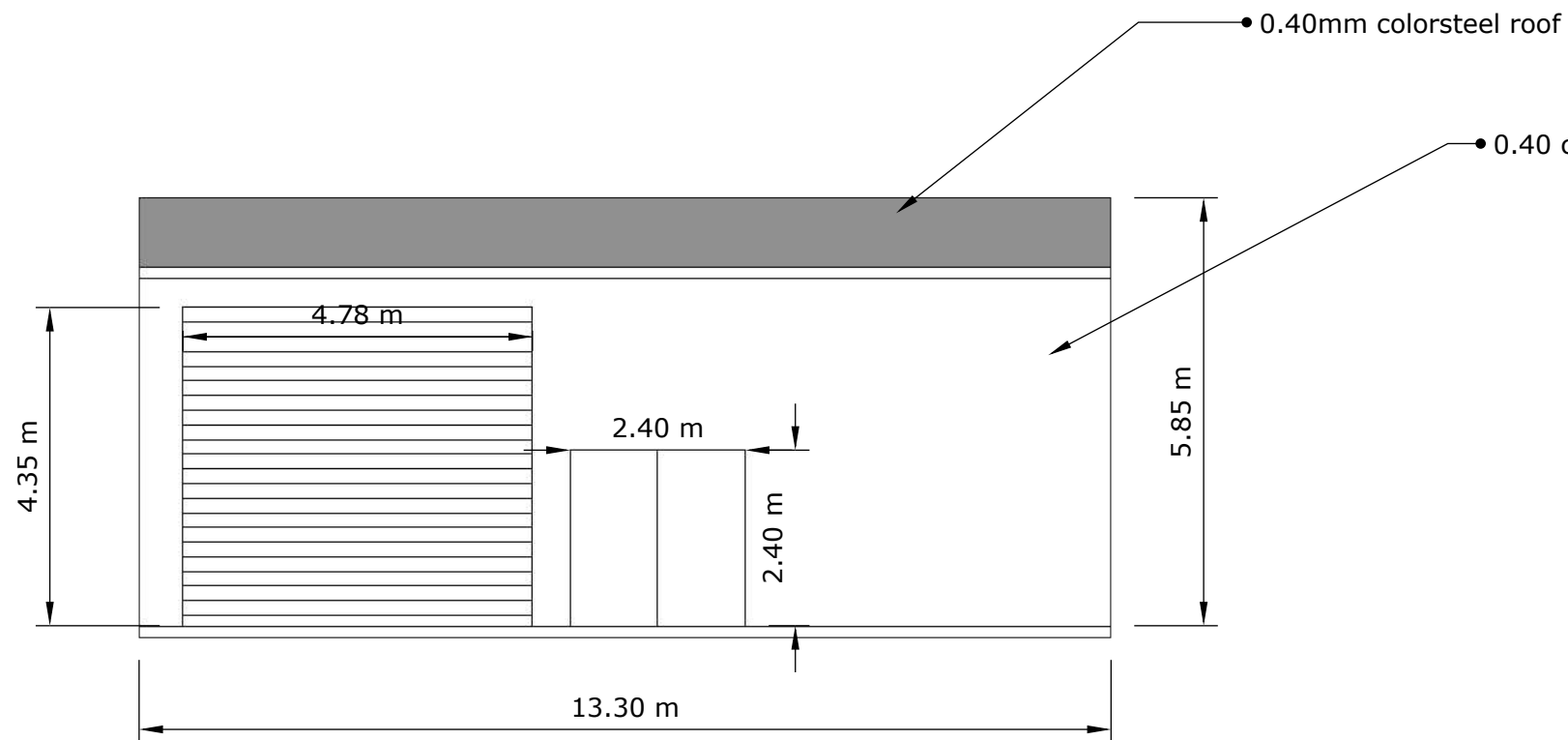
Elevations Unit B

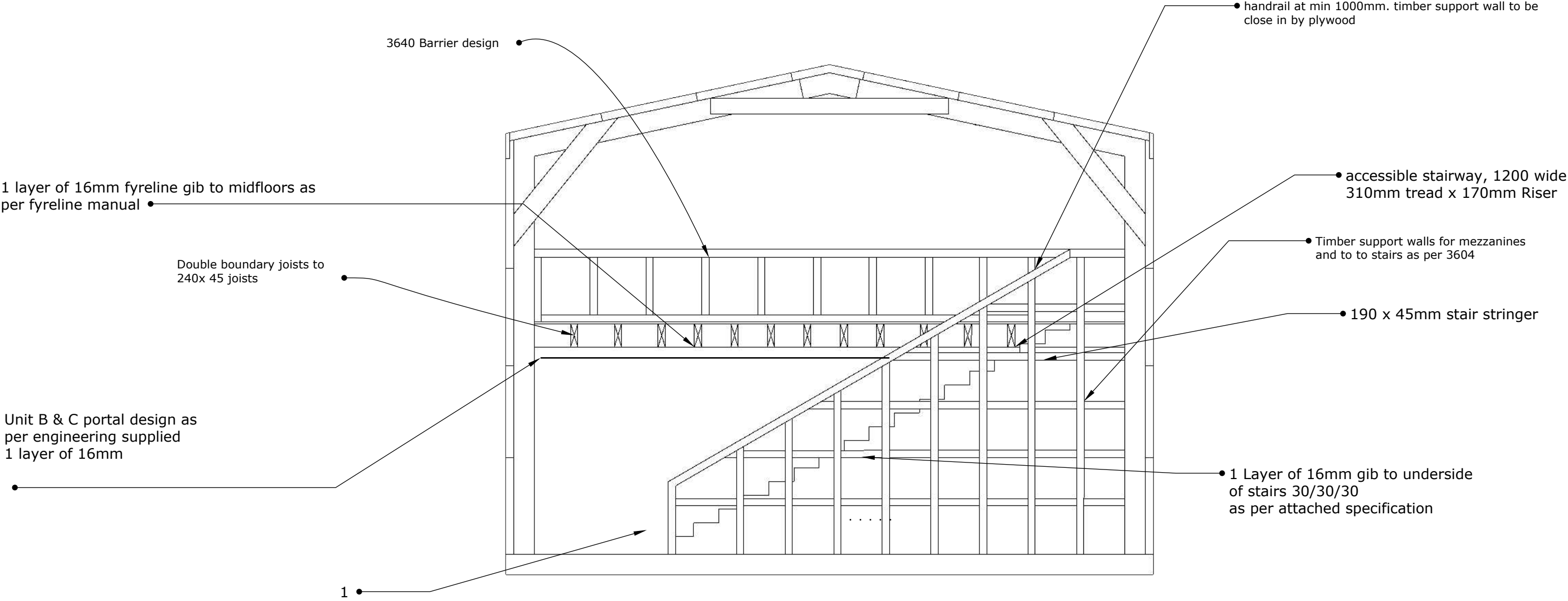
SCALE: 1:100

2 Hoffs Place, PORIRUA
Client: Brent Coutts

Connect Construction and Property Ltd
ewen.thompson@sheds.co.nz



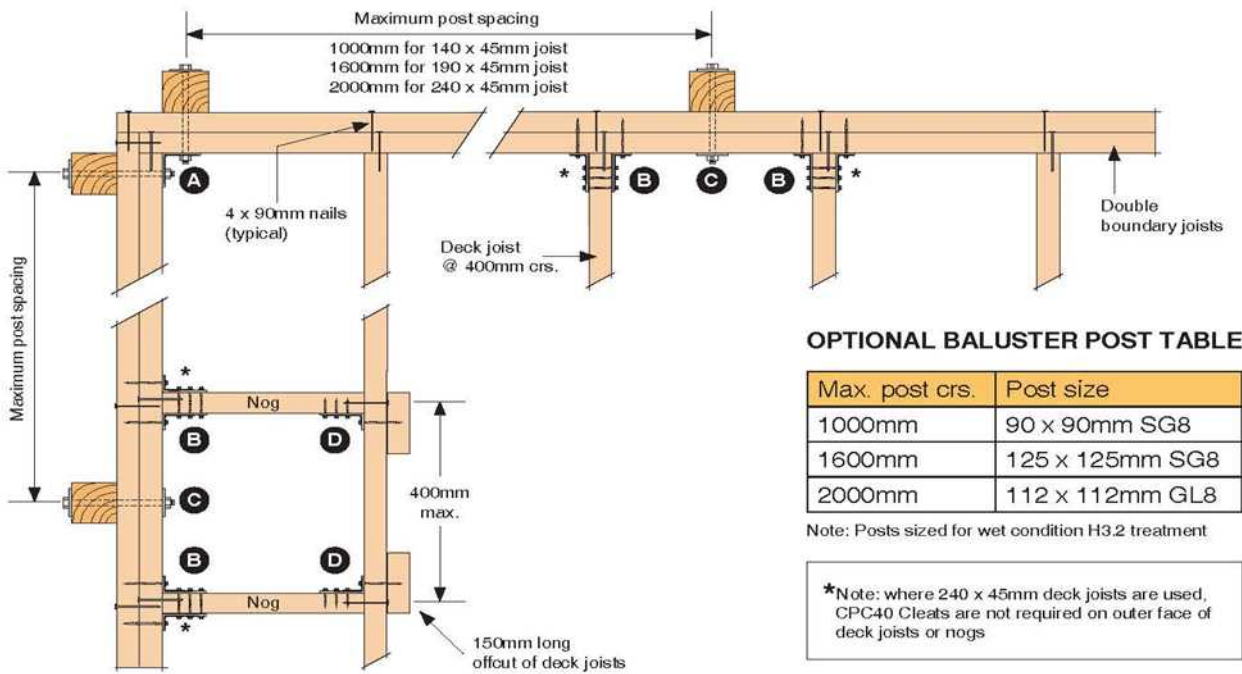




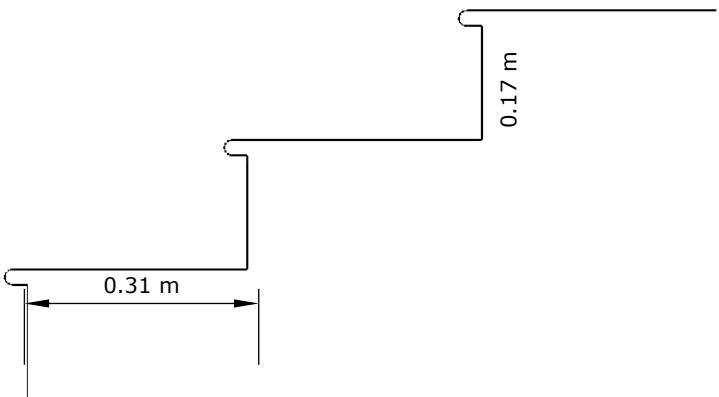
Cross Section- Stair details SCALE: 1:50	2 Hoffs Place, PORIRUA Client: Brent Coutts	Connect Construction and Property Ltd ewen.thompson@sheds.co.nz	 Wide Span Sheds No Compromise Steel Building Solutions	
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FACE FIXED BALUSTER POST SYSTEM

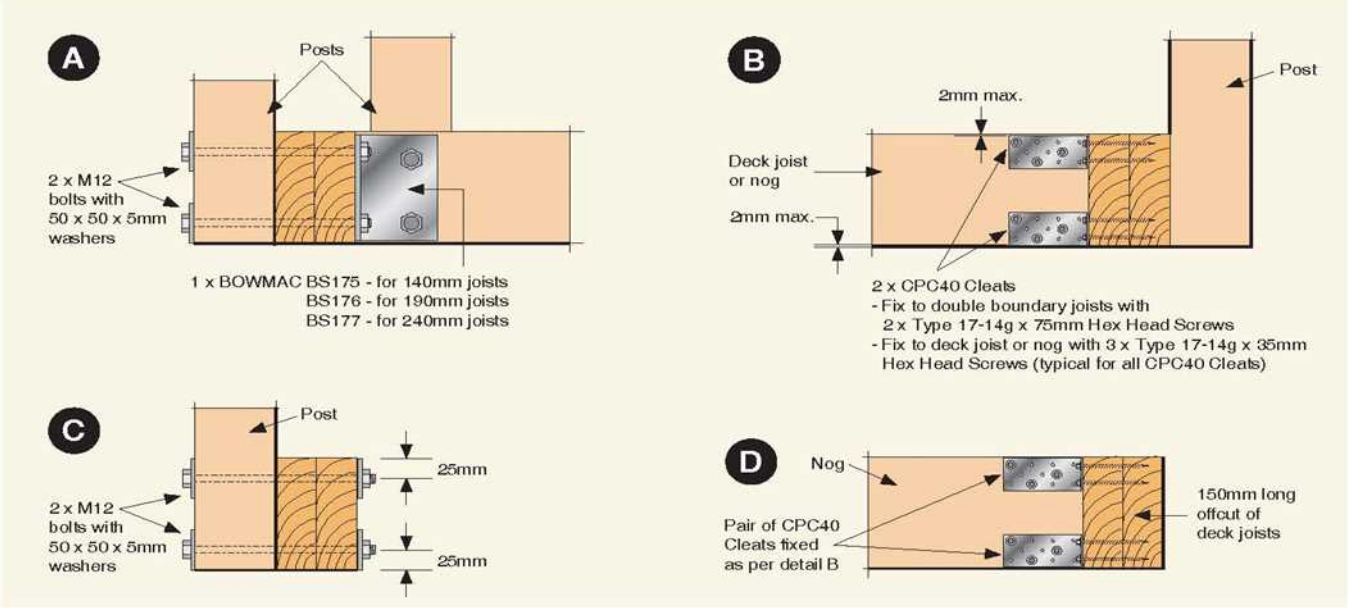
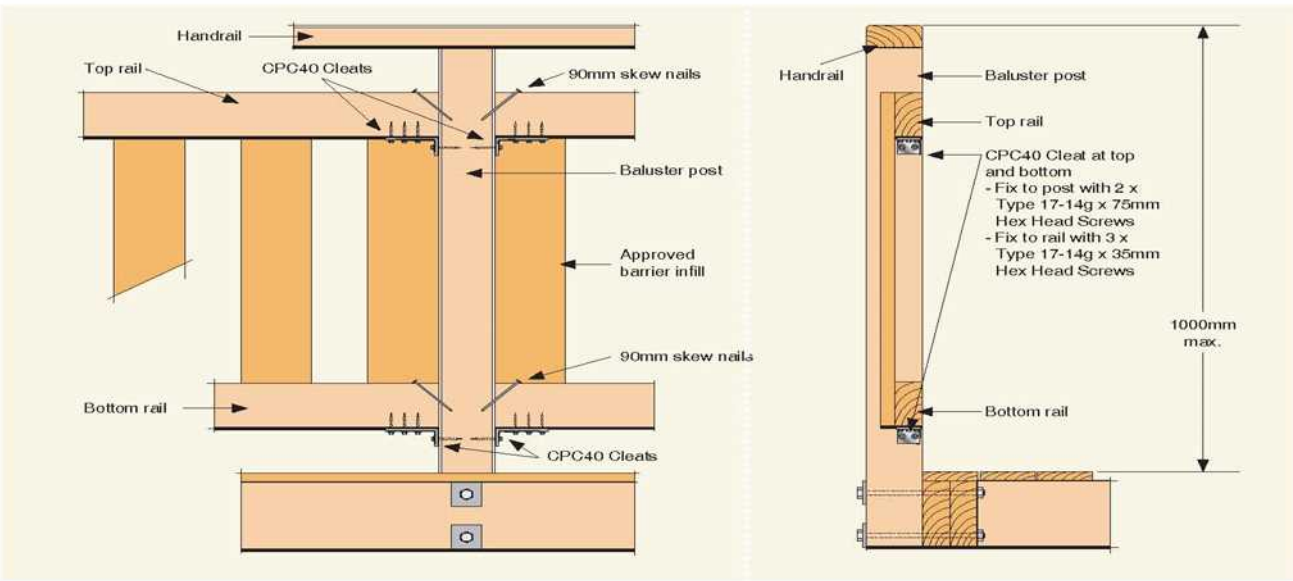
(Alternative Solution to Clause 7.4.1.3 NZS 3604)

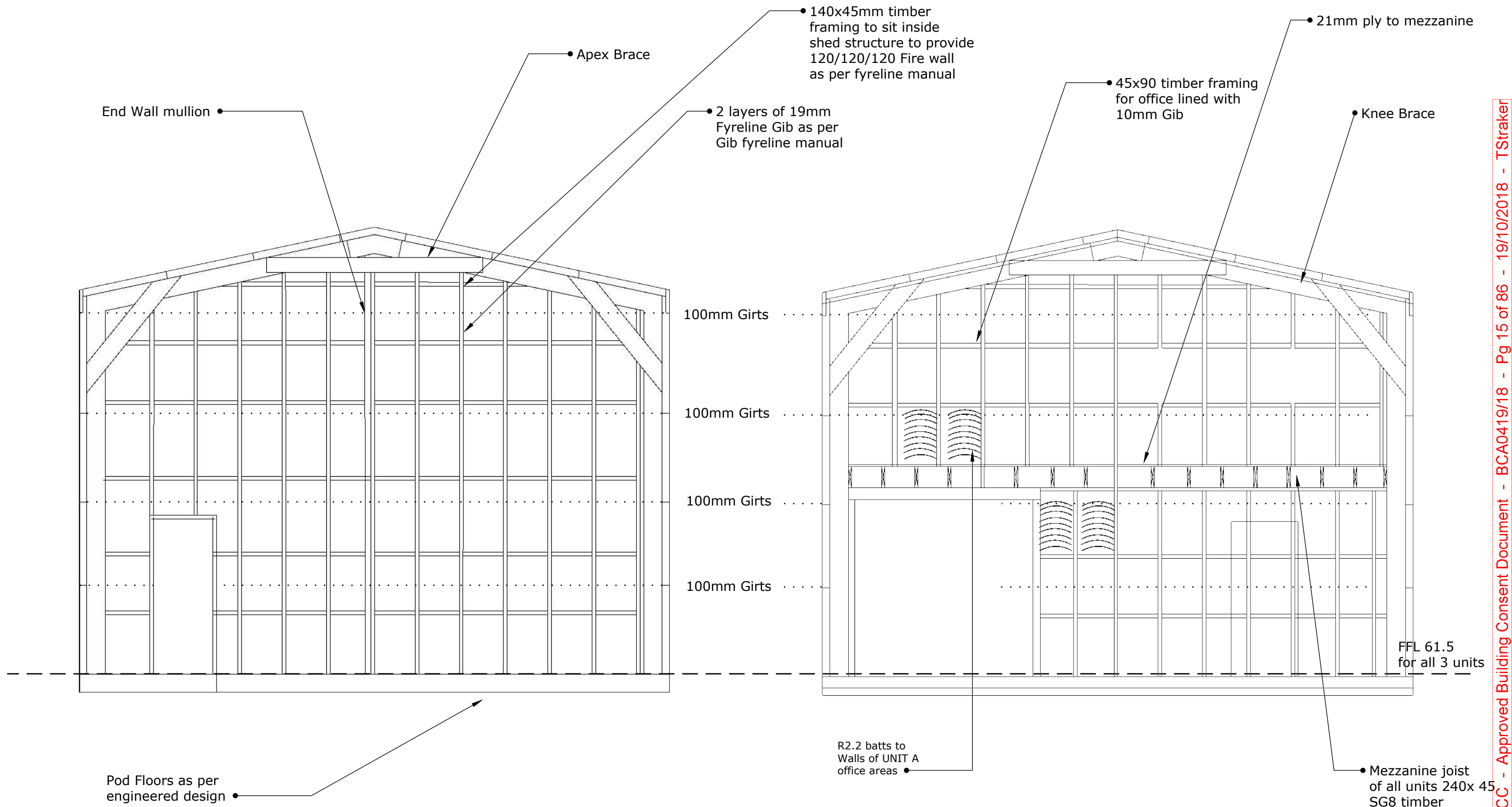


STAIR TREAD DETAIL (1-10)



BALUSTER POST TO RAIL SYSTEM





NOTE: All steel specifications shown in Wide Span Sheds Standard plans supplied

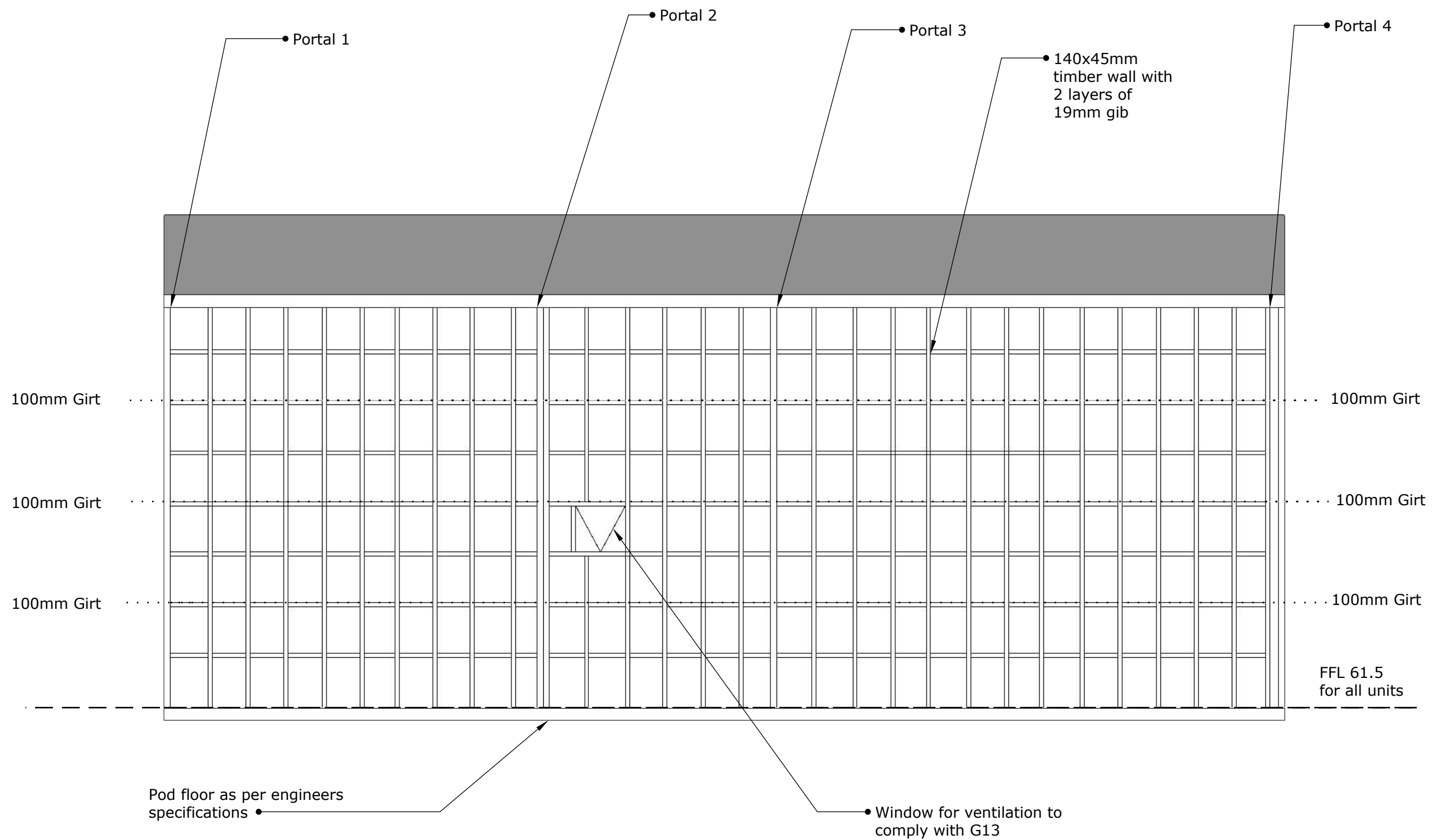
Cross Sections

SCALE: 1:50

2 Hoffs Place, PORIRUA
Client: Brent Coutts

Connect Construction and Property Ltd
ewen.thompson@sheds.co.nz





NOTE: All steel specifications shown in Wide Span Sheds Standard plans supplied

Cross Sections- Unit C- Fire Wall

SCALE: 1:50

2 Hoffs Place, PORIRUA
Client: Brent Coutts

Connect Construction and Property Ltd
ewen.thompson@sheds.co.nz



Broken Hill Road

Hoffs Place



Notes: All gutters 150mm box gutters
All roofing iron 0.40mm coloursteel

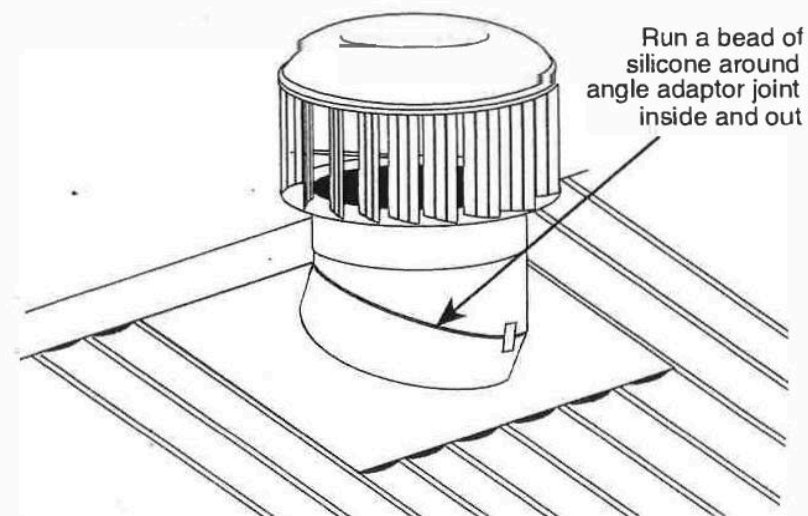
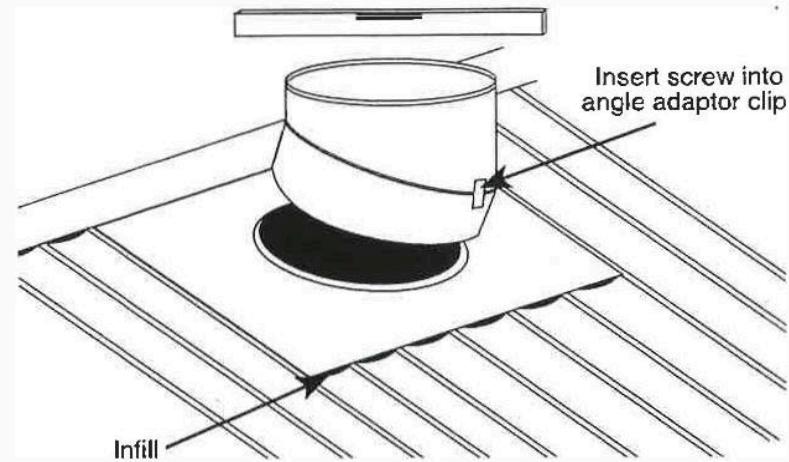
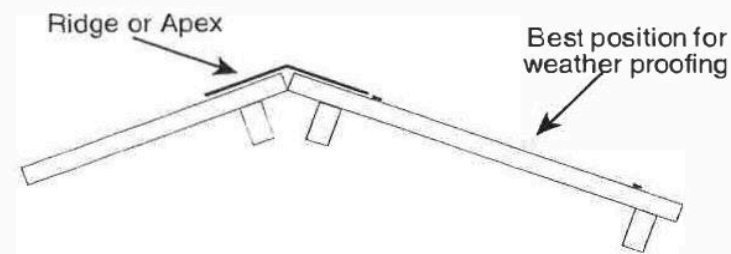
Proposed Roof Drainage Plan

SCALE: 1:100

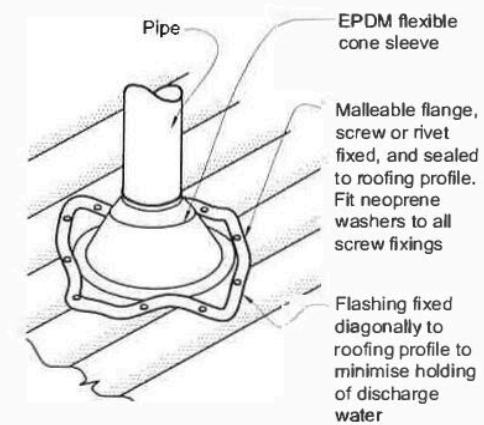
2 Hoffs Place, PORIRUA
Client: Brent Coutts

Connect Construction and Property Ltd
ewen.thompson@sheds.co.nz





AITV600 Roof Ventilators



50mm Terminal Vent

Whirly Bird Vent Scale: Not to scale	Drawing Description: Proposed Roof Penetrations	Project name & Address: 2 Hoff's Place	 No Compromise Steel Building Solutions	
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Bringing places & spaces to life

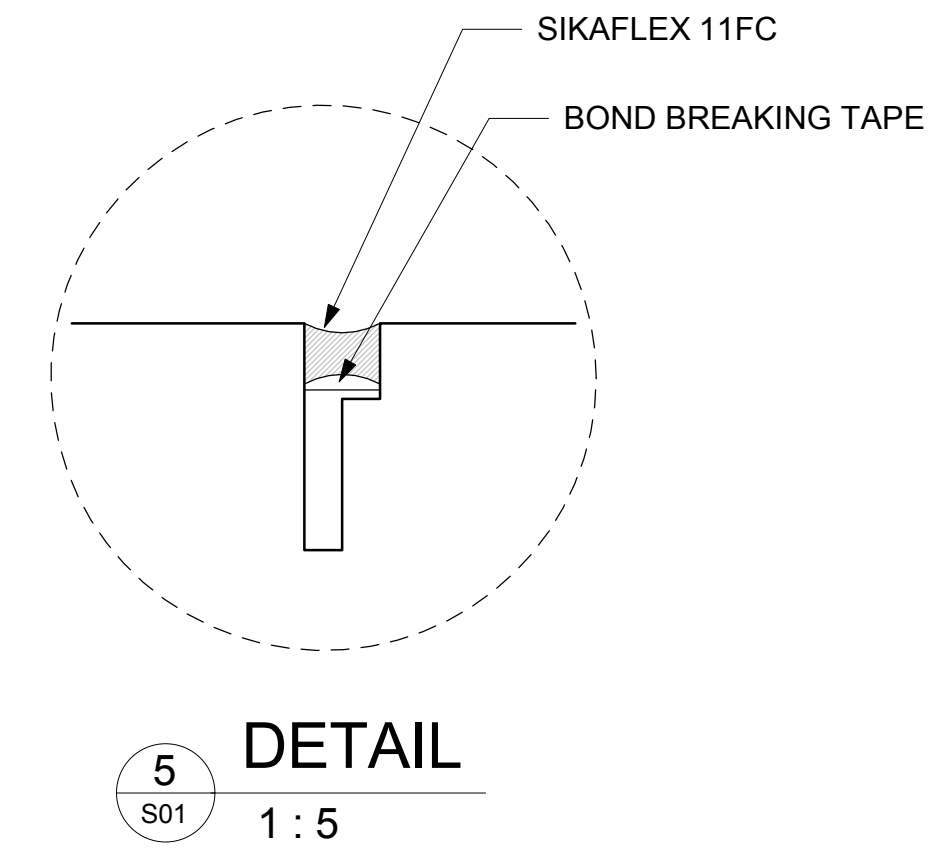
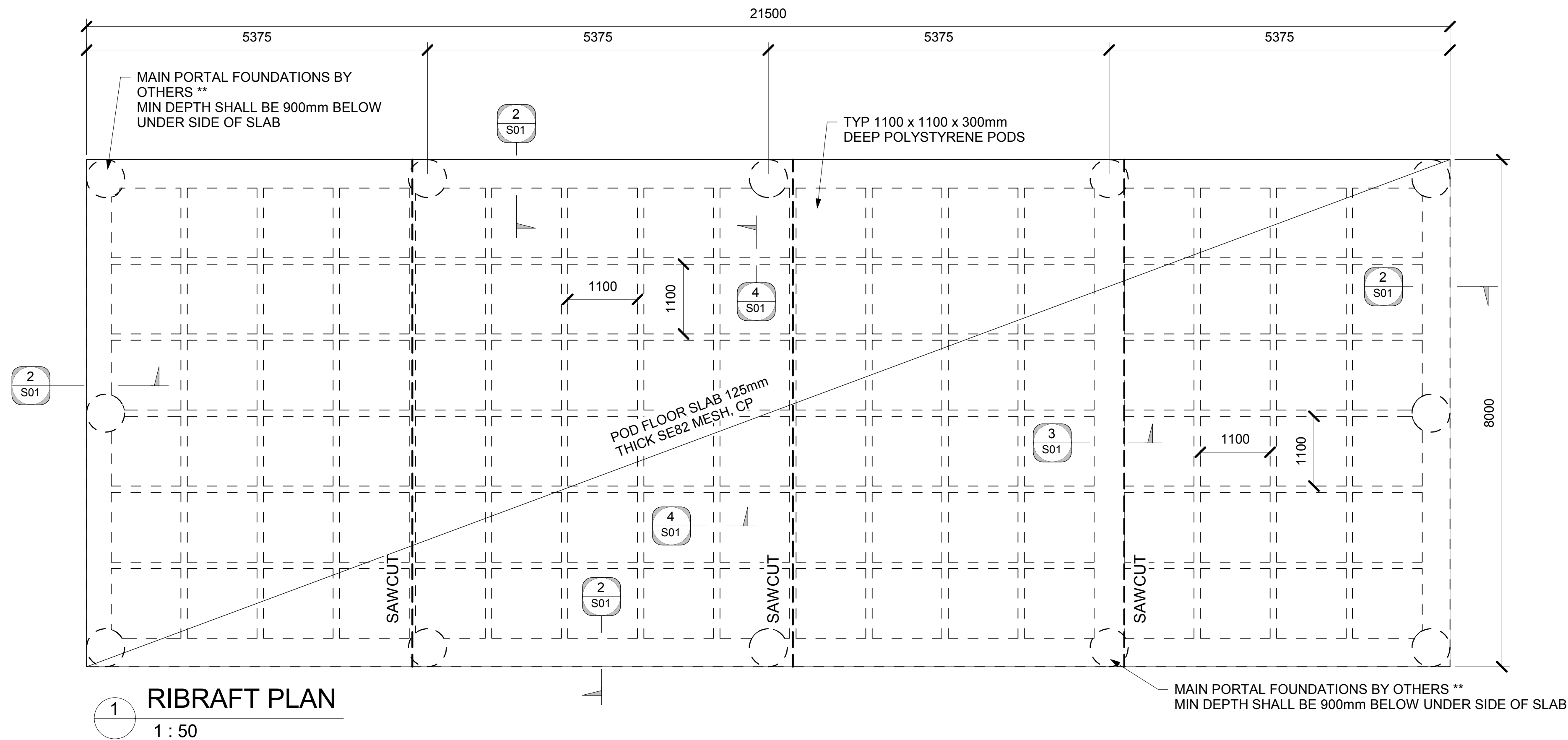
71 Pitt Street, Palmerston North, PO Box 600, Palmerston North 4410
06 356 7000 info@resonant.co.nz
www.resonant.co.nz

118179
SHED FOUNDATIONS
UNIT A No. 2 HOFF PLACE, PORIRUA
WIDE SPAN SHEDS WELLINGTON LTD

DRAWING REGISTER

No.	Sheet Name	Rev.	Chk.	Date
S00	COVER PAGE	A		13.08.2018
S01	POD FLOOR DESIGN	A		13.08.2018
SN1	STANDARD NOTES	A		13.08.2018

J:\100118179 Wide Span Unit A No 2 HOFFS PL PORIRUA_SHED FOUNDATIONS_AEB03_Structural Engineering\01 Drawings\02 Structural\18179 - DRAWING 18.08.13.rvt



REFER TO ARCHITECTURAL DRAWINGS FOR:

- SETOUT DIMENSIONS
- DOOR THRESHOLD DETAILS

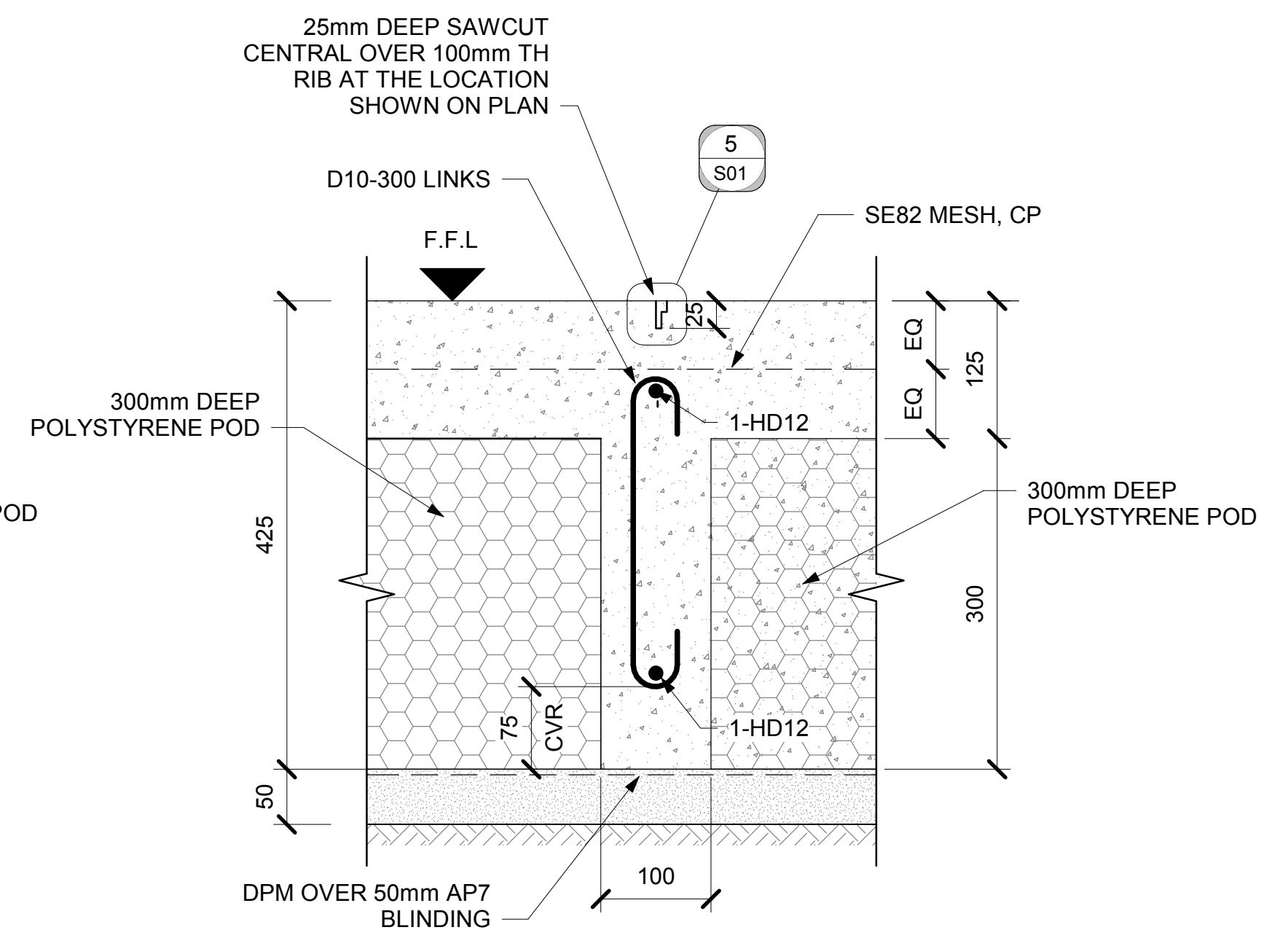
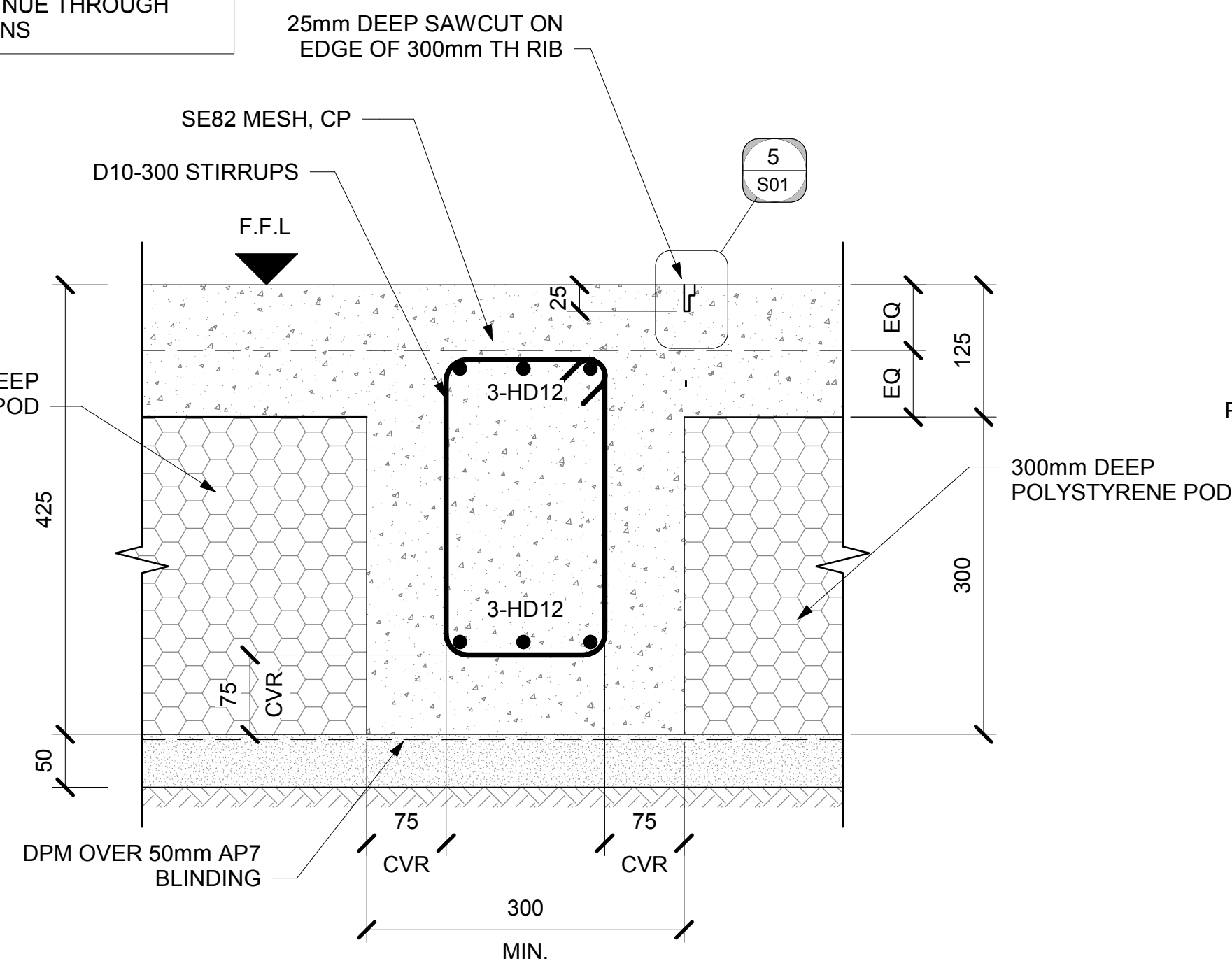
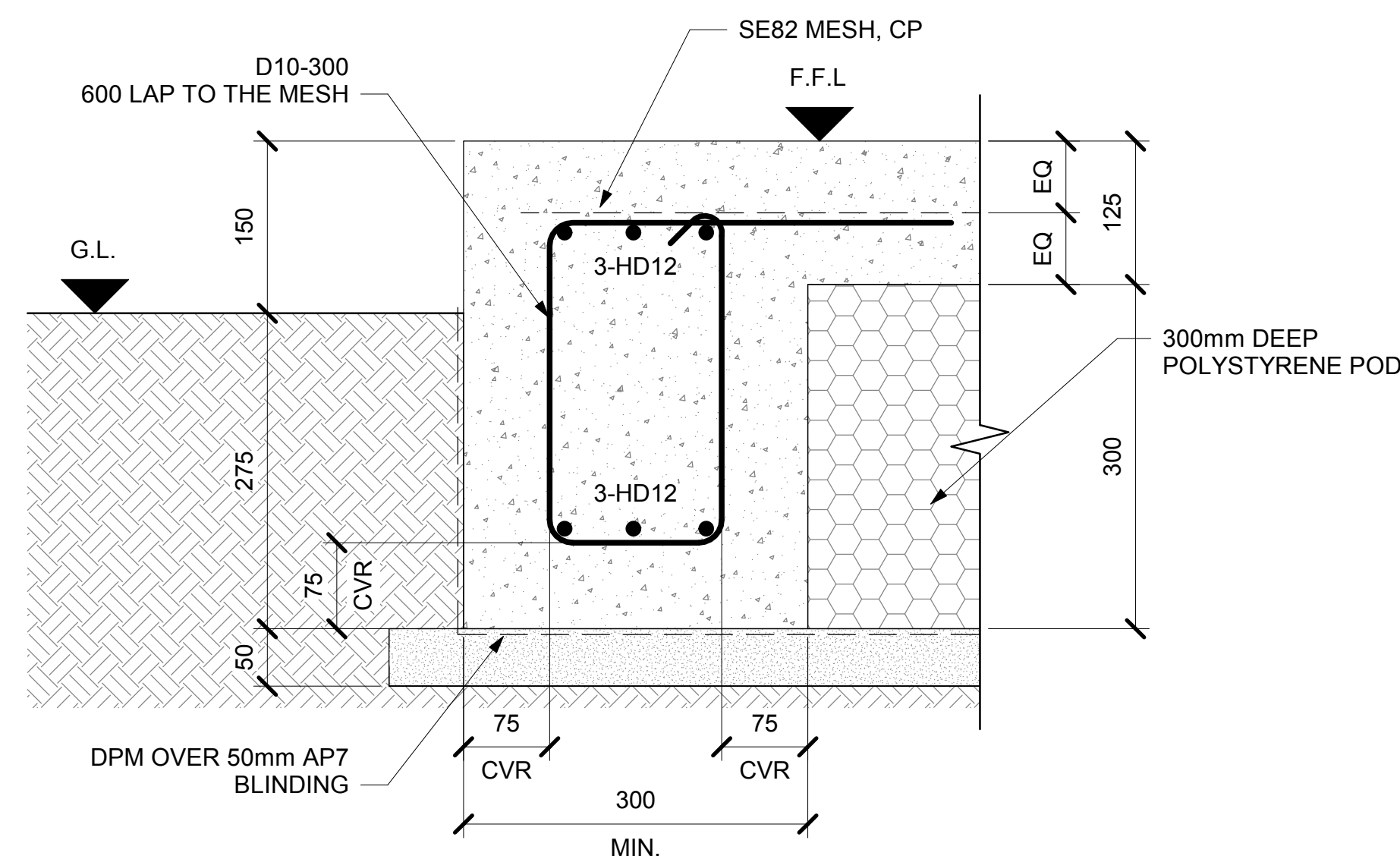
NOTES:

- CONCRETE STRENGHT f_{cd} @ 25 DAYS = 25MPa
- STEEL f_{cd} HD=500MPa D=300MPa

** POD FLOOR EDGE BEAM AND RIBS REINFORCEMENT TO CONTINUE THROUGH PORTAL FRAME FOUNDATIONS

NOTE:

- MAIN PORTAL FOUNDATIONS BY OTHERS AND NOT SHOWN



A1 ORIGINAL SIZE mm 0 50 100 200

Rev	Issued For Construction	13.08.2018
	Details	Issued By



The Contractor shall check all dimensions on site
71 Pitt Street, PO Box 600 Palmerston North 06 356 7000 info@resonant.co.nz www.resonant.co.nz
Resonant Consulting Ltd copyright Under no circumstances shall this drawing be reproduced, without prior permission given in writing. The adequacy of the design as indicated on the drawings shall be read in conjunction with and subject to the relative specifications, and design assumptions in the calculations and reports for this project.

SHED FOUNDATIONS UNIT A No. 2 HOFF PLACE, PORIRUA
POD FLOOR DESIGN WIDE SPAN SHEDS WELLINGTON LTD

Initials	Date	DO NOT SCALE. If in doubt ask for dimensions.
Surveyed	WA	Aug' 18
Designed	THS	Aug' 18
Drawn	-	-
Checked	-	-
Approved	-	-
Scales A1	Scales A3	Job No.
As indicated		118179
Revit Path/File	Sheet	Rev.
	S01	A

GENERAL NOTES

- G.1. STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION, ARCHITECTURAL, CIVIL, AND BUILDING SERVICES DOCUMENTS.
G.2. UNLESS OTHERWISE NOTED, ALL REDUCED LEVELS (RL'S) ARE IN METRES, AND ALL DIMENSIONS ARE IN MILLIMETRES.
G.3. ALL EXISTING COMPONENTS ARE TO BE CONFIRMED ON SITE. MAKE APPROPRIATE PROVISIONS FOR UNFORESEEN SITUATIONS.
G.4. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING FROM DRAWINGS.
G.5. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE REFERRED TO THE ARCHITECT FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
G.6. THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION, INCLUDING TEMPORARY WORKS DESIGN, IS THE RESPONSIBILITY OF THE CONTRACTOR.
G.7. THE METHOD OF EXCAVATION AND TEMPORARY SUPPORT OF ALL CUT FACES IS THE RESPONSIBILITY OF THE CONTRACTOR.
G.8. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT CODES OF PRACTICE EXCEPT WHERE VARIED BY THE SPECIFICATION OR THE DRAWINGS.
G.9. WHERE PROPRIETARY PRODUCTS ARE SPECIFIED IN THE DOCUMENTS THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE PRODUCT FOR APPROVAL. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION.
G.10. THE ENGINEER SHALL INSPECT STRUCTURAL DETAILS PRIOR TO BUILDING IN. TYPICALLY INSPECT PRIOR TO:
- CONCRETE POURS
- STRUCTURAL TIMBER OR STEEL BEING CONCEALED
- LININGS BEING PLACED OVER TIMBER BRACING DETAILS
G.11. STRUCTURAL ELEMENTS NOT REQUIRING SPECIFIC ENGINEERING DESIGN (WITHIN THE SCOPE OF NZ3604 AND NZS4229) ARE TO BE BUILT AS SPECIFIED IN THE ARCHITECTURAL DOCUMENTATION.
G.12. CONTACT THE ENGINEER AT LEAST 48 HOURS PRIOR TO ARRANGE INSPECTION SHOULD IT BE REQUIRED.
G.13. IT IS THE BUILDER/CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE SITE IS KEPT SAFE, THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING: -
- ENSURE THAT THE PILE HOLES ARE COVERED ADEQUATELY AND NOT LEFT OPEN
- ENSURE THAT ANY BANKS/EXCAVATION ARE APPROPRIATELY FENCED
- ENSURE THAT ANY BANKS/EXCAVATION ARE SHORED OR BATTERED APPROPRIATELY FOR SAFETY DURING CONSTRUCTION.

FOUNDATION NOTES

- F.1. FOUNDATION MATERIAL SHALL BE APPROVED BY THE ENGINEER FOR SAFE BEARING CAPACITY 100 KPA @ 300mm BGL AND OTHER REQUIREMENTS SPECIFIED ON THE DRAWINGS PRIOR TO THE CONSTRUCTION OF ANY FOOTINGS.
- F.2. SUBGRADE BELOW BASE COURSE FOR SLABS SHALL BE OF A SUITABLE MATERIAL AND BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY DETERMINED BY TEST NZS 4402: TEST 4.1.1 OR EQUIVALENT, UNLESS NOTED OTHERWISE.
- F.3. ALL WALLS AND COLUMNS SHALL BE CONCENTRIC WITH SUPPORTING FOUNDATIONS UNLESS OTHERWISE NOTED ON DRAWINGS.
- F.4. BEHIND ALL RETAINING WALLS BACK FILL WITH FREE DRAINING GRANULAR FILL AND INSTALL ANY DE-WATERING DRAINS SPECIFIED BY THE ARCHITECT.
- F.5. THE CONTRACTOR SHALL NOT EXCAVATE ACCESS TRACKS INTO THE SITE THAT COMPROMISE THE STABILITY OF THE SITE OR FORM CUT FACES TO ADJACENT PROPERTIES.
- F.6. THE TEMPORARY STABILITY OF ALL EXPOSED CUTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
- F.7. THE HARDFILL SHOWN UNDER THE SLAB (IF NOTED ON THE DRAWINGS) MAY BE DELETED IN LIEU OF THE EXCAVATED SURFACE BEING CUT CLEAN WITH A SMOOTH EDGE BUCKET AND THE FINAL SURFACE BEING OF A TIGHT, COMPACT MATERIAL. CRUSHER DUST AND DPM ARE TO BE USED, OVER THE TOP OF THIS CLEAN CUT SURFACE.
- F.8. ALL SOFT MATERIAL IS TO BE REMOVED. IF THE TOP LAYER OF CUT MATERIAL IS LOOSE IT IS TO BE RE-COMPACTED WITH A PLATE COMPACTOR OR ROLLER TO A HARD FIRM FINISHED LAYER.
- F.9. THE ENGINEER IS TO VERIFY THE SUBGRADE PRIOR TO DPM LAYING.
- F.10. FOR HOLES ON SLOPING GROUND, THE EMBEDMENT DEPTH IS TO BE MEASURED FROM THE LOWER DOWNHILL FRONT LIP OF THE EXCAVATION.
- F.11. THE ENGINEER IS TO SITE AND CONFIRM THE PILE EXCAVATIONS AND GROUND CONDITIONS PRIOR TO POURING, ENSURING THE CORRECT POLE DIAMETER AT GROUND LEVEL IS ACHIEVABLE. OVAL SHAPED POLES ARE TO BE POSITIONED WITH THE WIDER DIMENSION PERPENDICULAR TO THE WALL.

NOTES ON REINFORCED CONCRETE

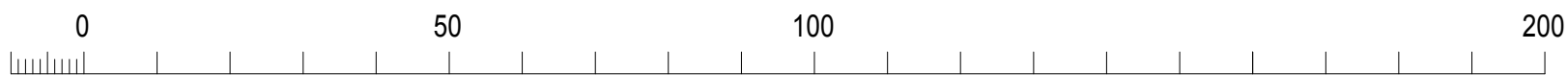
- C.1. MINIMUM CONCRETE STRENGTHS SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE ON DRAWINGS:
- CAST IN PLACE CONCRETE: 25 MPA
 - SUSPENDED CONCRETE SLABS, TOPPINGS, BEAMS AND COLUMNS: 25 MPA
 - PRECAST CONCRETE: 35 MPA
 - GROUT INFILL TO BLOCK WALLS: 17.5 MPA
 - TIDY SLABS OR ANY OTHER NON-STRUCTURAL CONCRETE: 10 MPA
- C.2. WHERE THE DRAWINGS OR SPECIFICATIONS STATE THE SIZE OF CONCRETE ELEMENTS, THE STATED SIZE DOES NOT INCLUDE THICKNESS OF ANY APPLIED FINISHES. WHERE BEAM SIZES ARE NOTED ON THE DRAWINGS, THE WIDTH IS STATED FIRST AND THE DEPTH SECOND. THE DEPTH INCLUDES THE THICKNESS OF THE SLAB (IF ANY).
- C.3. SHRINKAGE CONTROL:
- SLABS ON GRADE ARE TO BE SAW CUT (USING THE SOFT CUT METHOD) WITHIN 8 HOURS OF POURING.
 - THE POSITIONS OF THE SAW CUT JOINTS ARE TO BE IN ACCORDANCE WITH NZS3604 CLAUSE 7.5.8.6.4 OR TO THE PATTERN SHOWN ON THE DRAWINGS IF NOTED, OR AS AGREED WITH THE ENGINEER PRIOR TO POURING THE SLAB. THE SAW CUTS ARE TO BE $\square$ OF THE SLAB DEPTH AND 4MM WIDE MINIMUM, AND ARE TO BE CLEANED OUT AND FILLED TO THE ARCHITECT'S SPECIFICATION AS LATE AS POSSIBLE IN THE JOB. SAW CUT JOINTS SHALL BE PLACED TO ELIMINATE RE-ENTRANT CORNERS. THIS WILL USUALLY REQUIRE DIAMOND SHAPED SAW CUTS AROUND COLUMNS.
 - SLABS THAT REQUIRED CONSTRUCTION OR SHRINKAGE CONTROL JOINTS HAVE REQUIREMENTS GOVERNED BY THE SIZE OF THE POUR, SIZE OF THE SLAB, THICKNESS OF SLAB, SITE CONDITIONS AND MIX DESIGN. THESE JOINTS MAY VARY FROM A SIMPLE KEYED CONSTRUCTION JOINT TO SOPHISTICATED PROPRIETY MOVEMENT JOINTS, INCLUDING ADDITIONAL LAYERS OF DPM TO FACILITATE A SLIP PLAIN. THE FINAL SOLUTION SHALL BE DETERMINED BY THE ENGINEER AFTER CONSULTATION WITH THE CONTRACTOR AND ANY NECESSARY SUB-CONTRACTORS.
- C.4. NO PENETRATIONS, CHASES OR EMBEDMENTS OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE ELEMENTS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- C.5. SURFACE FINISHES TO THE CONCRETE SHALL BE IN ACCORDANCE WITH NZS 3114 AS SPECIFIED IN THE ARCHITECTURAL DOCUMENTATION.
- C.6. THE CONTRACTOR IS TO SUBMIT SHOP DRAWINGS OF ALL PRECAST ELEMENTS (IF ANY) FOR REVIEW PRIOR TO MANUFACTURE.
- C.7. PROPRIETARY PRECAST ELEMENTS REFERRED TO IN THE DRAWINGS (IF ANY) SHALL BE DESIGNED AND DETAILED BY THE SUPPLIER AND A COPY OF THE DOCUMENTATION SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO MANUFACTURE.
- C.8. CONCRETE PLACING AND MOULDING TOLERANCES SHALL CONFORM TO NZS3109 AND NZS3114.
- C.9. ALL PENETRATIONS THROUGH CONCRETE SLABS SHALL BE TRIMMED BY 2-YD12 BARS TO EACH EDGE OF THE PENETRATIONS UNLESS OTHERWISE NOTED. TRIMMER BARS ARE TO EXTEND 750MM BEYOND THE EDGE OF THE PENETRATION.
- C.10. ALL BEAMS SHALL BE FULLY PROPPED DURING CONSTRUCTION.
- C.11. THE CLEAR COVER TO ALL REINFORCEMENT, INCLUDING STIRRUPS AND TIES, SHALL BE TO NZS 3101:2011. IN GENERAL THE FOLLOWING COVERS SHALL BE USED, UNLESS NOTED OTHERWISE ON THE DRAWINGS:
- 75MM - CAST AGAINST GROUND
 - 50MM - CAST AGAINST GROUND BUT PROTECTED BY A DAMP-PROOF MEMBRANE
 - 35MM - ALL OTHER CASES
- C.12. WELDING OF REINFORCEMENT IS NOT PERMITTED UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER.
- C.13. TOP AND BOTTOM REINFORCEMENT IN SLABS SHALL BE ADEQUATELY SUPPORTED TO ENSURE ALL REINFORCING STAYS IN PLACE DURING CONCRETE POURING.
- C.14. HOOKS AND BENDS TO REBAR ARE TO BE IN ACCORDANCE WITH NZS 3109 UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- C.15. REINFORCING TO BE GRADE 300E OR GRADE 500E STEEL TO AS/NZS 4671 AS NOTED ON THE DRAWINGS. GRADE 300E ROUND BARS ARE SHOWN BY SYMBOL "R" AND DEFORMED BARS BY SYMBOL "D", FOLLOWED BY THE DIAMETER IN MILLIMETRES. GRADE 500E ROUND BARS SHOWN BY SYMBOL "YR" AND DEFORMED BARS BY SYMBOL "YD" FOLLOWED BY DIAMETER IN MILLIMETRES. GRADE 500E REINFORCING SHALL BE MICRO-ALLOY STEEL. QUENCHED AND TEMPERED STEEL CARRYING THE DESIGNATION 500E IS NOT AN ACCEPTABLE PRODUCT. MESH IS TO BE HARD DRAWN STEEL WIRE SPOT WELDED TO AS/NZS 4671, SMOOTH OR DEFORMED AND TO THE SPACINGS AND DIMENSIONS EITHER SPECIFIED OR SHOWN ON THE DRAWINGS.
- C.16. NO REINFORCEMENT SPLICES SHALL BE MADE OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS, WITHOUT THE PRIOR APPROVAL OF THE ENGINEER AND UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL REINFORCEMENT LAPS IN CONCRETE TO 50 TIMES THE BAR SIZE.
- C.17. MINIMUM LAP FOR MESH FABRIC SHALL BE ONE MESH BAR SPACING PLUS 25MM.

POD FLOOR

- PF1. EXCAVATE SOFT SOIL FROM UNDER THE LOCATION OF THE FOUNDATION AND REPLACE WITH COMPACTED HARDFILL.
PF2. CONCRETE MIX $\geq 20\text{MPa}$, 100MM SLUMP, STRUCTURAL MIX, 19MM NOMINAL AGGREGATE SIZE.
CONCRETE MIX (PUMPED) $\geq 20\text{MPa}$, 100MM SLUMP, STRUCTURAL MIX, 19MM NOMINAL AGGREGATE SIZE. AGGREGATE SIZE CAN VARY TO ACCOMMODATE PUMPING EQUIPMENT.
PF3. 75MM CONCRETE COVER TO GROUND, 50MM CONCRETE COVER TO BOXING.
PF4. FOR ALL CONCRETE PENETRATIONS REFER TO THE FIRTH RIB RAFT MANUAL.

A1

ORIGINAL SIZE mm



				 MULTI-DISCIPLINARY ENGINEERING & SURVEYING SERVICES Bringing places & spaces to life		The Contractor shall check all dimensions on site		SHED FOUNDATIONS UNIT A No. 2 HOFF PLACE, PORIRUA				DO NOT SCALE. If in doubt ask for dimensions.					
						71 Pitt Street, PO Box 600 Palmerston North 06 356 7000 info@resonant.co.nz www.resonant.co.nz				Scales A1		Scales A3		Job No. 118179			
				Resonant Consulting Ltd copyright Under no circumstances shall this drawing be reproduced, without prior permission given in writing. The adequacy of the design as indicated on the drawings shall be read in conjunction with and subject to the relative specifications, and design assumptions in the calculations and reports for this project.		Resonant Consulting Ltd copyright Under no circumstances shall this drawing be reproduced, without prior permission given in writing. The adequacy of the design as indicated on the drawings shall be read in conjunction with and subject to the relative specifications, and design assumptions in the calculations and reports for this project.		STANDARD NOTES WIDE SPAN SHEDS WELLINGTON LTD		Surveyed		Initials		Date			
										Designed		WA		AUG' 18			
										Drawn		THS		AUG' 18			
										Checked		-					
										Approved		-					
A ISSUED FOR CONSTRUCTION												Revit Path/File		Sheet		Rev.	
Rev Details				Issued By		Date						SN1		A			

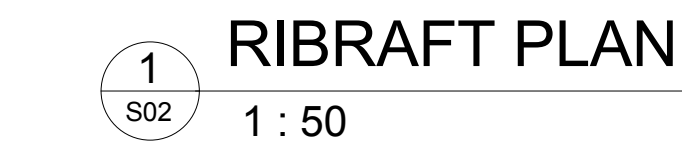


118180
SHED FOUNDATIONS
UNIT B No. 2 HOFF PLACE, PORIRUA
WIDE SPAN SHEDS WELLINGTON LTD

Bringing places & spaces to life

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06 356 7000 info@resonant.co.nz
www.resonant.co.nz

DRAWING REGISTER				
No.	Sheet Name	Rev.	Chk.	Date
S00	COVER PAGE	A		11.09.2018
S01	POD FLOOR DESIGN	A		11.09.2018
S02	BRACING PLAN	A		11.09.2018
SN1	STANDARD NOTES	A		11.09.2018



REFER TO ARCHITECTURAL DRAWINGS FOR:

- SETOUT DIMENSIONS
- DOOR THRESHOLD DETAILS

NOTES:

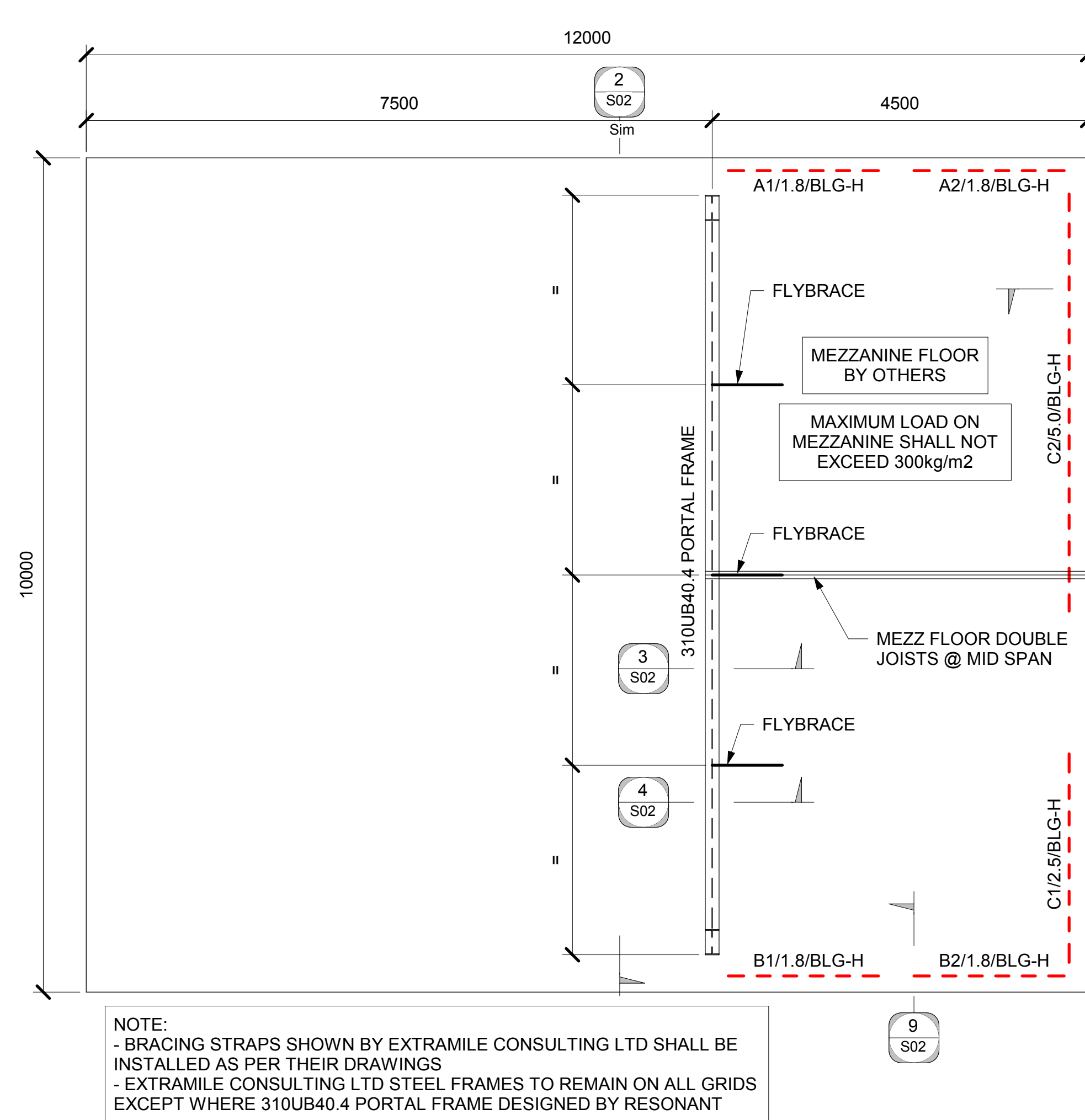
- CONCRETE STRENGTH f_c @ 28 DAYS = 25MPa
- STEEL f_c HD=500MPa
D=300MPa

**** POD FLOOR EDGE BEAM AND RIBS
REINFORCEMENT TO CONTINUE THROUGH
PORTAL FRAME FOUNDATIONS**



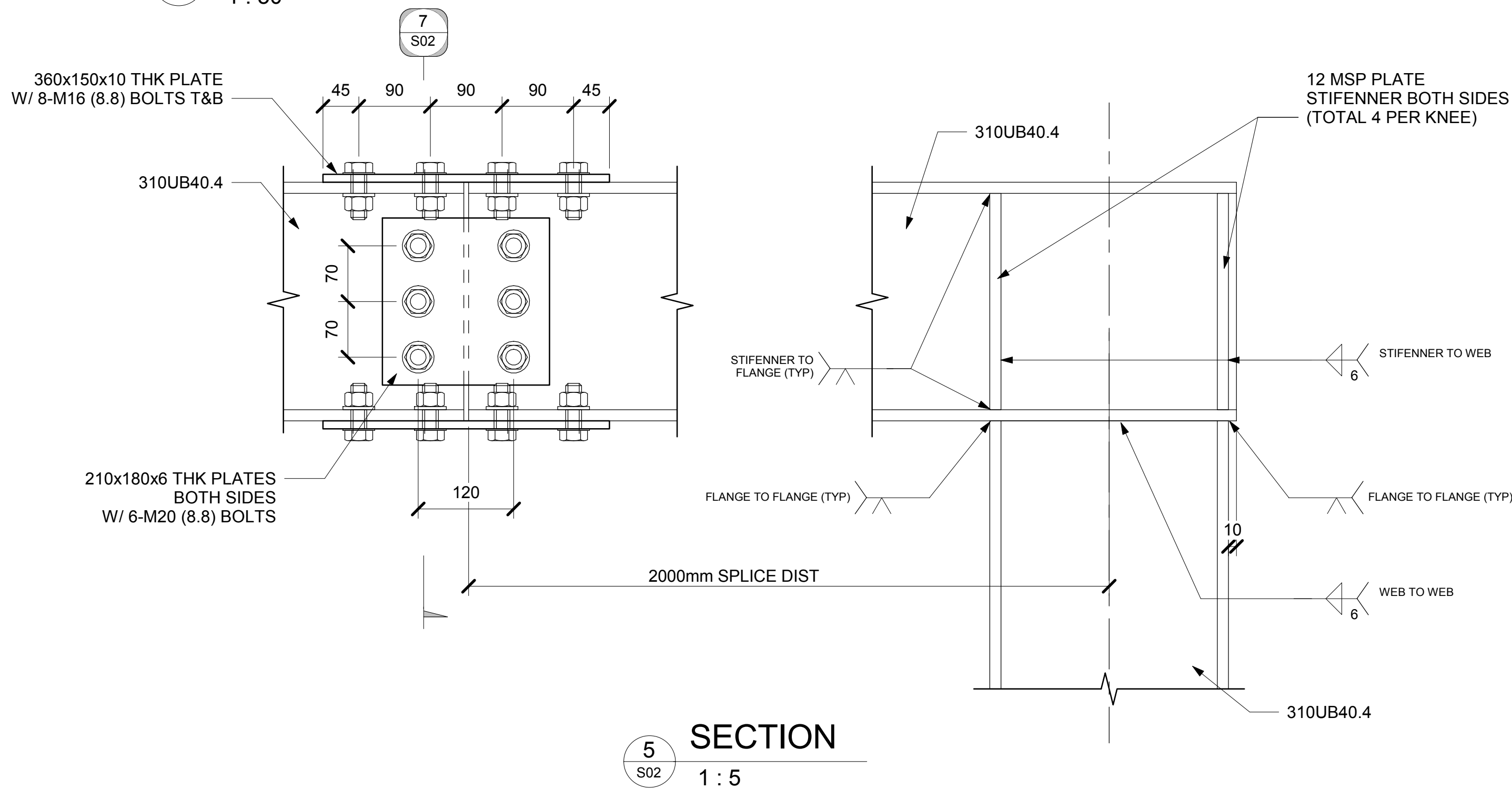
				 resonant MULTI-DISCIPLINARY ENGINEERING & SURVEYING SERVICES Bringing places & spaces to life	The Contractor shall check all dimensions on site		SHED FOUNDATIONS UNIT B No. 2 HOFF PLACE, PORIRUA		Initials Date		DO NOT SCALE. If in doubt ask for dimensions.		
					71 Pitt Street, PO Box 600 Palmerston North 06 356 7000 info@resonant.co.nz www.resonant.co.nz				Surveyed		Scales A1	Scales A3	Job No.
					Resonant Consulting Ltd copyright Under no circumstances shall this drawing be reproduced, without prior permission given in writing. The adequacy of the design as indicated on the drawings shall be read in conjunction with and subject to the relative specifications, and design assumptions in the calculations and reports for this project.				Designed WA AUG' 18		As indicated		118180
									Drawn THS AUG' 18		Revit Path/File	Sheet	Rev.
									Checked -				
A ISSUED FOR CONSTRUCTION								Approved -			S01	A	
Rev		Details		Issued By		Date							

J:\1001181\18180 Wide Span Unit B No 2 HOFFS PL\PORIRUA_SHED FOUNDATIONS_AEB03 Structural Engineering\01 Drawings\02 Structural\18180 - DRAWING 18.09.05.rvt

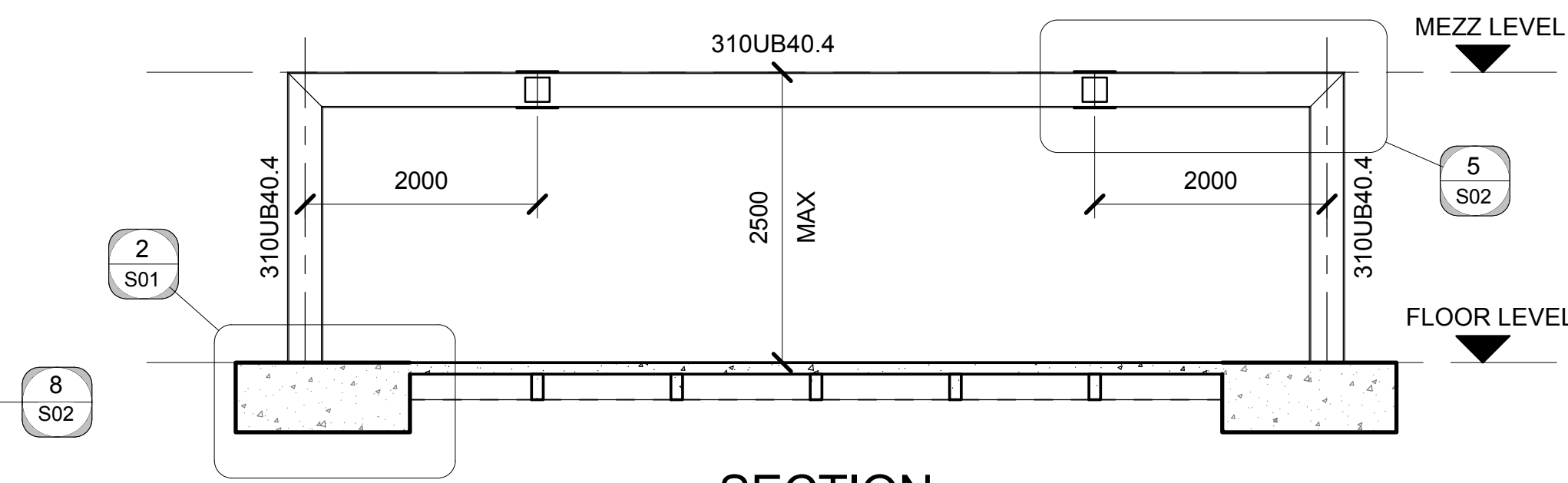


NOTE:
- BRACING STRAPS SHOWN BY EXTRAMILE CONSULTING LTD SHALL BE INSTALLED AS PER THEIR DRAWINGS
- EXTRAMILE CONSULTING LTD STEEL FRAMES TO REMAIN ON ALL GRIDS EXCEPT WHERE 310UB40.4 PORTAL FRAME DESIGNED BY RESONANT

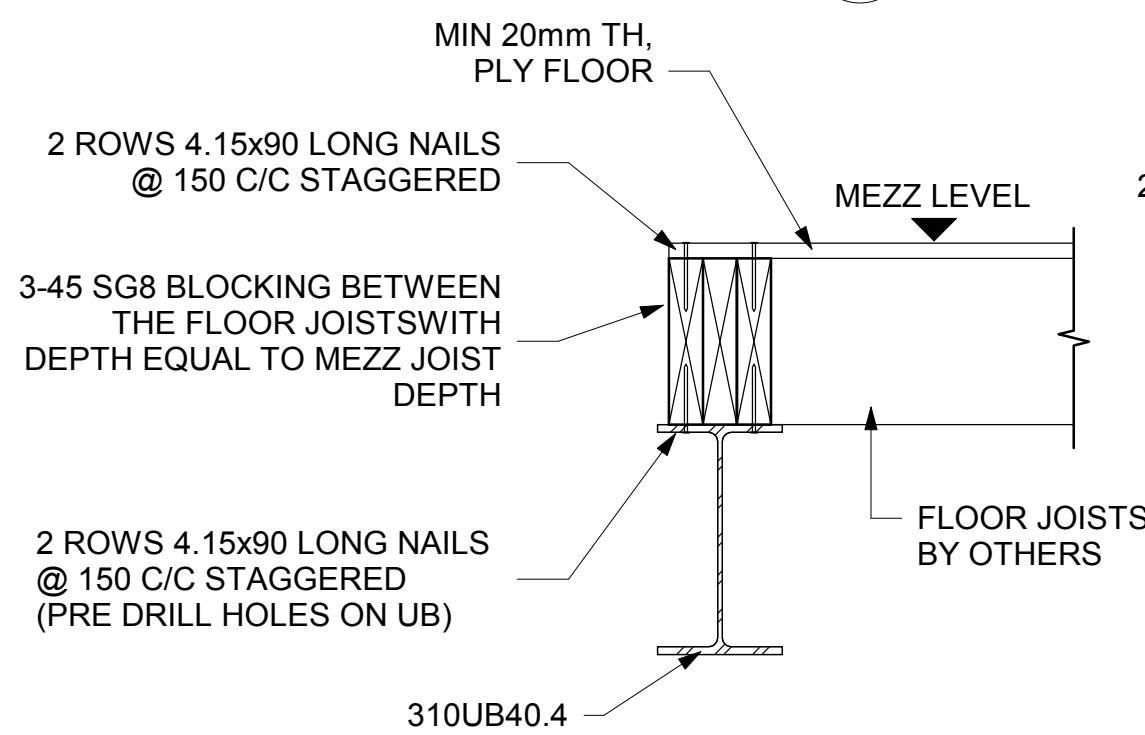
MEZZANINE PORTAL & BRACING PLAN
1 : 50



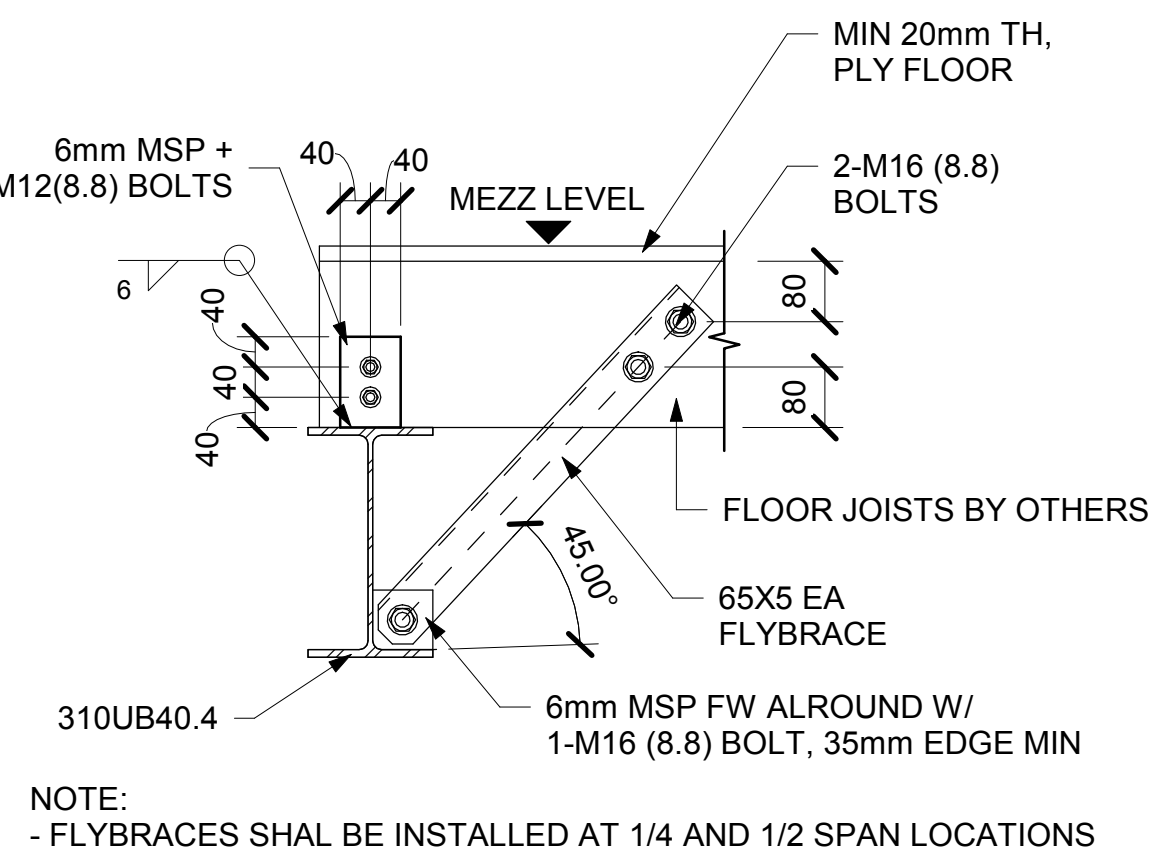
SECTION
5
1 : 5



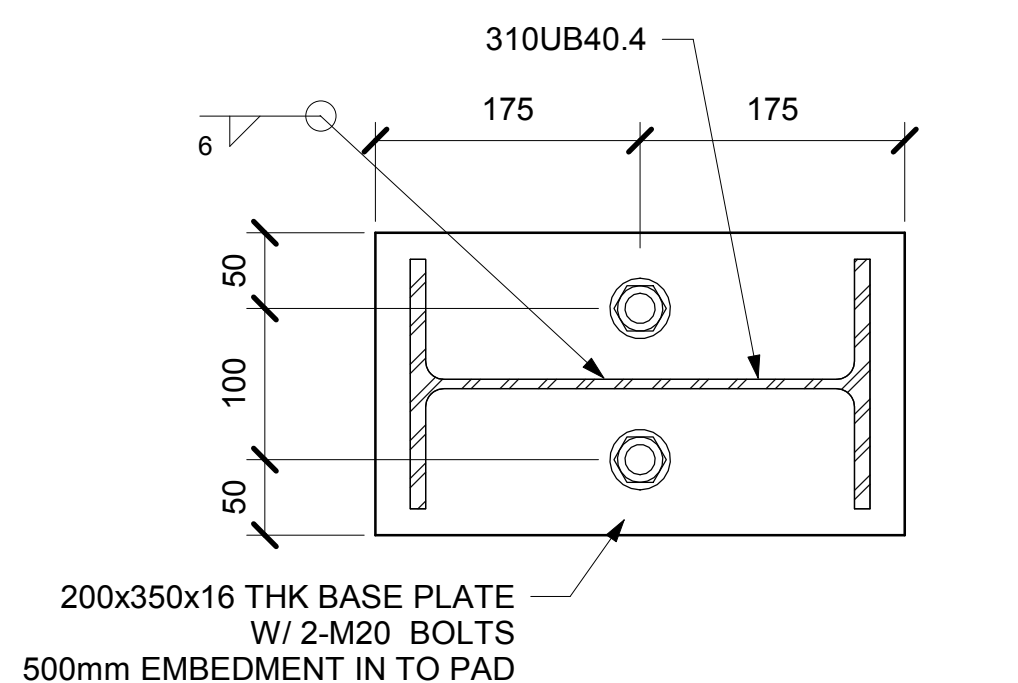
SECTION
2
1 : 50



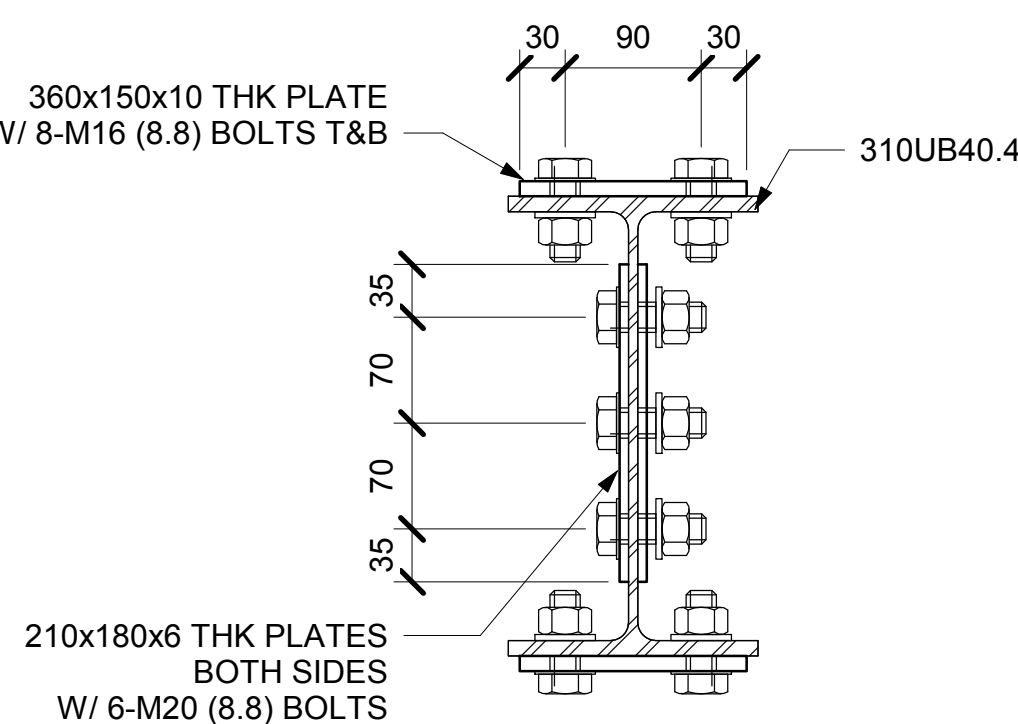
SECTION
3
1 : 10



SECTION
4
1 : 10



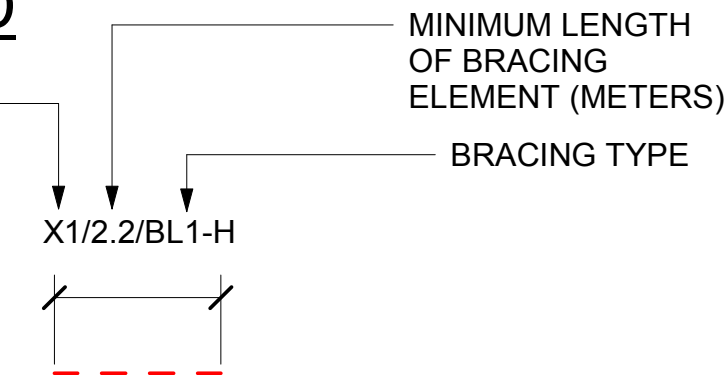
SECTION
6
1 : 5



SECTION
7
1 : 5

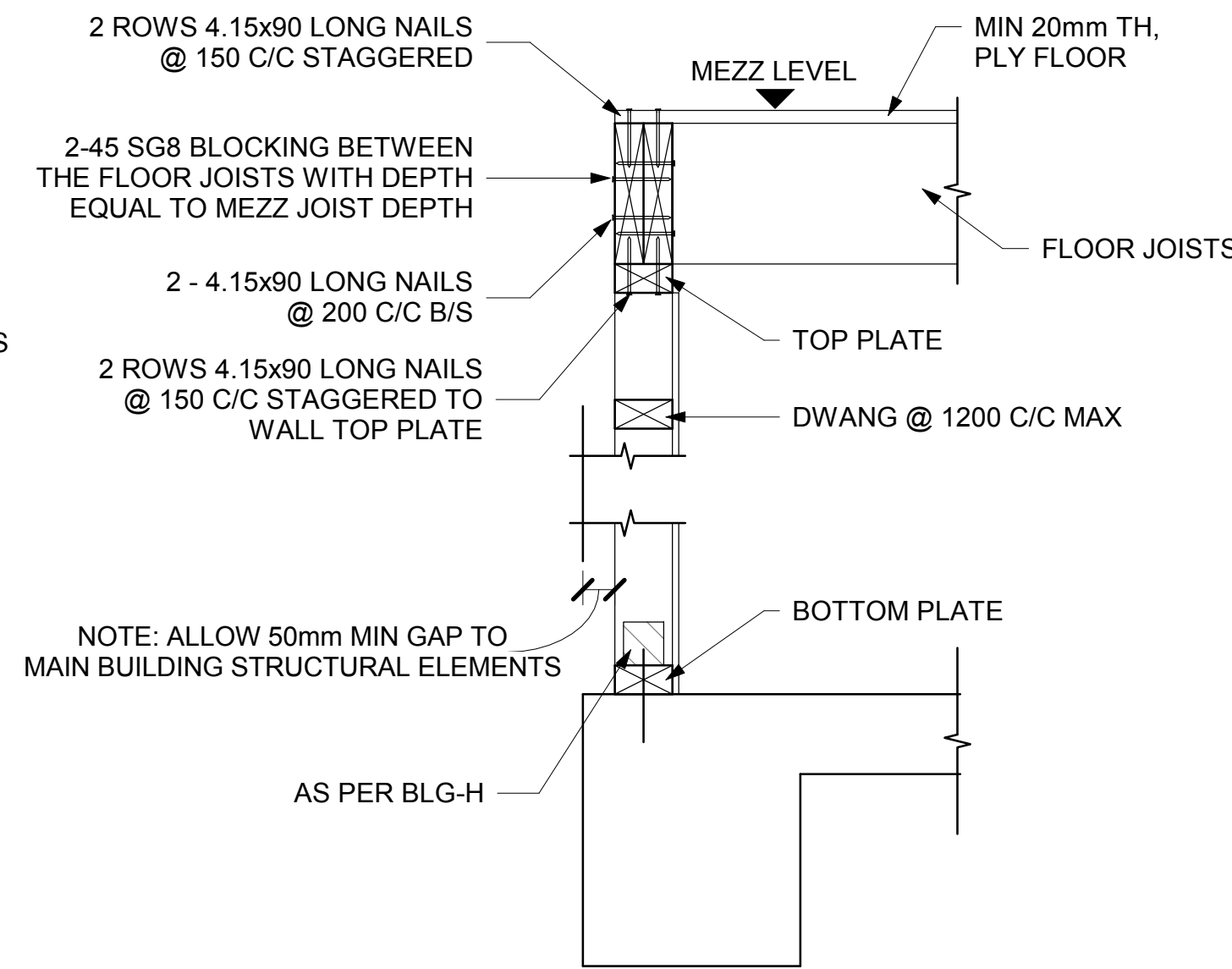
BRACING LEGEND

BRACING ELEMENT NUMBER
MINIMUM LENGTH OF BRACING ELEMENT (METERS)
BRACING TYPE

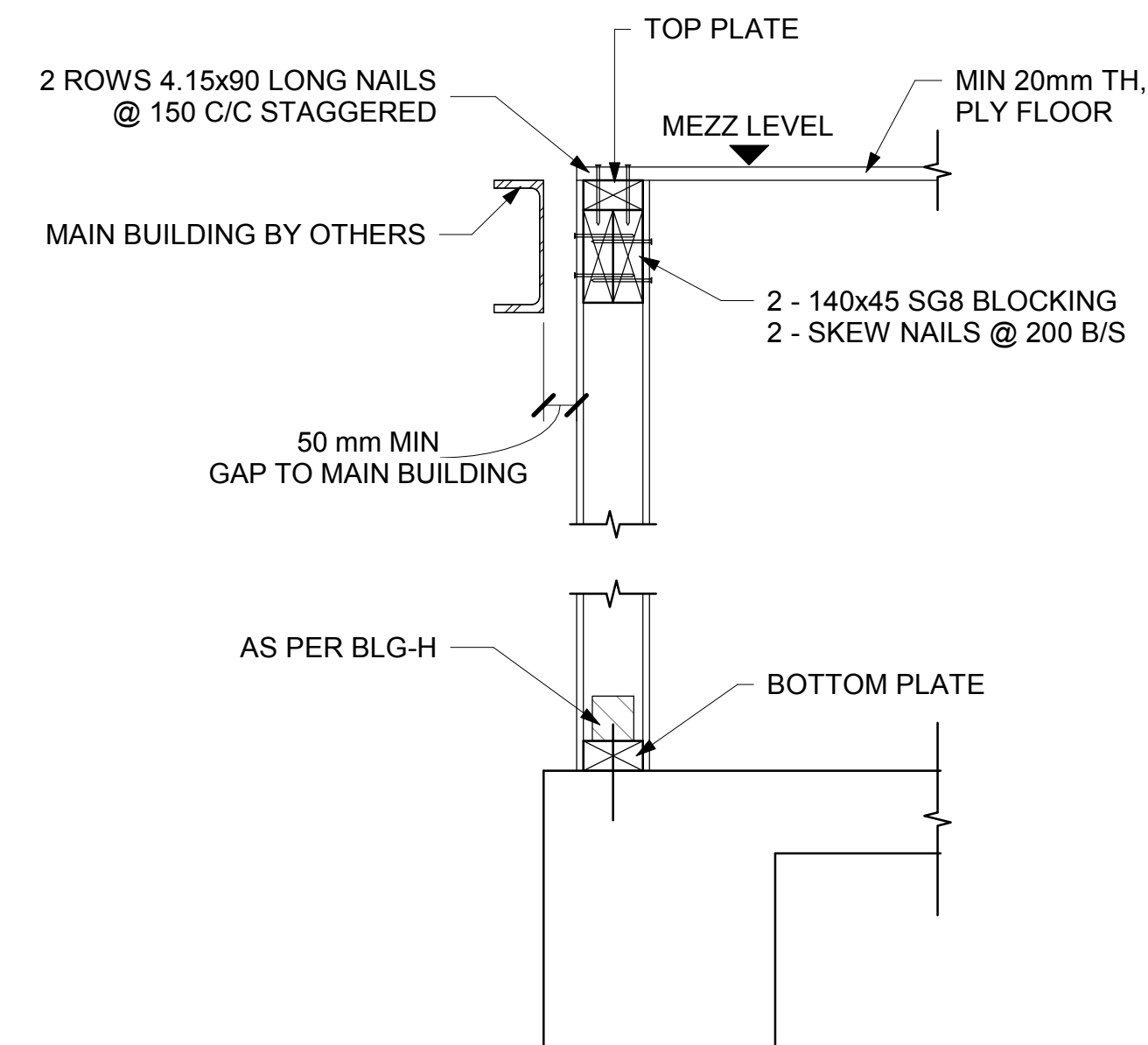


NOTE:

- BLG-H - 10mm or 13mm GIB BRACELINE® TO ONE SIDE OF THE FRAME PLUS ANY 10MM OR 13MM GIB® PLASTERBOARD TO THE OTHER SIDE
- APPROPRIATE SUBSTITUTION OF FYRELIN FOR BRACELINE IS ALLOWED



SECTION
8
1 : 10



SECTION
9
1 : 10

A1 ORIGINAL SIZE mm

Rev	Issued For Construction	Issued By	Date
A	ISSUED FOR CONSTRUCTION		11.09.2018



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SHED FOUNDATIONS UNIT B No. 2 HOFF PLACE, PORIRUA
BRACING PLAN WIDE SPAN SHEDS WELLINGTON LTD

Initials	Date	DO NOT SCALE. If in doubt ask for dimensions.
Surveyed		Scales A1 Scales A3 Job No.
Designed	WA	AUG' 18
Drawn	THS	AUG' 18
Checked	-	
Approved	-	
Revit Path/File	Sheet	Rev.
	S02	A

J:\1001181\18180 Wide Span Unit B NO 2 HOFFS PL\PORIRUA_SHEd FOUNDATIONS_AEB03_Structural Engineering\01 Drawings\02 Structural\18180 - DRAWING 18.09.05.rvt

GENERAL NOTES

G.1. STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION, ARCHITECTURAL, CIVIL, AND BUILDING SERVICES DOCUMENTS.

G.2. UNLESS OTHERWISE NOTED, ALL REDUCED LEVELS (RL'S) ARE IN METRES, AND ALL DIMENSIONS ARE IN MILLIMETRES.

G.3. ALL EXISTING COMPONENTS ARE TO BE CONFIRMED ON SITE. MAKE APPROPRIATE PROVISIONS FOR UNFORESEEN SITUATIONS.

G.4. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING FROM DRAWINGS.

G.5. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE REFERRED TO THE ARCHITECT FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.

G.6. THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION, INCLUDING TEMPORARY WORKS DESIGN, IS THE RESPONSIBILITY OF THE CONTRACTOR.

G.7. THE METHOD OF EXCAVATION AND TEMPORARY SUPPORT OF ALL CUT FACES IS THE RESPONSIBILITY OF THE CONTRACTOR.

G.8. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT CODES OF PRACTICE EXCEPT WHERE VARIED BY THE SPECIFICATION OR THE DRAWINGS.

G.9. WHERE PROPRIETARY PRODUCTS ARE SPECIFIED IN THE DOCUMENTS THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE PRODUCT FOR APPROVAL. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION.

G.10. THE ENGINEER SHALL INSPECT STRUCTURAL DETAILS PRIOR TO BUILDING IN. TYPICALLY INSPECT PRIOR TO:

- CONCRETE POURS
- STRUCTURAL TIMBER OR STEEL BEING CONCEALED
- LININGS BEING PLACED OVER TIMBER BRACING DETAILS

G.11. STRUCTURAL ELEMENTS NOT REQUIRING SPECIFIC ENGINEERING DESIGN (WITHIN THE SCOPE OF NZ3604 AND NZS4229) ARE TO BE BUILT AS SPECIFIED IN THE ARCHITECTURAL DOCUMENTATION.

G.12. CONTACT THE ENGINEER AT LEAST 48 HOURS PRIOR TO ARRANGE INSPECTION SHOULD IT BE REQUIRED.

G.13. IT IS THE BUILDER/CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE SITE IS KEPT SAFE, THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING: -

- ENSURE THAT THE PILE HOLES ARE COVERED ADEQUATELY AND NOT LEFT OPEN
- ENSURE THAT ANY BANKS/EXCAVATION ARE APPROPRIATELY FENCED
- ENSURE THAT ANY BANKS/EXCAVATION ARE SHORED OR BATTERED APPROPRIATELY FOR SAFETY DURING CONSTRUCTION.

FOUNDATION NOTES

F.1. FOUNDATION MATERIAL SHALL BE APPROVED BY THE ENGINEER FOR SAFE BEARING CAPACITY 100 KPA @ 300mm BGL AND OTHER REQUIREMENTS SPECIFIED ON THE DRAWINGS PRIOR TO THE CONSTRUCTION OF ANY FOOTINGS.

F.2. SUBGRADE BELOW BASE COURSE FOR SLABS SHALL BE OF A SUITABLE MATERIAL AND BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY DETERMINED BY TEST NZS 4402: TEST 4.1.1 OR EQUIVALENT, UNLESS NOTED OTHERWISE.

F.3. ALL WALLS AND COLUMNS SHALL BE CONCENTRIC WITH SUPPORTING FOUNDATIONS UNLESS OTHERWISE NOTED ON DRAWINGS.

F.4. BEHIND ALL RETAINING WALLS BACK FILL WITH FREE DRAINING GRANULAR FILL AND INSTALL ANY DE-WATERING DRAINS SPECIFIED BY THE ARCHITECT.

F.5. THE CONTRACTOR SHALL NOT EXCAVATE ACCESS TRACKS INTO THE SITE THAT COMPROMISE THE STABILITY OF THE SITE OR FORM CUT FACES TO ADJACENT PROPERTIES.

F.6. THE TEMPORARY STABILITY OF ALL EXPOSED CUTS IS THE RESPONSIBILITY OF THE CONTRACTOR.

F.7. THE HARDFILL SHOWN UNDER THE SLAB (IF NOTED ON THE DRAWINGS) MAY BE DELETED IN LIEU OF THE EXCAVATED SURFACE BEING CUT CLEAN WITH A SMOOTH EDGE BUCKET AND THE FINAL SURFACE BEING OF A TIGHT, COMPACT MATERIAL. CRUSHER DUST AND DPM ARE TO BE USED, OVER THE TOP OF THIS CLEAN CUT SURFACE.

F.8. ALL SOFT MATERIAL IS TO BE REMOVED. IF THE TOP LAYER OF CUT MATERIAL IS LOOSE IT IS TO BE RE-COMPACTED WITH A PLATE COMPACTOR OR ROLLER TO A HARD FIRM FINISHED LAYER.

F.9. THE ENGINEER IS TO VERIFY THE SUBGRADE PRIOR TO DPM LAYING.

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F.11. THE ENGINEER IS TO SITE AND CONFIRM THE PILE EXCAVATIONS AND GROUND CONDITIONS PRIOR TO POURING, ENSURING THE CORRECT POLE DIAMETER AT GROUND LEVEL IS ACHIEVABLE. OVAL SHAPED POLES ARE TO BE POSITIONED WITH THE WIDER DIMENSION PERPENDICULAR TO THE WALL.

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- PRECAST CONCRETE: 35 MPA
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- TIDY SLABS OR ANY OTHER NON-STRUCTURAL CONCRETE: 10 MPA

C.2. WHERE THE DRAWINGS OR SPECIFICATIONS STATE THE SIZE OF CONCRETE ELEMENTS, THE STATED SIZE DOES NOT INCLUDE THICKNESS OF ANY APPLIED FINISHES. WHERE BEAM SIZES ARE NOTED ON THE DRAWINGS, THE WIDTH IS STATED FIRST AND THE DEPTH SECOND. THE DEPTH INCLUDES THE THICKNESS OF THE SLAB (IF ANY).

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- THESE JOINTS MAY VARY FROM A SIMPLE KEYED CONSTRUCTION JOINT TO SOPHISTICATED PROPRIETY MOVEMENT JOINTS, INCLUDING ADDITIONAL LAYERS OF DPM TO FACILITATE A SLIP PLAIN. THE FINAL SOLUTION SHALL BE DETERMINED BY THE ENGINEER AFTER CONSULTATION WITH THE CONTRACTOR AND ANY NECESSARY SUB-CONTRACTORS.

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C.10. ALL BEAMS SHALL BE FULLY PROPPED DURING CONSTRUCTION.

C.11. THE CLEAR COVER TO ALL REINFORCEMENT, INCLUDING STIRRUPS AND TIES, SHALL BE TO NZS 3101:2011. IN GENERAL THE FOLLOWING COVERS SHALL BE USED, UNLESS NOTED OTHERWISE ON THE DRAWINGS:

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- 50MM - CAST AGAINST GROUND BUT PROTECTED BY A DAMP-PROOF MEMBRANE
- 35MM - ALL OTHER CASES

C.12. WELDING OF REINFORCEMENT IS NOT PERMITTED UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER.

C.13. TOP AND BOTTOM REINFORCEMENT IN SLABS SHALL BE ADEQUATELY SUPPORTED TO ENSURE ALL REINFORCING STAYS IN PLACE DURING CONCRETE POURING.

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C.16. NO REINFORCEMENT SPLICES SHALL BE MADE OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS, WITHOUT THE PRIOR APPROVAL OF THE ENGINEER AND UNLESS NOTED OTHERWISE ON THE DRAWINGS

C.17. ALL REINFORCEMENT LAPS IN CONCRETE TO 50 TIMES THE BAR SIZE.

C.17. MINIMUM LAP FOR MESH FABRIC SHALL BE ONE MESH BAR SPACING PLUS 25MM.

POD FLOOR

PF1. EXCAVATE SOFT SOIL FROM UNDER THE LOCATION OF THE FOUNDATION AND REPLACE WITH COMPACTED HARDFILL.

PF2. CONCRETE MIX : 20MPA, 100MM SLUMP, STRUCTURAL MIX, 19MM NOMINAL AGGREGATE SIZE. CONCRETE MIX (PUMPED) : 20MPA, 100MM SLUMP, STRUCTURAL MIX, 19MM NOMINAL AGGREGATE SIZE. AGGREGATE SIZE CAN VARY TO ACCOMMODATE PUMPING EQUIPMENT.

PF3. 75MM CONCRETE COVER TO GROUND, 50MM CONCRETE COVER TO BOXING.

PF4. FOR ALL CONCRETE PENETRATIONS REFER TO THE FIRTH RIB RAFT MANUAL.

NOTES ON STRUCTURAL STEEL

S.1. STEEL MEMBERS SHALL BE THE FOLLOWING GRADES UNLESS NOTED OTHERWISE ON THE DRAWINGS OR IN THE SPECIFICATION.

- PFC'S, UB'S AND UC'S - GRADE 300
- RHS'S, SHS'S AND CHS'S - GRADE 350

S.2. ALL COLD FORMED SECTIONS (IF ANY) INCLUDING COLD ROLLED PURLINS ARE TO CONFORM TO AS 1538 AND SHALL HAVE A MINIMUM YIELD STRESS OF 450 MPa, UNO ON DRAWINGS.

S.3. THE ENDS OF ALL HOLLOW SECTIONS SHALL BE SEALED WITH 3mm MINIMUM STEEL PLATE, SEAL WELDED.

S.4. IN GENERAL PROVIDE 10mm STIFFENER PLATES AT BEAM ENDS, CONNECTIONS, AND SUPPORTS.

S.5. ALL PLATES SHALL BE 10mm MINIMUM UNO.

S.6. ALL HOLDING DOWN BOLTS AND OTHER FIXING DEVICES SHALL HAVE A MINIMUM YIELD STRESS OF 250 MPA UNLESS NOTED OTHERWISE.

S.7. CHECK THAT BOLT HEADS, NUTS, CLEATS, ETC. THAT ARE MEANT TO BE CONCEALED WITHIN WALLS, FLOORS, ETC. DO NOT PROTRUDE ARCHITECTURAL SURFACE. REFER ANY ISSUES TO THE ARCHITECT OR DIRECTLY CONTACT THE ENGINEER.

S.8. ALL DRY PACK MORTAR OR NON-SHRINKAGE GROUT SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 30 MPa.

S.9. SURFACE PREPARATION AND CORROSION PROTECTION OF STEELWORK SHALL BE IN ACCORDANCE WITH NOTES AND SPECIFICATIONS UNO ON THE DRAWINGS. ANY DAMAGE TO THE PROTECTIVE COATING OF STEELWORK SHALL BE MADE GOOD.

S.10. BOLTS:

- BOLTS AND NUTS SHALL BE GALVANISED GRADE 8.8 STEEL TO AS 1252: 'ISO METRIC HIGH STRENGTH STEEL BOLTS' UNO.
- GRADE 4.6 (WHERE CALLED UP) SHALL BE MILD STEEL TO AS 1111: 'ISO METRIC HEXAGONAL BOLTS' AND AS1112: 'ISO METRIC HEXAGONAL NUTS'.
- DETAILING REQUIREMENTS (WHERE NOT SPECIFICALLY CALLED UP ON THE DRAWINGS):
 - o EDGE AND END DISTANCE = 2D (WHERE D=THE BOLT DIAMETER)
 - o PITCH DISTANCES = 2.5D
 - o GAUGE DISTANCES = 70, 90, 140 AS PER AISC.
- ALL BOLTS SHALL HAVE AT LEAST ONE WASHER PROVIDED UNDER THE ROTATING COMPONENT AND SHALL BE NOT LESS THAN TWICE THE NOMINAL BOLT SIZE IN DIAMETER.
- SELECT A BOLT SO THAT THE PROJECTION BEYOND THE NUT IS NOT LESS THAN TWO THREADS AND NOT MORE THAN 10MM, AND THERE SHALL BE AT LEAST ONE CLEAR RUN OF THREAD BENEATH THE NUT AFTER TIGHTENING.

S.11. HOLING:

- HOLES FOR BOLTS SHALL BE DRILLED OR PUNCHED AND NOT GAS CUT.
- COMMON DETAILING CRITERIA:
 - o STANDARD HOLES = D+2mm, UP TO M24 AND D+3mm FOR M24+ (WHERE D=BOLT DIAMETER)
 - o SLOTTED HOLES = WIDTH AS FOR STANDARD HOLES AND 2.5D LONG.
 - o H.D BOLTS = 1.22D (STANDARD WASHER) OR 1.33D (FABRICATED WASHER)

S.12. WELDING:

- ALL WELDED CONNECTIONS SHALL BE OF SP GRADE METAL ARC WELDED AS SHOWN ON THE DRAWINGS. ALL WELDING SHALL COMPLY WITH AS1554:PART 1 'WELDING OF STEEL STRUCTURES' UNLESS NOTED OTHERWISE.
- WELDS EXPOSED IN THE COMPLETED BUILDING AND IN PARTICULAR BUTT WELDS, SHALL BE NEATLY FINISHED AND GROUND SMOOTH.
- ALL BUTT WELDS SHALL BE FULL PENETRATION, USING BACKING PLATES AS REQUIRED.
- THE WELDING OF HOLLOW SECTIONS SHALL INCORPORATE INTERNAL SECTIONS OR BACKING PLATES AS NECESSARY TO COMPLETE THE SPECIFIED WELD.
- ALL WELDS ARE TO BE CONTINUOUS 6mm FILLETS, ALL AROUND, UNLESS OTHERWISE NOTED.

S.13. EXPOSED STEELWORK MEMBERS AND BRACKETS ARE TO BE FIRE-RATED TO ARCHITECTS SPECIFICATION.

S.14. UNO PROVIDE STEEL MEMBER CONNECTIONS AS FOLLOWS:

- STEEL MEMBER TO CONCRETE/MASONRY FACE. MEMBER DEPTH <150mm: 10mm THICK END PLATE, 2-M16 CHEMSETS.
- STEEL MEMBER TO CONCRETE/MASONRY FACE. MEMBER DEPTH 150<D<300: 10mm THICK END PLATE, 4-M16 CHEMSETS
- STEEL MEMBER TO STEEL MEMBER. MEMBER DEPTH <150mm: 10mm THICK CLEAT, 2-M16 8.8/S BOLTS
- STEEL MEMBER TO STEEL MEMBER: MEMBER DEPTH 150<D<300: 10mm THICK CLEAT, 2-M20 8.8/S BOLTS
- STEEL POSTS IN OR AGAINST TIMBER FRAMED WALLS SHALL HAVE M12 BOLTS AT 900 C/C ATTACHING THE POST TO THE FRAMING, UNO ON THE DRAWINGS.

S.15. THE CONTRACTOR IS TO SUBMIT SHOP DRAWINGS OF ALL STEELWORK (IF ANY) FOR REVIEW PRIOR TO MANUFACTURE. CHECK AND VERIFY ALL DIMENSIONS AND LEVELS BEFORE COMMENCING FABRICATION OF ANY STEEL WORK.

NOTES ON STRUCTURAL FINISHES (STEEL)

PAINTING OF STRUCTURAL STEEL (UNO)

SF.1. STEELWORK CAST INTO CONCRETE

STEELWORK TO BE SPRAYED FOR FIRE PROTECTION OR TO BE CAST MORE THAN 50mm INTO CONCRETE SHALL HAVE ALL RUST AND MILL SCALE ETC. REMOVED BY POWER OR MANUAL WIRE BRUSHING AND SHALL BE LEFT UNPRIMED.

SF.2. CONCEALED STEELWORK FINISHES

STEELWORK CONCEALED WITHIN THE COMPLETE BUILDING SHALL BE THOROUGHLY PREPARED BY SANDBLASTING TO AS 1627.4 CLASS SA1 AND IMMEDIATELY PRIMED WITH RED OXIDE OR ZINC CHROMATE PRIMER. ONE ACCEPTABLE SYSTEM IN THE INTERNATIONAL PAINTS RANGE CONSISTS OF: 1 COAT INTERPRIME 198 AT 50 MICRON DFT

SF.3. EXPOSED INTERIOR STEELWORK FINISHES

STEELWORK VISIBLE IN THE COMPLETED BUILDING BUT PROTECTED FROM THE WEATHER SHALL BE PREPARED BY SANDBLASTING TO AS 1627.4 CLASS 2 □ AND IMMEDIATELY PRIMED. ONE ACCEPTABLE SYSTEM IN THE INTERNATIONAL PAINTS RANGE CONSISTS OF: 1 COAT INTERZINC 42 AT 75 MICRONS DFT, 1 COAT INTERGUARD 670 HS TO 125 MICRON DFT (COLOUR TO BE SELECTED BY ARCHITECT).

SF.4. EXPOSED EXTERIOR STEELWORK FINISHES

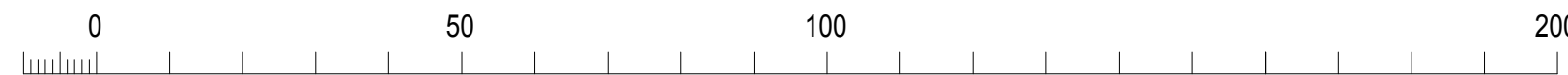
STEELWORK EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED OR METAL ARC SPRAYED. STEELWORK EXPOSED TO WEATHER WITHIN 500M OFF THE SEA COAST SHALL BE METAL ARC SPRAYED. WHERE REQUIRED BY THE ARCHITECT HOT DIP GALVANIZED, OR METAL ARC SPRAYED STEELWORK SHALL BE PAINTED. ONE ACCEPTABLE SYSTEM IN THE INTERNATIONAL PAINTS RANGE CONSISTS OF: 1 COAT INTERGUARD 251 TO 50 MICRON DFT, 1 OR 2 COATS INTERTHANE 990 TO 75 MICRON DFT (COLOUR SELECTED BY THE ARCHITECT).

COATINGS FOR 25+ YEARS DURABILITY RATING, ATMOSPHERIC CORROSIY CATEGORY D					
SYSTEM DESIGNATION	DESCRIPTION	SURFACE PREPARATION	NUMBER OF COATS	INITIAL GLOSS	TYPICAL COLOUR
EUH1	ULTRA HIGH BUILD EPOXY	Sa1/2	1	FLAT TO SEMI-GLOSS	LIMITED
TSZ150S	THERMAL ZINC SPRAY SEALED			FLAT	GREY (WIDE RANGE OF COLOUR)
IZS3SB	INORGANIC ZINC SILICATE ONE COAT				MOSTLY GREY
HDG600P7	HOT DIPPED GALVANISED + PAINT	SWEEP ABRASIVE BLAST	2	SEMI-GLOSS TO FULL GLOSS	WIDE RANGE
HDG900	HOT DIPPED GALVANISED		1	FLAT	GREY

HOT DIP GALVANISING/METAL ARC SPRAY

SF.5. STEEL EXPOSED TO THE WEATHER, OR WHERE OTHERWISE NOTED ON THE DRAWINGS, SHALL BE GALVANIZED OR METAL ARC SPRAYED (HOT ZINC SPRAYED). PREPARATION FOR GALVANIZING, COATING THICKNESS, APPEARANCE AND ACCEPTABLE QUALITY SHALL BE AS SET OUT IN THE GALVANIZING MANUAL OF THE GALVANIZERS ASSOCIATION OF NEW ZEALAND. GALVANIZED SURFACES TO RECEIVE PAINT SHALL BE UN-QUENCHED.

SF.6. PREPARATION FOR METAL ARC SPRAY SHALL BE SANDBLAST TO AS 1627.4 CLASS 2 □ AND COATING TO: 150 MICRON DFT FOR HEAVY APPLICATION, OR 75 MICRON DFT FOR GENERAL APPLICATION. METAL ARC SPRAYED STEELWORK MUST IN ALL CASES BE SEALED. IF NO ARCHITECTURAL TOP COAT IS REQUIRED ONE ACCEPTABLE SYSTEM IS: 1 COAT INTERSHEEN 579 ALUMINIUM VINYL WASH TO 10 MICRON DFT. IF AN ARCHITECTURAL TOP COOT IS REQUIRED REFER TO 4 ABOVE.



				 MULTI-DISCIPLINARY ENGINEERING & SURVEYING SERVICES Bringing places & spaces to life		The Contractor shall check all dimensions on site		SHED FOUNDATIONS UNIT B No. 2 HOFF PLACE, PORIRUA STANDARD NOTES WIDE SPAN SHEDS WELLINGTON LTD				Initials		Date		DO NOT SCALE. If in doubt ask for dimensions.			
						Scales A1						Scales A3		Job No.					
Surveyed		WA				AUG' 18						1 : 100		118180					
Designed		THS				AUG' 18													
Drawn		-				Revit Path/File		Sheet		Rev.									
Checked								SN1		A									
Approved		-																	

A	ISSUED FOR CONSTRUCTION		11.09.2018
Rev	Details	Issued By	Date



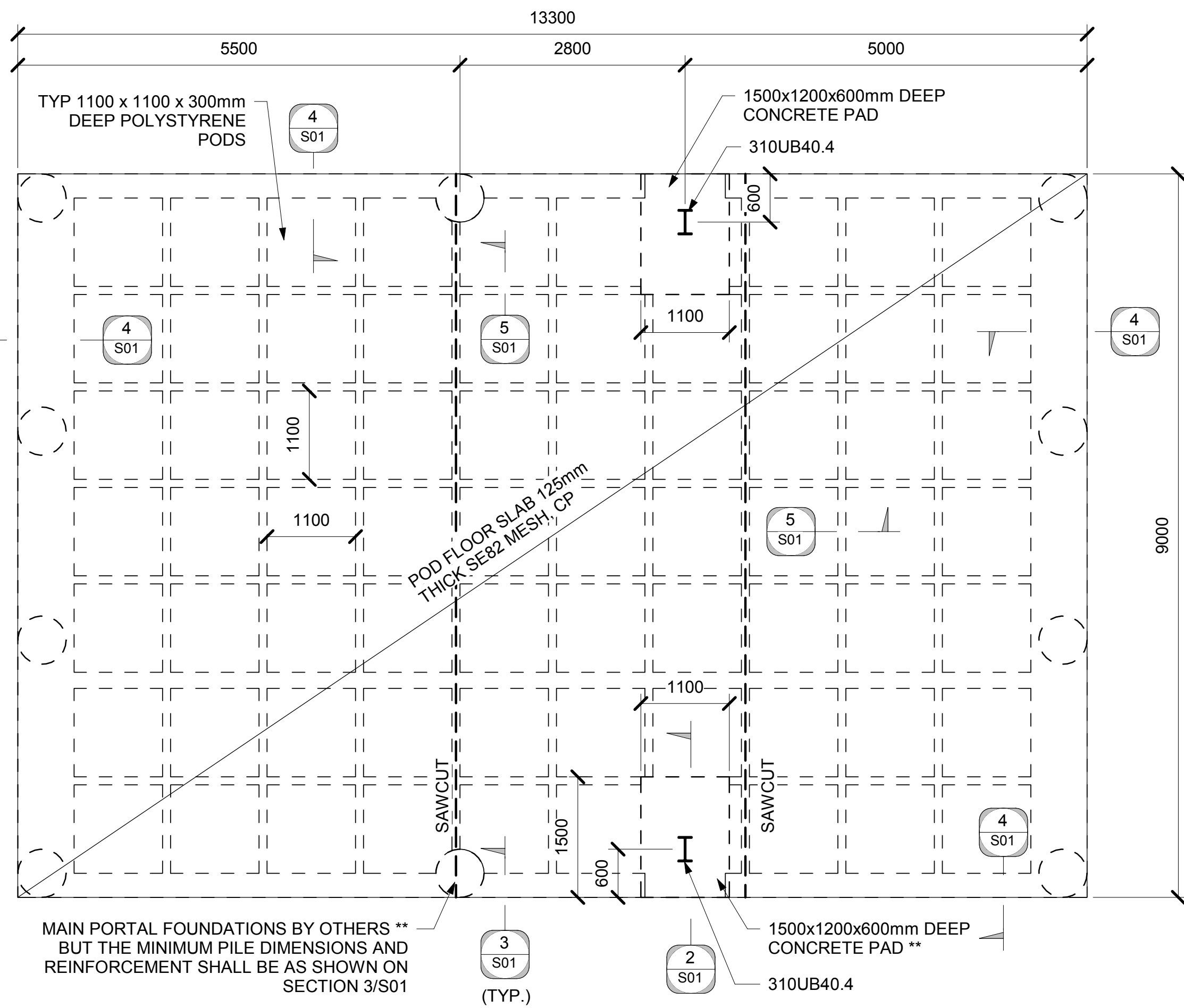
118181
SHED FOUNDATIONS
UNIT C No. 2 HOFF PLACE, PORIRUA
WIDE SPAN SHEDS WELLINGTON LTD

Bringing places & spaces to life

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DRAWING REGISTER				
No.	Sheet Name	Rev.	Chk.	Date
S00	COVER PAGE	A		24.09.2018
S01	POD FLOOR DESIGN	A		24.09.2018
S02	BRACING PLAN	A		24.09.2018
SN1	STANDARD NOTES	A		24.09.2018

J:\1001181\18181 Wide Span Unit C NO 2 HOFFS PL PORIRUA_SHED FOUNDATIONS_AEB03 Structural Engineering\01 Drawings\02 Structural\118181 - DRAWING 24.09.05.rvt

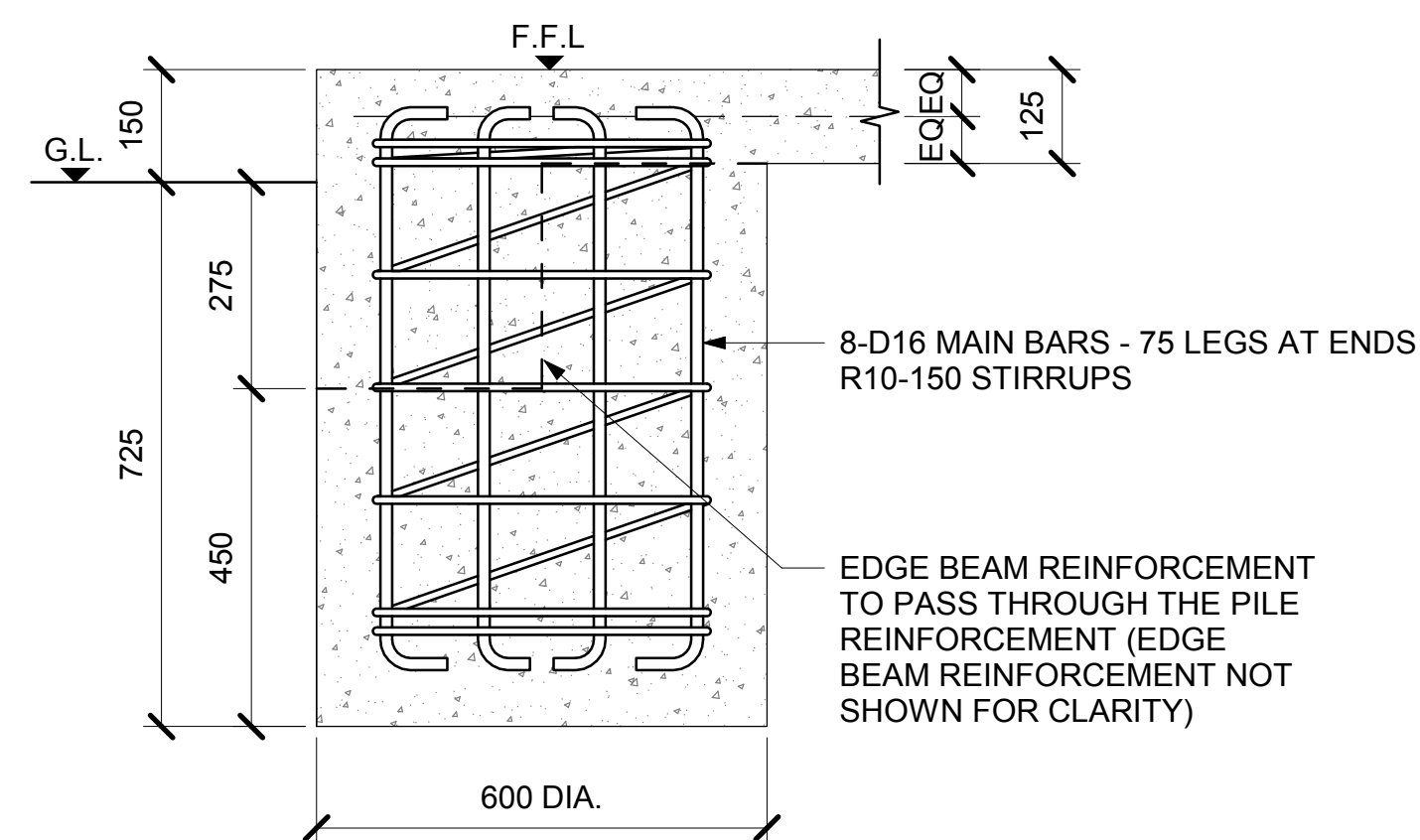


1 RIBRAFT PLAN
S02 1 : 50

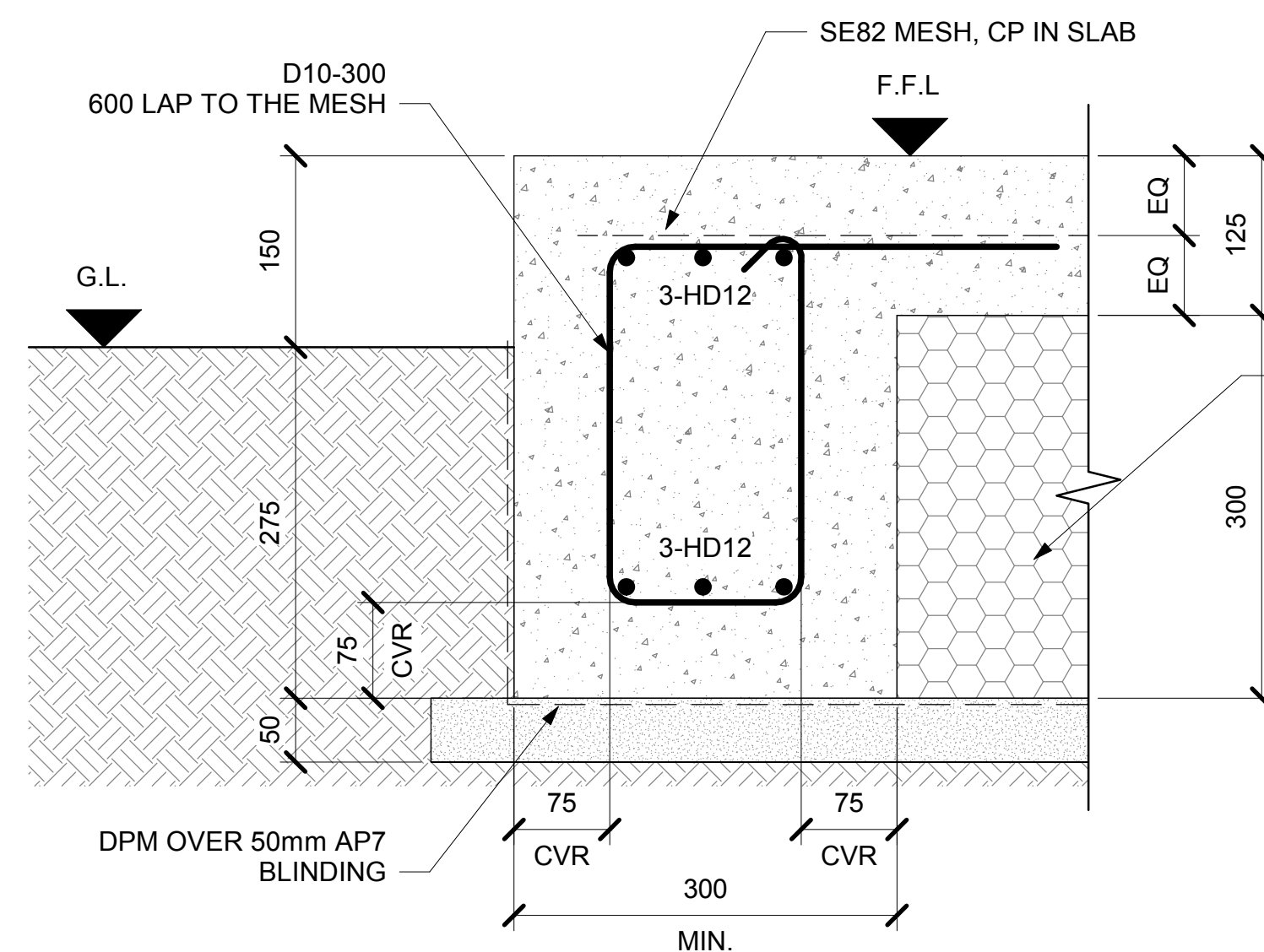
REFER TO ARCHITECTURAL DRAWINGS FOR:
• SETOUT DIMENSIONS
• DOOR THRESHOLD DETAILS

NOTES:
• CONCRETE STRENGTH f_c @ 28 DAYS = 25MPa
• STEEL f_y HD=500MPa
D=300MPa
** POD FLOOR EDGE BEAM AND RIBS REINFORCEMENT TO CONTINUE THROUGH PORTAL FRAME FOUNDATIONS

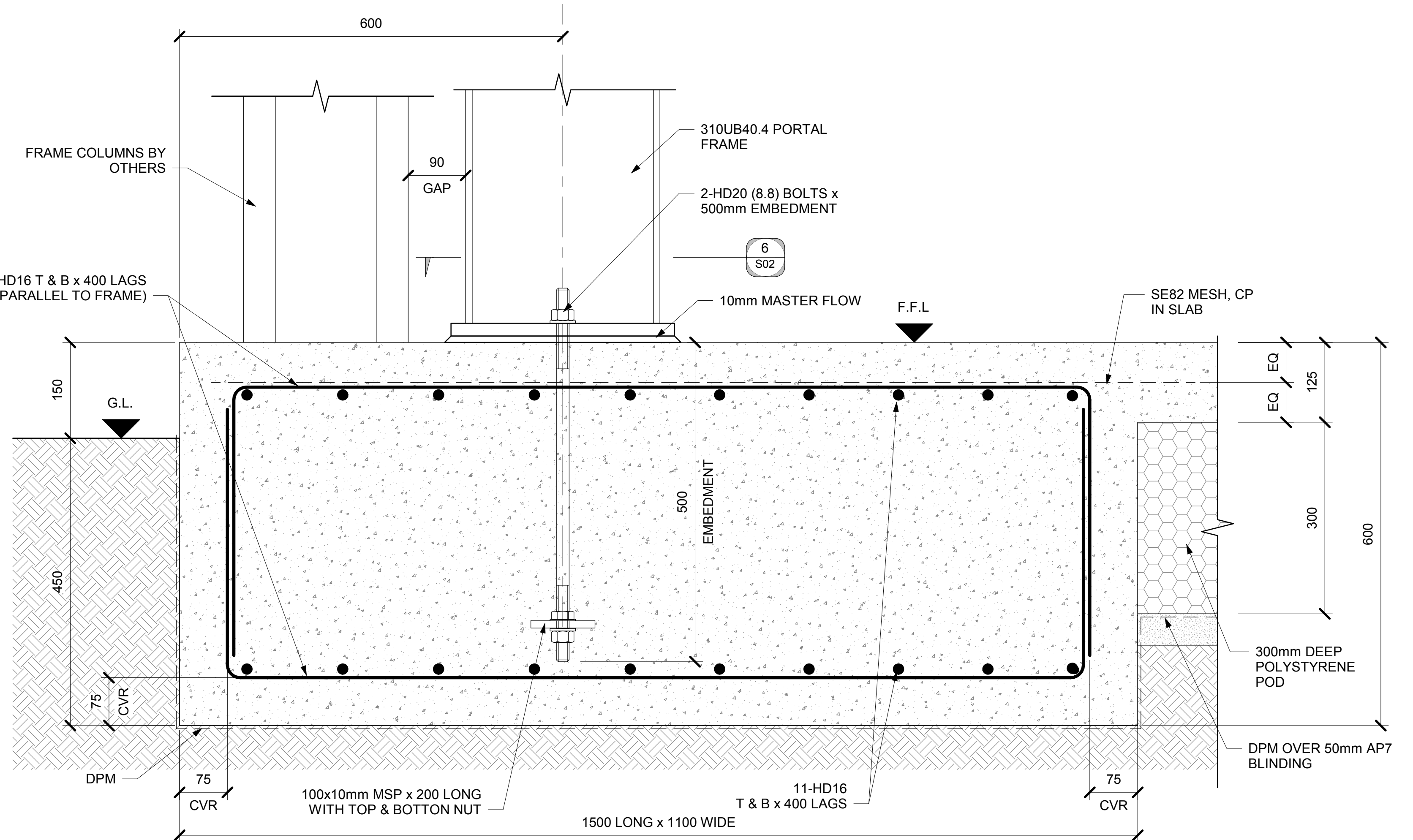
MAIN PORTAL FRAME PILES SIZES AND REINFORCEMENT
PILES SHALL BE AS PER EXTRAMILE CONSULTING LIMITED DRAWINGS, BUT SHALL NOT BE LESS THAN THE BELOW



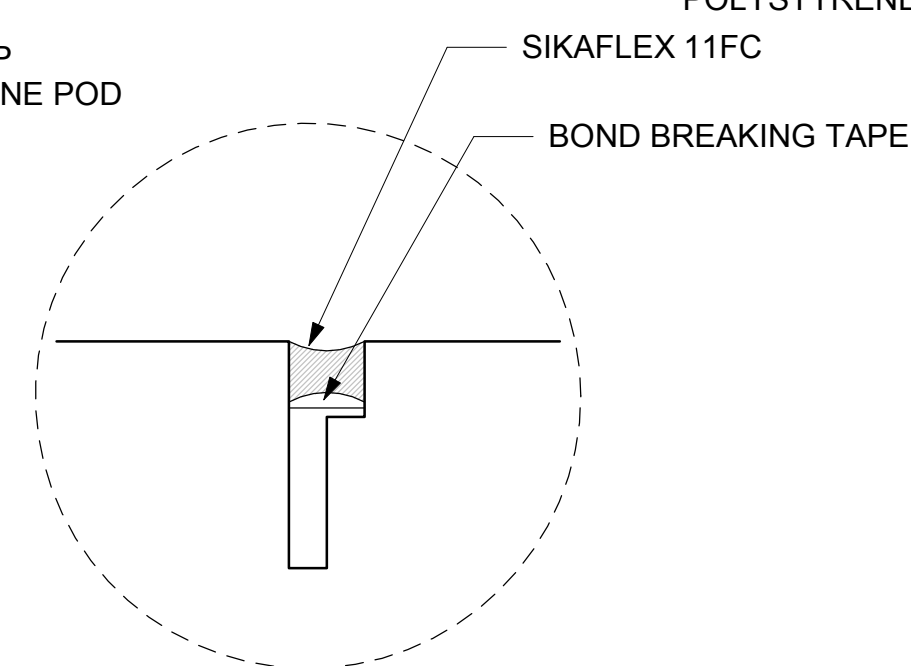
3 SECTION
S01 1 : 10



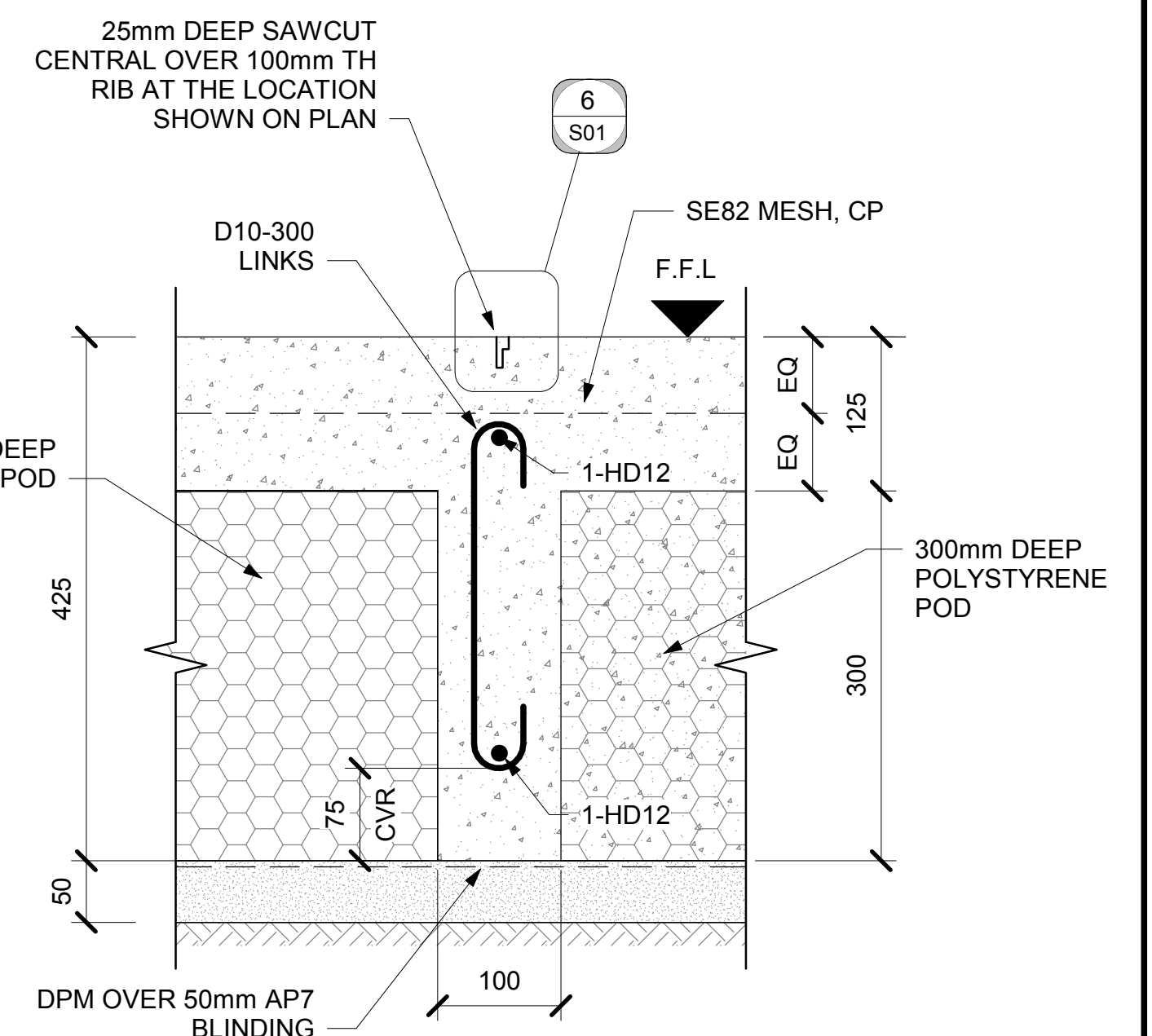
4 SECTION
S01 1 : 5



2 SECTION
S01 1 : 5



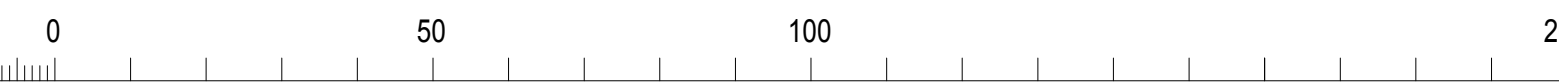
6 DETAIL
S01 1 : 5



5 SECTION ALL RIBS
S01 1 : 5

A1

ORIGINAL SIZE mm



Rev	Issued For Construction	Details	Issued By	Date
A	ISSUED FOR CONSTRUCTION			24.09.2018

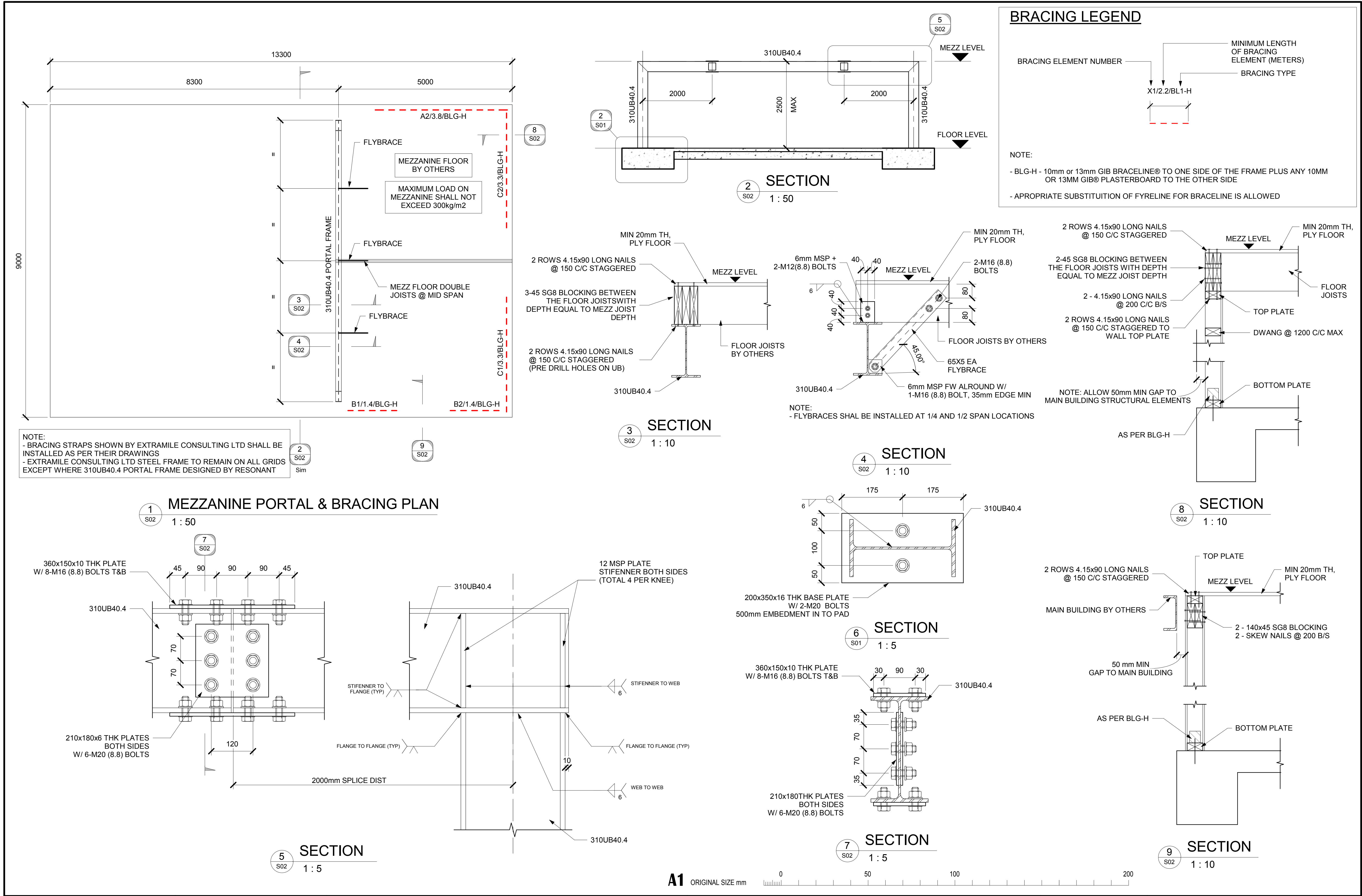


The Contractor shall check all dimensions on site
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SHED FOUNDATIONS
UNIT C No. 2 HOFF PLACE, PORIRUA

POD FLOOR DESIGN
WIDE SPAN SHEDS WELLINGTON LTD

Surveyed	Initials	Date	DO NOT SCALE. If in doubt ask for dimensions.
Designed	WA	AUG' 18	Scales A1 Scales A3 Job No.
Drawn	THS	AUG' 18	As indicated 118181
Checked	WA		Revit Path/File Sheet
Approved	FL		S01 Rev.
			A



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- GENERAL NOTES**
- G.1. STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION, ARCHITECTURAL, CIVIL, AND BUILDING SERVICES DOCUMENTS.
- G.2. UNLESS OTHERWISE NOTED, ALL REDUCED LEVELS (RL'S) ARE IN METRES, AND ALL DIMENSIONS ARE IN MILLIMETRES.
- G.3. ALL EXISTING COMPONENTS ARE TO BE CONFIRMED ON SITE. MAKE APPROPRIATE PROVISIONS FOR UNFORESEEN SITUATIONS.
- G.4. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING FROM DRAWINGS.
- G.5. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE REFERRED TO THE ARCHITECT FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
- G.6. THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION, INCLUDING TEMPORARY WORKS DESIGN, IS THE RESPONSIBILITY OF THE CONTRACTOR.
- G.7. THE METHOD OF EXCAVATION AND TEMPORARY SUPPORT OF ALL CUT FACES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- G.8. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT CODES OF PRACTICE EXCEPT WHERE VARIED BY THE SPECIFICATION OR THE DRAWINGS.
- G.9. WHERE PROPRIETARY PRODUCTS ARE SPECIFIED IN THE DOCUMENTS THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE PRODUCT FOR APPROVAL. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION.
- G.10. THE ENGINEER SHALL INSPECT STRUCTURAL DETAILS PRIOR TO BUILDING IN. TYPICALLY INSPECT PRIOR TO:
- CONCRETE POURS
 - STRUCTURAL TIMBER OR STEEL BEING CONCEALED
 - LININGS BEING PLACED OVER TIMBER BRACING DETAILS
- G.11. STRUCTURAL ELEMENTS NOT REQUIRING SPECIFIC ENGINEERING DESIGN (WITHIN THE SCOPE OF NZ3604 AND NZS4229) ARE TO BE BUILT AS SPECIFIED IN THE ARCHITECTURAL DOCUMENTATION.
- G.12. CONTACT THE ENGINEER AT LEAST 48 HOURS PRIOR TO ARRANGE INSPECTION SHOULD IT BE REQUIRED.
- G.13. IT IS THE BUILDER/CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE SITE IS KEPT SAFE, THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING: -
- ENSURE THAT THE PILE HOLES ARE COVERED ADEQUATELY AND NOT LEFT OPEN
 - ENSURE THAT ANY BANKS/EXCAVATION ARE APPROPRIATELY FENCED
 - ENSURE THAT ANY BANKS/EXCAVATION ARE SHORED OR BATTERED APPROPRIATELY FOR SAFETY DURING CONSTRUCTION.

- FOUNDATION NOTES**
- F.1. FOUNDATION MATERIAL SHALL BE APPROVED BY THE ENGINEER FOR SAFE BEARING CAPACITY 150 KPA @ 300mm BGL AND OTHER REQUIREMENTS SPECIFIED ON THE DRAWINGS PRIOR TO THE CONSTRUCTION OF ANY FOOTINGS.
- F.2. SUBGRADE BELOW BASE COURSE FOR SLABS SHALL BE OF A SUITABLE MATERIAL AND BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY DETERMINED BY TEST NZS 4402: TEST 4.1.1 OR EQUIVALENT, UNLESS NOTED OTHERWISE.
- F.3. ALL WALLS AND COLUMNS SHALL BE CONCENTRIC WITH SUPPORTING FOUNDATIONS UNLESS OTHERWISE NOTED ON DRAWINGS.
- F.4. BEHIND ALL RETAINING WALLS BACK FILL WITH FREE DRAINING GRANULAR FILL AND INSTALL ANY DE-WATERING DRAINS SPECIFIED BY THE ARCHITECT.
- F.5. THE CONTRACTOR SHALL NOT EXCAVATE ACCESS TRACKS INTO THE SITE THAT COMPROMISE THE STABILITY OF THE SITE OR FORM CUT FACES TO ADJACENT PROPERTIES.
- F.6. THE TEMPORARY STABILITY OF ALL EXPOSED CUTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
- F.7. THE HARDFILL SHOWN UNDER THE SLAB (IF NOTED ON THE DRAWINGS) MAY BE DELETED IN LIEU OF THE EXCAVATED SURFACE BEING CUT CLEAN WITH A SMOOTH EDGE BUCKET AND THE FINAL SURFACE BEING OF A TIGHT, COMPACT MATERIAL. CRUSHER DUST AND DPM ARE TO BE USED, OVER THE TOP OF THIS CLEAN CUT SURFACE.
- F.8. ALL SOFT MATERIAL IS TO BE REMOVED. IF THE TOP LAYER OF CUT MATERIAL IS LOOSE IT IS TO BE RE-COMPACTED WITH A PLATE COMPACTOR OR ROLLER TO A HARD FIRM FINISHED LAYER.
- F.9. THE ENGINEER IS TO VERIFY THE SUBGRADE PRIOR TO DPM LAYING.
- F.10. FOR HOLES ON SLOPING GROUND, THE EMBEDMENT DEPTH IS TO BE MEASURED FROM THE LOWER DOWNHILL FRONT LIP OF THE EXCAVATION.
- F.11. THE ENGINEER IS TO SITE AND CONFIRM THE PILE EXCAVATIONS AND GROUND CONDITIONS PRIOR TO POURING, ENSURING THE CORRECT POLE DIAMETER AT GROUND LEVEL IS ACHIEVABLE. OVAL SHAPED POLES ARE TO BE POSITIONED WITH THE WIDER DIMENSION PERPENDICULAR TO THE WALL.

- NOTES ON REINFORCED CONCRETE**
- C.1. MINIMUM CONCRETE STRENGTHS SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE ON DRAWINGS:
- CAST IN PLACE CONCRETE: 25 MPA
 - SUSPENDED CONCRETE SLABS, TOPPINGS, BEAMS AND COLUMNS: 25 MPA
 - PRECAST CONCRETE: 35 MPA
 - GROUT INFILL TO BLOCK WALLS: 17.5 MPA
 - TIDY SLABS OR ANY OTHER NON-STRUCTURAL CONCRETE: 10 MPA
- C.2. WHERE THE DRAWINGS OR SPECIFICATIONS STATE THE SIZE OF CONCRETE ELEMENTS, THE STATED SIZE DOES NOT INCLUDE THICKNESS OF ANY APPLIED FINISHES. WHERE BEAM SIZES ARE NOTED ON THE DRAWINGS, THE WIDTH IS STATED FIRST AND THE DEPTH SECOND. THE DEPTH INCLUDES THE THICKNESS OF THE SLAB (IF ANY).
- C.3. SHRINKAGE CONTROL:
- SLABS ON GRADE ARE TO BE SAW CUT (USING THE SOFT CUT METHOD) WITHIN 8 HOURS OF POURING.
 - THE POSITIONS OF THE SAW CUT JOINTS ORE TO BE IN ACCORDANCE WITH NZS3604 CLAUSE 7.5.8.6.4 OR TO THE PATTERN SHOWN ON THE DRAWINGS IF NOTED, OR AS AGREED WITH THE ENGINEER PRIOR TO POURING THE SLAB. THE SAW CUTS ARE TO BE □ OF THE SLAB DEPTH AND 4MM WIDE MINIMUM, AND ARE TO BE CLEANED OUT AND FILLED TO THE ARCHITECT'S SPECIFICATION AS LATE AS POSSIBLE IN THE JOB.
 - SAW CUT JOINTS SHALL BE PLACED TO ELIMINATE RE-ENTRANT CORNERS. THIS WILL USUALLY REQUIRE DIAMOND SHAPED SAW CUTS AROUND COLUMNS.
 - SLABS THAT REQUIRED CONSTRUCTION OR SHRINKAGE CONTROL JOINTS HAVE REQUIREMENTS GOVERNED BY THE SIZE OF THE POUR, SIZE OF THE SLAB, THICKNESS OF SLAB, SITE CONDITIONS AND MIX DESIGN.
 - THESE JOINTS MAY VARY FROM A SIMPLE KEYED CONSTRUCTION JOINT TO SOPHISTICATED PROPRIETRY MOVEMENT JOINTS, INCLUDING ADDITIONAL LAYERS OF DPM TO FACILITATE A SLIP PLAIN. THE FINAL SOLUTION SHALL BE DETERMINED BY THE ENGINEER AFTER CONSULTATION WITH THE CONTRACTOR AND ANY NECESSARY SUB-CONTRACTORS.
- C.4. NO PENETRATIONS, CHASES OR EMBEDMENTS OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE ELEMENTS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- C.5. SURFACE FINISHES TO THE CONCRETE SHALL BE SHALL BE IN ACCORDANCE WITH NZS 3114 AS SPECIFIED IN THE ARCHITECTURAL DOCUMENTATION.
- C.6. THE CONTRACTOR IS TO SUBMIT SHOP DRAWINGS OF ALL PRECAST ELEMENTS (IF ANY) FOR REVIEW PRIOR TO MANUFACTURE.
- C.7. PROPRIETARY PRECAST ELEMENTS REFERRED TO IN THE DRAWINGS (IF ANY) SHALL BE DESIGNED AND DETAILED BY THE SUPPLIER AND A COPY OF THE DOCUMENTATION SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO MANUFACTURE.
- C.8. CONCRETE PLACING AND MOULDING TOLERANCES SHALL CONFORM TO NZS3109 AND NZS3114.
- C.9. ALL PENETRATIONS THROUGH CONCRETE SLABS SHALL BE TRIMMED BY 2-YD12 BARS TO EACH EDGE OF THE PENETRATIONS UNLESS OTHERWISE NOTED. TRIMMER BARS ARE TO EXTEND 750MM BEYOND THE EDGE OF THE PENETRATION.
- C.10. ALL BEAMS SHALL BE FULLY PROPPED DURING CONSTRUCTION.
- C.11. THE CLEAR COVER TO ALL REINFORCEMENT, INCLUDING STIRRUPS AND TIES, SHALL BE TO NZS 3101:2011. IN GENERAL THE FOLLOWING COVERS SHALL BE USED, UNLESS NOTED OTHERWISE ON THE DRAWINGS:
- 75MM - CAST AGAINST GROUND
 - 50MM - CAST AGAINST GROUND BUT PROTECTED BY A DAMP-PROOF MEMBRANE
 - 35MM - ALL OTHER CASES
- C.12. WELDING OF REINFORCEMENT IS NOT PERMITTED UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER.
- C.13. TOP AND BOTTOM REINFORCEMENT IN SLABS SHALL BE ADEQUATELY SUPPORTED TO ENSURE ALL REINFORCING STAYS IN PLACE DURING CONCRETE POURING.
- C.14. HOOKS AND BENDS TO REBAR ARE TO BE IN ACCORDANCE WITH NZS 3109 UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- C.15. REINFORCING TO BE GRADE 300E OR GRADE 500E STEEL TO AS/NZS 4671 AS NOTED ON THE DRAWINGS. GRADE 300E ROUND BARS ARE SHOWN BY SYMBOL "R" AND DEFORMED BARS BY SYMBOL "D", FOLLOWED BY THE DIAMETER IN MILLIMETRES. GRADE 500E ROUND BARS SHOWN BY SYMBOL "YR" AND DEFORMED BARS BY SYMBOL "YD" FOLLOWED BY DIAMETER IN MILLIMETRES. GRADE 500E REINFORCING SHALL BE MICRO-ALLOY STEEL. QUENCHED AND TEMPERED STEEL CARRYING THE DESIGNATION 500E IS NOT AN ACCEPTABLE PRODUCT. MESH IS TO BE HARD DRAWN STEEL WIRE SPOT WELDED TO AS/NZS 4671, SMOOTH OR DEFORMED AND TO THE SPACINGS AND DIMENSIONS EITHER SPECIFIED OR SHOWN ON THE DRAWINGS.
- C.16. NO REINFORCEMENT SPLICES SHALL BE MADE OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS, WITHOUT THE PRIOR APPROVAL OF THE ENGINEER AND UNLESS NOTED OTHERWISE ON THE DRAWINGS
- ALL REINFORCEMENT LAPS IN CONCRETE TO 50 TIMES THE BAR SIZE.
- C.17. MINIMUM LAP FOR MESH FABRIC SHALL BE ONE MESH BAR SPACING PLUS 25MM.

- POD FLOOR**
- PF1. EXCAVATE SOFT SOIL FROM UNDER THE LOCATION OF THE FOUNDATION AND REPLACE WITH COMPACTED HARDFILL.
- PF2. CONCRETE MIX □ 20MPA, 100MM SLUMP, STRUCTURAL MIX, 19MM NOMINAL AGGREGATE SIZE. CONCRETE MIX (PUMPED) □ 20MPA, 100MM SLUMP, STRUCTURAL MIX, 19MM NOMINAL AGGREGATE SIZE. AGGREGATE SIZE CAN VARY TO ACCOMMODATE PUMPING EQUIPMENT.
- PF3. 75MM CONCRETE COVER TO GROUND, 50MM CONCRETE COVER TO BOXING.
- PF4. FOR ALL CONCRETE PENETRATIONS REFER TO THE FIRTH RIB RAFT MANUAL.

NOTES ON STRUCTURAL STEEL

- S.1. STEEL MEMBERS SHALL BE THE FOLLOWING GRADES UNLESS NOTED OTHERWISE ON THE DRAWINGS OR IN THE SPECIFICATION.
- PFC'S, UB'S AND UC'S - GRADE 300
 - RHS'S, SHS'S AND CHS'S - GRADE 350
- S.2. ALL COLD FORMED SECTIONS (IF ANY) INCLUDING COLD ROLLED PURLINS ARE TO CONFORM TO AS 1538 AND SHALL HAVE A MINIMUM YIELD STRESS OF 450 MPa, UNO ON DRAWINGS.
- S.3. THE ENDS OF ALL HOLLOW SECTIONS SHALL BE SEALED WITH 3mm MINIMUM STEEL PLATE, SEAL WELDED.
- S.4. IN GENERAL PROVIDE 10mm STIFFENER PLATES AT BEAM ENDS, CONNECTIONS, AND SUPPORTS.
- S.5. ALL PLATES SHALL BE 10mm MINIMUM UNO.
- S.6. ALL HOLDING DOWN BOLTS AND OTHER FIXING DEVICES SHALL HAVE A MINIMUM YIELD STRESS OF 250 MPA UNLESS NOTED OTHERWISE.
- S.7. CHECK THAT BOLT HEADS, NUTS, CLEATS, ETC. THAT ARE MEANT TO BE CONCEALED WITHIN WALLS, FLOORS, ETC. DO NOT PROTRUDE ARCHITECTURAL SURFACE. REFER ANY ISSUES TO THE ARCHITECT OR DIRECTLY CONTACT THE ENGINEER.
- S.8. ALL DRY PACK MORTAR OR NON-SHRINKAGE GROUT SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 30 MPa.
- S.9. SURFACE PREPARATION AND CORROSION PROTECTION OF STEELWORK SHALL BE IN ACCORDANCE WITH NOTES AND SPECIFICATIONS UNO ON THE DRAWINGS. ANY DAMAGE TO THE PROTECTIVE COATING OF STEELWORK SHALL BE MADE GOOD.
- S.10. BOLTS:
- BOLTS AND NUTS SHALL BE GALVANISED GRADE 8.8 STEEL TO AS 1252: 'ISO METRIC HIGH STRENGTH STEEL BOLTS' UNO.
 - GRADE 4.6 (WHERE CALLED UP) SHALL BE MILD STEEL TO AS 1111: 'ISO METRIC HEXAGONAL BOLTS' AND AS1112: 'ISO METRIC HEXAGONAL NUTS'.
 - DETAILING REQUIREMENTS (WHERE NOT SPECIFICALLY CALLED UP ON THE DRAWINGS):
 - EDGE AND END DISTANCE = 2D (WHERE D=THE BOLT DIAMETER)
 - PITCH DISTANCES = 2.5D
 - GAUGE DISTANCES = 70, 90, 140 AS PER AISC.
 - ALL BOLTS SHALL HAVE AT LEAST ONE WASHER PROVIDED UNDER THE ROTATING COMPONENT AND SHALL BE NOT LESS THAN TWICE THE NOMINAL BOLT SIZE IN DIAMETER.
 - SELECT A BOLT SO THAT THE PROJECTION BEYOND THE NUT IS NOT LESS THAN TWO THREADS AND NOT MORE THAN 10MM, AND THERE SHALL BE AT LEAST ONE CLEAR RUN OF THREAD BENEATH THE NUT AFTER TIGHTENING.
- S.11. HOLING:
- HOLES FOR BOLTS SHALL BE DRILLED OR PUNCHED AND NOT GAS CUT.
 - COMMON DETAILING CRITERIA:
 - STANDARD HOLES = D+2mm, UP TO M24 AND D+3mm FOR M24+ (WHERE D=BOLT DIAMETER)
 - SLOTTED HOLES = WIDTH AS FOR STANDARD HOLES AND 2.5D LONG.
 - H/D BOLTS = 1.22D (STANDARD WASHER) OR 1.33D (FABRICATED WASHER)
- S.12. WELDING:
- ALL WELDED CONNECTIONS SHALL BE OF SP GRADE METAL ARC WELDED AS SHOWN ON THE DRAWINGS. ALL WELDING SHALL COMPLY WITH AS1554:PART 1 'WELDING OF STEEL STRUCTURES' UNLESS NOTED OTHERWISE.
 - WELDS EXPOSED IN THE COMPLETED BUILDING AND IN PARTICULAR BUTT WELDS, SHALL BE NEATLY FINISHED AND GROUND SMOOTH.
 - ALL BUTT WELDS SHALL BE FULL PENETRATION, USING BACKING PLATES AS REQUIRED.
 - THE WELDING OF HOLLOW SECTIONS SHALL INCORPORATE INTERNAL SECTIONS OR BACKING PLATES AS NECESSARY TO COMPLETE THE SPECIFIED WELD.
 - ALL WELDS ARE TO BE CONTINUOUS 6mm FILLETS, ALL AROUND, UNLESS OTHERWISE NOTED.
- S.13. EXPOSED STEELWORK MEMBERS AND BRACKETS ARE TO BE FIRE-RATED TO ARCHITECTS SPECIFICATION.
- S.14. UNO PROVIDE STEEL MEMBER CONNECTIONS AS FOLLOWS:
- STEEL MEMBER TO CONCRETE/MASONRY FACE, MEMBER DEPTH <150mm: 10mm THICK END PLATE, 2-M16 CHEMSETS.
 - STEEL MEMBER TO CONCRETE/MASONRY FACE, MEMBER DEPTH 150<D<300: 10mm THICK END PLATE, 4-M16 CHEMSETS
 - STEEL MEMBER TO STEEL MEMBER, MEMBER DEPTH <150mm: 10mm THICK CLEAT, 2-M16 8.8/S BOLTS
 - STEEL MEMBER TO STEEL MEMBER: MEMBER DEPTH 150<D<300: 10mm THICK CLEAT, 2-M20 8.8/S BOLTS
 - STEEL POSTS IN OR AGAINST TIMBER FRAMED WALLS SHALL HAVE M12 BOLTS AT 900 C/C ATTACHING THE POST TO THE FRAMING, UNO ON THE DRAWINGS.
- S.15. THE CONTRACTOR IS TO SUBMIT SHOP DRAWINGS OF ALL STEELWORK (IF ANY) FOR REVIEW PRIOR TO MANUFACTURE. CHECK AND VERIFY ALL DIMENSIONS AND LEVELS BEFORE COMMENCING FABRICATION OF ANY STEEL WORK.

NOTES ON STRUCTURAL FINISHES (STEEL)

PAINTING OF STRUCTURAL STEEL (UNO)

- SF.1. STEELWORK CAST INTO CONCRETE
- STEELWORK TO BE SPRAYED FOR FIRE PROTECTION OR TO BE CAST MORE THAN 50mm INTO CONCRETE SHALL HAVE ALL RUST AND MILL SCALE ETC. REMOVED BY POWER OR MANUAL WIRE BRUSHING AND SHALL BE LEFT UNPRIMED.
- SF.2. CONCEALED STEELWORK FINISHES
- STEELWORK CONCEALED WITHIN THE COMPLETE BUILDING SHALL BE THOROUGHLY PREPARED BY SANDBLASTING TO AS 1627.4 CLASS SA1 AND IMMEDIATELY PRIMED WITH RED OXIDE OR ZINC CHROMATE PRIMER. ONE ACCEPTABLE SYSTEM IN THE INTERNATIONAL PAINTS RANGE CONSISTS OF: 1 COAT INTERPRIME 198 AT 50 MICRON DFT
- SF.3. EXPOSED INTERIOR STEELWORK FINISHES
- STEELWORK VISIBLE IN THE COMPLETED BUILDING BUT PROTECTED FROM THE WEATHER SHALL BE PREPARED BY SANDBLASTING TO AS 1627.4 CLASS 2 □ AND IMMEDIATELY PRIMED. ONE ACCEPTABLE SYSTEM IN THE INTERNATIONAL PAINTS RANGE CONSISTS OF: 1 COAT INTERZINC 42 AT 75 MICRONS DFT, 1 COAT INTERGUARD 670 HS TO 125 MICRON DFT (COLOUR TO BE SELECTED BY ARCHITECT).
- SF.4. EXPOSED EXTERIOR STEELWORK FINISHES
- STEELWORK EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED OR METAL ARC SPRAYED. STEELWORK EXPOSED TO WEATHER WITHIN 500M OFF THE SEA COAST SHALL BE METAL ARC SPRAYED. WHERE REQUIRED BY THE ARCHITECT HOT DIP GALVANIZED, OR METAL ARC SPRAYED STEELWORK SHALL BE PAINTED. ONE ACCEPTABLE SYSTEM IN THE INTERNATIONAL PAINTS RANGE CONSISTS OF: 1 COAT INTERGUARD 251 TO 50 MICRON DFT, 1 OR 2 COATS INTERTHANE 990 TO 75 MICRON DFT (COLOUR SELECTED BY THE ARCHITECT).

COATINGS FOR 25+ YEARS DURABILITY RATING, ATMOSPHERIC CORROSION CATEGORY D					
SYSTEM DESIGNATION	DESCRIPTION	SURFACE PREPARATION	NUMBER OF COATS	INITIAL GLOSS	TYPICAL COLOUR
EUH1	ULTRA HIGH BUILD EPOXY	Sa1/2	1	FLAT TO SEMI-GLOSS	LIMITED
TSZ150S	THERMAL ZINC SPRAY SEALED			FLAT	GREY (WIDE RANGE OF COLOUR)
IZS3SB	INORGANIC ZINC SILICATE ONE COAT				MOSTLY GREY
HDG600P7	HOT DIPPED GALVANISED + PAINT	SWEEP ABRASIVE BLAST	2	SEMI-GLOSS TO FULL GLOSS	WIDE RANGE
HDG900	HOT DIPPED GALVANISED		1	FLAT	GREY

HOT DIP GALVANISING/METAL ARC SPRAY

- SF.5. STEEL EXPOSED TO THE WEATHER, OR WHERE OTHERWISE NOTED ON THE DRAWINGS, SHALL BE GALVANIZED OR METAL ARC SPRAYED (HOT ZINC SPRAYED). PREPARATION FOR GALVANIZING, COATING THICKNESS, APPEARANCE AND ACCEPTABLE QUALITY SHALL BE AS SET OUT IN THE GALVANIZING MANUAL OF THE GALVANIZERS ASSOCIATION OF NEW ZEALAND. GALVANIZED SURFACES TO RECEIVE PAINT SHALL BE UN-QUENCHED.
- SF.6. PREPARATION FOR METAL ARC SPRAY SHALL BE SANDBLAST TO AS 1627.4 CLASS 2 □ AND COATING TO: 150 MICRON DFT FOR HEAVY APPLICATION, OR 75 MICRON DFT FOR GENERAL APPLICATION. METAL ARC SPRAYED STEELWORK MUST IN ALL CASES BE SEALED. IF NO ARCHITECTURAL TOP COAT IS REQUIRED ONE ACCEPTABLE SYSTEM IS: 1 COAT INTERSHEEN 579 ALUMINIUM VINYL WASH TO 10 MICRON DFT. IF AN ARCHITECTURAL TOP COOT IS REQUIRED REFER TO 4 ABOVE.

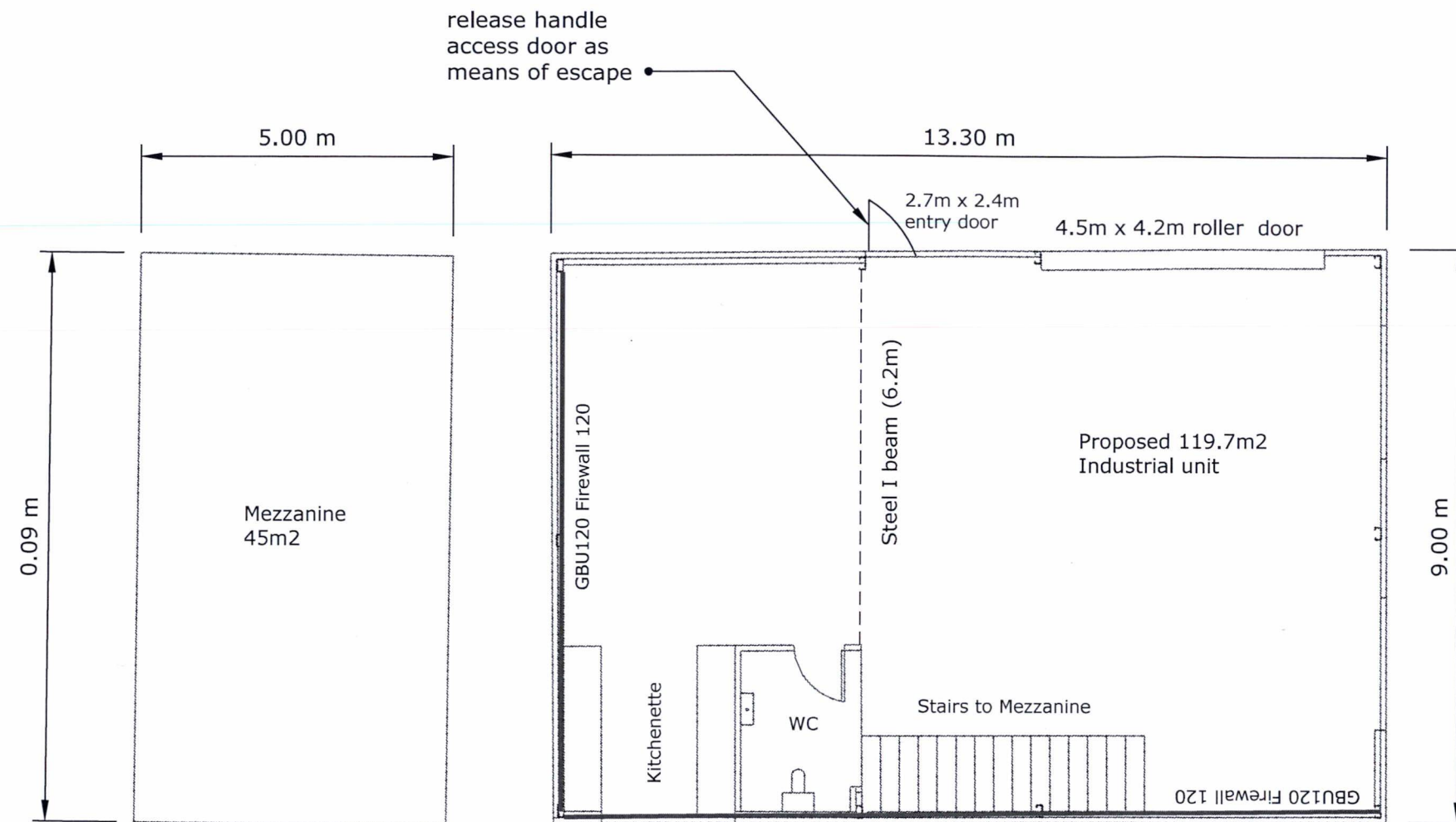


A	ISSUED FOR CONSTRUCTION		24.09.2018
Rev	Details	Issued By	Date

 MULTI-DISCIPLINARY ENGINEERING & SURVEYING SERVICES Bringing places & spaces to life	The Contractor shall check all dimensions on site	
	71 Pitt Street, PO Box 600 Palmerston North 06 356 7000 info@resonant.co.nz www.resonant.co.nz	
	Resonant Consulting Ltd copyright Under no circumstances shall this drawing be reproduced, without prior permission given in writing. The adequacy of the design as indicated on the drawings shall be read in conjunction with and subject to the relative specifications, and design assumptions in the calculations and reports for this project.	

SHED FOUNDATIONS UNIT C No. 2 HOFF PLACE, PORIRUA	
STANDARD NOTES WIDE SPAN SHEDS WELLINGTON LTD	

	Initials	Date	DO NOT SCALE. If in doubt ask for dimensions.		
Surveyed			Scales A1	Scales A3	Job No.
Designed	WA	AUG' 18	1 : 100		118181
Drawn	THS	AUG' 18	Revit Path/File	Sheet	Rev.
Checked	WA				
Approved	FL			SN1	A



FIREWALLS TO WALLS AND HEIGHTS AS PER FIRE REPORT

Gib Specification GBUW 120 (120/120/120)
ONE WAY FRR Timber or steel frame

Refer page 35 of attached Gib Fire
rated system.

- 1) Stud spacings 600mm maximum
- 2) Frame height and dimensions to as
determined by 3604 stud tables or specific
design.
- 3) 2 layers of 19mm Gib Fyrelino to
one side of the frame.
- 4) Use full sheets where possible.

Fasteners
Inner layer-41mm x 6g Gib Grabber High
thread drywall screws
Outer layer-51mm x 7g screws as above

NOTE: All framing assessed as internal
walls as all exterior walls are
engineered as part of or steel shed
structure

Floor plan unit C

SCALE: 1:100

2 Hoffs Place, PORIRUA
Client: Brent Coutts

Connect Construction and Property Ltd
ewen.thompson@sheds.co.nz

Wide Span Sheds
No Compromise Steel Building Solutions

GENERAL NOTES

These documents show the general arrangement of the building and include some items not supplied (refer to the quotation for nomination of all items to be provided). All items not nominated therein shall be supplied and installed by others.

DESIGN CRITERIA

These building plans have been prepared to comply with the standards nominated in the engineer's letter and itemised details in the attached Design Information Sheet. All plans are not to Scale.

The plans provided here are the latest at the time of print. Earlier plans provided may have become outdated due to engineering changes and should not be used. The plans and drawings are extensive and give all the information needed for a competent person to erect the building. The building is not designed to stand up by itself when it is partially complete. Consequently, construction bracing is critical during erection.

The owner has been requested to check off the BOM after the building delivery. You should check that you are able to locate all materials nominated in the BOM. You should also confirm that the length and size (including thickness), nominated in the BOM is what has been provided. Any missing items are the responsibility of the client once correct delivery has been confirmed as per Terms and Conditions of Sale.

ADDITIONAL DOCUMENTATION TO BE SUPPLIED BY PURCHASER/OWNER

The Purchaser/Owner is responsible for:
*Provision of Soils Report for the site and in the building area on which the building is to be erected
*Site/Drainage Plans
*Any other plans not covered by these engineering plans requested by the local Council or the authority

BUILDING CONSTRUCTION REQUIREMENTS

The Purchaser/Owner is to be ensured that all building construction is carried out in accordance with the Plans, the Construction Manual and the Bill of Materials (BOM).

SLAB DETAILS - GENERAL

* The minimum size of Piers under the columns and End Wall Mullions are nominated on the Material Specifications Plan. When the slab and piers are poured as one pour, the depth of the pier is to the bottom of the slab.
* Pier Reinforcement: for any piers over 1100mm, deformed bar to within 100mm of base and minimum 75mm top cover. Minimum side cover 75mm, maximum 100mm. Rod to be caged horizontally at least twice and at a maximum of 300mm spacing. Where pier diameter is less than 450mm diameter, use 6 D12. For diameters equal to and over 450mm, use 8 D16.

Concrete Slab

* Footings and slabs, including internal and edge beams, must be founded on good ground with a minimum allowable bearing capacity of 300kPa. Design covers for a class 5 building.
* The footing designs have been calculated with adhesion values of 0kPa, 25kPa and 50kPa for clay soils and dense sand soils only.

* Site conditions different to those specified require a modified design.
* Sub grade shall be excavated and compacted to a minimum of 100% standard dry density ratio and within 2% of the OMC to comply with AS2159.
* A site specific geotechnical investigation has not been performed, uno.
* Designs are in accordance with NZS 3101 and AS/NZS 4671
* All concrete to be in accordance with NZS 3101 and AS/NZS 4671. Minimum 25 Mpa, with 80mm slump. 40 MPa located in coastal/sea spray regions.
* Concrete should be cured for 7 days before commencing construction of the building.
* Refer to connection details.
* Slab thickness to be a minimum of 100mm. Slab reinforcing mesh to be a minimum of 665 with 40mm top cover. Waterproof PVC membrane to be placed under slab. Refer to connection details.
* Saw construction joints to be 25mm deep x 5mm wide. Saw cuttings shall take place no later than 24 hours after pouring. Saw construction joints to be placed at a maximum spacing of 6.3m (in both the length and the span). Care should be taken to avoid construction cuts intersecting where any fixing to the slab is to be made.
* Column supports for mezzanine bearer internal support columns are not shown and should be of the same size and spacing as the end wall mullion piers.
* Where columns or end wall mullions have been removed, piers are not required.
* End wall mullion spacing may move due to location of openings or doors. Check layout and component position plan, and relocate piers as required.

*
* Concrete piers under Roller Door Jambs and Mezzanine Mid posts to be a minimum size as below:
C25019 - 450mm dia x 550mm deep, centered to the C Section
C30018 - 600mm dia x 650mm deep, centered to the C Section
Where heavy traffic is to go through the roller door, it is recommended that the slab edge should be thickened to 200mm deep by 300mm wide for the length between the mullions. Place an additional section of 665 mesh, 50mm from the base in all thickenings.

BRACING NOTES

* Refer to Connection Details.
* Knee bracing clearance from FFL is X = Main Building: 3.505m.
* All Cross Bracing (roof) is achieved with 1.6mm Strap G450
* Cross bracing is to be fixed taut and secured with 14.20 x 22 frame screws at each end, quantity as per connection details.
* Fly bracing to be fixed to the purlins/girts at all mid portal rafters, columns and end wall mullions. The spacing between fly braces is determined by column/rafter sizes as follows:

C150 - maximum 1800mm spacing
C200, C250 - maximum 2200mm spacing
C300 - maximum 2800mm spacing
C350 - maximum 3400mm spacing

Initial measurement is from the haunch of the column/rafter, and from the rafter for any end wall mullions.
* Where windows/GSD are placed in any bay where cross bracing is shown, then
a) this can be replaced by moving the bracing to another bay OR
b) due to the bracing provided by the window jambs, where space permits, bracing should be placed under and over the window.
* All bracing strap ends to be located as close as practical to structural members (columns, rafters, mullions) centerline.

BOLTS

* Unless otherwise nominated, all bolts are grade 4.6
* All tensioned bolts shall be tensioned using the part turn method (refer to AS4100). For the erector, full details are in the construction manual.

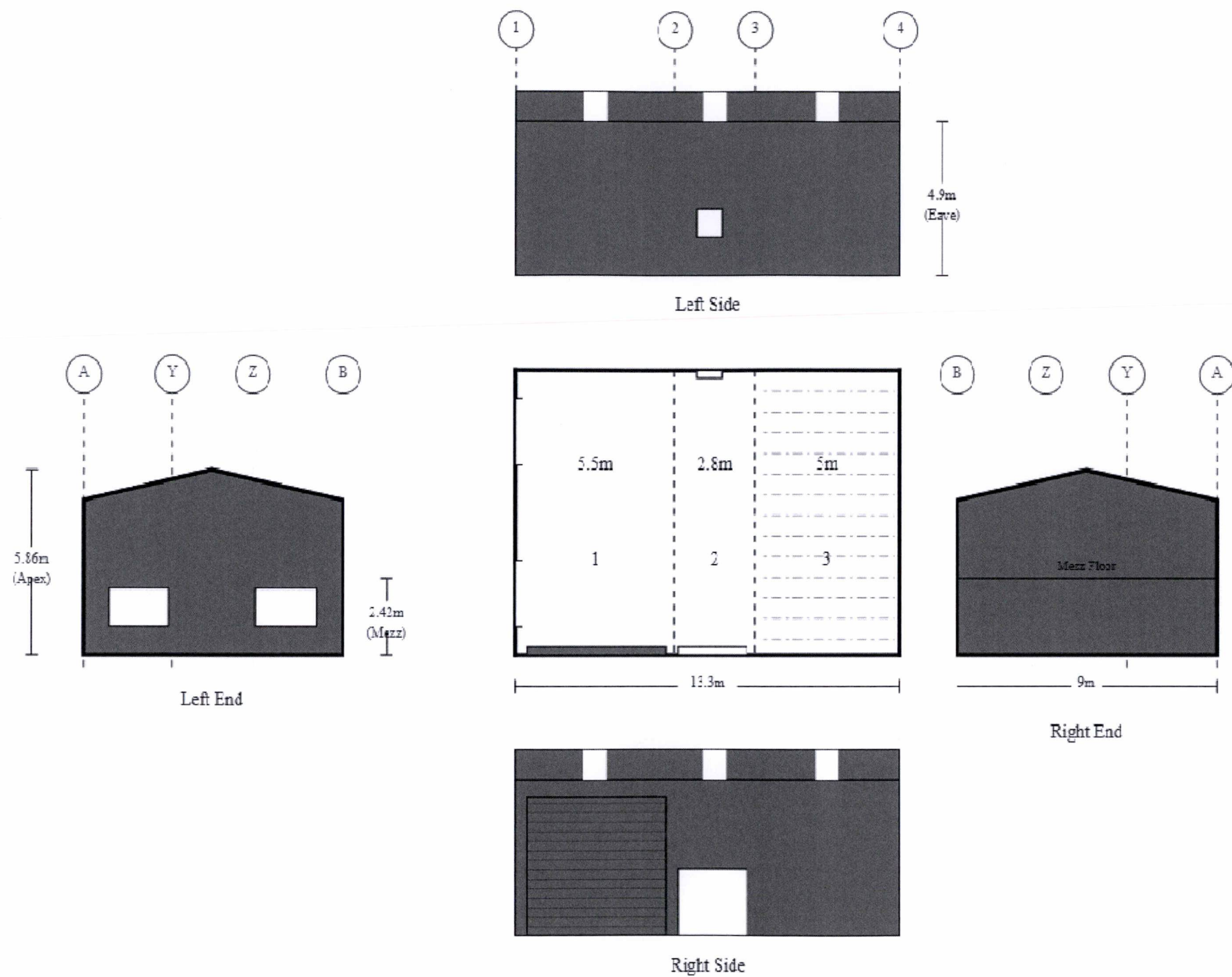
MEZZANINE FLOOR

*Mezzanine floor designed for 3kPa live loading.
*No point loads allowed for.

OTHER MATERIALS NOTES

* All Sheeting, Flashing and framing screws are Climaseal 4.
* All purlin material has Z350 zinc coating with minimum strength of 450MPa.

Purchaser Name: Ewen Thompson		General Notes Page 1 of 1 © Copyright Steelx IP Pty Ltd	Seller: Wide Span Sheds Wellington Ltd Wide Span Sheds Wellington Ltd Phone: 21 925 276 Fax Email: ewen.thompson@sheds.co.nz	ExtraMle Consulting Limited Business No: 4536099 ME New Zealand: CPEng. No. 1021657 Practising Professional Structural & Civil Engineer Signature:  Pawel Michal Mlewski Date: 08/04/18
Site Address: 2 hoffs place Porirua New Zealand				
Drawing # ZWLT180005 - 2	Print Date: 08/04/18			



Purchaser Name: Ewen Thompson

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWL180005 - 3

Print Date: 08/04/18

Layout
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ExtraMile Consulting Limited
Business No: 4536099
ME New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

Signature: *Pawel Michal Milewski* Pawel Michal Milewski Date: 08/04/18

MATERIAL SPECIFICATIONS

For further information regarding the tabulated values shown, refer to the General Notes

Building Dimensions						
Categories	Span	Length	Pitch	Height	Grid(s)	Portal(s)
Main Building	9	13.3	12	4.9	A - B	1 - 4

Portal Frame Elements					
Grid / Portal Number		1	2	3	4
Columns	A	C20023	C30023	C25023	C20018
	B	C20023	C30023	C25023	C20018
Rafters	A - Apex	C20023	C30023	C25023	C15015
	Apex - B	C20023	C30023	C25023	C15015
End Wall Mullions	Y	C20018	-	-	C15015
	Z	C20018	-	-	C15015
Apex Braces	Apex	-	C25024 @ 2.7m	MC20019 @ 2.7m	-
Knee Braces	A - Apex	-	C25024 @ 2m	MC20019 @ 2m	-
	Apex - B	-	C25024 @ 2m	MC20019 @ 2m	-
Mezz Bearers	A - B	-	-	C30018	C30018
Mezz Bearer Support	A	-	-	C20018	2C25023
	Y	-	-	C30018	C30018
	Z	-	-	C30018	C30018
	B	-	-	C20018	2C25023

Bay Section Elements				
Grid / Bay Number		1	2	3
Bay Widths		5.5	2.8	5
Roof Purlins	A - Apex	TH100075	TH100075	TH100075
	Apex - B	TH100075	TH100075	TH100075
Roof Purlin Spacing (End)	A - Apex	1.138	1.138	1.138
	Apex - B	1.138	1.138	1.138
Roof Purlin Spacing (Internal Spans)	A - Apex	1.138	1.138	1.138
	Apex - B	1.138	1.138	1.138
Eave Purlin	A	MC15015	MC15012	MC15012
	B	MC15015	MC15012	MC15012
Side Girts	A	TH100100	TH100075	TH100075
	B	TH100100	TH100075	TH100075
Side Girts Spacing (End)	A	1.162	1.162	1.162
	B	1.162	1.162	1.162
Side Girts Spacing (Internal)	A	1.162	1.162	1.162
	B	1.162	1.162	1.162
Mezz Floor Joists	A - B	-	-	C25018
Roller Door Header	B	C15012	-	-
Roller Door Jambs	B	C25019	-	-

End Bay Section Elements			
Grid / Portal Number		1	4
End Girts	A - Y	TH64075	TH64075
	Y - Z	TH64075	TH64075
	Z - B	TH64075	TH64075
End Girts Spacing (End)	A - Y	1.162	1.162
	Y - Z	1.162	1.162
	Z - B	1.162	1.162
End Girts Spacing (Internal)	A - Y	1.162	1.162
	Y - Z	1.162	1.162
	Z - B	1.162	1.162

Cladding Elements		
Category	Colour	Product
Roof Sheetting	Colorsteel	High Profile 0.40 BMT
Roof Flashings	Colorsteel	BlueScope 0.55 BMT
Wall Sheetting	Colorsteel	High Profile 0.40 BMT

Purchaser Name: Ewen Thompson		Specification Sheet Page 1 of 2 © Copyright Steelx IP Pty Ltd	Seller: Wide Span Sheds Wellington Ltd Wide Span Sheds Wellington Ltd Phone: 21 925 276 Fax: Email: ewen.thompson@sheds.co.nz	ExtraMile Consulting Limited Business No: 4536099 MIE New Zealand: CPEng. No. 1021657 Practising Professional Structural & Civil Engineer Signature:  Pawel Michal Milewski Date: 08/04/18
Site Address: 2 hoffs place Porirua New Zealand				
Drawing # ZMLT180005 - 4	Print Date: 08/04/18			

MATERIAL SPECIFICATIONS

For further information regarding the tabulated values shown, refer to the General Notes

Cladding Elements		
Category	Colour	Product
Wall Flashing	Colorsteel	BlueScope 0.55 BMT

Pier Sizes						
Adhesion (kPa)	Soil Description	Diameter (mm)	Depth - with Slab			
			BP1 (mm)	BP2 (mm)	BP3 (mm)	BP4 (mm)
0	Sandy Soil	300	-	-	-	-
		450	450	-	600	450
		600	450	500	450	450
25	Soft to Firm Clay	300	-	-	-	-
		450	450	-	600	450
		600	450	600	450	450
50	Stiff to Very Stiff Clay	300	-	-	-	-
		450	450	-	600	450
		600	450	600	450	450

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs place Porirua New Zealand

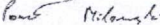
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Print Date: 08/04/18

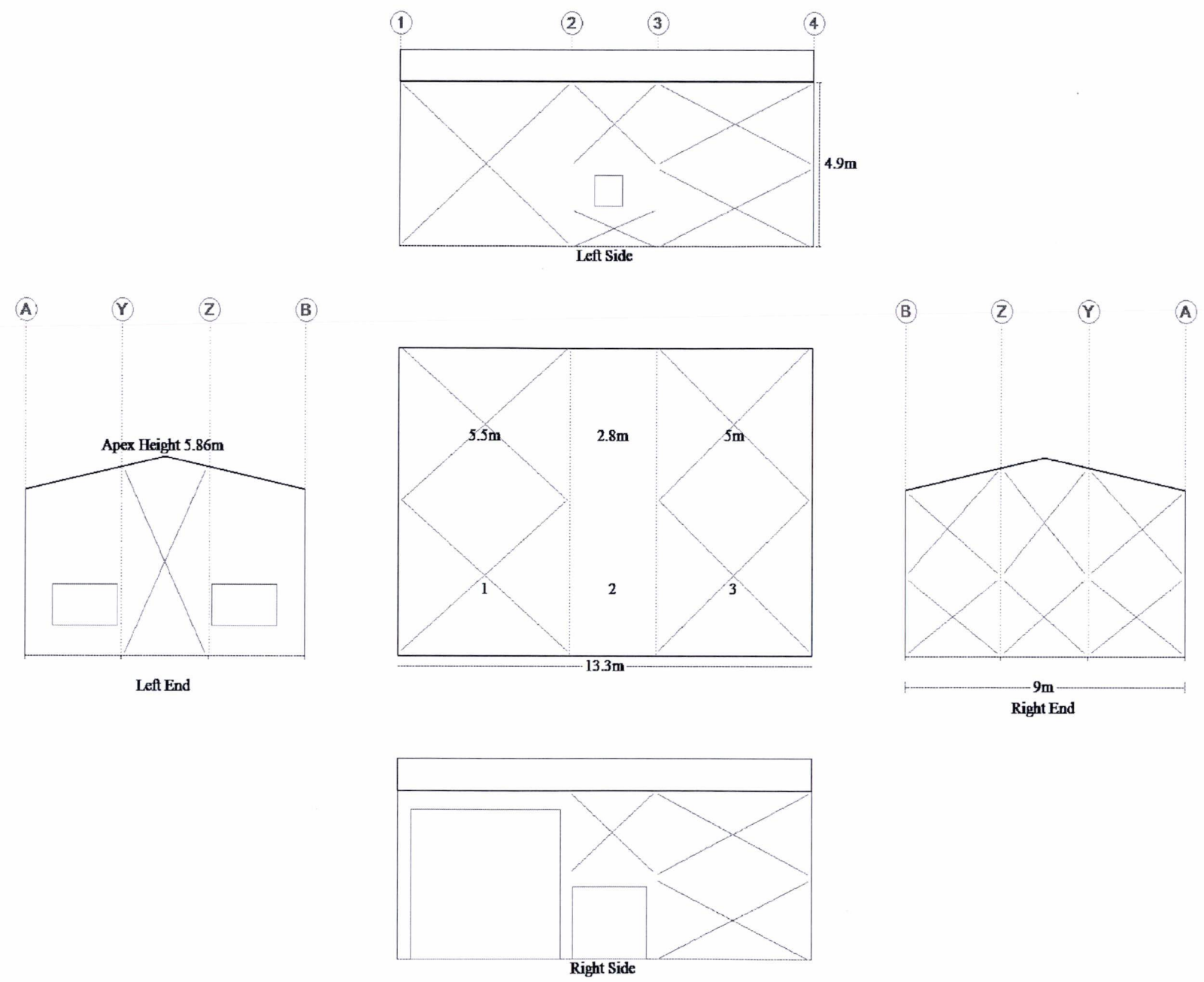
Specification Sheet
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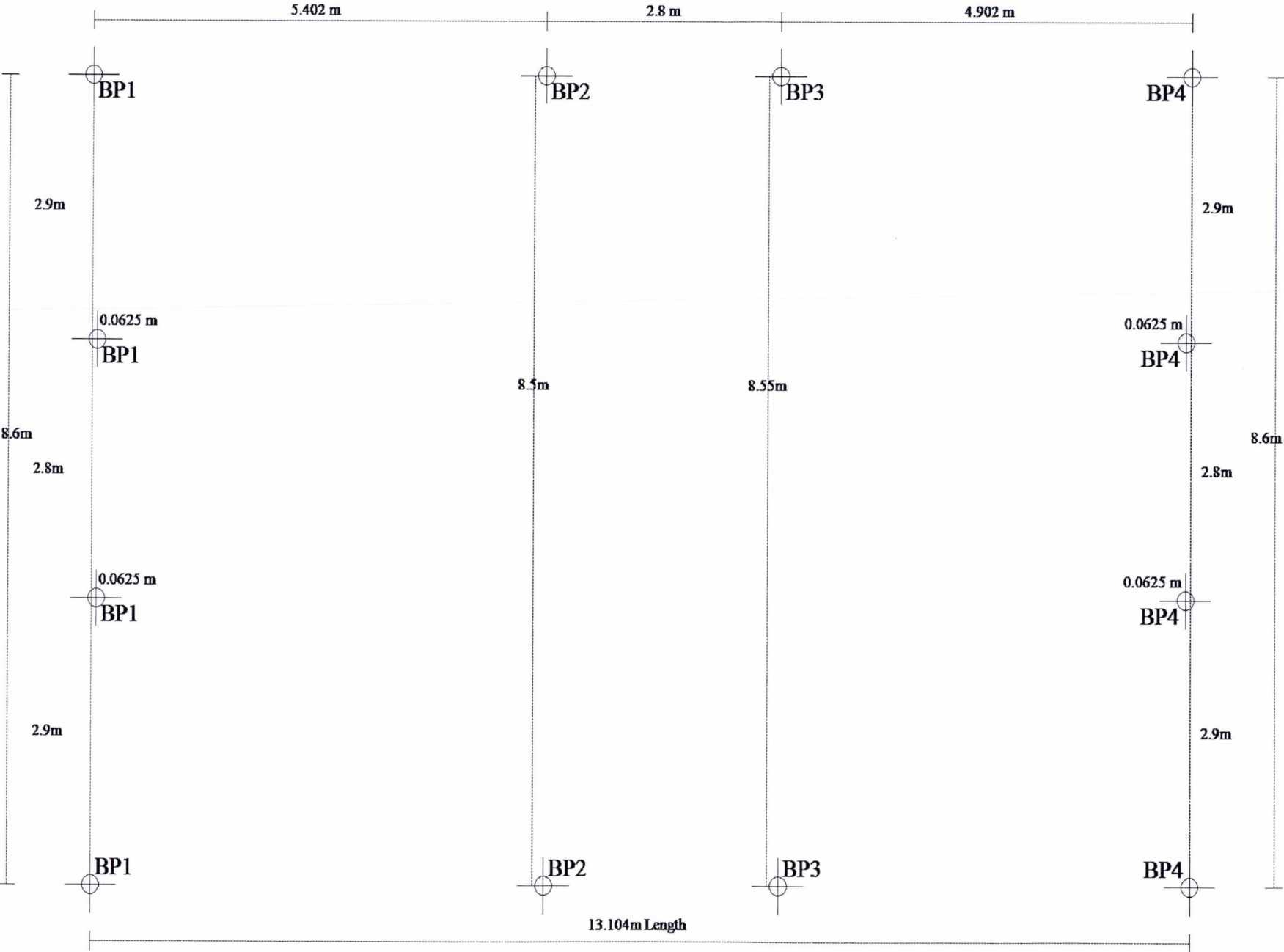
Signature:  Pawel Michal Milewski Date: 08/04/18

Cross Bracing (roof) is achieved with 1.6mm Strap. Refer to Connection Details.
Cross Bracing (walls) is achieved with 1.6mm Strap (double strapping). Refer to Connection Details.



Purchaser Name: Ewen Thompson		Bracing © Copyright Steelx IP Pty Ltd	Seller: Wide Span Sheds Wellington Ltd Wide Span Sheds Wellington Ltd Phone: 21 925 276 Fax Email: ewen.thompson@sheds.co.nz	ExtraMile Consulting Limited Business No: 4536099 MIE New Zealand: CPEng. No. 1021657 Practising Professional Structural & Civil Engineer Signature:  Pawel Michal Milewski Date: 08/04/18
Site Address: 2 hoffs place Porirua New Zealand				
Drawing # ZWLT180005 - 5	Print Date: 08/04/18			

Refer to Material Specifications Plan for BP dimensions.



Purchaser Name: Ewen Thompson

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZMLT180005 - 6

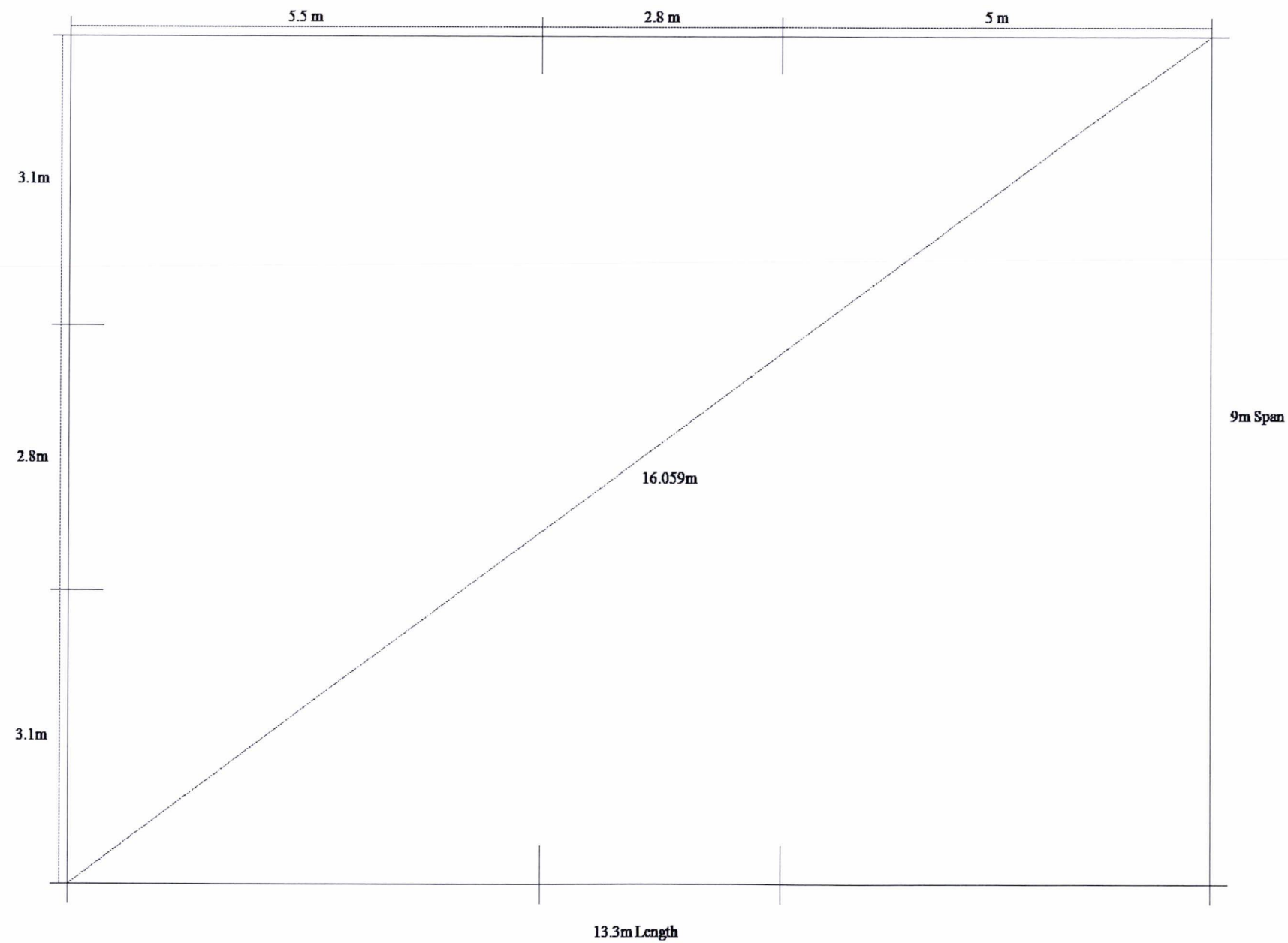
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Concrete Piers
PIER MEASUREMENT ONLY
Not to Scale
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Signature: *Pawel Mlewski* Pawel Michal Mlewski Date: 08/04/18



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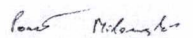
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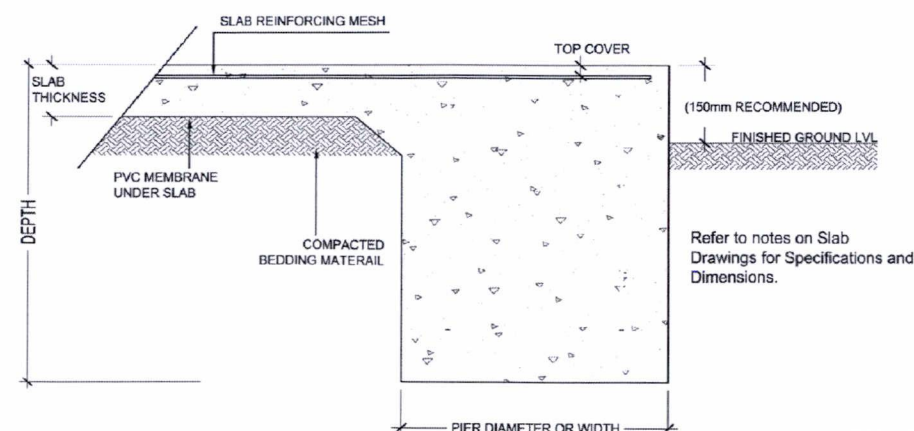
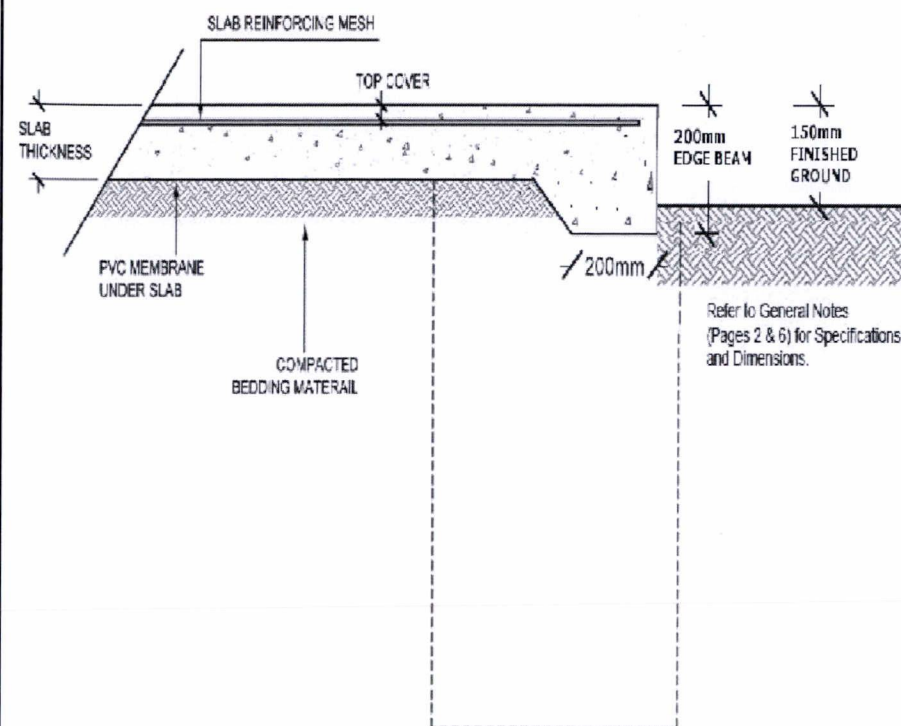
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Slab Dimensions
Also refer to Concrete Piers Plan
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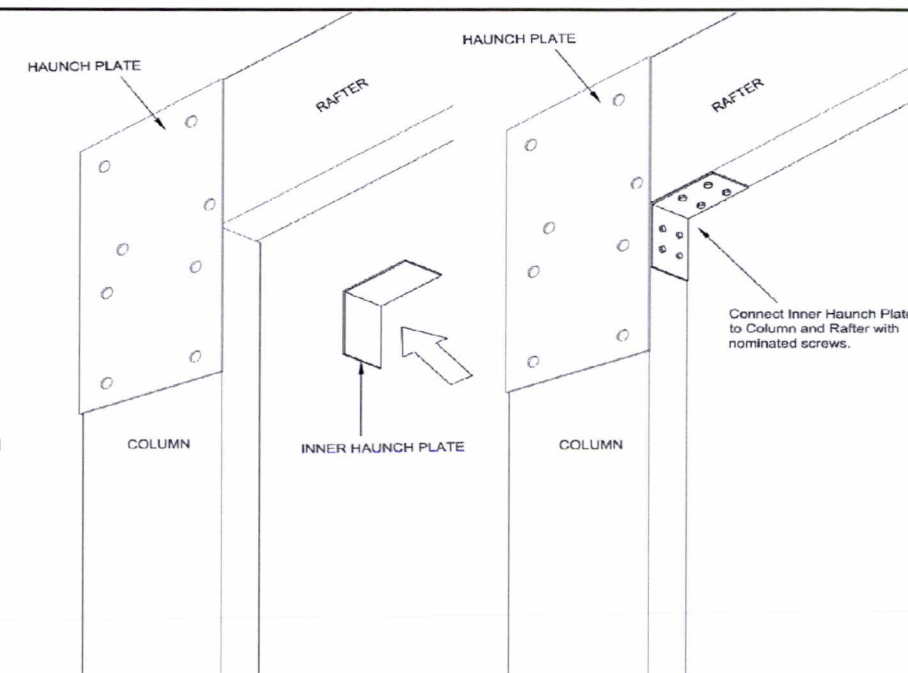
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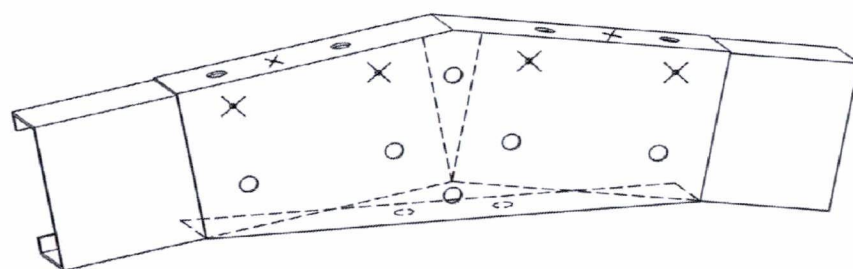
Signature:  Pawel Mchal Mlewski Date: 08/04/18



SLAB AND PIER DETAIL

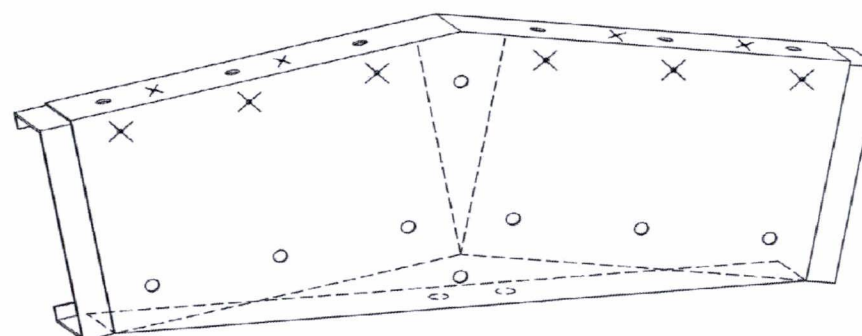


FIXING SCREWS - 8 of 14.20 x 22
INNER HAUNCH BRACKET - SINGLE



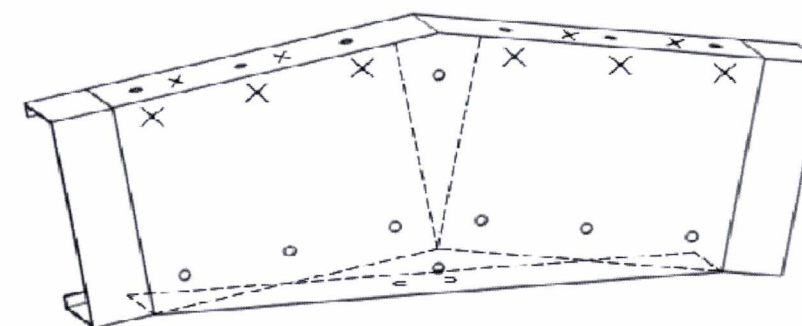
- FIXING BOLTS - 8 of M12 x 30
- × FIXING SCREWS - 6 of 14.20 x 22

APEX BRACKET C150, 12 deg



- FIXING BOLTS - 12 of M16 x 30
- × FIXING SCREWS - 10 of 14.20 x 22

APEX PLATE C250, 12 deg



- FIXING BOLTS - 16 of M16 x 30
- × FIXING SCREWS - 10 of 14.20 x 22

APEX PLATE C300, 12 deg

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWLT180005 - 8

Print Date: 08/04/18

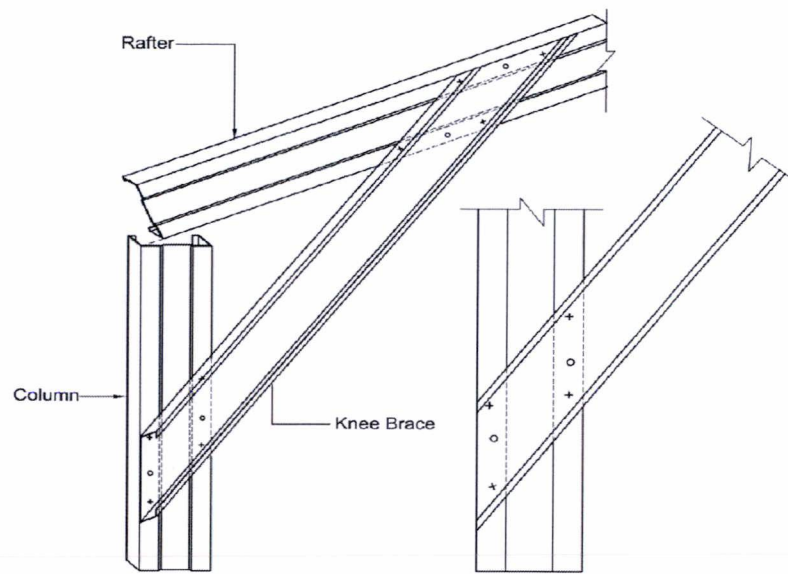
Connection Details

Page 1 of 8
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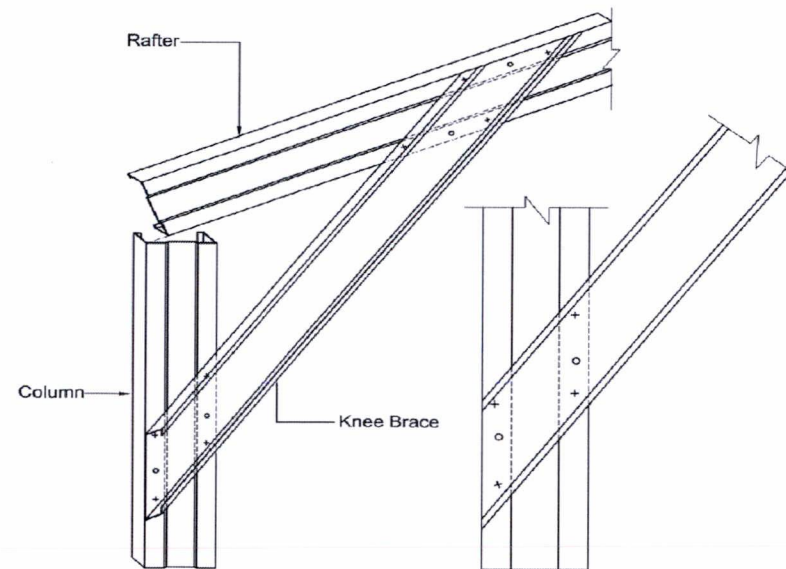
Seller: Wide Span Sheds Wellington Ltd
Wide Span Sheds Wellington Ltd
Phone: 21 925 276
Fax
Email: ewen.thompson@sheds.co.nz

ExtraMile Consulting Limited
Business No: 4536099
ME New Zealand: CPEng. No. 1021657
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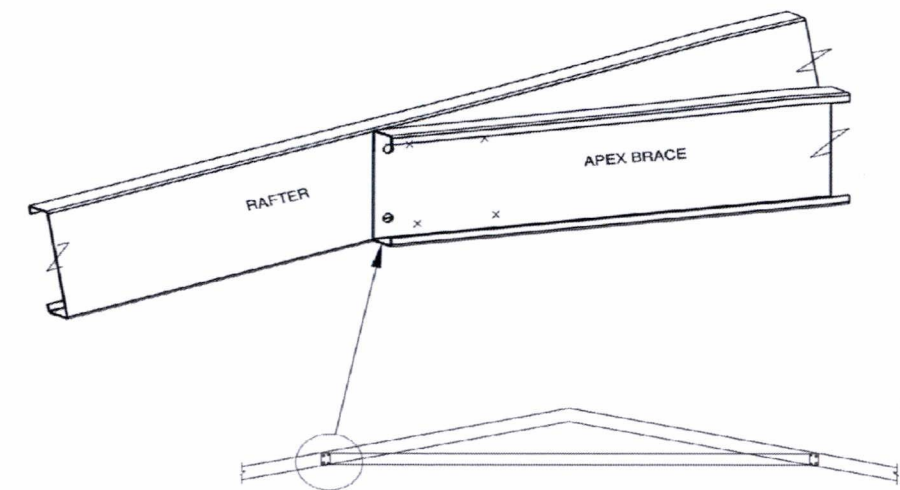
Signature: *Pawel Milewski* Pawel Michal Milewski Date: 08/04/18



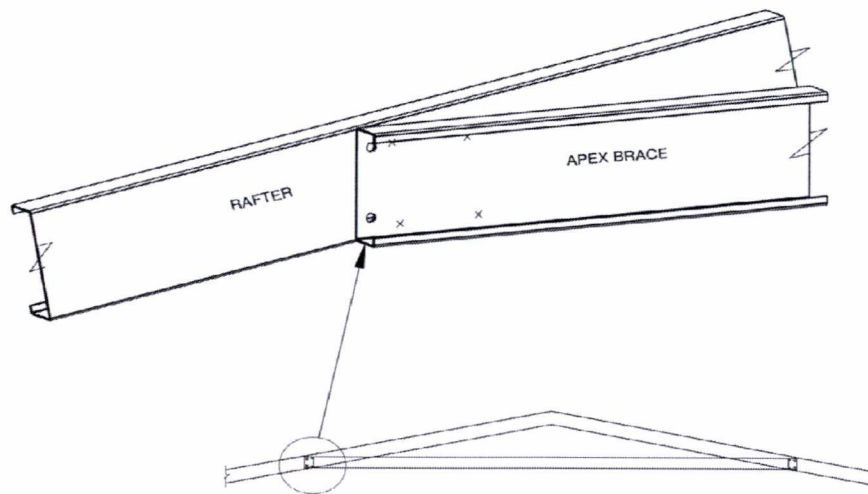
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 × FIXING SCREWS - 8 of 14.20 x 22
KNEE BRACE FOR C250 COLUMN/RAFTER



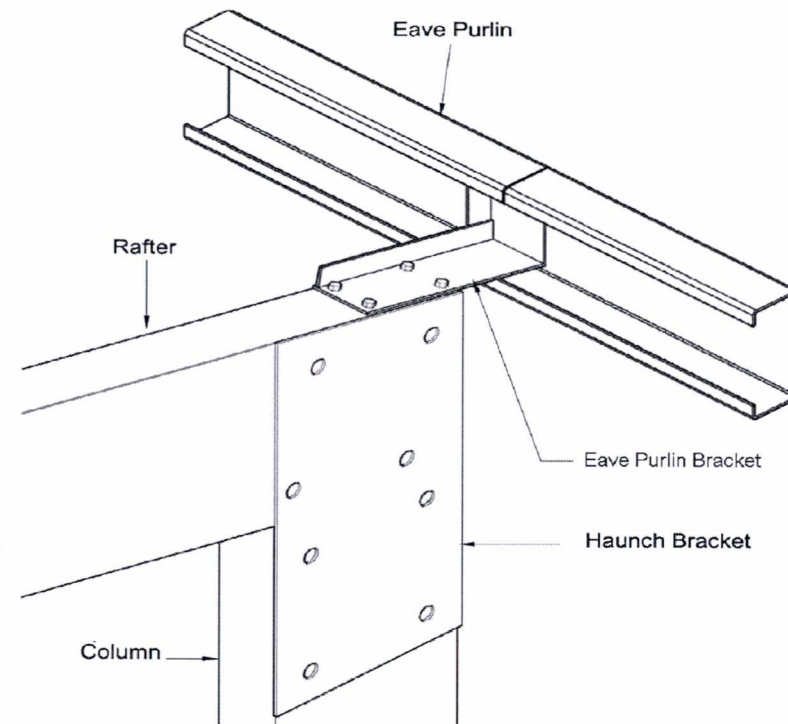
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 × FIXING SCREWS - 8 of 14.20 x 22
KNEE BRACE FOR C300 COLUMN/RAFTER



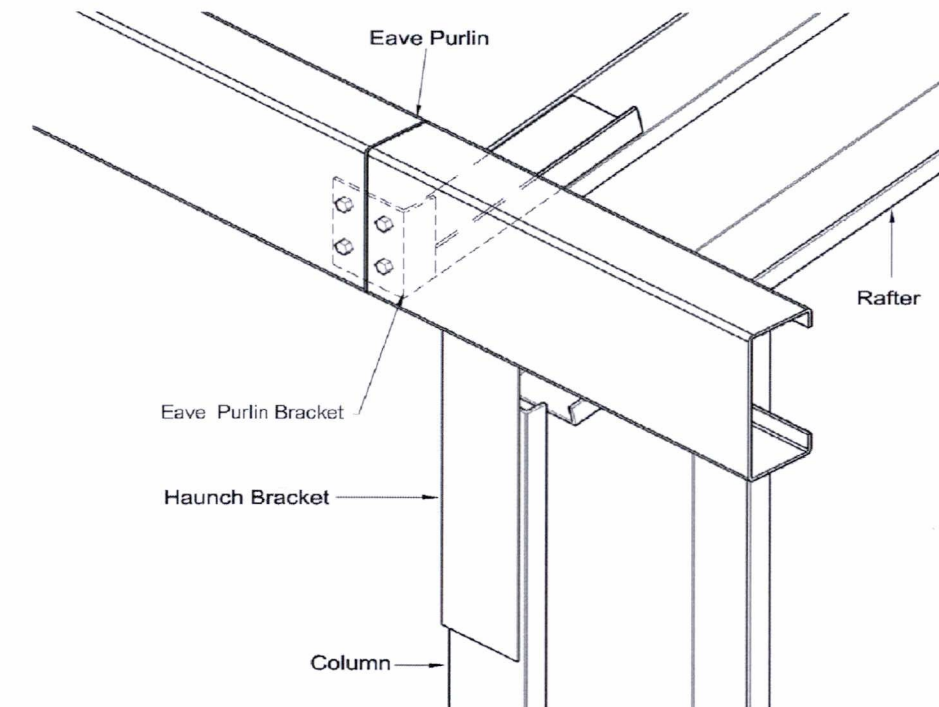
○ FIXING BOLTS - 2 of M16 x 40
 × FIXING SCREWS - 4 of 14.20 x 22
APEX BRACE FOR SINGLE RAFTER



○ FIXING BOLTS - 2 of M16 x 40
 × FIXING SCREWS - 4 of 14.20 x 22
APEX BRACE FOR SINGLE RAFTER



FIXING SCREWS - 4 of 14.20 x 22
EAVE PURLIN BRACKET TO RAFTER



FIXING SCREWS - 4 of 14.20 x 22
EAVE PURLIN TO EAVE PURLIN BRACKET

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWLT180005 - 8

Print Date: 08/04/18

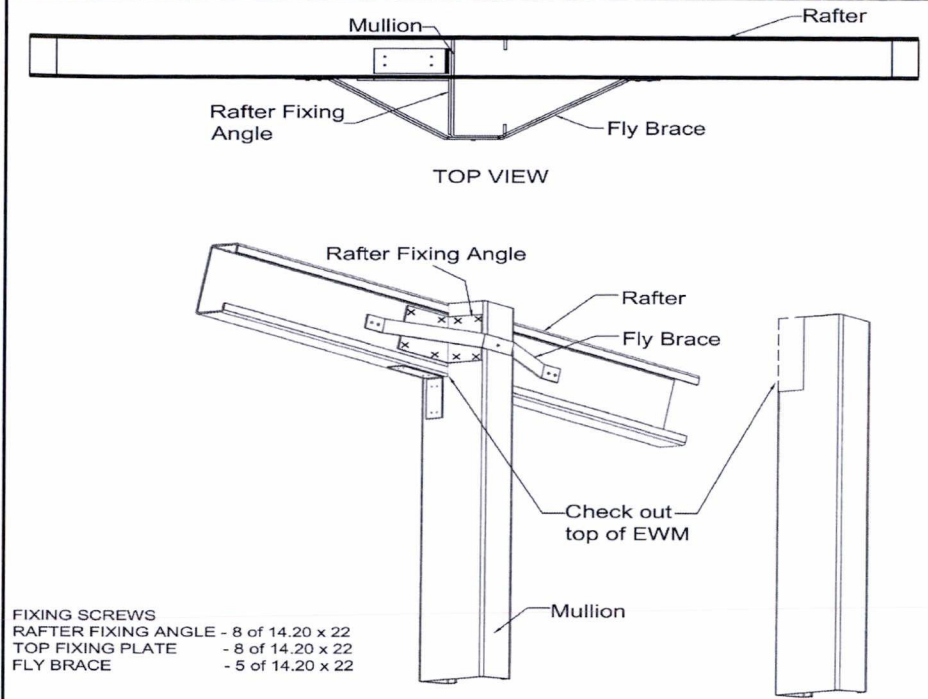
Connection Details

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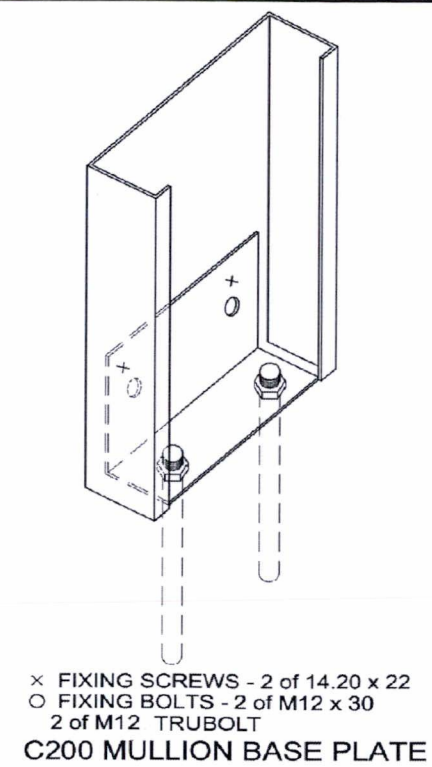
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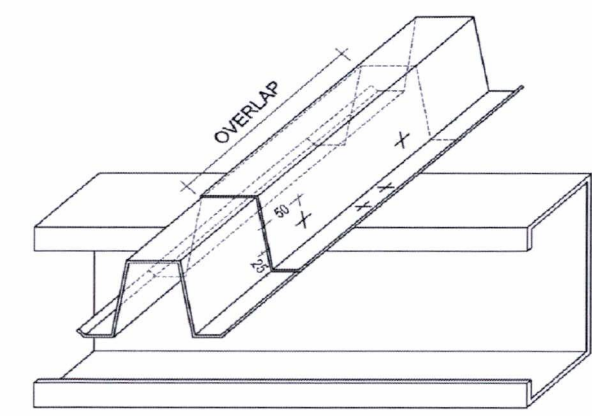
Signature: *Pawel Mlewski* Pawel Michal Mlewski Date: 08/04/18



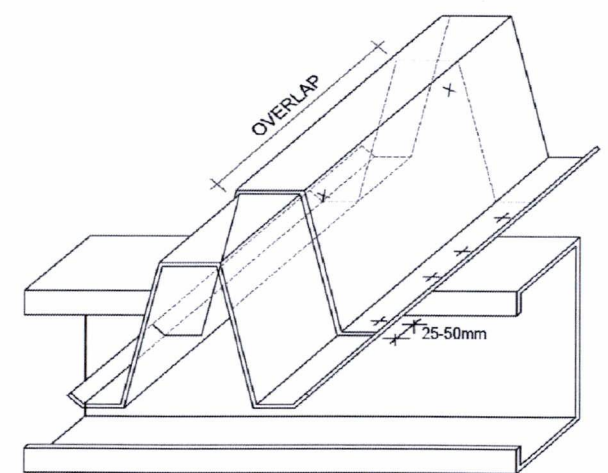
END WALL MULLION TO RAFTER



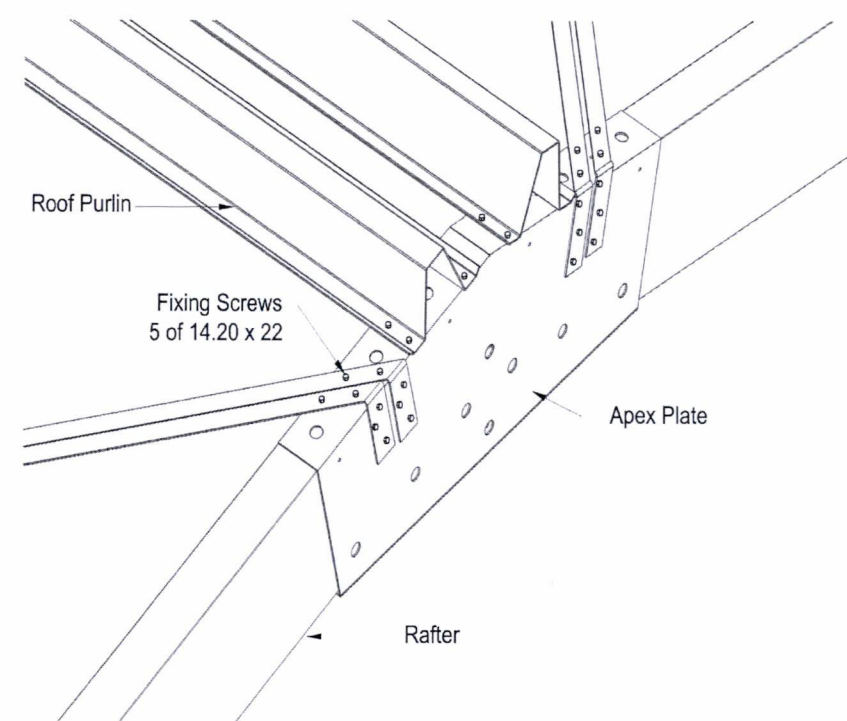
C200 MULLION BASE PLATE



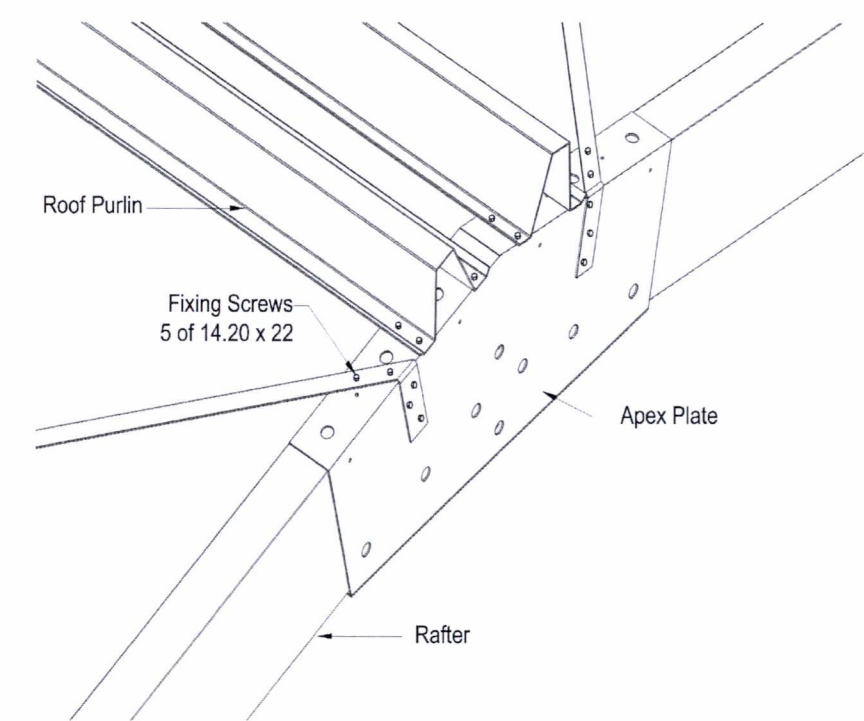
PURLIN/GIRT FIXING - TOPHAT 60 WITH SINGLE COLUMN OR RAFTER



PURLIN/GIRT FIXING - TOPHAT 100 SINGLE COLUMN OR RAFTER

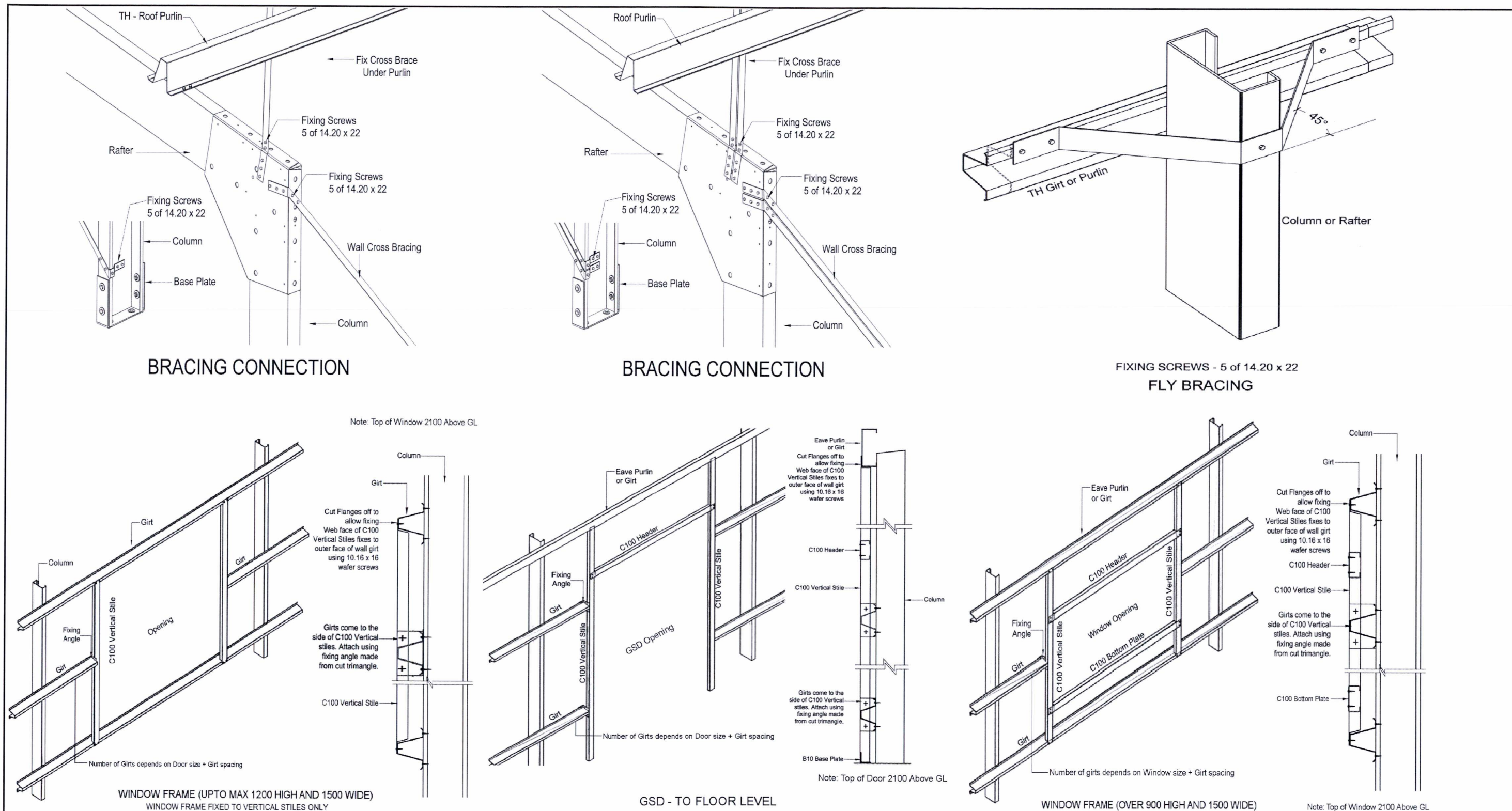


BRACING CONNECTION AT APEX



BRACING CONNECTION AT APEX

Purchaser Name: Ewen Thompson	Connection Details Page 3 of 8 © Copyright Steelx IP Pty Ltd	Seller: Wide Span Sheds Wellington Ltd Wide Span Sheds Wellington Ltd Phone: 21 925 276 Fax: Email: ewen.thompson@sheds.co.nz	ExtraMile Consulting Limited Business No: 4536099 ME New Zealand: CPEng. No. 1021657 Practising Professional Structural & Civil Engineer Signature: <i>Pawel Mlewski</i> Pawel Mchal Mlewski Date: 08/04/18
Site Address: 2 hoffs place Porirua New Zealand			
Drawing # ZVLT180005 - 8			
Print Date: 08/04/18			



Purchaser Name: Ewen Thompson

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWLT180005 - 8

Print Date: 08/04/18

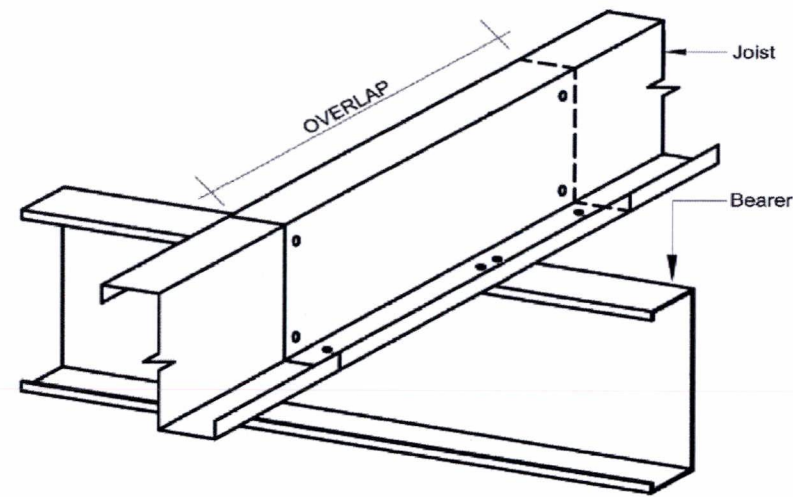
Connection Details

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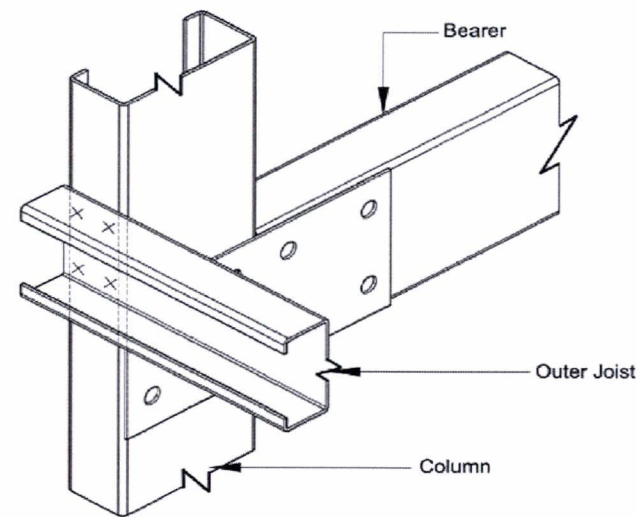
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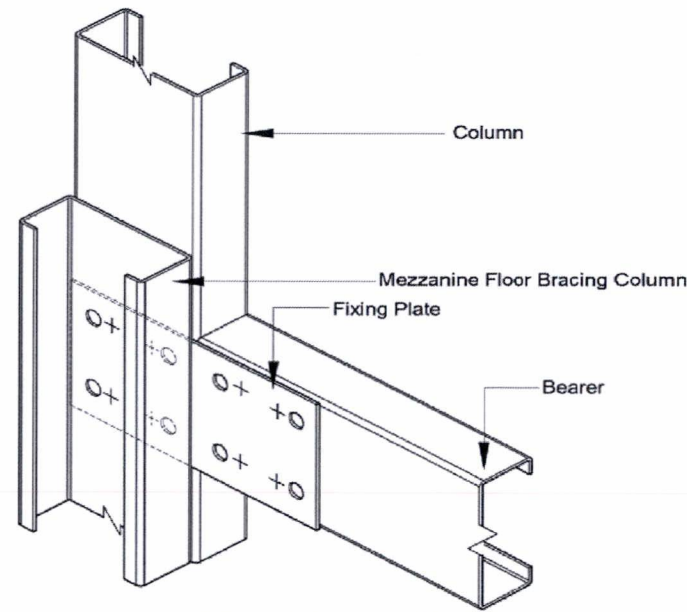
Signature: *Pawel Mchalewski* Pawel Mchalewski Date: 08/04/18



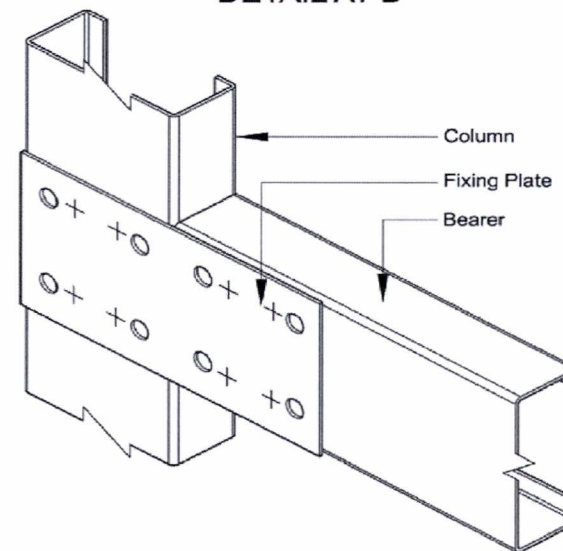
× FIXING SCREWS - 8 of 14.20 x 22
MEZZ JOIST FIXING
DETAIL AT C



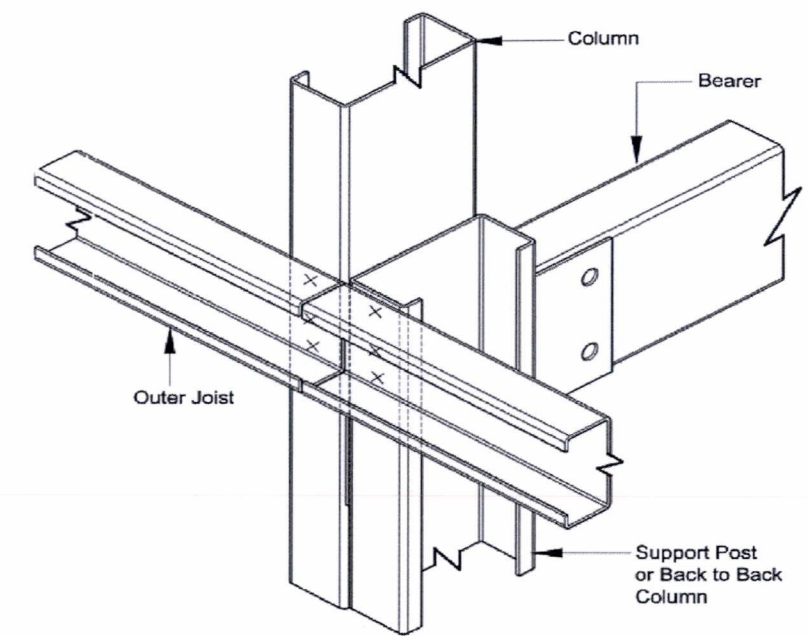
× FIXING SCREWS - 4 of 14.20 x 22
OUTER JOIST TO COLUMN (END)
DETAIL AT F



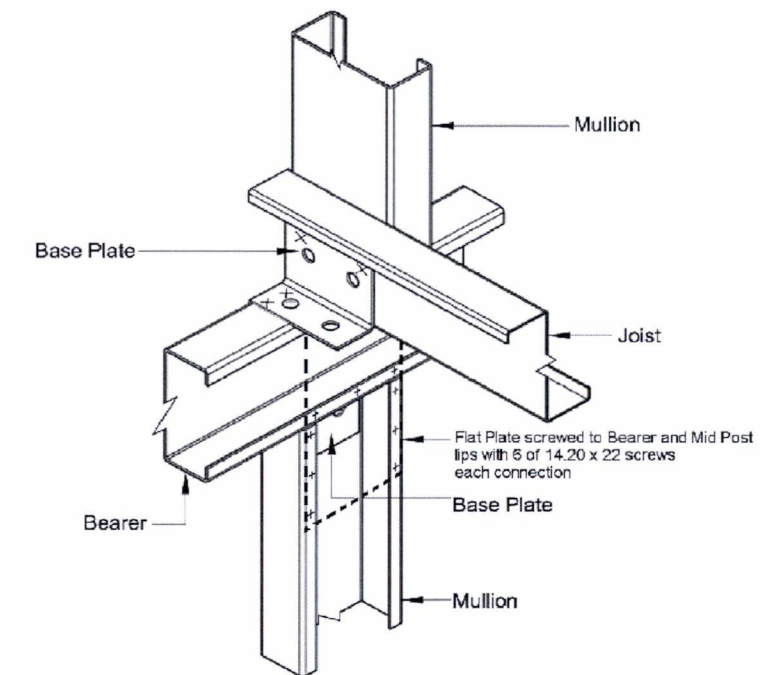
○ FIXING BOLTS - 8 of M 16 x 40 (8.8)
× FIXING SCREWS - 8 of 12.24 x 32
COLUMN TO BEARER (MID)
DETAIL AT D



○ FIXING BOLTS - 8 of M 16 x 40 (8.8)
× FIXING SCREWS - 8 of 12.24 x 32
COLUMN TO BEARER (END)
DETAIL AT G



× FIXING SCREWS - 6 of 14.20 x 22
OUTER JOIST TO COLUMN (MID)
DETAIL AT E



○ FIXING BOLTS - 3 of M12 x 30
× FIXING SCREWS - 4 of 14.20 x 22 HEX
END WALL MULLION TO BEARER

MEZZANINE FLOOR CONNECTION DETAILS (2 of 2)

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWLT180005 - 8

Print Date: 08/04/18

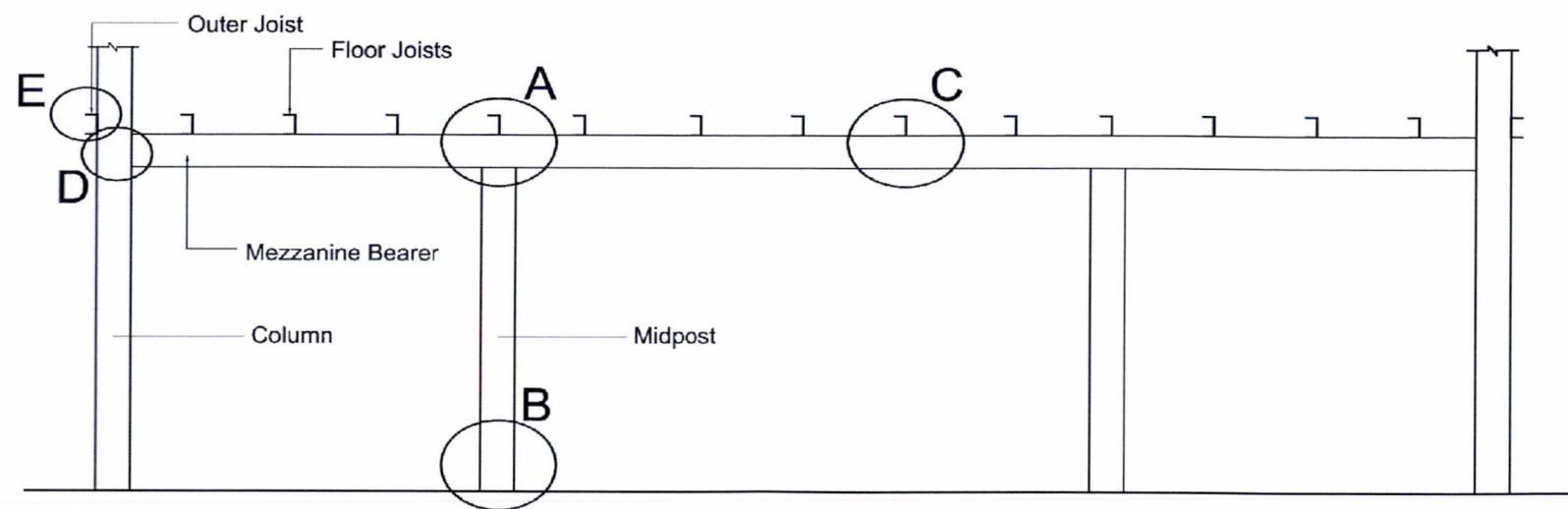
Connection Details

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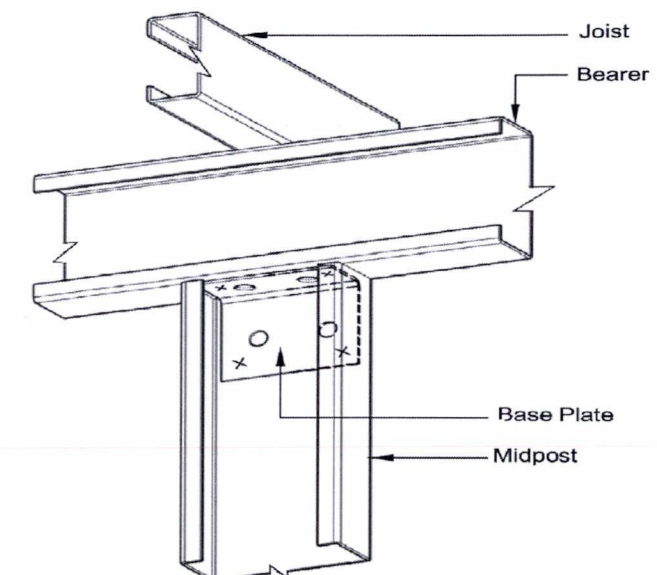
Seller: Wide Span Sheds Wellington Ltd
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Fax
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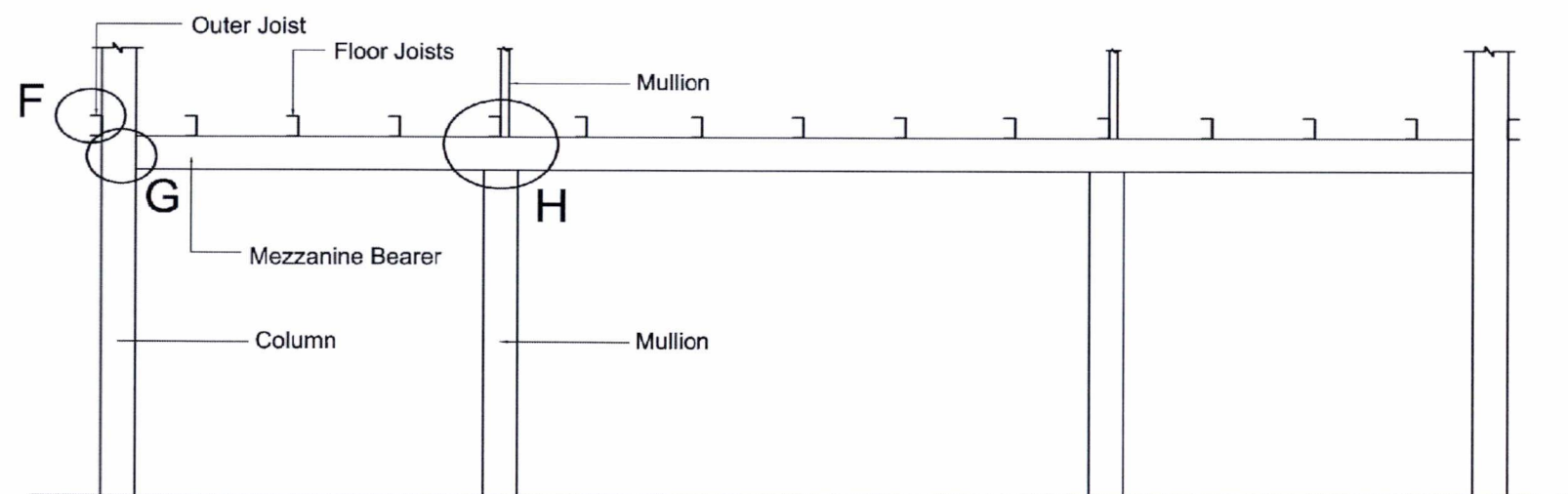
Signature: *Pawel Milewski* Pawel Michal Milewski Date: 08/04/18



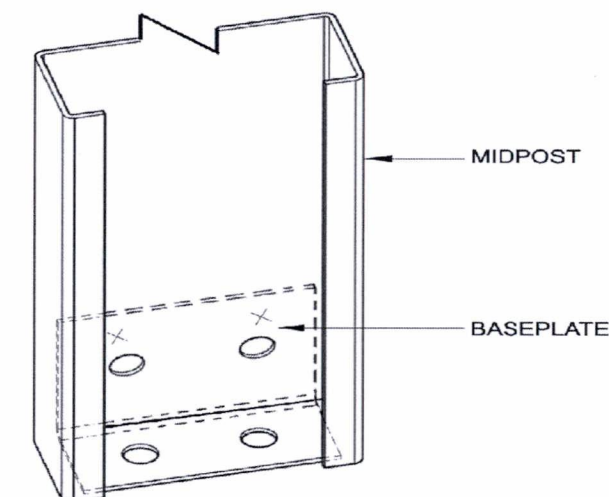
MEZZANIE FLOOR - ELEVATION (MID)



○ FIXING BOLTS - 4 of M16 x 30
 × FIXING SCREWS - 4 of 14.20 x 22
**MIDPOST TO BEARER
 DETAIL AT A**



MEZZANIE FLOOR - ELEVATION (END)



○ FIXING BOLTS 2 of M16 x 30
 ○ FIXING TO CONCRETE - 2 of M16 DYNABOLTS
 × FIXING SCREWS - 2 of 14.22 x 22
**MIDPOST TO SLAB / FOOTING
 DETAIL AT B**

MEZZANINE FLOOR CONNECTION DETAILS (1 of 2)

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZVMT180005 - 8

Print Date: 08/04/18

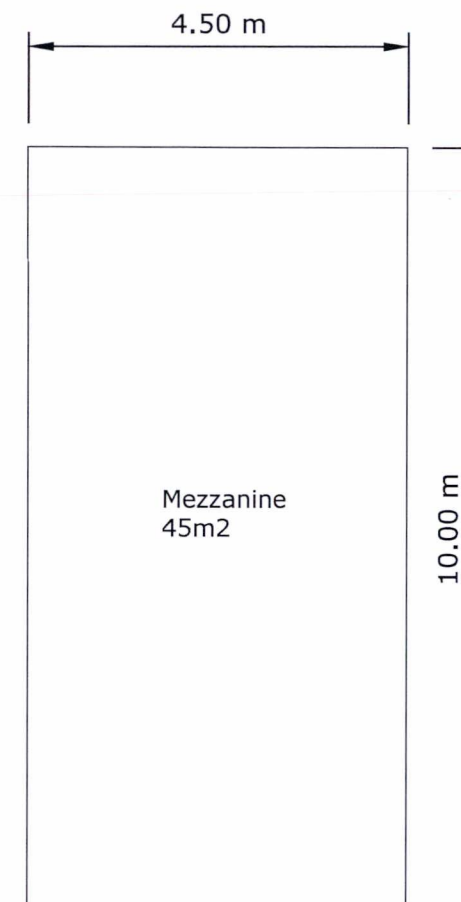
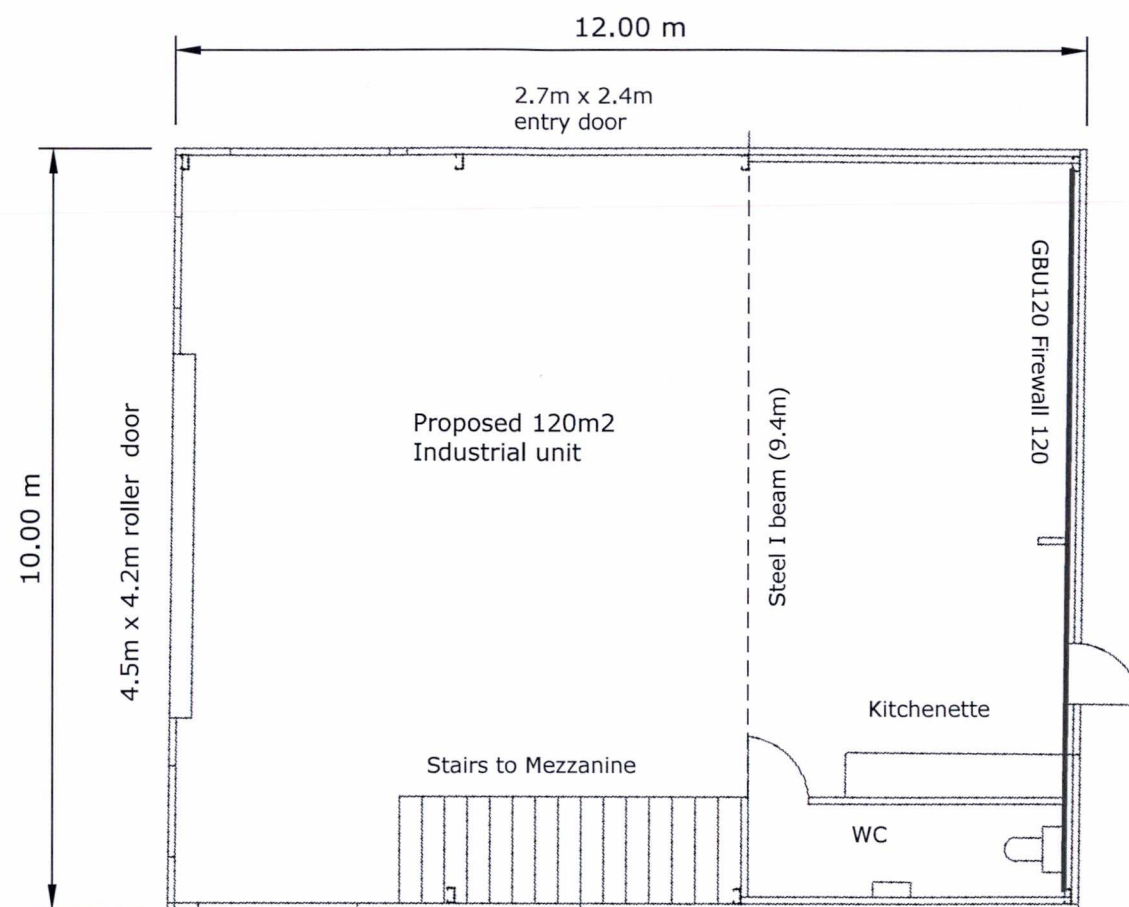
Connection Details

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Signature: *Pawel Milewski* Pawel Michal Milewski Date: 08/04/18



FIREWALLS TO WALLS AND HEIGHTS AS PER FIRE REPORT

Gib Specification GBUW 120 (120/120/120) ONE WAY FRR Timber or steel frame

Refer page 35 of attached Gib Fire rated system.

- 1) Stud spacings 600mm maximum
- 2) Frame height and dimensions to as determined by 3604 stud tables or specific design.
- 3) 2 layers of 19mm Gib Fyrelite to one side of the frame.
- 4) Use full sheets where possible.

Fasteners
 Inner layer-41mm x 6g Gib Grabber High thread drywall screws
 Outer layer-51mm x 7g screws as above

NOTE: All framing assessed as internal walls as all exterior walls are engineered as part of or steel shed structure

Floor plan unit B

SCALE: 1:100

2 Hoffs Place, PORIRUA
 Client: Brent Coutts

Connect Construction and Property Ltd
 ewen.thompson@sheds.co.nz

Wide Span Sheds
 No Compromise Steel Building Solutions

GENERAL NOTES

These documents show the general arrangement of the building and include some items not supplied (refer to the quotation for nomination of all items to be provided). All items not nominated therein shall be supplied and installed by others.

DESIGN CRITERIA

These building plans have been prepared to comply with the standards nominated in the engineer's letter and itemised details in the attached Design Information Sheet. All plans are not to Scale.

The plans provided here are the latest at the time of print. Earlier plans provided may have become outdated due to engineering changes and should not be used. The plans and drawings are extensive and give all the information needed for a competent person to erect the building. The building is not designed to stand up by itself when it is partially complete. Consequently, construction bracing is critical during erection.

The owner has been requested to check off the BOM after the building delivery. You should check that you are able to locate all materials nominated in the BOM. You should also confirm that the length and size (including thickness), nominated in the BOM is what has been provided. Any missing items are the responsibility of the client once correct delivery has been confirmed as per Terms and Conditions of Sale.

ADDITIONAL DOCUMENTATION TO BE SUPPLIED BY PURCHASER/OWNER

The Purchaser/Owner is responsible for:
*Provision of Soils Report for the site and in the building area on which the building is to be erected
*Site/Drainage Plans
*Any other plans not covered by these engineering plans requested by the local Council or the authority

BUILDING CONSTRUCTION REQUIREMENTS

The Purchaser/Owner is to be ensured that all building construction is carried out in accordance with the Plans, the Construction Manual and the Bill of Materials (BOM).

SLAB DETAILS - GENERAL

* The minimum size of Piers under the columns and End Wall Mullions are nominated on the Material Specifications Plan. When the slab and piers are poured as one pour, the depth of the pier is to the bottom of the slab.
* Pier Reinforcement: for any piers over 1100mm, deformed bar to within 100mm of base and minimum 75mm top cover. Minimum side cover 75mm, maximum 100mm. Rod to be caged horizontally at least twice and at a maximum of 300mm spacing. Where pier diameter is less than 450mm diameter, use 6 D12. For diameters equal to and over 450mm, use 8 D16.

Concrete Slab

* Footings and slabs, including internal and edge beams, must be founded on good ground with a minimum allowable bearing capacity of 300kPa. Design covers for a class 5 building.
* The footing designs have been calculated with adhesion values of 0kPa, 25kPa and 50kPa for clay soils and dense sand soils only.

* Site conditions different to those specified require a modified design.
* Sub grade shall be excavated and compacted to a minimum of 100% standard dry density ratio and within 2% of the OMC to comply with AS2159.
* A site specific geotechnical investigation has not been performed, uno.
* Designs are in accordance with NZS 3101 and AS/NZS 4671
* All concrete to be in accordance with NZS 3101 and AS/NZS 4671. Minimum 25 Mpa, with 80mm slump. 40 MPa located in coastal/sea spray regions.
* Concrete should be cured for 7 days before commencing construction of the building.
* Refer to connection details.
* Slab thickness to be a minimum of 100mm. Slab reinforcing mesh to be a minimum of 665 with 40mm top cover. Waterproof PVC membrane to be placed under slab. Refer to connection details.
* Saw construction joints to be 25mm deep x 5mm wide. Saw cuttings shall take place no later than 24 hours after pouring. Saw construction joints to be placed at a maximum spacing of 6.3m (in both the length and the span). Care should be taken to avoid construction cuts intersecting where any fixing to the slab is to be made.
* Column supports for mezzanine bearer internal support columns are not shown and should be of the same size and spacing as the end wall mullion piers.
* Where columns or end wall mullions have been removed, piers are not required.
* End wall mullion spacing may move due to location of openings or doors. Check layout and component position plan, and relocate piers as required.

*
* Concrete piers under Roller Door Jambs and Mezzanine Mid posts to be a minimum size as below:
C25019 - 450mm dia x 550mm deep, centered to the C Section
C30018 - 600mm dia x 650mm deep, centered to the C Section
Where heavy traffic is to go through the roller door, it is recommended that the slab edge should be thickened to 200mm deep by 300mm wide for the length between the mullions. Place an additional section of 665 mesh, 50mm from the base in all thickenings.

BRACING NOTES

* Refer to Connection Details.
* Knee bracing clearance from FFL is X = Main Building: 3.395m.
* All Cross Bracing (roof) is achieved with 1.6mm Strap G450
* Cross bracing is to be fixed taut and secured with 14.20 x 22 frame screws at each end, quantity as per connection details.
* Fly bracing to be fixed to the purlins/girts at all mid portal rafters, columns and end wall mullions. The spacing between fly braces is determined by column/rafter sizes as follows:

C150 - maximum 1800mm spacing
C200, C250 - maximum 2200mm spacing
C300 - maximum 2800mm spacing
C350 - maximum 3400mm spacing

Initial measurement is from the haunch of the column/rafter, and from the rafter for any end wall mullions.
* Where windows/GSD are placed in any bay where cross bracing is shown, then
a) this can be replaced by moving the bracing to another bay OR
b) due to the bracing provided by the window jambs, where space permits, bracing should be placed under and over the window.
* All bracing strap ends to be located as close as practical to structural members (columns, rafters, mullions) centerline.

BOLTS

* Unless otherwise nominated, all bolts are grade 4.6
* All tensioned bolts shall be tensioned using the part turn method (refer to AS4100). For the erector, full details are in the construction manual.

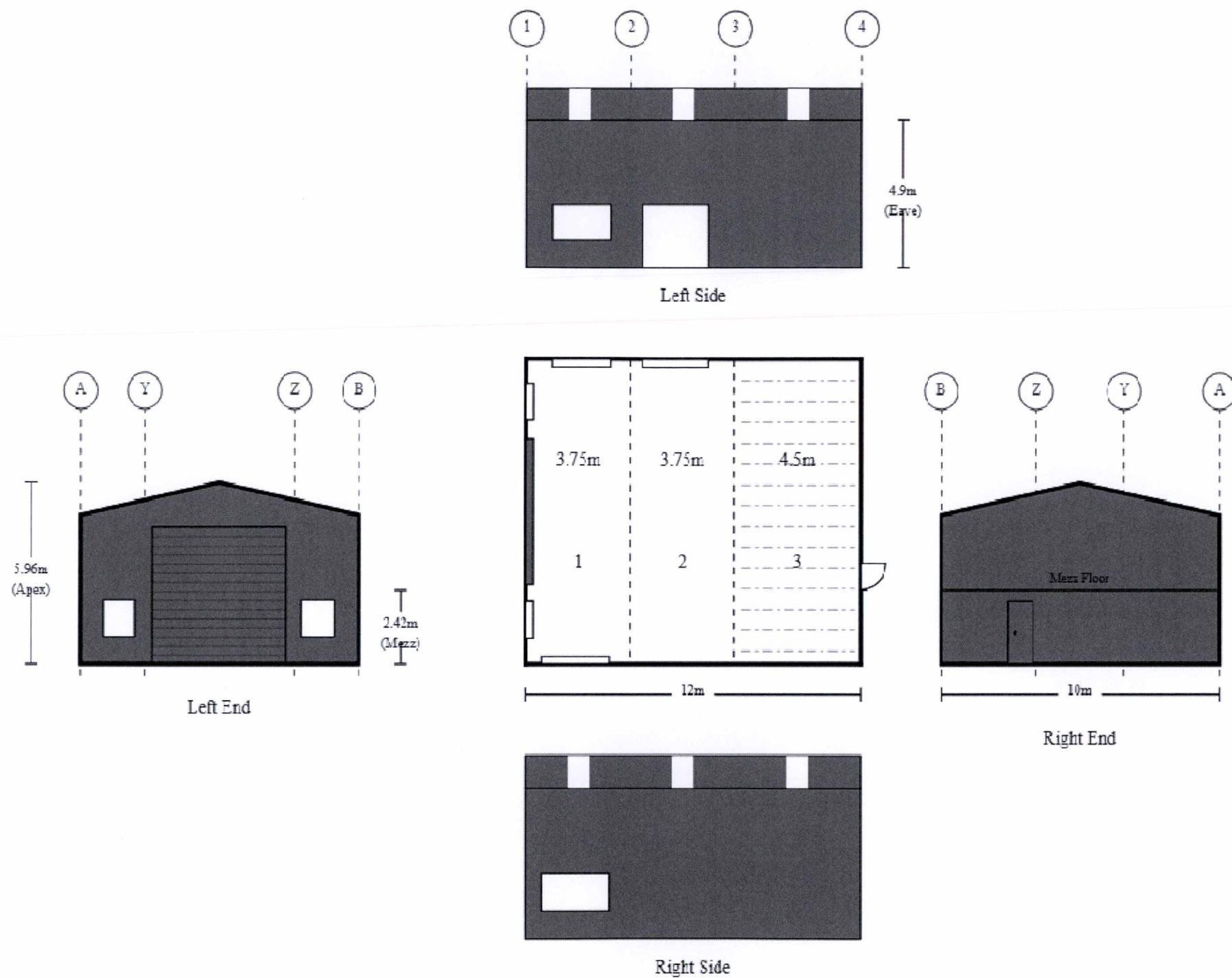
MEZZANINE FLOOR

*Mezzanine floor designed for 3kPa live loading.
*No point loads allowed for.

OTHER MATERIALS NOTES

* All Sheeting, Flashing and framing screws are Climaseal 4.
* All purlin material has Z350 zinc coating with minimum strength of 450MPa.

Purchaser Name: Ewen Thompson		General Notes Page 1 of 1 © Copyright Steelx IP Pty Ltd	Seller: Wide Span Sheds Wellington Ltd Wide Span Sheds Wellington Ltd Phone: 21 925 276 Fax Email: ewen.thompson@sheds.co.nz	ExtraMile Consulting Limited Business No: 4536099 ME New Zealand: CPEng. No. 1021657 Practising Professional Structural & Civil Engineer Signature:  Pawel Michal Mlewski Date: 30/04/18
Site Address: 2 hoffs Porirua New Zealand				
Drawing # ZWLT180004 - 2	Print Date: 30/04/18			



Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

Drawing # ZMLT180004 - 3

Print Date: 30/04/18

Layout

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Business No: 4536099
ME New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

Signature: *Pawel Mchalewski* Pawel Mchalewski Date: 30/04/18

MATERIAL SPECIFICATIONS

For further information regarding the tabulated values shown, refer to the General Notes

Building Dimensions						
Categories	Span	Length	Pitch	Height	Grid(s)	Portal(s)
Main Building	10	12	12	4.9	A - B	1 - 4

Portal Frame Elements					
Grid / Portal Number		1	2	3	4
Columns	A	C20015	C25018	C25023	C20018
	B	C20015	C25018	C25023	C20018
Rafters	A - Apex	C20015	C20015	C25023	C15015
	Apex - B	C20015	C20015	C25023	C15015
End Wall Mullions	Y	C20018	-	-	C15015
	Z	C20018	-	-	C15015
Apex Braces	Apex	-	MC20015 @ 3m	MC20019 @ 3m	-
Knee Braces	A - Apex	-	MC20015 @ 2.2m	MC20019 @ 2.2m	-
	Apex - B	-	MC20015 @ 2.2m	MC20019 @ 2.2m	-
Mezz Bearers	A - B	-	-	C30018	C30018
Mezz Bearer Support	A	-	-	C20018	2C25023
	Y	-	-	C30018	C30018
	Z	-	-	C30018	C30018
	B	-	-	C20018	2C25023

Bay Section Elements				
Grid / Bay Number		1	2	3
Bay Widths		3.75	3.75	4.5
Roof Purlins	A - Apex	TH100075	TH100075	TH100075
	Apex - B	TH100075	TH100075	TH100075
Roof Purlin Spacing (End)	A - Apex	1.266	1.266	1.266
	Apex - B	1.266	1.266	1.266
Roof Purlin Spacing (Internal Spans)	A - Apex	1.266	1.266	1.266
	Apex - B	1.266	1.266	1.266
Eave Purlin	A	MC15012	MC15012	MC15012
	B	MC15012	MC15012	MC15012
Side Girts	A	TH100075	TH100075	TH100075
	B	TH100075	TH100075	TH100075
Side Girts Spacing (End)	A	1.162	1.162	1.162
	B	1.162	1.162	1.162
Side Girts Spacing (Internal)	A	1.162	1.162	1.162
	B	1.162	1.162	1.162
Mezz Floor Joists	A - B	-	-	C25018

End Bay Section Elements			
Grid / Portal Number		1	4
End Girts	A - Y	TH100075	TH100075
	Y - Z	TH100075	TH100075
	Z - B	TH100075	TH100075
End Girts Spacing (End)	A - Y	1.162	1.162
	Y - Z	1.162	1.162
	Z - B	1.162	1.162
End Girts Spacing (Internal)	A - Y	1.162	1.162
	Y - Z	1.162	1.162
	Z - B	1.162	1.162
Roller Door Jambs	Y - Z	C25019	-
	Z - B	-	-
PA Door Header	Y - Z	-	-
	Z - B	-	C10010
PA Door Jambs	Y - Z	-	-
	Z - B	-	C10012

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

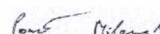
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Specification Sheet
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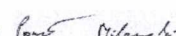
Signature:  Pawel Michal Milewski Date: 30/04/18

MATERIAL SPECIFICATIONS

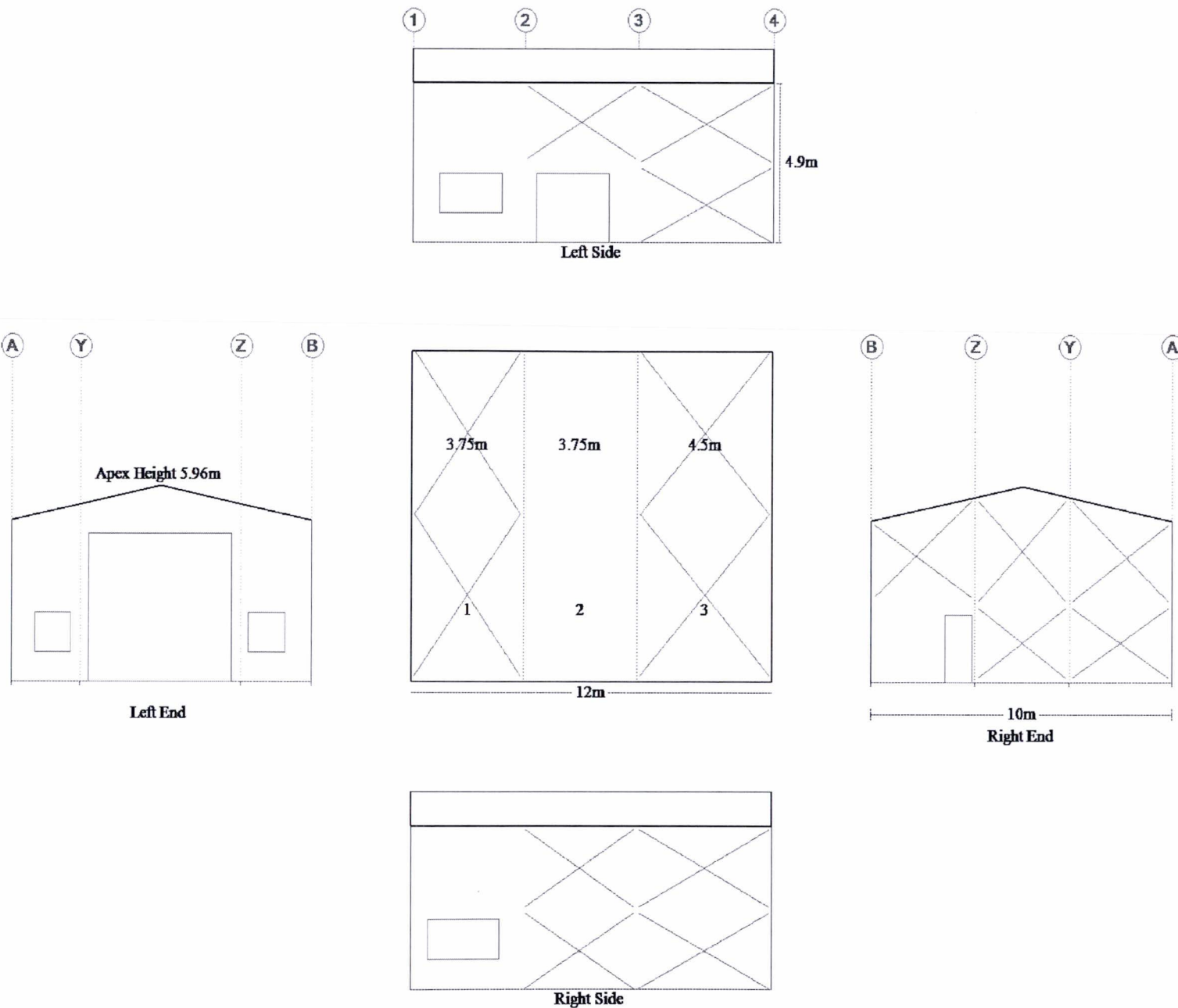
For further information regarding the tabulated values shown, refer to the General Notes

Cladding Elements		
Category	Colour	Product
Roof Sheeting	ZINCALUME® steel	High Profile 0.40 BMT
Roof Flashings	ZINCALUME® steel	BlueScope 0.55 BMT
Wall Sheeting	ZINCALUME® steel	High Profile 0.40 BMT
Wall Flashing	ZINCALUME® steel	BlueScope 0.55 BMT

Pier Sizes						
Adhesion (kPa)	Soil Description	Diameter (mm)	Depth - with Slab			
			BP1 (mm)	BP2 (mm)	BP3 (mm)	BP4 (mm)
0	Sandy Soil	300	-	-	-	-
		450	450	450	500	450
		600	450	450	450	450
25	Soft to Firm Clay	300	-	-	-	-
		450	450	450	500	450
		600	450	450	450	450
50	Stiff to Very Stiff Clay	300	-	-	-	-
		450	450	450	500	450
		600	450	450	450	450

Purchaser Name: Ewen Thompson		Specification Sheet Page 2 of 2 © Copyright Steelx IP Pty Ltd	Seller: Wide Span Sheds Wellington Ltd Wide Span Sheds Wellington Ltd Phone: 21 925 276 Fax: Email: ewen.thompson@sheds.co.nz	ExtraMile Consulting Limited Business No: 4536099 ME New Zealand: CPEng. No. 1021657 Practising Professional Structural & Civil Engineer Signature:  Pawel Michal Milewski Date: 30/04/18
Site Address: 2 hoffs Porirua New Zealand				
Drawing # ZMLT180004 - 4	Print Date: 30/04/18			

Cross Bracing (roof) is achieved with 1.6mm Strap. Refer to Connection Details.
Cross Bracing (walls) is achieved with 1.6mm Strap (double strapping). Refer to Connection Details.



Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

Drawing # ZMLT180004 - 5

Print Date: 30/04/18

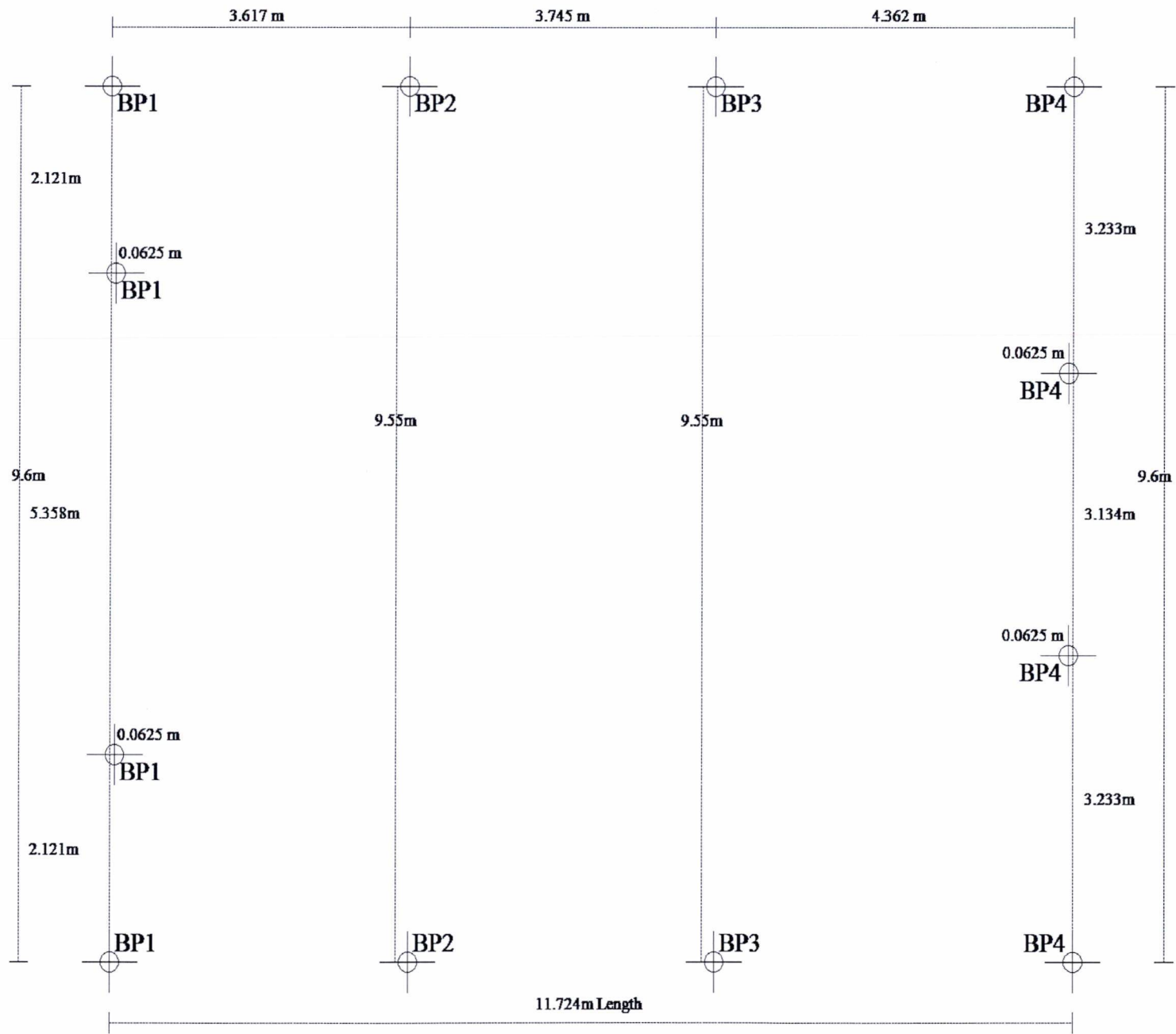
Bracing
© Copyright Steelx IP Pty Ltd

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Fax
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MIE New Zealand: CPeng. No. 1021657
Practising Professional Structural & Civil Engineer

Signature: *Pawel Michal Milewski* Pawel Michal Milewski Date: 30/04/18

Refer to Material Specifications Plan for BP dimensions.



Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

Drawing # ZVLT180004 - 6

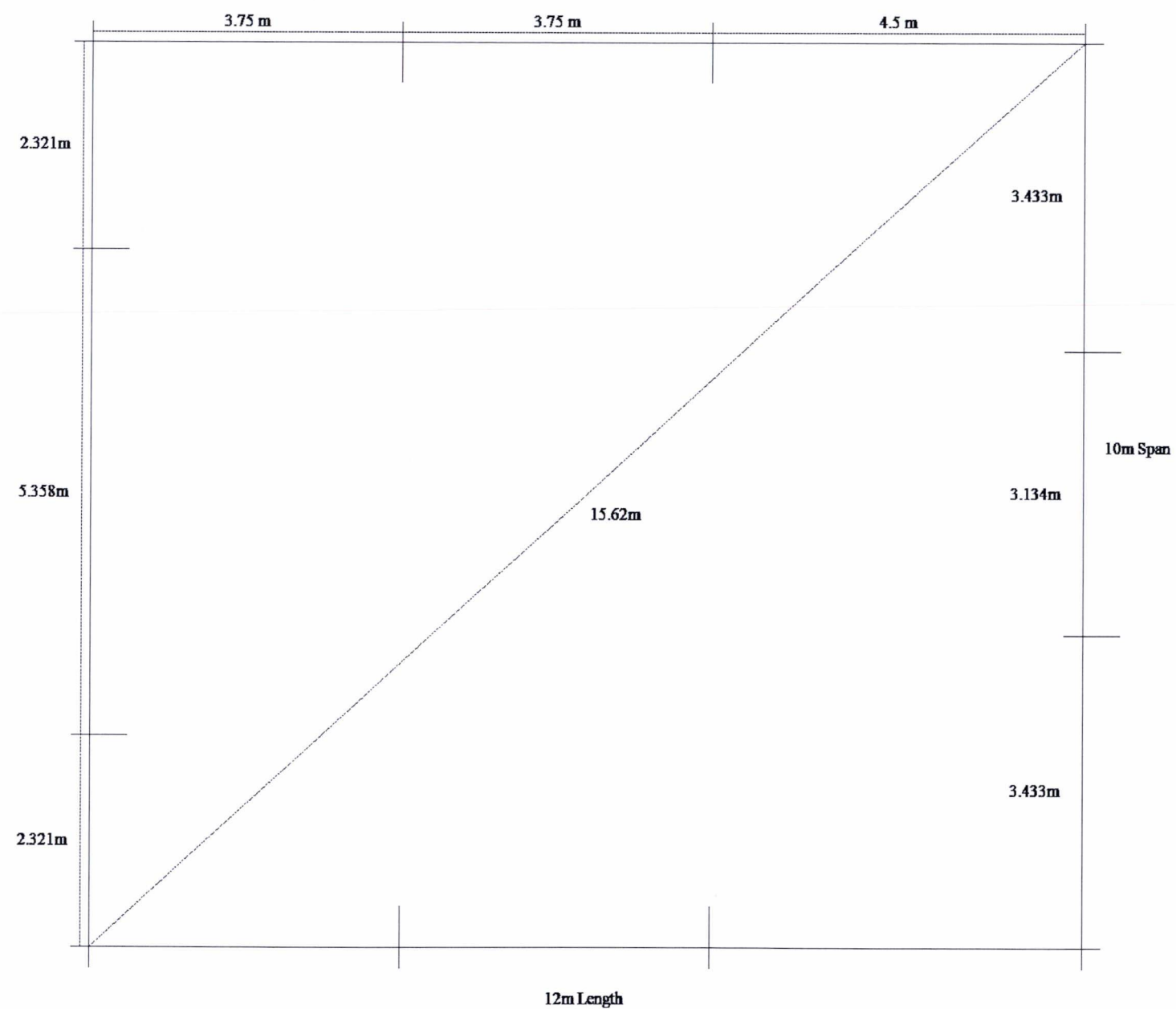
Print Date: 30/04/18

Concrete Piers
PIER MEASUREMENT ONLY
Not to Scale
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Signature: *Pawel Michal Milewski* Pawel Michal Milewski Date: 30/04/18



Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

Drawing # ZMLT180004 - 7

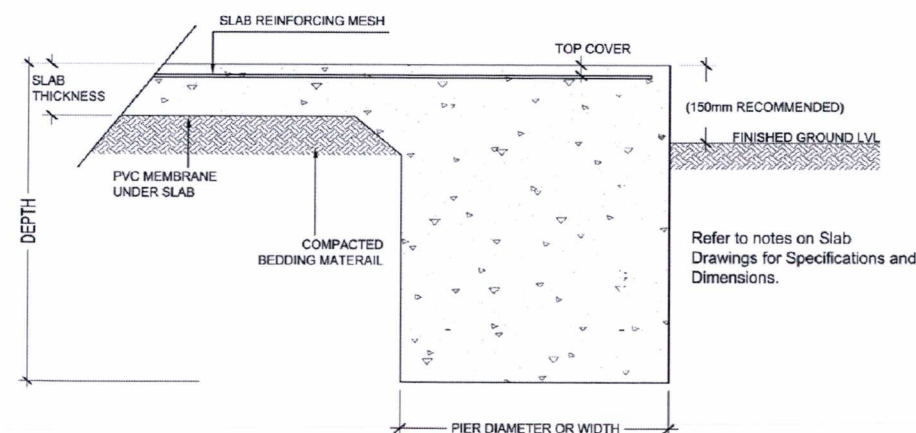
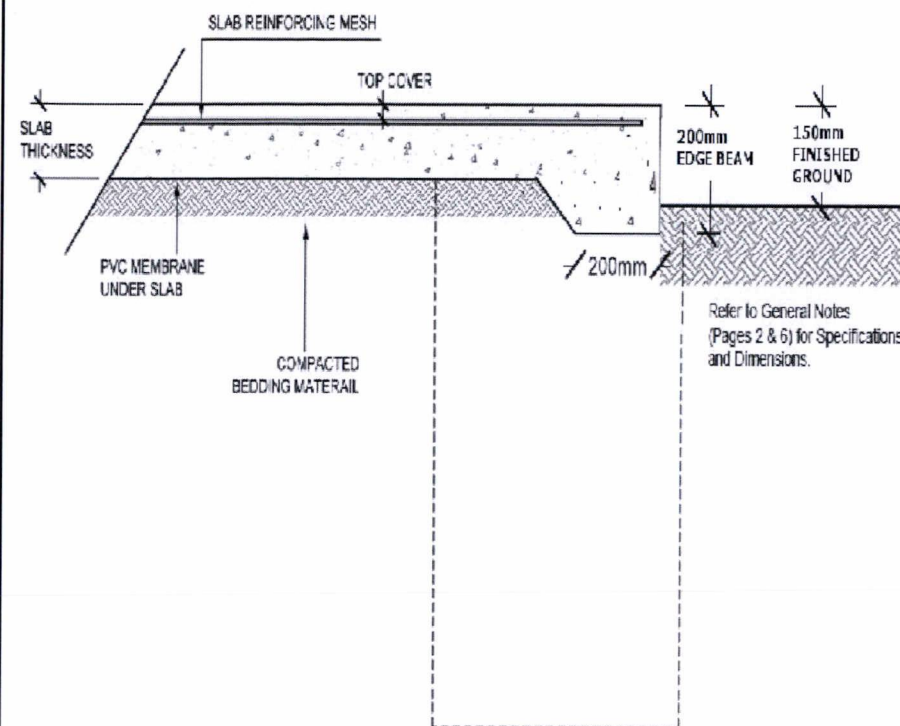
Print Date: 30/04/18

Slab Dimensions
 Also refer to Concrete Piers Plan
 Not to Scale
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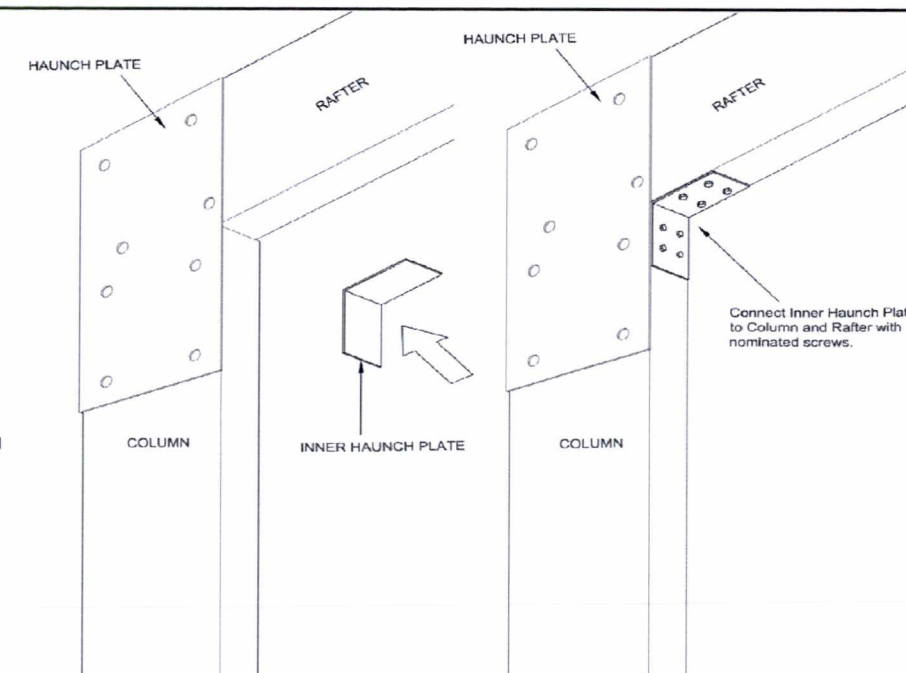
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 Fax:
 Email: ewen.thompson@sheds.co.nz

ExtraMile Consulting Limited
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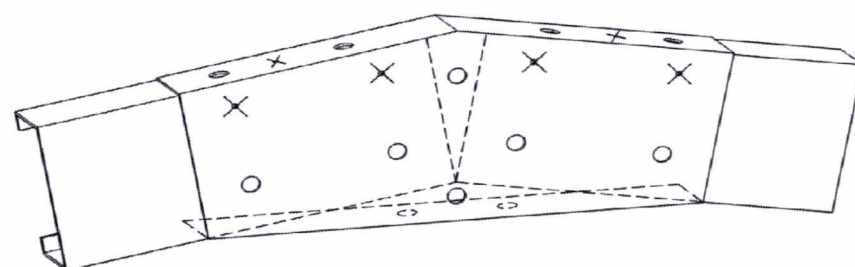
Signature: *Pawel Mchalewski* Pawel Mchalewski Date: 30/04/18



SLAB AND PIER DETAIL

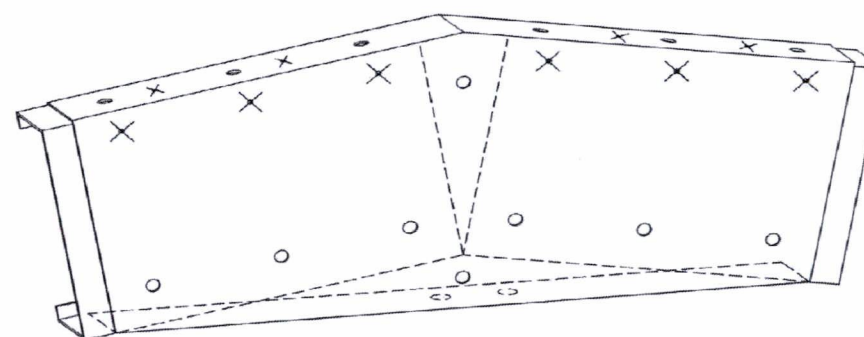


FIXING SCREWS - 8 of 14.20 x 22
INNER HAUNCH BRACKET - SINGLE



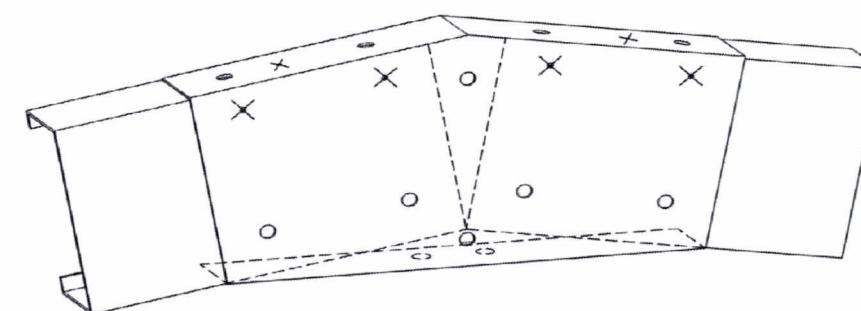
- FIXING BOLTS - 8 of M12 x 30
× FIXING SCREWS - 6 of 14.20 x 22

APEX BRACKET C150, 12 deg



- FIXING BOLTS - 12 of M16 x 30
× FIXING SCREWS - 10 of 14.20 x 22

APEX PLATE C250, 12 deg



- FIXING BOLTS - 8 of M12 x 30
× FIXING SCREWS - 6 of 14.20 x 22

APEX PLATE C200, 12 deg

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

Drawing # ZWL180004 - 8

Print Date: 30/04/18

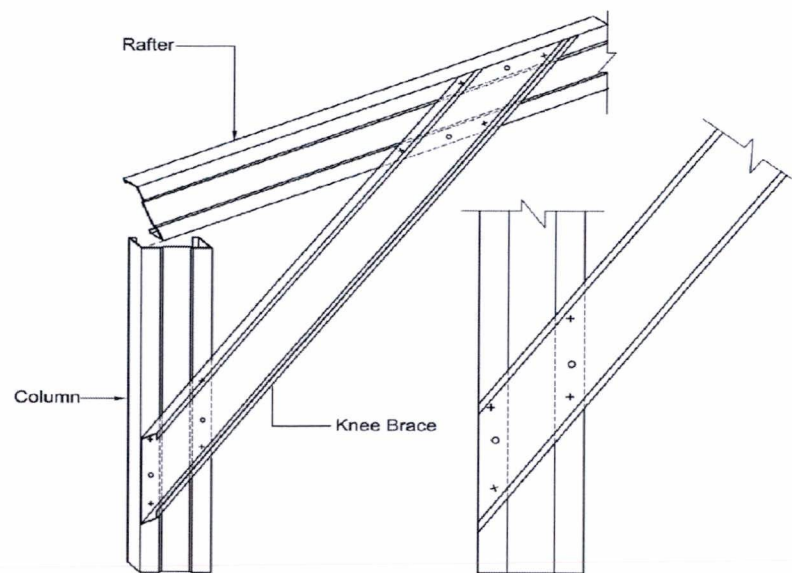
Connection Details

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Fax:
Email: ewen.thompson@sheds.co.nz

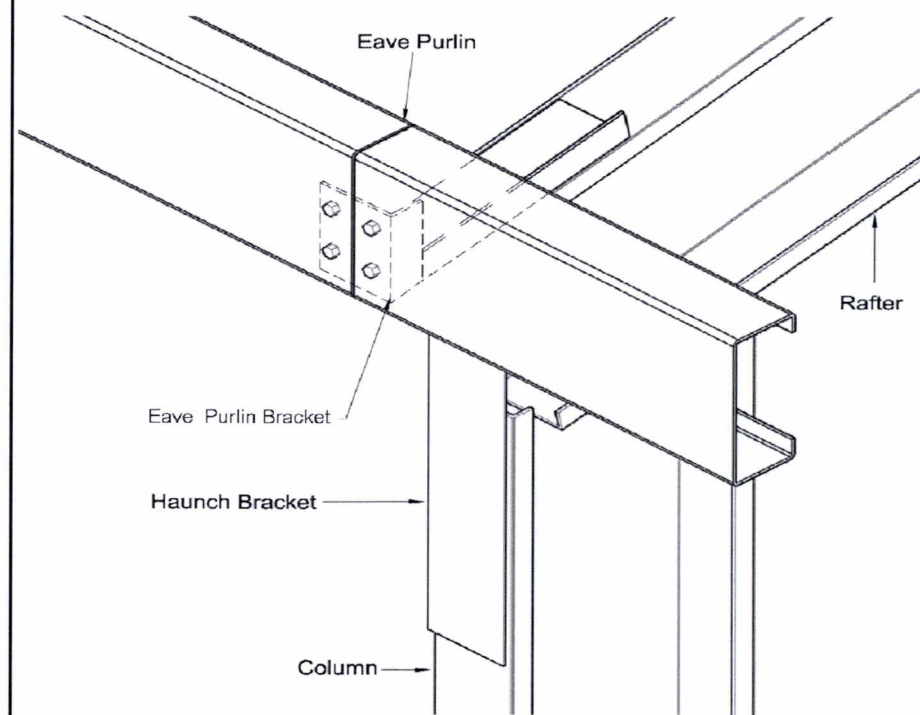
ExtraMile Consulting Limited
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ME New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

Signature: *Pawel Milewski* Pawel Michal Milewski Date: 30/04/18

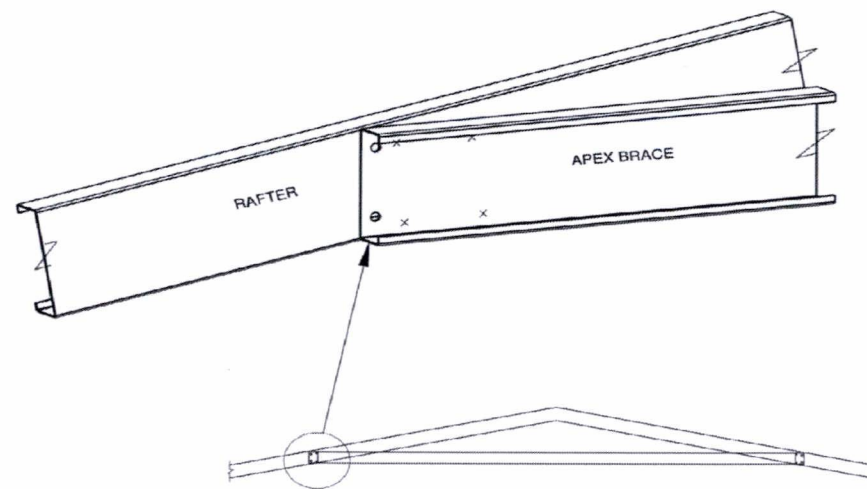


- FIXING BOLTS - 4 of M16 x 35
- × FIXING SCREWS - 8 of 14.20 x 22

KNEE BRACE FOR C250 COLUMN/RAFTER

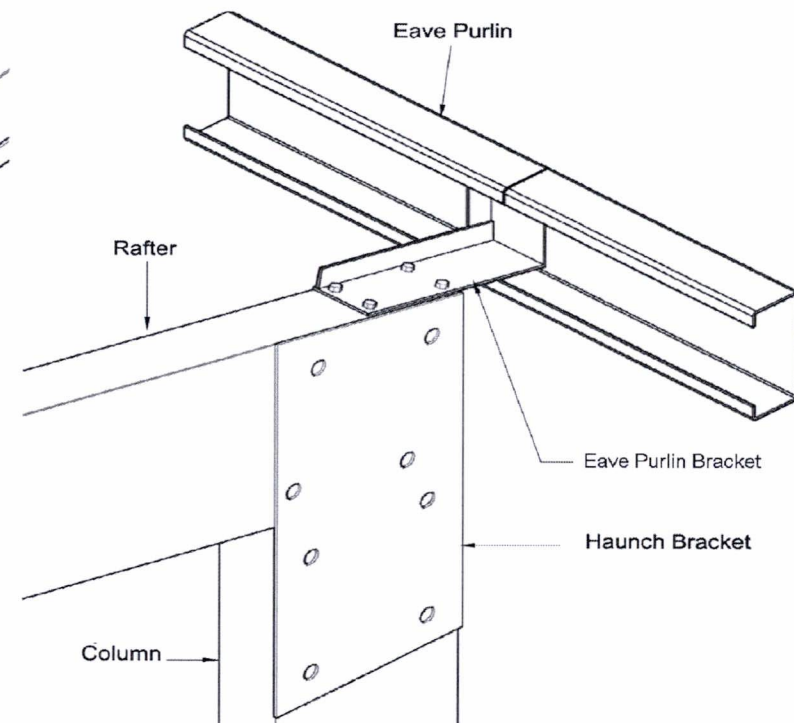


- FIXING SCREWS - 4 of 14.20 x 22
- EAVE PURLIN TO EAVE PURLIN BRACKET

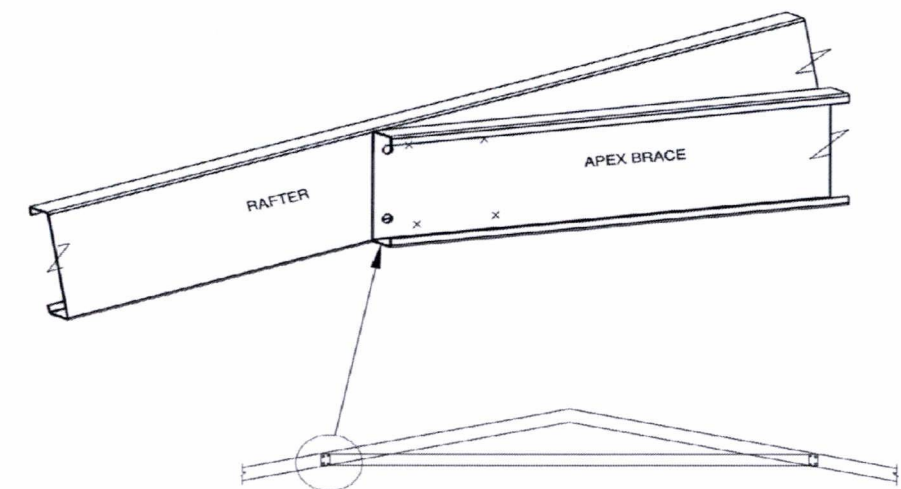


- FIXING BOLTS - 2 of M16 x 40
- × FIXING SCREWS - 4 of 14.20 x 22

APEX BRACE FOR SINGLE RAFTER

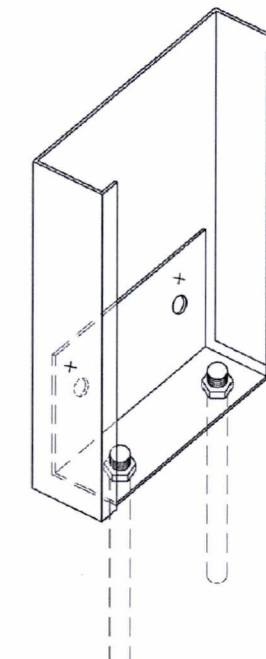


- FIXING SCREWS - 4 of 14.20 x 22
- EAVE PURLIN BRACKET TO RAFTER



- FIXING BOLTS - 2 of M16 x 40
- × FIXING SCREWS - 4 of 14.20 x 22

APEX BRACE FOR SINGLE RAFTER



- × FIXING SCREWS - 2 of 14.20 x 22
 - FIXING BOLTS - 2 of M12 x 30
 - 2 of M12 TRUBOLT
- C200 MULLION BASE PLATE

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

Drawing # ZMLT180004 - 8

Print Date: 30/04/18

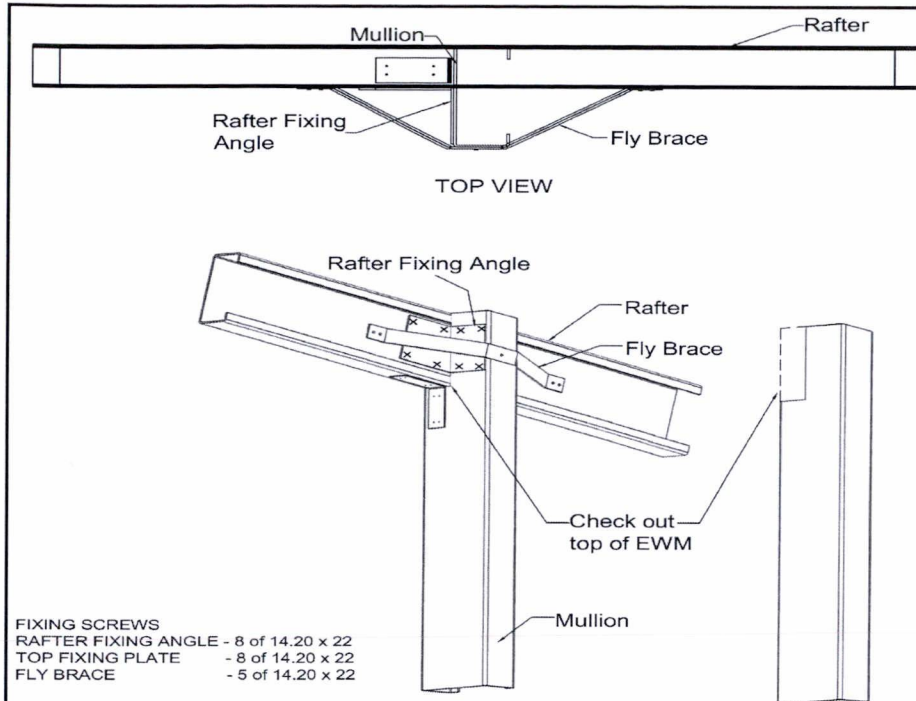
Connection Details

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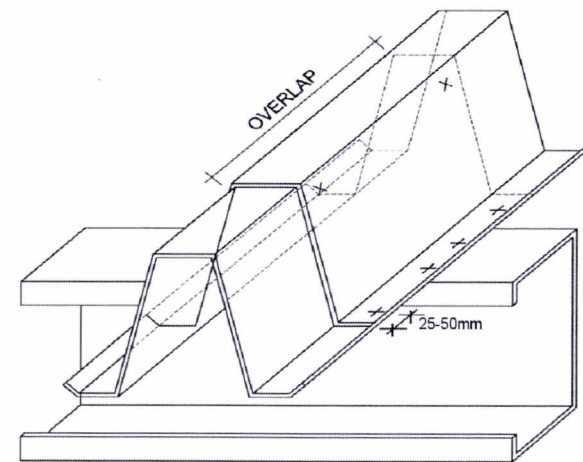
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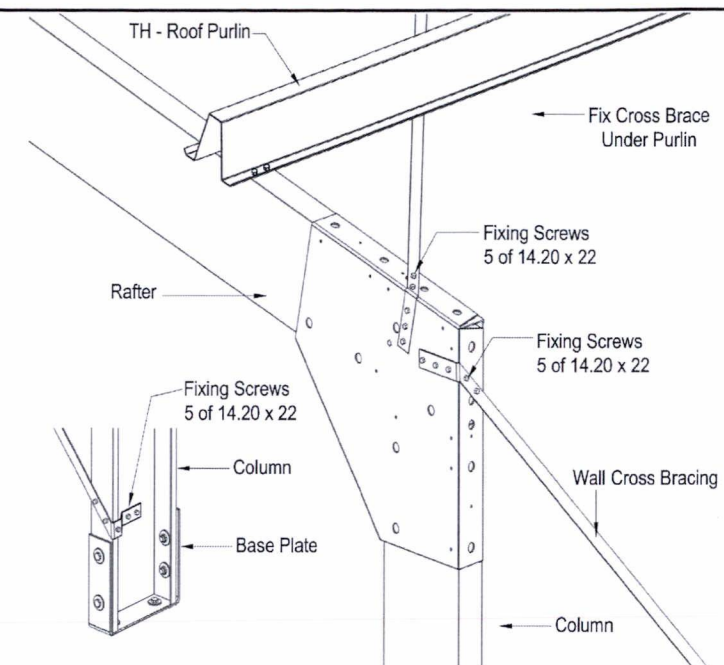
Signature: *Pawel Milewski* Pawel Michal Milewski Date: 30/04/18



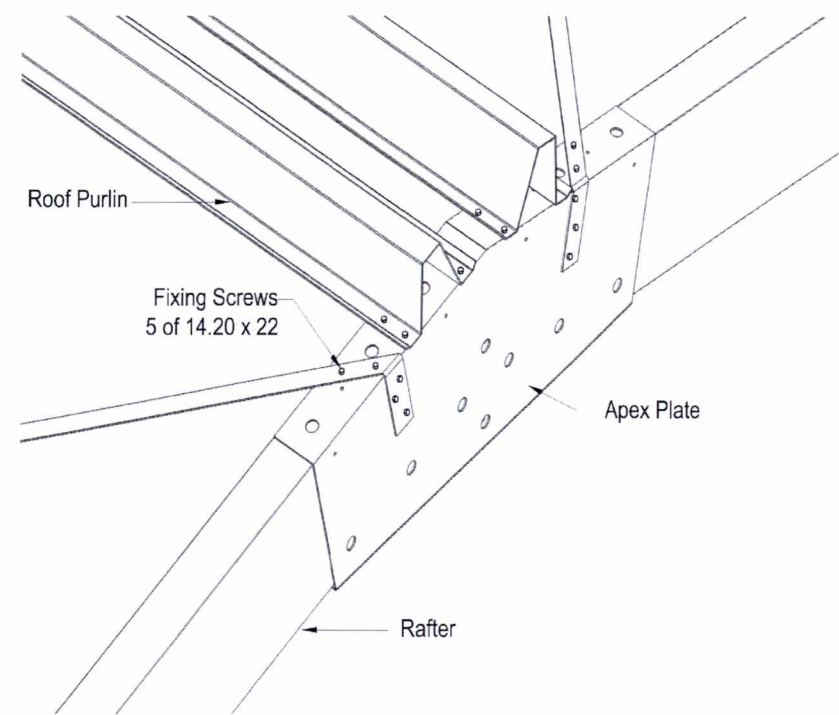
END WALL MULLION TO RAFTER



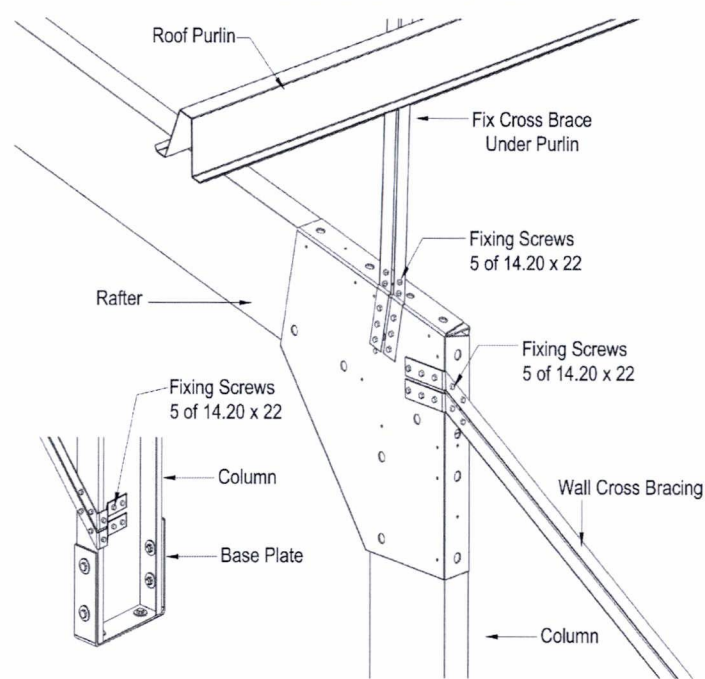
× FIXING SCREWS - 12 of 14.20 x 22
 LAP = Greater of 10% of span or 500 mm
 PURLIN/GIRT FIXING - TOPHAT 100
 SINGLE COLUMN OR RAFTER



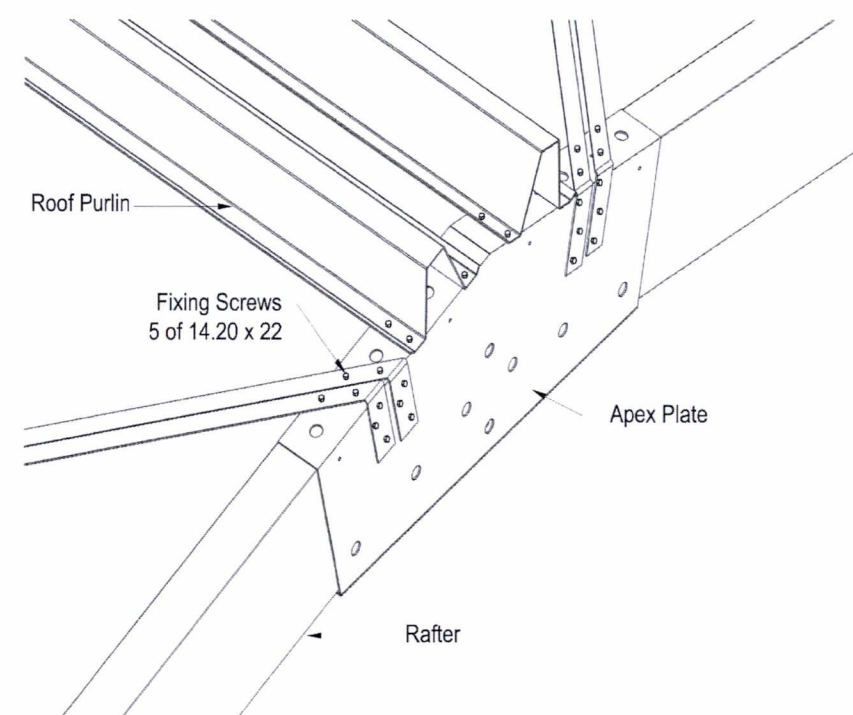
BRACING CONNECTION



BRACING CONNECTION AT APEX

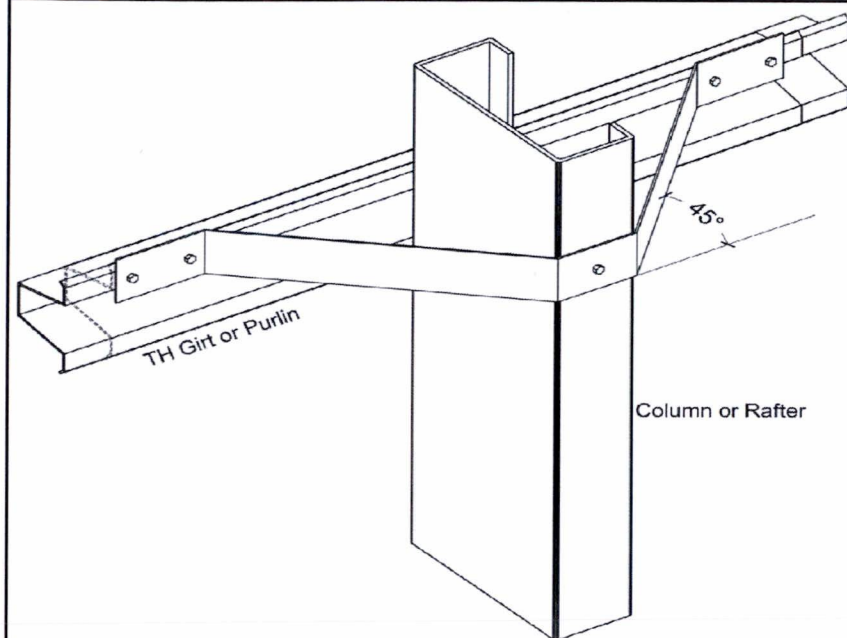


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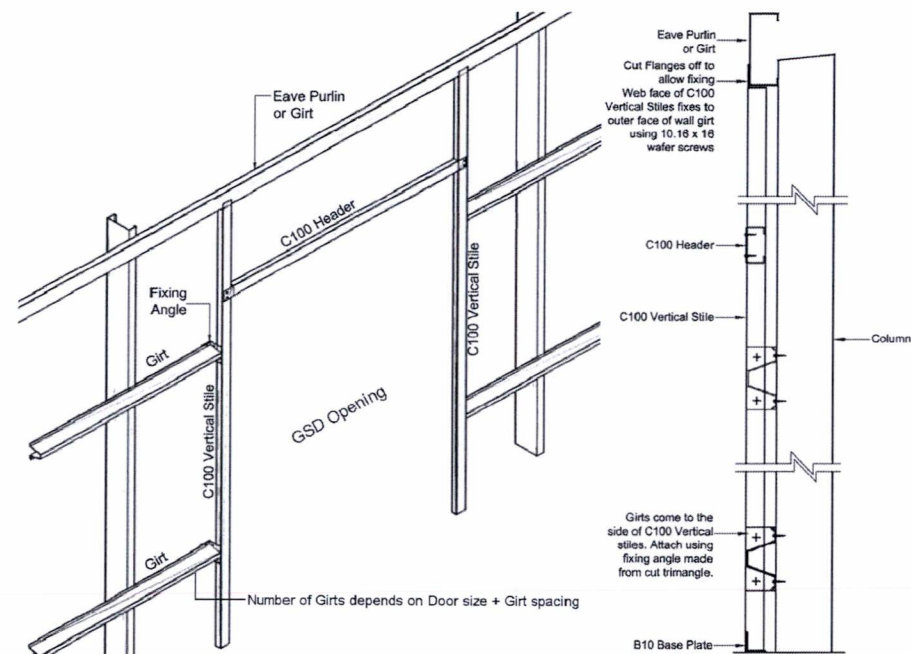


BRACING CONNECTION AT APEX

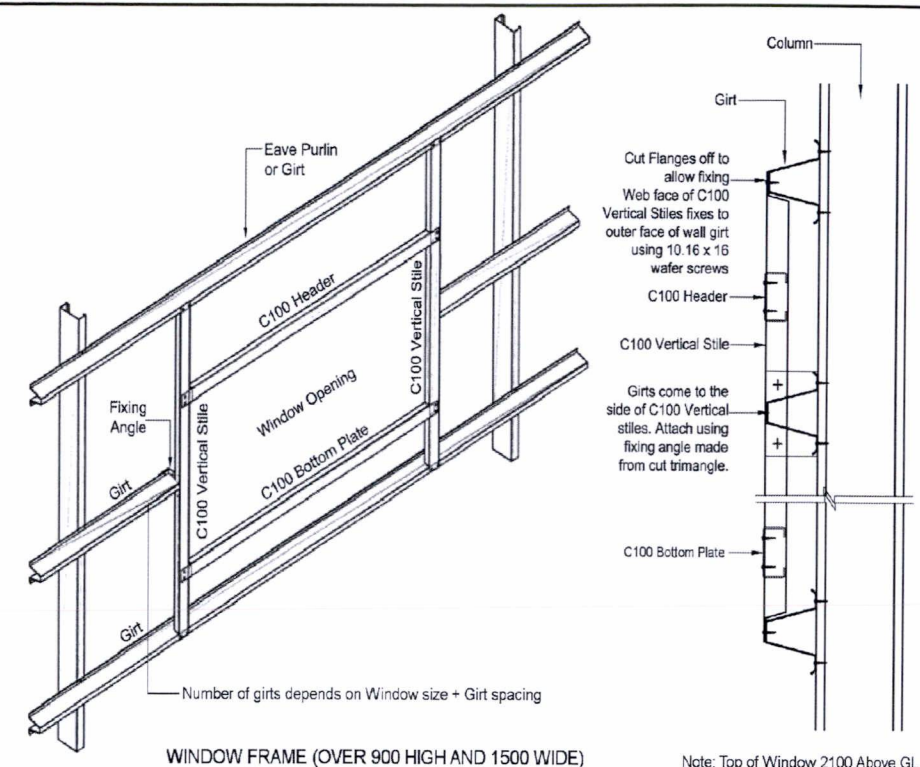
Purchaser Name: Ewen Thompson	Connection Details Page 3 of 8 © Copyright Steelx IP Pty Ltd		ExtraMile Consulting Limited Business No: 4536099 ME New Zealand: CPEng. No. 1021657 Practising Professional Structural & Civil Engineer
Site Address: 2 hoffs Porirua New Zealand		Seller: Wide Span Sheds Wellington Ltd Wide Span Sheds Wellington Ltd Phone: 21 925 276 Fax Email: ewen.thompson@sheds.co.nz	
Drawing # ZMLT180004 - 8		Print Date: 30/04/18	Signature: <i>Pawel Milewski</i> Pawel Michal Milewski Date: 30/04/18



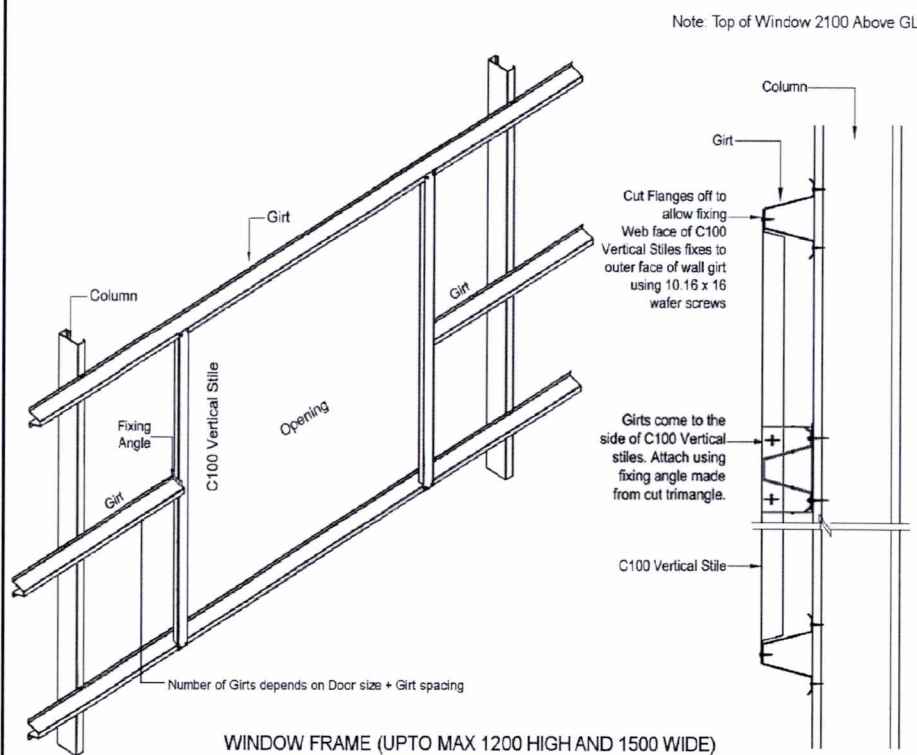
FIXING SCREWS - 5 of 14.20 x 22
FLY BRACING



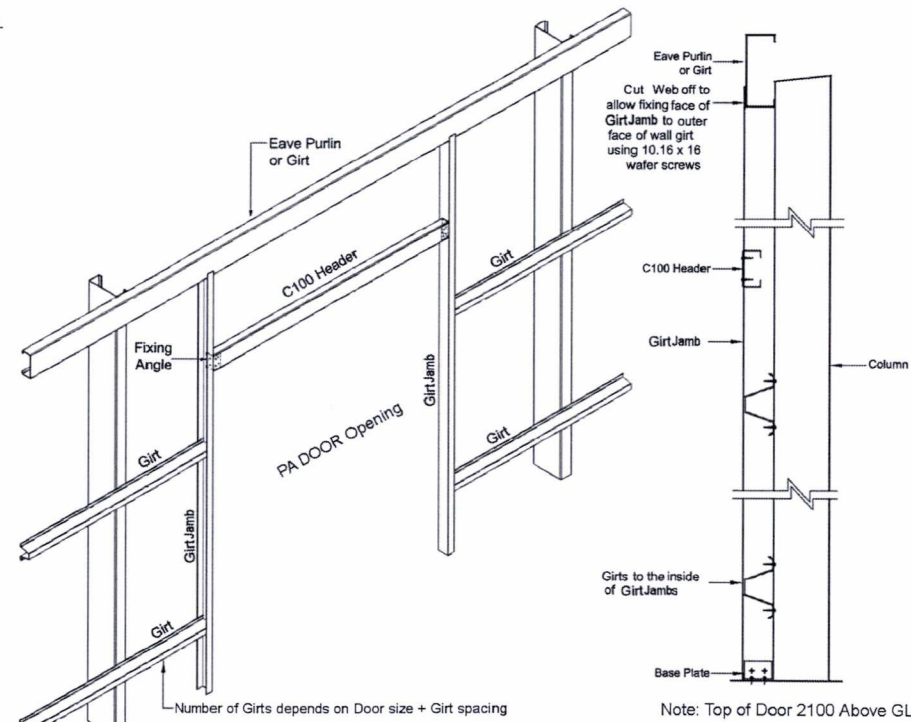
GSD - TO FLOOR LEVEL



WINDOW FRAME (OVER 900 HIGH AND 1500 WIDE)



WINDOW FRAME (UPTO MAX 1200 HIGH AND 1500 WIDE)
WINDOW FRAME FIXED TO VERTICAL STILES ONLY



PA DOOR (PRE HUNG) CONNECTION DETAILS

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Site Address: 2 hoffs Porirua New Zealand

Drawing # ZWLT180004 - 8

Print Date: 30/04/18

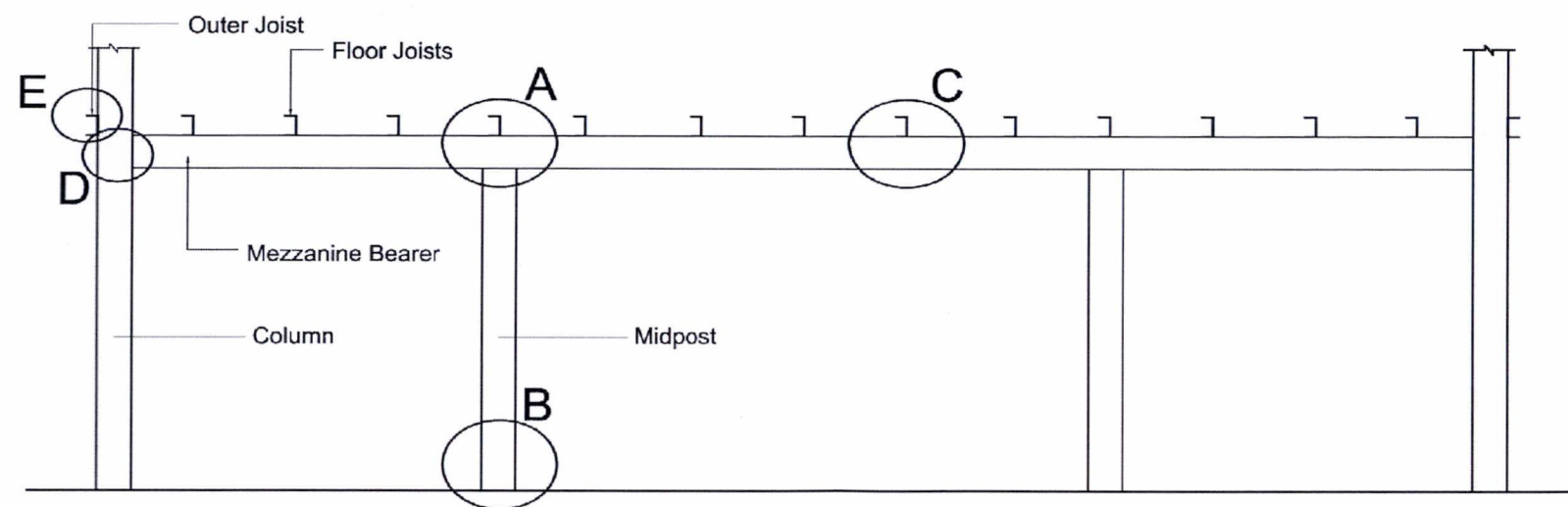
Connection Details

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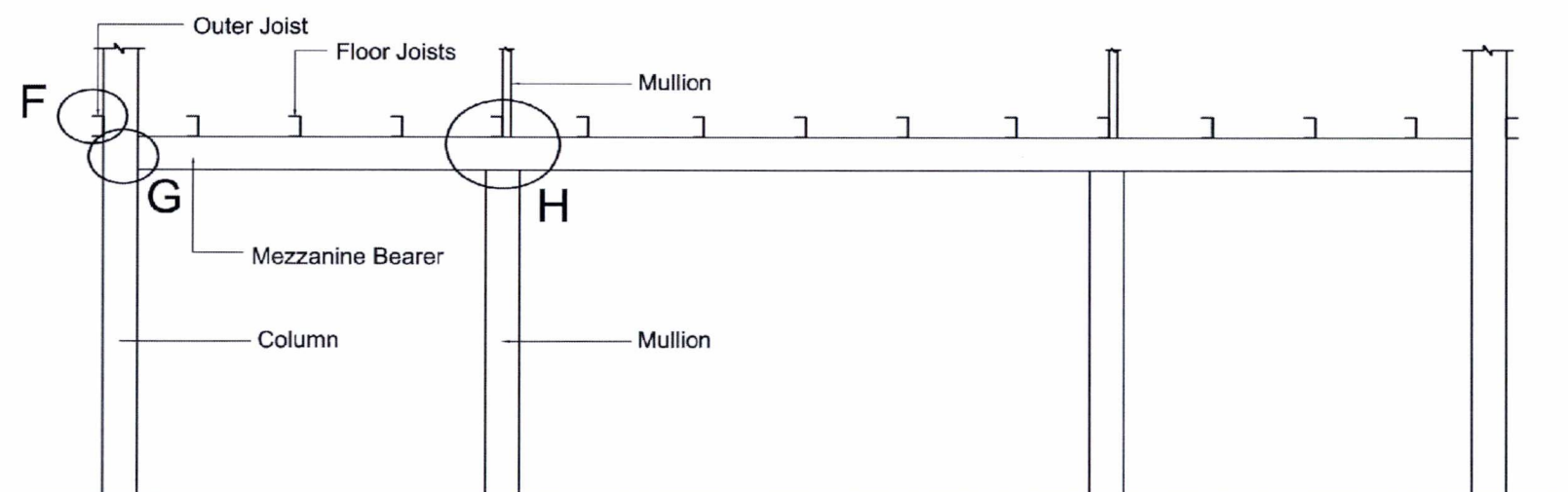
Seller: Wide Span Sheds Wellington Ltd
Wide Span Sheds Wellington Ltd
Phone: 21 925 276
Fax
Email: ewen.thompson@sheds.co.nz

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Business No: 4536099
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Practising Professional Structural & Civil Engineer

Signature: *Pawel Mchalewski* Pawel Mchalewski Date: 30/04/18

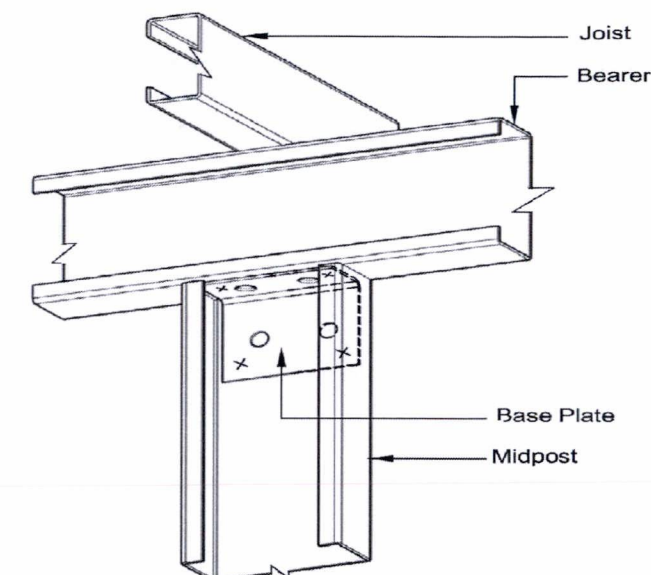


MEZZANIE FLOOR - ELEVATION (MID)

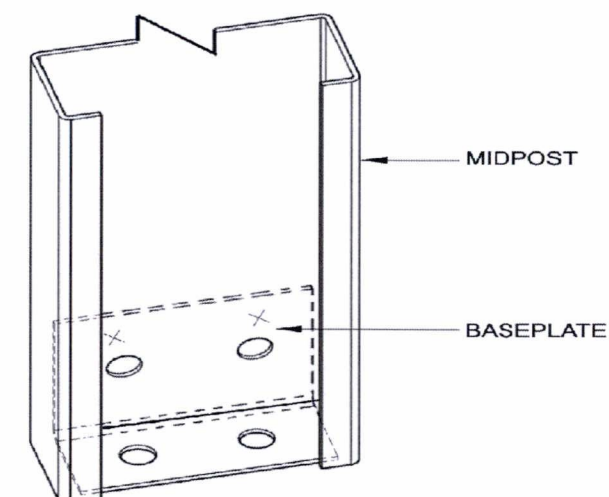


MEZZANIE FLOOR - ELEVATION (END)

MEZZANINE FLOOR CONNECTION DETAILS (1 of 2)



- FIXING BOLTS - 4 of M16 x 30
 - × FIXING SCREWS - 4 of 14.20 x 22
- MIDPOST TO BEARER
DETAIL AT A



- FIXING BOLTS 2 of M16 x 30
 - FIXING TO CONCRETE - 2 of M16 DYNABOLTS
 - × FIXING SCREWS - 2 of 14.22 x 22
- MIDPOST TO SLAB / FOOTING
DETAIL AT B

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

Drawing # ZWLT180004 - 8

Print Date: 30/04/18

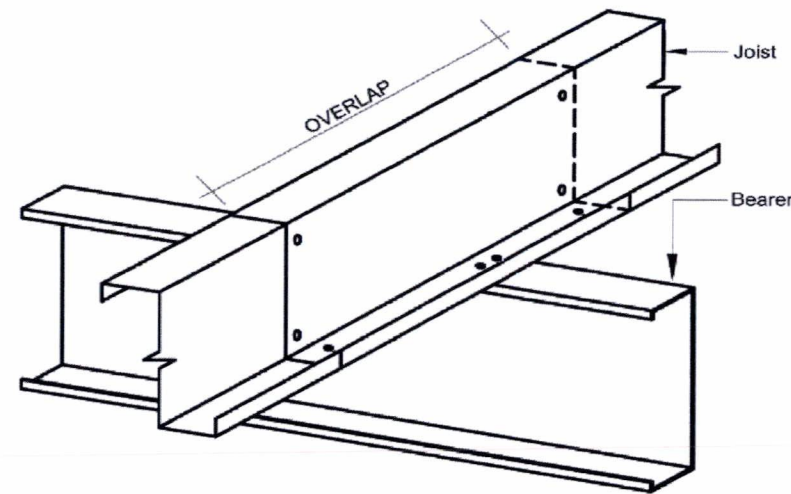
Connection Details

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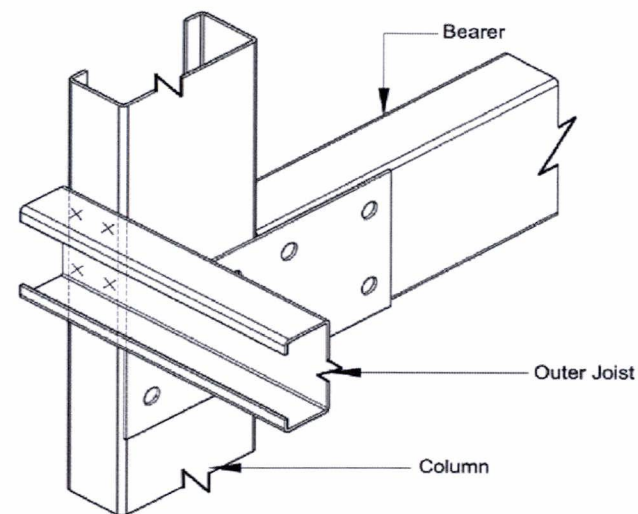
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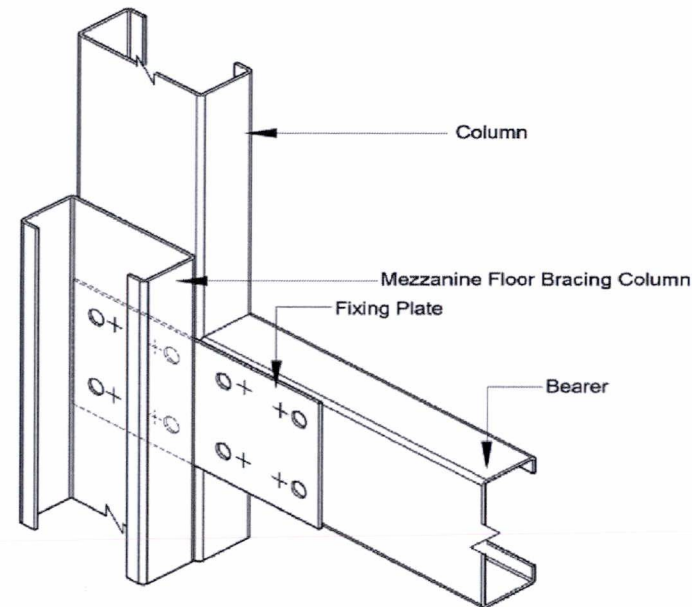
Signature: *Pawel Milewski* Pawel Michal Milewski Date: 30/04/18



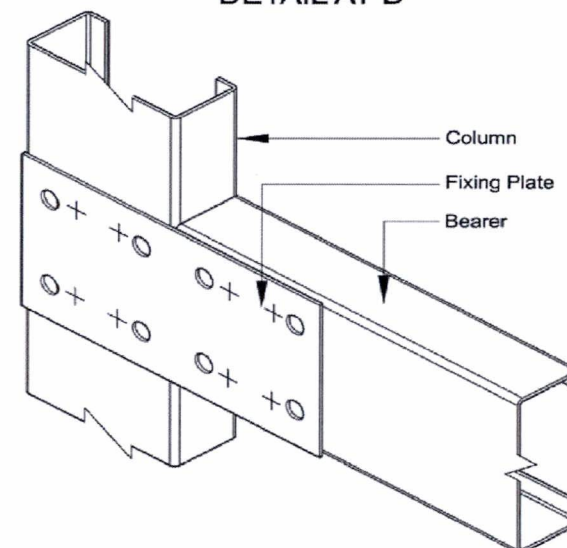
× FIXING SCREWS - 8 of 14.20 x 22
MEZZ JOIST FIXING
DETAIL AT C



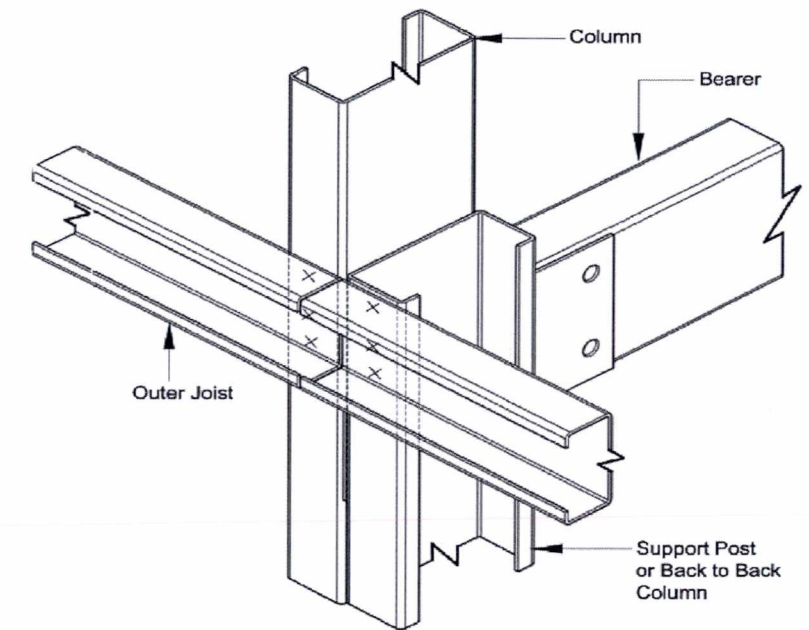
× FIXING SCREWS - 4 of 14.20 x 22
OUTER JOIST TO COLUMN (END)
DETAIL AT F



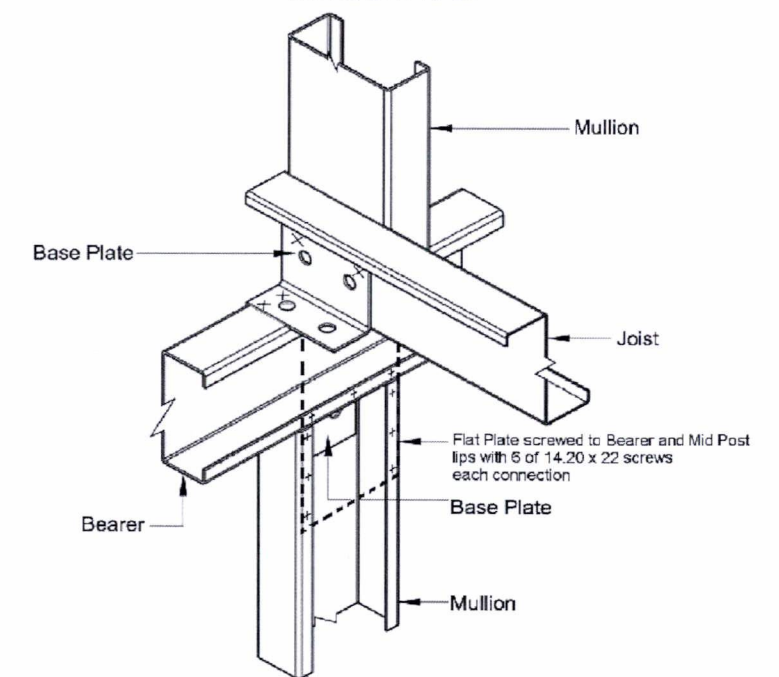
○ FIXING BOLTS - 8 of M 16 x 40 (8.8)
× FIXING SCREWS - 8 of 12.24 x 32
COLUMN TO BEARER (MID)
DETAIL AT D



○ FIXING BOLTS - 8 of M 16 x 40 (8.8)
× FIXING SCREWS - 8 of 12.24 x 32
COLUMN TO BEARER (END)
DETAIL AT G



× FIXING SCREWS - 6 of 14.20 x 22
OUTER JOIST TO COLUMN (MID)
DETAIL AT E



○ FIXING BOLTS - 3 of M12 x 30
× FIXING SCREWS - 4 of 14.20 x 22 HEX
END WALL MULLION TO BEARER

MEZZANINE FLOOR CONNECTION DETAILS (2 of 2)

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

Drawing # ZWLT180004 - 8

Print Date: 30/04/18

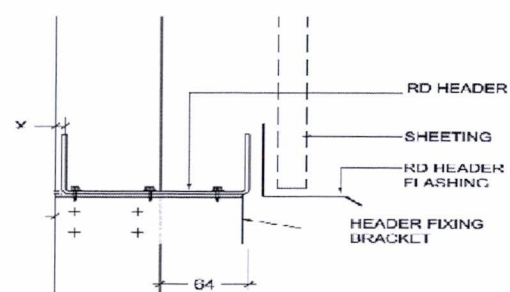
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Signature: *Pawel Mchalewski* Pawel Mchalewski Date: 30/04/18

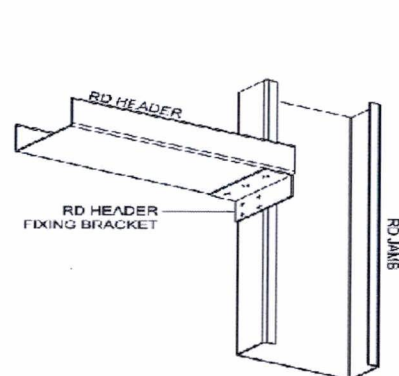


VALUE OF X

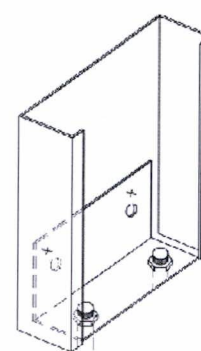
RD JAMB	END WALL GIRTS
	TH64
C150	0
C200	- 12
C250	- 12

NOTE:

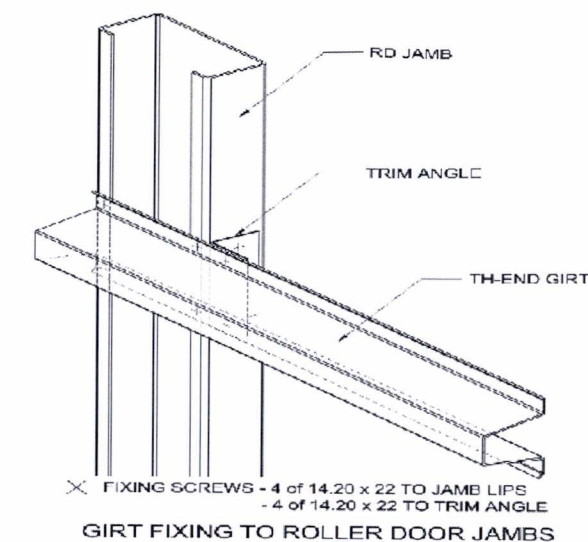
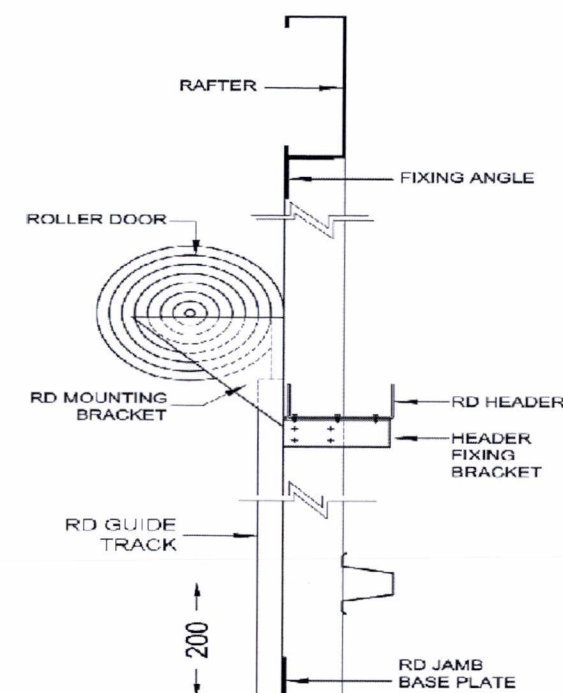
+ = projection of header into the building
- = distance in from door jamb web



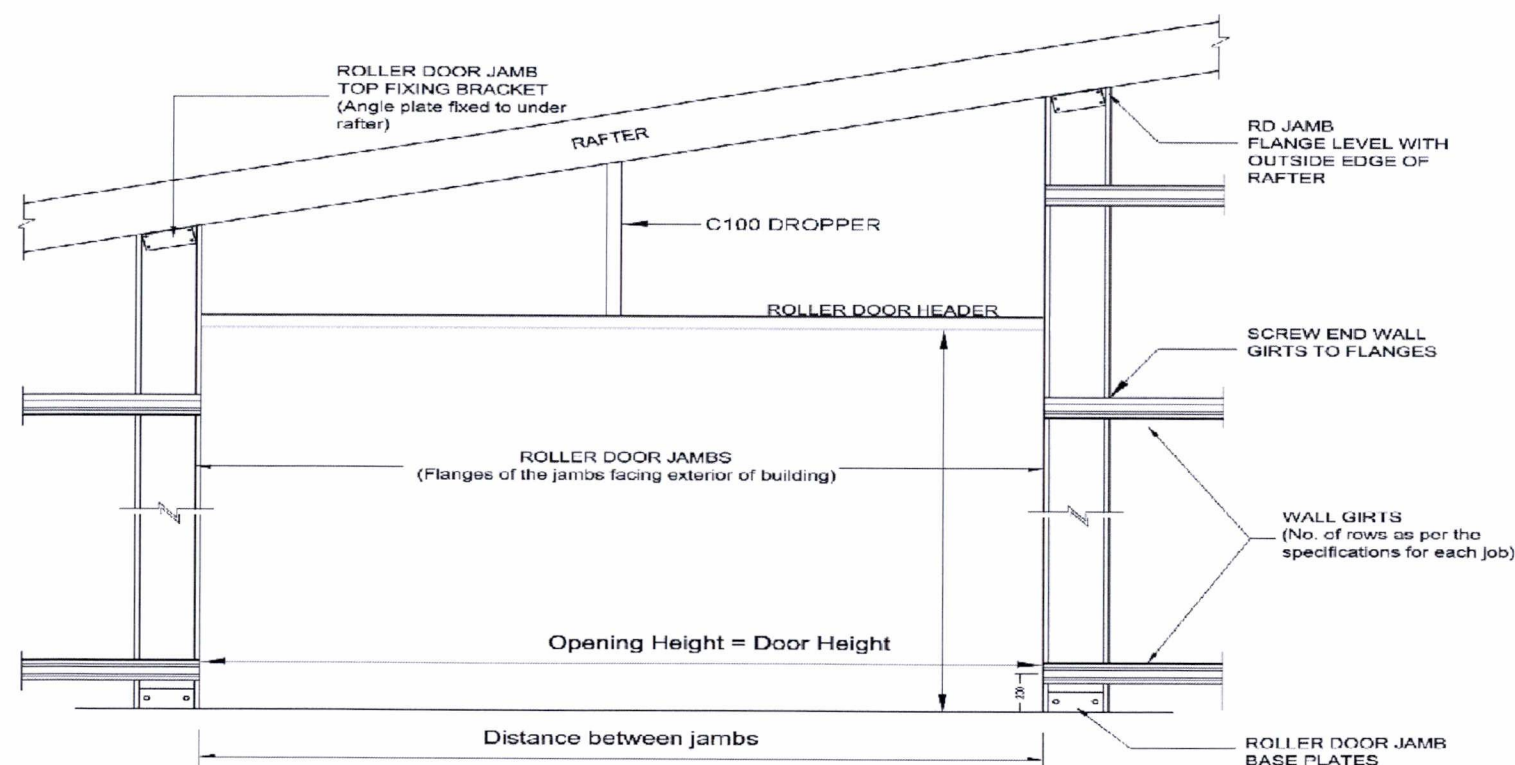
× FIXING SCREWS - 7 of 14.20 x 22
GIRT FIXING TO PA DOOR JAMB
RD HEADER FIXING BRACKET



× FIXING SCREWS - 2 of 14.20 x 22
○ FIXING BOLTS - 2 of M12 x 30 - FOR C150 & C200 JAMBS
○ FIXING BOLTS - 2 of M16 x 30 - FOR C250 & C300 JAMBS
2 of M12 x 75 DYNABOLTS - FOR C150 & C200 JAMBS
2 of M16 x 110 DYNABOLTS - FOR C250 & C300 JAMBS
ROLLER DOOR JAMB BASE PLATE

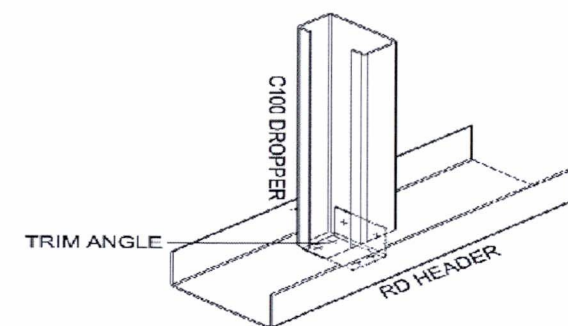


× FIXING SCREWS - 4 of 14.20 x 22 TO JAMB LIPS
- 4 of 14.20 x 22 TO TRIM ANGLE
GIRT FIXING TO ROLLER DOOR JAMBS

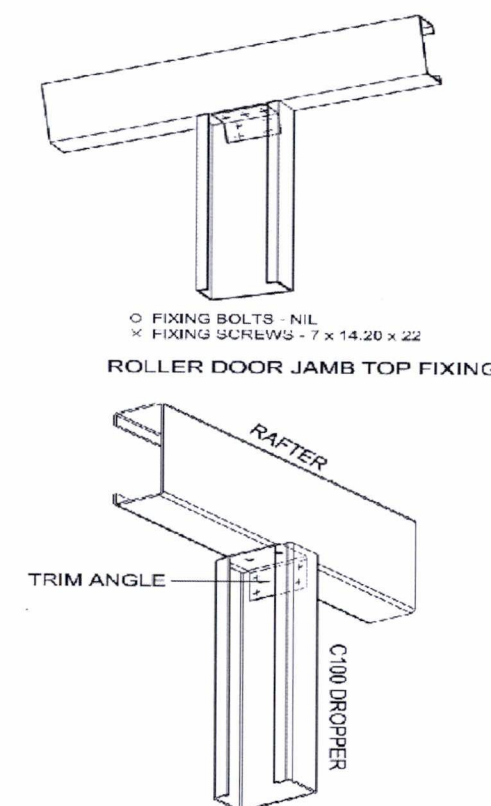


Door Width
≤ 3.1m
> 3.1m & ≤ 5.1m

Max Opening
Door width - 50mm
Door width - 100mm



× FIXING SCREWS - 6 of 14.20 x 22
DROPPER FIXING TO RD HEADER



× FIXING SCREWS - 6 of 14.20 x 22
DROPPER FIXING TO RAFTER
ROLLER DOOR DETAILS
(Door over 4.0m)
Gable end wall ONLY

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

Drawing # ZMLT180004 - 8

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Business No: 4536099
ME New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

Signature: *Pawel Mlewski* Pawel Michal Mlewski Date: 30/04/18

Fixing Instructions

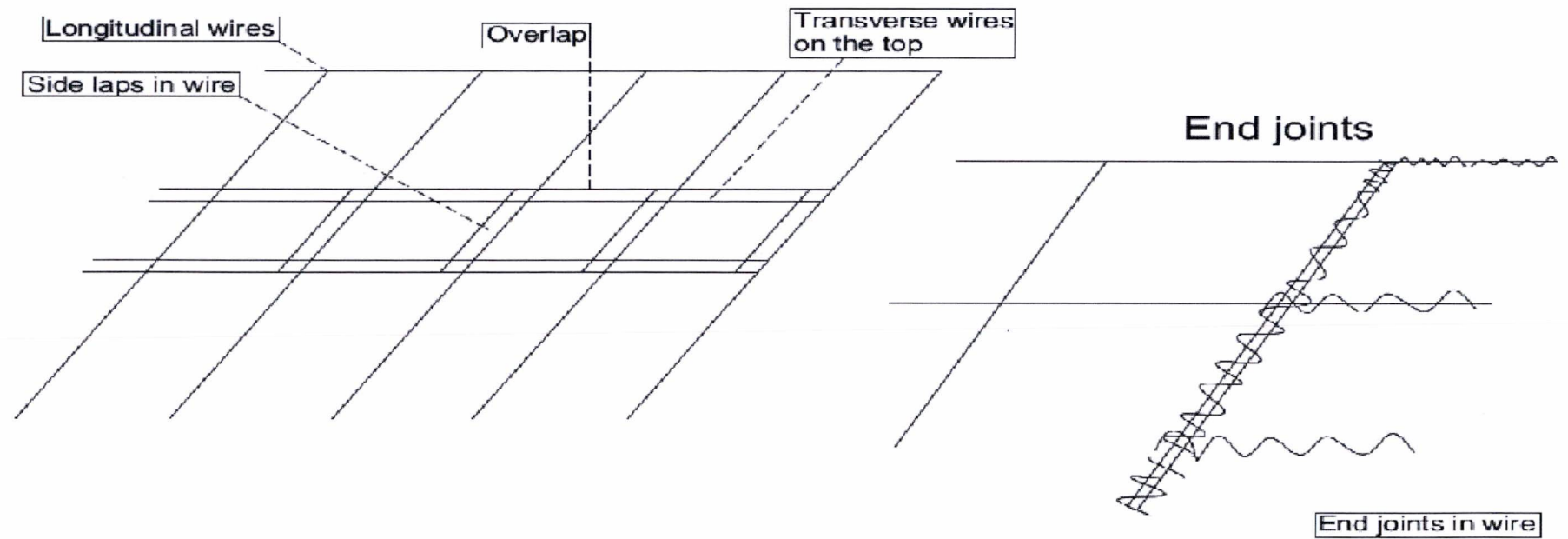
Transverse wires shall be on top of the longitudinal wires

All Longitudinal wires passed around anchor points with the tail of each wire being twisted four times around the main portion of the same wire.

End joints in wire, two transverse wires are placed together, the longitudinal tail wires (approx 300mm long) are tied around each other, one being twisted four times around the main portion of the same wire, the other longitudinal wire twisted once around the main portion of the same wire then four times around the transverse wires.

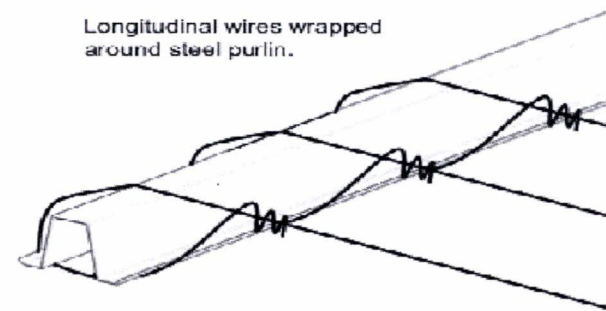
Side laps (i) For purlin spacing span/less than 1200mm, the runs of mesh shall be side-lapped by a minimum of one mesh spacing (150mm). (ii) For purlin spacing/span between 1200-2200mm, the runs of mesh shall be side-lapped by a minimum of one mesh spacing (150mm). Side laps shall be secured with ring fasteners fabricated from minimum 1.90mm diameter wire, or equivalent, fitted at maximum 900mm centres between each purlin on one side of the lap (iii) For purlin spacing/span greater than 2200mm, the runs of mesh shall be side-lapped by a minimum of two mesh spacing (300mm). Side laps shall be secured with ring fasteners fabricated from minimum 1.90mm diameter wire, or equivalent, fitted at maximum 600mm centers between purlin/span on both sides of the lap.

Toughness. Mesh shall be pulled taut to ensure only natural sag between each purlin or roof member.



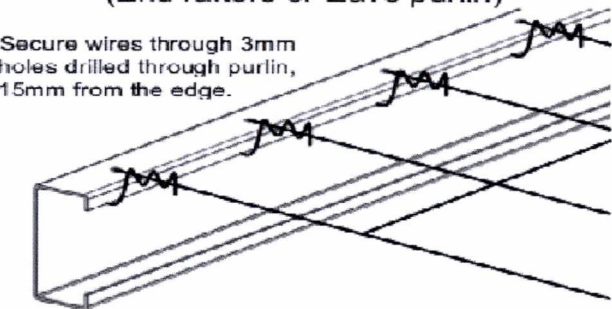
(Steel Z or Tophat purlin)

Longitudinal wires wrapped around steel purlin.



(End rafters or Eave purlin)

Secure wires through 3mm holes drilled through purlin, 15mm from the edge.



Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

Drawing # ZMLT180004 - 8

Print Date: 30/04/18

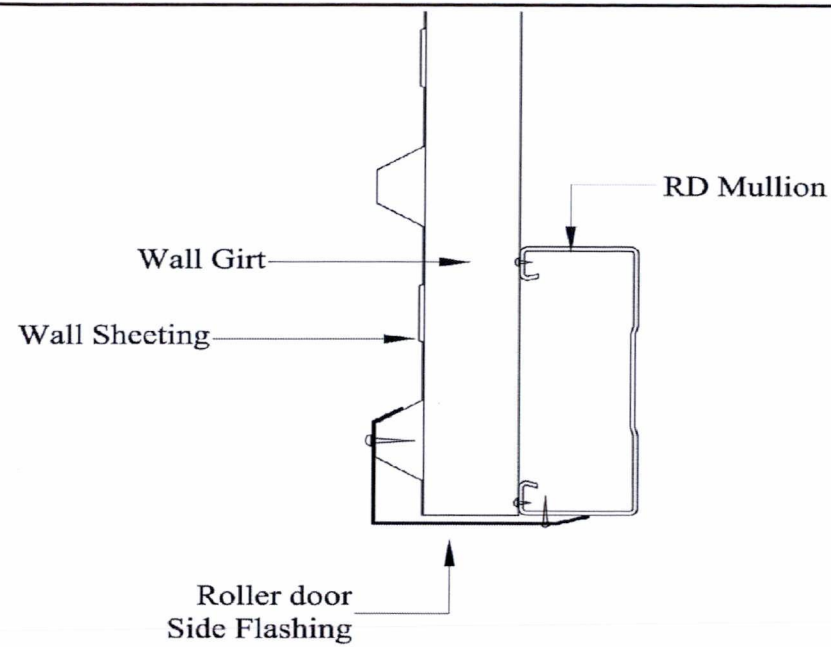
Connection Details

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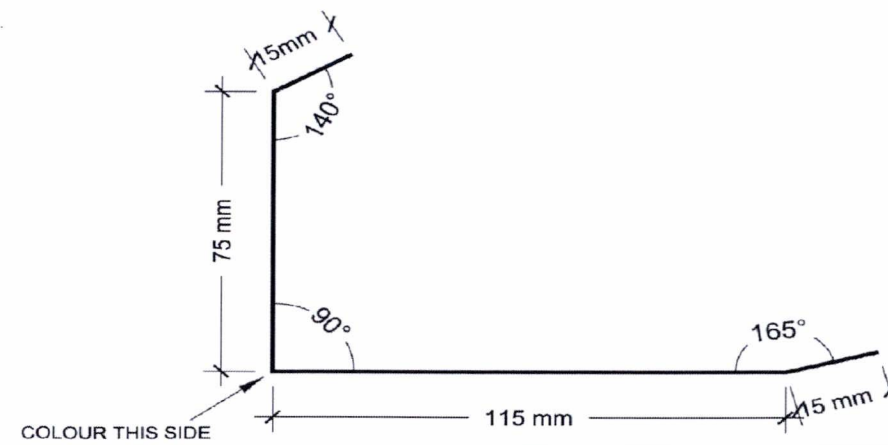
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Email: ewen.thompson@sheds.co.nz

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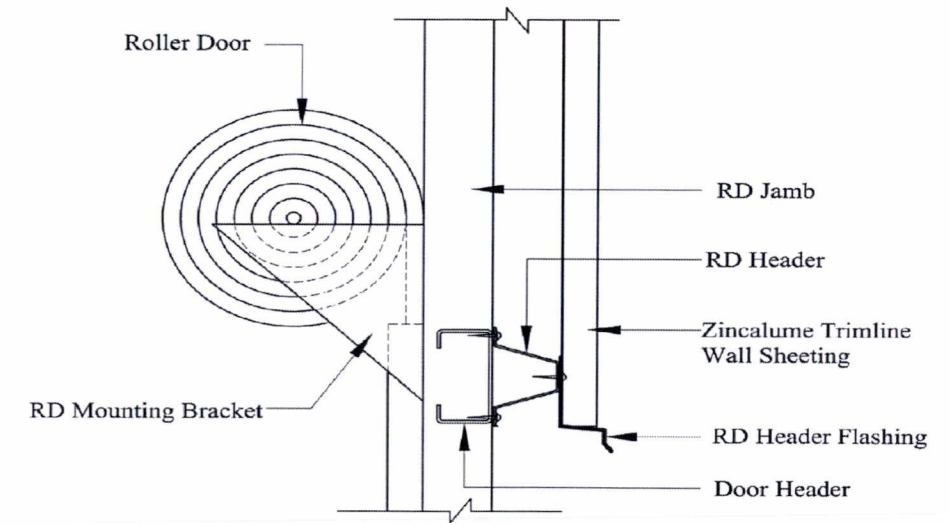
Signature: *Pawel Mlewski* Pawel Michal Mlewski Date: 30/04/18



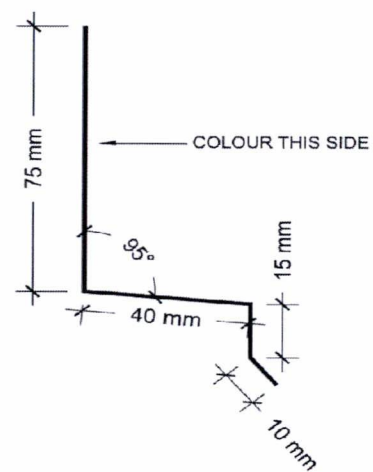
Roller Door Corner Flashing - XF 27



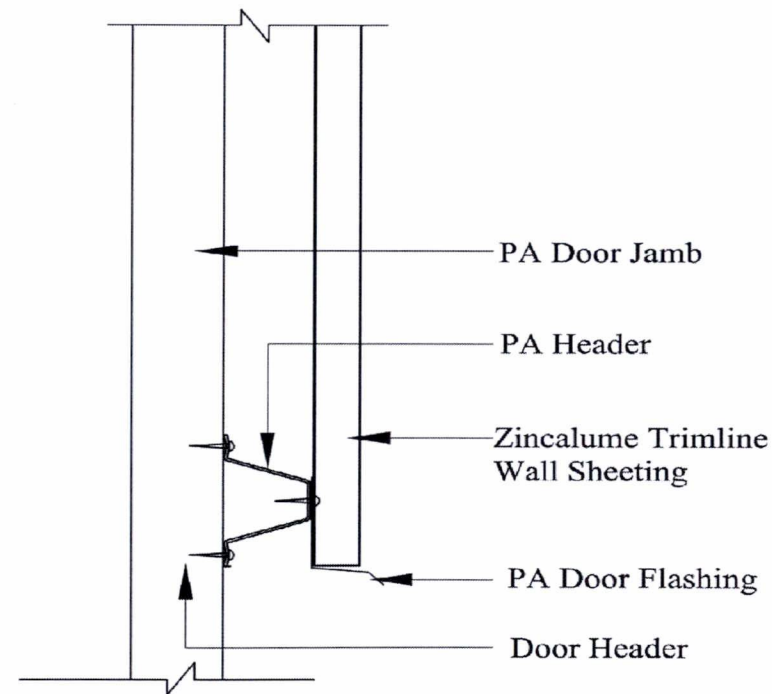
XF 27



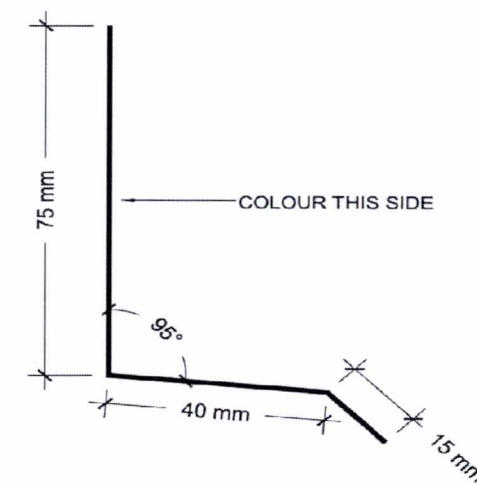
Roller Door Header Flashing - XF 30



XF 30



PA Door Header Flashing - XF 23



XF 23

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

Drawing # ZWLT180004 - 9

Print Date: 30/04/18

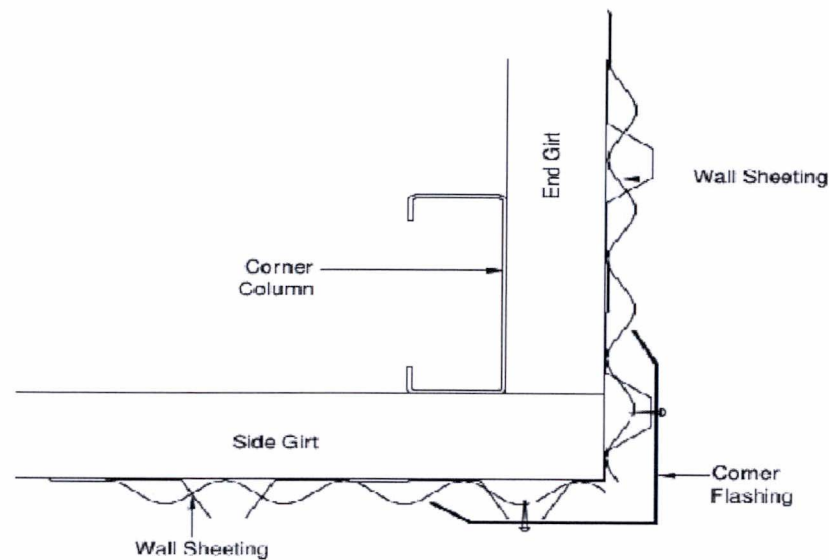
Flashing Fixing Details

Page 1 of 2
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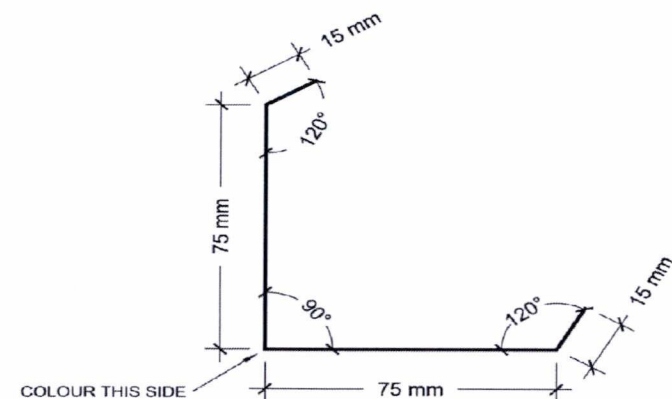
Seller: Wide Span Sheds Wellington Ltd
Wide Span Sheds Wellington Ltd
Phone: 21 925 276
Fax:
Email: ewen.thompson@sheds.co.nz

ExtraMile Consulting Limited
Business No: 4536099
ME New Zealand: CPEng. No. 1021657
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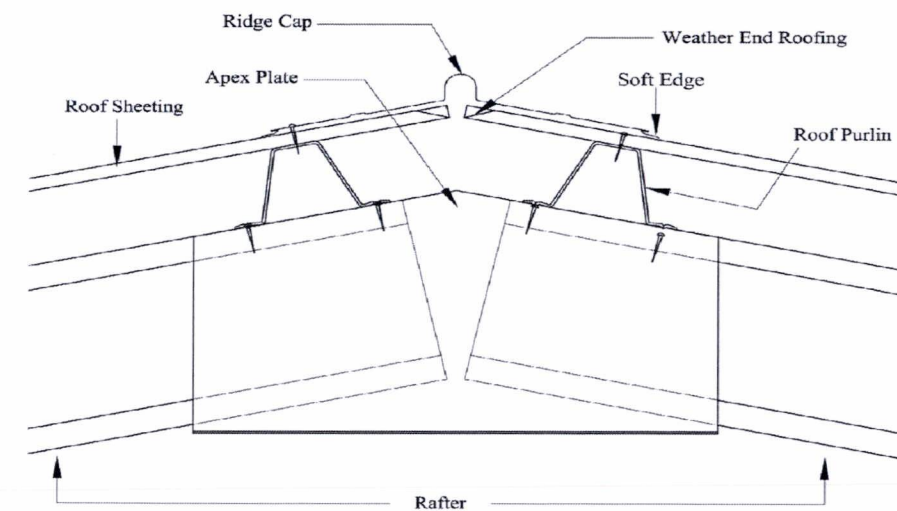
Signature: *Pawel Mchalewski* Pawel Mchalewski Date: 30/04/18



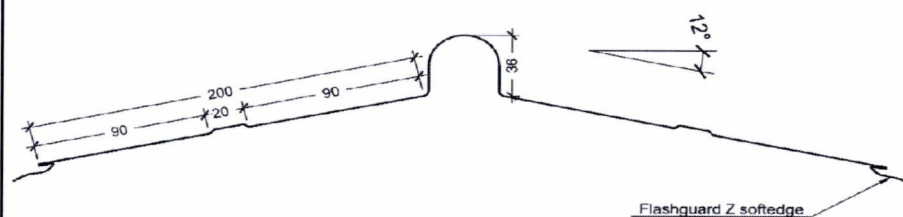
Corner Flashing XF21 - Connection



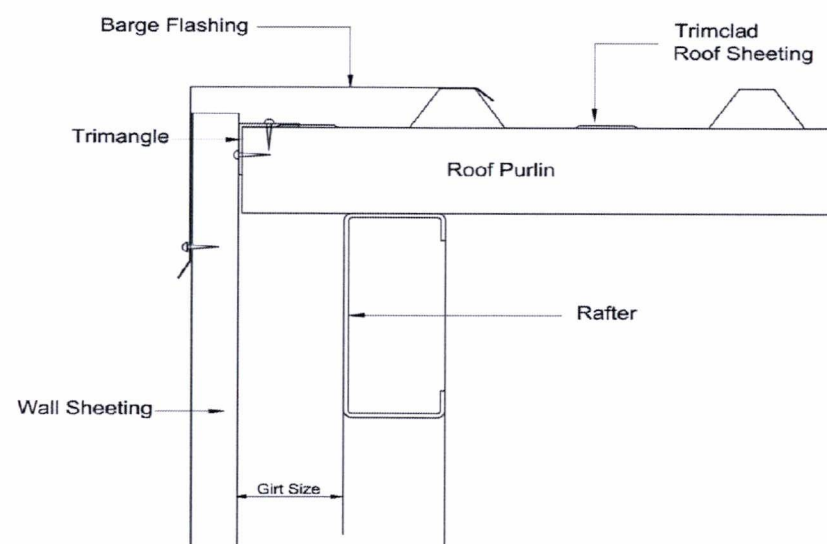
XF 21



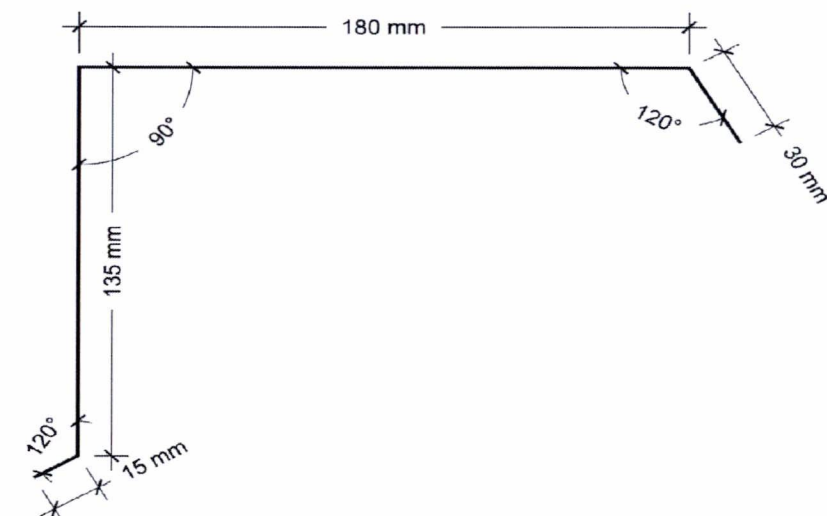
Ridge Cap - XF 83



XF 83



Barge Flashing XF11 - Connection



XF 11

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Site Address: 2 hoffs Porirua New Zealand

Drawing # ZWLT180004 - 9

Print Date: 30/04/18

Flashing Fixing Details

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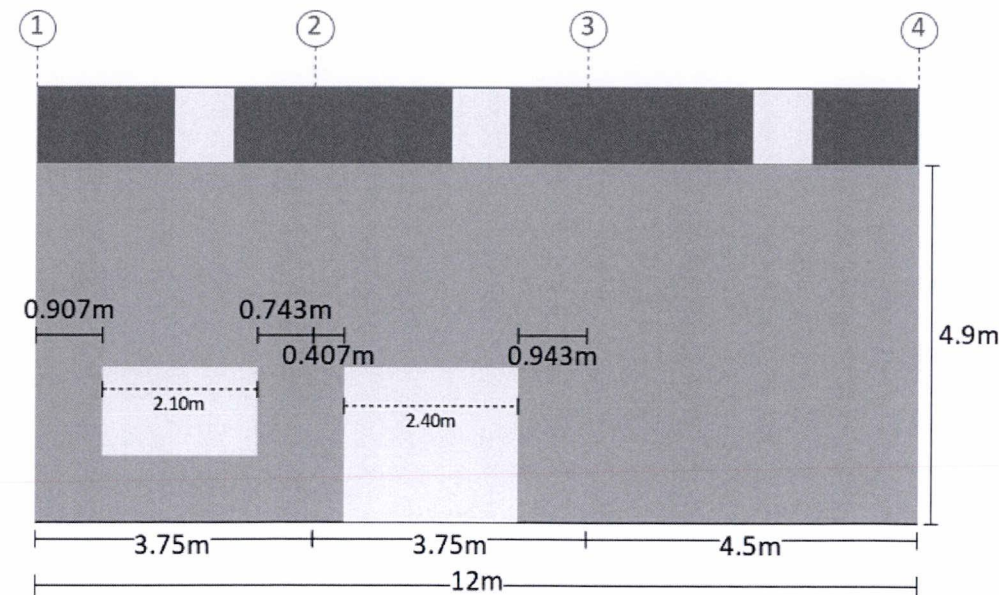
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Signature: *Pawel Mchalewski* Pawel Mchal Milewski Date: 30/04/18

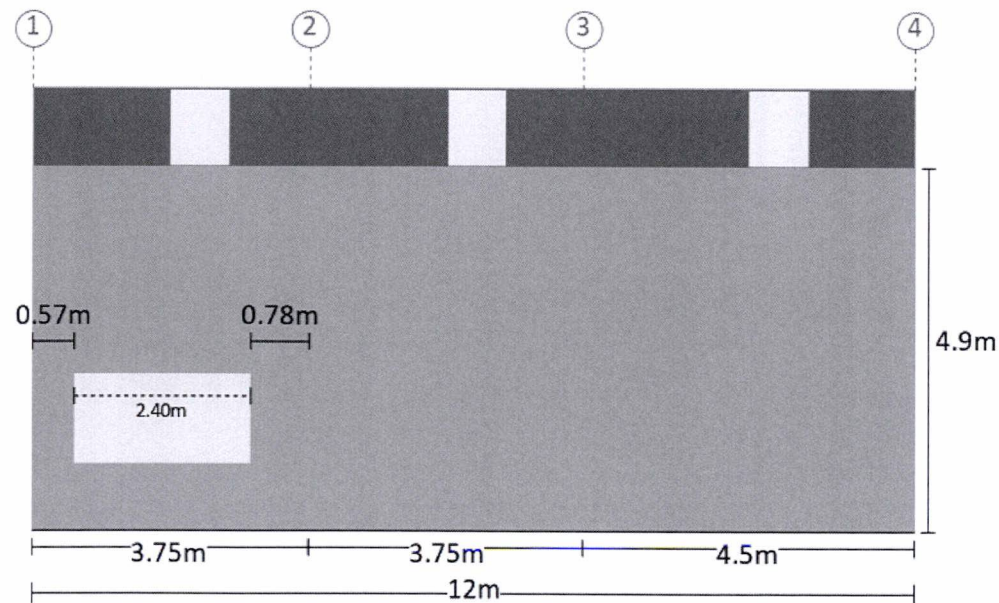
This setout is provided as a guide only. It is the responsibility of the concreter/erector to confirm that all dimensions are correct.

Left Side



Measurements are from the outside of end girts (end bays) and/or centre of columns (mid bays) to inside of component opening size.

Right Side



Measurements are from the outside of end girts (end bays) and/or centre of columns (mid bays) to inside of component opening size.

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs Porirua New Zealand

Drawing # ZWLT180004 - 10

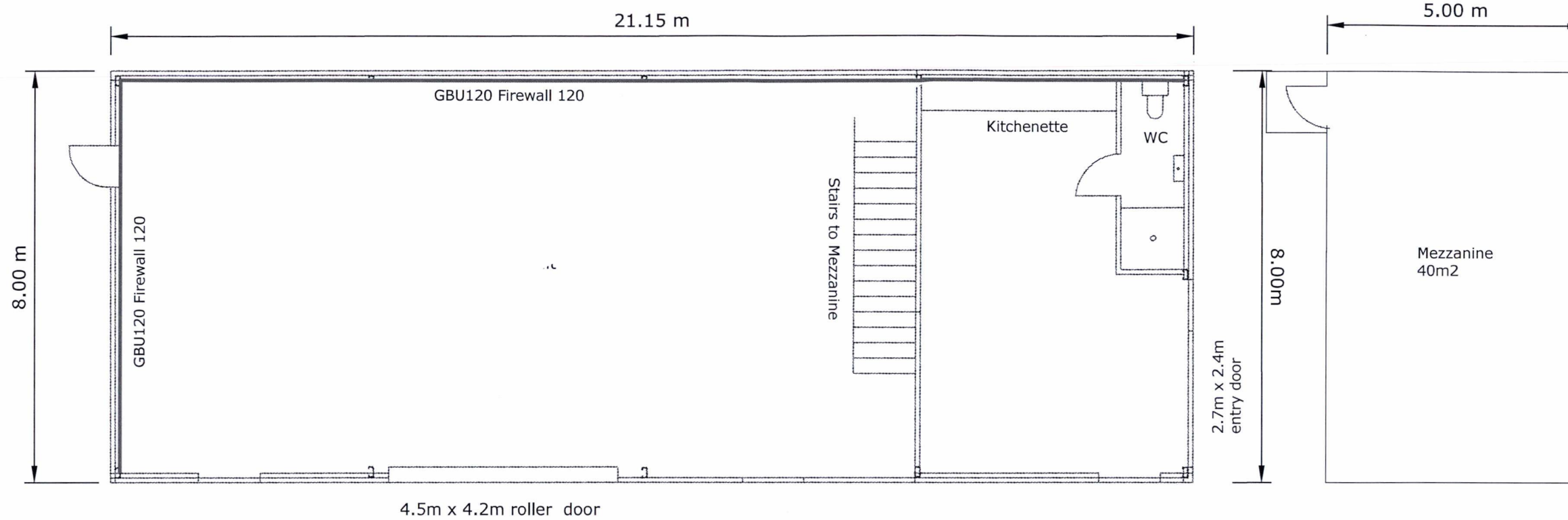
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Component Position
Not to Scale
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Practising Professional Structural & Civil Engineer

Signature: *Pawel Michal Milewski* Pawel Michal Milewski Date: 30/04/18



FIREWALLS TO WALLS AND HEIGHTS AS PER FIRE REPORT

Gib Specification GBUW 120 (120/120/120) ONE WAY FRR Timber or steel frame

Refer page 35 of attached Gib Fire rated system.

- 1) Stud spacings 600mm maximum
- 2) Frame height and dimensions to as determined by 3604 stud tables or specific design.
- 3) 2 layers of 19mm Gib Fyrelite to one side of the frame.
- 4) Use full sheets where possible.

Fasteners
 Inner layer-41mm x 6g Gib Grabber High thread drywall screws
 Outer layer-51mm x 7g screws as above

NOTE: All framing assessed as internal walls as all exterior walls are engineered as part of or steel shed structure

Floor plan unit A

SCALE: 1:100

2 Hoffs Place, PORIRUA
 Client: Brent Coutts

Connect Construction and Property Ltd
 ewen.thompson@sheds.co.nz

Wide Span Sheds
 No Compromise Steel Building Solutions

GENERAL NOTES

These documents show the general arrangement of the building and include some items not supplied (refer to the quotation for nomination of all items to be provided). All items not nominated therein shall be supplied and installed by others.

DESIGN CRITERIA

These building plans have been prepared to comply with the standards nominated in the engineer's letter and itemised details in the attached Design Information Sheet. All plans are not to Scale.

The plans provided here are the latest at the time of print. Earlier plans provided may have become outdated due to engineering changes and should not be used. The plans and drawings are extensive and give all the information needed for a competent person to erect the building. The building is not designed to stand up by itself when it is partially complete. Consequently, construction bracing is critical during erection.

The owner has been requested to check off the BOM after the building delivery. You should check that you are able to locate all materials nominated in the BOM. You should also confirm that the length and size (including thickness), nominated in the BOM is what has been provided. Any missing items are the responsibility of the client once correct delivery has been confirmed as per Terms and Conditions of Sale.

ADDITIONAL DOCUMENTATION TO BE SUPPLIED BY PURCHASER/OWNER

The Purchaser/Owner is responsible for:
*Provision of Soils Report for the site and in the building area on which the building is to be erected
*Site/Drainage Plans
*Any other plans not covered by these engineering plans requested by the local Council or the authority

BUILDING CONSTRUCTION REQUIREMENTS

The Purchaser/Owner is to be ensured that all building construction is carried out in accordance with the Plans, the Construction Manual and the Bill of Materials (BOM).

SLAB AND/OR PIER DETAILS - GENERAL

* The minimum size of Piers under the columns and End Wall Mullions are nominated on the Material Specifications Plan. When the slab and piers are poured as one pour, the depth of the pier is to the bottom of the slab.
* Pier Reinforcement: for any piers over 1100mm, deformed bar to within 100mm of base and minimum 75mm top cover. Minimum side cover 75mm, maximum 100mm. Rod to be caged horizontally at least twice and at a maximum of 300mm spacing. Where pier diameter is less than 450mm diameter, use 6 D12. For diameters equal to and over 450mm, use 8 D16.* Column support piers for dividing wall mullions are not shown and should be of the same size and spacing as the end wall mullion piers.
* Column supports for mezzanine bearer internal support columns are not shown and should be of the same size and spacing as the end wall mullion piers.
* Where columns or end wall mullions have been removed, piers are not required.
* End wall mullion spacing may move due to location of openings or doors. Check layout and component position plan, and relocate piers as required.
* Footings and slabs, including internal and edge beams, must be founded on good ground with a minimum allowable bearing capacity of 300kPa. Design covers for

a class 5 building.
* The footing designs have been calculated with adhesion values of 0kPa, 25kPa and 50kPa for clay soils and dense sand soils only.
* Site conditions different to those specified require a modified design.
* Sub grade shall be excavated and compacted to a minimum of 100% standard dry density ratio and within 2% of the OMC to comply with AS2159.
* A site specific geotechnical investigation has not been performed, uno.
* Designs are in accordance with NZS 3101 and AS/NZS 4671
* All concrete to be in accordance with NZS 3101 and AS/NZS 4671. Minimum 25 Mpa, with 80mm slump. 40 MPa located in coastal/sea spray regions.
* Concrete should be cured for 7 days before commencing construction of the building.

Concrete Slab

*
* Concrete piers under Roller Door Jambs and Mezzanine Mid posts to be a minimum size as below:
C25019 - 450mm dia x 550mm deep, centered to the C Section
C30023 - 600mm dia x 650mm deep, centered to the C Section
Where heavy traffic is to go through the roller door, it is recommended that the slab edge should be thickened to 200mm deep by 300mm wide for the length between the mullions. Place an additional section of 665 mesh, 50mm from the base in all thickenings.

Concrete Piers Only

* * Concrete piers under Roller Door Jambs and Mezzanine Mid posts to be a minimum size as below:
C25019 - 450mm dia x 1100mm deep, centered to the C Section
C30023 - 600mm dia x 1300mm deep, centered to the C Section

BRACING NOTES

* Refer to Connection Details.
* Knee bracing clearance from FFL is X = Main Building: 4.020m.
* All Cross Bracing (roof) is achieved with 1.6mm Strap G450
* Cross bracing is to be fixed taut and secured with 14.20 x 22 frame screws at each end, quantity as per connection details.
* Fly bracing to be fixed to the purlins/girts at all mid portal rafters, columns and end wall mullions. The spacing between fly braces is determined by column/rafter sizes as follows:

C150 - maximum 1800mm spacing
C200, C250 - maximum 2200mm spacing
C300 - maximum 2800mm spacing
C350 - maximum 3400mm spacing

Initial measurement is from the haunch of the column/rafter, and from the rafter for any end wall mullions.
* Open bays to have fly bracing fitted to every available girt supporting the header sheets.
* Where windows/GSD are placed in any bay where cross bracing is shown, then
a) this can be replaced by moving the bracing to another bay OR
b) due to the bracing provided by the window jambs, where space permits, bracing should be placed under and over the window.
* All bracing strap ends to be located as close as practical to structural members (columns, rafters, mullions) centerline.

BOLTS

* Unless otherwise nominated, all bolts are grade 4.6
* All tensioned bolts shall be tensioned using the part turn method (refer to AS4100). For the erector, full details are in the construction manual.

MEZZANINE FLOOR

*Mezzanine floor designed for 3kPa live loading.
*No point loads allowed for.

OTHER MATERIALS NOTES

* All Sheeting, Flashing and framing screws are Climaseal 4.
* All purlin material has Z350 zinc coating with minimum strength of 450MPa.

Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWLT180002 - 2

Print Date: 03/04/18

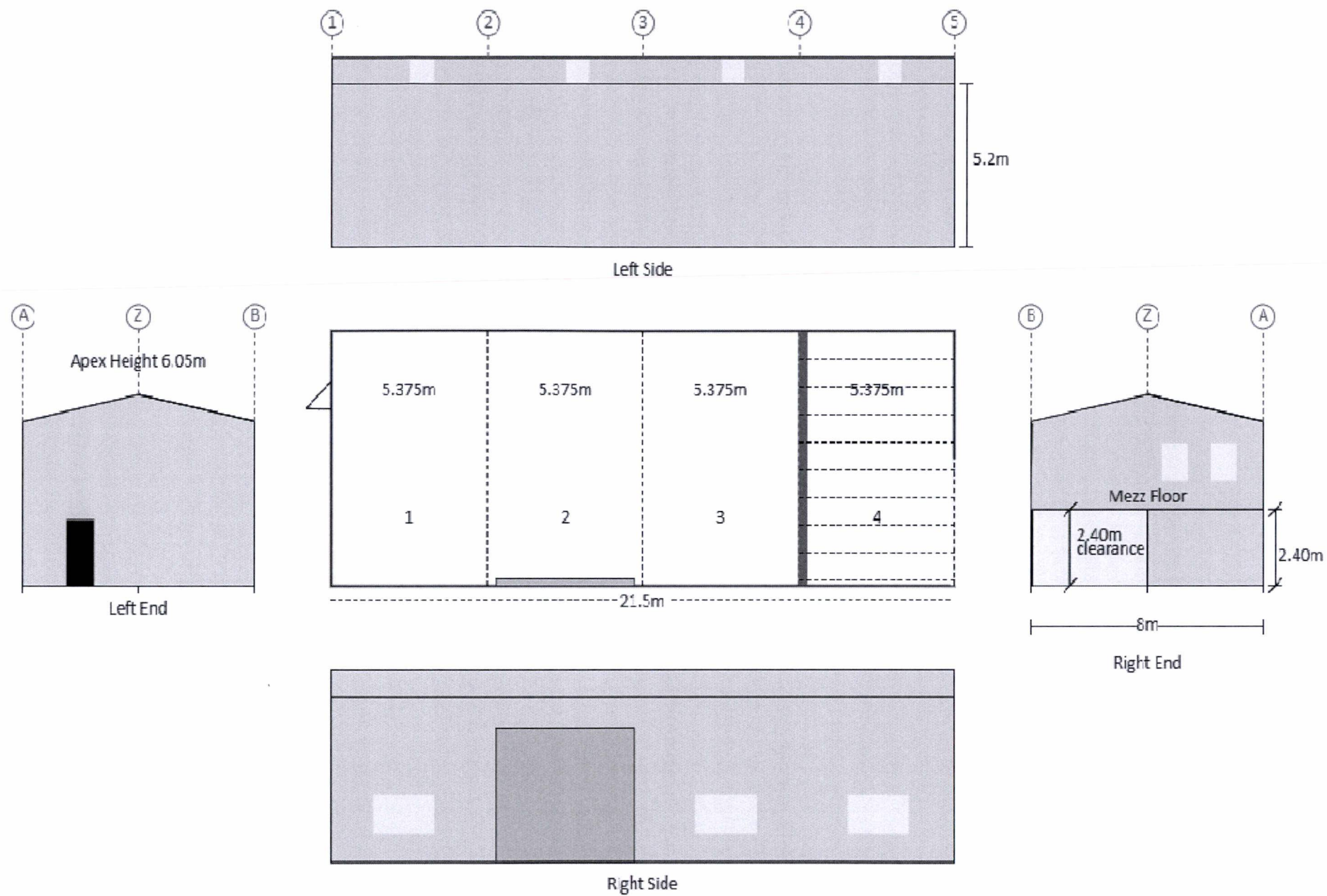
General Notes

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Fax:
Email: ewen.thompson@sheds.co.nz

ExtraMie Consulting Limited
Business No: 4536099
ME New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

Signature: Pawel Michal Milewski Date: 03/04/18



Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZMLT180002 - 3

Print Date: 03/04/18

Layout
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Practising Professional Structural & Civil Engineer

Signature: *Pawel Michal Milewski* Pawel Michal Milewski Date: 03/04/18

MATERIAL SPECIFICATIONS

For further information regarding the tabulated values shown, refer to the General Notes

Building Dimensions						
Categories	Span	Length	Pitch	Height	Grid(s)	Portal(s)
Main Building	8	21.5	12	5.2	A - B	1 - 5

Portal Frame Elements						
Grid / Portal Number		1	2	3	4	5
Columns	A	C20023	C35023	C35023	C35023	C20023
	B	C20023	C35023	C35023	C35023	C20023
Rafters	A- Apex	C20023	C30023	C30023	C30023	C20023
	Apex - B	C20023	C30023	C30023	C30023	C20023
End Wall Mullions	Z	C20018	-	-	C35023	C15018
Apex Braces	Apex	-	C25024 @ 2.4m	C25024 @ 2.4m	-	-
Knee Braces	A- Apex	-	C25024 @ 1.7m	C25024 @ 1.7m	-	-
	Apex - B	-	C25024 @ 1.7m	C25024 @ 1.7m	-	-
Mezz Bearers	A - B	-	-	-	C30023	C30023
Mezz Bearer Support	A	-	-	-	C20023	2C35023
	Z	-	-	-	C30023	C30023
	B	-	-	-	C20023	2C35023

Bay Section Elements					
Grid / Bay Number		1	2	3	4
Bay Widths		5.375	5.375	5.375	5.375
Roof Purlins	A - Apex	TH150115	TH150115	TH150115	TH150115
	Apex - B	TH150115	TH150115	TH150115	TH150115
Roof Purlin Spacing (End)	A - Apex	1.346	1.346	1.346	1.346
	Apex - B	1.346	1.346	1.346	1.346
Roof Purlin Spacing (Internal Spans)	A - Apex	1.346	1.346	1.346	1.346
	Apex - B	1.346	1.346	1.346	1.346
Eave Purlin	A	MC15015	MC15015	MC15015	MC15015
	B	MC15015	MC15015	MC15015	MC15015
Side Girts	A	TH150100	TH150100	TH150100	TH150100
	B	TH150115	TH150100	TH150100	TH150100
Side Girts Spacing (End)	A	1.238	1.238	1.238	1.238
	B	1.238	1.238	1.238	1.238
Side Girts Spacing (Internal)	A	1.238	1.238	1.238	1.238
	B	1.238	1.238	1.238	1.238
Mezz Floor Joists	A - B	-	-	-	C25018
Roller Door Header	B	-	C15012	-	-
Roller Door Jamb	B	-	C25019	-	-

End Bay Section Elements				
Grid / Portal Number		1	4	5
End Girts	A - Z	TH120075	TH120075	TH120100
	Z - B	TH120075	TH120075	TH120100
End Girts Spacing (End)	A - Z	1.238	1.238	1.238
	Z - B	1.238	1.238	1.238
End Girts Spacing (Internal)	A - Z	1.238	1.238	1.238
	Z - B	1.238	1.238	1.238
PA Door Header	A - Z	C10010	-	-
	Z - B	-	-	-
PA Door Jamb	A - Z	C10012	-	-
	Z - B	-	-	-

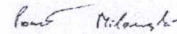
Cladding Elements		
Category	Colour	Product
Roof Sheeting	Colorsteel	High Profile 0.40 BMT
Roof Flashings	Colorsteel	BlueScope 0.55 BMT
Wall Sheeting	Colorsteel	High Profile 0.40 BMT
Wall Flashing	Colorsteel	BlueScope 0.55 BMT

Purchaser Name: Connect Construction and Property Limited		Specification Sheet Page 1 of 2 © Copyright Steelx IP Pty Ltd	Seller: Wide Span Sheds Wellington Ltd Wide Span Sheds Wellington Ltd Phone: 21 925 276 Fax: Email: ewen.thompson@sheds.co.nz	ExtraMile Consulting Limited Business No: 4536099 ME New Zealand: CPEng. No. 1021657 Practising Professional Structural & Civil Engineer Signature:  Pawel Michal Milewski Date: 03/04/18
Site Address: 2 hoffs place Porirua New Zealand				
Drawing # ZVLT180002 - 4	Print Date: 03/04/18			

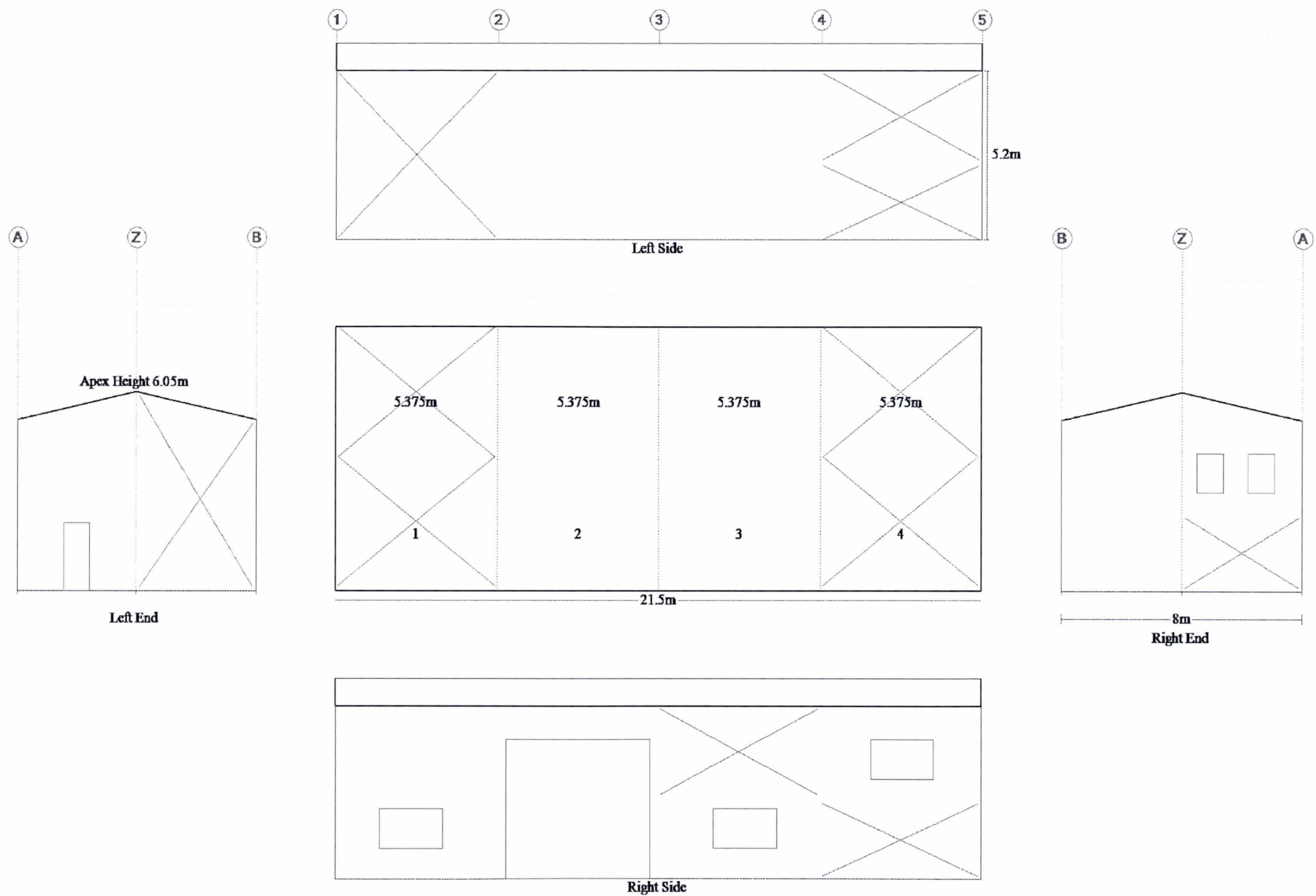
MATERIAL SPECIFICATIONS

For further information regarding the tabulated values shown, refer to the General Notes

			Pier Sizes			
			Depth - when NO Slab		Depth - with Slab	
Adhesion (kPa)	Soil Description	Diameter (mm)	BP1 (mm)	BP2 (mm)	BP1 (mm)	BP2 (mm)
0	Sandy Soil	300	-	-	-	-
		450	1800	-	1400	-
		600	1400	2100	1000	1700
25	Soft to Firm Clay	300	-	-	-	-
		450	1200	-	1000	-
		600	1100	1500	1000	1300
50	Stiff to Very Stiff Clay	300	-	-	-	-
		450	1100	-	1000	-
		600	1100	1300	1000	1200

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Site Address: 2 hoffs place Porirua New Zealand				
Drawing # ZWMLT180002 - 4	Print Date: 03/04/18			

Cross Bracing (roof) is achieved with 1.6mm Strap. Refer to Connection Details.
Cross Bracing (walls) is achieved with 1.6mm Strap (double strapping). Refer to Connection Details.



Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWL180002 - 5

Print Date: 03/04/18

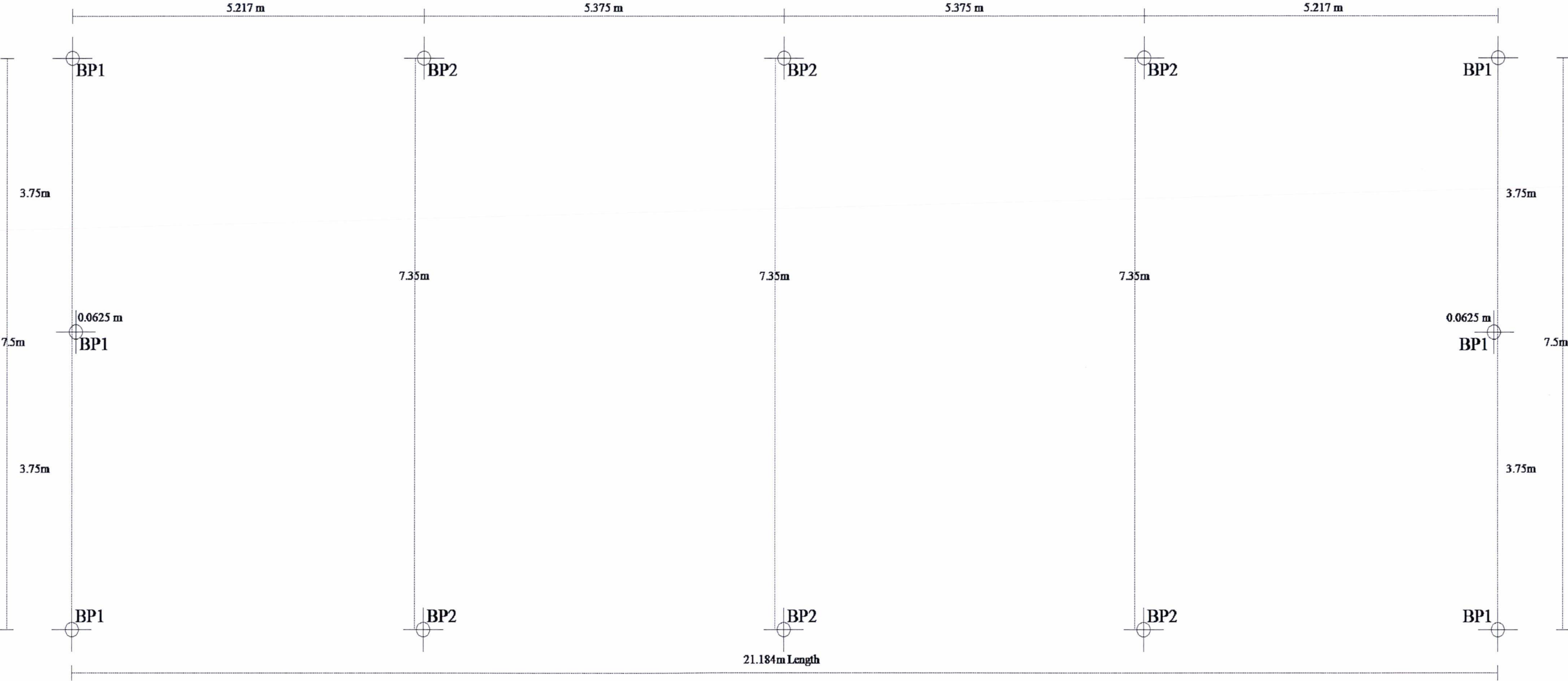
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Signature: *Pawel Mlewski* Pawel Michal Mlewski Date: 03/04/18

Refer to Material Specifications Plan for BP dimensions.



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Drawing # ZWLT180002 - 6

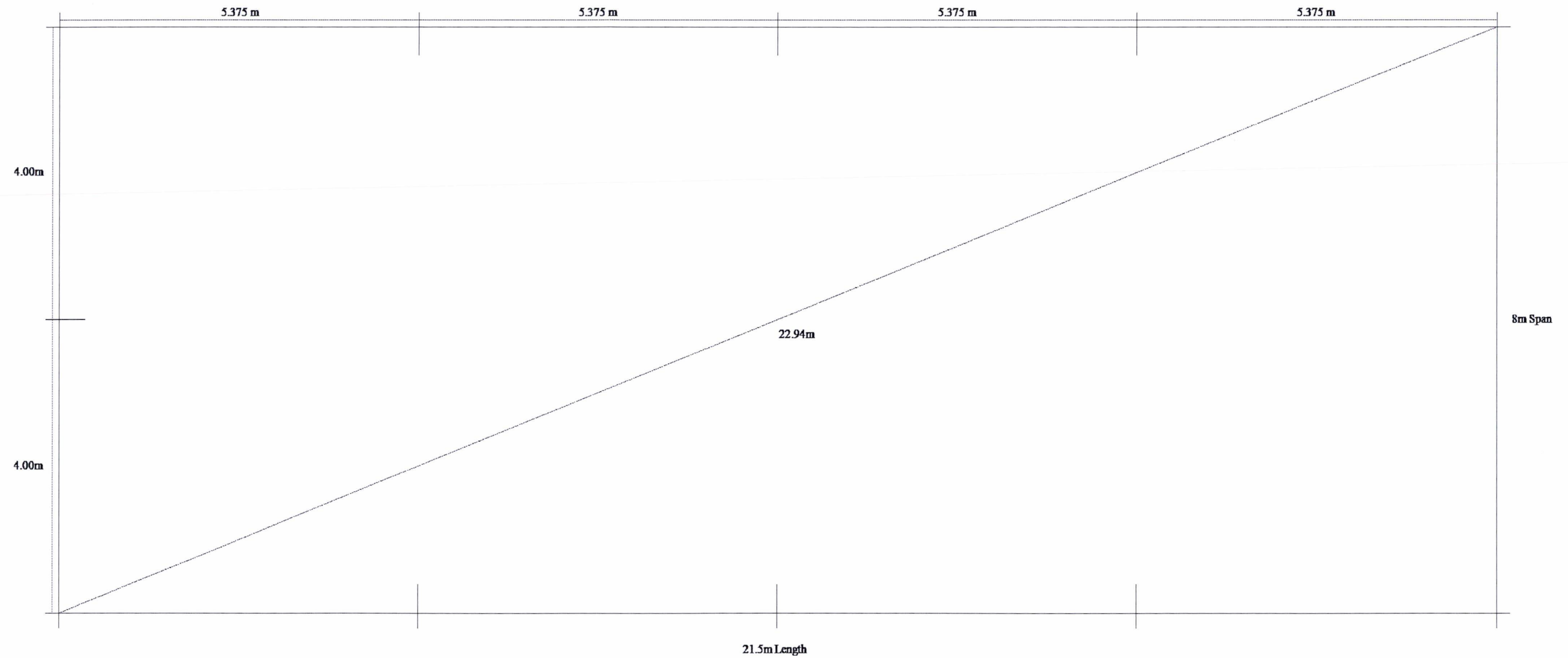
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Concrete Piers
PIER MEASUREMENT ONLY
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Drawing # ZMLT180002 - 7

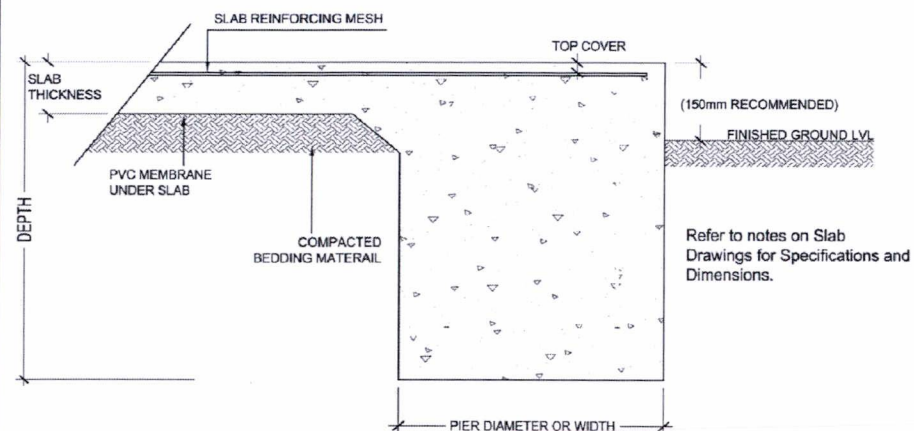
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Slab Dimensions
Also refer to Concrete Piers Plan
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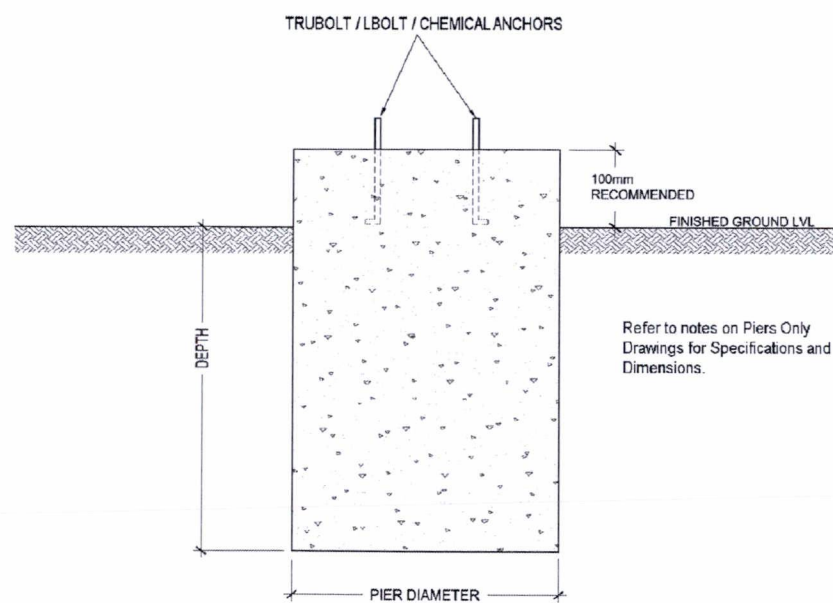
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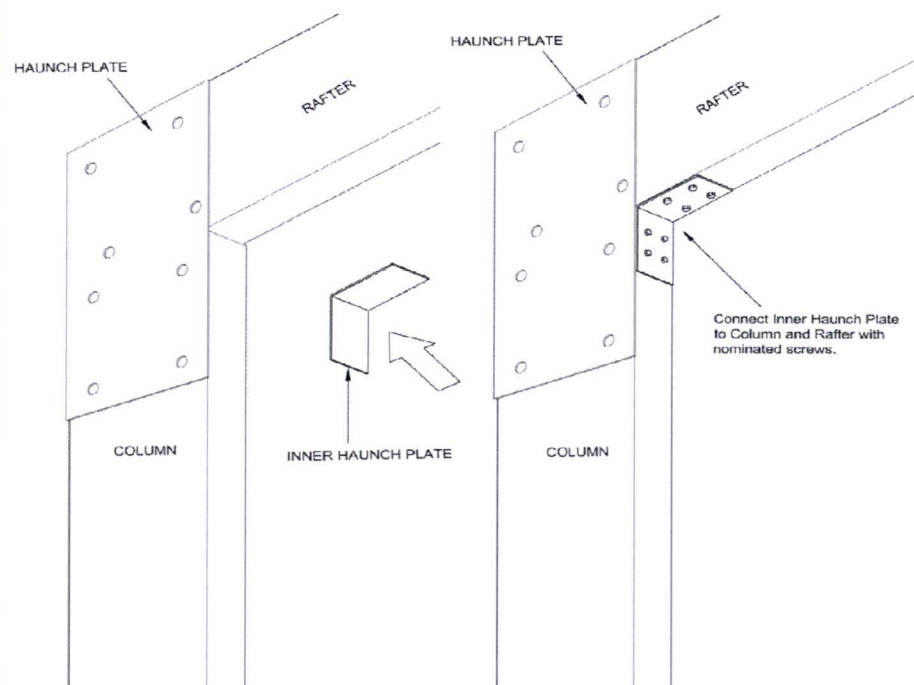
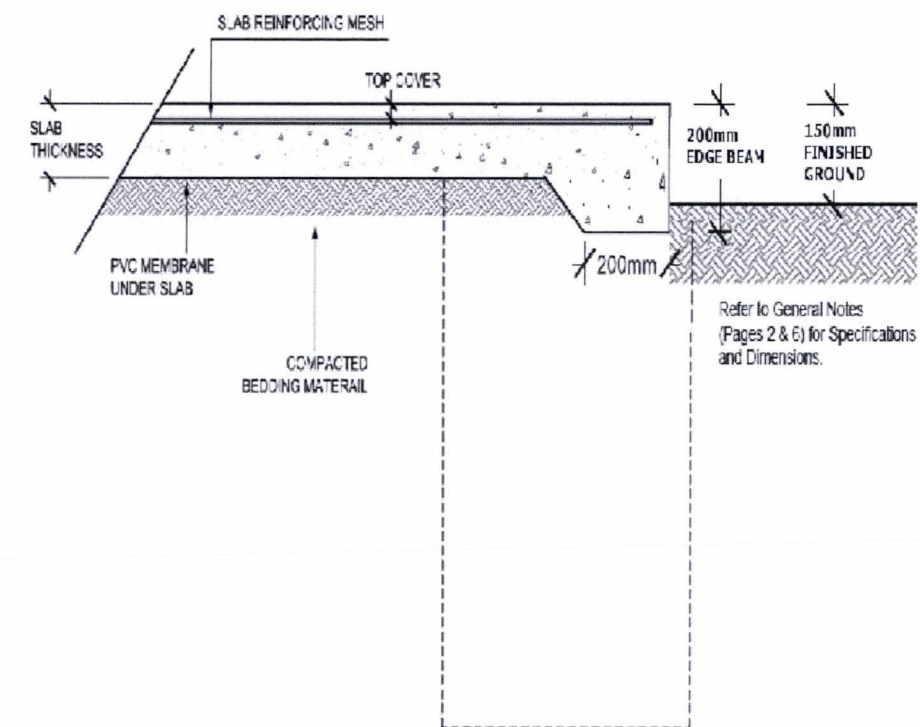
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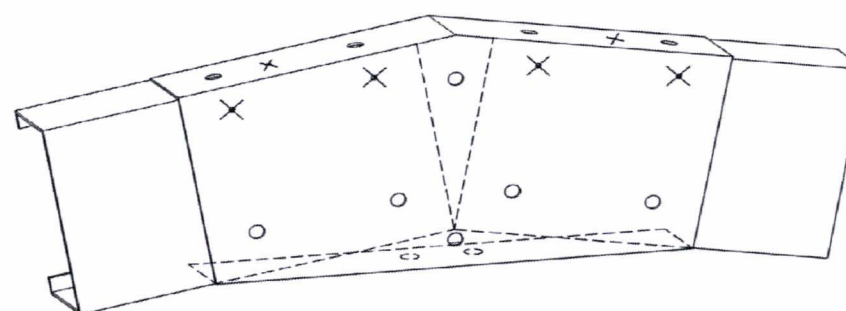
SLAB AND PIER DETAIL



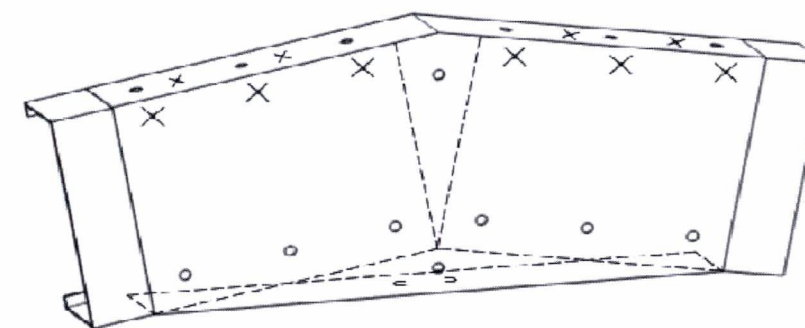
BORED PIER



FIXING SCREWS - 8 of 14.20 x 22
INNER HAUNCH BRACKET - SINGLE



○ FIXING BOLTS - 8 of M12 x 30
× FIXING SCREWS - 6 of 14.20 x 22
APEX PLATE C200, 12 deg



○ FIXING BOLTS - 16 of M16 x 30
× FIXING SCREWS - 10 of 14.20 x 22
APEX PLATE C300, 12 deg

Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWLT180002 - 8

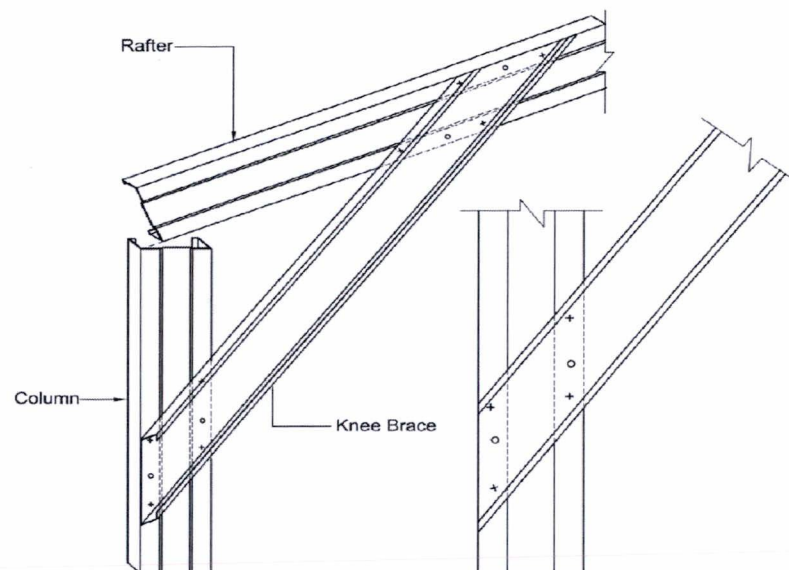
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Connection Details
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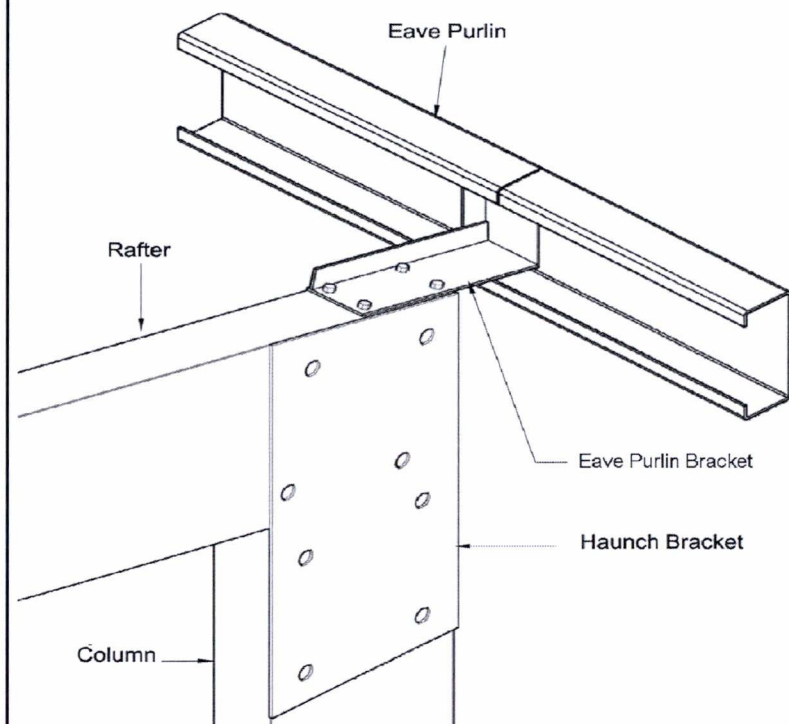
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Practising Professional Structural & Civil Engineer

Signature: *Pawel Milewski* Pawel Michal Milewski Date: 03/04/18

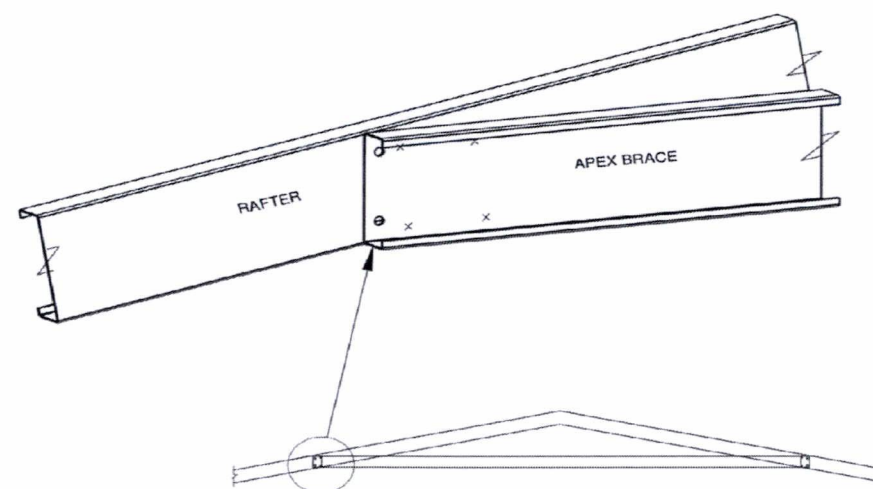


○ FIXING BOLTS - 4 of M16 x 35 (8.8)
× FIXING SCREWS - 8 of 14.20 x 22

KNEE BRACE FOR C350 COLUMN/RAFTER

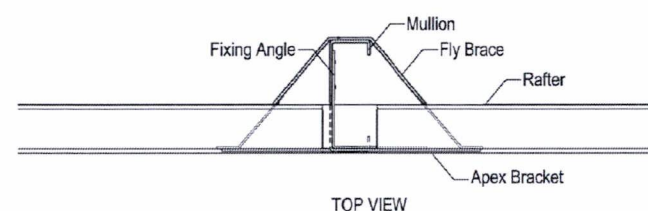


FIXING SCREWS - 4 of 14.20 x 22
EAVE PURLIN BRACKET TO RAFTER

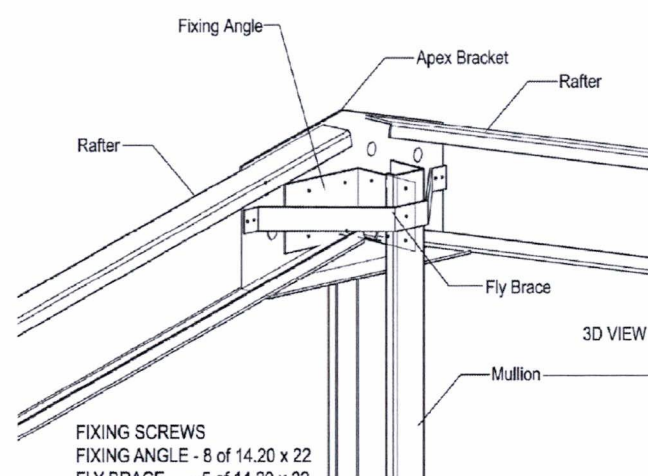


○ FIXING BOLTS - 2 of M16 x 40
× FIXING SCREWS - 4 of 14.20 x 22

APEX BRACE FOR SINGLE RAFTER



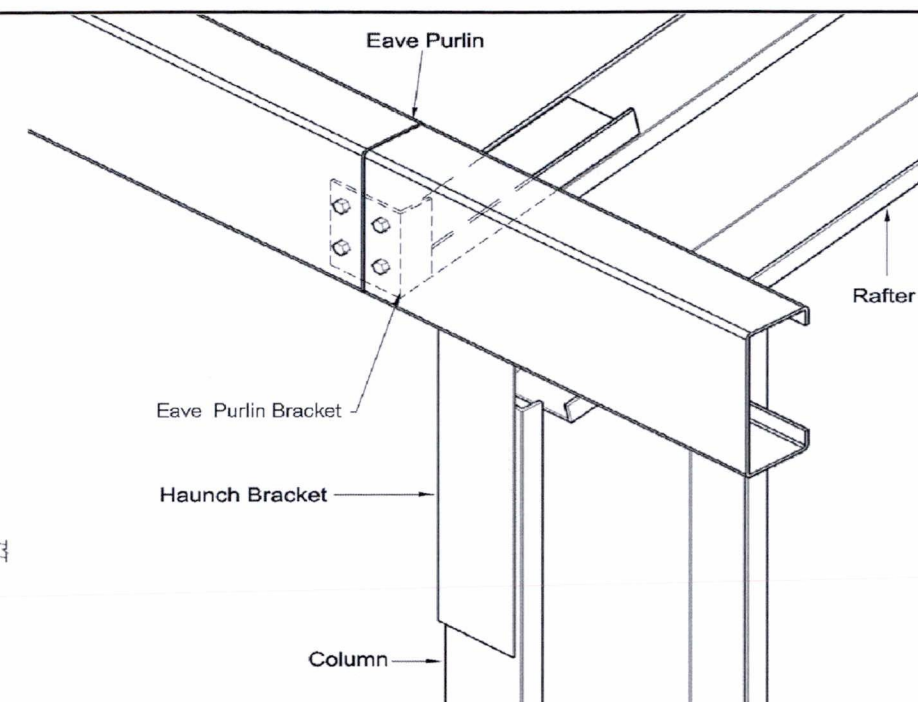
TOP VIEW



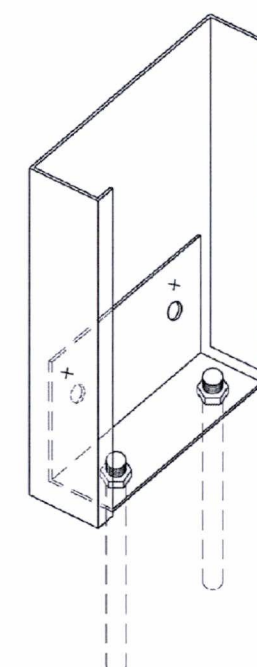
3D VIEW

FIXING SCREWS
FIXING ANGLE - 8 of 14.20 x 22
FLY BRACE - 5 of 14.20 x 22

END WALL MULLION TO APEX



FIXING SCREWS - 4 of 14.20 x 22
EAVE PURLIN TO EAVE PURLIN BRACKET



× FIXING SCREWS - 2 of 14.20 x 22
○ FIXING BOLTS - 2 of M12 x 30
2 of M12 TRUBOLT
C200 MULLION BASE PLATE

Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWLT180002 - 8

Print Date: 03/04/18

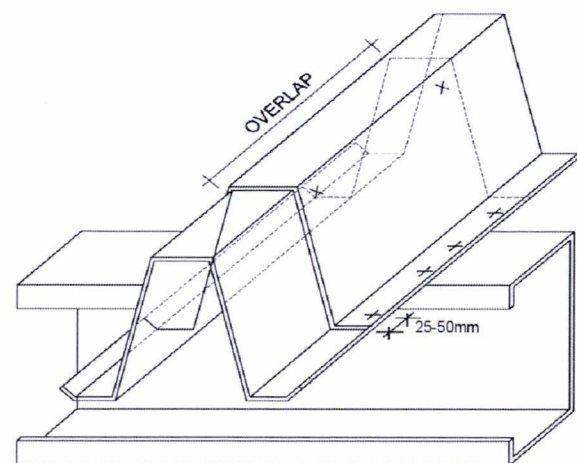
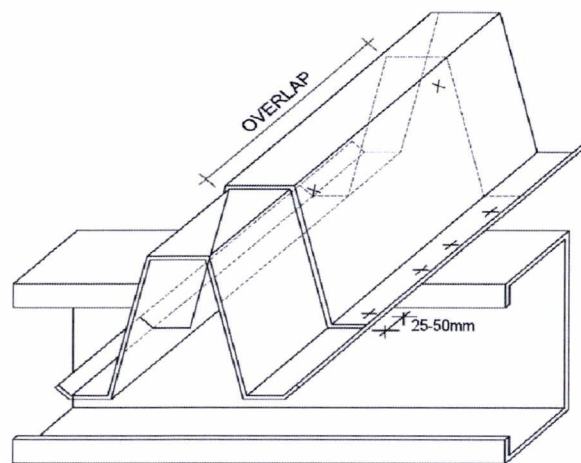
Connection Details

Page 2 of 8
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Seller: Wide Span Sheds Wellington Ltd
Wide Span Sheds Wellington Ltd
Phone: 21 925 276
Fax:
Email: ewen.thompson@sheds.co.nz

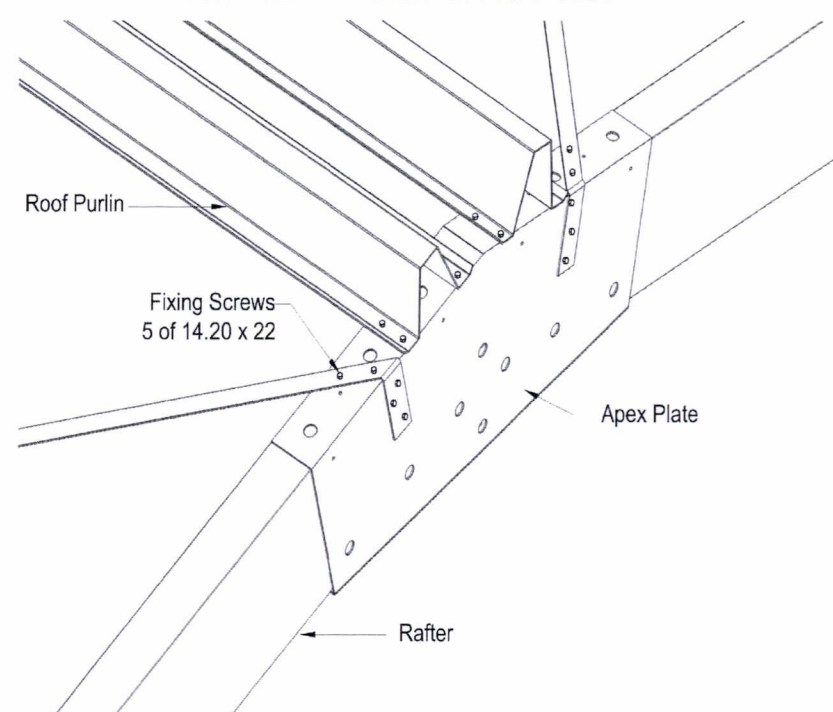
ExtraMile Consulting Limited
Business No: 4536099
ME New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

Signature: *Pawel Mchalewski* Pawel Mchalewski Date: 03/04/18

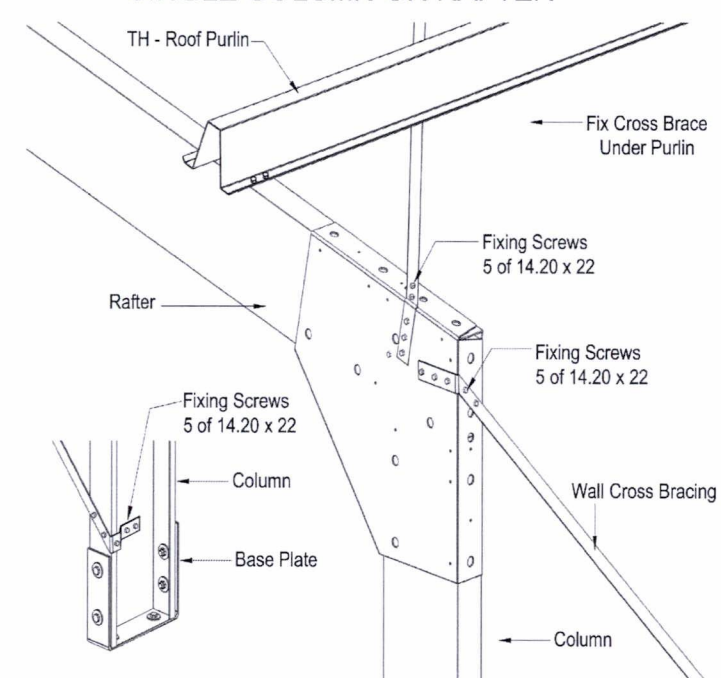


× FIXING SCREWS - 12 of 14.20 x 22
LAP = Greater of 10% of span or 500 mm
PURLIN/GIRT FIXING - TOPHAT 120
SINGLE COLUMN OR RAFTER

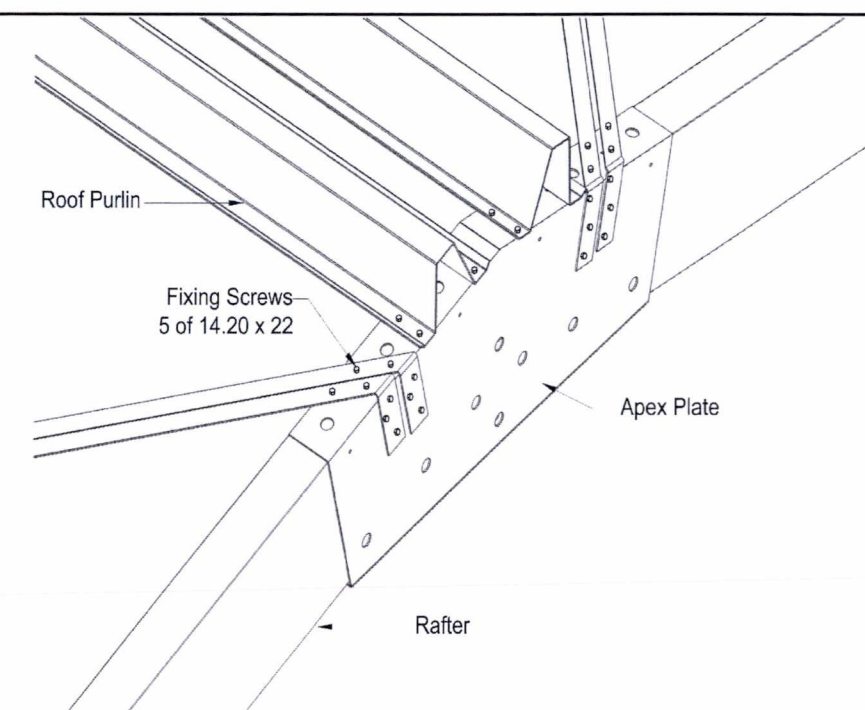
× FIXING SCREWS - 12 of 14.20 x 22
LAP = Greater of 10% of span or 500 mm
PURLIN/GIRT FIXING - TOPHAT 150
SINGLE COLUMN OR RAFTER



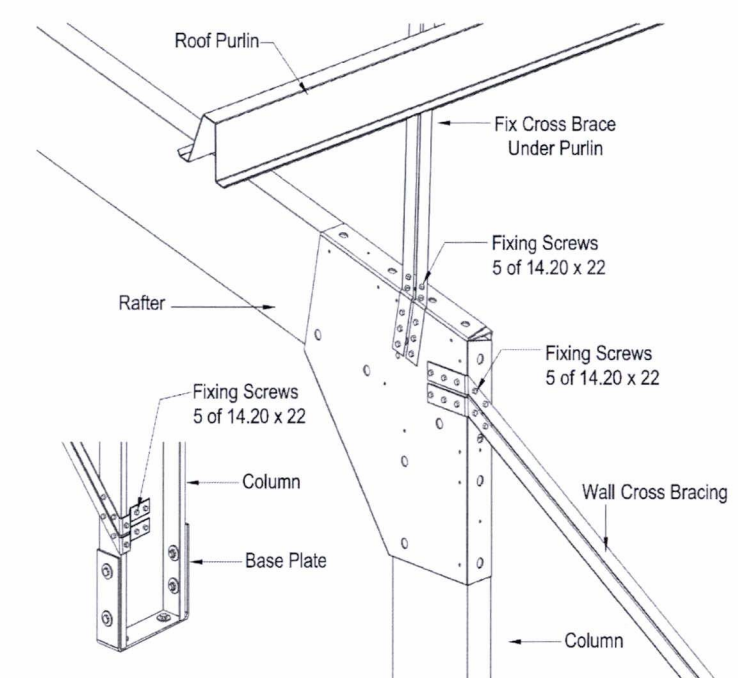
BRACING CONNECTION AT APEX



BRACING CONNECTION

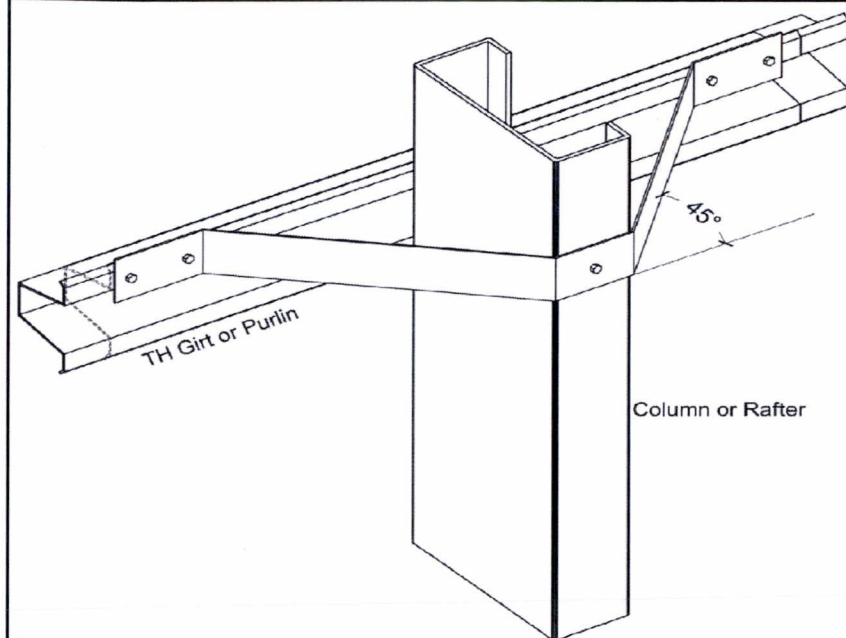


BRACING CONNECTION AT APEX

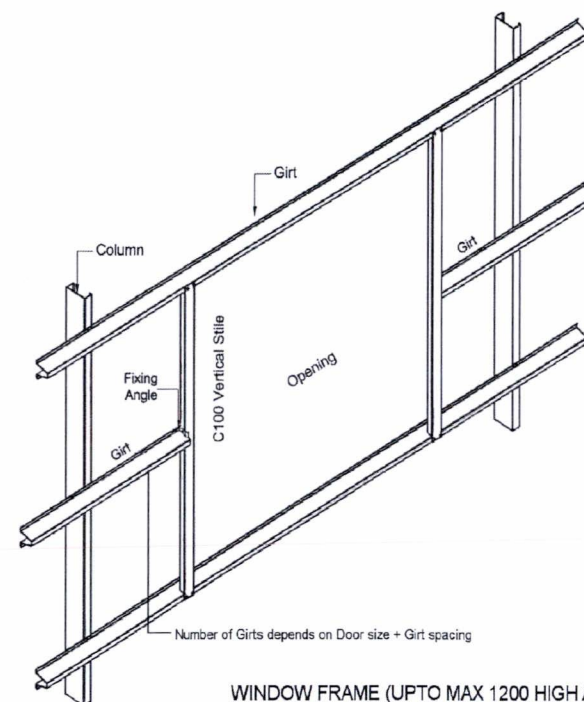


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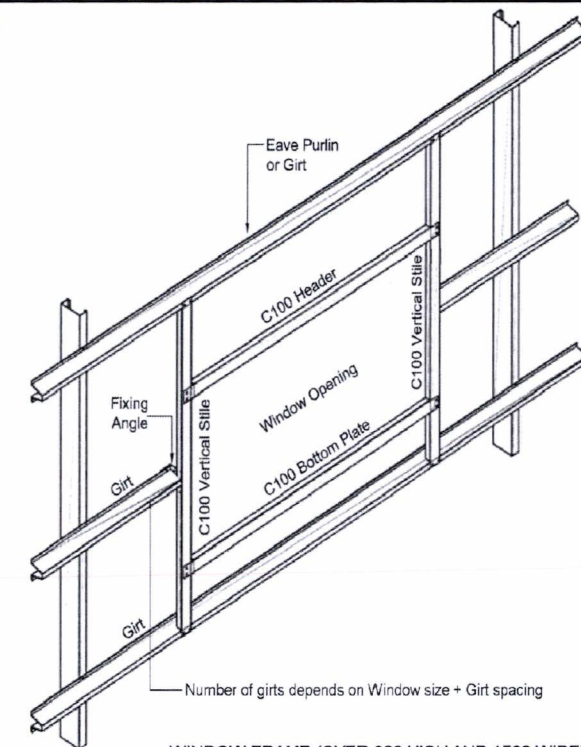
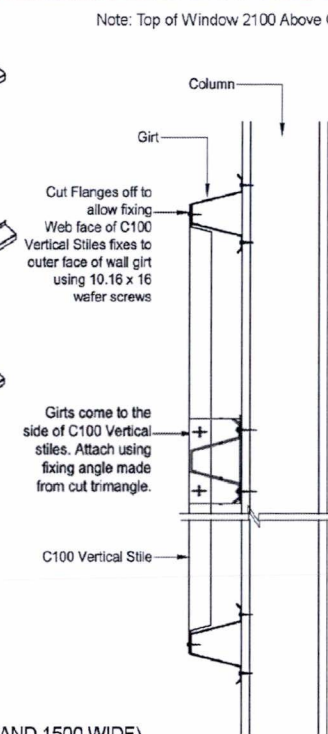
Purchaser Name: Connect Construction and Property Limited	Connection Details Page 3 of 8 © Copyright Steelx IP Pty Ltd	Seller: Wide Span Sheds Wellington Ltd Wide Span Sheds Wellington Ltd Phone: 21 925 276 Fax: Email: ewen.thompson@sheds.co.nz	ExtraMile Consulting Limited Business No: 4536099 ME New Zealand: CPEng. No. 1021657 Practising Professional Structural & Civil Engineer
Site Address: 2 hoffs place Porirua New Zealand			
Drawing # ZMLT180002 - 8			
Print Date: 03/04/18			Signature: <i>Pawel Mlewski</i> Pawel Michal Mlewski Date: 03/04/18



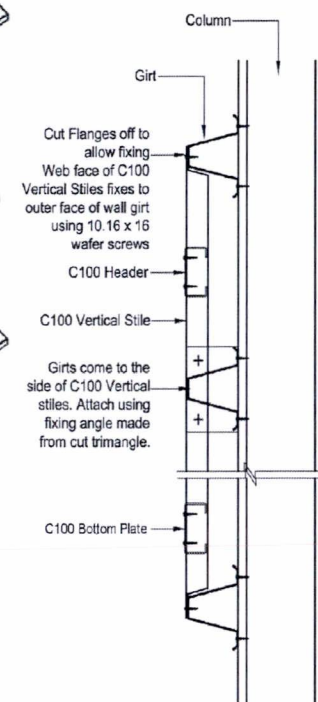
FIXING SCREWS - 5 of 14.20 x 22
FLY BRACING



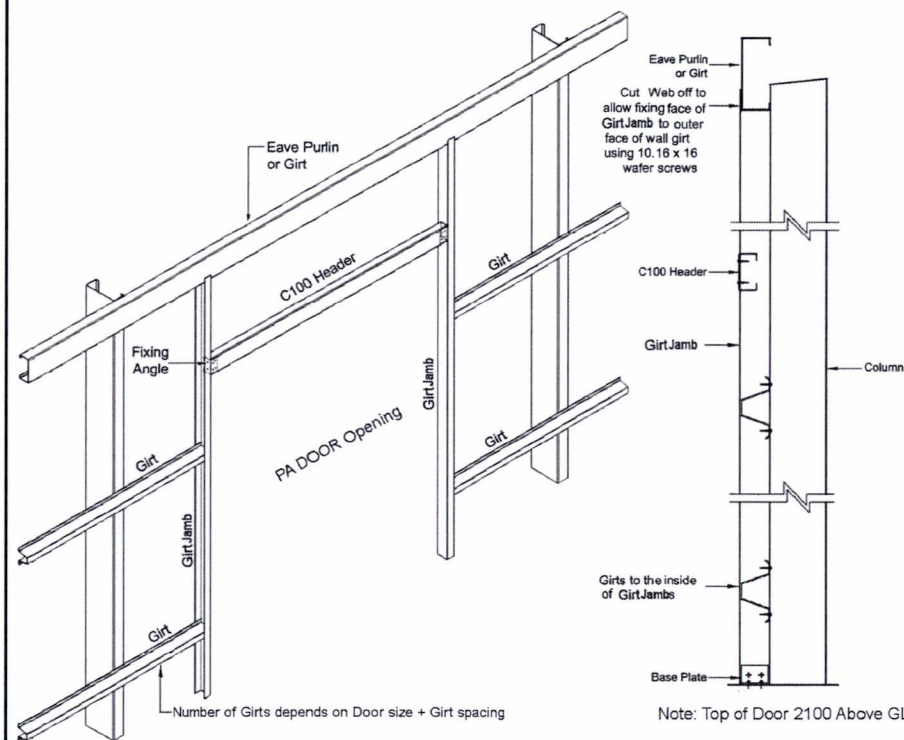
WINDOW FRAME (UPTO MAX 1200 HIGH AND 1500 WIDE)
WINDOW FRAME FIXED TO VERTICAL STILES ONLY



WINDOW FRAME (OVER 900 HIGH AND 1500 WIDE)



Note: Top of Window 2100 Above GL



PA DOOR (PRE HUNG) CONNECTION DETAILS

Note: Top of Door 2100 Above GL

Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZMLT180002 - 8

Print Date: 03/04/18

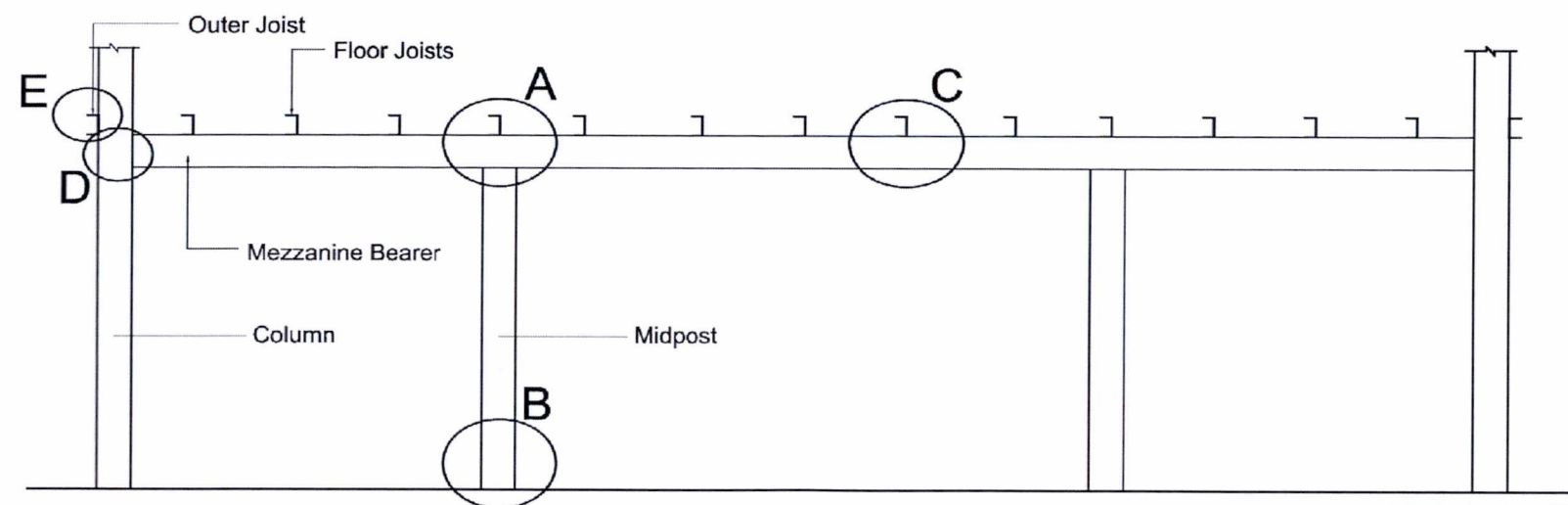
Connection Details

Page 4 of 8
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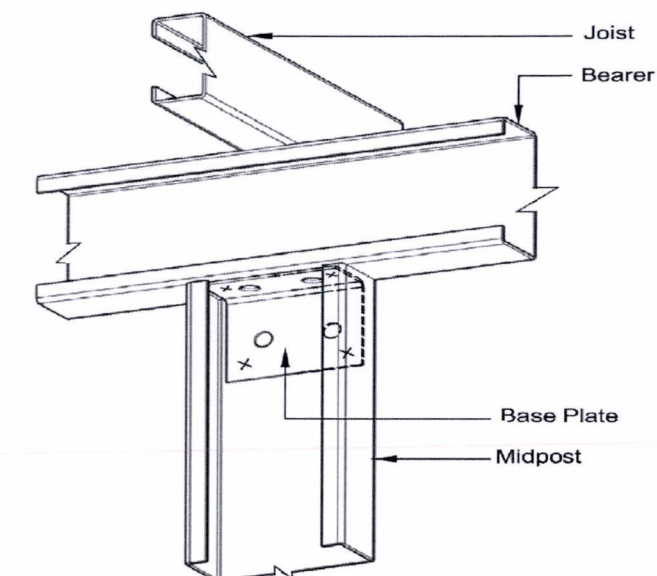
Seller: Wide Span Sheds Wellington Ltd
Wide Span Sheds Wellington Ltd
Phone: 21 925 276
Fax:
Email: ewen.thompson@sheds.co.nz

ExtraMile Consulting Limited
Business No: 4536099
ME New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

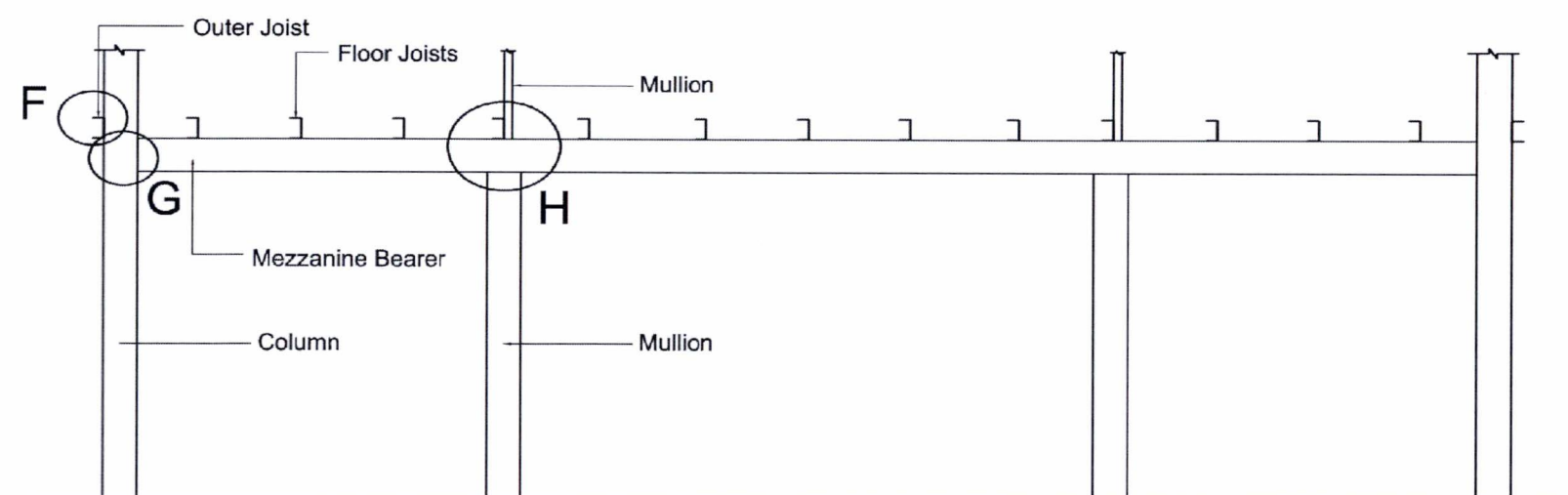
Signature: *Pawel Mlewski* Pawel Michal Mlewski Date: 03/04/18



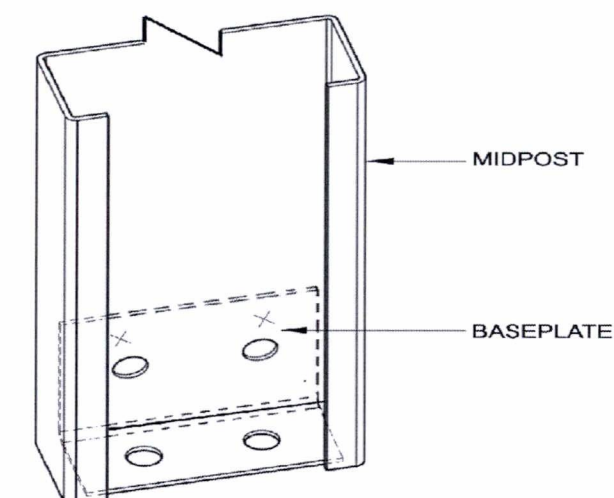
MEZZANIE FLOOR - ELEVATION (MID)



- FIXING BOLTS - 4 of M16 x 30
 - × FIXING SCREWS - 4 of 14.20 x 22
- MIDPOST TO BEARER
DETAIL AT A



MEZZANIE FLOOR - ELEVATION (END)



- FIXING BOLTS 2 of M16 x 30
 - FIXING TO CONCRETE - 2 of M16 DYNABOLTS
 - × FIXING SCREWS - 2 of 14.22 x 22
- MIDPOST TO SLAB / FOOTING
DETAIL AT B

MEZZANINE FLOOR CONNECTION DETAILS (1 of 2)

Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZMLT180002 - 8

Print Date: 03/04/18

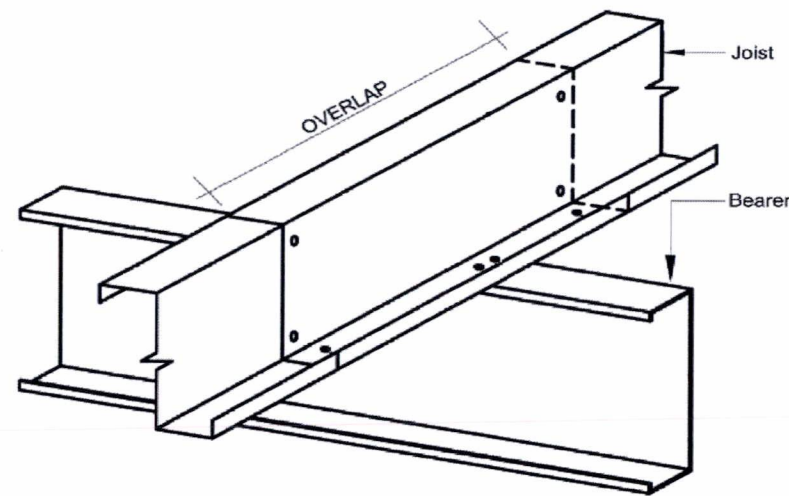
Connection Details

Page 5 of 8
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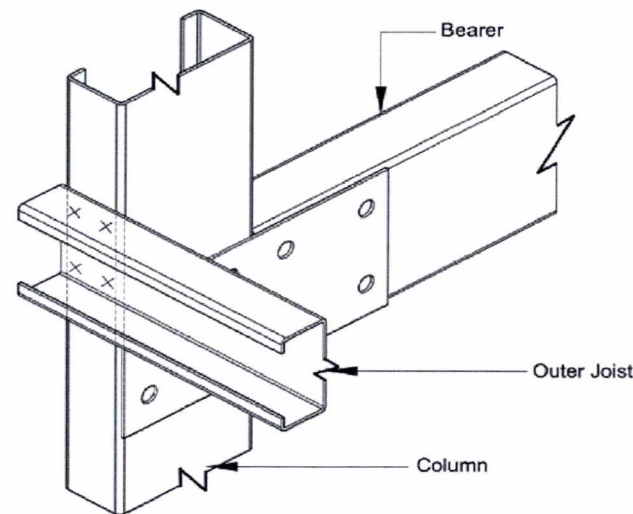
Seller: Wide Span Sheds Wellington Ltd
Wide Span Sheds Wellington Ltd
Phone: 21 925 276
Fax:
Email: ewen.thompson@sheds.co.nz

ExtraMile Consulting Limited
Business No: 4536099
ME New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

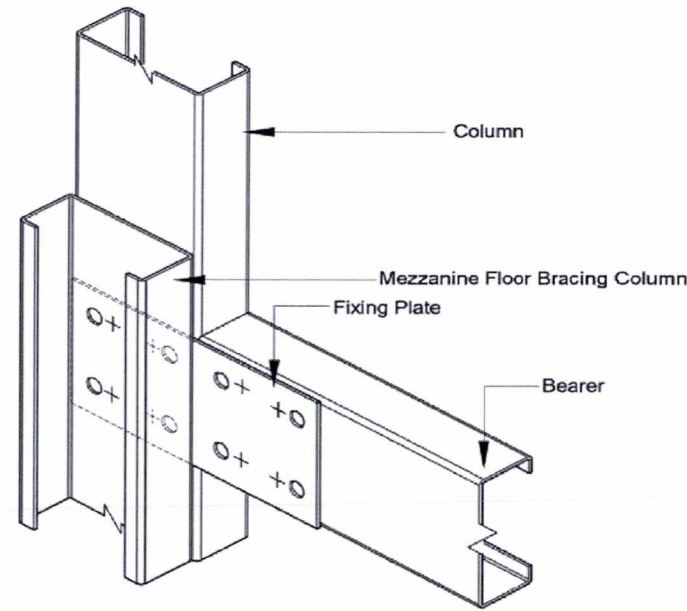
Signature: *Pawel Mchalewski* Pawel Mchalewski Date: 03/04/18



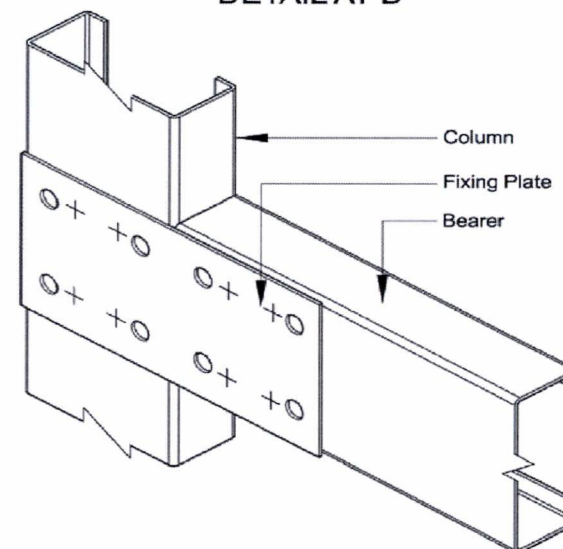
× FIXING SCREWS - 8 of 14.20 x 22
MEZZ JOIST FIXING
DETAIL AT C



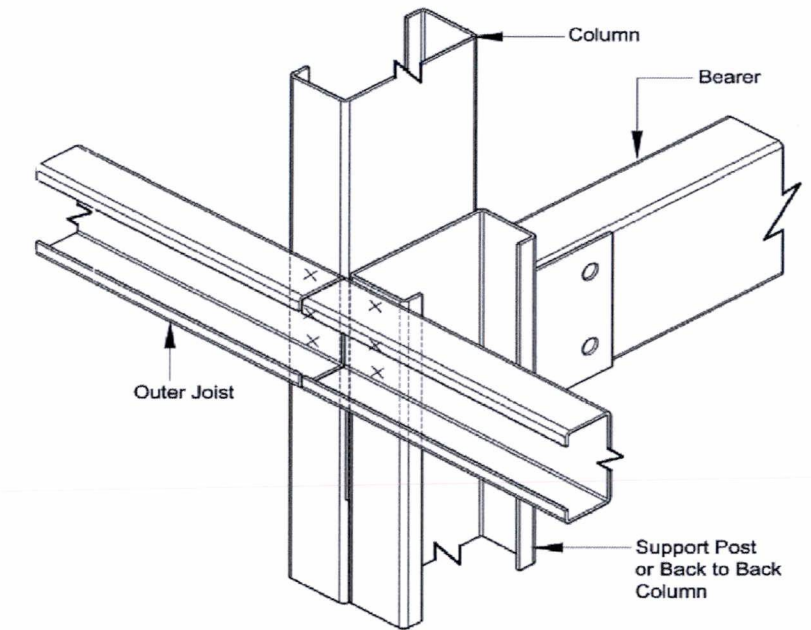
× FIXING SCREWS - 4 of 14.20 x 22
OUTER JOIST TO COLUMN (END)
DETAIL AT F



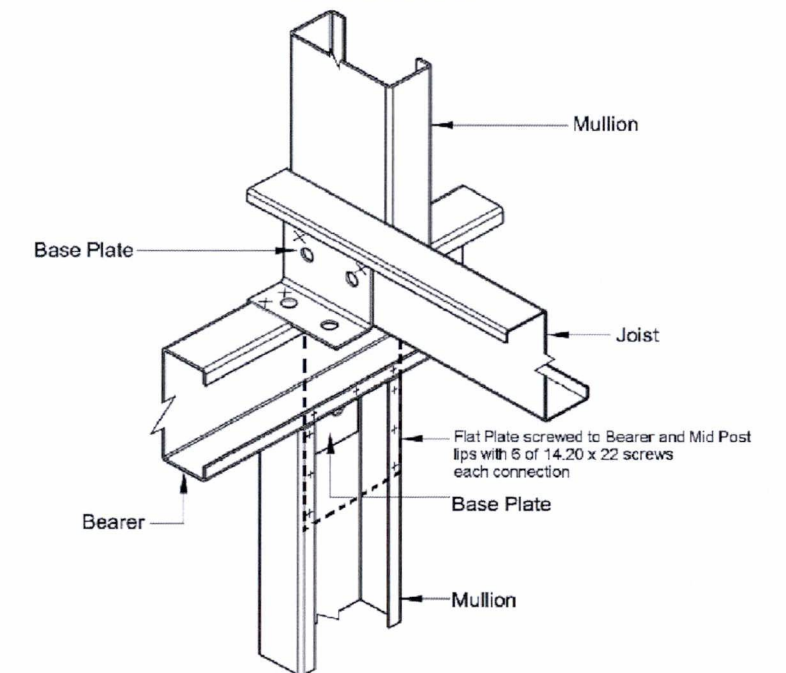
○ FIXING BOLTS - 8 of M 16 x 40 (8.8)
× FIXING SCREWS - 8 of 12.24 x 32
COLUMN TO BEARER (MID)
DETAIL AT D



○ FIXING BOLTS - 8 of M 16 x 40 (8.8)
× FIXING SCREWS - 8 of 12.24 x 32
COLUMN TO BEARER (END)
DETAIL AT G



× FIXING SCREWS - 6 of 14.20 x 22
OUTER JOIST TO COLUMN (MID)
DETAIL AT E



○ FIXING BOLTS - 3 of M12 x 30
× FIXING SCREWS - 4 of 14.20 x 22 HEX
END WALL MULLION TO BEARER

MEZZANINE FLOOR CONNECTION DETAILS (2 of 2)

Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZMLT180002 - 8

Print Date: 03/04/18

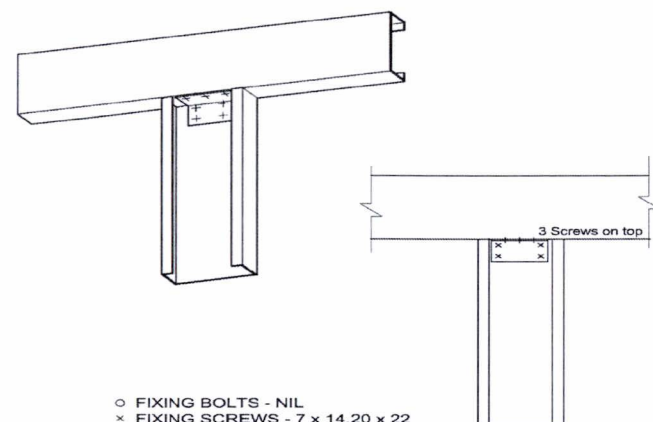
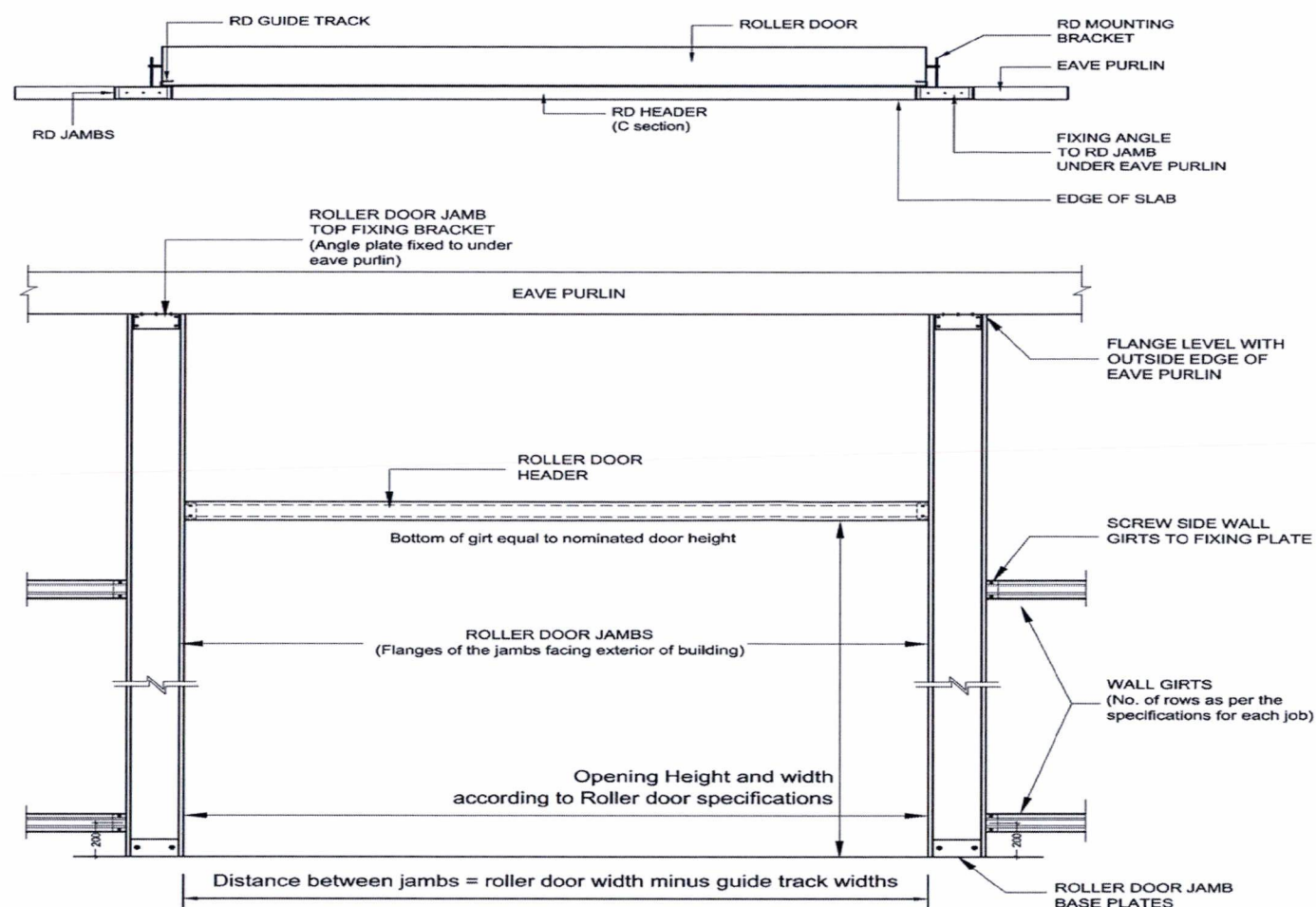
Connection Details

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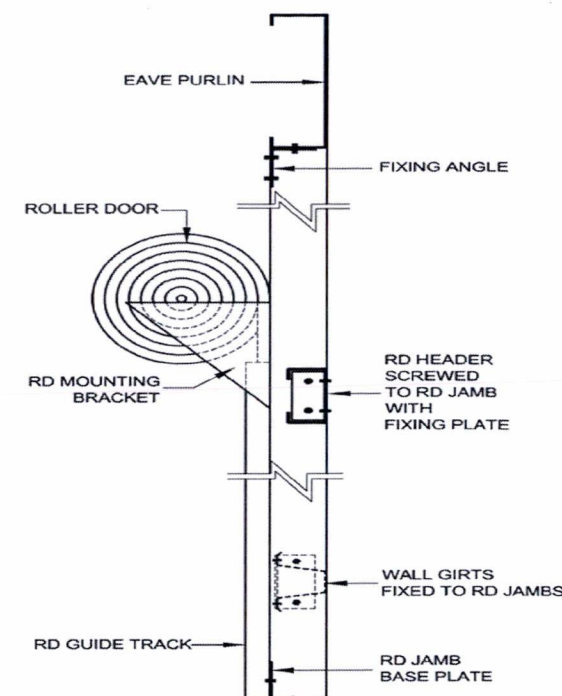
Seller: Wide Span Sheds Wellington Ltd
Wide Span Sheds Wellington Ltd
Phone: 21 925 276
Fax:
Email: ewen.thompson@sheds.co.nz

ExtraMile Consulting Limited
Business No: 4536099
ME New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

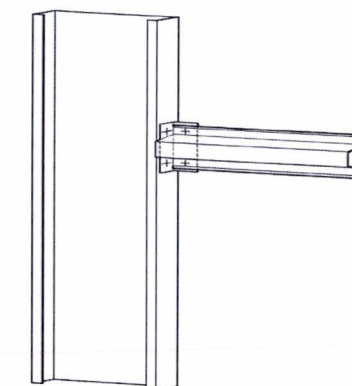
Signature: *Pawel Mchalewski* Pawel Mchalewski Date: 03/04/18



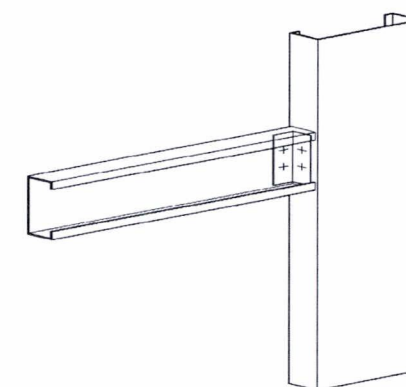
○ FIXING BOLTS - NIL
 × FIXING SCREWS - 7 x 14.20 x 22
 RD JAMB TO EAVE PURLIN



× FIXING SCREWS - 2 of 14.20 x 22
 ○ FIXING BOLTS - 2 of M12 x 30 (8.8) - FOR C150 & C200 JAMBS
 ○ FIXING BOLTS - 2 of M16 x 30 (8.8) - FOR C250 & C300 JAMBS
 2 of M12 X 75 DYNABOLTS - FOR C150 & C200 JAMBS
 2 of M16 x 110 DYNABOLTS - FOR C250 & 300 JAMBS
 BASE PLATE



FIXING SCREWS - 4 of 14.20 x 22
 GIRT FIXING TO MULLIONS - TOPHAT SECTION



× FIXING SCREWS - 4 of 14.20 x 22
 DOOR HEADER FIXING

ROLLER DOOR DETAILS

Side walls ONLY

Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWLT180002 - 8

Print Date: 03/04/18

Connection Details

Page 7 of 8
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Seller: Wide Span Sheds Wellington Ltd
 Wide Span Sheds Wellington Ltd
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 Fax:
 Email: ewen.thompson@sheds.co.nz

ExtraMile Consulting Limited
 Business No: 4536099
 ME New Zealand: CPEng. No. 1021657
 Practising Professional Structural & Civil Engineer

Signature: *Pawel Michal Milewski* Pawel Michal Milewski Date: 03/04/18

Fixing Instructions

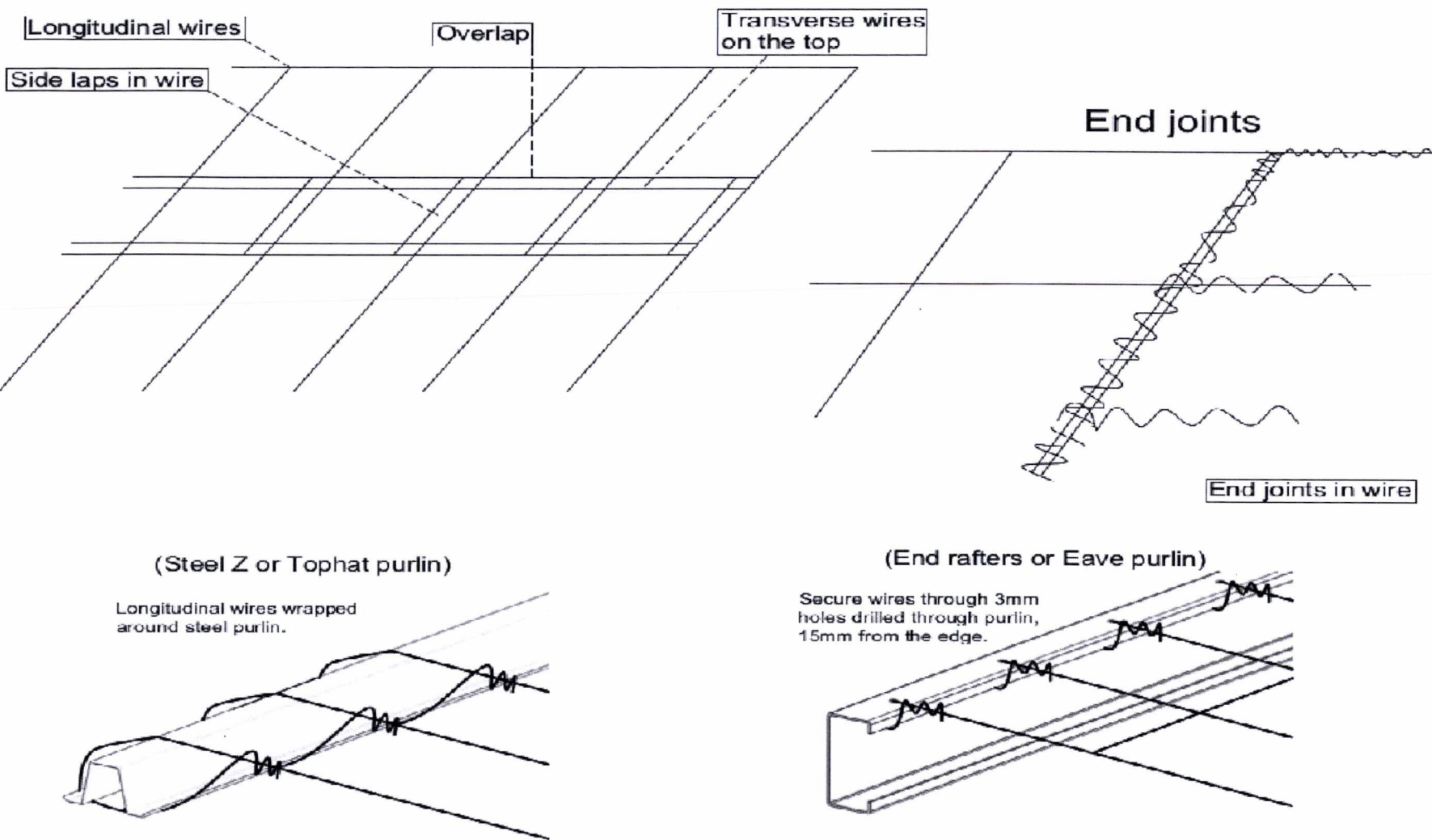
Transverse wires shall be on top of the longitudinal wires

All Longitudinal wires passed around anchor points with the tail of each wire being twisted four times around the main portion of the same wire.

End joints in wire, two transverse wires are placed together, the longitudinal tail wires (approx 300mm long) are tied around each other, one being twisted four times around the main portion of the same wire, the other longitudinal wire twisted once around the main portion of the same wire then four times around the transverse wires.

Side laps (i) For purlin spacing span/less than 1200mm, the runs of mesh shall be side-lapped by a minimum of one mesh spacing (150mm). (ii) For purlin spacing/span between 1200-2200mm, the runs of mesh shall be side-lapped by a minimum of one mesh spacing (150mm). Side laps shall be secured with ring fasteners fabricated from minimum 1.90mm diameter wire, or equivalent, fitted at maximum 900mm centres between each purlin on one side of the lap (iii) For purlin spacing/span greater than 2200mm, the runs of mesh shall be side-lapped by a minimum of two mesh spacing (300mm). Side laps shall be secured with ring fasteners fabricated from minimum 1.90mm diameter wire, or equivalent, fitted at maximum 600mm centres between purlin/span on both sides of the lap.

Toughness. Mesh shall be pulled taut to ensure only natural sag between each purlin or roof member.



Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWLT180002 - 8

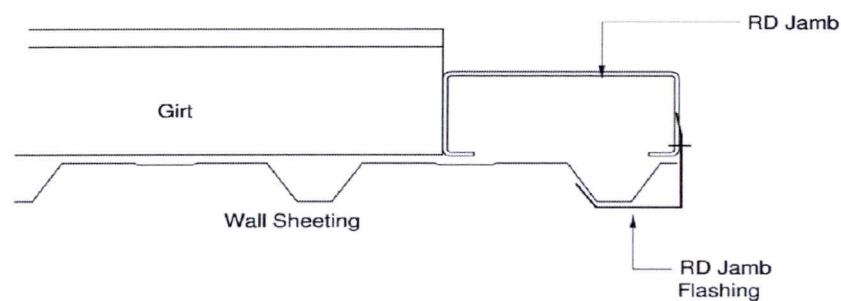
Print Date: 03/04/18

Connection Details
Page 8 of 8
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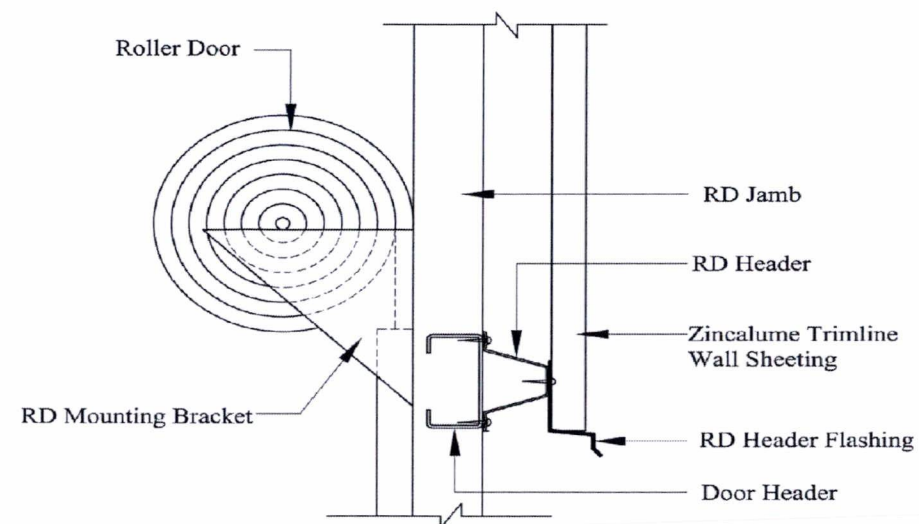
Seller: Wide Span Sheds Wellington Ltd
Wide Span Sheds Wellington Ltd
Phone: 21 925 276
Fax:
Email: ewen.thompson@sheds.co.nz

ExtraMile Consulting Limited
Business No: 4536099
ME New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

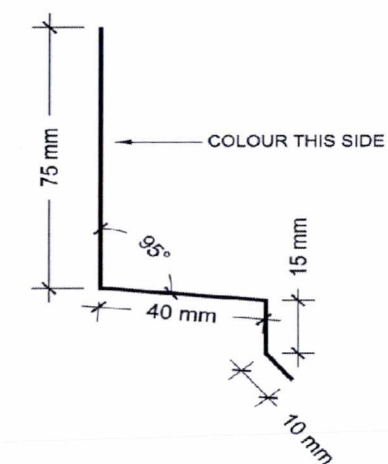
Signature: *Pawel Mlewski* Pawel Michal Mlewski Date: 03/04/18



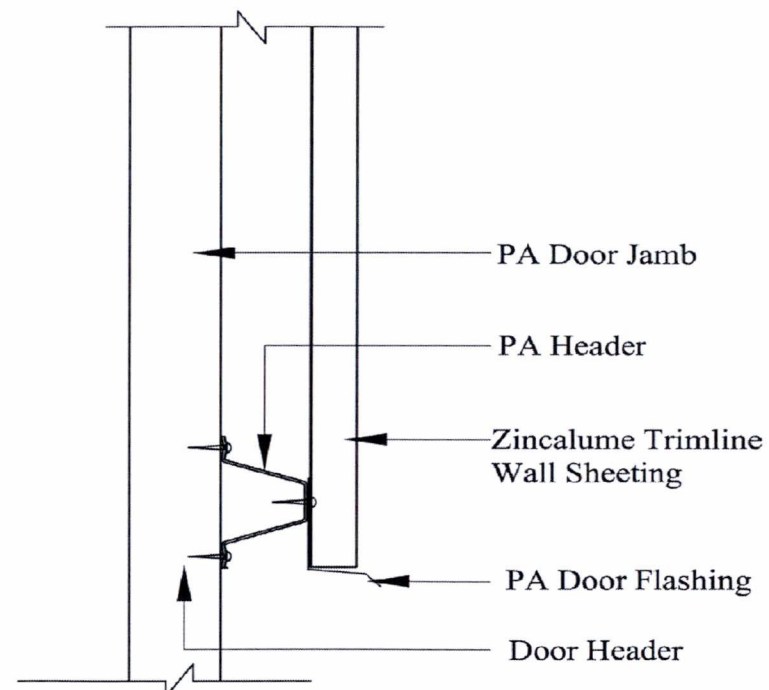
Wall RD Jamb Flashing XF28



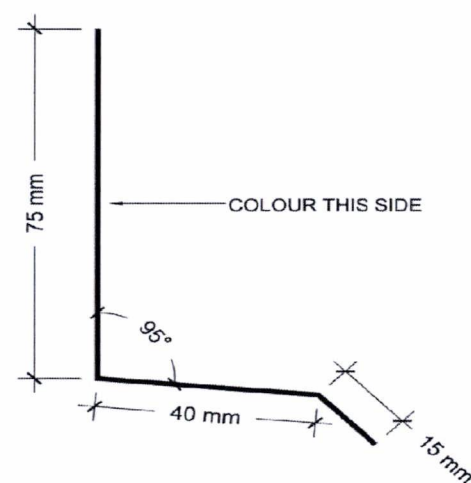
Roller Door Header Flashing - XF 30



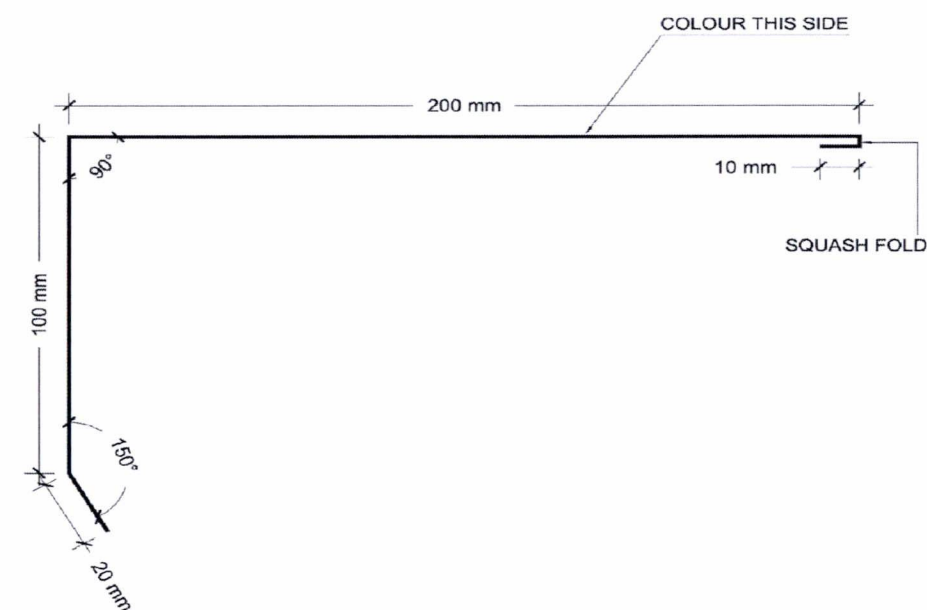
XF 30



PA Door Header Flashing - XF 23



XF 23



XF 403

Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZMLT180002 - 9

Print Date: 03/04/18

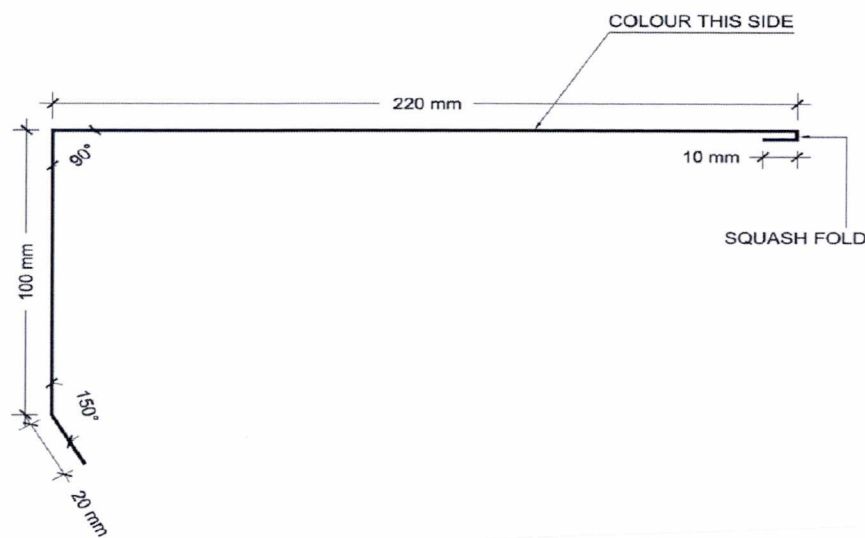
Flashing Fixing Details

Page 1 of 3
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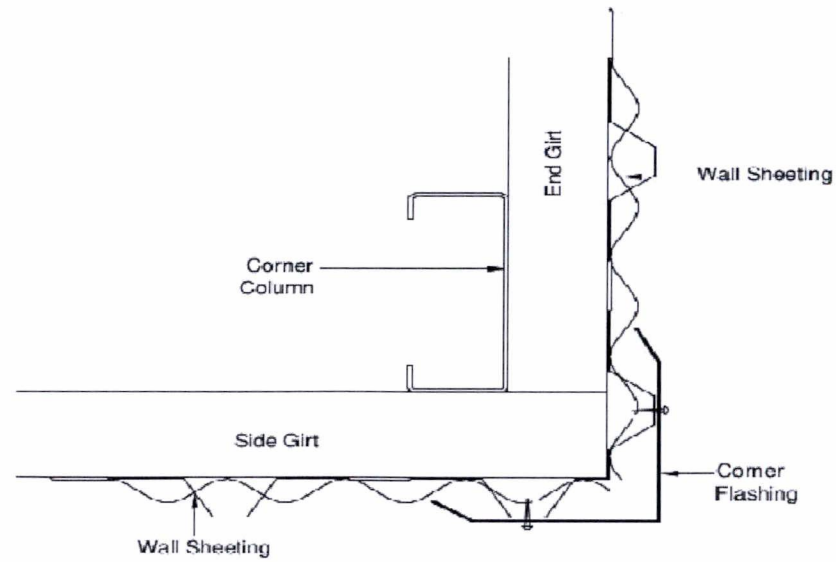
Seller: Wide Span Sheds Wellington Ltd
Wide Span Sheds Wellington Ltd
Phone: 21 925 276
Fax
Email: ewen.thompson@sheds.co.nz

ExtraMile Consulting Limited
Business No: 4536099
MIE New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

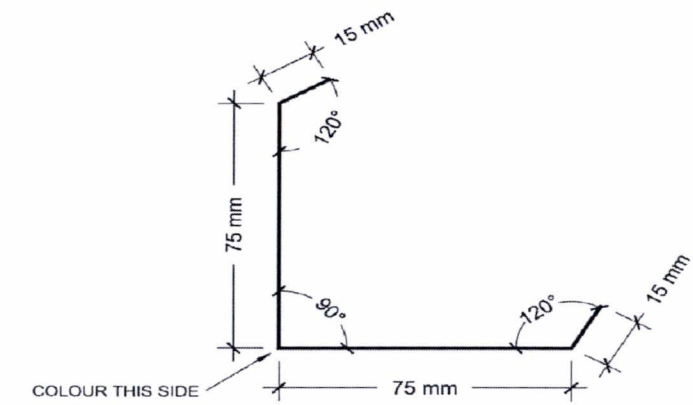
Signature: *Pawel Michal Milewski* Pawel Michal Milewski Date: 03/04/18



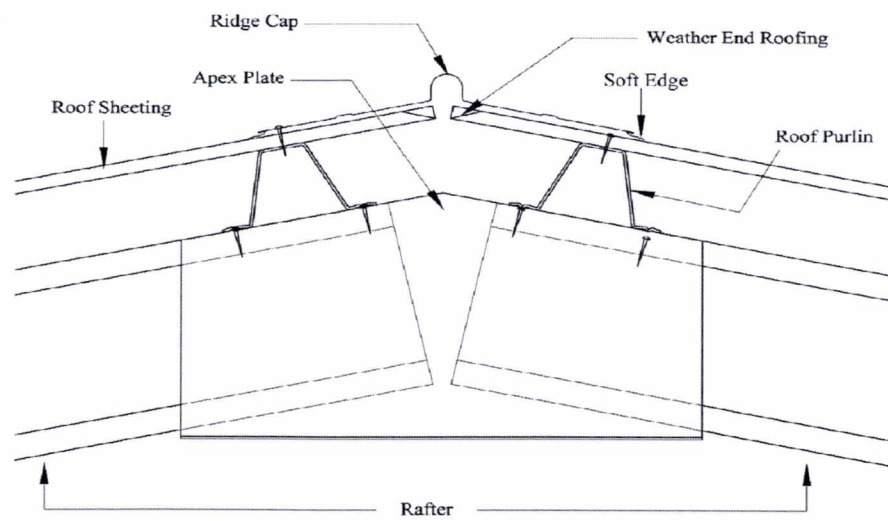
XF 404



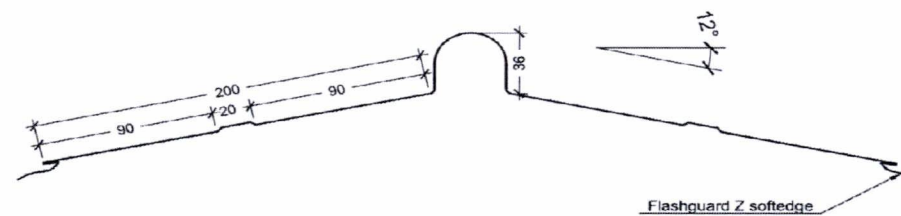
Corner Flashing XF21 - Connection



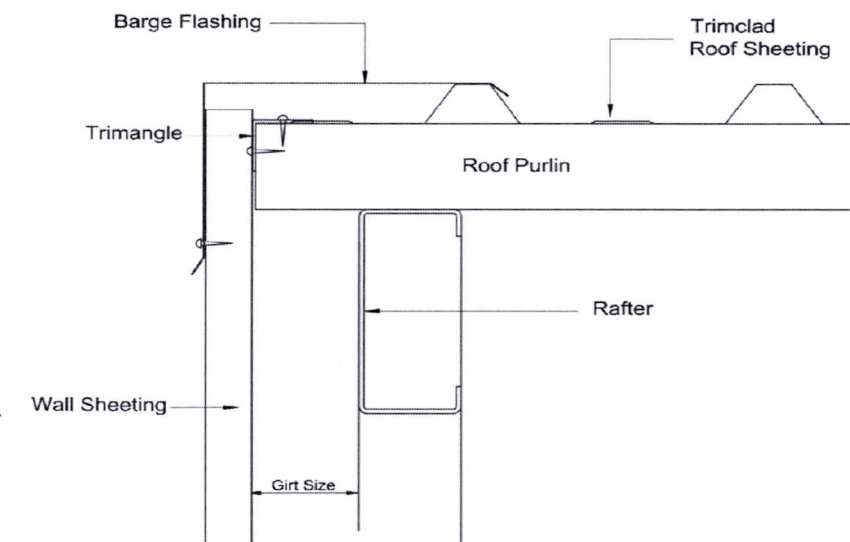
XF 21



Ridge Cap - XF 83



XF 83



Barge Flashing XF11 - Connection

Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWLT180002 - 9

Print Date: 03/04/18

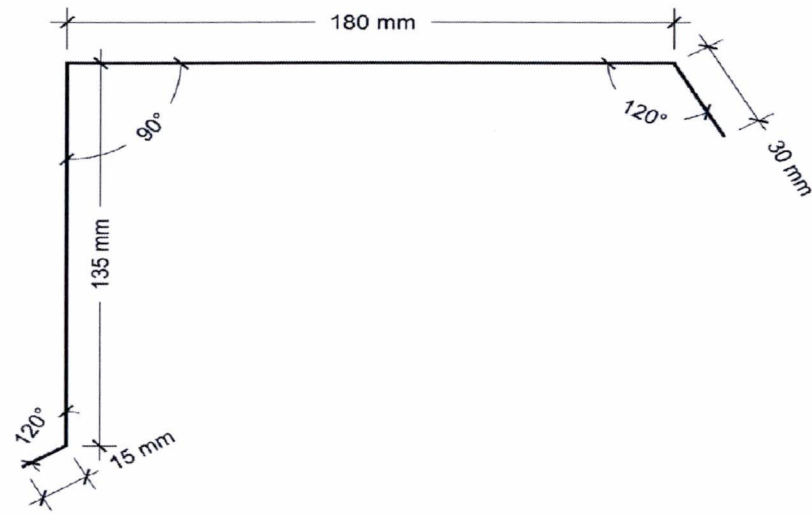
Flashing Fixing Details

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Seller: Wide Span Sheds Wellington Ltd
Wide Span Sheds Wellington Ltd
Phone: 21 925 276
Fax:
Email: ewen.thompson@sheds.co.nz

ExtraMile Consulting Limited
Business No: 4536099
ME New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

Signature: *Pawel Mchalewski* Pawel Mchalewski Date: 03/04/18



XF 11

Purchaser Name: Connect Construction and Property Limited

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZMLT180002 - 9

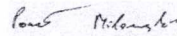
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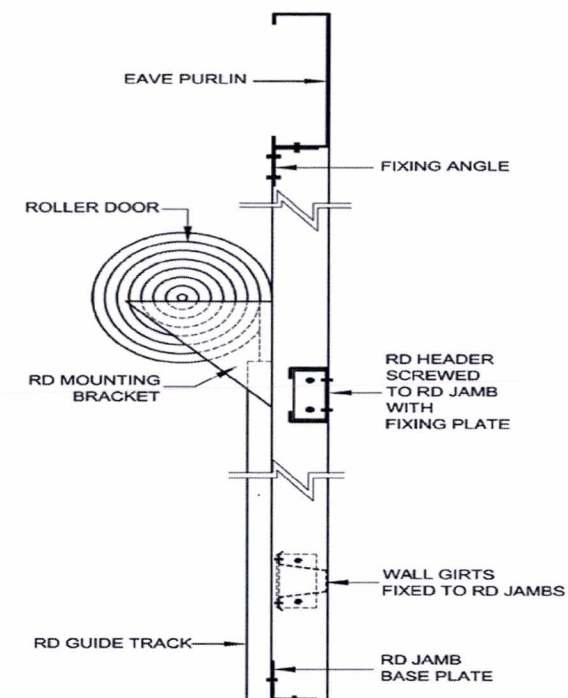
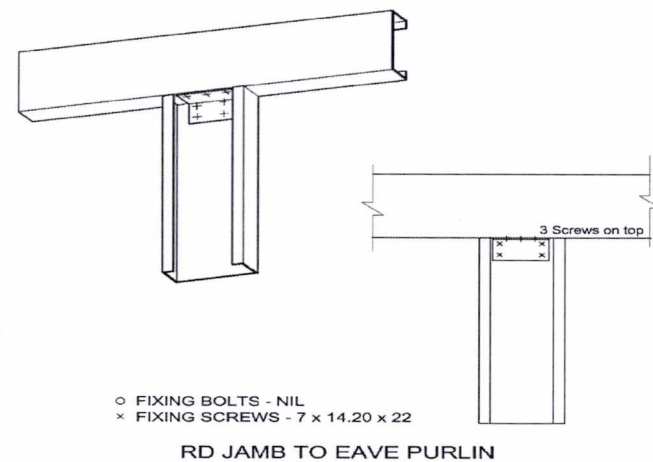
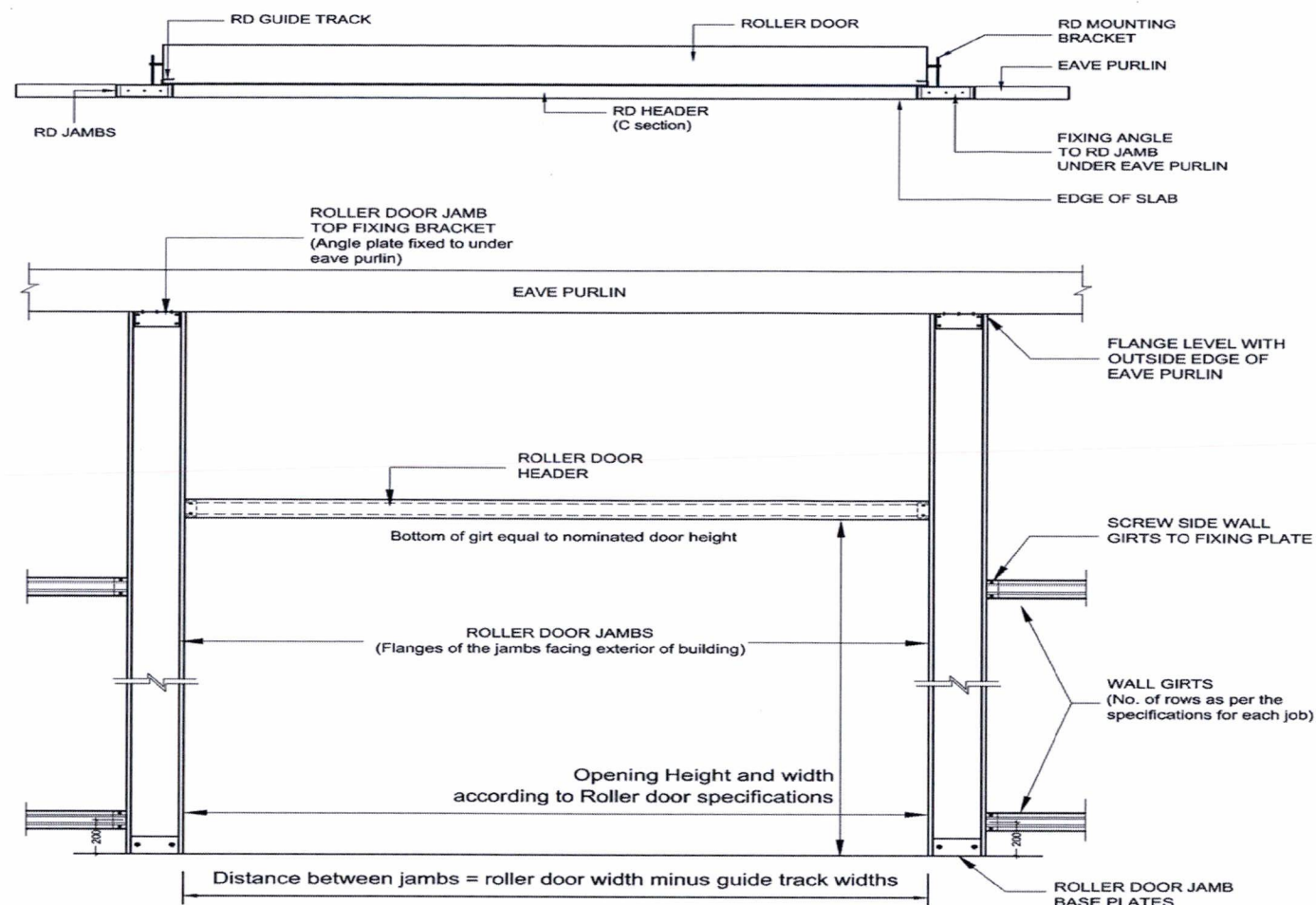
Flashing Fixing Details

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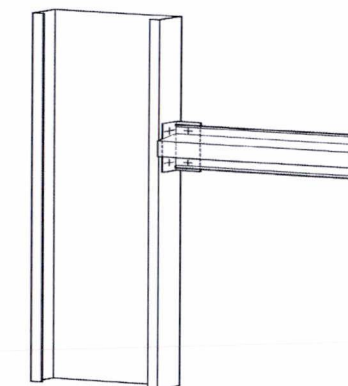
Seller: Wide Span Sheds Wellington Ltd
Wide Span Sheds Wellington Ltd
Phone: 21 925 276
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ExtraMile Consulting Limited
Business No: 4536099
ME New Zealand: CP Eng. No. 1021657
Practising Professional Structural & Civil Engineer

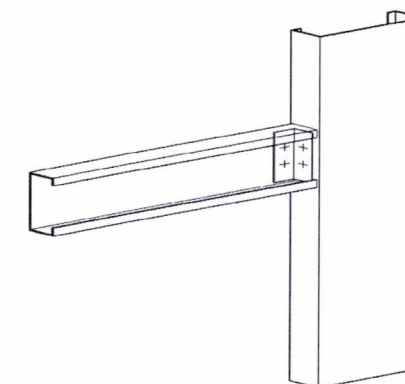
Signature:  Pawel Michal Mlewski Date: 03/04/18



- × FIXING SCREWS - 2 of 14.20 x 22
- FIXING BOLTS - 2 of M12 x 30 (8.8) - FOR C150 & C200 JAMBS
- FIXING BOLTS - 2 of M16 x 30 (8.8) - FOR C250 & C300 JAMBS
- 2 of M12 X 75 DYNABOLTS - FOR C150 & C200 JAMBS
- 2 of M16 x 110 DYNABOLTS - FOR C250 & 300 JAMBS
- BASE PLATE



GIRT FIXING TO MULLIONS - TOPHAT SECTION



DOOR HEADER FIXING

ROLLER DOOR DETAILS

Side walls ONLY

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWLT180005 - 8

Print Date: 08/04/18

Connection Details

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Phone: 21 925 276
Fax
Email: ewen.thompson@sheds.co.nz

ExtraMle Consulting Limited
Business No: 4536099
ME New Zealand: CPEng. No. 1021657
Practising Professional Structural & Civil Engineer

Signature: *Pawel Mchalewski* Pawel Mchalewski Date: 08/04/18

Fixing Instructions

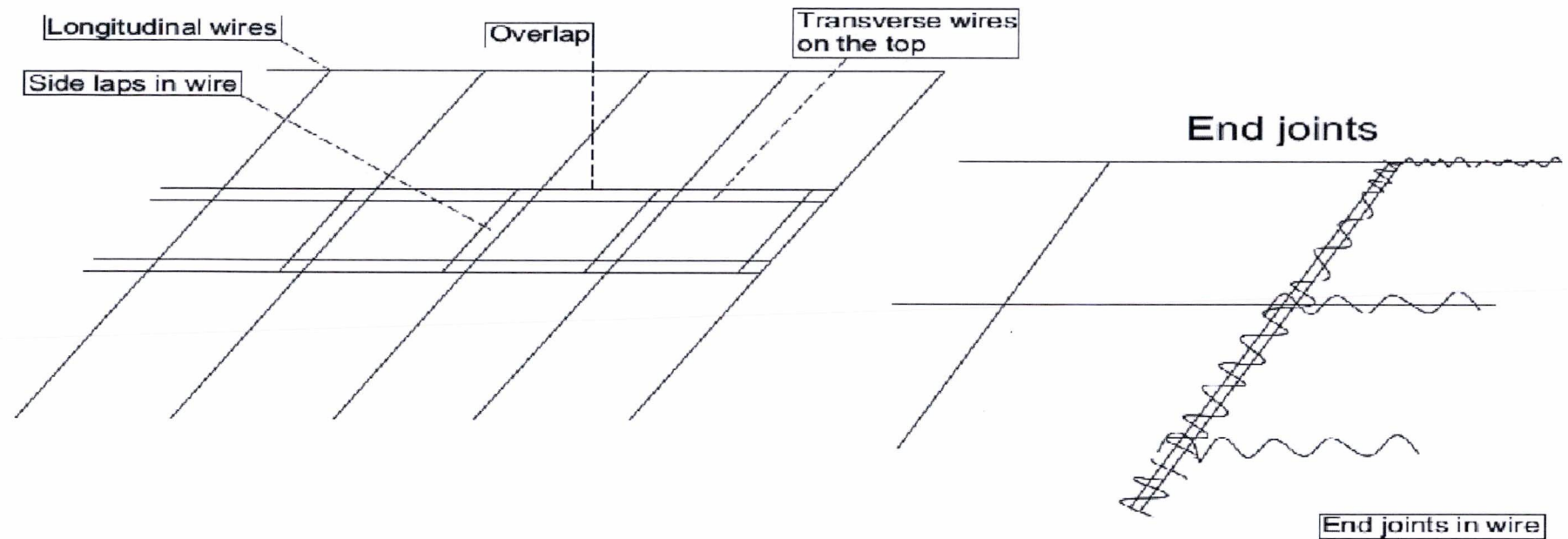
Transverse wires shall be on top of the longitudinal wires

All Longitudinal wires passed around anchor points with the tail of each wire being twisted four times around the main portion of the same wire.

End joints in wire, two transverse wires are placed together, the longitudinal tail wires (approx 300mm long) are tied around each other, one being twisted four times around the main portion of the same wire, the other longitudinal wire twisted once around the main portion of the same wire then four times around the transverse wires.

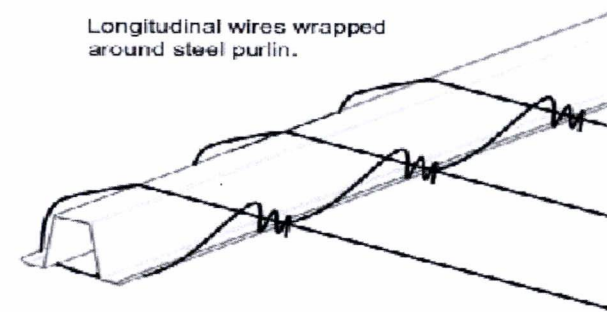
Side laps (i) For purlin spacing span/less than 1200mm, the runs of mesh shall be side-lapped by a minimum of one mesh spacing (150mm). (ii) For purlin spacing/span between 1200-2200mm, the runs of mesh shall be side-lapped by a minimum of one mesh spacing (150mm). Side laps shall be secured with ring fasteners fabricated from minimum 1.90mm diameter wire, or equivalent, fitted at maximum 900mm centres between each purlin on one side of the lap (iii) For purlin spacing/span greater than 2200mm, the runs of mesh shall be side-lapped by a minimum of two mesh spacing (300mm). Side laps shall be secured with ring fasteners fabricated from minimum 1.90mm diameter wire, or equivalent, fitted at maximum 600mm centres between purlin/span on both sides of the lap.

Toughness. Mesh shall be pulled taut to ensure only natural sag between each purlin or roof member.



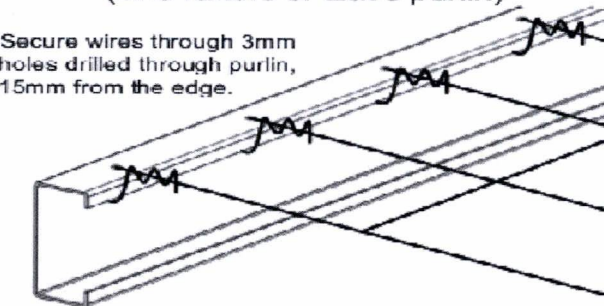
(Steel Z or Tophat purlin)

Longitudinal wires wrapped around steel purlin.



(End rafters or Eave purlin)

Secure wires through 3mm holes drilled through purlin, 15mm from the edge.



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Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZWLT180005 - 8

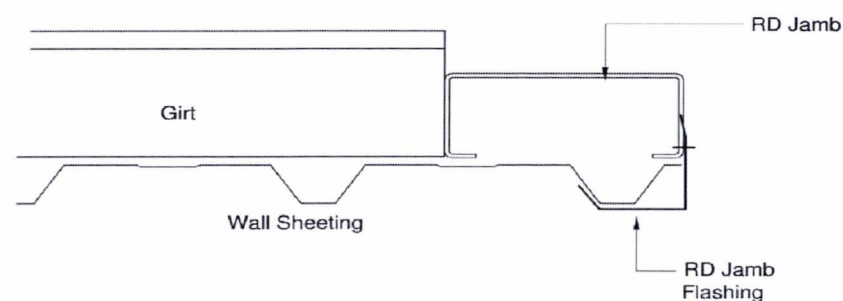
Connection Details

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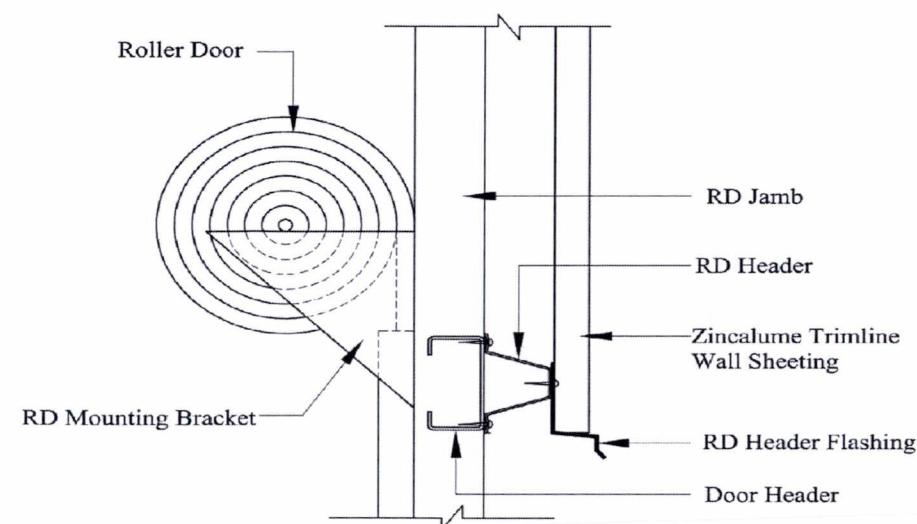
Seller: Wide Span Sheds Wellington Ltd
Wide Span Sheds Wellington Ltd
Phone: 21 925 276
Fax:
Email: ewen.thompson@sheds.co.nz

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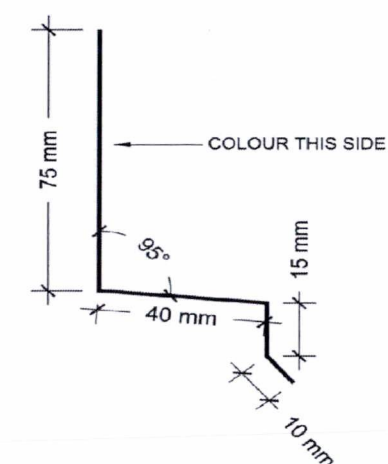
Signature: *Pawel Mchalewski* Pawel Mchalewski Date: 08/04/18



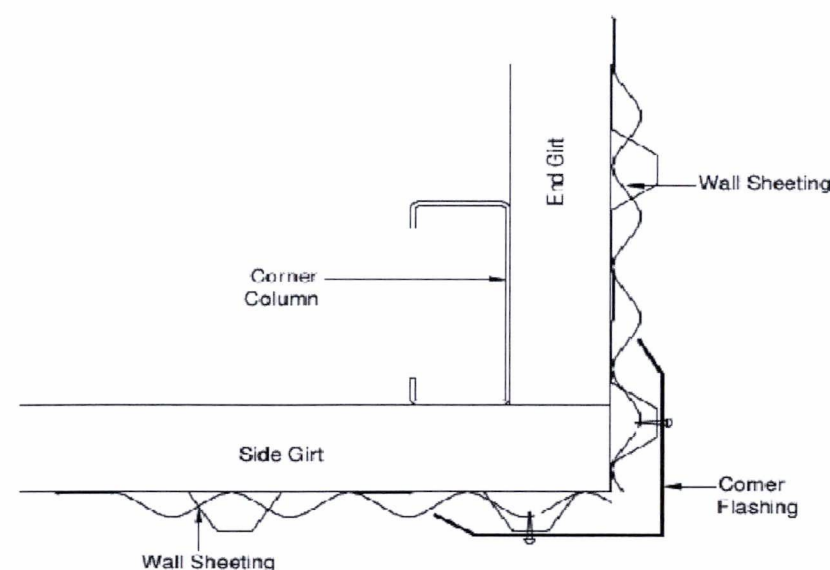
Wall RD Jamb Flashing XF28



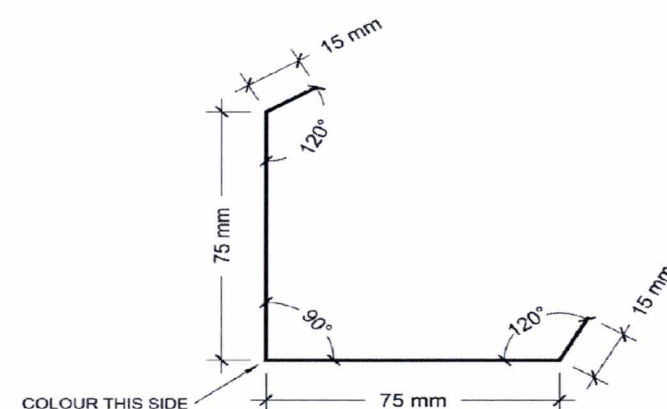
Roller Door Header Flashing - XF 30



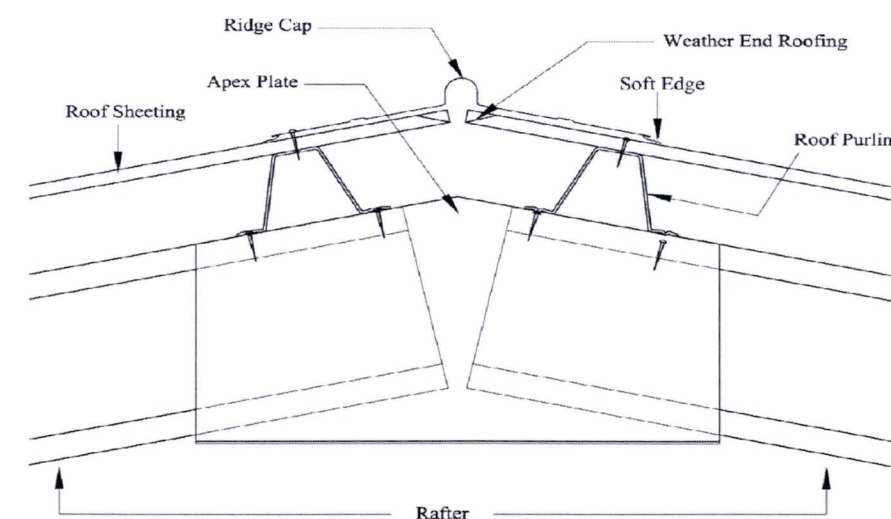
XF 30



Corner Flashing XF21 - Connection



XF 21



Ridge Cap - XF 83

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Site Address: 2 hoffs place Porirua New Zealand

Drawing # ZMLT180005 - 9

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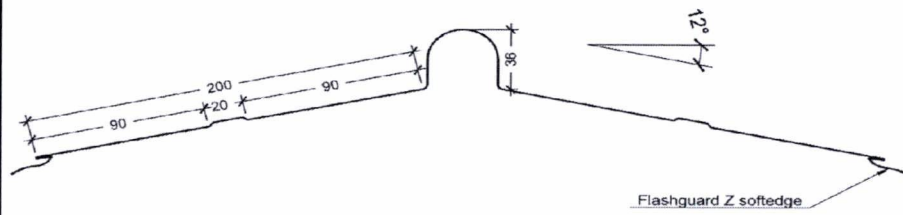
Flashing Fixing Details

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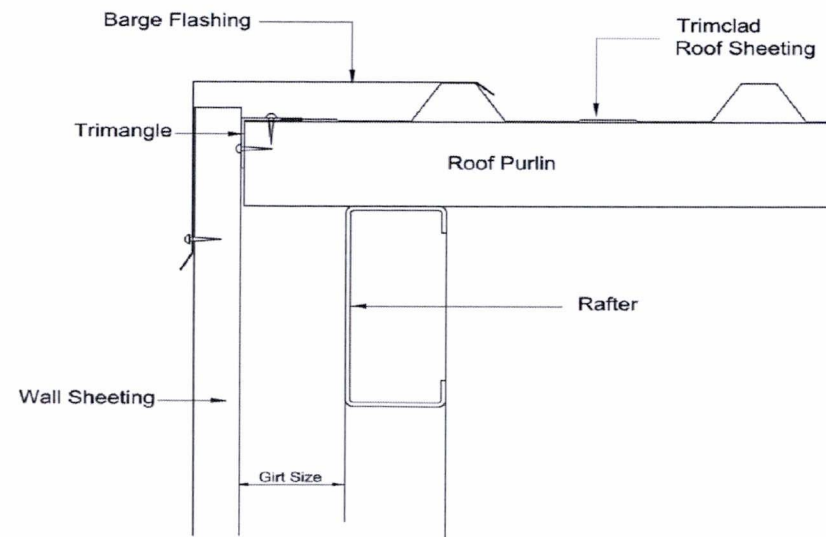
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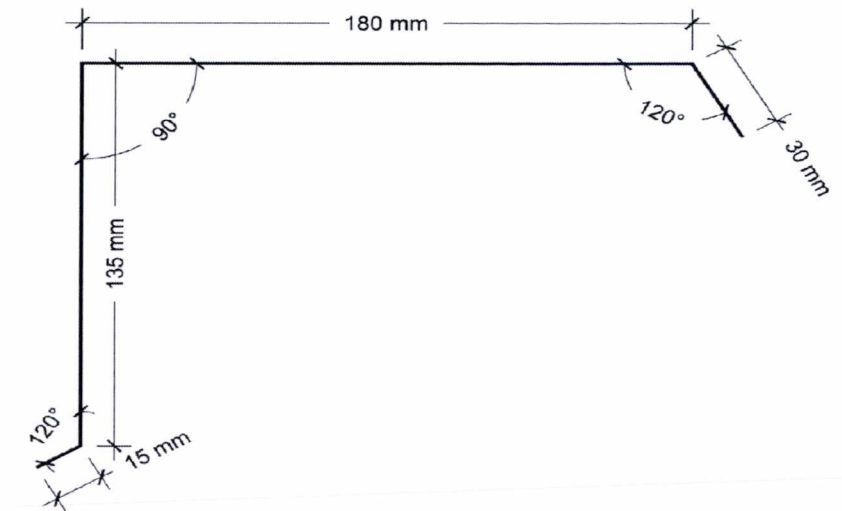
Signature: *Pawel Mlewski* Pawel Michal Mlewski Date: 08/04/18



XF 83



Barge Flashing XF11 - Connection



XF 11

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Page 2 of 2
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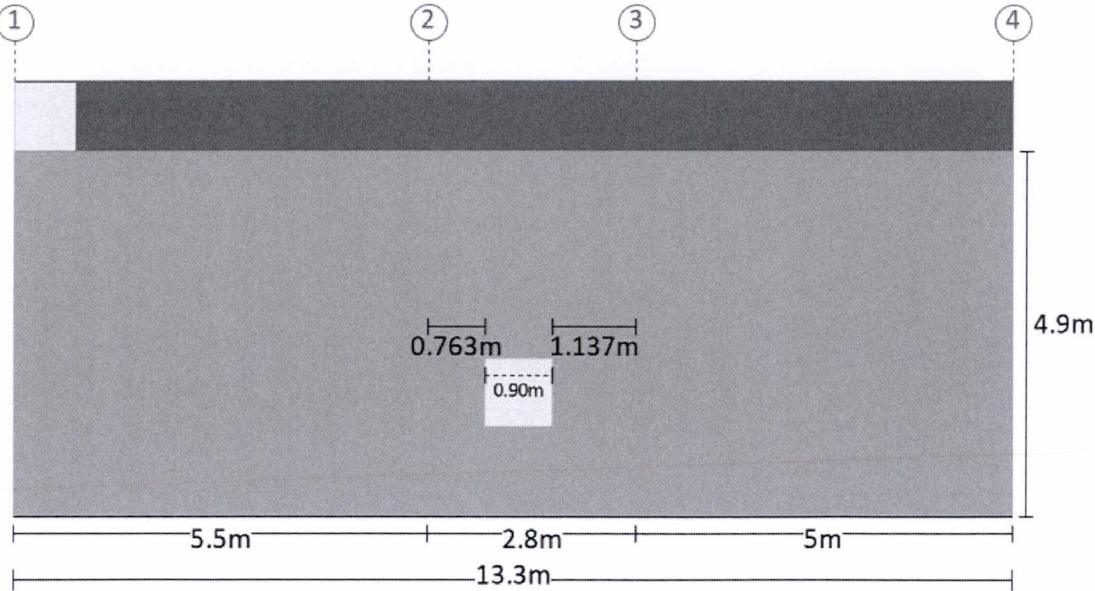
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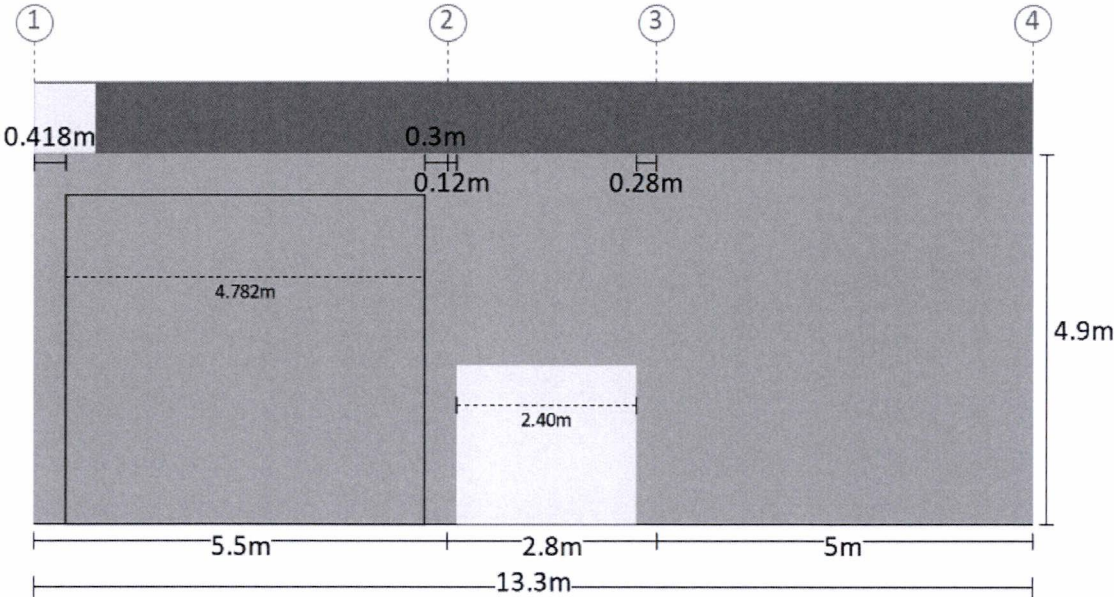
This setout is provided as a guide only. It is the responsibility of the concreter/erector to confirm that all dimensions are correct.

Left Side



Measurements are from the outside of end girts (end bays) and/or centre of columns (mid bays) to inside of component opening size.

Right Side



Measurements are from the outside of end girts (end bays) and/or centre of columns (mid bays) to inside of component opening size.

Purchaser Name: Ewen Thompson

Site Address: 2 hoffs place Porirua New Zealand

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Component Position
Not to Scale
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Signature: *Pawel Michal Mlewski* Pawel Michal Mlewski Date: 08/04/18



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