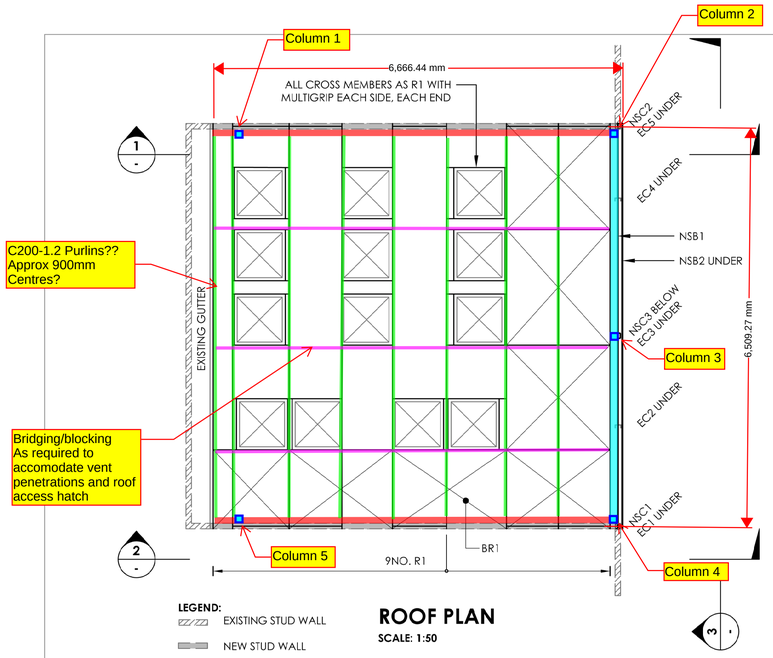


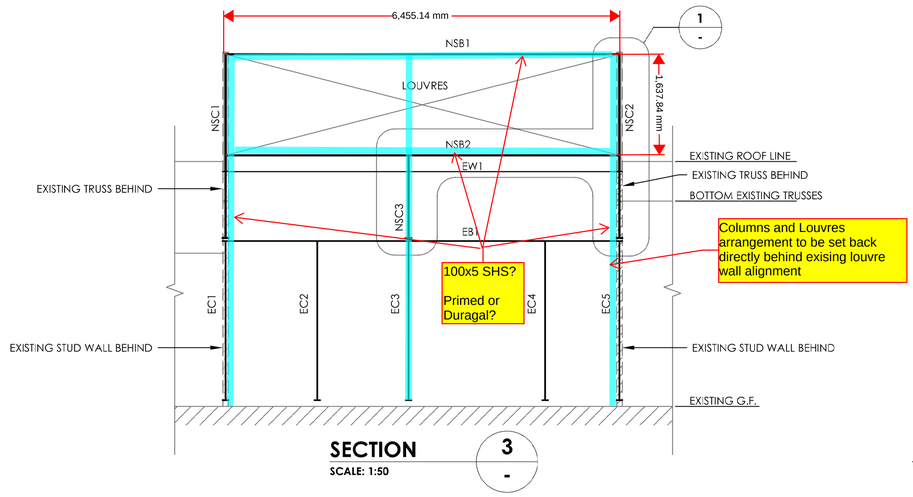
LEGEND:

EXISTING STUD WALL

NEW STUD WALL

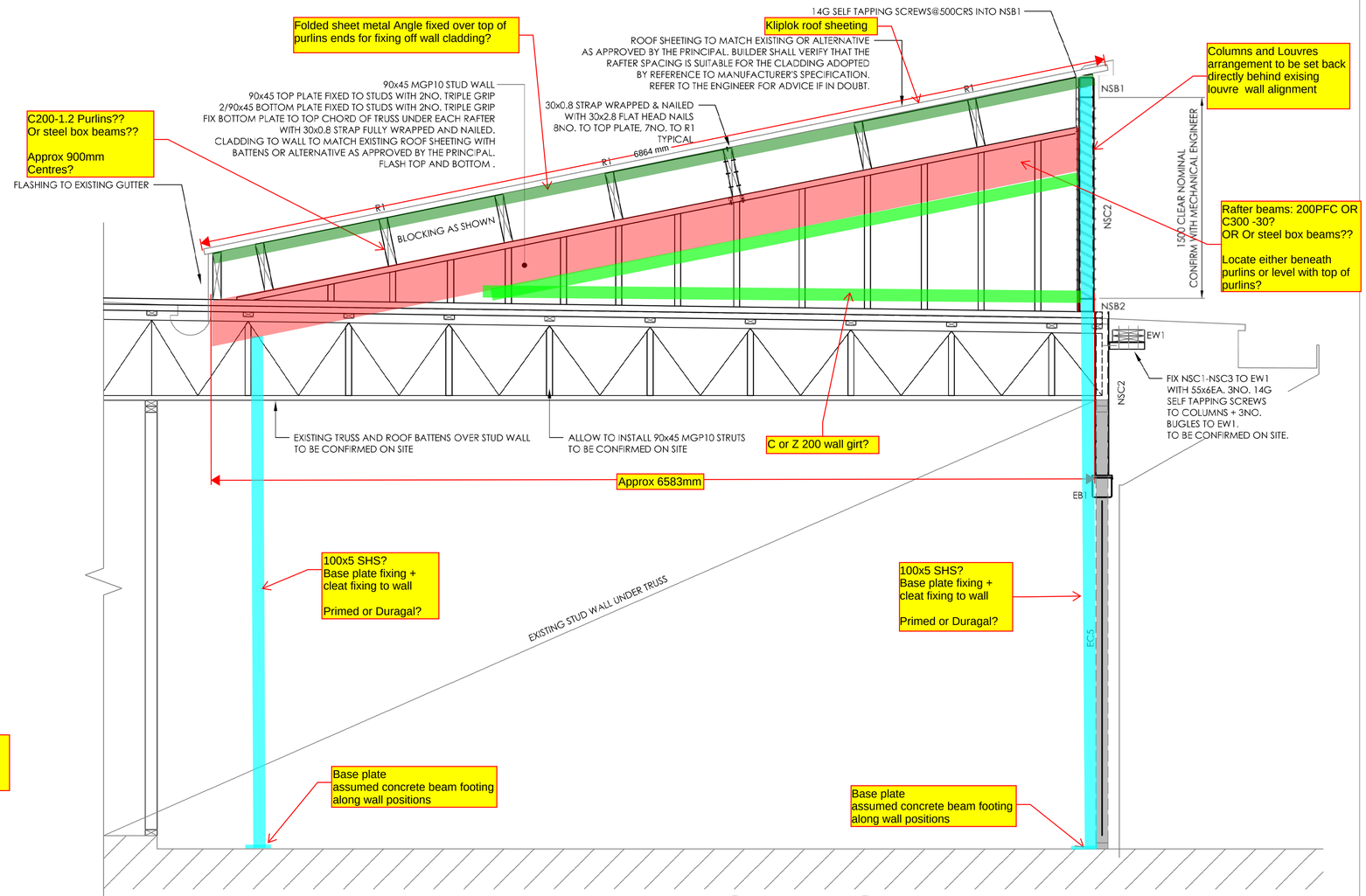
ROOF PLAN

SCALE: 1:50



SECTION 3

SCALE: 1:50

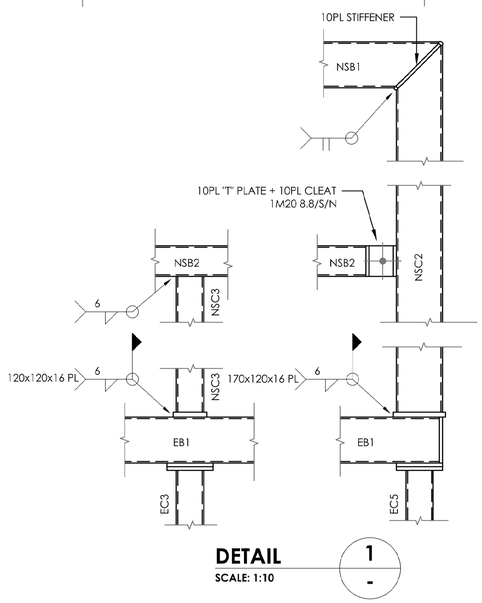


SECTION 1 - SIMILAR 2

SCALE: 1:20

MEMBER SCHEDULE

TAG	SECTION	COMMENTS
EC1,EC3,EC5	89x5SHS	EXISTING STEEL COLUMN
EC2,EC4	100PFC	EXISTING STEEL COLUMN
EW1	2/240x45 MGP10	EXISTING WALER
NSC1,NSC2	150x100x5RHS	NEW STEEL COLUMN
NSC3	100x5SHS	NEW STEEL COLUMN
NSB1	~~150x100x5RHS~~ 100x5SHS?	NEW STEEL BEAM
NSB2	100x5SHS	NEW STEEL BEAM
R1	~~360x45 meySPANT3~~	NEW TIMBER RAFTERS C200-1.2 Purlins??
BR1	SPEEDBRACE	WRAPPED & NAILED TO PRYDA SPECIFICATION



DETAIL 1

SCALE: 1:10

GENERAL NOTES

GENERAL (G)

1. Technical specifications or specific instructions on drawings take precedence over these notes.
2. These drawings shall be read in conjunction with all architectural and other consultants' drawings and specifications and with such other written instructions as may be issued during the course of the contract. Any discrepancy shall be referred to the engineer before proceeding with the work.
3. Construction from these drawings, and their associated consultants' drawings, is not to commence until approved by the local authorities.
4. All materials and workmanship shall be in accordance with the relevant and current Standards Australia codes and with by by-laws and ordinances of the relevant building authorities except where varied by the project specification.
5. All dimensions shown of existing construction shall be verified by the builder on site. Engineer's drawings shall not be scaled for dimensions.
6. During construction the structure, walls and any excavations, shall be maintained in a stable condition and no part shall be overstressed. Temporary bracing shall be provided by the builder to keep the works and excavations stable at all times.
7. All demolition work shall be carried out in accordance with AS2601-2001 "The Demolition of Structures", "Code of Practice Demolition Work" dated September 2017 published by SafeWork NSW and any further instructions specified in the drawings.

DESIGN DATA (DD)

1. The structural components detailed on these drawings have been designed in accordance with the relevant Standards Australia codes and local government ordinances for the following loadings. Refer to architectural drawings for proposed floor usage.
2. Design floor loadings are in accordance with AS1170.0 - AS1170.3.
3. Design wind loads are in accordance with AS1170.2 as follows:
   - Region: A1
   - Regional Wind Speed Vr:
     Strength V500 = 45m/s
     Serviceability = 39m/s
   - Terrain Category: 2.5

STRUCTURAL TIMBER (T)

1. All design, workmanship and materials shall be in accordance with AS 1720.1 and AS 1720.2 current editions with amendments except where varied by the contract documents.
2. Laminated veneer lumber (LVL) shall be manufactured in accordance with AS / NZS 4357.
3. Sawn timber sections are specified by cross section, stress grade, species or timber group and treatment. For Example :
   190 X 45 Seasoned radiata pine treated to H3
   Size tolerances shall conform to AS 2082
4. Manufactured timber products are specified in accordance with the manufacturer's published data.
5. All timber joints and notches shall be 100 mm minimum away from loose knots, severe sloping grain, gum veins or other minor defects.
6. All PRYDA brackets, straps, nails and other timber fixings shall be hot dipped galvanised.

STRUCTURAL STEELWORK (SS)

1. All workmanship and material shall be in accordance with AS4100 except where varied by the contract documents.
2. Unless noted otherwise, all steel shall be in accordance with AS3678 grade 250, or AS3679 grade 300, or AS1163 grade C350 as appropriate.
3. All dimensions and setouts to be obtained from site measurement where not indicated on the project drawings.
4. Bolt category:
   4.1. 8.8/s High strength structural bolts of grade 8.8 to AS1252 snug tightened
5. Fabrication shall comply with AS 4100, Section 14 and AS/NZS 5131-2016.
6. Erection shall comply with AS 4100, section 15 and AS/NZS 5131-2016.
7. Unless noted otherwise all welds shall be made using electrodes with a weld metal tensile strength fuw=480MPa to AS4100.
8. Unless noted otherwise, all fillet welds shall be 6mm continuous category GP to AS1554.1.
9. All butt welds shall be complete penetration butt welds category SP to AS 1554.1.
10. Unless noted otherwise, all purlin cleat welds shall be 6mm continuous category SP.
11. Provide seal plates to the ends of all hollow sections, with 'breather' holes if members to be hot dip galvanised.
12. All steelwork shall be securely temporarily braced by the erector as necessary to stabilise the structure during erection.
13. Surface Treatment : Structural steelwork not encased in concrete shall have the following surface treatment:

ELEMENT	SURFACE PREPARATION	PRIME COAT	SECOND COAT	THIRD COAT
All inc. fixings	Pickled	Hot dipped galvanised to AS/NZS4680	Refer principal	Refer principal

FOR CONSTRUCTION

ISSUE	REVISION	DATE
1	FOR CONSTRUCTION	12.10.23

macartney engineering consultants
178b Lawrence Hargrave Drive 0418 458 690 M
THIRROUL NSW 2515 www.mecsydney.com.au W
mec@mecsydney.com.au E

CLIENT: CHARLES STURT UNIVERSITY

ARCHITECT: -

-

-

PROJECT: CHARLES STURT UNIVERSITY, BATHURST
NEW ROOF OVER M&E ROOM

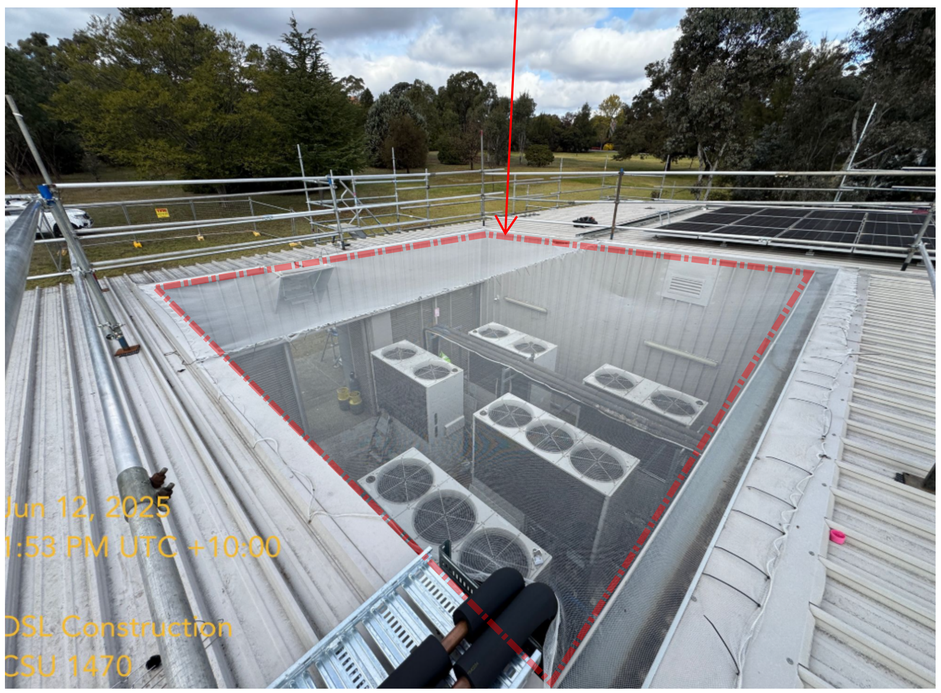
TITLE: NEW ROOF STRUCTURE
PLAN, ELEVATIONS & DETAILS

SIZE	SCALE
A1	AS SHOWN

DRAWN	DESIGNED	REVIEWED	APPROVED
JM	JM	JM	JM

PROJECT NO.	SHEET No.	ISSUE
2024.0016	S01	1

© This drawing is COPYRIGHT and is the property of Macartney Engineering Consultants Pty. Limited

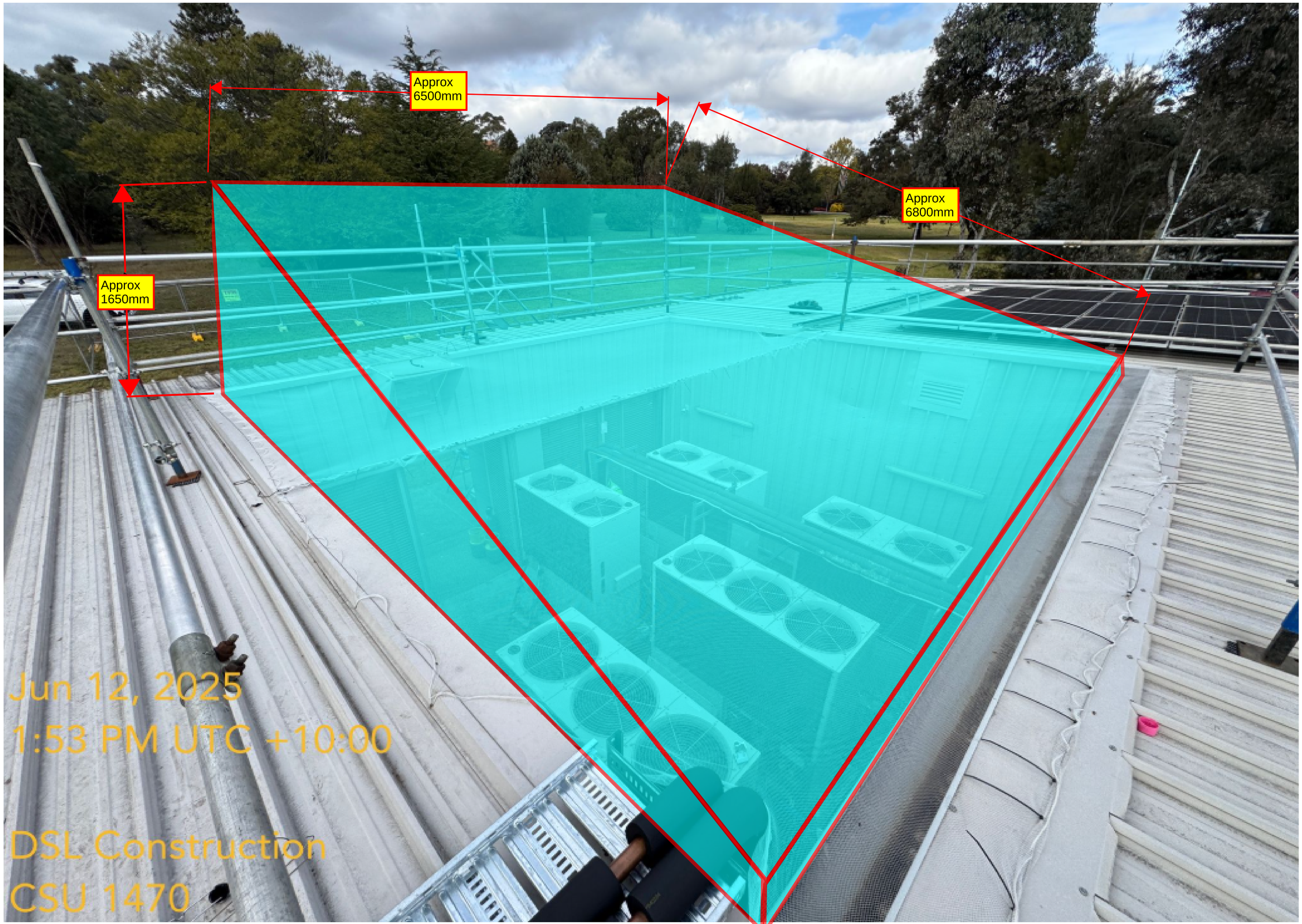

Construct the new roof structure within the perimeter of the existing roof edges to avoid disturbing existing flashings and structural wall elements, thereby minimizing the risk of roof leaks during construction
Jun 12, 2025
1:53 PM UTC +10:00
DSL Construction
CSU 1470

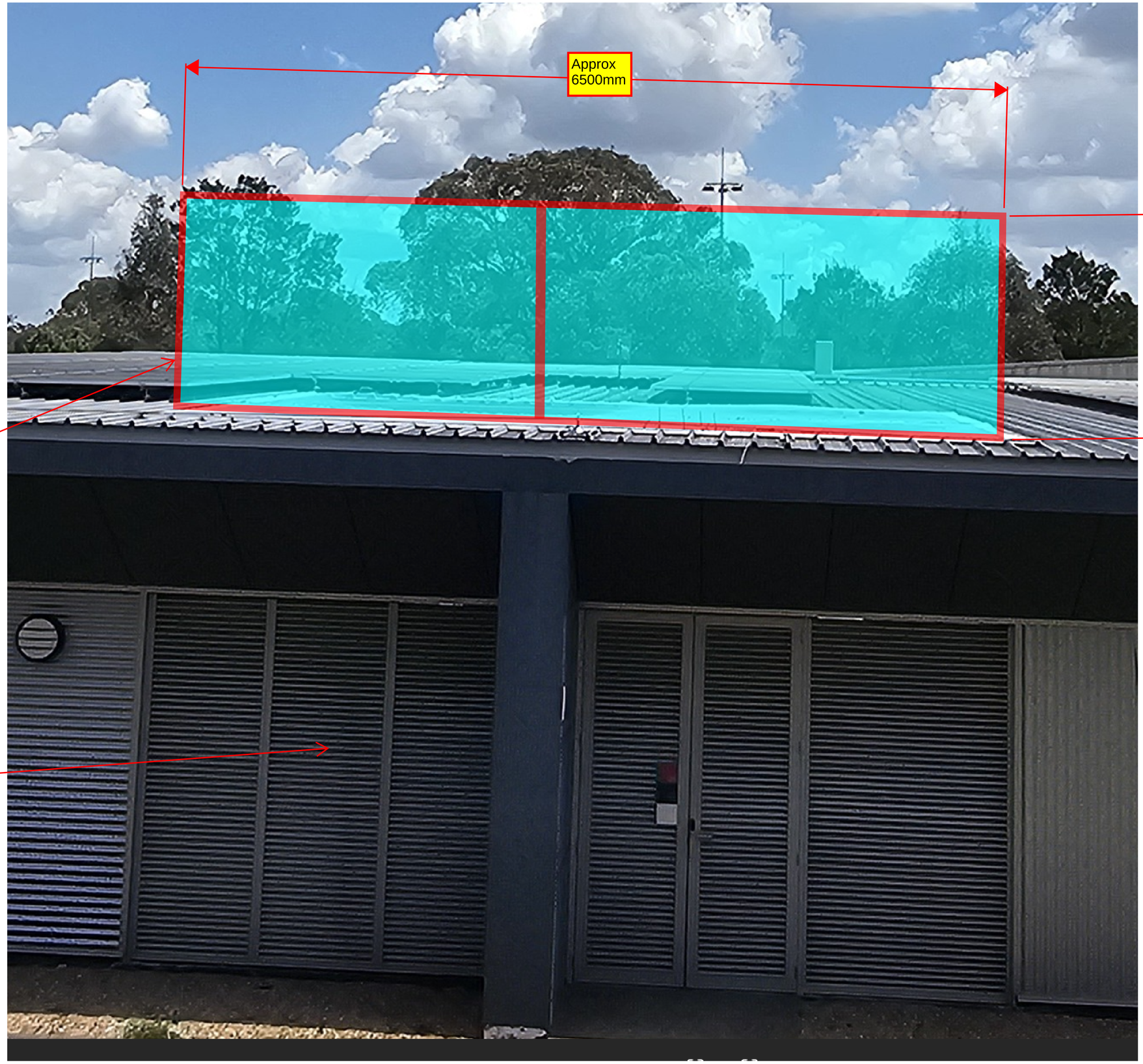

Approx location of column 5
Electrical and mechanical pipework locations to be verified on site


Approx location of column 4
Approx location of column 3


Approx location of column 1
Electrical and mechanical pipework locations to be verified on site


Approx Location of Column 2
CONQUEST


Approx
6500mm
Approx
1650mm
Approx
6800mm
Jun 12, 2025
1:53 PM UTC +10:00
DSL Construction
CSU 1470


Approx
6500mm
Approx
1650mm
New Louvred
wall
Existing
Louvred wall

New High level Aluminium louvres to match existing louvres at lower level. Images below



