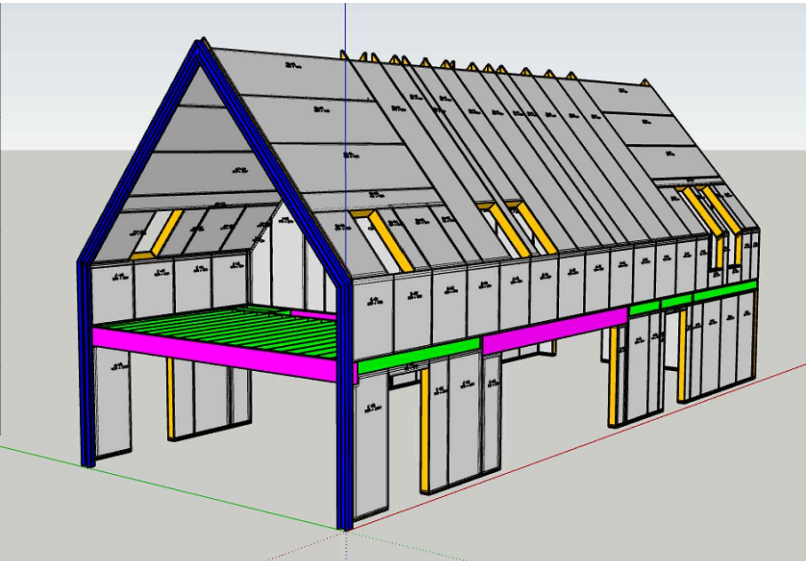


GENERAL NOTE:

- 1.) Roof live load:0.50kPa. Roof dead load:1.01kPa. Snow load: 0.19kPa. Wind load 0.98kPa.
Floor live load 2.25kPa. Floor dead load 0.45kPa. Wind load facade: 1.58kPa.
- 2.) Quacent New Building Materials Co., Ltd. are responsible for the design of the SIP framing and steel roof truss. No responsibility is assumed for the adequacy of the foundations, designed and furnished by others.
- 3.) Always handle SIPs with care. Do not lift by top skin.
- 4.) Provide adequate support for SIPs when storing. Store flat on sleepers (at maximum 2440mm on centers) and covered at least 200mm off the ground. Keep all panels & accessories covered & dry.
- 5.) Oriented stand board (OSB): 11mm thick minimum.
- 6.) Expanded Polystyrene (EPS) Core: EPS shall comply with ASTM C578 (USA) and shall have a minimum density of 0.95 pcf.
- 7.) Adhesive: ASTM D2559 (USA).
- 8.) Structural steel sheet within SIPs comply with GB/T 2518-2008 (CHN).
- 9.) Provide 40mm diameter access holes in sill chanel to align with electrical wire chases in SIPs.
- 10.) Hold sill chanel 11mm back from edge of floor system to allow full bearing of SIP FCB skins.
- 11.) Use sealant/adhesive on all panel outside joints, use seal tape on all panel inside joints.
- 12.) Provide level & square foundations & floor decks to support SIP walls. Tolerances should be more than 1/4"
- 13.) Do not cut SIPs skins for electrical chases, use factory provided chases in SIP EPS cores.
- 14.) Provide adequate bracing when installing SIPS. Begin installation at a corner and finish at a panel opening (window or door) with a separate sill & header.
- 15.) Remove debris from sill chanel area prior to SIPS installation.
- 16.) Do not install SIPs directly on concrete. One layer asphalt felt is required under SIP skins.
- 17.) Do not drop SIPs on corners.
- 18.) Do not put recessed lighting in SIPs.
- 19.) Fasten SIP skins to structural members & splines using self tapping screws on 6" (150mm) centers.
- 20.) Roof vents are required.
- 21.) Treat entire building site including foundations & structure for insect/termite infestation prior to application of finish materials.
- 23.) Always provide mechanical ventilation such as an HRV. or ERV. Consult an HVAC contractor for proper sizing of mechanical systems.
- 24.) Provide proper flashing around all window & door openings, consult window & door manufacturers recommendations.
- 25.) Hoist SIPs in place by lifting equipment suited to size of panels. Exercise care to prevent damage to SIPs.

INDEX	
SHEET NO:	DRAWING
0	TITLE PAGE
1	GROUND FLOOR PLAN
2	FIRST FLOOR SUBFLOOR LAYOUT / FIRST FLOOR PLAN
3	ATTIC FLOOR PLAN
4	ROOF PLAN
5	SOUTH & NORTH ELEVATION
6	EAST & WEST ELEVATION
7	SECTIONS
8	SECTIONS
9	DETAILS
10	GROUND FLOOR BRACE PLAN
11	FIRST FLOOR SUBFLOOR LAYOUT
12	FIRST FLOOR BRACE PLAN
13	ATTIC FLOOR SUBFLOOR LAYOUT
14	ATTIC FLOOR BRACE PLAN
15	ROOF FRAME PLAN
16	STEEL FRAME
17	GROUND FLOOR PANEL VIEW
18	FIRST FLOOR PANEL VIEW
19	ATTIC FLOOR PANEL VIEW
20	ROOF PANEL VIEW
21	WALL PANEL GROUP
22	WALL GROUP
23	WALL PANEL GROUP
24	WALL PANEL GROUP
25	ROOF PANEL GROUP
26	ANCHOR BOLTS LOCATION PLAN
27	

SIZES OF COIL NAILS	
ENGLISH SIZES (in)	METRIC SIZES (mm)
8d	65
10d	75
16d	90



A2

0

TITLE PAGE

NUMBER

DRAWING

1112-21

PROJECT

FOR CONSTRUCTION
* These drawings shall be read in conjunction with all other approved consultants drawings and specifications and with such other documents as may be required during the course of the contract.
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* Details of Quacent panels, should be read in conjunction with Quacent Design Guide.

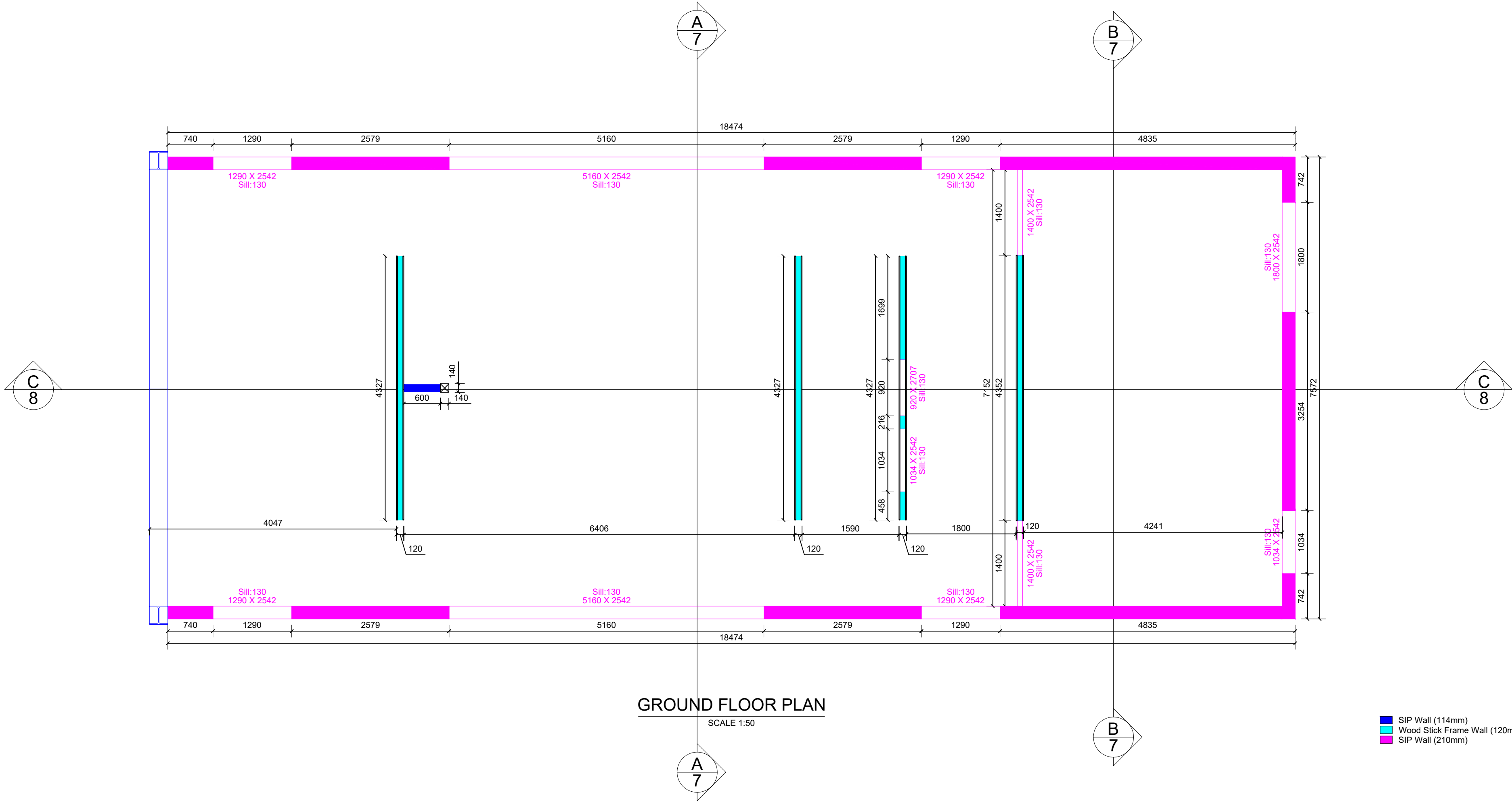
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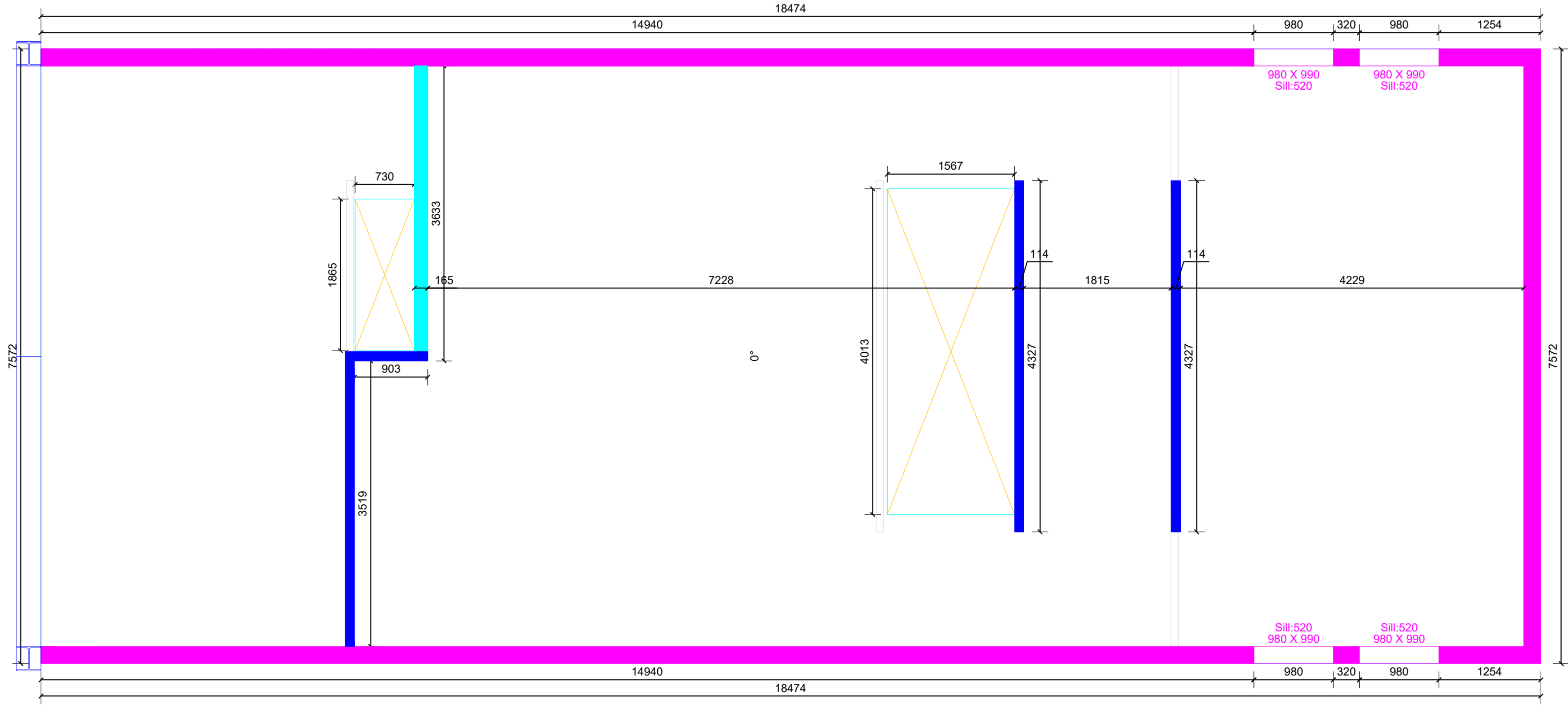




GROUND FLOOR PLAN
SCALE 1:50

GROUND FLOOR PLAN		1	A2
DRAWING		NUMBER	PAPER

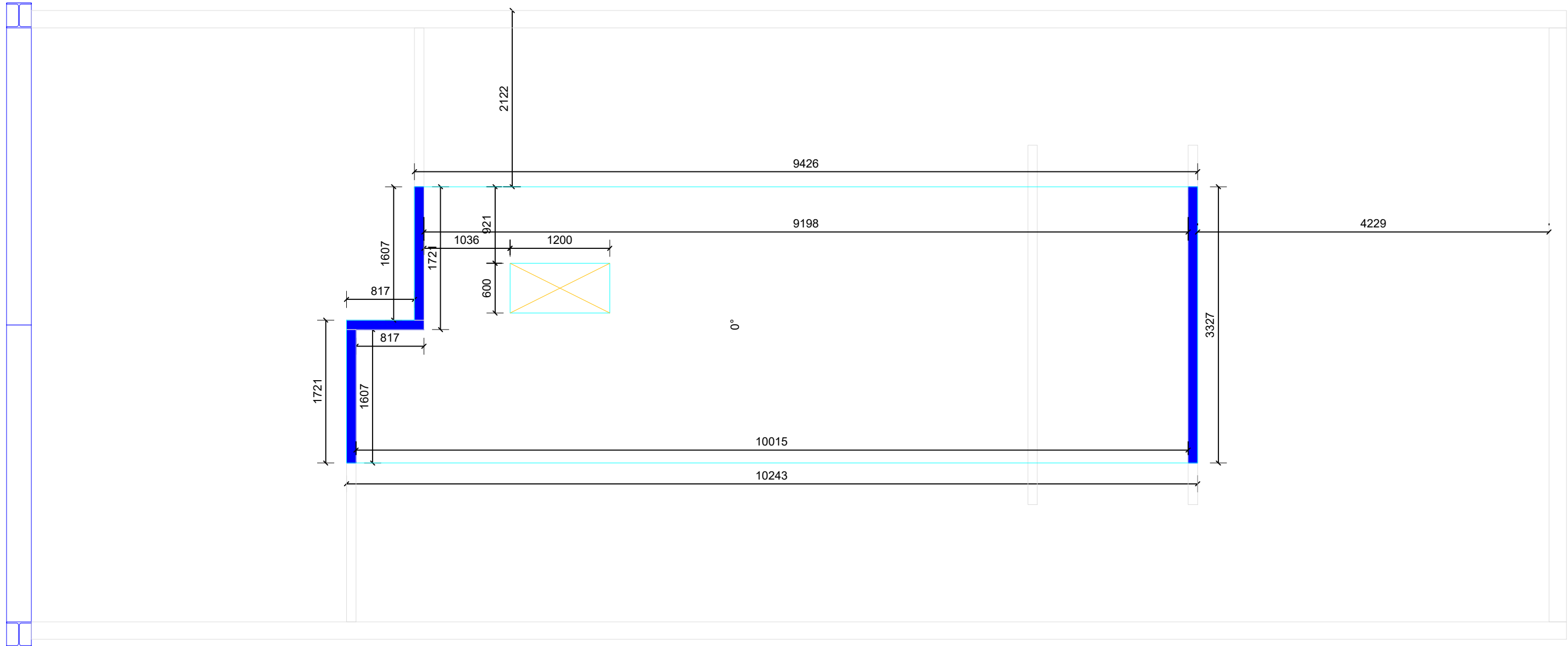
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FIRST FLOOR PLAN
SCALE 1:50

- SIP Wall (114mm)
- SIP Wall (165mm)
- SIP Wall (210mm)



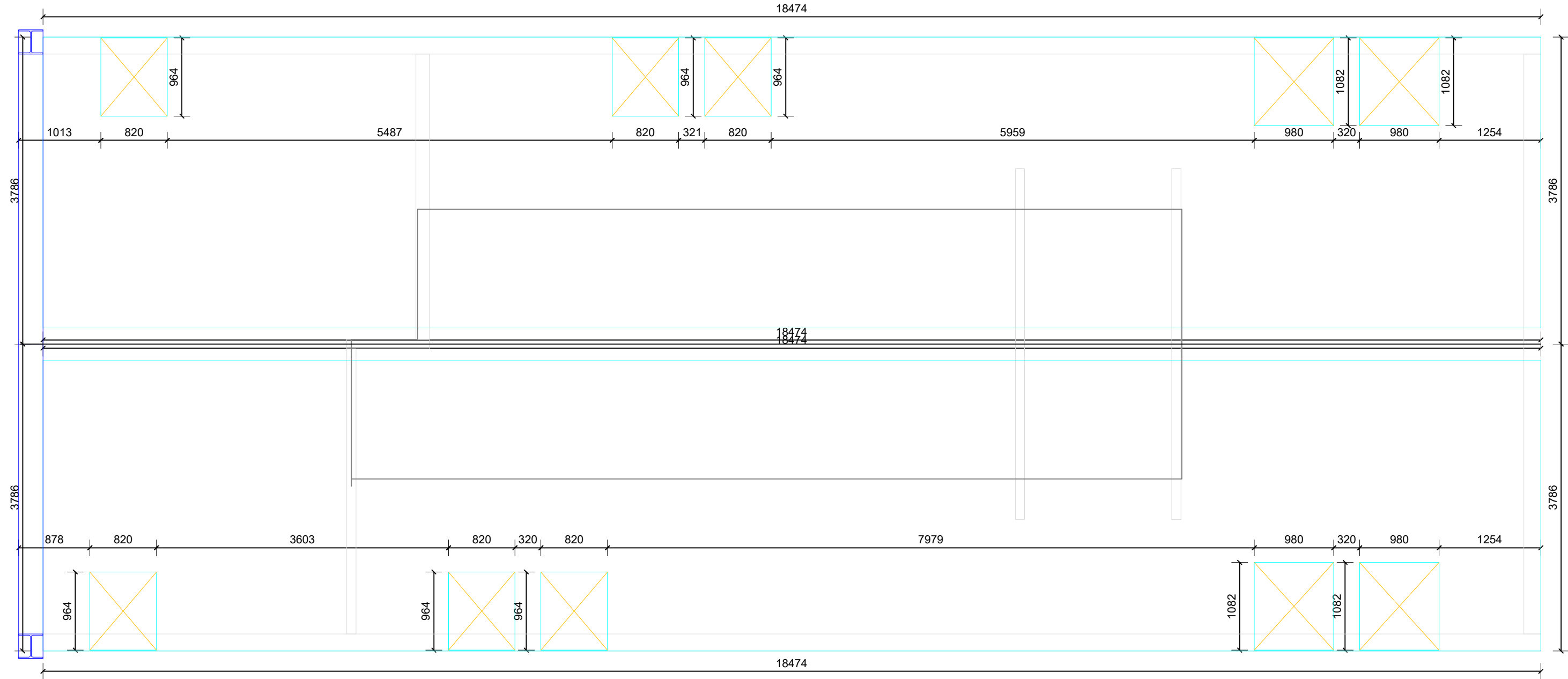


ATTIC FLOOR PLAN
SCALE 1:50

ATTIC FLOOR PLAN		3	A2
DRAWING		NUMBER	PAPER



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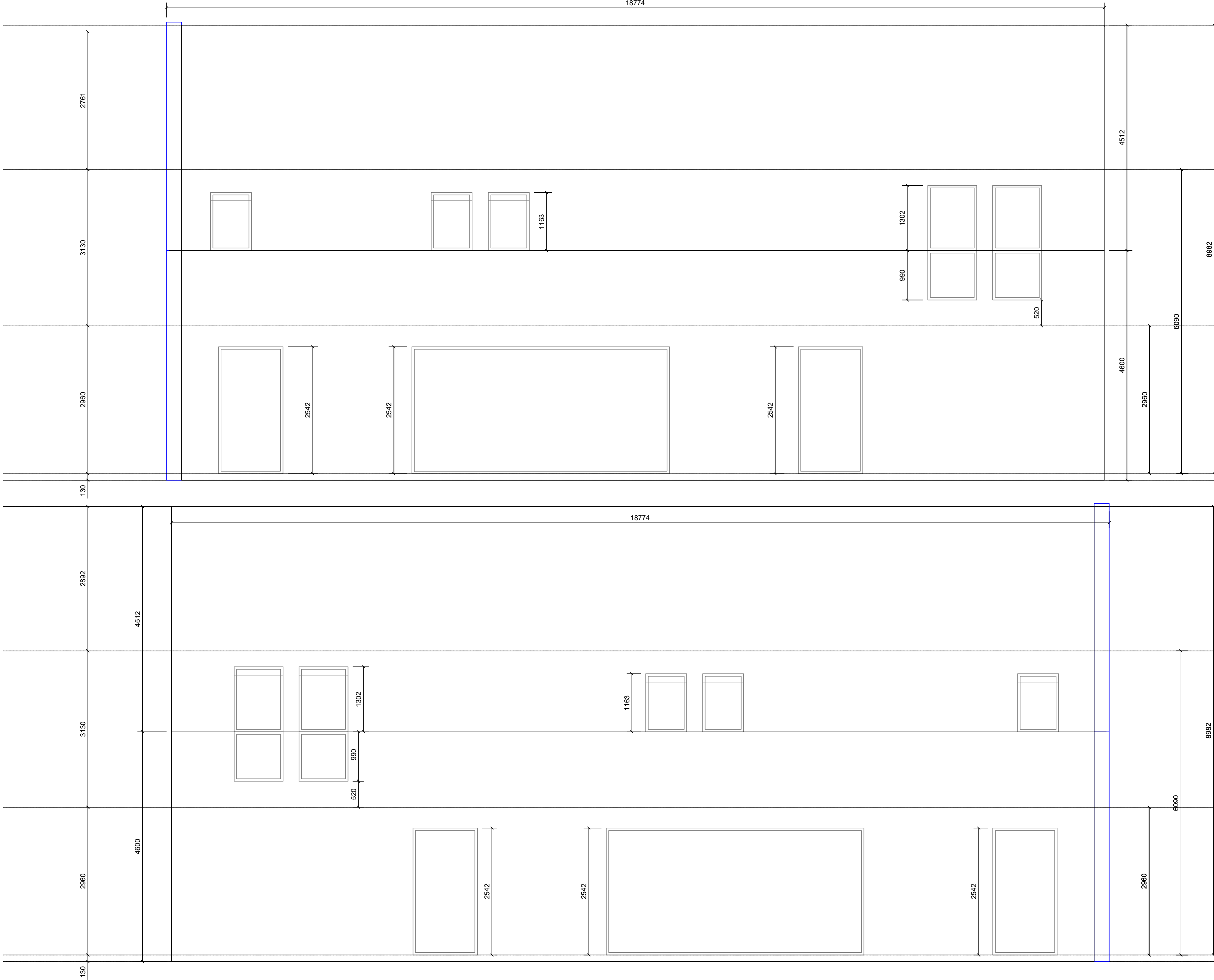


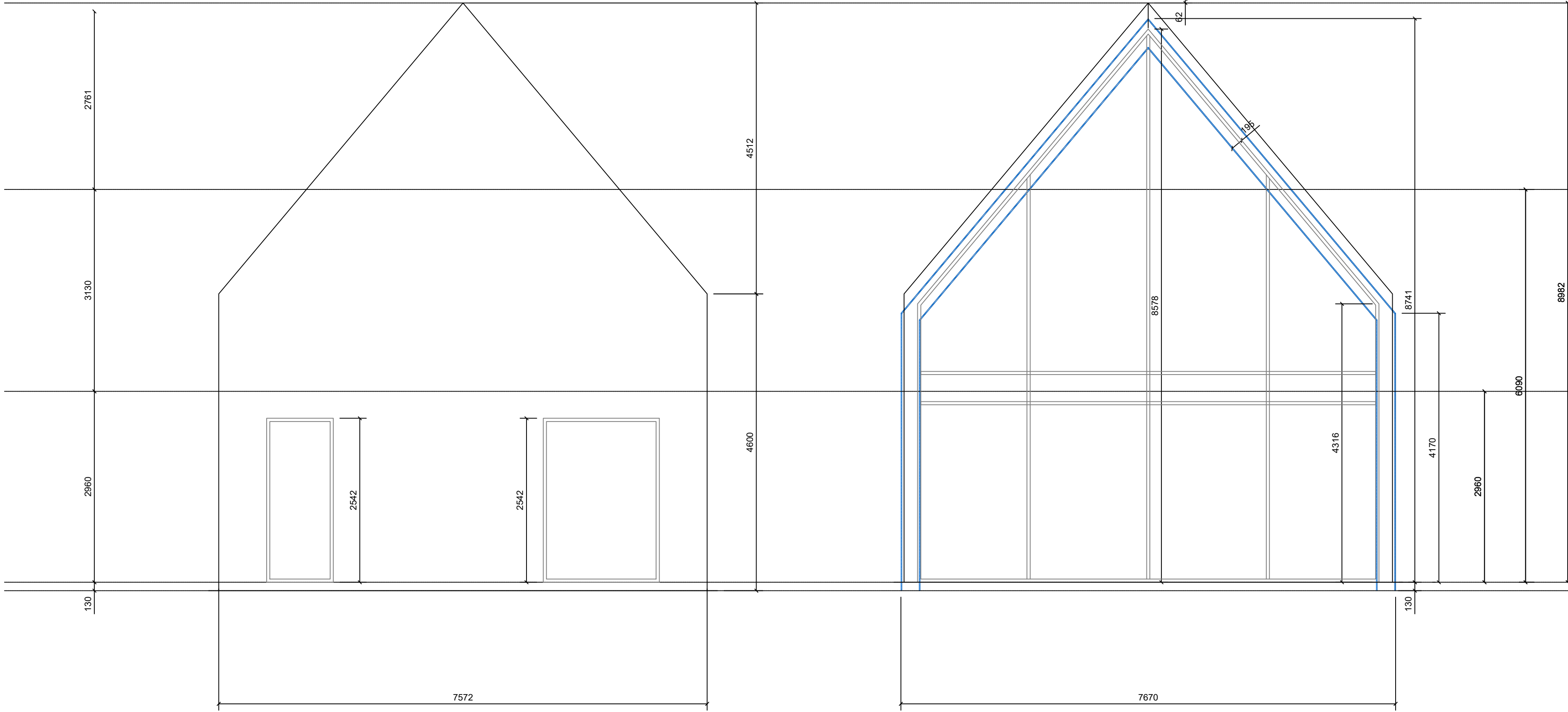
ROOF PLAN
SCALE 1:50

ROOF PLAN		4	A2
DRAWING		NUMBER	PAPER



1112-21	PROJECT	FOR CONSTRUCTION • These drawings shall be read in conjunction with all other approved consultants drawings and specifications and with such other documents as may be required for the execution of the works. • Workmanship and materials are to be in accordance with Local Building Code and all relevant Local Standards. • Details of Quacent panels, should be read in conjunction with Quacent Design Guide.	22-04-07 INST. V1	ISS DATE AND VERSION
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1112-21

PROJECT

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22-04-07 INST. V1

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EAST & WEST ELEVATION

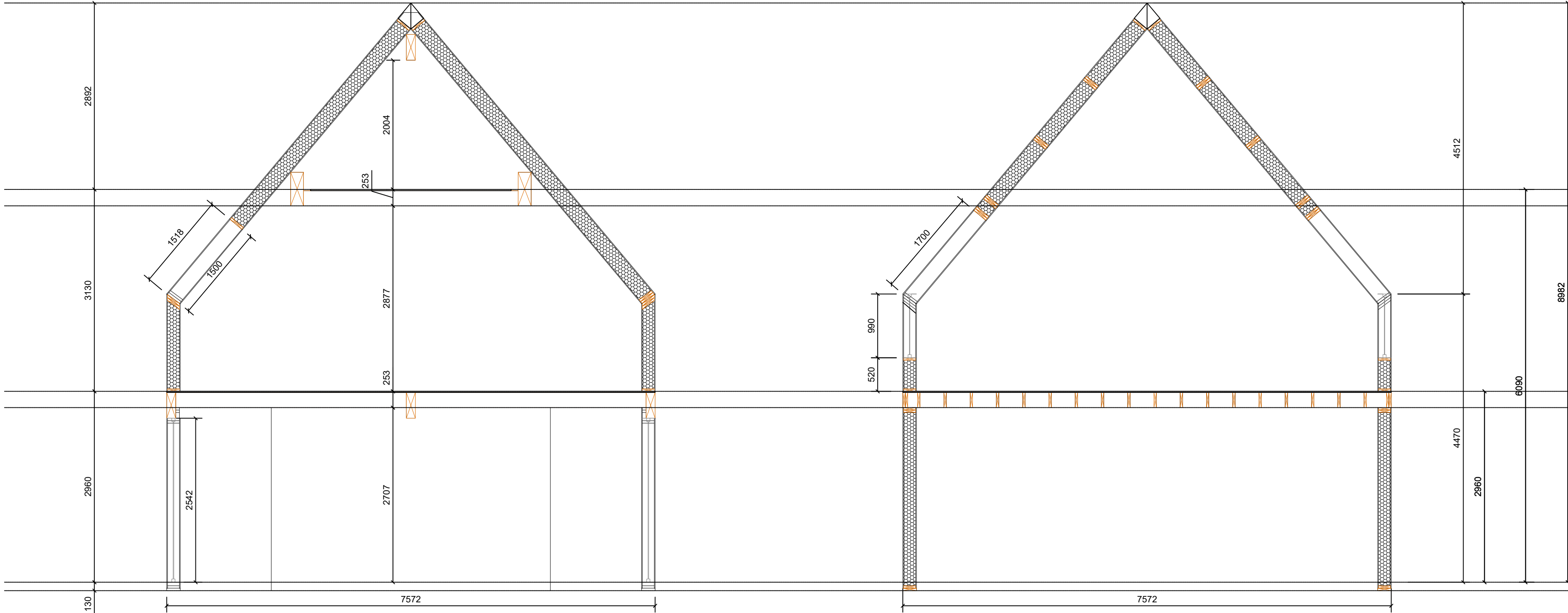
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DRAWING

NUMBER

A2

PAPER

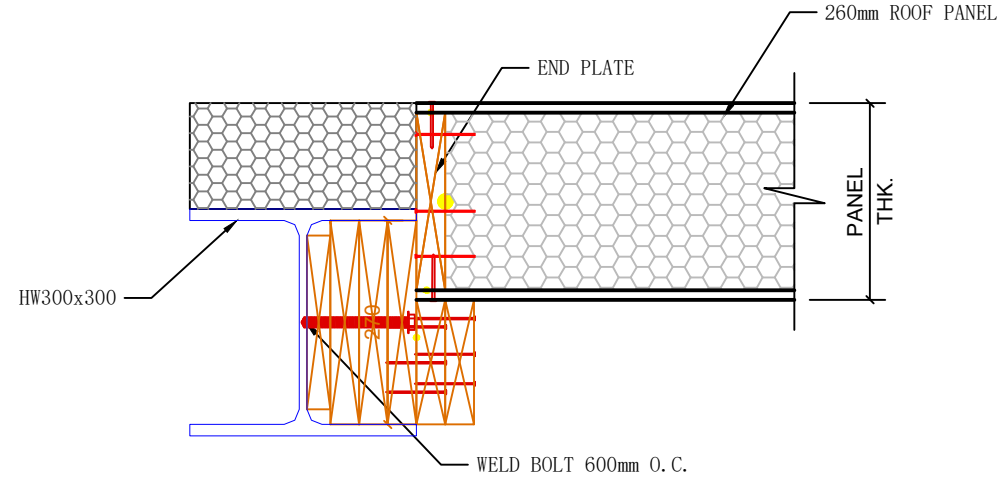


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1 SECTION
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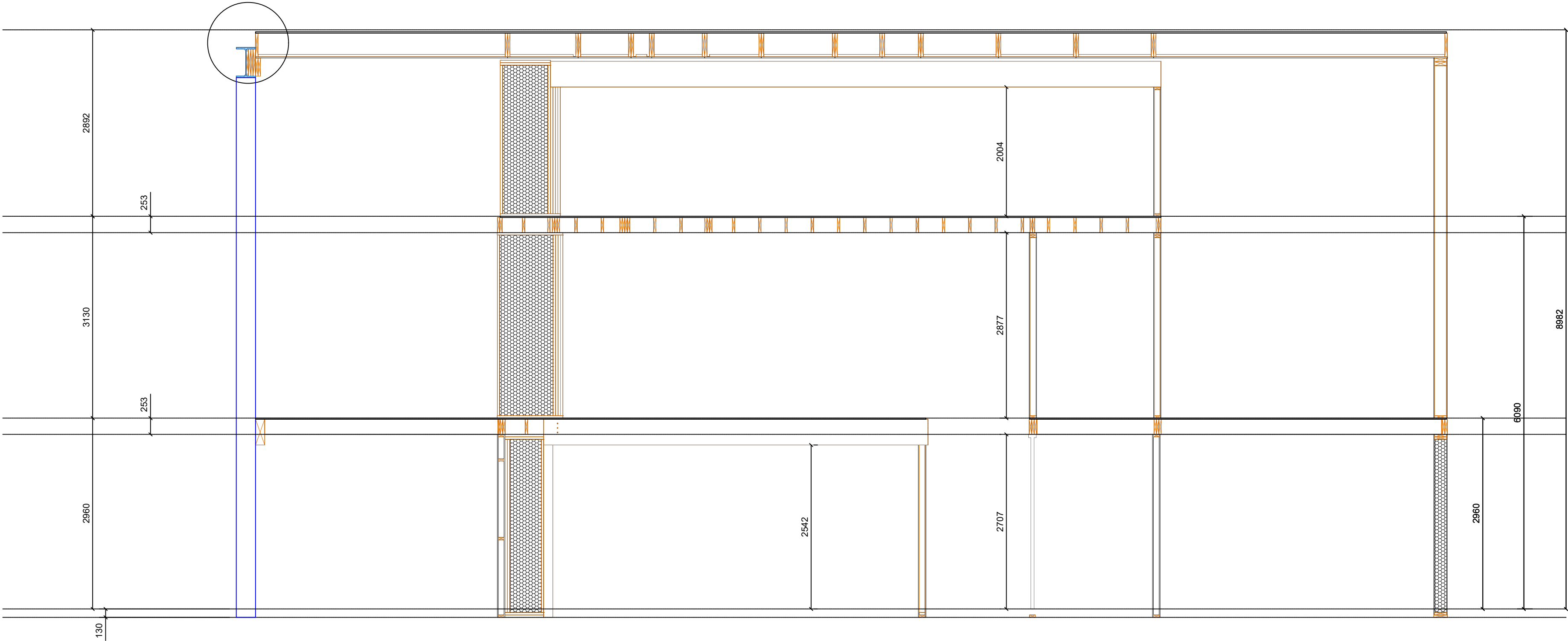
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1 SECTION
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SECTIONS		7	A2
DRAWING		NUMBER	PAPER

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DETAIL
SCALE : NTS

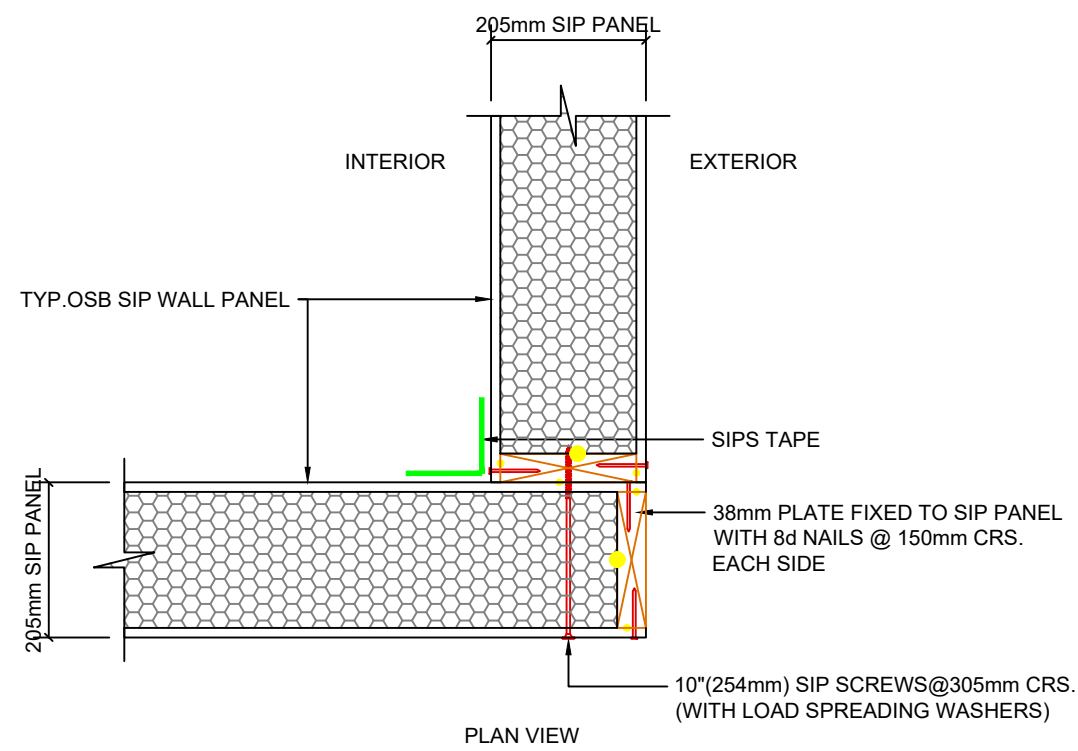


C
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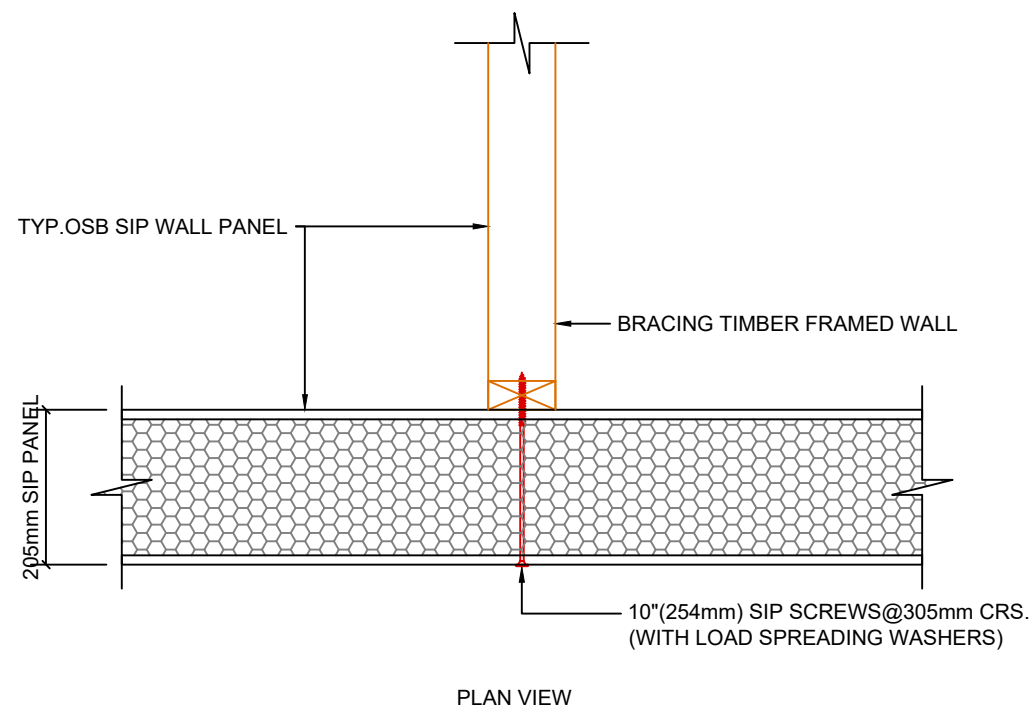
SECTION
SCALE: 1:50

1112-21	PROJECT	FOR CONSTRUCTION • These drawings shall be read in conjunction with all other approved consultants drawings and specifications and with such other documents as may be referred to in the contract. • Workmanship and materials are to be in accordance with Local Building Code and all relevant Local Standards. • Details of Quacient panels, should be read in conjunction with Quacient Design Guide.	22-04-07 INST. V1	ISS DATE AND VERSION	SCALE 1:50	
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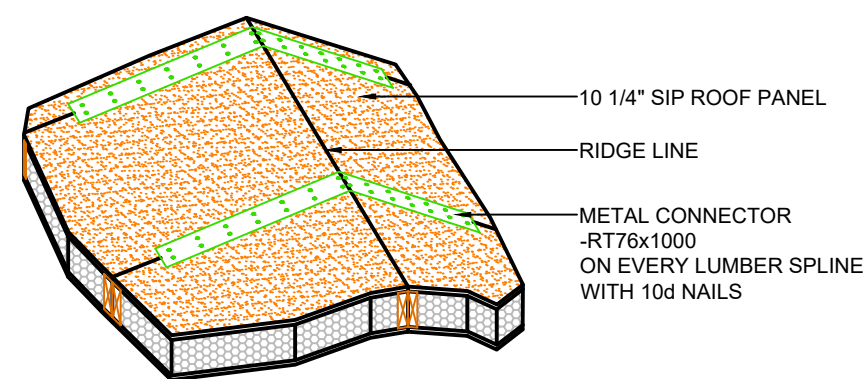
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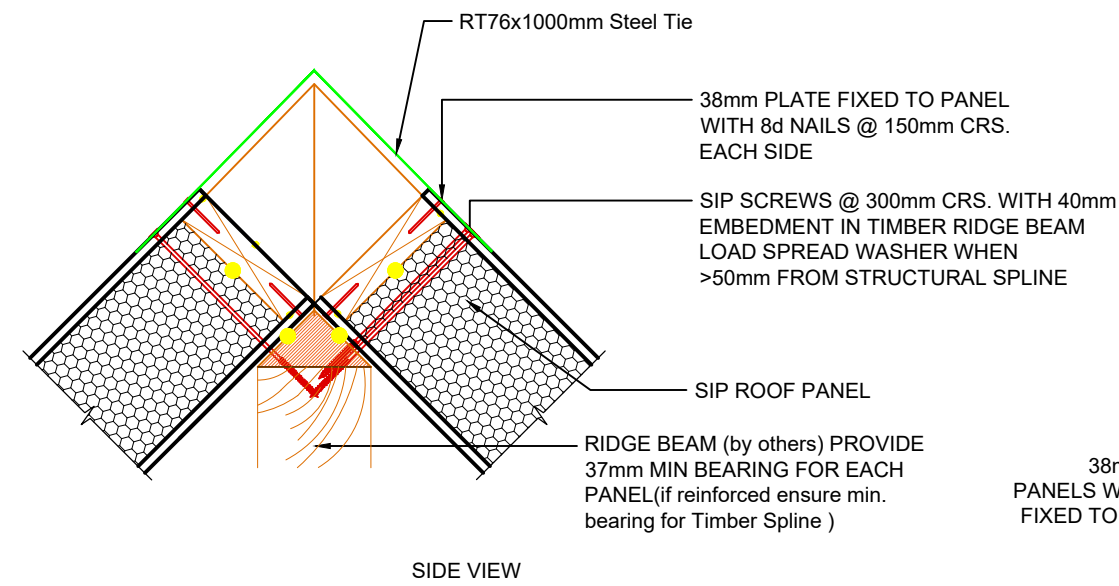
TYPICAL DETAIL
CONNECTION - EXTERNAL CORNER WALL L-CONNECTION
SCALE: NTS



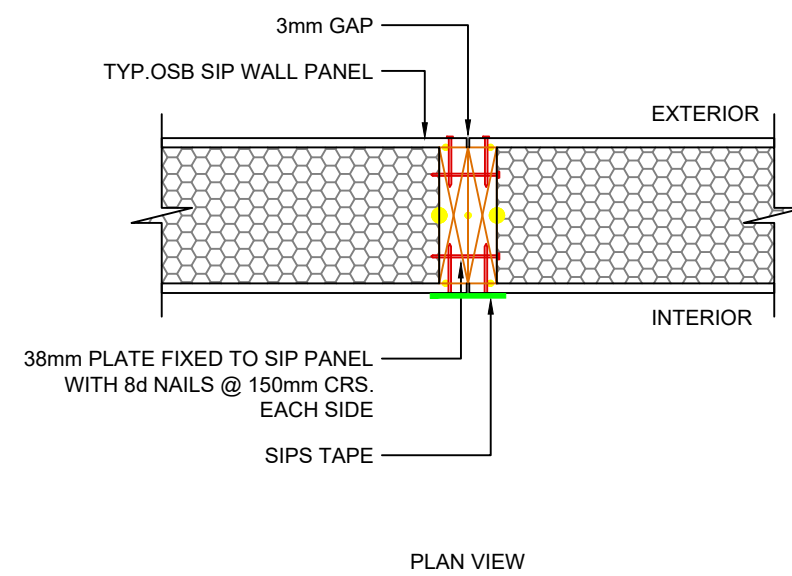
TYPICAL DETAIL
CONNECTION - SIP WALL TO FRAMED WALL CONNECTION
SCALE: NTS



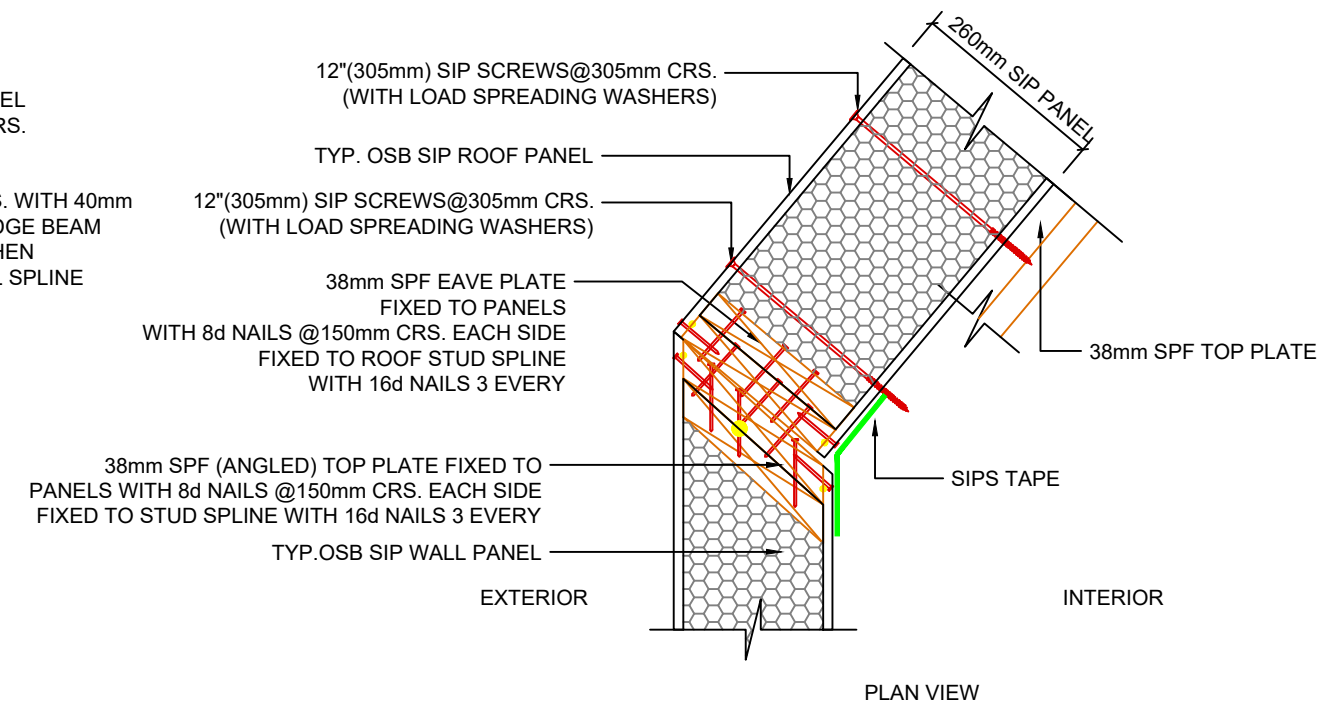
DETAIL
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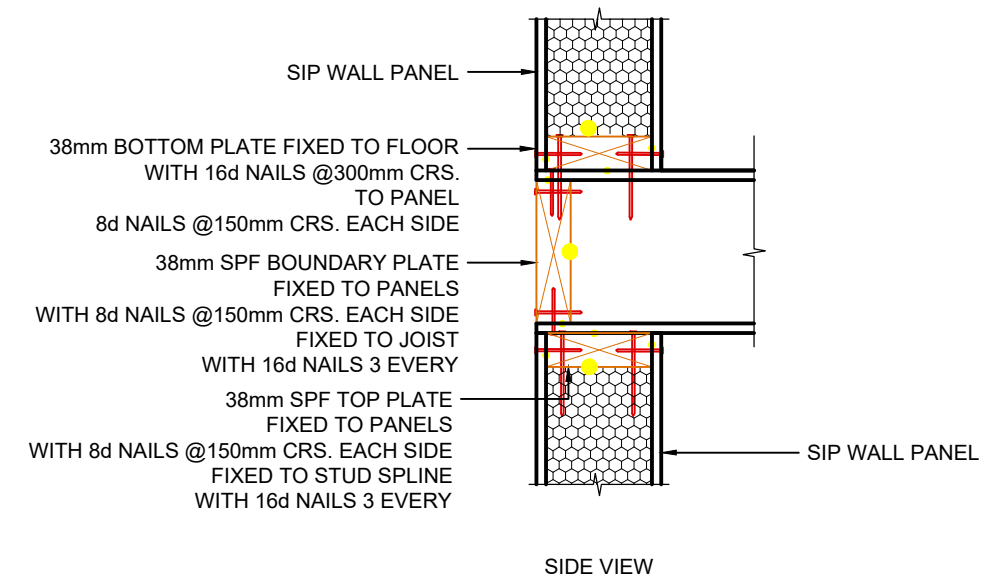
TYPICAL DETAIL
CONNECTION - ROOF TO BEAM
SCALE: NTS



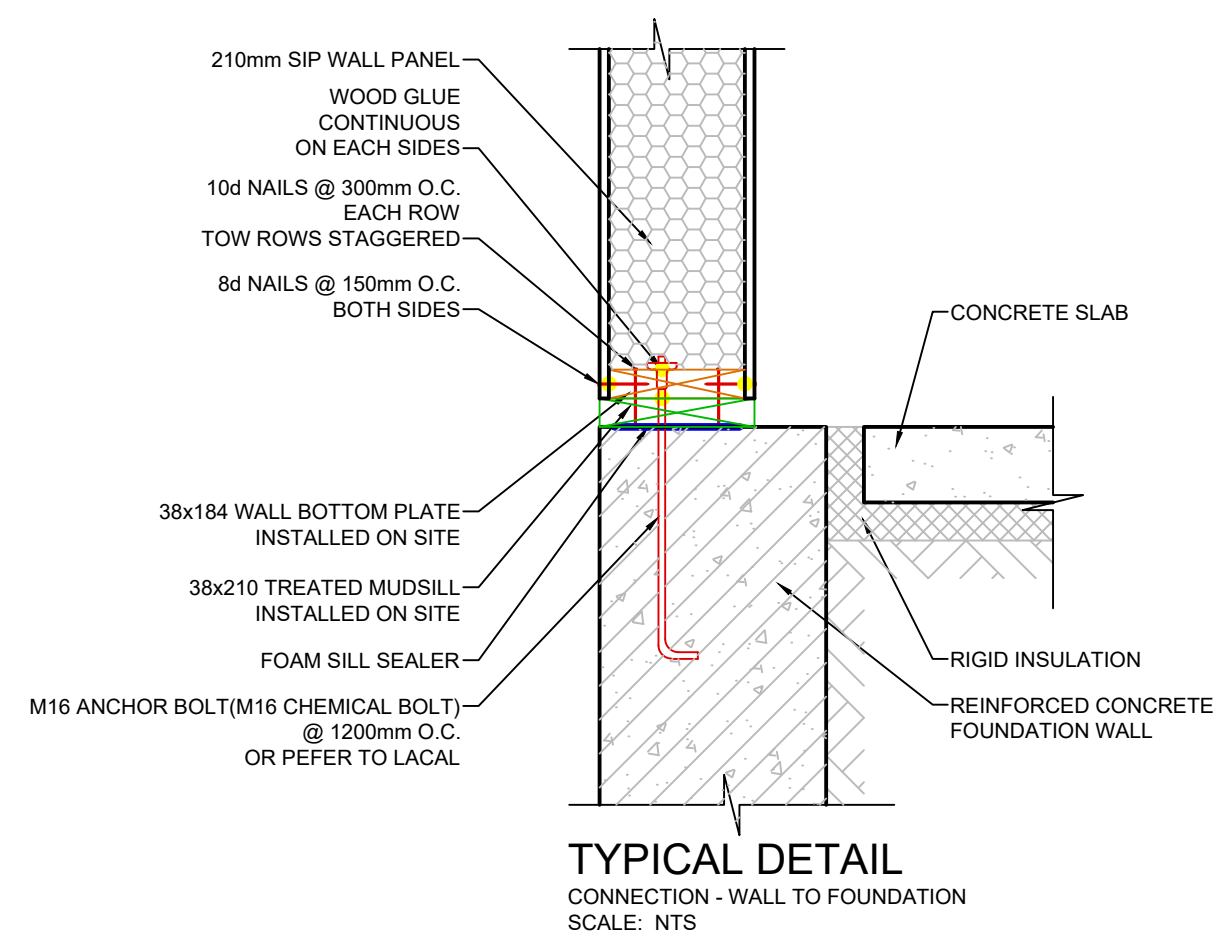
TYPICAL DETAIL
VERTICAL SPLINE CONNECTION- (2) 38x SPLINE
SCALE: NTS



TYPICAL DETAIL
CONNECTION - ROOF TO WALL CONNECTION
SCALE: NTS



TYPICAL DETAIL
CONNECTION - WALL TO MIDFLOOR
SCALE: NTS



TYPICAL DETAIL
CONNECTION - WALL TO FOUNDATION
SCALE: NTS

A2

9

NUMBER

DETAILS

DRAWING

QUACENT

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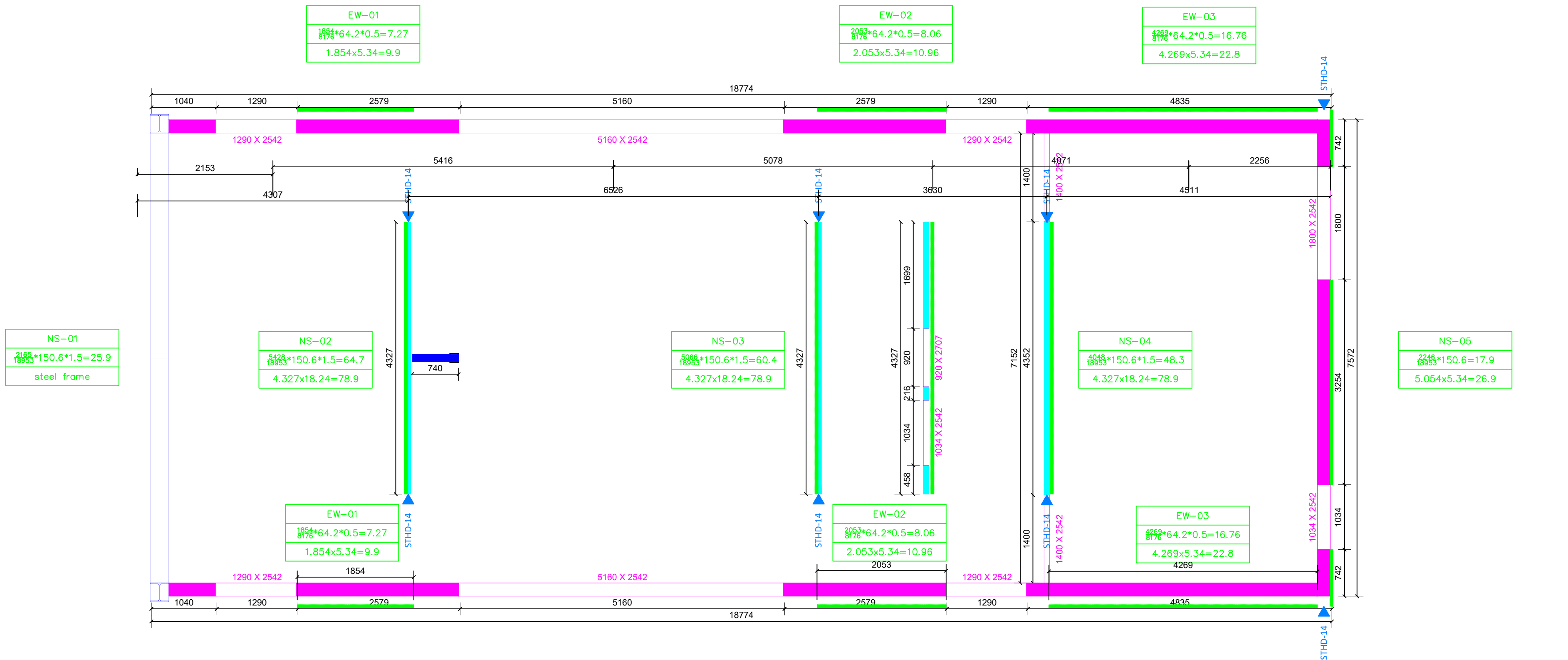
22-04-07 INST. V1

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PROJECT

SCALE 1:50

1112-21



GENERAL NOTE:

Wall wind load : 1.58 kPa.
Wall dead load : 0.50 kPa.

SHEAR WALL

- SIP Wall (114mm)
- Wood Stick Frame Wall (120mm)
- SIP Wall (210mm)

GROUND FLOOR BRACE PLAN

SCALE 1:50

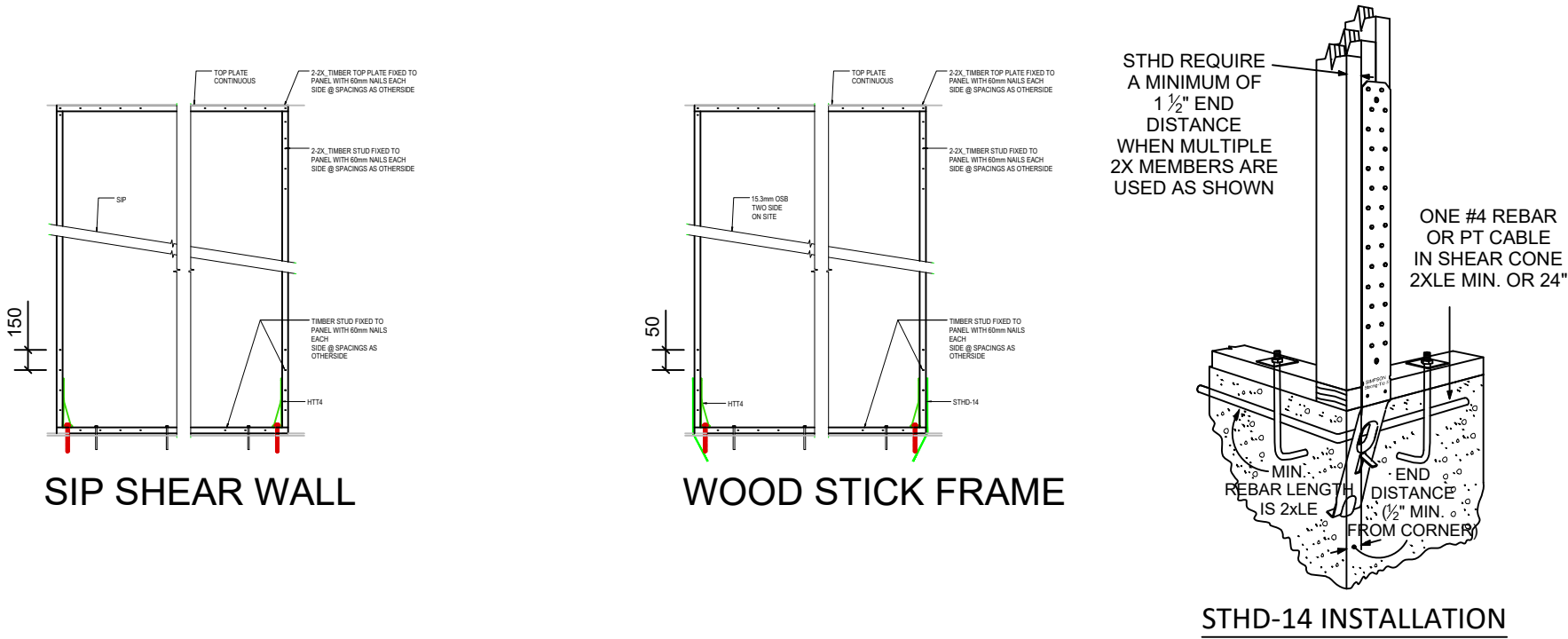
WALL PANEL SPECIFIED LOADS (ASD)					
2-2x8 SPF SPLINE JOINTS@1220mm On Center					
Thickness		Allowable Deflection	PANEL SPAN 3050mm		
			TRANSVERSE WIND LOAD WITH AXIAL LOAD =32 KN/m		
SIP	EPS		wind design value	allowable strength	
210mm	187mm	L/360	1.58 KPa	4.01 KPa	
		L/240	1.58 KPa	4.82 KPa	
ASD Allowable Racking Shear Loads for SIP System					
210mm	187mm			5.34 Kn/m	
WOOD STICK FRAME WALL SPECIFIED LOADS (LRFD)					
OSB	SPF	NAILS	design strength (F _{wd})	design strength	
15.3mm	89mm	3.25*60mm	11.4 Kn/m	18.24 Kn/m(11.4*0.8*2)	

horizontal
Awind=0.5x7.9x4.7+7.9x2.78=40.6m²
Fwind=40.6x1.58=64.2KN

lengthways
Awind=19x4.7+19x2.78=89.3+52.9 m²
Fwind=0.98xsin50x89.3+1.58x52.9=150.6KN

Aspect	wind design load
NS↑	150.6KN
EW→	64.2KN

NAME	NS-01
Distribution(KN)	$\frac{7775}{13750} \times 79.8 \times \frac{3251}{11471} = 12.93$
Resistance(KN)	$3.2 \times 5.34 = 17.1$

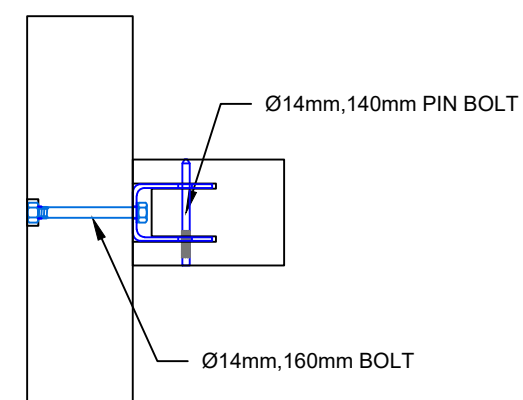




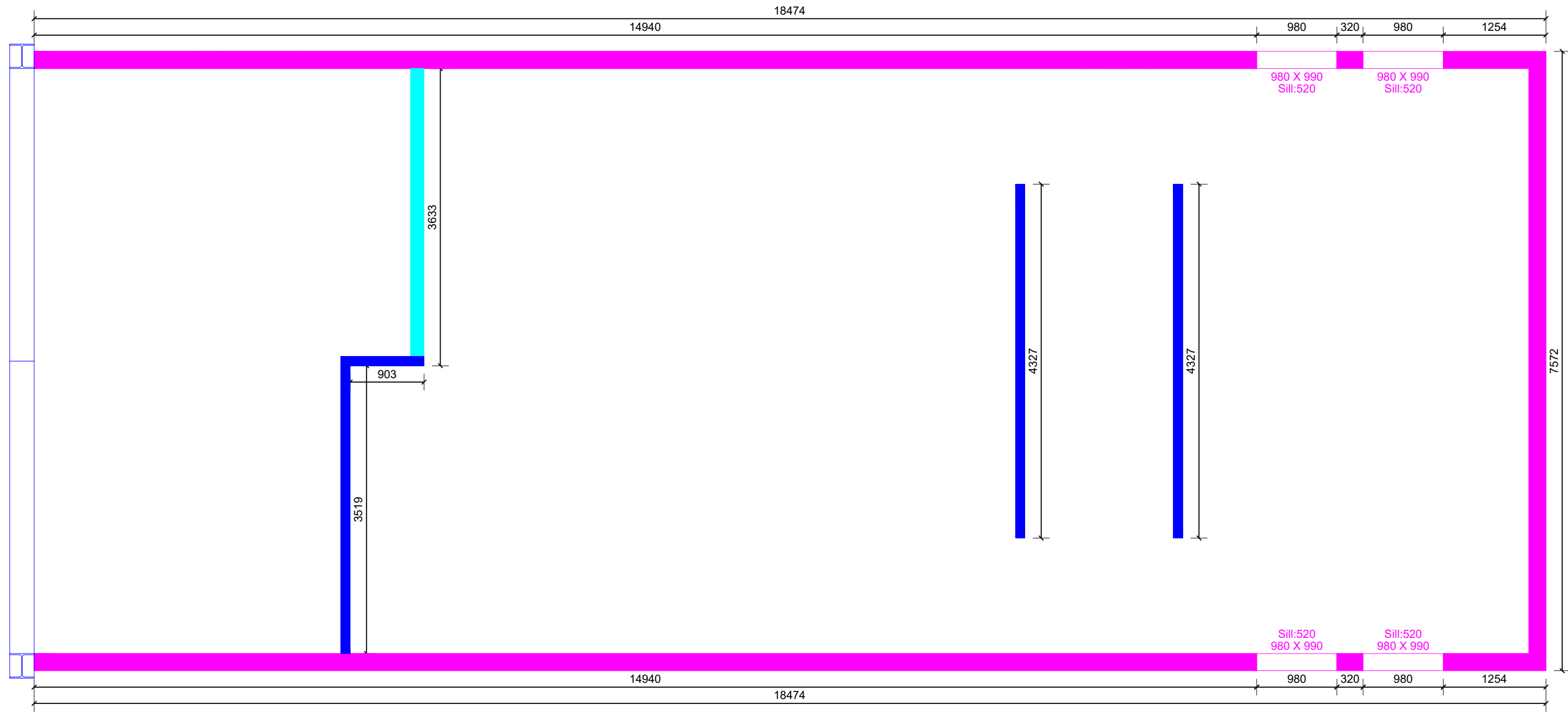
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POST

STEEL FRAME HW300X300X10X15



CONNECTION - BEAM TO BEAM CONNECTION
SCALE: NTS



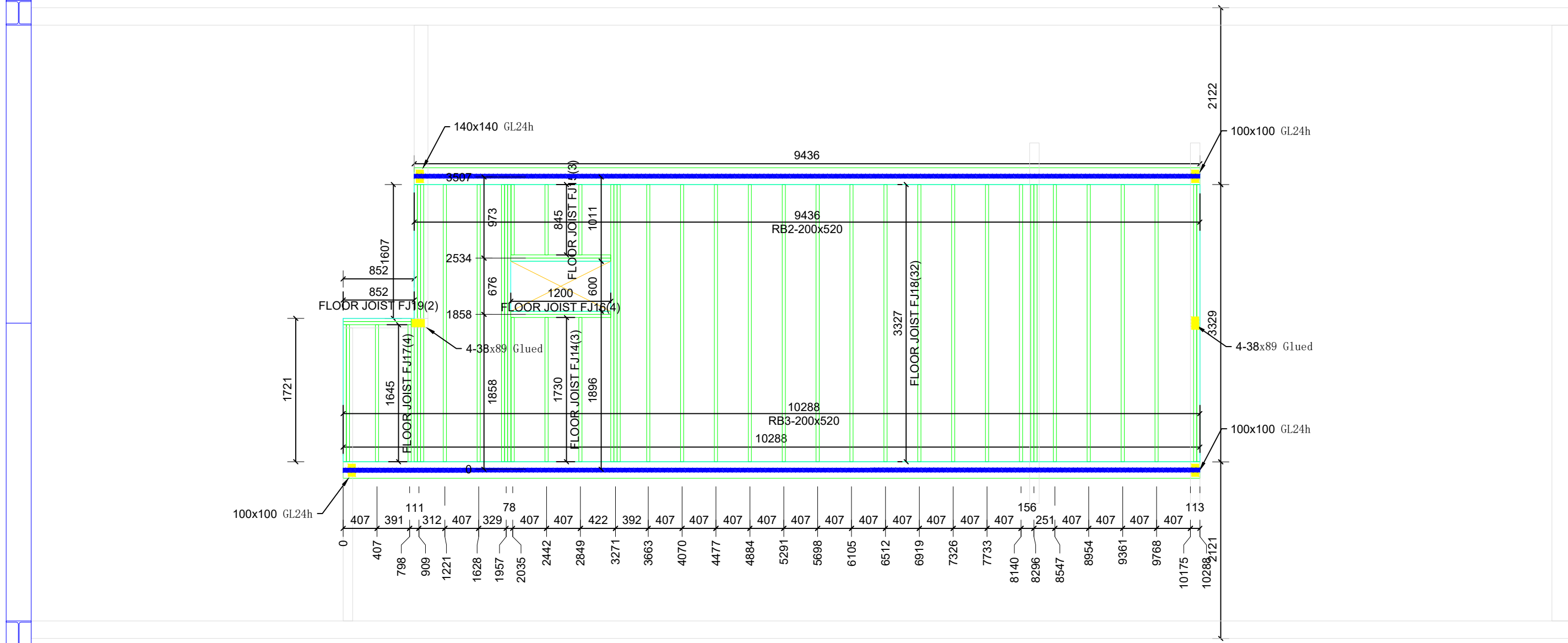
FIRST FLOOR BRACE PLAN
SCALE 1:50

GENERAL NOTE:
ALL WALLS ARE SHEAR WALLS

FIRST FLOOR BRACE PLAN		12	A2
DRAWING		NUMBER	PAPER



PROJECT	22-04-07 INST. V1	
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1112-21		



ATTIC FLOOR SUBFLOOR LAYOUT
SCALE 1:50

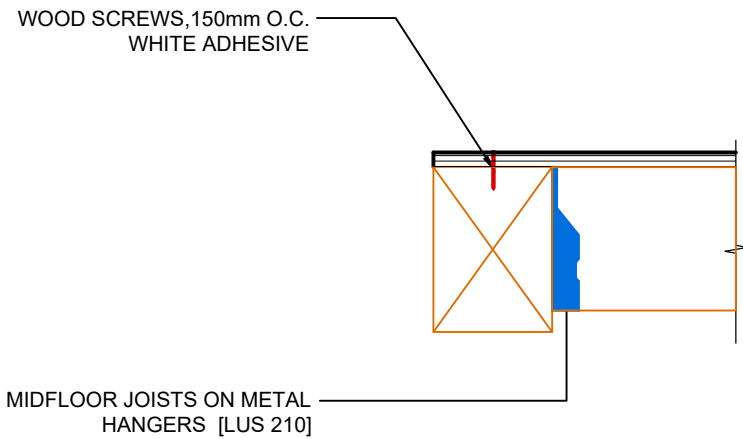
GENERAL NOTE:

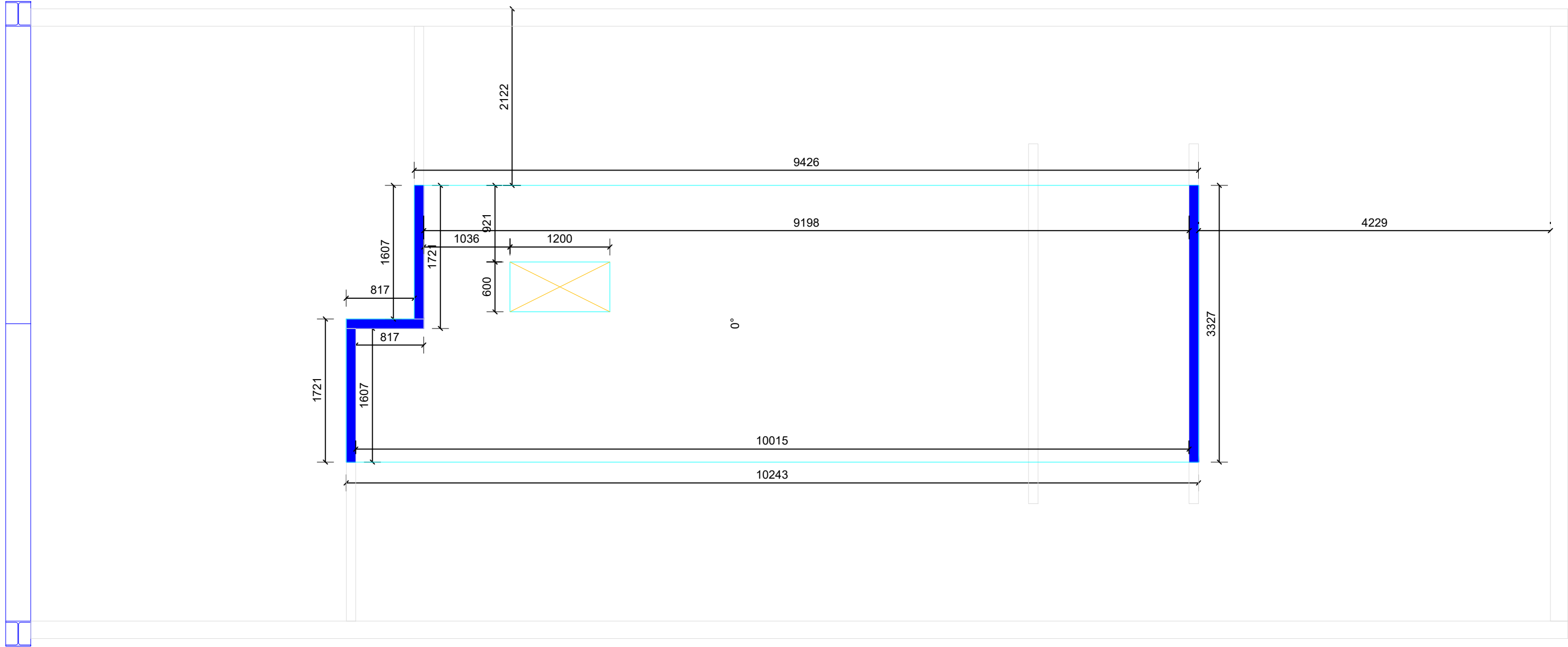
Attic Floor live load : 1.00 kPa.
Attic Floor dead load : 0.4 kPa.
Roof wind load : 0.98 kPa.
Roof snow load : 0.19 kPa.
Roof live load : 0.5 kPa.
Roof dead load : 1.01 kPa.

RB2 : 200x520 GLULAM GL32c
FB3 : 200x520 GLULAM GL32c

FJ: 38X235 SPF No.2 @407mm CRS
SUBFLOOR: 18.3mm OSB T&G

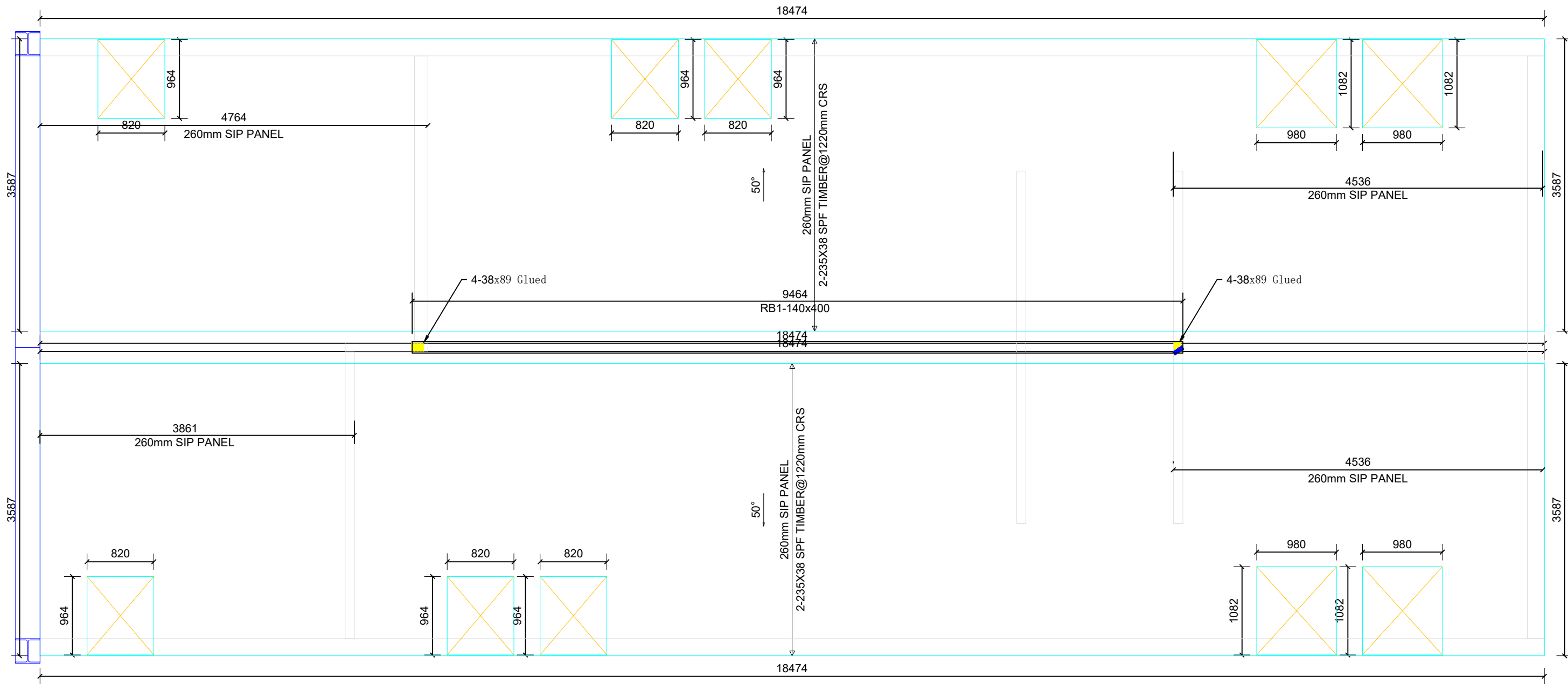
POST





ATTIC FLOOR BRACE PLAN
SCALE 1:50

GENERAL NOTE:
ALL WALLS ARE SHEAR WALLS



ROOF FRAME PLAN
SCALE 1:50

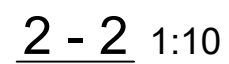
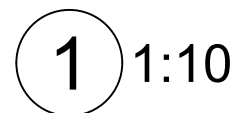
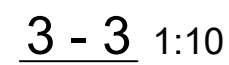
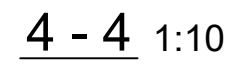
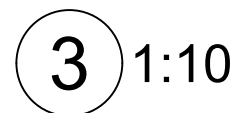
GENERAL NOTE:

- Roof wind load : 0.98 kPa.
- Roof snow load : 0.19 kPa.
- Roof live load : 0.5 kPa.
- Roof dead load : 1.01 kPa.

ROOF PANEL TRANSVERSE LOADS				
2–2x10 SPF SPLINE JOINTS@1220mm On Center				
Thickness		Allowable Deflection	PANEL SPAN 6100mm	
SIP	EPS		design value	allowable strength
260mm	238mm	L/360	1.01 KPa	1.29 KPa
		L/240	1.99 KPa	2.01 KPa
Allowable In–Plane Shear Strength for Horizontal Diaphragms Subjected to wind or Seismic Loading				
260mm	238mm		3.35 KN/m	3.87 KN/m

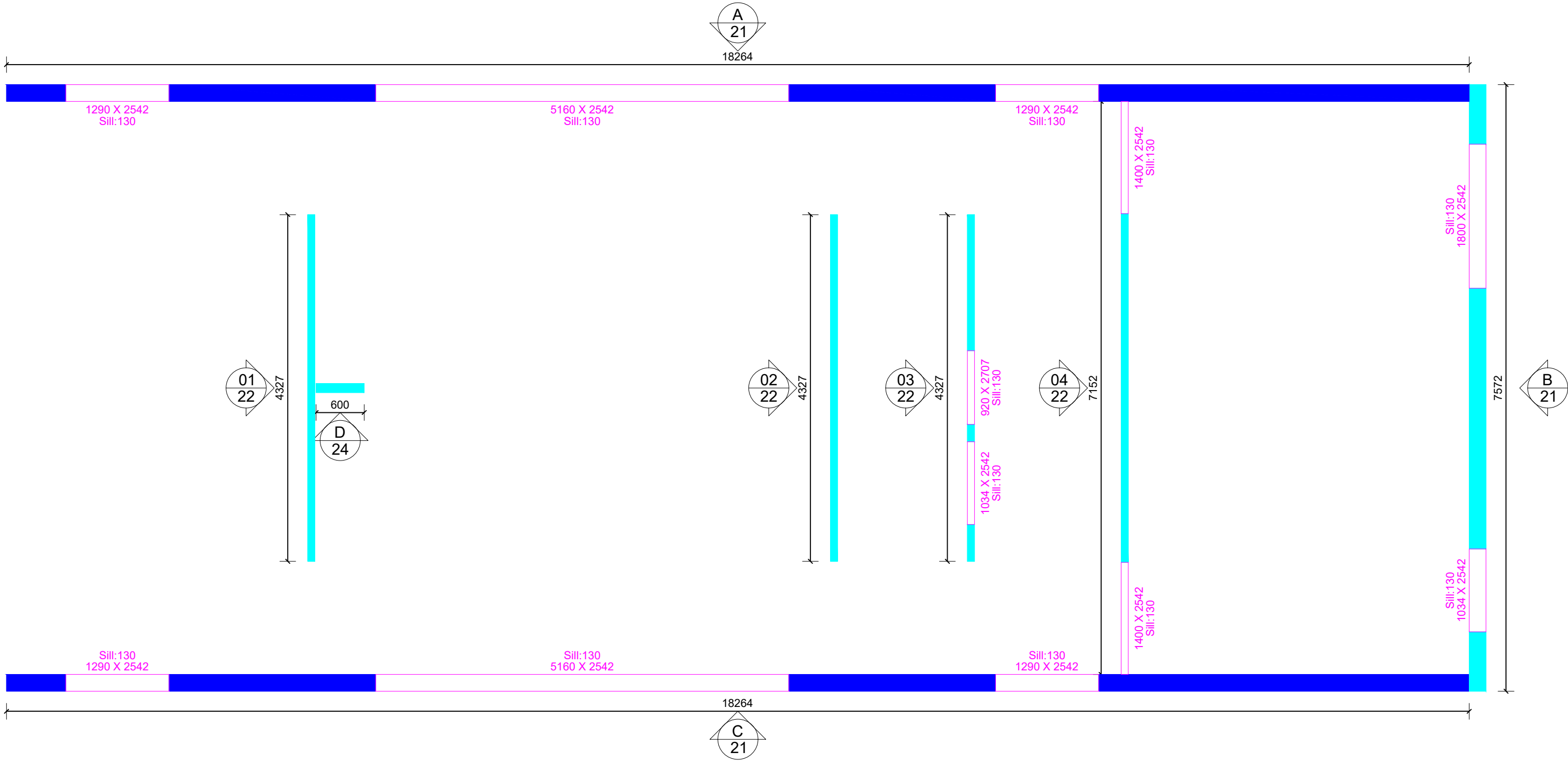
RB1 : 140x400 GLULAM GL32h

: POST

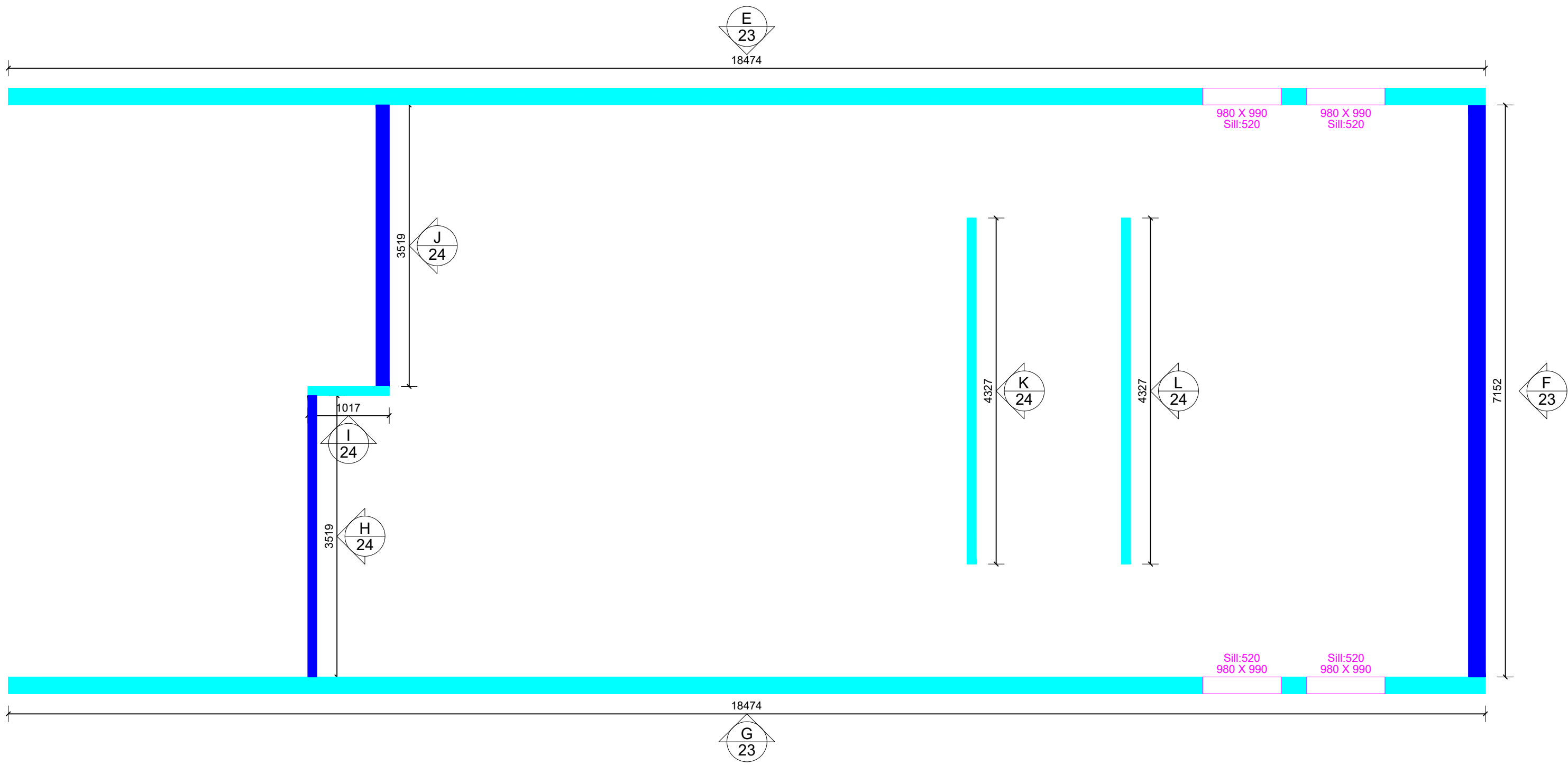


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STEEL FRAME HW300X300X10X15 Q235
WELD ON SITE



GROUND FLOOR PANEL VIEW
SCALE 1:50

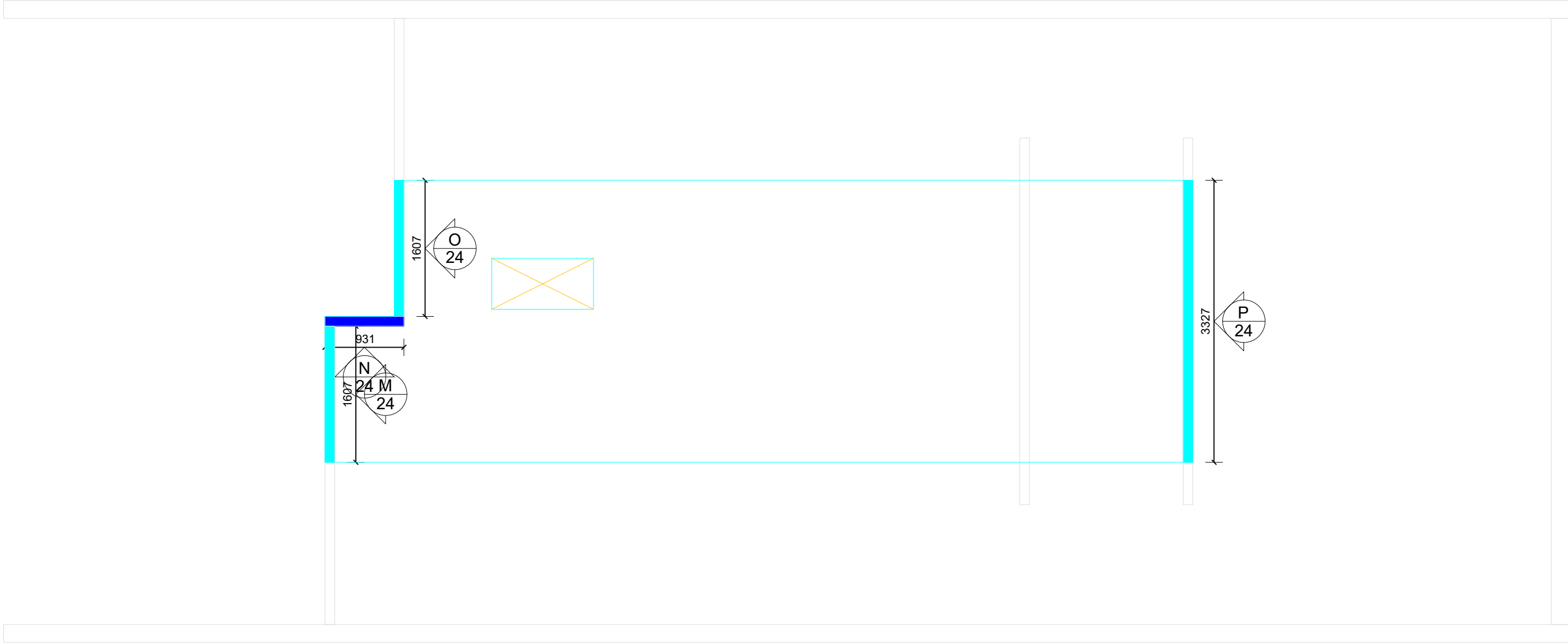


FIRST FLOOR PANEL VIEW
SCALE 1:50

FIRST FLOOR PANEL VIEW		18	A2
DRAWING		NUMBER	PAPER



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ATTIC FLOOR PANEL VIEW
SCALE 1:50

1112-21

PROJECT

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ATTIC FLOOR PANEL VIEW

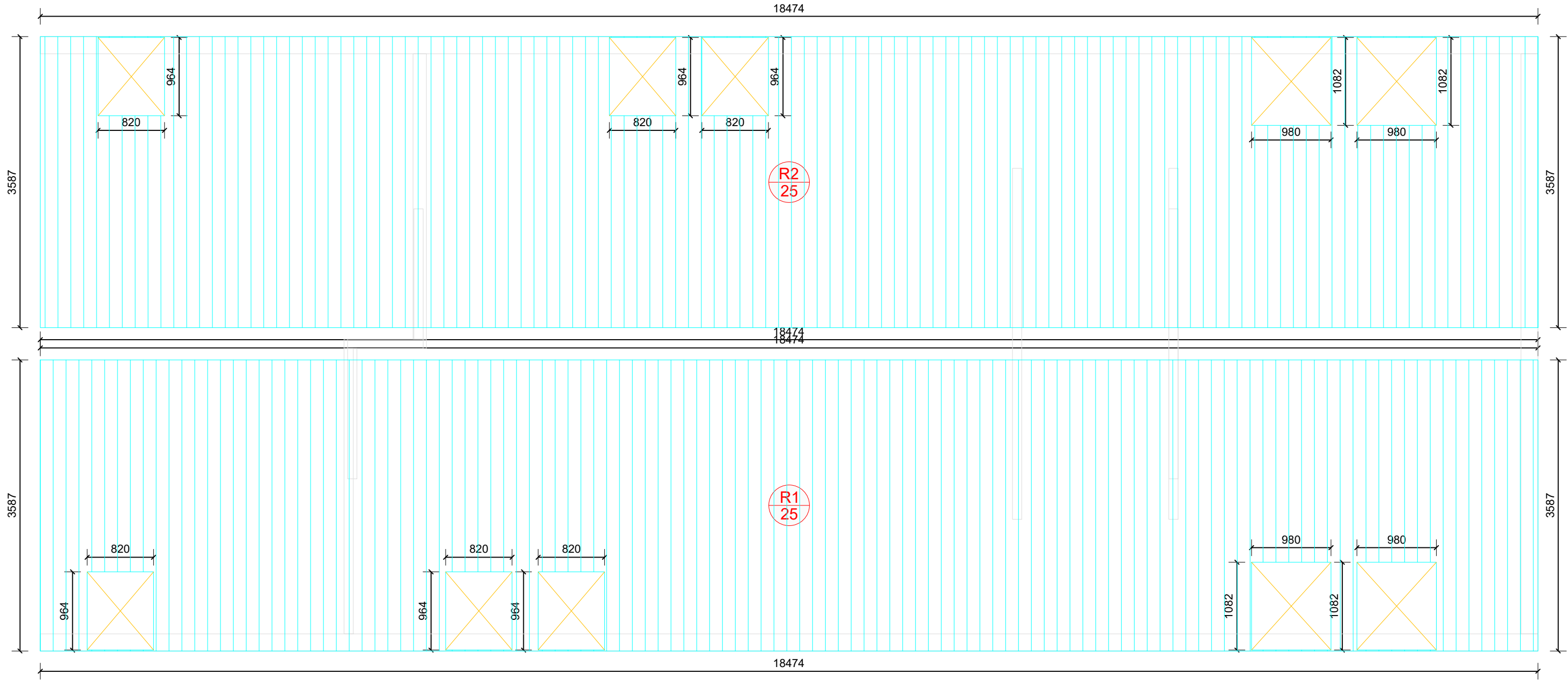
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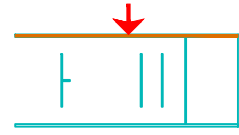
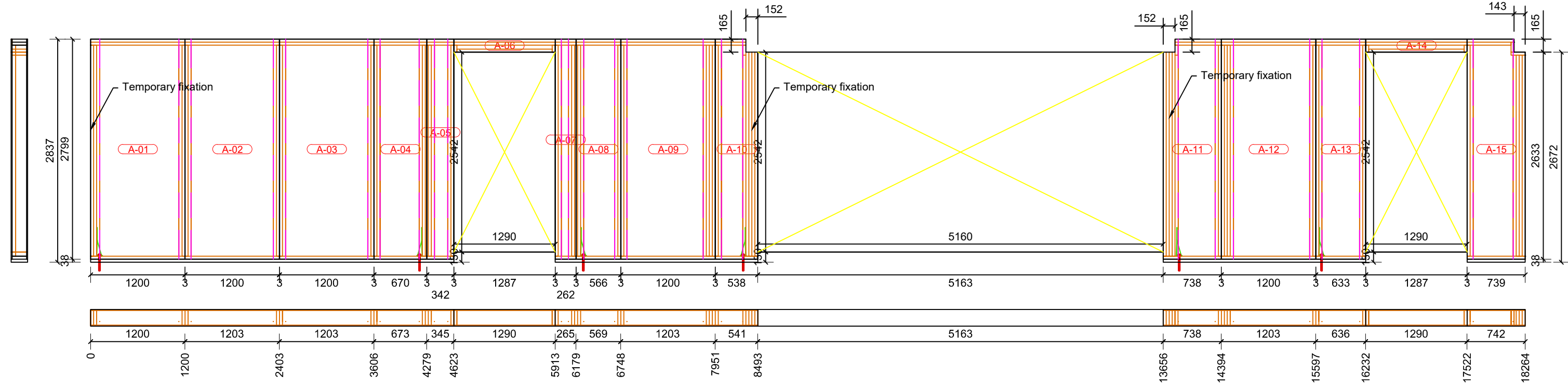
ROOF PANEL VIEW
SCALE 1:50

ROOF PANEL VIEW		20	A2
DRAWING		NUMBER	PAPER

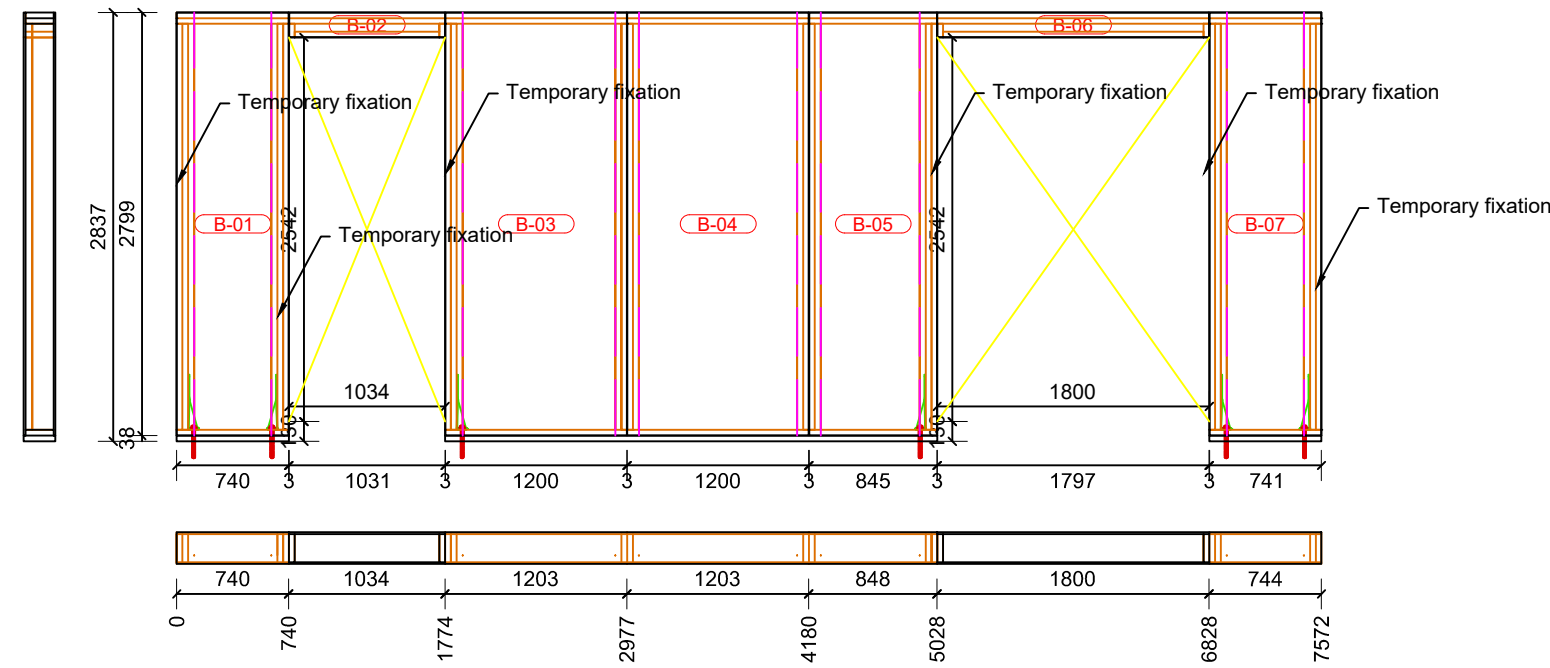


1112-21	PROJECT	FOR CONSTRUCTION: * These drawings shall be read in conjunction with all other approved consultants drawings and specifications and with such other drawings and written instructions that may be issued during the course of the design and construction of the project. * Workmanship and materials to be in accordance with Local Building Code and all relevant Local Statutes. * All drawings should be read in conjunction with Quacient Design Guide.	22-04-07 INST. V1
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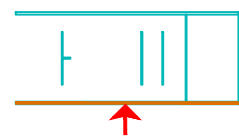
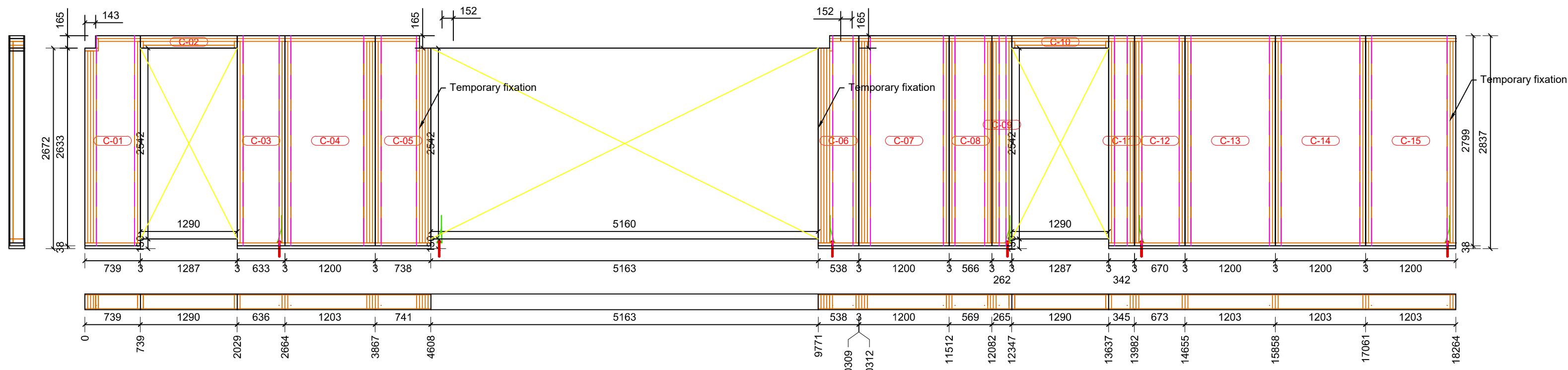
FOR CONSTRUCTION
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* Workmanship and materials are to be in accordance with Local Authority requirements.
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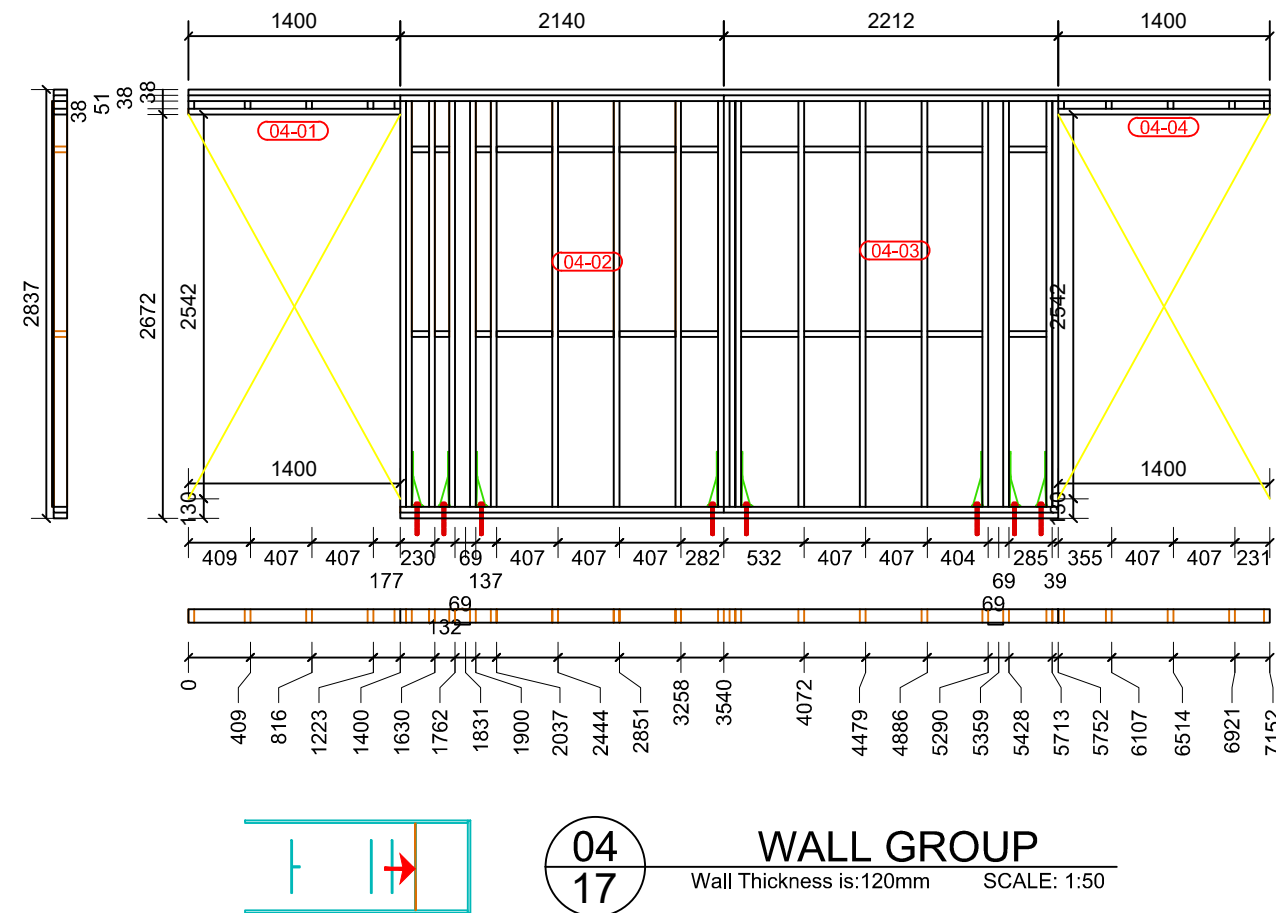
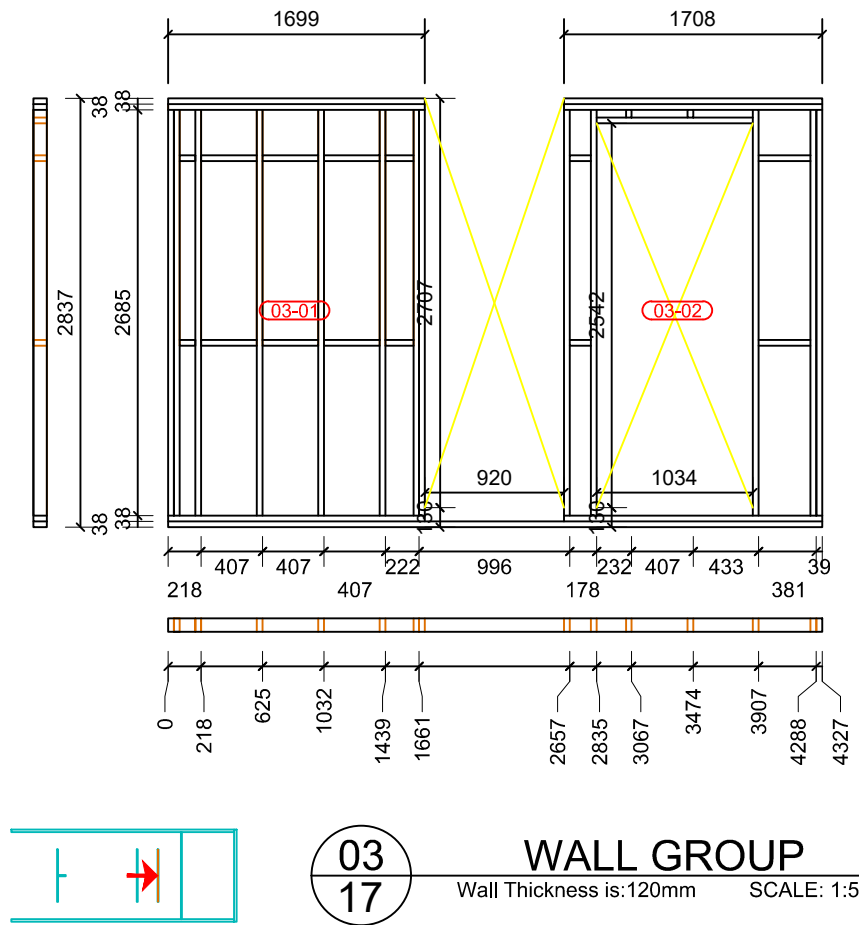
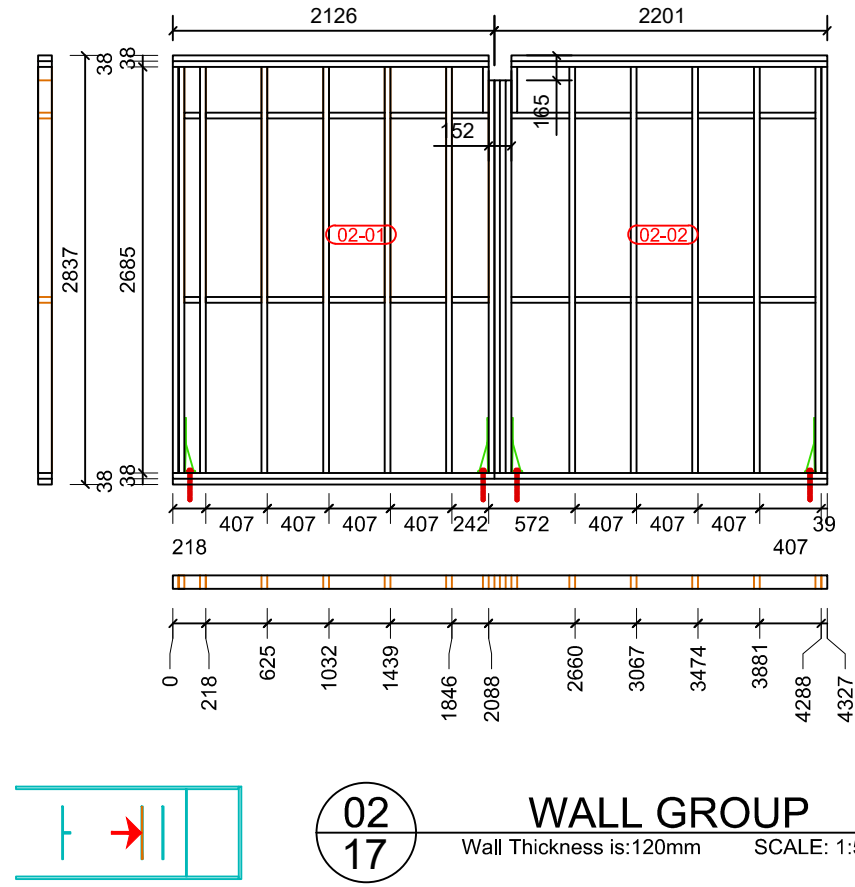
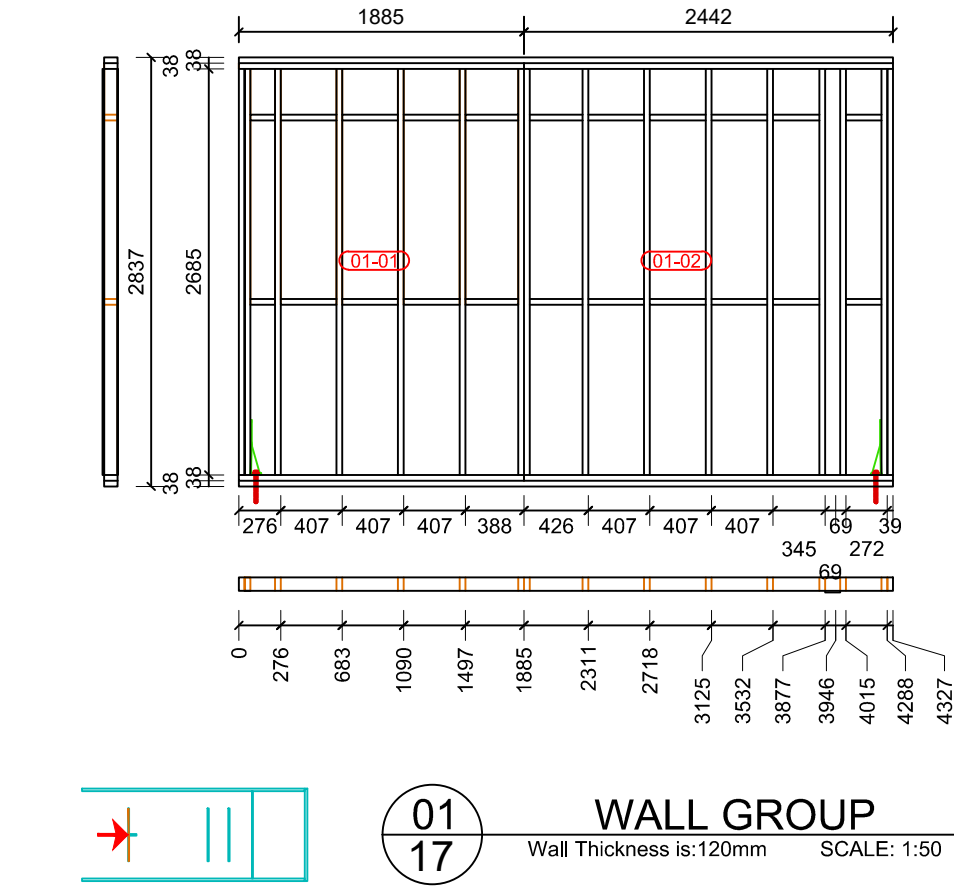
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17
WALL PANEL GROUP
210 mm Thickness Panel
SCALE: 1:50

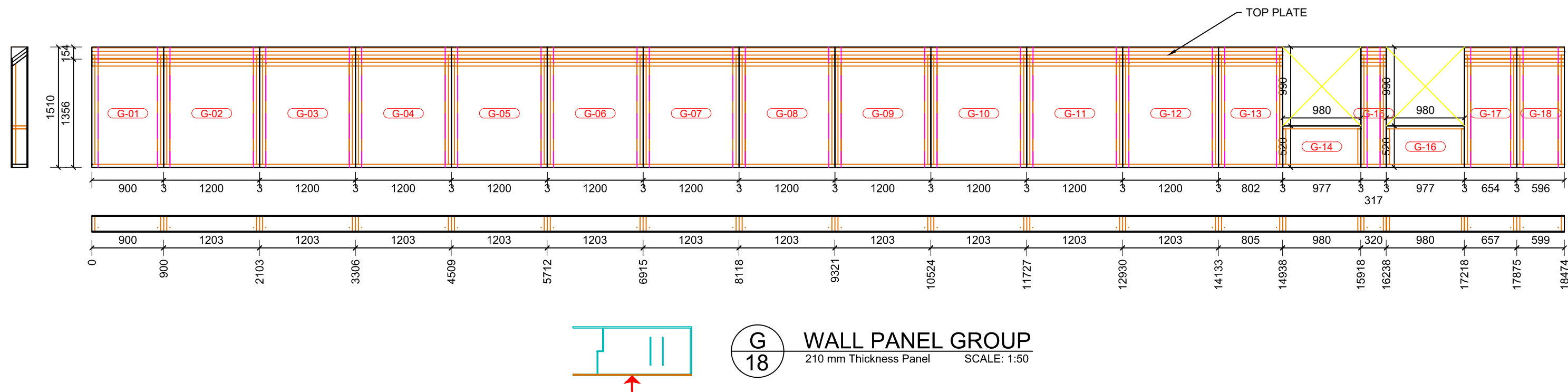
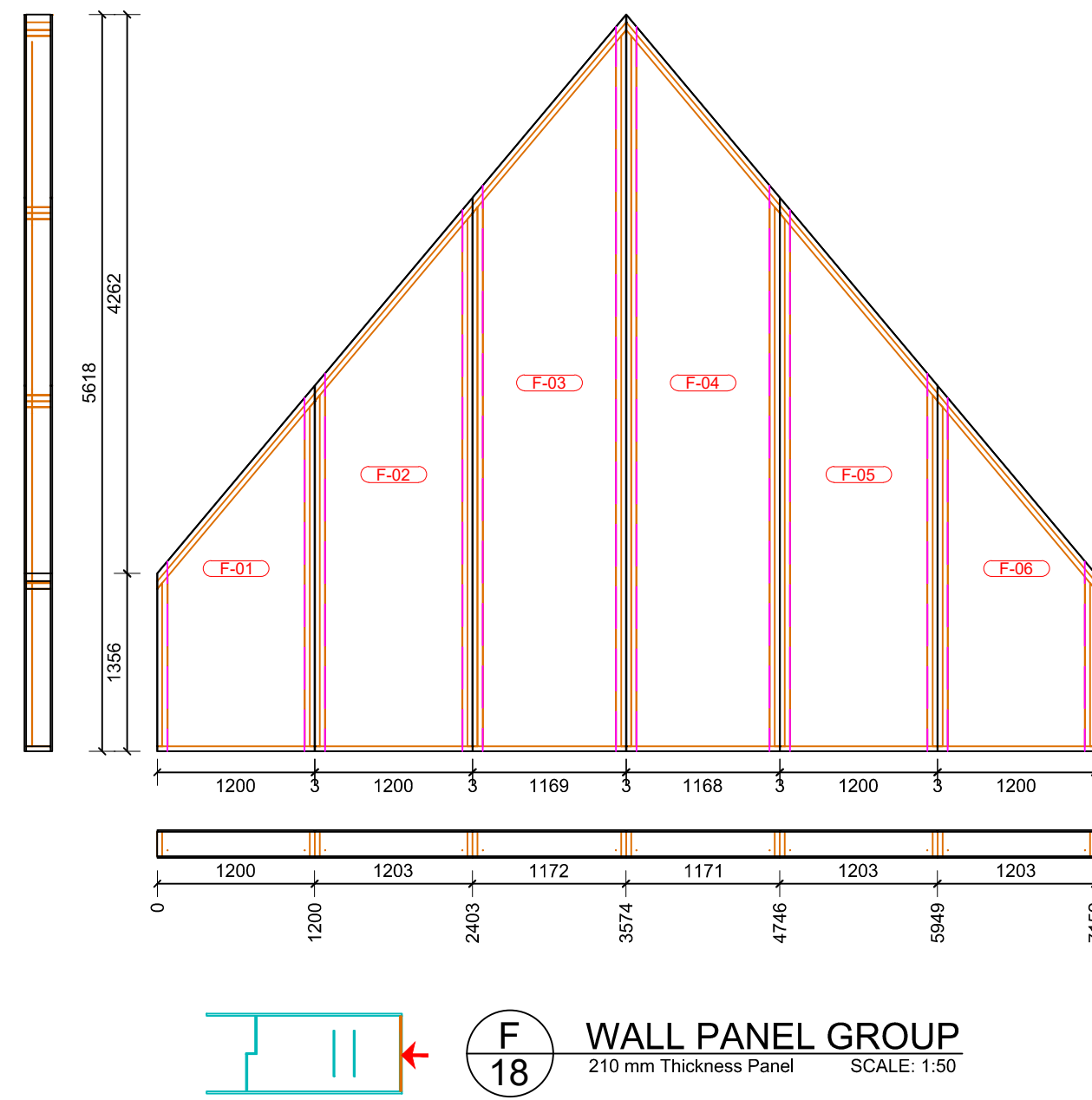
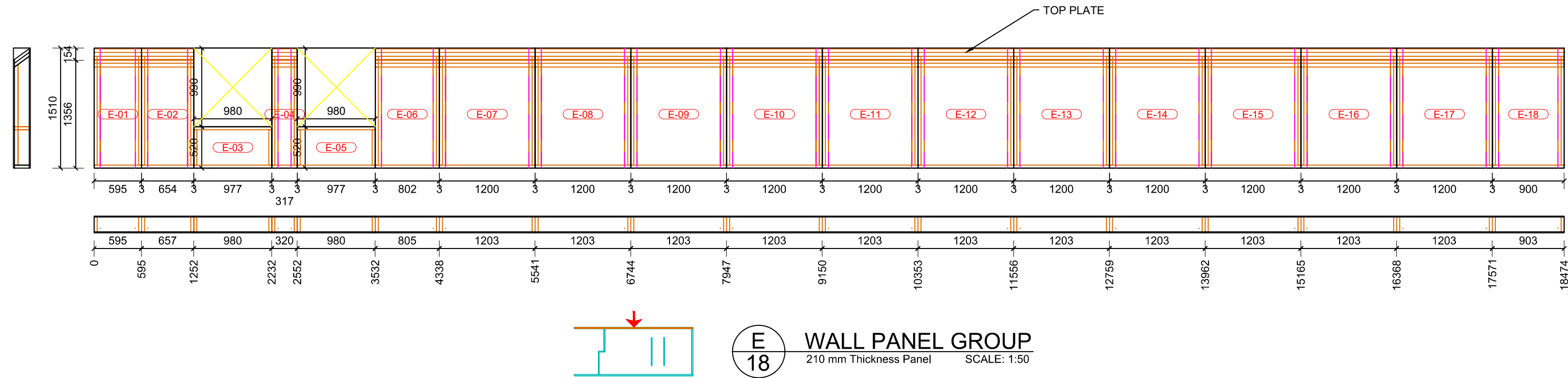


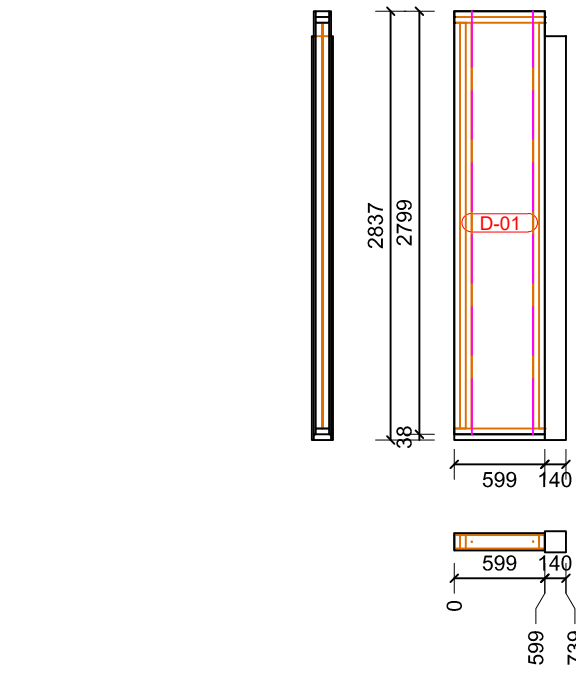
B
17
WALL PANEL GROUP
210 mm Thickness Panel
SCALE: 1:50



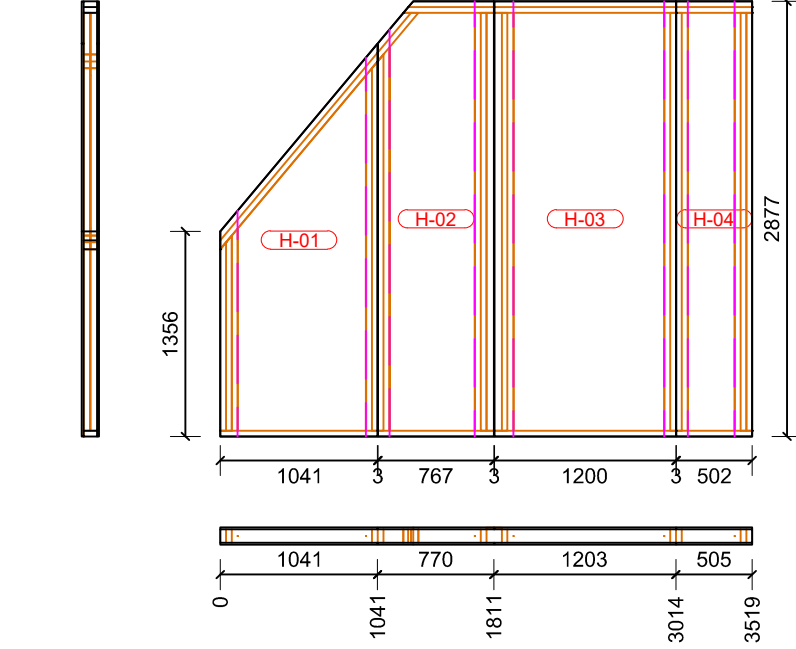
C
17
WALL PANEL GROUP
210 mm Thickness Panel
SCALE: 1:50



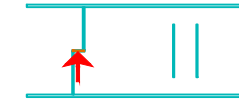
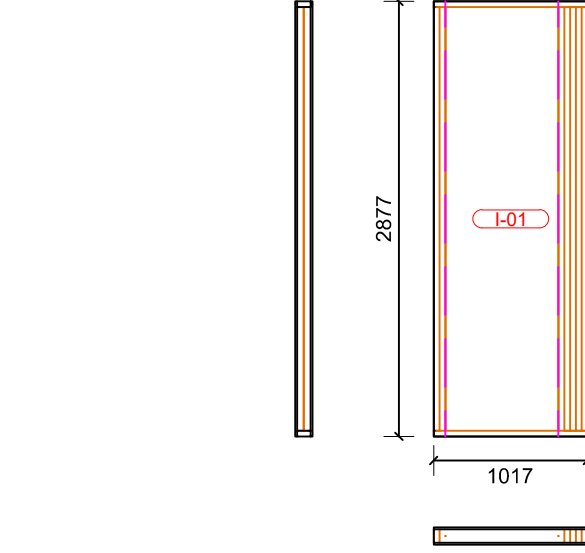




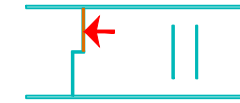
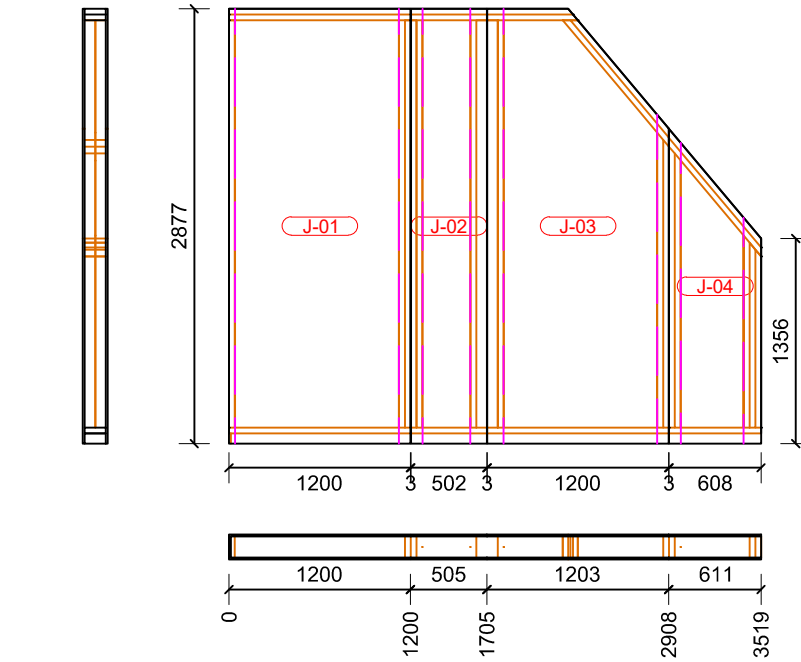
D
17 WALL PANEL GROUP
114 mm Thickness Panel SCALE: 1:50



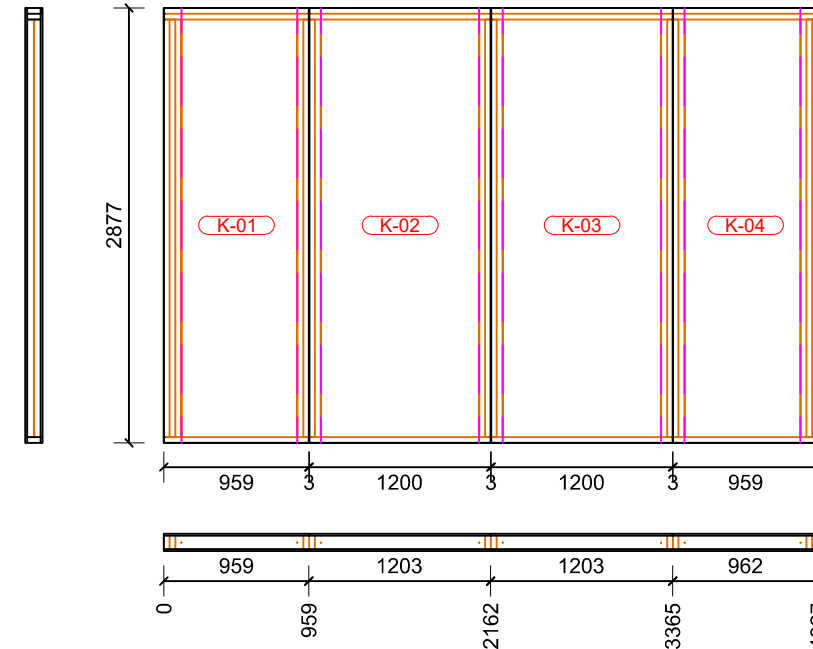
H
18 WALL PANEL GROUP
114 mm Thickness Panel SCALE: 1:50



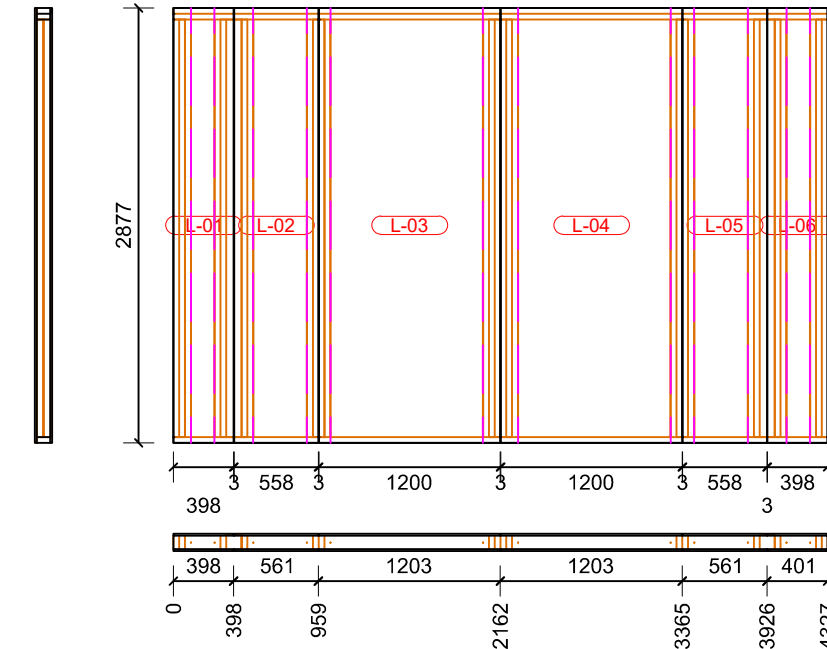
I
18 WALL PANEL GROUP
114 mm Thickness Panel SCALE: 1:50



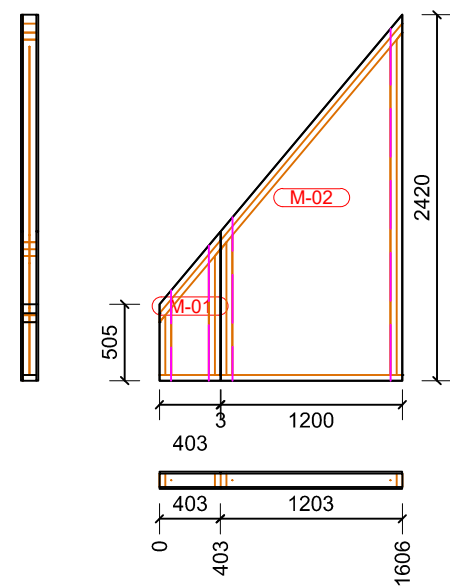
J
18 WALL PANEL GROUP
165 mm Thickness Panel SCALE: 1:50



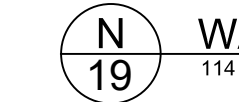
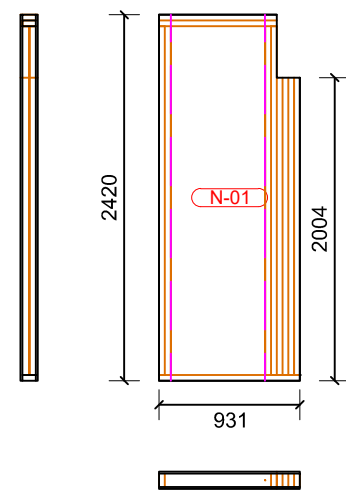
K
18 WALL PANEL GROUP
114 mm Thickness Panel SCALE: 1:50



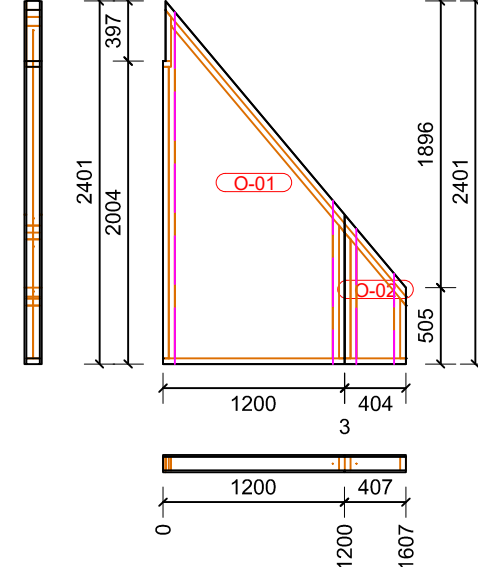
L
18 WALL PANEL GROUP
114 mm Thickness Panel SCALE: 1:50



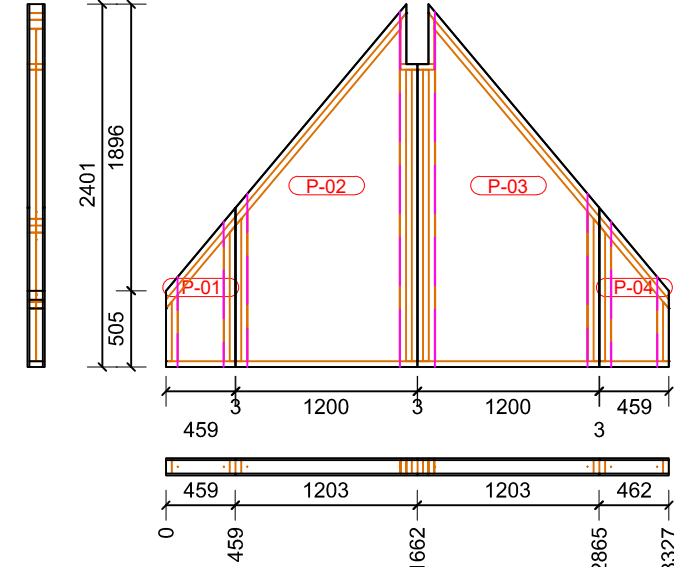
M
19 WALL PANEL GROUP
114 mm Thickness Panel SCALE: 1:50



N
19 WALL PANEL GROUP
114 mm Thickness Panel SCALE: 1:50



O
19 WALL PANEL GROUP
114 mm Thickness Panel SCALE: 1:50



P
19 WALL PANEL GROUP
114 mm Thickness Panel SCALE: 1:50

