

**SHIRE OF MOORA
LOCAL PLANNING SCHEME NO.4**



NOTICE OF PUBLIC ADVERTISEMENT OF PLANNING PROPOSAL

Planning and Development Act 2005
Shire of Moora

The local government has received an application to use and/or develop land for the following purpose and public comments are invited.

Land Details:

Lot 1751 on DP132406 Miling North Road, Miling

Proposal:

Development of a proposed new 45 metre tower and various associated improvements on a 900 square metre portion of the abovementioned property for telecommunication purposes.

Details of the proposal are attached.

Comments on the proposal are now invited and can be emailed to shire@moora.wa.gov.au or posted to the Shire's Chief Executive Officer at PO Box 211 MOORA WA 6510 by no later than **Tuesday 30 April 2024**. All submissions must include the following information:

- Your name, address and contact telephone number;
- How your interests are affected; whether as a private citizen, on behalf of a company or other organisation, or as an owner or occupier of property;
- Address of property affected (if applicable); and
- Whether your submission is in support of, or objecting to the proposal and provide any arguments supporting your comments.

All submissions received may be made public at a Council meeting and included in a Council Agenda, which will be available on the Shire's website, unless a submission specifically requests otherwise.

Gavin Robins
Chief Executive Officer
Shire of Moora

26 March 2024

06 March 2024

The Shire of Moora
Town Planning
PO Box 211
Moora WA 6510

Dear Sir / Madam

RE: DEVELOPMENT APPLICATION FOR A TELECOMMUNICATIONS FACILITY
Lot 1751 on DP132406
Miling North Road, Miling WA 6575

We submit herewith a Development Application for a Telecommunications Facility over the above referenced land.

The proposed development will be located along Miling North Road, further described as Lot 1751 on DP132406.

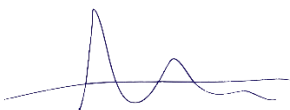
This development application is made in accordance with the Planning and Development Act 2005 for assessment under the Shire of Moora Local Planning Scheme No. 4. The subject land is located in the General Agriculture Zone and, under the Zoning Table, a Telecommunications Facility in the General Agriculture Zone is not permitted unless the local government has exercised its discretion by granting development approval after giving notice in accordance with clause 64 of the deemed provisions.

Would Council please confirm the amount for the application fee, and we will pay by credit card?

We choose to lodge this application electronically and it would be appreciated if all correspondence to do with this application please be sent by email.

We trust the information provided is sufficient that the application will be properly made. If this is not the case, please contact the writer as a matter of urgency.

Yours Sincerely



Angus Lovell | Town Planner

SHIRE OF MOORA LOCAL PLANNING SCHEME NO.4



FORM 1 - APPLICATION FOR DEVELOPMENT APPROVAL

Owner Details

Name/s:

SEYMOURS WOODBINE PTY LTD

ABN (if applicable): 63008716005

Postal Address: 'Woodbine Farm', Great Northern Highway, MILING WA 6575

Postcode:

Work Phone:

Fax:

E-mail:

Home Phone:

bdpratt@westnet.com.au

Mobile Phone: 0427 541 086

Contact Person for Correspondence: Brendan Pratt

Signature: Refer to Attached Owners Consent

Date: 06.03.24

Signature:

Date:

NOTES:

- i) Use and attach a separate copy of this page where there are more than two (2) landowners.
- ii) The signature/s of all registered owner(s) as listed on the land's Certificate of Title is required. This application cannot proceed without the required signature/s. For the purposes of signing this application an owner includes the persons referred to in the Planning and Development (Local Planning Schemes) Regulations 2015 Schedule 2 clause 62(2). Land owned by an incorporated body (i.e. a company) must be signed by:
 - 1 director of the company, accompanied by the company seal; or
 - 2 directors of the company; or
 - 1 director and 1 secretary of the company; or
 - 1 director if a sole proprietorship company.Print the full names and positions of company signatories underneath the signatures.
- iii) A copy of the Certificate of Title for all land the subject of this application must be provided and can be purchased through Landgate directly if required.
- iv) Development Applications relating to Unallocated Crown Land, Unmanaged Crown Reserves, land under management order to the Shire of Moora where the development is not consistent with the reserve's purpose, or is used for commercial purposes, or land which is subject to a lease issued under the Land Administration Act 1997 need to be referred to the Lands Division of the Department of Planning, Lands and Heritage for consideration and signing.

Applicant Details (if different from owner)

Name/s:

Field Solutions Group


Address:

38/23 Narabang Way Belrose NSW 2085

Postcode:

Work Phone: 0452 662 762 Home Phone: Mobile Phone:	Fax:	E-mail: angus.lovell@fieldsolutions-group.com
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Contact Person for Correspondence: Angus Lovell

Signature: 

Date: 15/11/2023

NOTES:

- i) Failure to provide a suitably completed development application form, a copy of the relevant Certificate/s of Title, sufficient plans and other supporting information and/or the correct application fee may result in the application being returned or placed on hold.
- ii) The application fee payable will be confirmed by the local government following receipt of the application. Processing of the application will not commence until the fee is paid in full.
- iii) As per Schedule 2 clause 64 of the Planning and Development (Local Planning Schemes) Regulations 2015 the information and plans provided with this application may be made available by the local government for public viewing in connection with the application.
- iv) If public advertising of the application is required by the local government an additional fee in accordance with the local government's adopted schedule of fees and charges will be payable by the applicant. Further processing of the application following completion of public advertising will not proceed until the additional fee is paid in full.
- v) The original of this application and supporting information and plans will be retained by the local government for its records and will not be returned to the applicant/landowner following final determination.

Property Details

NOTE: The details provided must match those shown on the relevant Certificate/s of Title.

Lot No: 1751	House/Street No:	Location No:
Survey Diagram or Plan No: DP132406	Certificate of Title Volume No: 2916	Certificate of Title Folio No: 18

Title encumbrances (e.g. easements, restrictive covenants):

NA

Street name:
Miling North Road

Suburb:
Miling

Nearest street intersection:
Miling North Road / Great Northern Highway

Proposed Development:

- Nature of development: Works (New construction works with no change of land use)
 Use (Change of use of land with no construction works)
 Works and Use

NOTE: If the proposal involves advertising signage the Additional Information for Development Approval for Advertisements form (i.e. a Form 2) must be completed and submitted with this application.

Is an exemption from development claimed for part of the development? Yes No
 If yes, is the exemption for: Works
 Use

Description of proposed works and/or land use:

Telecommunications Facility

Description of exemption claimed (if relevant):

Nature of any existing buildings and/or land use:

General Agriculture - No Existing Buildings

Approximate cost of proposed development (excluding GST):

\$243,000

OFFICE USE ONLY

Date application received:

Received by:

Application reference number:

Application fee payable: \$

Date of receipt of application fee from applicant:

Receipt number for application fee:

Owner's Consent for the making of a development application

I, HILAIRE NOEL PRATT Director and
I, MERLE KATHLEEN PRATT Director/Secretary

of SEYMOURS WOODBINE PTY LTD, being the registered owner of the premises identified as Lot 1751 on Deposited Plan 132406, in the Shire of Moora, consent to the making of an application for development approval by Field Solutions Group on the premises described above for the purpose of a Telecommunications Facility including a telecommunications tower and associated infrastructure.

HN Pratt
.....
Director

26-2-2024
.....
Date

Merle Pratt
.....
Director/Secretary

26-2-2024
.....
Date

WESTERN



AUSTRALIA

TITLE NUMBER

Volume Folio

2916 18

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts
REGISTRAR OF TITLES



THIS IS A MULTI-LOT TITLE

LAND DESCRIPTION:

LOT 1751 ON DEPOSITED PLAN 132406
LOTS 54 & 55 ON DEPOSITED PLAN 408039

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

SEYMOURS WOODBINE PTY LTD OF WOODBINE FARM, GREAT NORTHERN HIGHWAY, MILING
(XA N505231) REGISTERED 9/12/2016

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. K250673 MORTGAGE TO ELDERS RURAL BANK LTD REGISTERED 29/6/2007.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

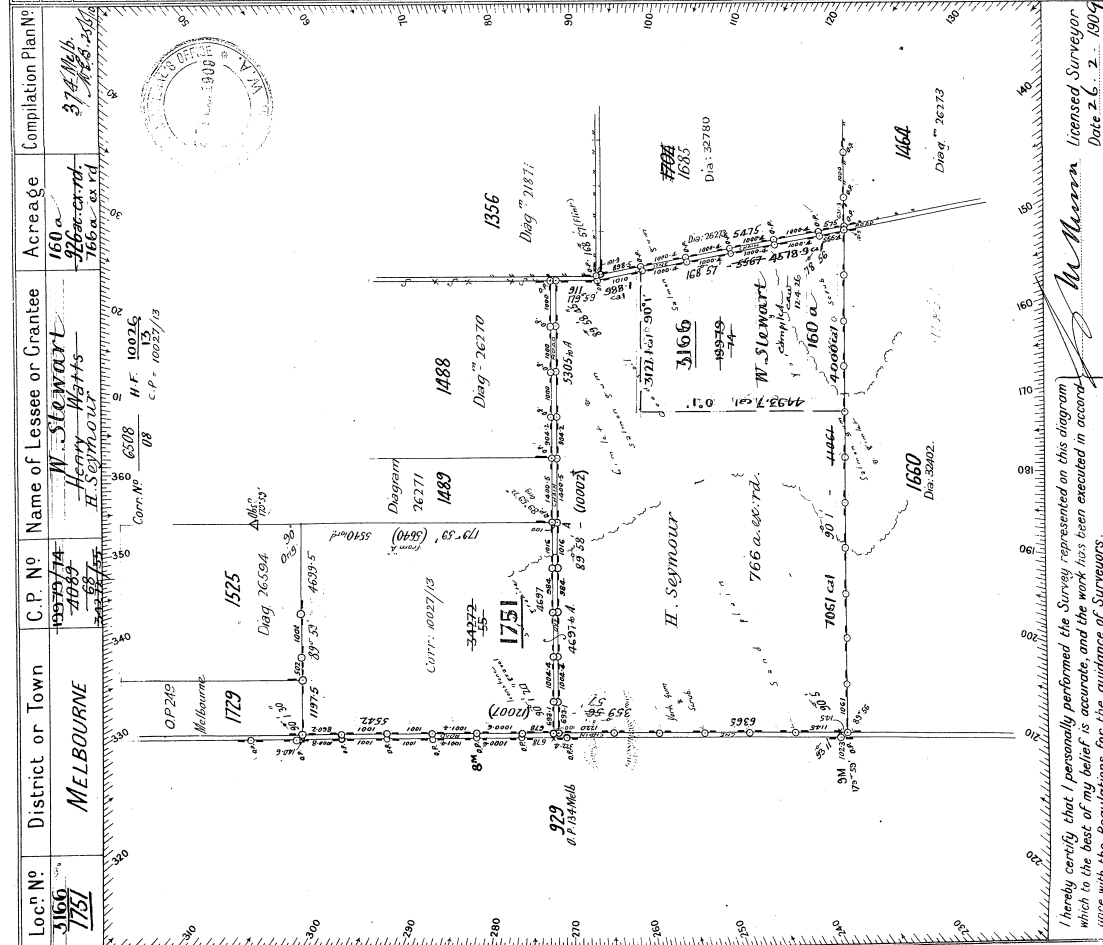
The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP132406, DP408039
PREVIOUS TITLE: 2915-878, 2915-897, 2915-898
PROPERTY STREET ADDRESS: 18711 GREAT NORTHERN HWY, MILING (55/DP408039).
LOCAL GOVERNMENT AUTHORITY: SHIRE OF MOORA

Calculations for Area						Double Areas	
Bearing	Distance	N	S	E	W	Multipliers	
106.61	110.61	110.61				110.61	
166.4	166.4					166.4	
166.4	166.4					166.4	
121.38	121.38					121.38	
22.131	22.131					22.131	
77	77					77	
132.1	132.1					132.1	
66.7	66.7					66.7	
266.3	266.3					266.3	
92.5	92.5					92.5	
North of Road							
North of Road							
North of Road							

REFERENCE TO TREES			
Corner	Bearing	Distance	Remarks
A			
B			
C			
D			
E			
F			

OFFICE REFERENCES	
Account No	5 - Passed April 25. 1909
Calculation Book No	17 - Folios 95, 96
Chainage Close	N.T.S. N.T.S.
Angular Close	± 1' 53"
Area Ex. Road	976.32249
Compared with F.B. 3-3-09	± 0.00000
Examined with M. Stone	25. 3. 09
Diagram passed	M. Stone
Inspector of Plans	per M. Stone
Date	26. 3. 1909



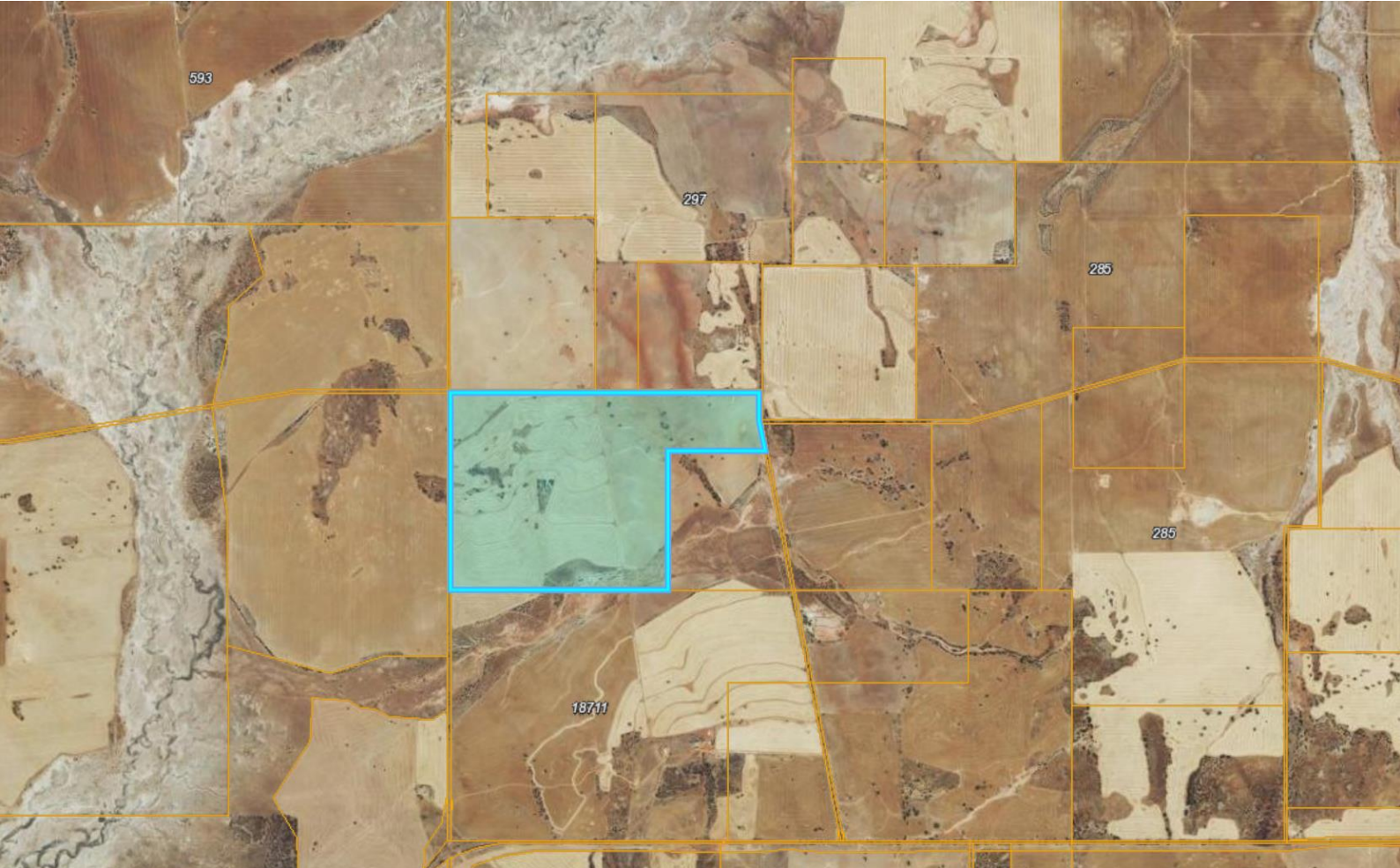
Approval Notice sent 16/4/1909 Book 24 Fol. 20
 M. Stone Licensed Surveyor
 Date 26. 3. 1909

I hereby certify that I personally performed the survey represented on this diagram which to the best of my belief is accurate, and the work has been executed in accordance with the Regulations for the guidance of Surveyors.
 M. Stone

Diagram No
32406
 Registered by *M. Stone*
 92400

Deposited Plan 132406

Lot	Certificate of Title	Lot Status	Part Lot
1751	2071/191 (Cancelled)	Registered	
1751	2915/878 (Cancelled)	Registered	
1751	2916/18	Registered	
3166	1664/234	Registered	



PLANNING REPORT

Development Application for Telecommunications
Facility

Lot 1751 on DP132406

Miling North Road, MILING WA 6575

06 March 2024



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LIST OF ATTACHMENTS

Attachment	Document
1	Development Approval Form
2	Cover Letter
3	Owner's Consent
4	Certificate of Title
5	Survey Plan
6	FSG Design Drawings
7	FSG Cultural Heritage Construction Memo

Document Control:

Version	Description	Author	Date
1.0	Final	AL	06/03/2024



1 EXECUTIVE SUMMARY

1.1 INTRODUCTION

We submit a Development Application for Council approval for a Telecommunications Facility over the subject land.

Field Solutions Group provides wireless broadband internet and mobile network services to regional and remote areas across Australia. A telecommunications facility for wireless broadband and mobile networks is proposed and will be part of a wide network to be located throughout the region under the Federal Government's Regional Connectivity Program.

The subject land, being Lot 1751 on DP132406, is located at Miling North Road, Miling WA 6575.

This development application is made in accordance with the *Planning and Development Act 2005* for assessment under the *Shire of Moora Local Planning Scheme No. 4*. The subject land is located in the General Agriculture Zone and, under the Zoning Table, a Telecommunications Facility in the General Agriculture Zone is not permitted unless the local government has exercised its discretion by granting development approval after giving notice in accordance with clause 64 of the deemed provisions.

To assist with the processing of the application, we have set out below details of the proposal and supporting information.

1.2 SUMMARY

Table 1: Summary

Address of Subject Land	Miling North Road, Miling WA 657
Real Property Description	Lot 1751 on DP132406
Area of Subject Land	310.1241 ha
Existing buildings	No Existing Buildings
Road frontages	Miling North Road
Zone	General Agriculture
Overlays	Bushfire Prone Area
Name of Landowner	SEYMOURS WOODBINE PTY LTD
Easements/Encumbrances	None

2 SITE LOCATION AND DESCRIPTION

2.1 SUBJECT LAND

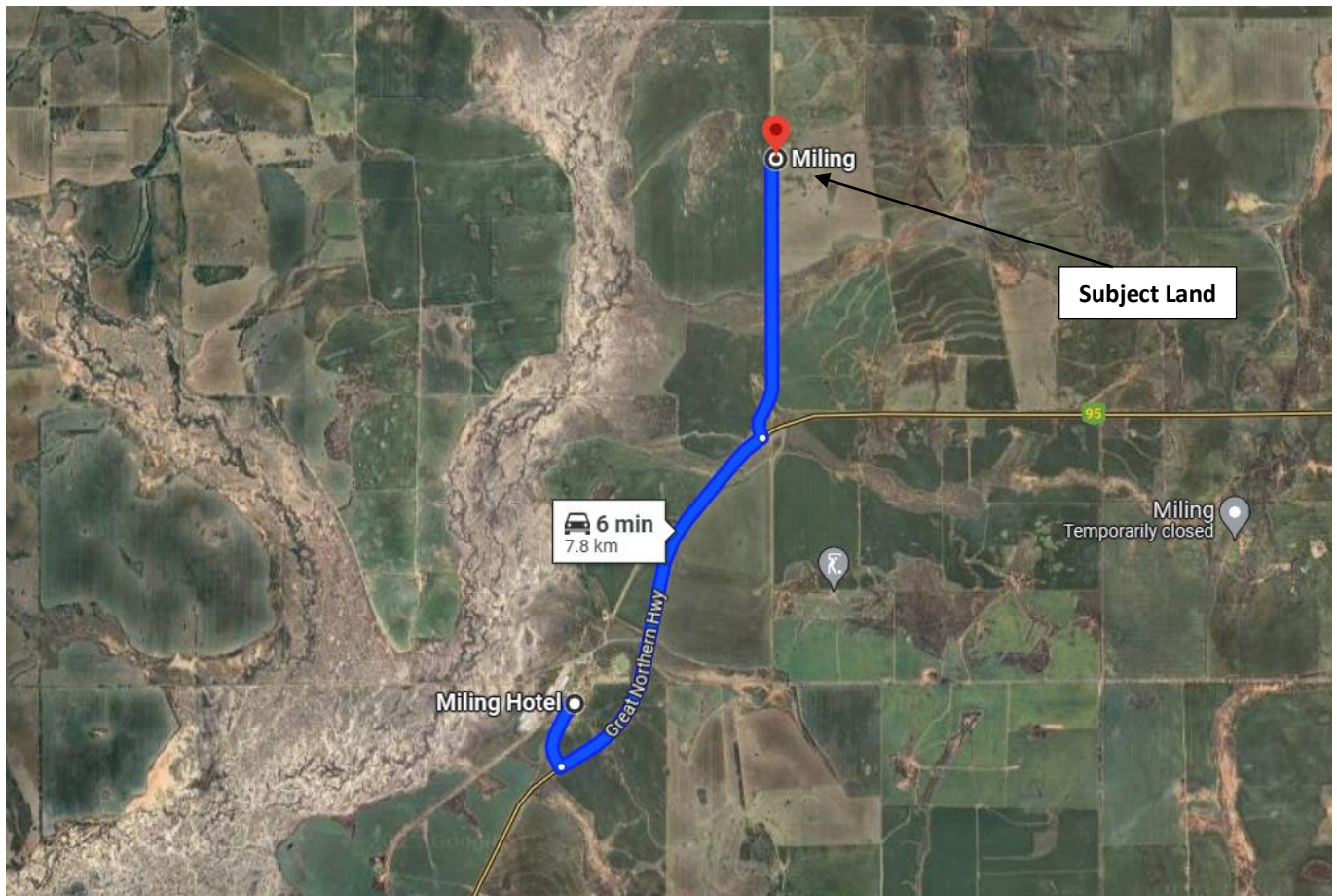
The subject land, being Lot 1751 on DP132406, is located approximately 7.8km North-East of the Miling Hotel, located at the centre of the town. Please refer to Figure 1 below for location of the subject land.

The subject land is identified as being located within the General Agriculture Zone according to Local Planning Scheme Map No. 1 of 8.

Lot 1751 on DP132406 has road frontage and vehicular access to Miling North Road.

Surrounding land uses are rural in nature.

Figure 1: Site Location



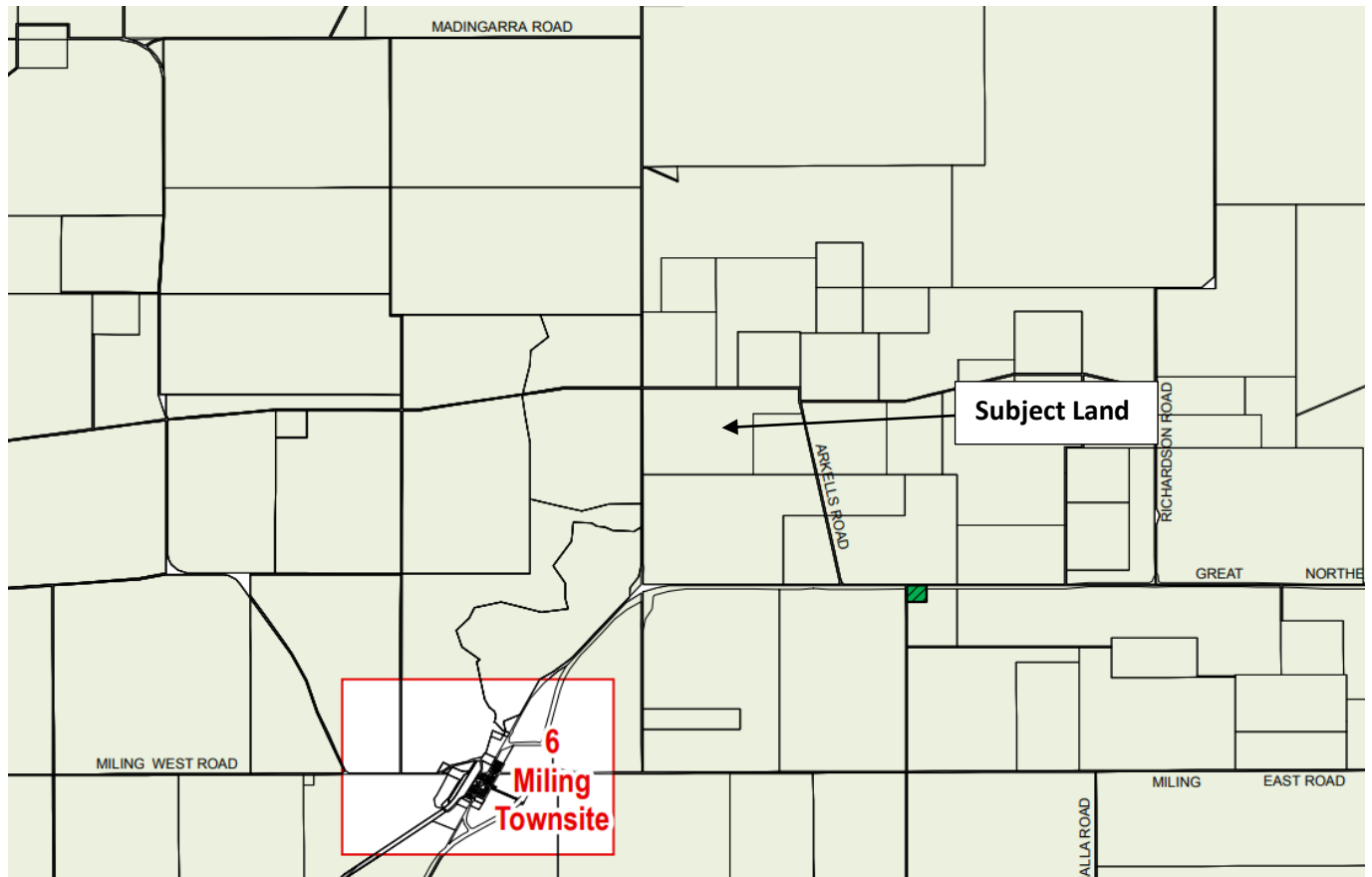
Source | Google Maps




















2.2 ADJOINING AND SURROUNDING DEVELOPMENT

The subject land is located in the General Agriculture zone. Please refer to Figure 2 below.

Figure 2: Zone Map



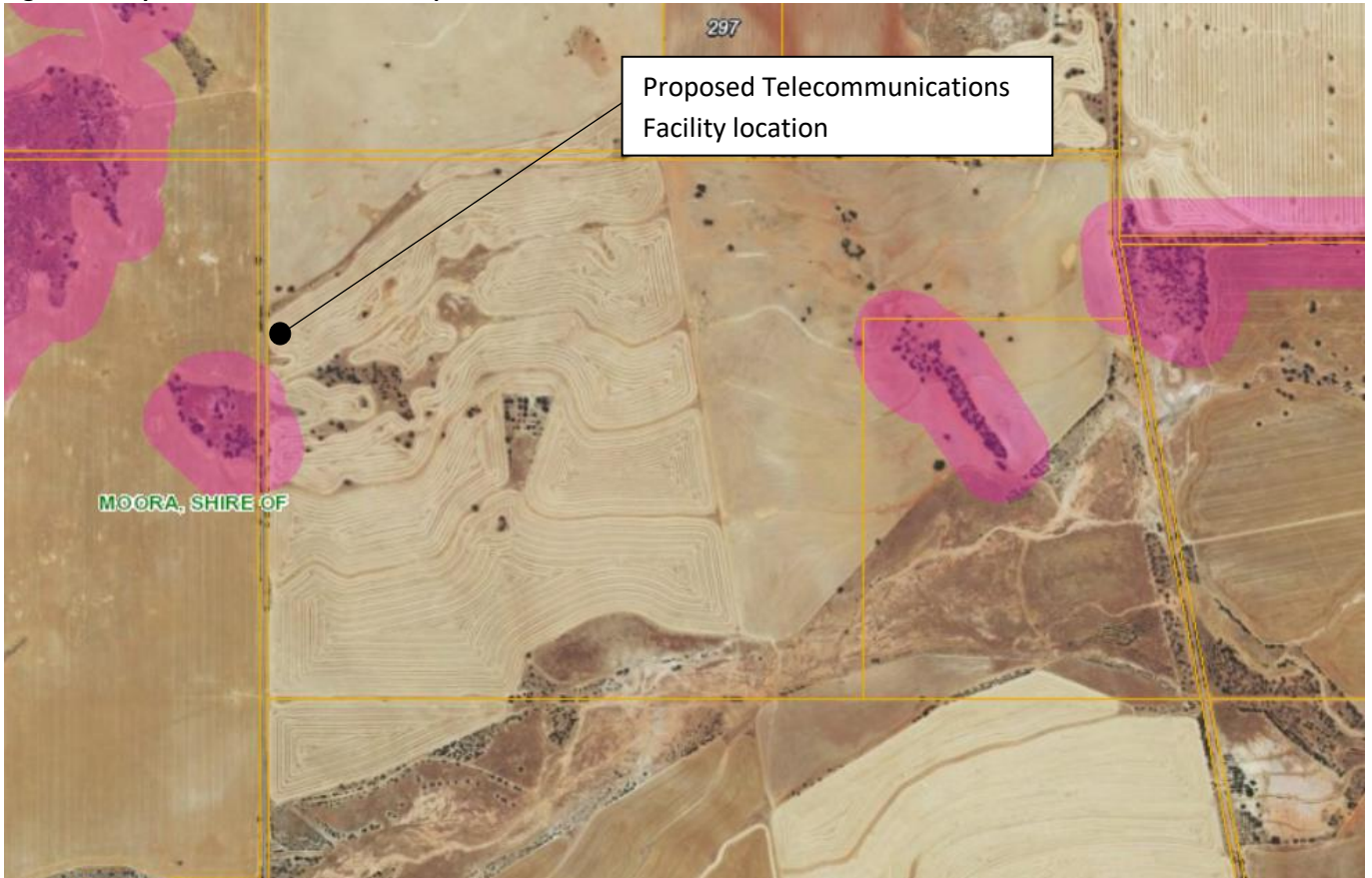
LOCAL SCHEME ZONES

 Development	 Special Mix Residential
 General Agriculture	 Special Use
 Industrial	 Special Use : Builder
 Light Industrial	 Special Use : Caravan Park
 Residential	 Special Use : Local Shop
 Rural Enterprise	 Special Use : Moora Golf Club
 Rural Residential	 Special Use : Motor Repair
 Rural Smallholding	 Special Use : Private School
 Rural Townsite	 Town Centre

2.3 OVERLAYS

The subject land is affected by the following overlay.

Figure 3: Map of Bushfire Prone Areas | Source: SLIP





3 PROPOSED DEVELOPMENT

FSG wish to obtain development consent for a telecommunications facility to be located on the subject land. The telecommunication facility will be located on Lot 1751 on DP132406, and the site will be accessed off Miling North Road.

3.1 PROPOSED TELECOMMUNICATIONS FACILITY

The proposed development is for a telecommunications facility consisting of:

- 45m telecommunications tower
- Antennas and radiocommunications equipment
- Outdoor ground equipment cabinets
- Security fencing around the proposed facility
- Solar power system

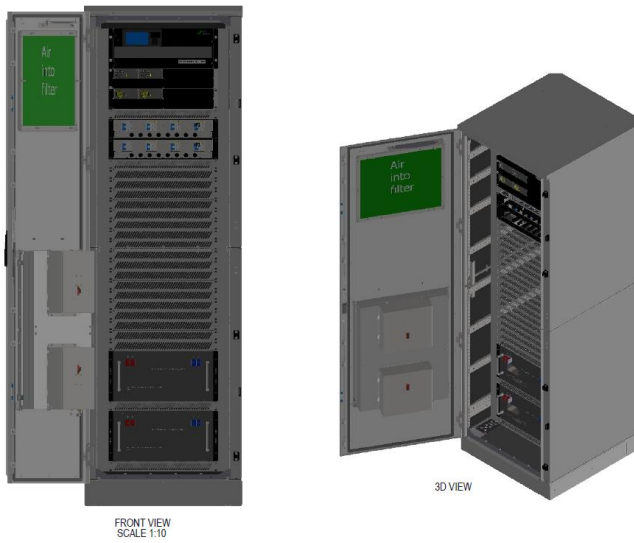
During construction, the components of the tower, fencing and other items will be delivered on a heavy rigid or articulated vehicle. Minor scouring of the site and excavation for footings will be required prior to a concrete base and footings being poured. The tower will then be constructed and fencing and other infrastructure put in place to secure the facility once construction is complete.

The new tower will be located along the Western boundary of the subject land as shown on the Site Plan in **Attachment 6**. The compound will occupy an area of about 900m² and will be fully fenced.

Figure 4: Example of Proposed Telecommunications Facility



Figure 5: Example of a 4-Bay Outdoor Ground Equipment Cabinet



3.2 ACCESS, TRAFFIC AND PARKING

Access to the site will be via an existing gravel crossover along Miling North Road. An existing internal access road will allow vehicles to access the telecommunications site from the crossover as seen in the figure below.

Access to the site by the applicant will be infrequent and will be required for initial construction and then approximately once a year for maintenance. It is expected that the maximum vehicle size visiting the site will be a medium rigid vehicle.

It is not proposed to formalise parking spaces given the infrequent access required to the site.

Figure 6: Access to the site from Miling North Road



Figure 7: Existing Crossover along Miling North Road





3.3 SERVICES

The telecommunications tower does not have a large footprint and does not create stormwater runoff. Given the tower will be surrounded by a pervious surface, a stormwater management plan has not been prepared.

The telecommunications tower does not need to be connected to a water supply or require effluent disposal.

Electricity will be provided by way of a solar power system.

3.4 LANDSCAPING

Given the rural nature of the area, it is not proposed to provide additional landscaping. As seen in the image below, the mapping shows a tree in the site location. Figure 8 is a photo of the site location, showing that the tree in the site location is no longer there.

Figure 8: Aerial of Site Location



Figure 9: Access Path to Site Location



Figure 10: Vegetation at the site location





3.5 WASTE

Once construction is complete, the telecommunications facility will not generate waste and it is not proposed to provide bins.

All construction waste will be removed from the site by contractors.

3.6 CULTURAL HERITAGE

A search of the Aboriginal Cultural Heritage Inquiry System shows that there is no known aboriginal cultural heritage in the vicinity. FSG and its contractors understand the importance of aboriginal artefacts and will take all reasonable and practicable measures to ensure the activity does not harm cultural heritage if anything is found.



4 LEGISLATIVE MATTERS

4.1 PLANNING AND DEVELOPMENT ACT 2005

The *Planning and Development Act 2005* is the overriding legislation for this Development Application. Compliance with the Act and any subordinate legislation will be demonstrated and where any conflict exists with compliance, sufficient justification will be provided.

4.2 STATE PLANNING POLICY 5.2 – TELECOMMUNICATIONS INFRASTRUCTURE

The intent of State Planning Policy 5.2 – Telecommunications Infrastructure is to “balance the need for effective telecommunications services and effective roll-out of networks, with the community interest in protecting the visual character of local areas”.

As stated in the Policy, adequate and reliable telecommunications are essential for all aspects of contemporary community life, from supporting the State’s economy to creating and maintaining connected and cohesive social networks. Contact between emergency services and the community increasingly relies on the telecommunications networks. The importance of telecommunications services in Western Australia is recognised in the Western Australian Planning Commission’s (WAPC’s) State Planning Strategy 2050 (2014), which advocates for the provision of an effective state-wide telecommunications network. This network includes both above and below ground infrastructure to support both fixed line and wireless telecommunications.

The proposed development provides a mobile phone service to a known black spot area and a wireless broadband network through line-of-site towers, thereby complying with the intent of the Policy.

Therefore, the proposal is consistent with the principles set out in the Policy and can be balanced with the need for effective telecommunications services.

4.3 BUSHFIRE OVERLAY

Part of the subject land, and the location of the proposed telecommunications facility, has been identified in the SLIP mapping as being within a Bushfire Prone Area, as shown in Figure 3 above.

The intent of the SPP is “to implement effective, risk-based land use planning and development to preserve life and reduce the impact of bushfire on property and infrastructure.” While the proposed facility is located in a bushfire prone area, the development does not result in an increase of residents or employees, nor does it increase the bushfire threat.

We have made an assessment of the proposed development and confirm that the proposed development mitigates bushfire hazard in the following ways:

- Essential ground equipment will be housed inside a metal outdoor ground unit, thereby protecting infrastructure from potential bushfire threats;
- The tower structure is designed to withstand 40kWm² of radiant heat.
- The outdoor ground unit is expected to withstand ember penetration.
- Access to the site is free from vegetation.

We hope this satisfies any requirement for further reports particularly given the rural nature of the surrounding area.



4.4 MOBILE PHONE BASE STATION DEPLOYMENT INDUSTRY CODE

The *Mobile Phone Base Station Deployment Industry Code C564:2020* (the Code) is designed to:

- *allow the community and councils to have greater participation in decisions made by Carriers when deploying mobile phone base stations; and*
- *provide greater transparency to local community and councils when a Carrier is planning, selecting sites for, installing and operating Mobile Phone Radiocommunications Infrastructure.*

The relevant provisions of the Code are addressed below:

Table 2: Mobile Phone Base Station Deployment Industry Code C564:2020 objectives

Objective	Solution
(a) to apply a Precautionary Principle to the deployment of Mobile Phone Radiocommunications Infrastructure;	FSG has applied the Precautionary Principle in selection and design of the proposed site in accordance with Sections 4.1 and 4.2 of the Code. The precautionary principle has been applied in this case to ensure the best outcome for all stakeholders in terms of facility design, site selection, planning, community concerns and environmental concerns.
(b) to provide best practice processes for demonstrating compliance with relevant exposure limits and the protection of the public;	An EME report will be generated to demonstrate compliance with the ARPANSA safety standard for general public exposure limits.
(c) to ensure that the exposure of the community to EME is minimised;	The facility has been designed to operate well within ARPANSA safety standard for radio frequency exposure.
(d) to ensure relevant stakeholders are informed, notified or consulted and engaged with before Mobile Phone Radiocommunications Infrastructure is constructed;	Consultation has been held with Council which resulted in positive feedback due to the benefit to the community of reliable wireless broadband and mobile network. Any relevant stakeholders will be notified during the community engagement stage of the development application.
(e) to specify standards for consultation, information availability and presentation;	General information relating to this proposal will be available for members of the public on the Radio Frequency National Site Archive (RFNSA) website (www.rfnsa.com.au). As the proposal requires Council determination, notification and consultation with relevant stakeholders will be undertaken during the community engagement stage of the development application.
(f) to consider the impact on the wellbeing of the community, physical or otherwise, of Mobile Phone Radiocommunications Infrastructure; and	The proposed location for the facility has been selected to ensure that both coverage objectives are achieved whilst also carefully considering and balancing the appropriateness and proximity to community sensitive locations.



	<p>An EME report will be generated to demonstrate the applicant’s most responsible approach to deployment and determine the levels of radio frequency exposure to the general public based on the ARPANSA safety standard.</p> <p>The facility is designed to improve and provide reliable wireless broadband and mobile services to the surrounding community and, as a result, it is expected to have a positive impact on social and economic activity.</p>
<p>(g) to ensure Council and community views are incorporated into the Mobile Phone Radiocommunications Infrastructure site selection.</p>	<p>Sites for telecommunications facilities are chosen for elevation, distance to other towers and ease of access. During the site selection process, the Shire of Moora requirements were also taken into account in terms of zone objectives, environmental considerations, visual amenity and emissions. It has been shown that, on balance, the site for the telecommunications facility is appropriately located.</p>

4.5 SHIRE OF MOORA PLANNING SCHEME NO. 4

The proposed use will be assessed against the Shire of Moora Local Planning Scheme No. 4 (the Planning Scheme). The proposed development will demonstrate compliance with all requirements of the Planning Scheme and, where any conflict exists with compliance, sufficient justification will be provided.

The subject land is located in the General Agriculture Zone. The use is not specified within the Zoning table in the planning scheme, nor does it fall within the interpretation of a use, therefore the development must comply with s3.2.4. of the planning scheme which states that;

If the use of land for a particular purpose is not specifically mentioned in the Zoning Table and cannot reasonably be determined as falling within the interpretation of one of the use categories the local government may:

- a. determine that the use is consistent with the objectives and purposes of the particular zone and is therefore permitted; or*
- b. determine that the proposed use may be consistent with the objectives and purposes of the zone and thereafter follow the ‘A’ advertising procedures of clause 64 of the deemed provisions in considering an application for developmental approval; or*
- c. determine that the use is not consistent with the objectives and purposes of the particular zone and is therefore not permitted.*

Section 64 of Schedule 2 Deemed provisions for local planning schemes of the *Planning and Development (Local Planning Schemes) Regulation 2015* requires advertising of complex applications for development approval. We note that the proposed telecommunications facility, while not a complex application, will require advertising due to the nature of the use.

We have addressed the proposal against the objectives of the General Agriculture Zone under Part 3 of the Planning Scheme as follows:

- To ensure the continuation of broad-hectare farming as the principal land use in the district and encouraging where appropriate the retention and expansion of agricultural activities.



Response: The proposed telecommunications facility will be located on part of the land that will not interfere with any rural pursuits on the subject land. It is not expected that the facility will impact the amenity of the locality given the location on the outskirts of town.

- To consider non-rural uses where they can be shown to be of benefit to the district and not detrimental to the natural resources or the environment.

Response: The proposed telecommunications facility is proposed to be located in an area of the property that will not affect the continuation of the rural use on the subject land. It is not proposed to clear mature vegetation on the property and the landscape will be maintained. The facility will allow for greater connection in the area. The facility will be of benefit to the district by providing wireless broadband internet and mobile network services to the surrounding area.

- To allow for facilities for tourists and travellers, and for recreation uses.

Response: Not applicable



5 CONCLUSION

The proposal is for a telecommunications facility which will provide mobile phone and fixed wireless broadband networks to a remote and regional community.

The subject land is suitable for a telecommunications facility for the following reasons:

- The site has direct line of site to other proposed towers in the region;
- The site has good access and the development will not create a nuisance to traffic;
- The proposed development will not increase flood hazard;
- The proposed development will not increase bushfire hazard;
- The subject land has not been identified as containing Aboriginal artefacts;
- The proposed facility will not interfere with agricultural land;
- The facility has been designed to comply well within the mandated safety standards set out by the Australian Radiation Protection & Nuclear Safety Agency (ARPANSA) for EME exposure to the general public; and
- Likely impacts are low.

Therefore, Council can be confident in approving the telecommunications facility as it will satisfy an essential community need.

We trust the details of the Development Application set out above and attached are satisfactory.

Thank you for your consideration and please do not hesitate to contact the writer if further information is required.

Yours Sincerely

Angus Lovell | Town Planner

Deployment Memo

FSG R.A.N Deployment Cultural Heritage Memo for Staff and Contractors

P6Moor004 Miling Site – Issue 1

06 March 2024

Contents

1. Executive Summary	3
2. Notification Procedure.....	4
3. Map of Area.....	4
4. Escalation	4
5. Risk Assessment.....	5

Appendix A – Site Details and Mapping

Appendix B – Cultural Heritage Search Results

Appendix C – Cultural Heritage Items Report

1. Executive Summary

FSG acknowledges and respects the traditional owners of the land and celebrates the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of Australia.

This memo provides detail and instructions to all FSG staff and sub-contractors in relation to working near items which are classified as part of cultural heritage.

Aboriginal or Torres Strait Islander cultural heritage may exist on any land within Australia and is protected under the *Aboriginal Cultural Heritage Act 2003* and the *Torres Strait Islander Cultural Heritage Act 2003* (the Cultural Heritage Acts).

Under the Cultural Heritage Acts, a person carrying out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal or Torres Strait Islander cultural heritage. This applies whether or not such places are recorded in an official register and whether or not they are located on private land.

Under various State and Commonwealth legislation, a duty of care is required to be followed and this may include, but is not limited to:

- Ensure all cultural heritage searches have been carried out prior to entering the site.
- Take a precautionary approach to any activity to be conducted on the land.
- During the activity, be aware of the potential for cultural heritage to occur.
- Take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage.
- If a potential cultural heritage item is found, immediately stop work and report the item found.
- Follow State and Commonwealth legislation and guidelines for duty of care for cultural heritage items.

2. Notification Procedure

As soon as any member of the deployment team becomes aware of an area containing aboriginal cultural heritage items, a memo must be drawn up and issued to all concerned staff prior to FSG staff or contractors attending the location. The memo must include a map of the location concerned, the likelihood of an item occurring in the activity area and a classification of the activity.

As part of the pre-construction meeting, all parties who will be on site must be notified of the potential for cultural heritage and each party must advise in writing that they have understood the notification. If the location is deemed close enough to the FSG lease area and/or construction zone, a no-go zone must be set up and pre and post work photos must be provided.

The following procedure should be followed:

- FSG Construction Project Lead provides formal notification to FSG on-site teams and any sub-contractors.
 - Written notification acknowledging receipt must be on file ahead of teams being on site.
- Site Manager must provide photos prior to any equipment, materials or team members entering site IF instructed to by the FSG Construction Project lead.
- In the event that the location is in close proximity to the construction zone, a no-go zone must be set up and the FSG Project Lead must request post construction photos of the relevant area.

3. Map of Area

A map of the area of concern must be attached to this memo in Appendix A and provided to any FSG staff or contractors attending the location.

The map must show the area containing artefacts identified on a cultural heritage search and the distance from the FSG lease and the access/construction track.

The map must also show any no-go zones.

4. Escalation

Should an FSG staff member or subcontractor believe there has been a disturbance to an area containing cultural heritage artefacts, the on-site manager must immediately notify the key personnel below (in order of availability):

Wendy Wood	0418 405 006
Manuel Sebastian	0432 777 193
Ryan Farrell	0411 295 194
Vin Mullins	0412 519 442

Appendix C – Cultural Heritage Items Report should be filled out and provided to the FSG staff member notified.

5. Risk Assessment

Use the following risk assessment to determine the likelihood of disturbing cultural heritage items on site.

Category of Activity	Likelihood of Disturbance if Artefacts Previously Located on Site	
	No	Yes
Category 1: Activities involving no surface disturbance		
Category 2: Activities causing no additional surface disturbance		
Category 3: Developed areas (towns, built up areas, residential, industrial, commercial areas)		
Category 4: Areas previously subject to significant ground disturbance (rural areas)		
Category 5: Activities causing additional surface disturbance		

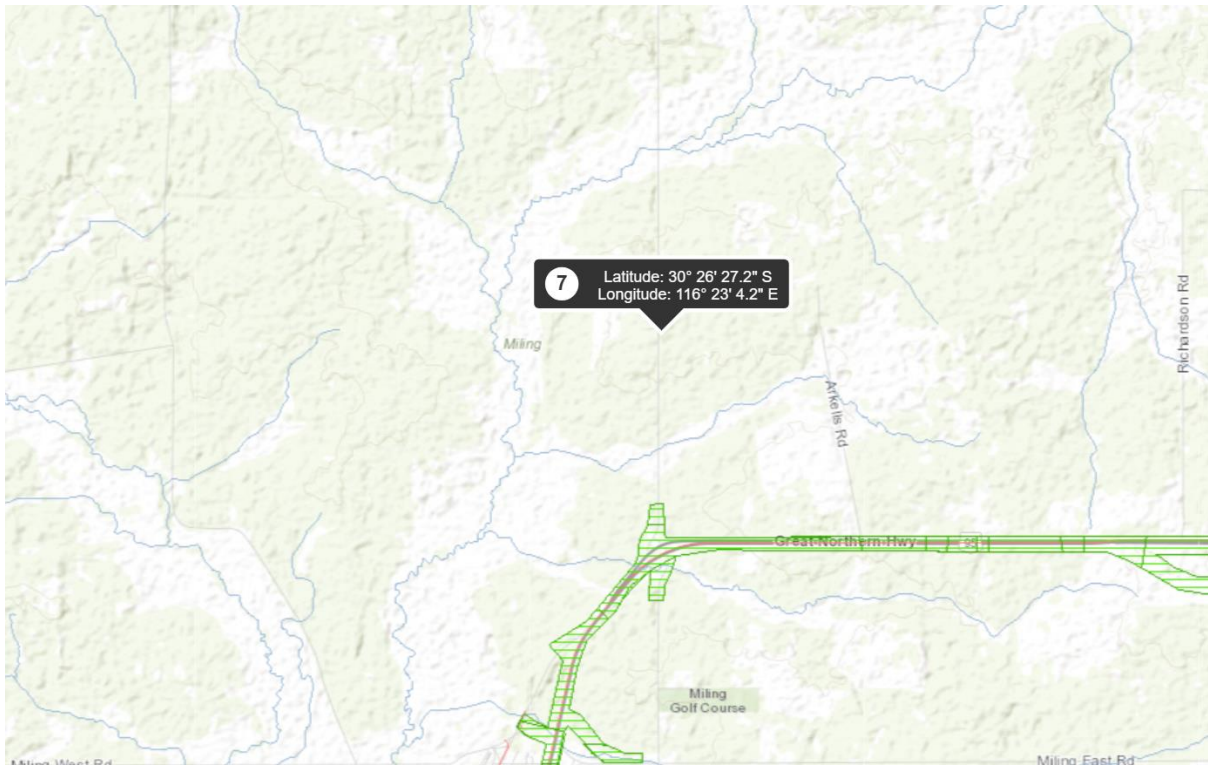
Unlikely	
Possible	
Highly Likely	

Appendix A – Site Details and Mapping

The area does not contain any previously identified artefacts of cultural significance.

The Risk Assessment shows that the likelihood of cultural heritage items occurring is **possible** due to the site being located on Rural Land and the activity includes excavation.

Appendix B – Cultural Heritage Search Results



Appendix C – Cultural Heritage Items Report

Item	Detail
Site ID	
Site Name	
Date and Time	
Parties Involved	
Summary of Disturbance	
Photographs attached	Note: Photos must have timestamp and embedded GPS co-ordinates

DATE OF ISSUE	02/01/2024																					
DRAWING PACKAGE VERSION	A																					
GENERAL																						
MOOR004-G1	SITE SPECIFICATIONS	A																				
MOOR004-G2	HIGH LEVEL SITE PLAN	A																				
MOOR004-G3	SITE LAYOUT	A																				
MOOR004-G4	SETOUT PLAN	A																				
MOOR004-G5	SITE ELEVATION	A																				
MOOR004-G6	STANDARD CONSTRUCTION NOTES	A																				
ANTENNAS & TRANSMISSION																						
MOOR004-A1	PANEL ANTENNA AND TRANSMISSION CONFIGURATION	A																				
MOOR004-A2	RF PLUMBING DIAGRAM	A																				
MOOR004-A3	CAMBIUM RF PLUMBING DIAGRAM	A																				
STRUCTURAL																						
MOOR004-S1	GEOTECH REPORT	A																				
MOOR004-S2	TOWER DESIGN AND CABLE DESIGN	A																				
MOOR004-S3	DETAILED HEADFRAME DESIGN	A																				
MOOR004-S4	DETAILED MICROWAVE MOUNT DESIGN	A																				
MOOR004-S5	TOWER FOOTING DESIGN	A																				
MOOR004-S6	SOLAR FRAME DESIGN	A																				
MOOR004-S7	SOLAR FRAME/ ODU FOUNDATIONS/ FOOTING DESIGN	A																				
MOOR004-S8	TOWER DESIGN CERTIFICATION	A																				
MOOR004-S9	HEADFRAME DESIGN CERTIFICATION	A																				
MOOR004-S10	MICROWAVE MOUNT ANTENNA DESIGN CERTIFICATION	A																				
ELECTRICAL																						
MOOR004-E1	ELECTRICAL SPECIFICATIONS	A																				
MOOR004-E2	SITE EARTHING DETAILS	A																				
MOOR004-E3	SINGLE LINE DIAGRAM	A																				
MOOR004-E4	SOLAR DESIGN/ LAYOUT	A																				
MOOR004-E5	SOLAR ARRAY CONFIGURATION PLAN	A																				
MOOR004-E6	GENERATOR FOOTING DESIGN	A																				
EQUIPMENT FACILITY																						
MOOR004-F1	CABINET LAYOUT	A																				
MOOR004-F2	RACK LAYOUTS	A																				
MOOR004-F3	CONDUIT/ CABLE TRAY FEEDER RUN DESIGN	A																				
LEASE / LICENCE																						
MOOR004-L1	LEASE DOCUMENT	A																				
MOOR004-L2	LEASE PLAN	A																				
EME EXCLUSION ZONES																						
MOOR004-Z1	FSG EME SAFETY SIGNAGE	A																				



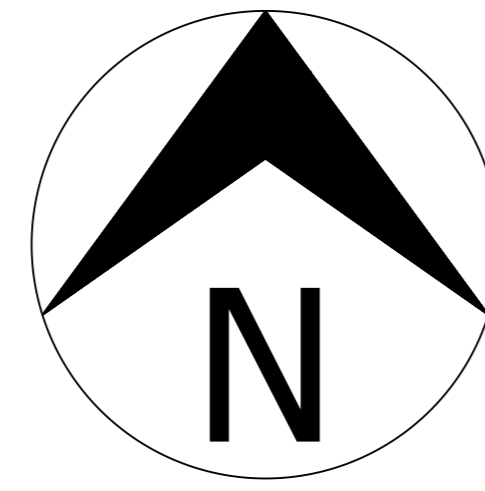
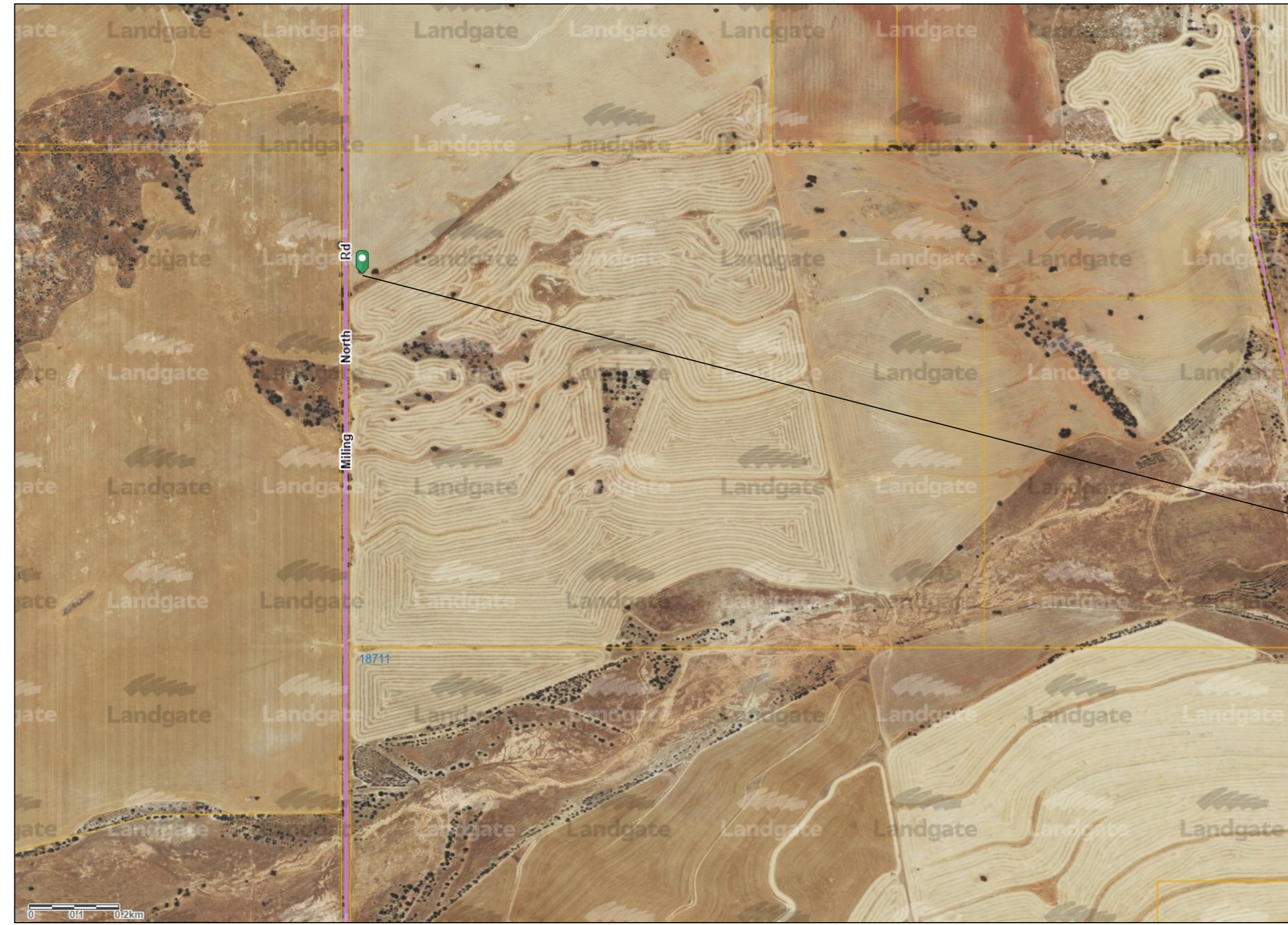
FIELD SOLUTIONS SITE MILING

Miling North Road
MILING WA 6575
Lot 1751 DP132406

DRAFT

STREET ADDRESS

Miling North Road
MILING WA 6575
Lot 1751 DP132406



SITE LOCATION DATA	
GROUND ELEVATION:	302m
DATUM:	MGA (GDA94) ZONE: 50
LATITUDE	-30.440895
LONGITUDE	116.384502
RFNSA NUMBER:	

FIELD SOLUTIONS SITE - MILING

GEO REFERENCE: GOOGLE EARTH

NEW FSG FACILITY

1. NEW FSG 45M LATTICE TOWER. REFER TO LEBLANC DRAWING XXXXX
2. FSG ANTENNA REFER TO DRAWINGS A1, A2 AND A3
3. FOR TOWER FOUNDATION DETAILS, REFER TO LEBLANC DRAWING XXXXX BASED UPON GEOTECH UNDERTAKEN BY CIVIL TEST

EQUIPMENT SHELTERS

1. FSG SOLAR CABINET INSTALL
2. 3X OUTDOOR SHELTER WITH DATA AND POWER SYSTEMS UNDER SOLAR ARRAY

ODU/SHELTER DESIGN CRITERIA

WIND REGION	DESIGN WIND SPEED	FIRE PROTECTION REQUIREMENT	ELEVATED OTC LEVEL (ABOVE 1:100 FLOOD LEVEL INC FREEBOARD)
A0	54.90m/s	N/A	N/A

TRANSMISSION

FOR FSG TRANSMISSION REQUIREMENTS REFER TO DRAWING A1

SITE HAZARDS

1. MANUAL HANDLING
2. WORKING AT HEIGHTS
3. SLIPS, TRIPS AND FALLS
4. ELECTRICAL HAZARDS
5. WEATHER / LIGHTING
6. SUN EXPOSURE
7. WILDLIFE / INSECTS

CONSTRUCTION SITE ACCESS

1. Access to site via existing access gate along Miling N Road Street at -30.437947, 116.384207

PROPERTY AND SITE SIGNAGE

1. SITE SIGNAGE ALIGNED TO FSG STANDARD REQUIREMENTS (INCLUDING EME)
2. REFER TO DRAWING Z1

EME EXCLUSION ZONES

1. DETAILS TBC FOR FSG

ELECTRICAL INSTALLATION AND SITE EARTHING DESIGN

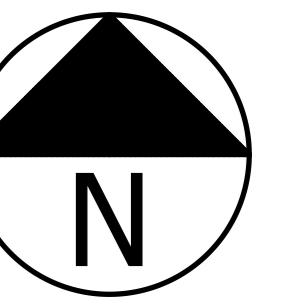
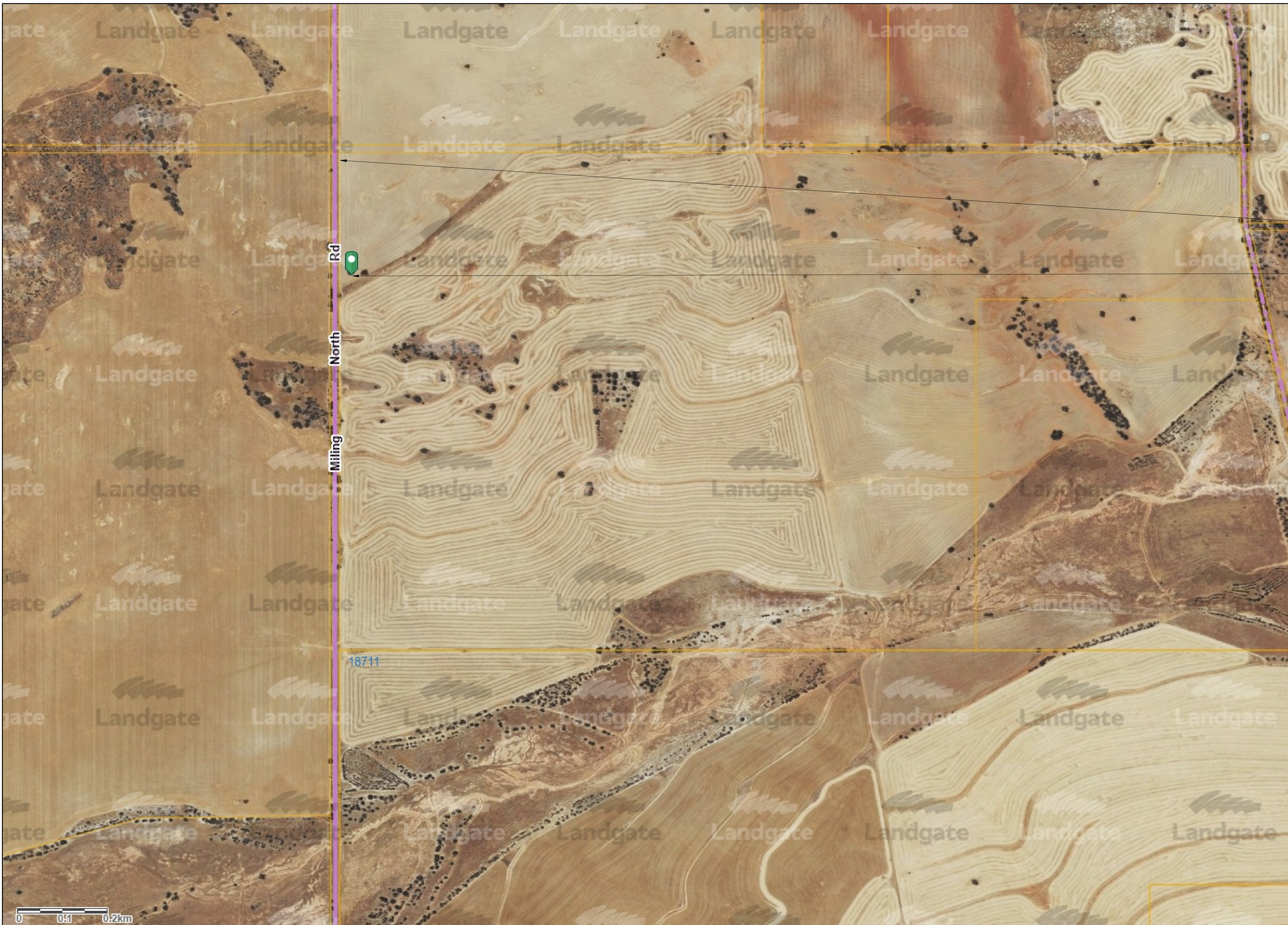
1. SOLAR EARTHING REFER TO DRAWING E2
2. FOR SITE POWER REFER TO DRAWINGS E1-E6

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title: SITE SPECIFICATION		
Drawing Status: DRAFT	Drawing No. P6MOOR004-G1	Revision: A



Access to site via existing access road along Miling N Road Street at -30.437947, 116.384207

Proposed new FSG 45m tower -30.440895, 116.384502
Solar 30m x 30m Lease



Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
SITE LAYOUT HIGH LEVEL


Drawing Status:
DRAFT

Drawing No.: P6MOOR004-G2
Revision: **A**

DO NOT SCALE

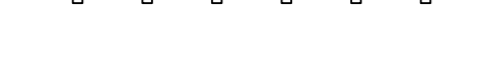
LEGEND

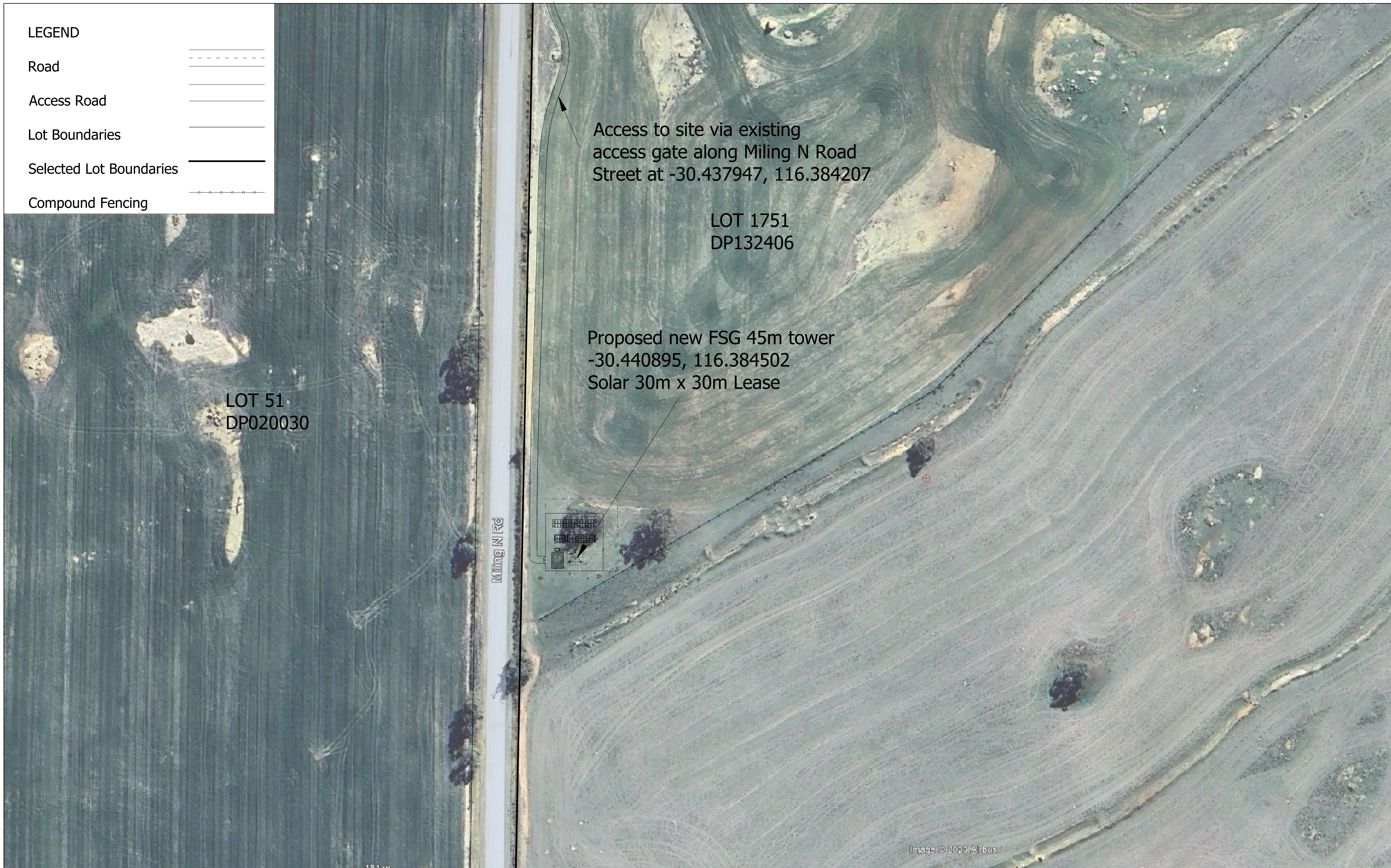
Road 

Access Road 

Lot Boundaries 

Selected Lot Boundaries 

Compound Fencing 



LOT 51
DP020030

LOT 1751
DP132406

Proposed new FSG 45m tower
-30.440895, 116.384502
Solar 30m x 30m Lease

Access to site via existing
access gate along Miling N Road
Street at -30.437947, 116.384207

Miling N Rd

Image © 2023 Airbus

A	02/01/2024	DRAFT						
Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver		

DO NOT SCALE

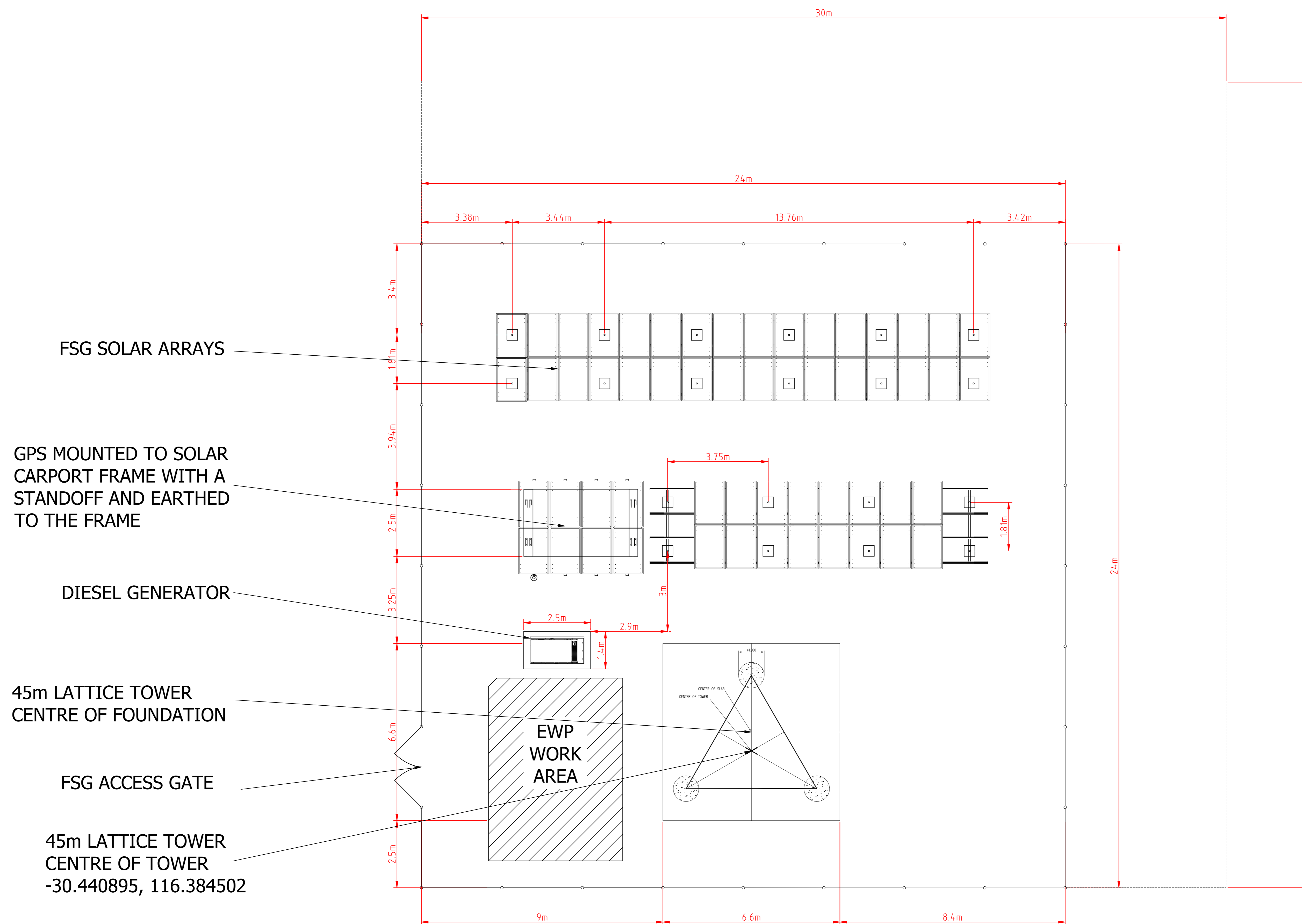
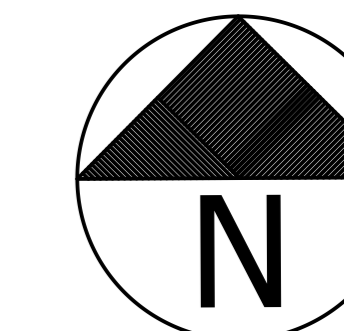


Project:
REGIONAL AUSTRALIA
NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title: SITE LAYOUT HIGH LEVEL		Drawing Status: DRAFT		Drawing No.: P6MOOR004-G3		Revision: A	
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LEGEND

- Compound Fencing ————
- EWP Work Area - - - - -
- Tower Foundation ————
- Lease Area - - - - -



Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
 SITE No: P6MOOR004
MILING
 MILING NORTH ROAD

Drawing Title:

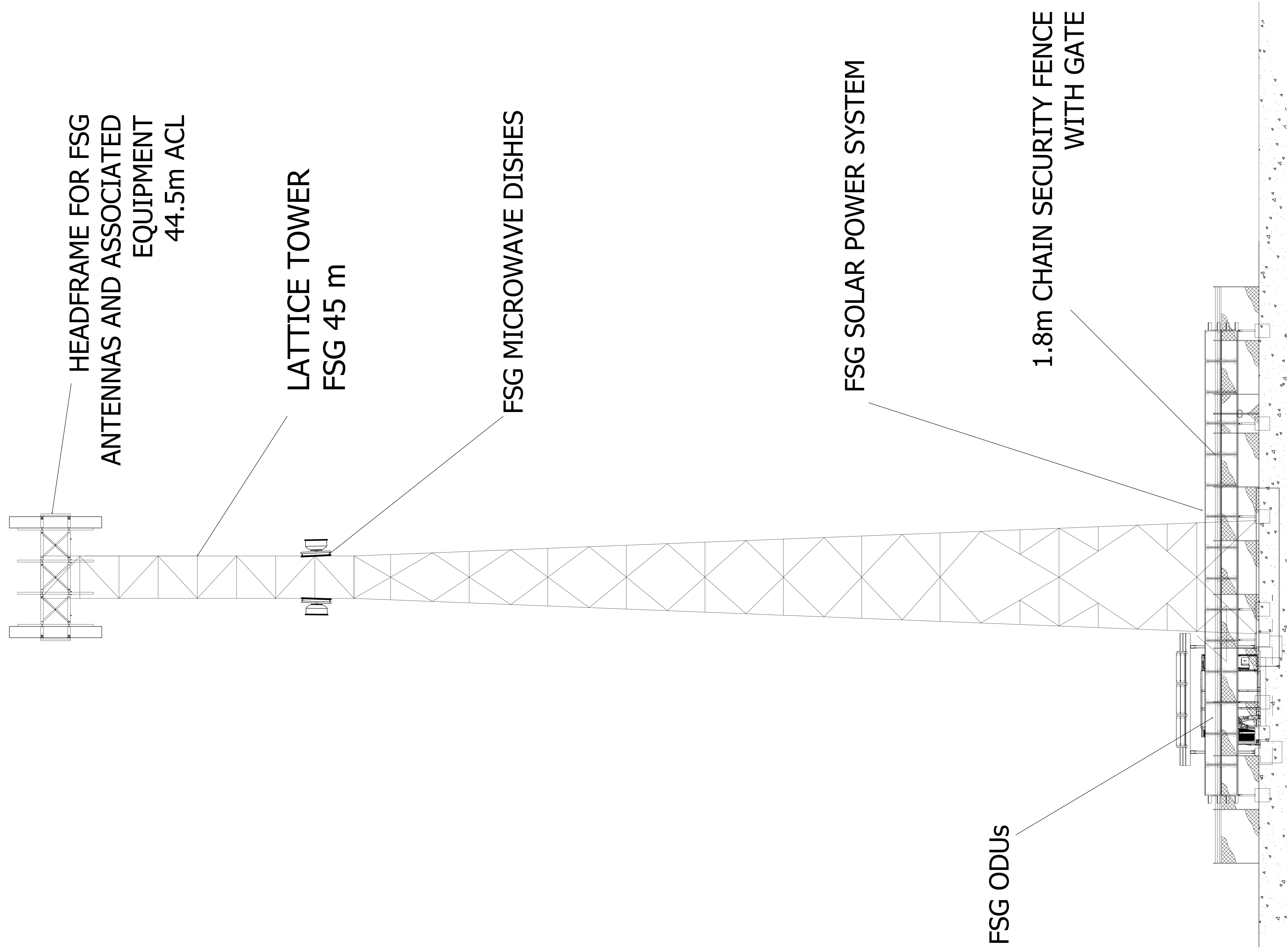
SETOUT PLAN

Drawing Status:
DRAFT

Drawing No.: P6MOOR004-G4
 Revision: **A**

DO NOT SCALE

NOTE:
THIS DRAWING IS DIAGRAMMATIC ONLY
AND SHOULD NOT BE SCALED.



FOR DETAIL ON TOWER FOUNDATION,
REFER TO LEBLANC DRAWING

SOUTH ELEVATION

DIAGRAMMATIC TOWER ELEVATION
REFER TO PLAN VIEW FOR ORIENTATION

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA
NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
SITE ELEVATION

Drawing Status:
DRAFT

Drawing No.:
P6MOOR004-G5

Revision:
A

DO NOT SCALE

GENERAL AND PRELIMINARY

- 1. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR ALL WORKS AND REQUIREMENTS UNLESS NOTED OTHERWISE .
THE CONTRACTOR OR REPRESENTATIVE SHALL BE RESPONSIBLE FOR LIAISON WITH THE PROPERTY OWNER REGARDING CONSTRUCTION OF THE INSTALLATION . THE PROPERTY MUST REMAIN SERVICEABLE AND OPERATIONAL AT ALL TIMES UNLESS AGREED WITH PROPERTY OWNER
3. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS ON SITE PRIOR TO FABRICATION AND CONSTRUCTION
4. REFER TO GIVEN DIMENSIONS ONLY , DRAWINGS SHOULD NOT TO BE SCALED . DIMENSIONS ARE IN MILLIMETERS UNO
5. SPECIFIED PRODUCTS (OR THEIR APPROVED EQUIVALENTS) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION
THE CONTRACTOR SHALL USE DROP SHEETS OR ANY OTHER METHOD DEEMED NECESSARY TO PROTECT THE EXISTING BUILDING FROM DAMAGE DURING CONSTRUCTION , IF REQUIRED .
7. NORTH POINT AS SHOWN ON DRAWINGS INDICATES MGA NORTH (GDA 94 DATUM) UNLESS NOTED OTHERWISE.
8. ANTENNA AZIMUTHS ARE SPECIFIED IN DEGREES REFERENCED TO TRUE NORTH (TN).

SET OUT

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SET OUT OF SHELTER OR OUTDOOR UNITS IN ACCORDANCE WITH THE DESIGN INTENT AS SHOWN ON THE DRAWINGS AND TO FSG STANDARDS .
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SET OUT OF THE CABLE LADDER IN ACCORDANCE WITH THE DESIGN INTENT AS SHOWN ON THE DRAWINGS .
3. CONCRETE WORKS TOLERANCES SHALL COMPLY WITH CLAUSE 17.5 OF AS 3600 .
4. STRUCTURAL STEEL WORK TOLERANCES SHALL COMPLY WITH CLAUSE 15.3 OF AS4100.

UNDERGROUND SERVICES

- 1. EXISTING SERVICES SHOWN ON SITE DRAWINGS IS REPRESENTATIVE OF AVAILABLE INFORMATION (OBTAINED FROM LOCAL AUTHORITIES) AND THE SITE SURVEY .
2. SERVICES INFORMATION SHALL BE READ IN CONJUNCTION WITH RELEVANT LOCAL AUTHORITIES DRAWINGS TO CONFIRM ACCURACY OF COMPLETENESS
3. ADDITIONAL UNDOCUMENTED SERVICES MAY BE PRESENT ON SITE . FOR INFORMATION OF UTILITY UNDERGROUND SERVICES CALL 1100 ' DIAL BEFORE YOU DIG ' , OR REFER TO DIAL BEFORE YOU DIG REPORT FROM WEBSITE
4. THE CONTRACTOR SHALL IDENTIFY AND CONFIRM THE LOCATION OF ALL RELEVANT UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF THE WORKS USING MANUAL POTHOLING OR OTHER APPROVED MEANS .

STRUCTURAL STEEL WORK

- 1. ALL MATERIALS AND WORKMANSHIP TO BE IN ACCORDANCE WITH AS4100 , AS 1657 AND AS / NZS 1554.1 .
2. ALL STEELWORK SHALL BE IN ACCORDANCE WITH AS / NZS 3679.1 (GRADE 300 FOR HOT -ROLLED SECTIONS AND BARS) , AS / NZS 3678 (GRADE 25) FOR HOT - ROLLED PLATES AND AS 1163 (GRADE 250 MIN) FOR HOLLOW SECTIONS
3. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS ON SITE PRIOR TO FABRICATION ,
4. ALL PREFABRICATED STEELWORKS SHALL BE HOT - DIP GALVANISED AFTER FABRICATION , IN ACCORDANCE WITH AS / NZS 4680. PLUG AND SEAL WATERTIGHT ANY HOLES MADE FOR GALVANISING .
5. THE CONTRACTOR SHALL PROVIDE ALL CLEATS AND HOLES NECESSARY FOR FIXING STEEL TO STEEL AND TIMBER TO STEEL WHETHER OR NOT DETAILED ON THE STEELWORK DRAWINGS .
6. UNLESS SPECIFIED OTHERWISE , WELDS SHALL BE GENERAL PURPOSE (GP) CONTINUES FILLET WELDS . DEFAULT SIZE IS LESSOR OF 6MM AND THICKNESS OF THE THINNEST PART BEING JOINED . STRUCTURAL PURPOSE (SP) WELDS SHALL BE SELECTED FOR STRUCTURES SUBJECT TO FATIGUE.
7. ANY CUTS , HOLES AND WELDS TO EXISTING STEELWORK SHALL BE TREADED WITH COLD - GAL ZINC RICH PAINT BOLTS NOT DESIGNED SHALL BE GRATE 8.8 TO AS / NZS 1252 AND ' SNUG ' TIGHTENED
8. ALL BOLTS AND U - BOLTS SHALL BE SNUG SHALL BE SNUG TIGHTENED AND SECURED WITH FLAT WASHER AND SPRING WASHER UNLESS SPECIFIED OTHERWISE .
10. PROVIDE APPROVED NEOPRENE (OR EQUIVALENT) WASHERS AND COLLARS AT ALL DISSIMILAR METAL INTERFACES .
11. ALL CHEMICAL AND MECHANICAL MASONRY ANCHORS SHALL BE STAINLESS STEEL (UNLESS SPECIFIED OTHERWISE) AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION .
12. TWO - HOLE EARTH LUGS SHALL BE PROVIDED ON ALL MOUNTS , EXCEPT ON STEEL MONOPOLES , LATTICE TOWERS AND GUYED MASTS .

CONCRETE WORKS

- 1. ALL CONCRETE WORKS SHALL COMPLY WITH THE CURRENT ISSUE OF AS 3600 AND OTHER RELEVANT STANDARDS REFERENCED THEREIN
2. UNLESS SPECIFIED OTHERWISE , CONCRETE MIX SHALL CONTAIN PORTLAND CEMENT TYPE GP OR GB 20 MM GRADED COARSE AGGREGATE AND ACHIEVE 80MM SLUMP AT POINT OF DELIVERY .
3. UNLESS SPECIFIED OTHERWISE , CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS (f_c) SHALL BE 32MPa
4. SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED COATINGS . BEAM DEPTHS INCLUDES SLAB THICKNESS (IF ANY)
5. CONCRETE SURFACE SHALL BE CURED FOR A MINIMUM OF 7 DAYS , COMMENCING IMMEDIATELY AFTER PLACING .

MASONRY WORK

- 1. ALL MASONRY WORK SHALL CONFORM WITH CURRENT ISSUE OF AS 3700 AND OTHER STANDARDS REFERENCED THEREIN .
2. BUILD IN AS NECESSARY , LINTELS , FRAMES BOLTS , LUGS , WALL TIES AND METAL WORK .
3. CAREFULLY POSITION OPENINGS FOR OTHER TRADES TO ELIMINATE CUTTING
4. BED JOINTS ARE TO BE 10MM THICK
5. BEFORE LAYING MASONRY UNITS , ENSURE THAT THE BASE IS CLEAN AND FREE OF LAITANCE .
6. INSTALL WIRING FOR POWER AND OTHER CONDUITS WITHIN BLOCK CORES (WHERE APPLICABLE) . DO NOT CUT CHASES IN HOLLOW BLOCKWORK .
7. ALL WALL INTERSECTION SHALL BE OF BONDED CONSTRUCTION OR TIED TO EXISTING WITH A MEDIUM DUTY (MIN .) TIES AT 400 MM CENTRES VERTICALLY .

TIMBER WORK

- 1. ALL TIMBER WORK SHALL CONFORM WITH CURRENT ISSUE OF AS / NZS 1684 AND AS / NZS 1720 AND OTHER STANDARDS REFERENCED THERE IN
2. MINIMUM STRENGTH GRADE SHALL BE F7 , UNLESS SPECIFIED OTHERWISE

ELECTRICAL WORK (POWER)

- 1. LOCATE AND IDENTIFY ALL UNDERGROUND SERVICES BEFORE COMMENCING WORK .
2. THE ELECTRICAL INSTALLATION SHALL COMPLY WITH THE RELEVANT CODES , STANDARD , RULES AND REGULATIONS OF STATUTORY AUTHORITIES IN PARTICULAR STATE SERVICE AND INSTALLATION RULES , AS / NZS 3000 WIRING RULES , AS3015 , AS / NZS 3017 AND THE SUPPLY AUTHORITY REGULATIONS
3. THE LOCATIONS AND MOUNTING HEIGHTS OF THE NEW INSTALLATION SHOWN ON THE SITE DRAWINGS IS INDICATIVE ONLY . THE FINAL LOCATIONS AND HEIGHTS SHALL BE DETERMINED ON SITE TO SUIT THE CLIENT AND THE INSTALLATION . THE CONTRACTOR SHOULD VISIT THE SITE DURING TENDER PERIOD TO BECOME FAMILIAR WITH SCOPE OF WORK .
4. ALL REQUIREMENTS FOR INSTALLATION REGARDING SUPPLY ARRANGEMENTS , PROVISION OF SERVICE CABLES AND CONSUMER MAINS AND METERING SHALL BE IN ACCORDANCE WITH AS / NZS 3000 AND RELEVANT STATE SERVICE AND INSTALLATION RULES .
5. A SEPARATE MEN EARTH ELECTRODE SHALL BE PROVIDED BY THE CONTRACTOR BELOW THE METER BOX AS REQUIRED .
6. ALL WIRING SYSTEMS SHALL BE INSTALLED AND ENCLOSED BY APPROVED METHODS WHICH WILL READILY PERMIT CABLES TO BE DRAWN IN OR REPLACED AFTER COMPLETION OF CONSTRUCTION .
7. CABLE MAKERS SHALL BE PROVIDED FOR UNDERGROUND WIRING FROM WITHIN THE PROPERTY BOUNDARY AND TO THE FSG INSTALLATION , AT THE COMMENCEMENT AND FINISH OF EACH ROUTE AND AT EACH CHANGE OF DIRECTION .
8. ALL EXISTING SURFACES , KERBS , GUTTERS , INVERTS , VEHICLE CROSSING AND PAVEMENTS DISTURBED AFTER INSTALLATION OF UNDERGROUND WIRING SHALL BE REINSTATED AND MADE GOOD BY THE CONTRACTOR .

EARTHING

- 1. EQUIPMENT AND ANTENNA MOUNTS SHALL BE EARTHED IN ACCORDANCE WITH THE EARTHING SPECIFICATION
2. ALL EXTERIOR EARTH TAPE ELECTRODES SHALL BE COPPER BONDED HARDENED STEEL UNLESS OTHERWISE NOMINATED ON THE SITE DRAWINGS .
3. THE EARTHING SYSTEM SHALL BE CHECKED FOR CONTINUITY AND IMPEDANCE SHALL BE MEASURED AND WRITTEN TEST REPORT PROVIDED
4. EARTHING ELECTRODES SHALL BE INSTALLED AT A DEPTH OF NOT LESS THAN 3 METERS UNLESS NOTED OTHERWISE .

SEDIMENT CONTROL

- 1. DURING CONSTRUCTION, EROSION AND SEDIMENT MUST BE MANAGED IN ACCORDANCE WITH THE VARIOUS STATE GUIDELINES.
2. TEMPORARY SILT FENCING MUST BE ERECTED AND MAINTAINED AROUND THE PERIMETER OF THE DEVELOPMENT SITE WHERE NECESSARY DURING CONSTRUCTION.
3. STOCKPILES OF TOPSOIL, SAND, AGGREGATE, SPOIL OR OTHER MATERIAL SHALL BE STORED CLEAR OF ANY DRAINAGE PATHS AND BE PREVENTED FROM ENTERING ANY ROADS, DRAINAGE SYSTEMS OR ADJOINING PROPERTIES.
4. THE CONTRACTOR MUST IMMEDIATELY CLEAN UP AND REMOVE ANY DEPOSITED CONSTRUCTION MATERIAL OR SILT RUNOFF FROM THE DEVELOPMENT SITE.

Table with columns for Rev, Date, Revision Details, Consultant, CAD Designer, Verifier, Approver. Row 1: A, 02/01/2024, DRAFT.



Project: REGIONAL AUSTRALIA NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title: STANDARD CONSTRUCTION NOTES
Drawing Status: DRAFT
Drawing No. P6MOOR004-G6
Revision: A

DO NOT SCALE

ELECTRICAL DESIGN FOR BATTERY CABINET

REFERENCE ELTEK DRAWING GA-CTEBB0444.1003
FILENAME: GA-CTEBB0444.1003-Battery Cabinet.pdf

ELECTRICAL DESIGN FOR HYBRID POWER SYSTEM

REFERENCE ELTEK DRAWING GA-CTE30844.4032
FILENAME: GA-CTE30844.4032-Hybrid Power System.pdf

ELECTRICAL DESIGN FOR DISTRIBUTION CABINET

REFERENCE ELTEK DRAWING GA-CTEDX0028.1000
FILENAME: GA-CTEDX0028.1000-Empty Cabinet.pdf

A	02/01/2024	DRAFT												
Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver								



Project:
**REGIONAL AUSTRALIA
NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD**

Drawing Title: ELECTRICAL DESIGN	
Drawing Status: DRAFT	Revision: A
Drawing No. P6MOOR004-E1	

- ETMAGS X 4 – for up tower earth points



- RC70 clamp, rebar to cable – earthing to footing.



- 611350 earth rod, copper bonded, pointed, 1/2" x 1500



- CC12F coupler, bronze, compression for 1/2" pointed rod



- 35mm solid earth cable – from copper strap to fence and tower.



- copper earthing strap 50 m reel – earth ring in ground



- U-Bolt rod clamp – joining strap to rods and cables.



- braid, MBJ35-250-10 – fence to gate



- FC079 clamp, fence post - cable to fence post



- PIT03 Housing, inspection for earth rod



LEGEND

BARE COPPER EARTH STRAP -----

35mm COPPER EARTH CABLE _____

NOTES:

35mm Copper Cable to be run in conduit

Dissimal Metal Paste (Tefgel60) to be applied to tower earth lugs

Denso Tape (PC60050-44) to be applied to RC70 clamp and U-Bolt locations

RC70 Clamped to rebar and cabled to earth rod

Denso Tape (PC60050-44) to be applied to RC70 clamp location

Earthing Braid MBJ35-250-10

FC079 Fence Post Clamp

EWP WORK AREA

Dissimal Metal Paste (Tefgel60) to be applied to tower earth lugs

Bare Copper Earthing Strap

Copper Earthing Cable From Fence to Earth stake

FC079 Clamp

Copper Earthing Cable with Ubolt Rod Clamps

Denso Tape (PC60050-44) to be applied to UBolt clamp location

Earthing Pit (PIT03) With 3m earthing rod

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
 SITE No: P6MOOR004
MILING
 MILING NORTH ROAD

Drawing Title:
SITE EARTHING DESIGN

Drawing Status:
 DRAFT

Drawing No.
P6MOOR004-E2

Revision:
 A

ELECTRICAL SLD FOR BATTERY CABINET

REFER TO ELTEK DRAWING SCH-CTEBB0444.1003
FILENAME: SCH-CTEBB0444.1003-Battery Cabinet.pdf

ELECTRICAL SLD FOR HYBRID POWER SYSTEM

REFER TO ELTEK DRAWING SCH-CTE30844.4032
FILENAME: SCH-CTE30844.4032-Hybrid Power System.pdf

ELECTRICAL SLD FOR DISTRIBUTION CABINET

REFER TO ELTEK DRAWING SCH-CTEDX0028.1000
FILENAME: SCH-CTEDX0028.1000-Empty Cabinet.pdf

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



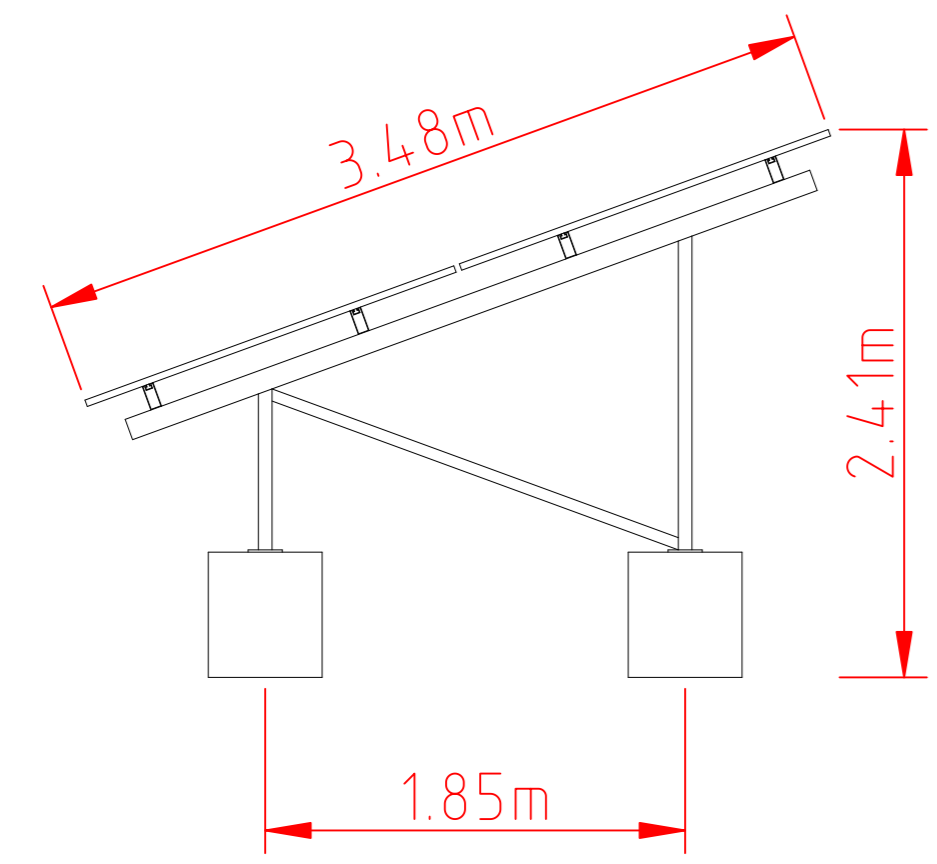
Project:
**REGIONAL AUSTRALIA
NETWORK**
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
SLD

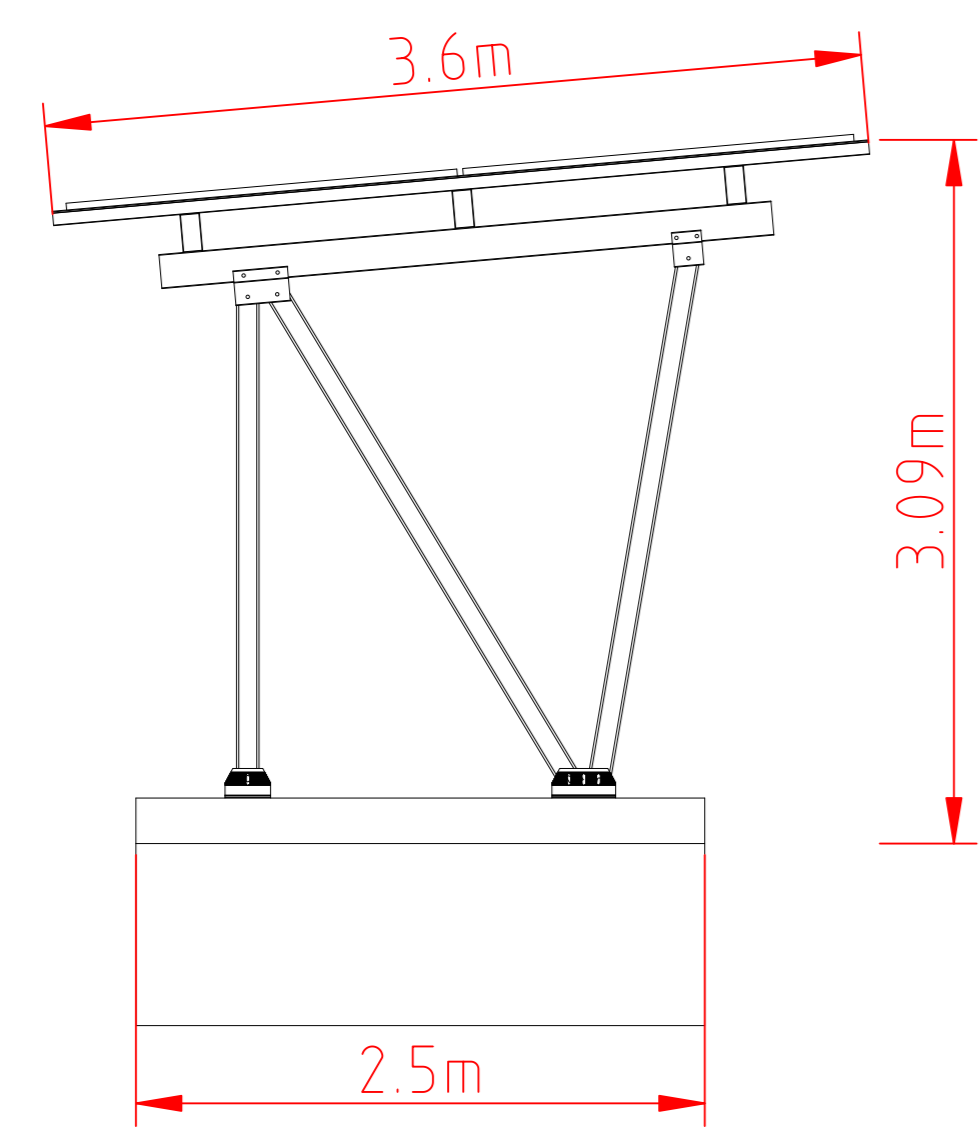
Drawing Status:
DRAFT

Drawing No. Revision:
P6MOOR004-E3 A

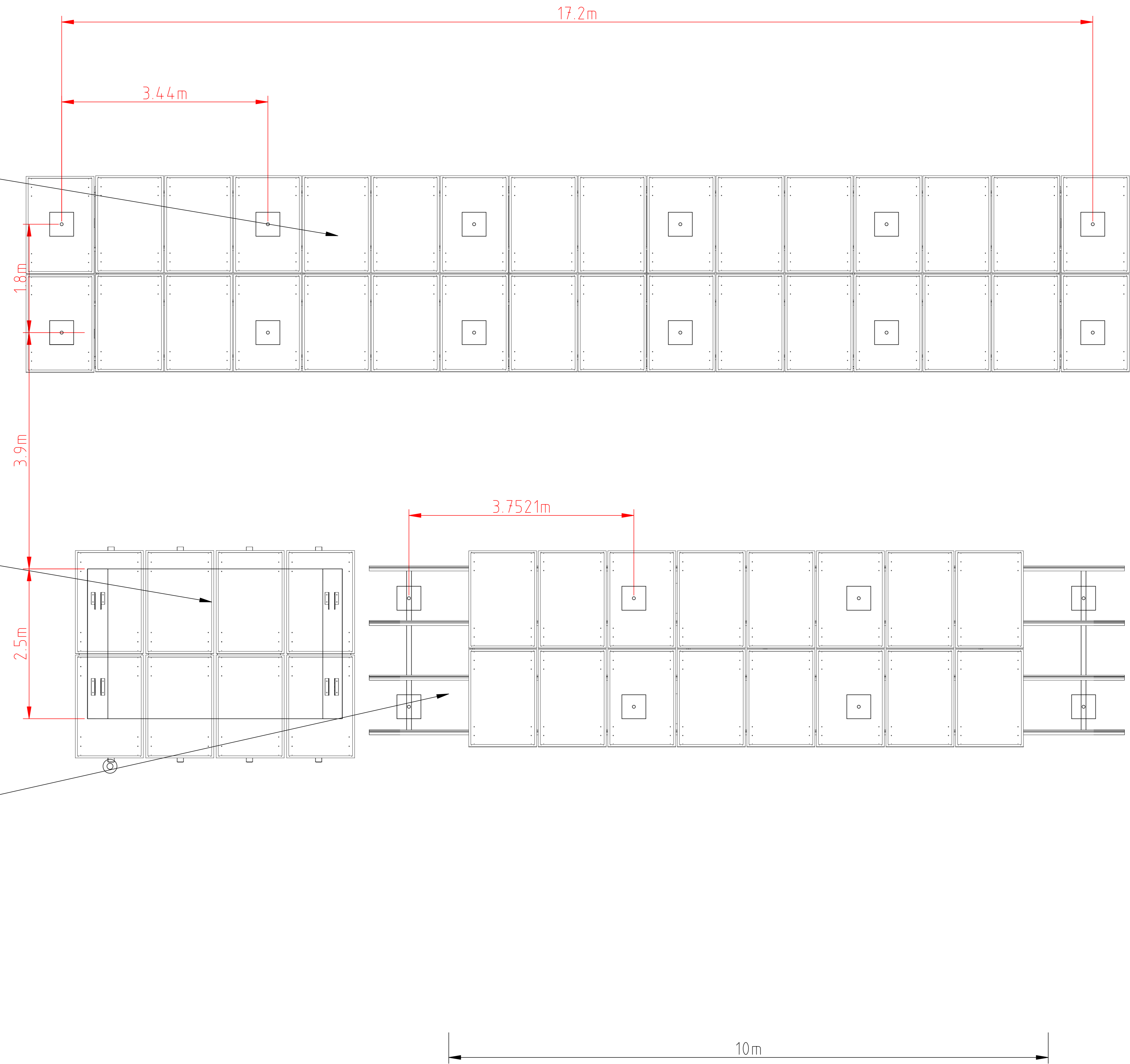
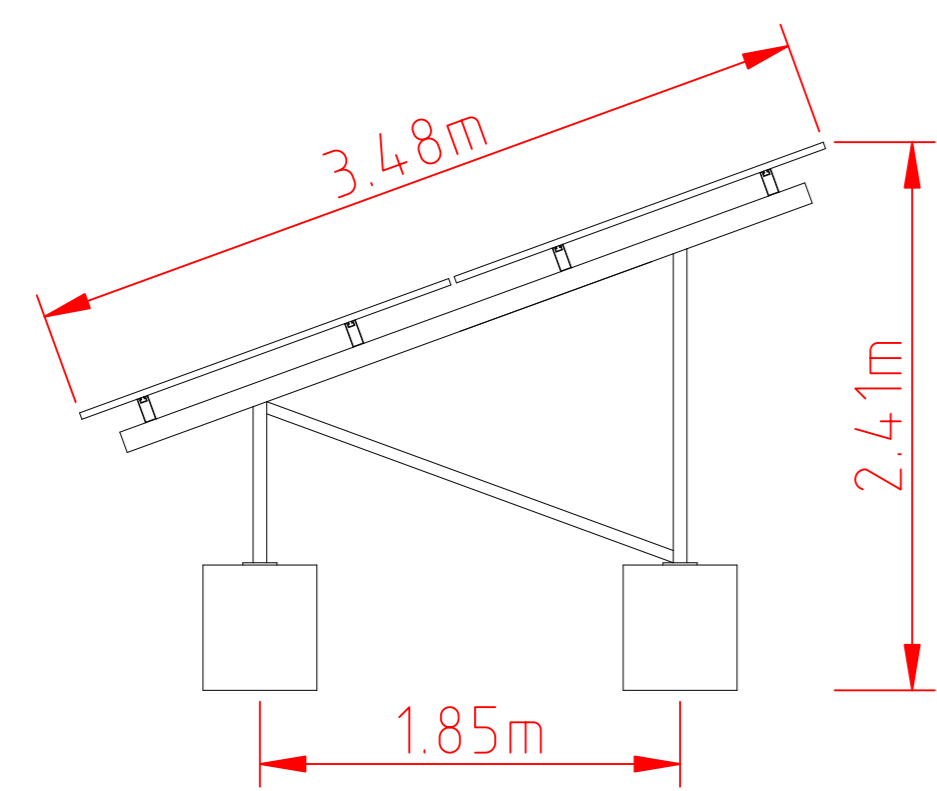
32x Solar Panel Frame



8x Solar Panel Carport



16x Solar Panel Frame



Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



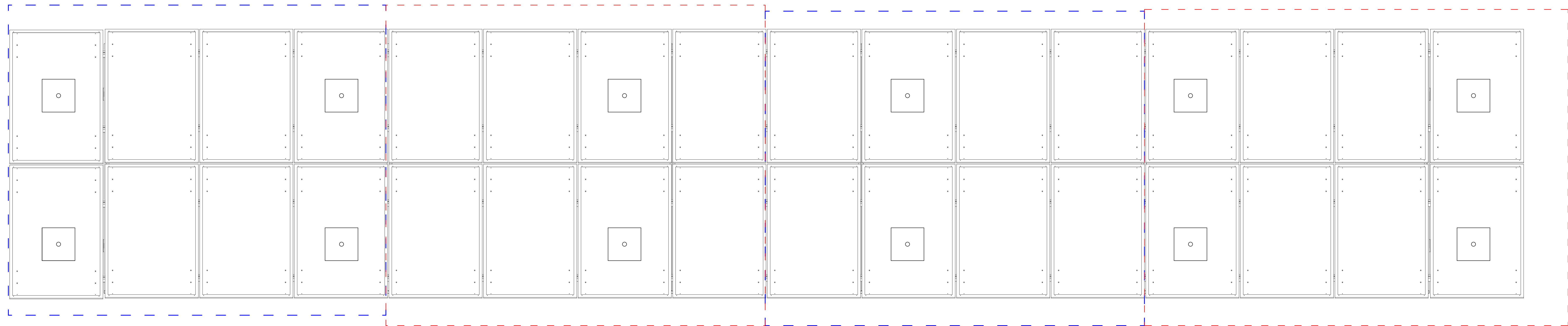
Project:
REGIONAL AUSTRALIA NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
SOLAR DESIGN/LAYOUT

Drawing Status:
DRAFT

Drawing No. **P6MOOR004-E4** Revision: **A**

DO NOT SCALE

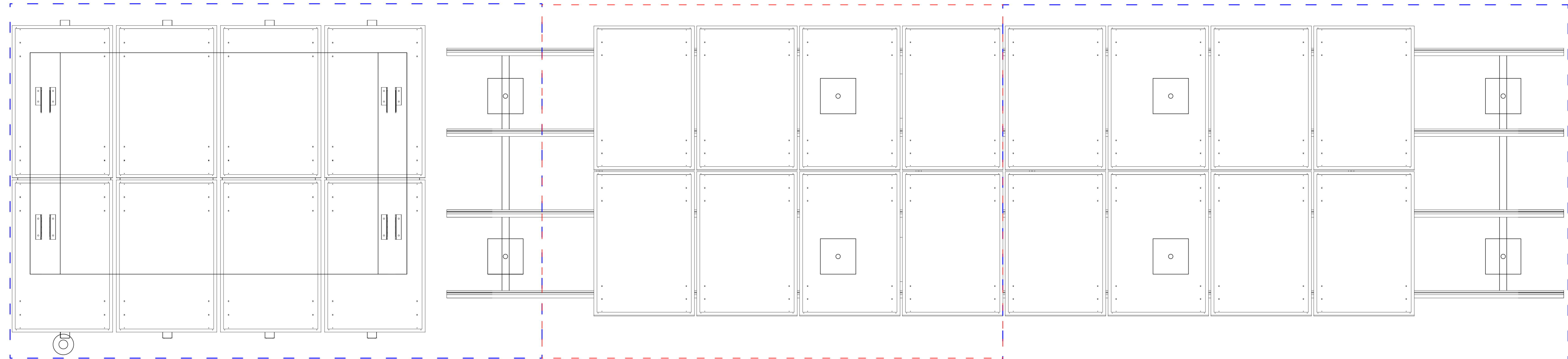


STRING 7

STRING 6

STRING 5

STRING 4



STRING 1

STRING 2

STRING 3

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
SOLAR ARRAY CONFIGURATION PLAN

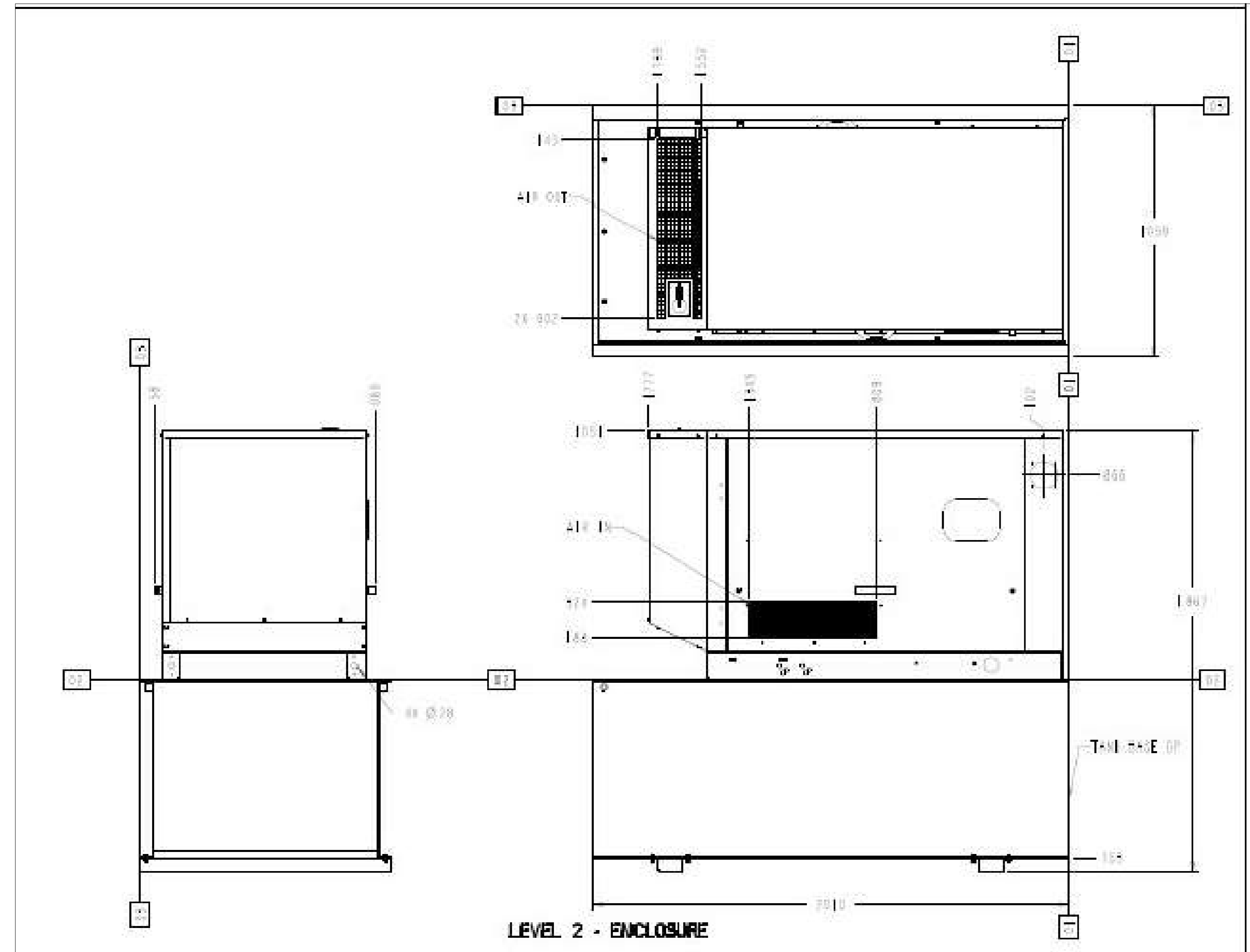
Drawing Status:
DRAFT

Drawing No.
P6MOOR004-E5

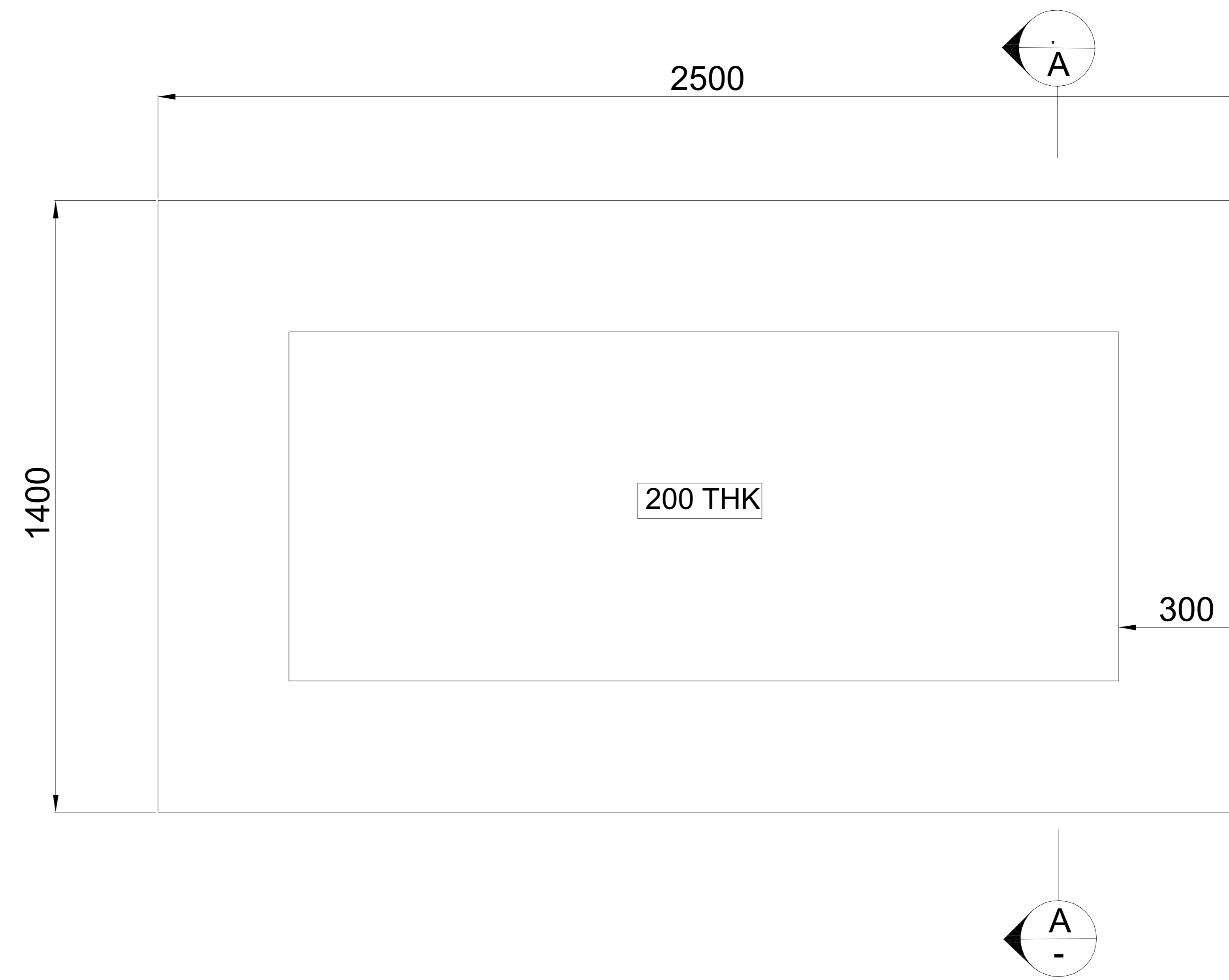
Revision:
A

DO NOT SCALE

Quantity of material for slab	0.75 m ³ /per foundation
-------------------------------	-------------------------------------

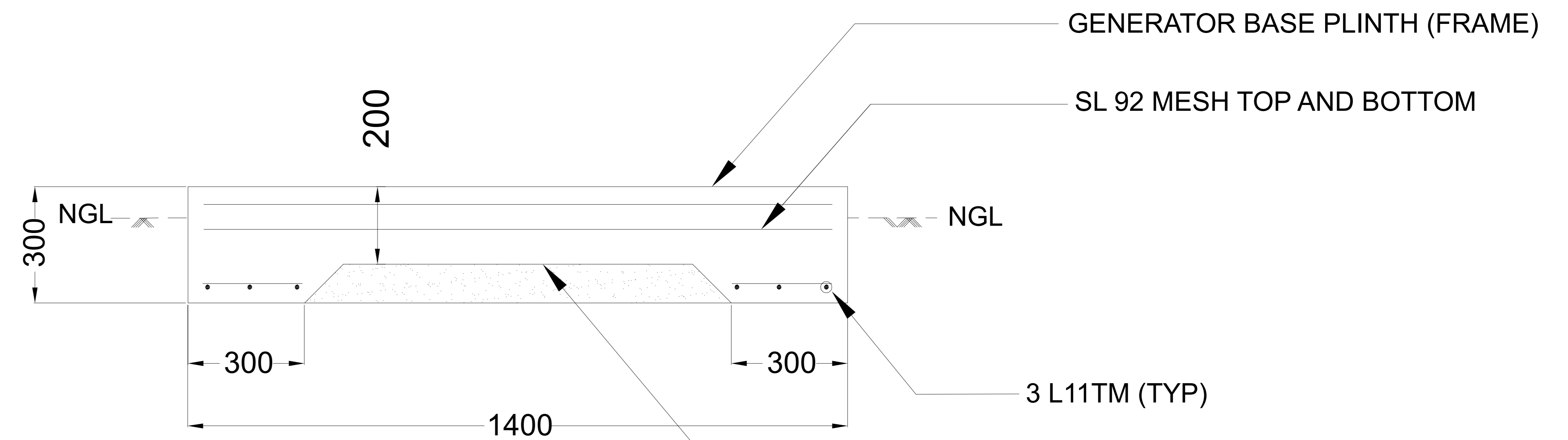


GENERATOR ENCLOSURE INFORMATION



FOUNDATION PLAN

Scale: 1:20



SECTION - AA

Scale: 1:20

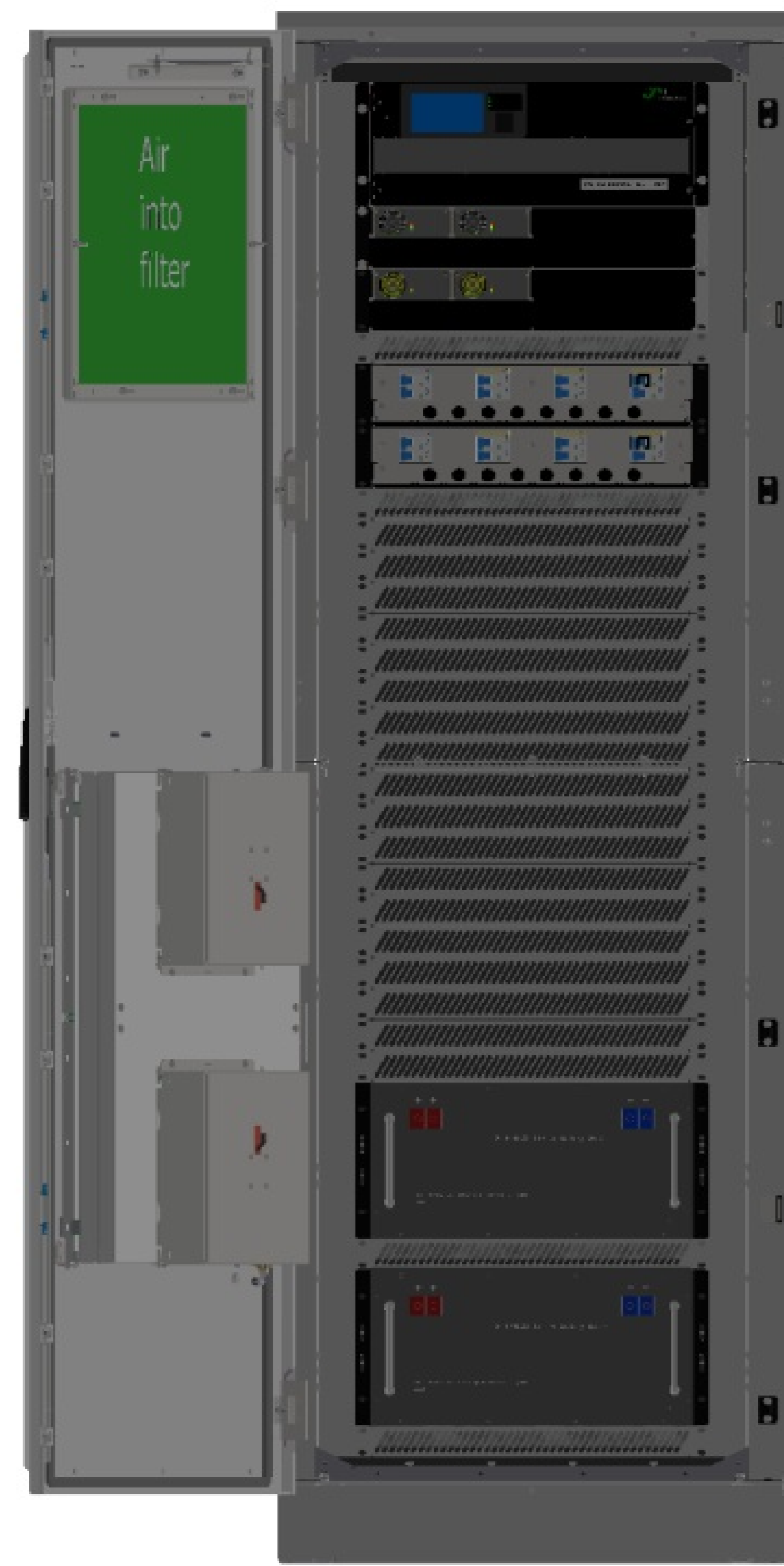
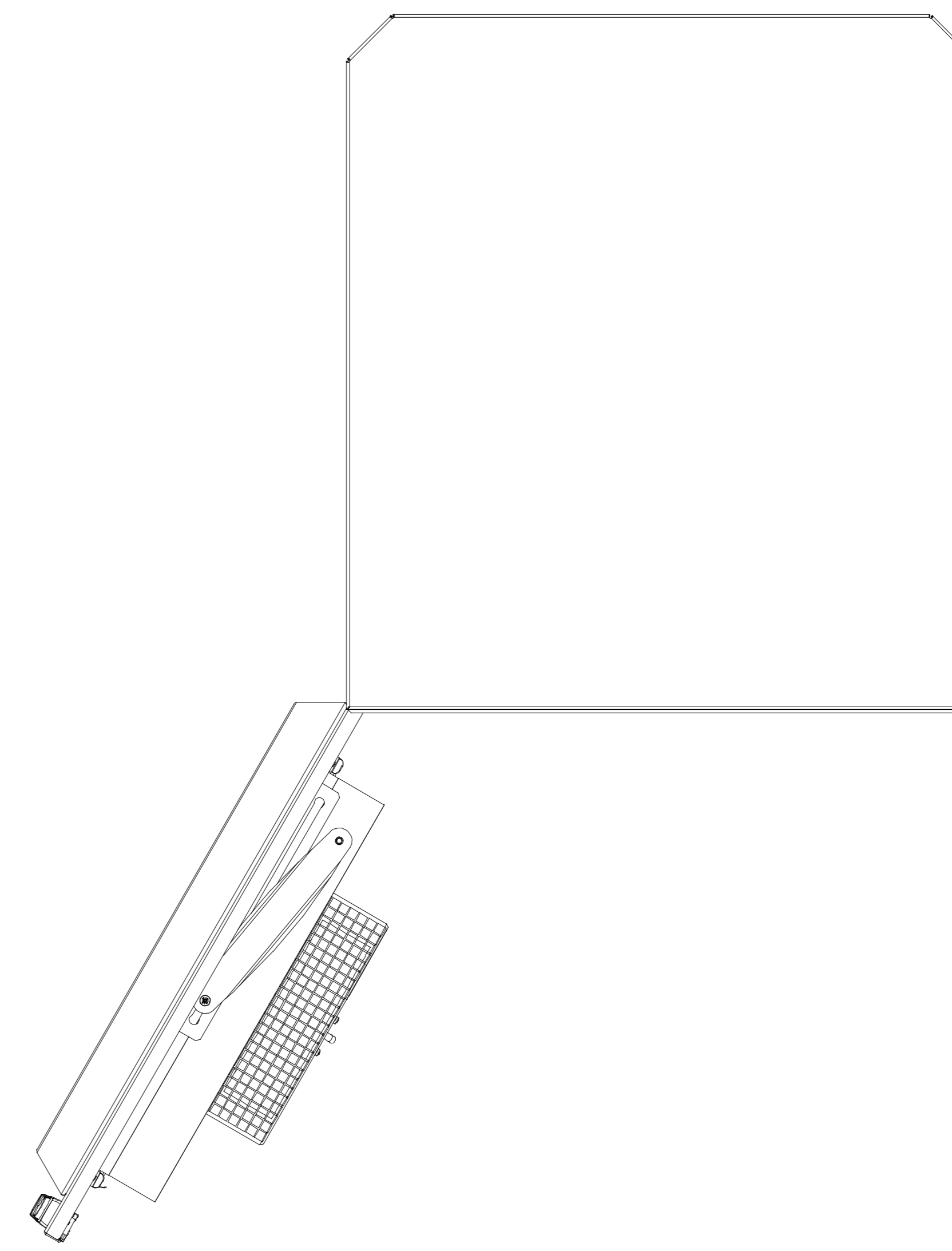
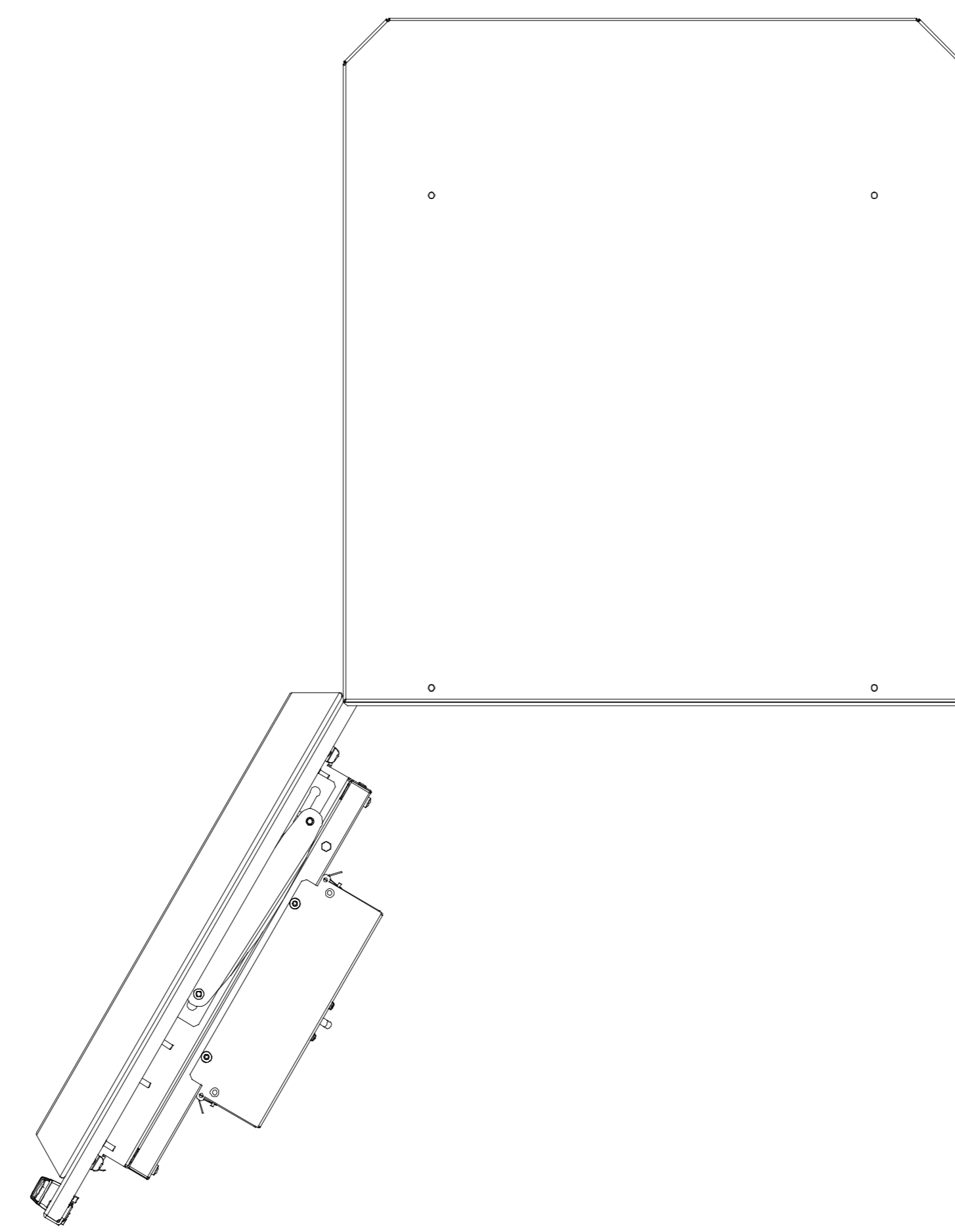
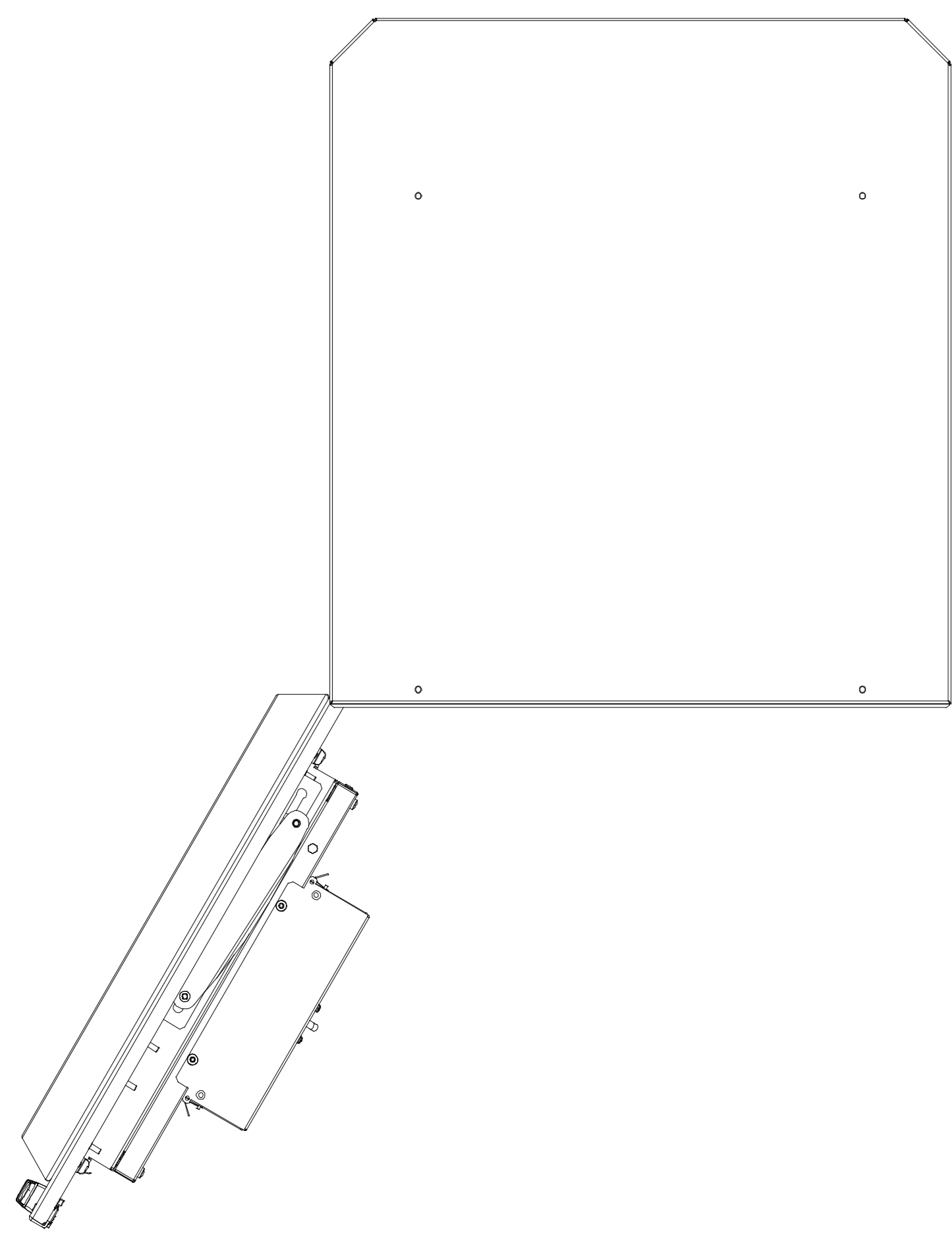
Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				

DO NOT SCALE

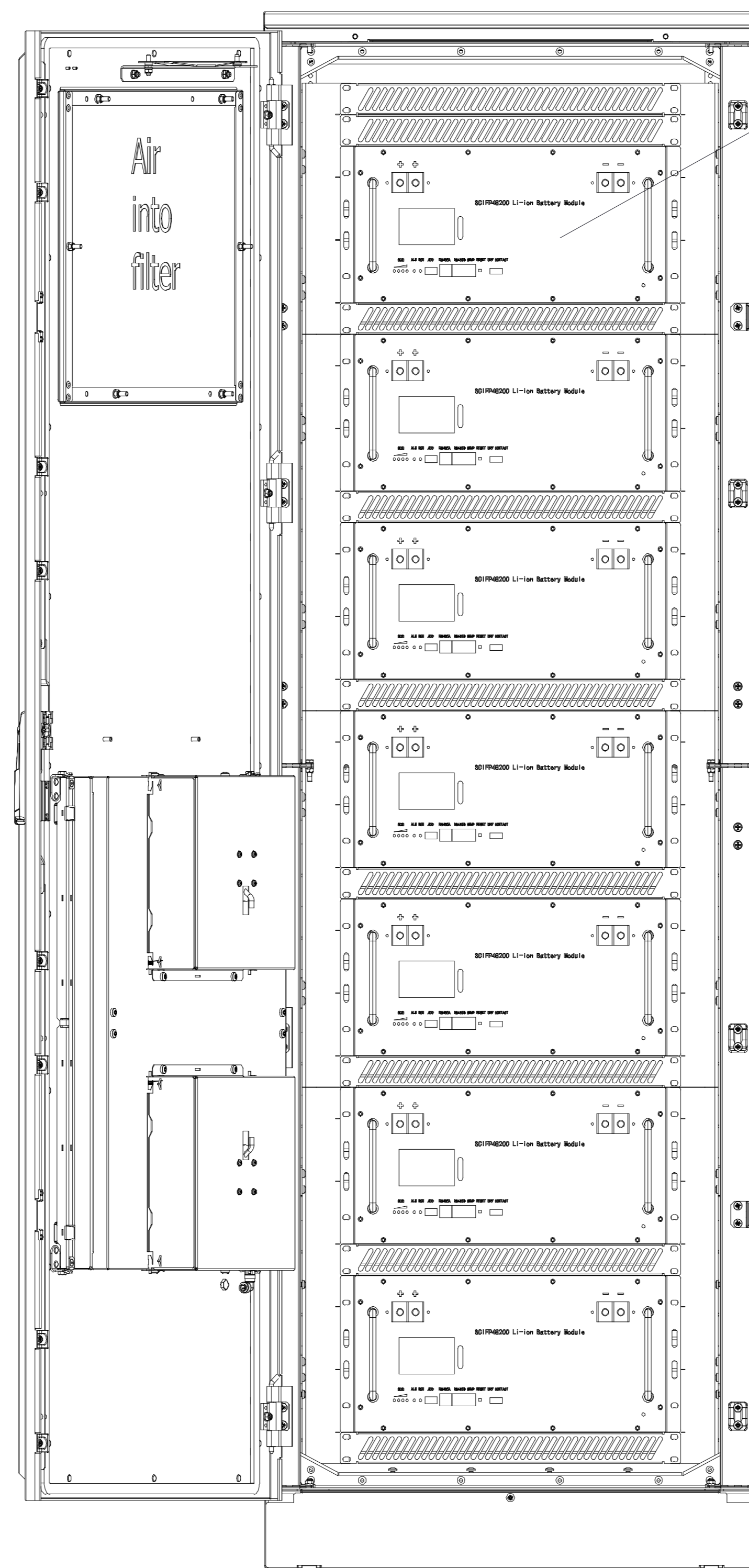


Project:
REGIONAL AUSTRALIA NETWORK
 SITE No: P6MOOR004
MILING
 MILING NORTH ROAD

Drawing Title: GENERATOR DESIGN	
Drawing Status: DRAFT	Revision: A
Drawing No. P6MOOR004-E6	

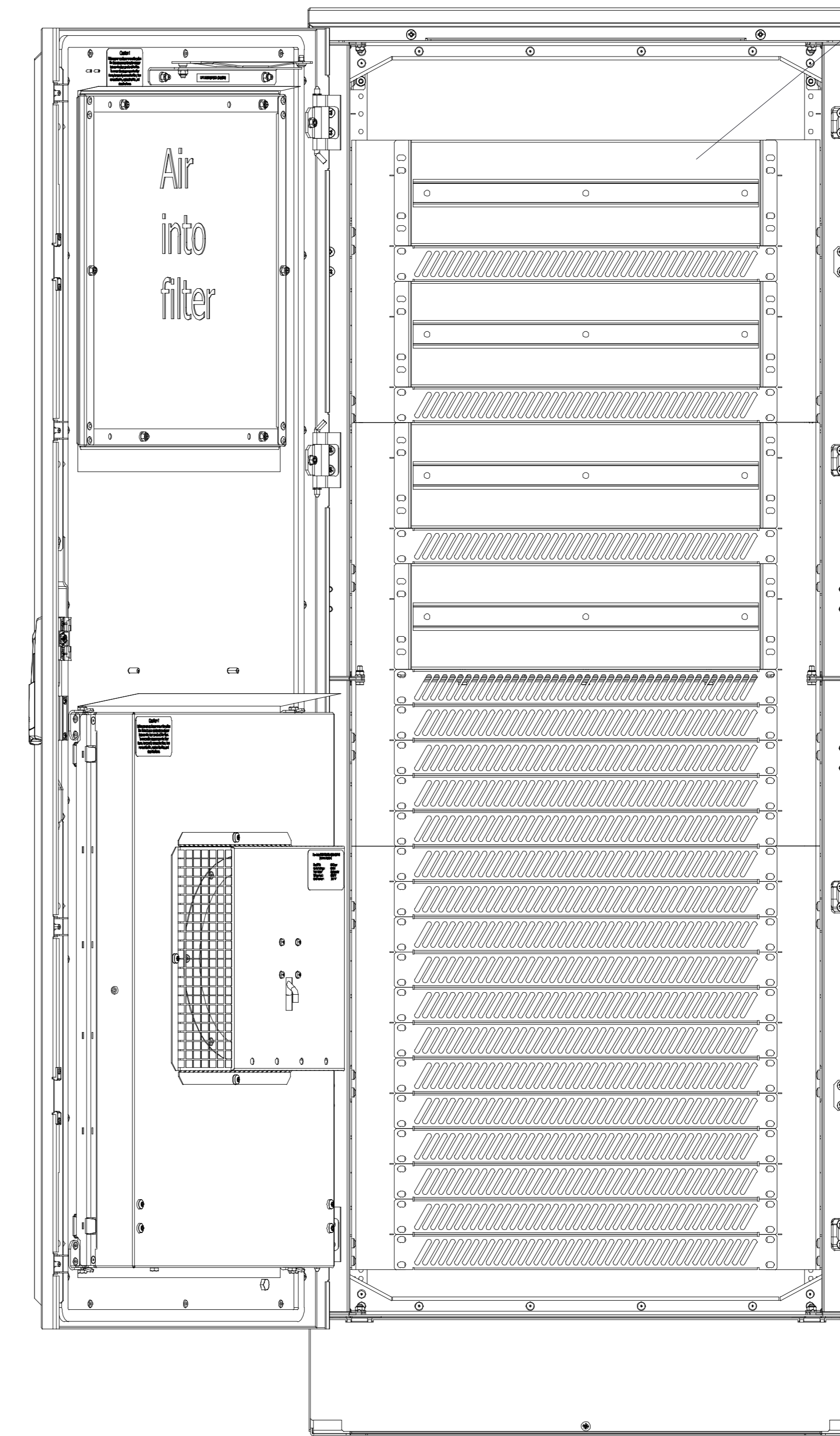


GA FP2 48V 12+16KW 230V+N
SPD BD LD T3 FF



X7 BATT
(48V 200AH)

GA X7 BATT SYSEM OD T3 FF



PDU 3RU CHASSIS

DIST CAB T3 FF 1.5M 28RU

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
 SITE No: P6MOOR004
 MILING
 MILING NORTH ROAD

Drawing Title:
CABINET LAYOUT

Drawing Status:
 DRAFT

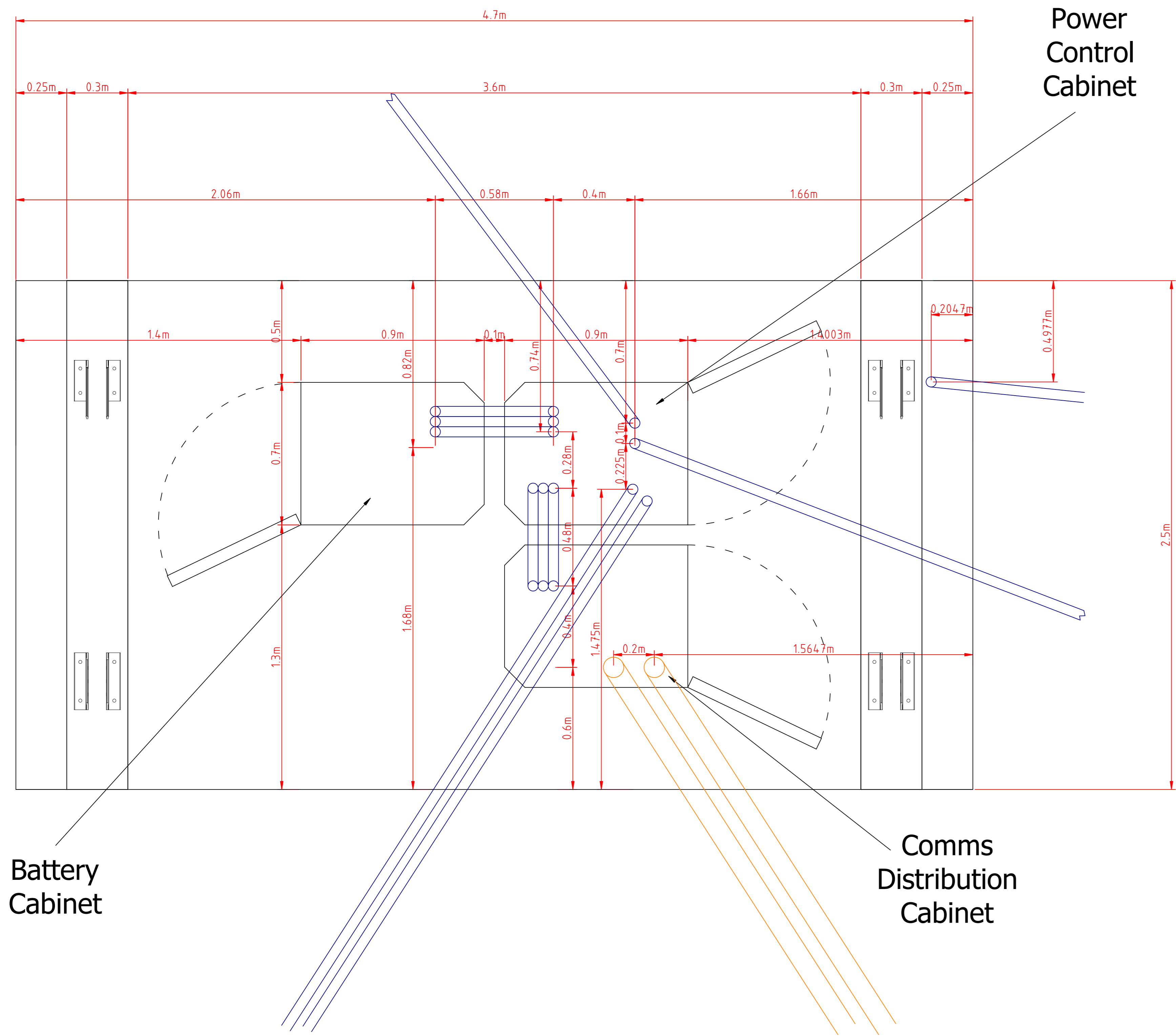
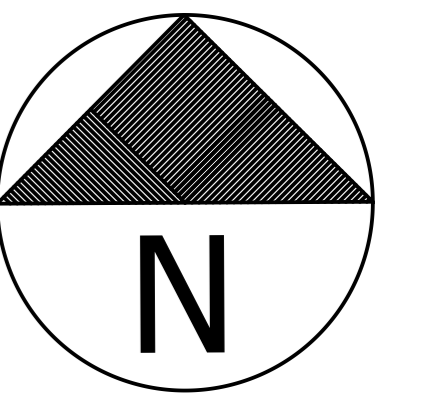
Drawing No.
P6MOOR004-F1

Revision:
 A

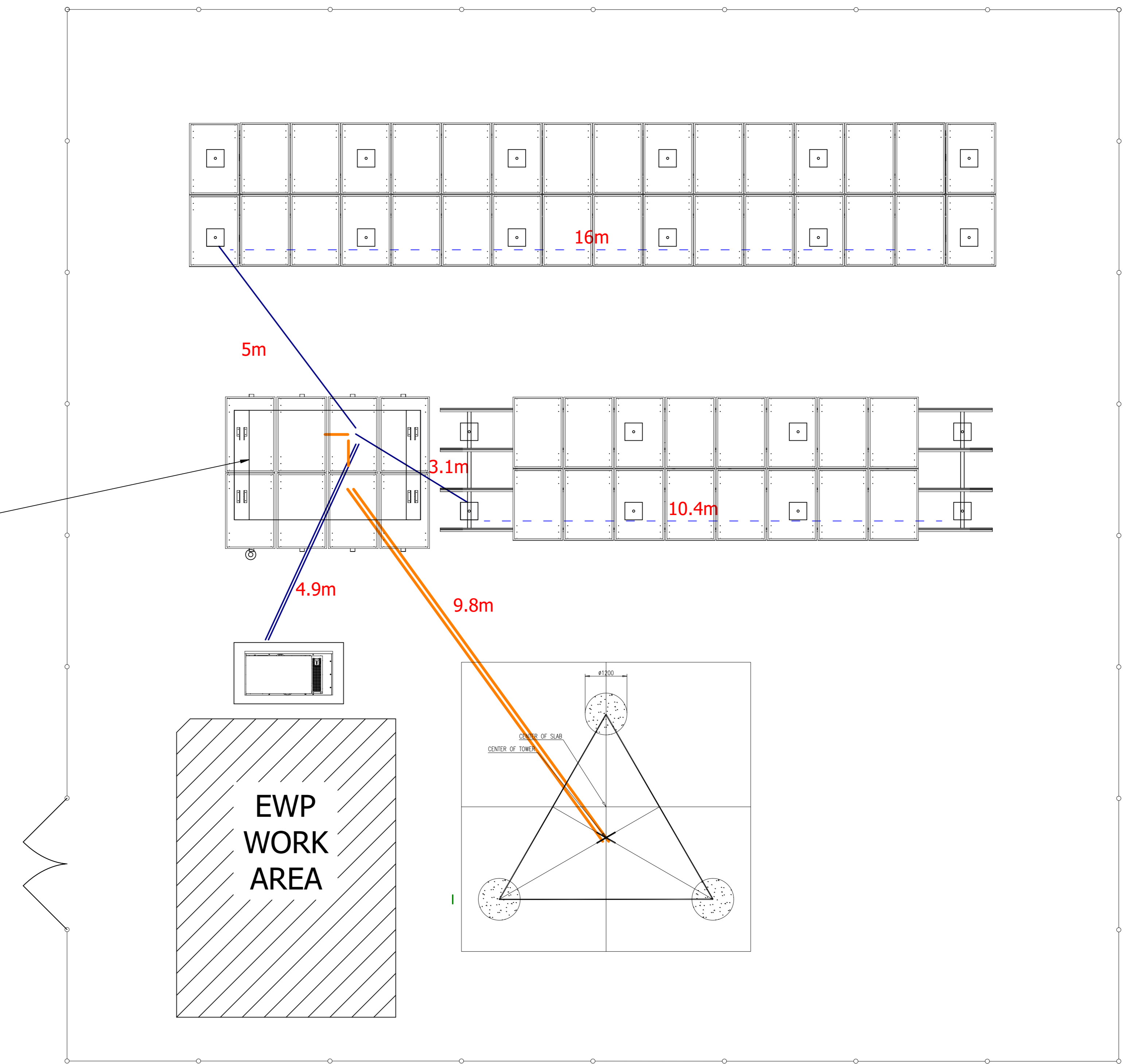
DO NOT SCALE

LEGEND

- Compound Fencing
- EWP Work Area
- Tower Foundation
- Future Expansion
- 100mm Conduit
- 50mm Conduit
- 50mm Conduit Above Ground
- Cable Pit



ODU Slab Cutaway
5:1 Scale



Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
CONDUIT / CABLE TRAY, FEEDER RUN DESIGN

Drawing SFAfus:
DRAFT

Drawing No.
P6MOOR004-F3

Revision:
A

TO BE COMPLETED

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
**REGIONAL AUSTRALIA
NETWORK**
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
LEASE DOCUMENT

Drawing Status:
DRAFT

Drawing No.: **P6MOOR004-L1**

Revision: **A**

DO NOT SCALE

TO BE COMPLETED

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



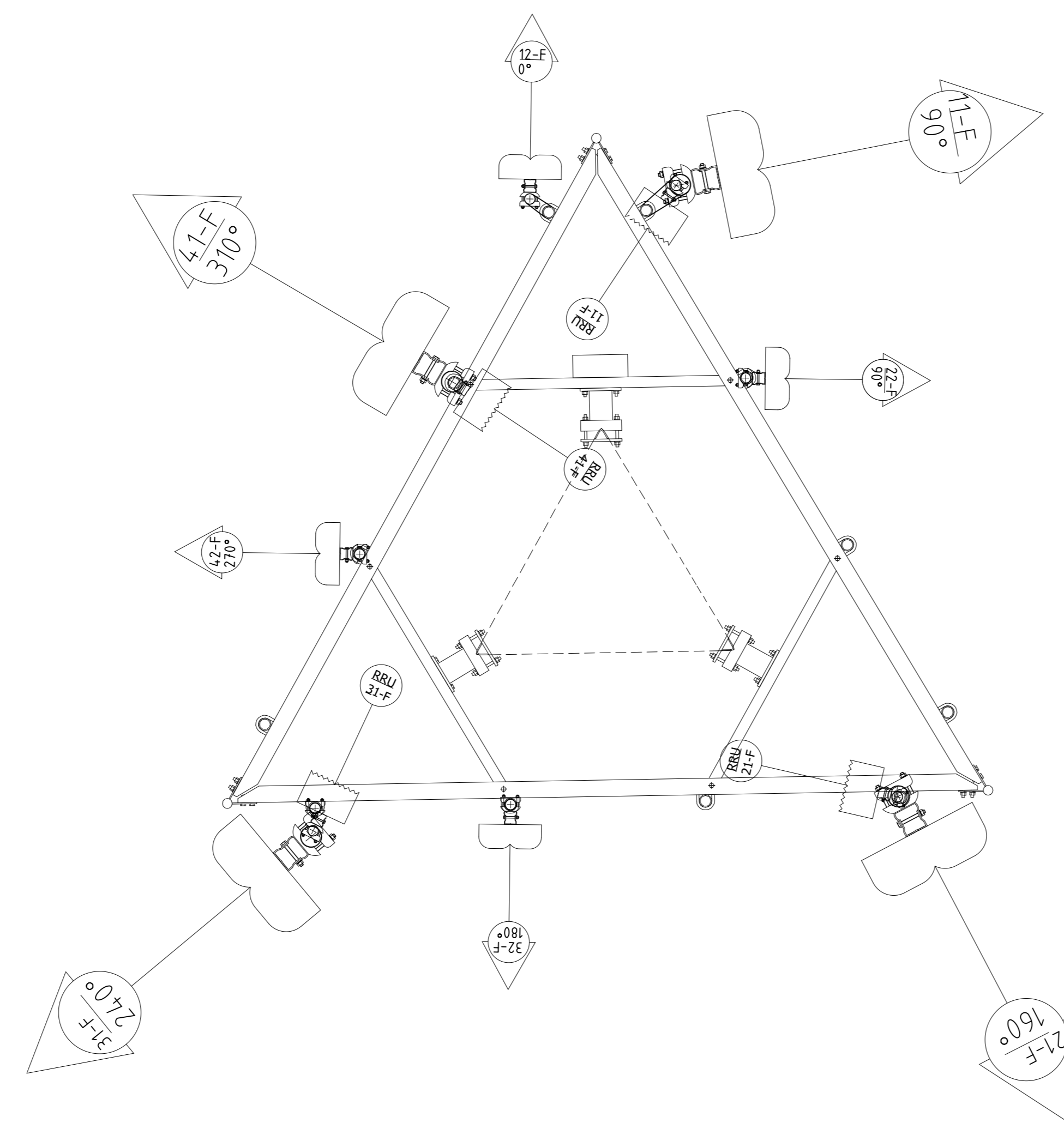
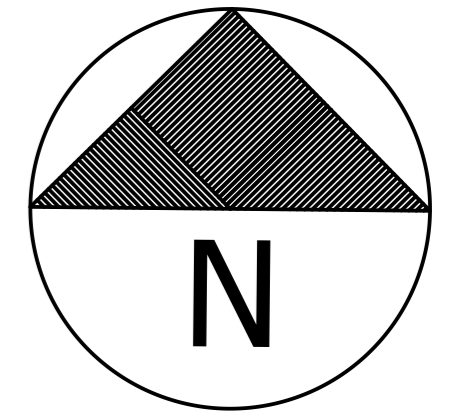
Project:
REGIONAL AUSTRALIA NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
LEASE PLAN

Drawing Status:
DRAFT

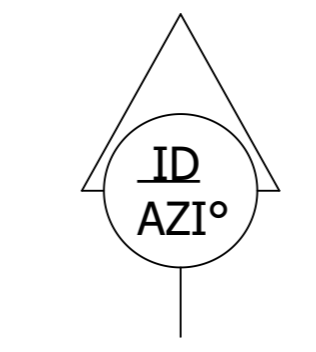
Drawing No.
P6MOOR004-L2

Revision:
A



ANTENNAS PLAN

LEGEND:



NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RF PLUMBING DIAGRAM DRAWING.
2. ANTENNA CO-ORDINATES ARE SPECIFIED FOR CENTRE OF EACH SECTOR, TO THE NEAREST METER
3. INFORMATION IN THE TABLES SUPPLIED AND VERIFIED BY FSG.
4. ANCILLARIES REFER TO ITEMS AT OR NEAR THE ANTENNA.
5. CO-AXIAL FEEDER AND TRUNK LENGTHS ARE ESTIMATED, ROUNDED UP TO THE NEXT 5m.
6. TOTAL TAIL LENGTHS FROM RRU TO ANTENNA WILL BE 5m MAXIMUM.

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
 SITE No: P6MOOR004
 MILING
 MILING NORTH ROAD

Drawing Title:
PANEL ANTENNA AND TRANSMISSION CONFIGURATION

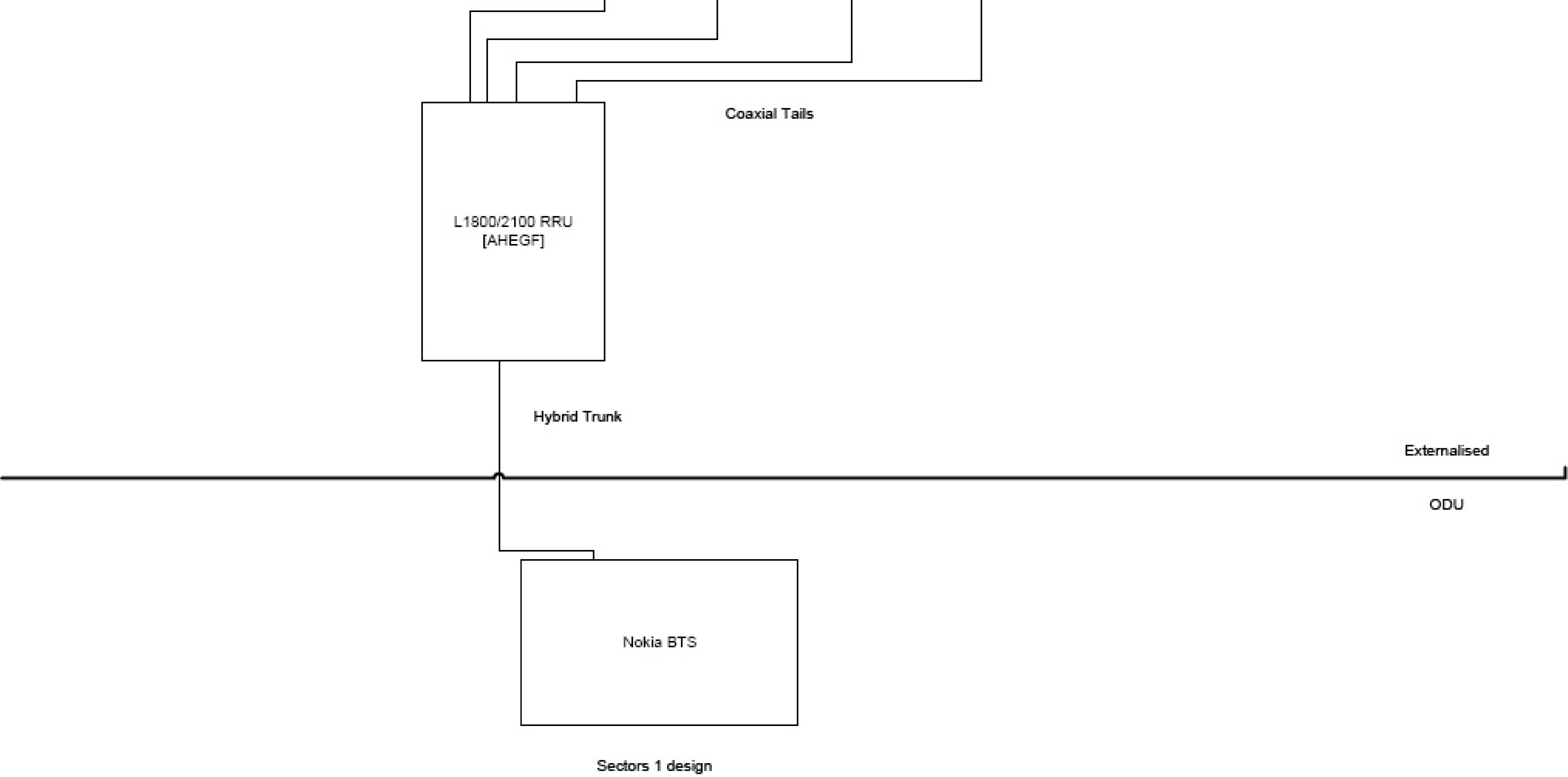
Drawing Status: **DRAFT**

Drawing No. **P6MOOR004-A1** Revision: **A**

DO NOT SCALE

4 Sector Mid-band LTE Plumbing Diagram

Low band 1		Low band 2		High band 1		High band 2	
L+	L-	L+	L-	H+	H-	H+	H-
1	2	3	4	5	6	7	8



FSG reference design has all 4 sectors following the same plumbing

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
 SITE No: P6MOOR004
MILING
 MILING NORTH ROAD

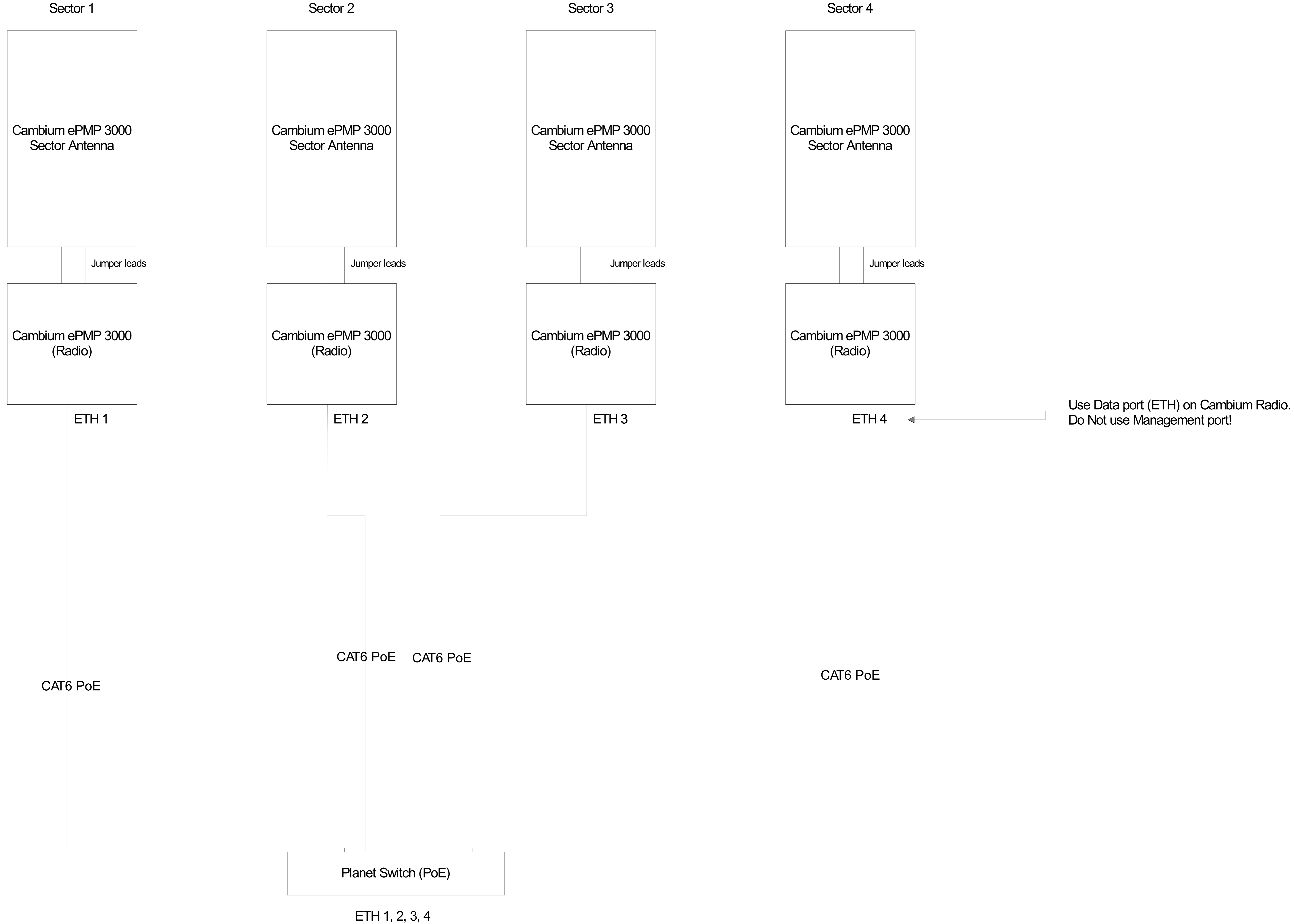
Drawing Title:
RF PLUMBING DIAGRAM

Drawing Status: **DRAFT**

Drawing No: **P6MOOR004-A2**

Revision: **A**

4 Sector Cambium Plumbing Diagram



Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
 SITE No: P6MOOR004
MILING
 MILING NORTH ROAD

Drawing Title:
CAMBIUM RF PLUMBING DIAGRAM

Drawing Status: **DRAFT**

Drawing No. **P6MOOR004-A3** Revision: **A**

REFERENCE GEOTECH REPORT DOCUMENT

XXXXXX

FILENAME: XXXXXX.pdf

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				

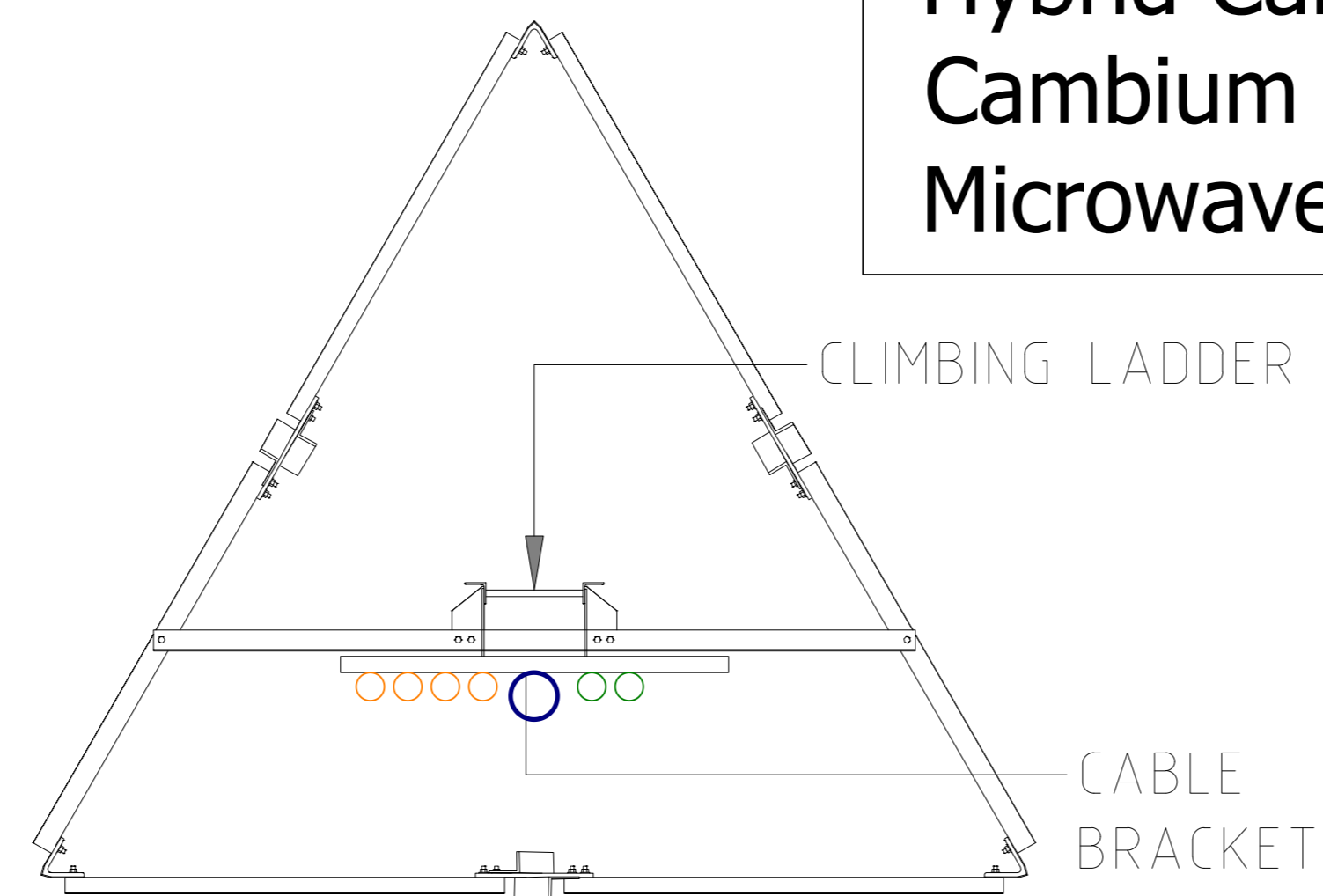


Project:
REGIONAL AUSTRALIA
NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

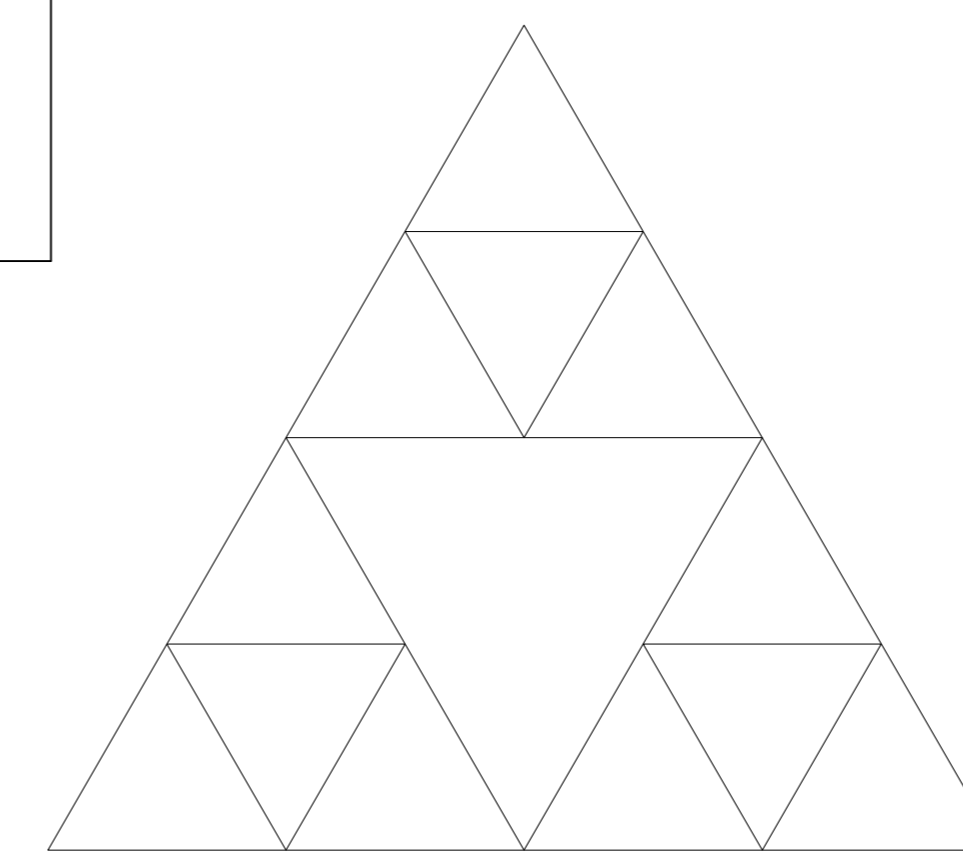
Drawing Title: GEOTECH REPORT		
Drawing Status: DRAFT	Drawing No. P6MOOR004-S1	Revision: A

DO NOT SCALE

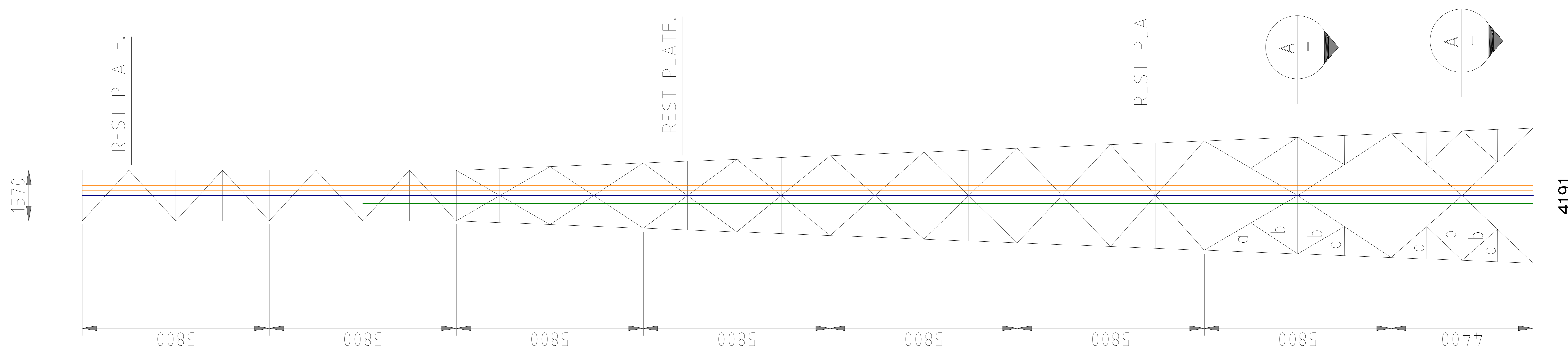
CABLE PLAN
 Hybrid Cable ○
 Cambium Conduit ○
 Microwave Conduit ○



TYPICAL SECTION



SECTION A



MODULE	H245	G2	F2	E2	D2	C2	B2	A245
LEG	V 180x180x16	V 160x160x16	V 160x160x16	V 160x160x12	V 140x140x12	V 110x110x12	V 100x100x8	V 100x100x8
DIAGONAL	L 80x80x6		L 70x70x6	L 70x70x6	L 70x70x5	L 70x70x5	L 75x75x6	L 70x70x6
HORIZONTAL	L 50x50x5	L 50x50x5				L 50x50x5	L 50x50x5	L 50x50x5
FACE REDUNDANTS	a : L 45x45x5 b : L 50x50x5	a : L 45x45x5 b : L 70x07x5	L 50x50x5	L 50x50x5 L 45x45x5	L 45x45x5	L 45x45x5	L 50x50x5	L 50x50x5
PLANE REDUNDANTS	c : L 45x45x5	c : L 45x45x5						
BOLTS FOR LEG	10xM20	10xM20	10xM20	8xM20	8xM20	6xM20	6xM16	6xM16
BOLTS FOR DIAGONAL	2xM16	2xM16	2xM12	2xM12	2xM12	2xM12	2xM12	1xM16
BOLTS FOR HORIZONTAL	2xM12	2xM12				1xM12	1xM12	1xM12
BOLTS FOR FACE RED.	1xM16	1xM16	1xM12	1xM12	1xM12	1xM12	1xM12	1xM12
TOWER ELEVATION	0.0	4.4	10.2	16.0	21.8	27.6	33.4	39.2

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
 SITE No: P6MOOR004
 MILING
 MILING NORTH ROAD

Drawing Title:
TOWER DESIGN AND CABLE DESIGN
 Drawing Status:
DRAFT

Drawing No. **P6MOOR004-S2**
 Revision: **A**

DO NOT SCALE

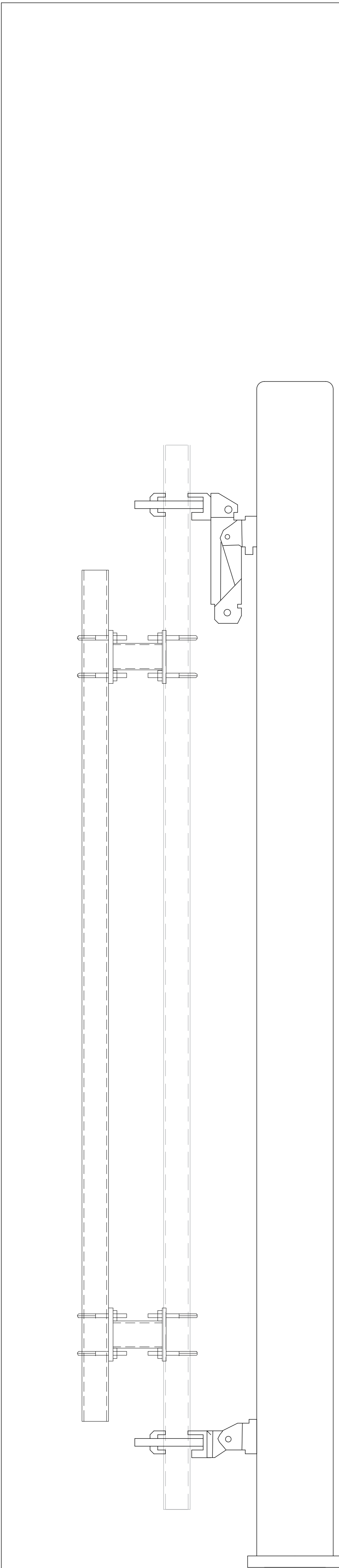
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0	ISSUE FOR CONSTRUCTION	KL	14.11.23	
		BY	DATE	APRV
		BY	DATE	APRV
		BY	DATE	APRV

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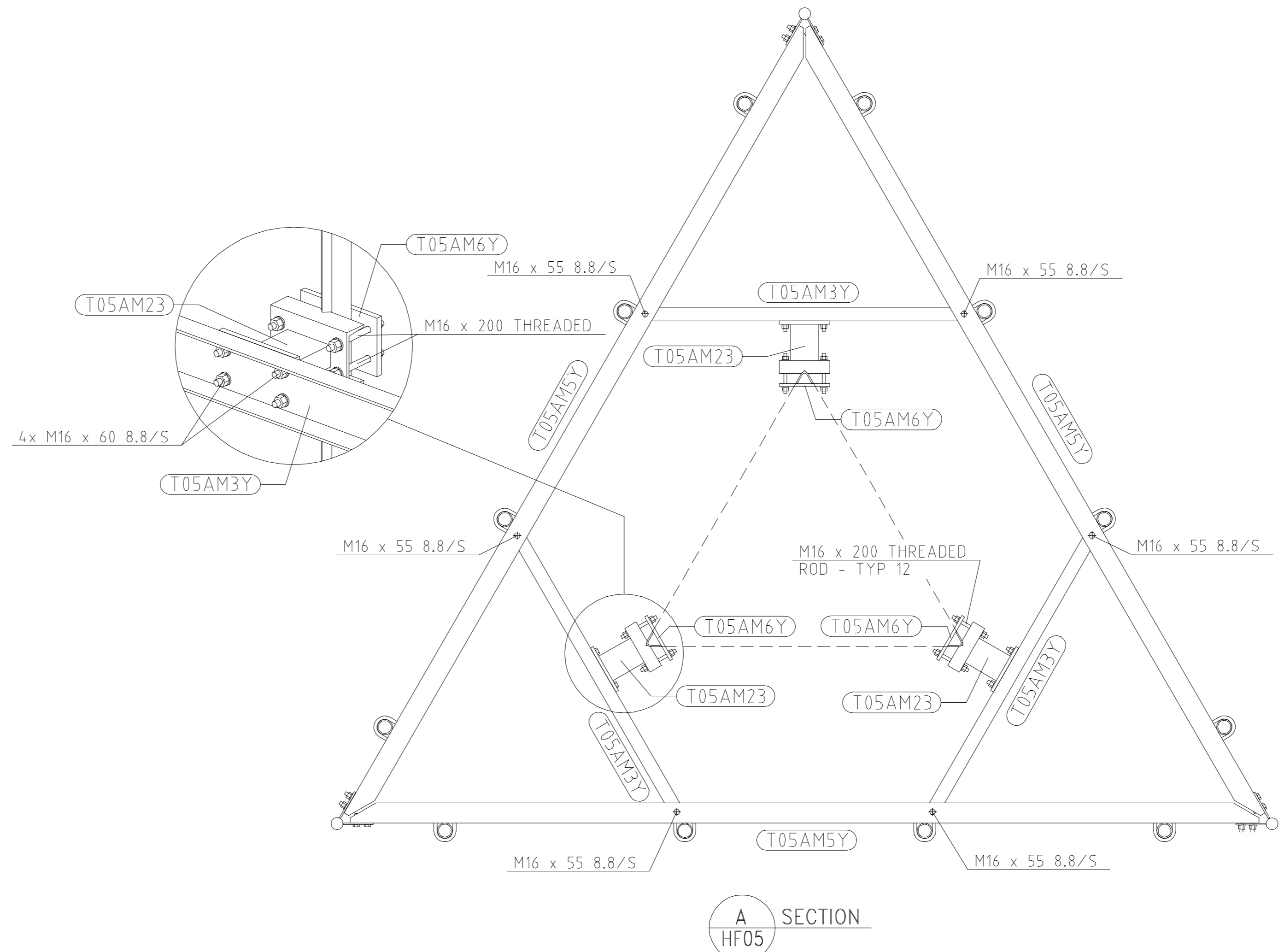
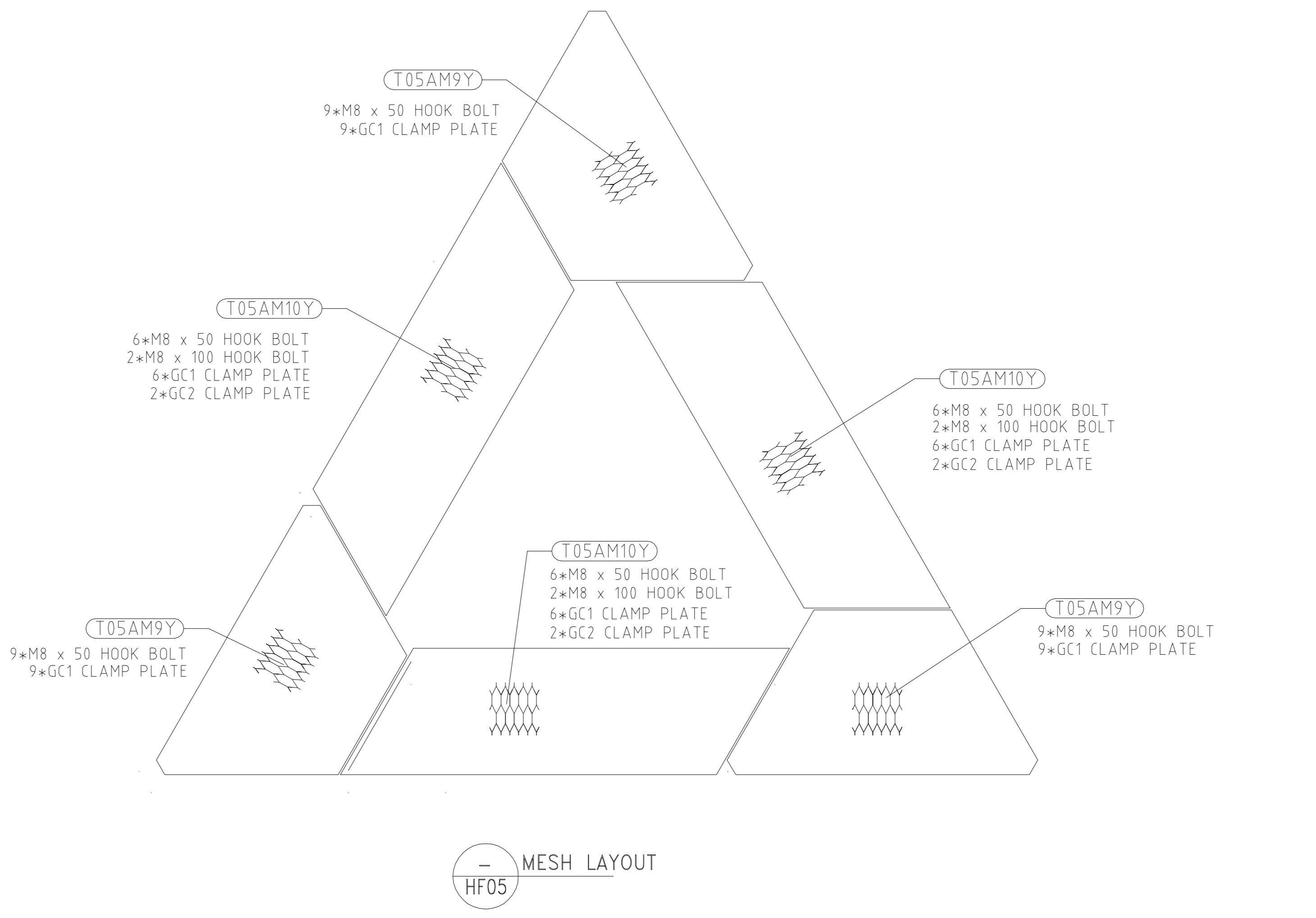
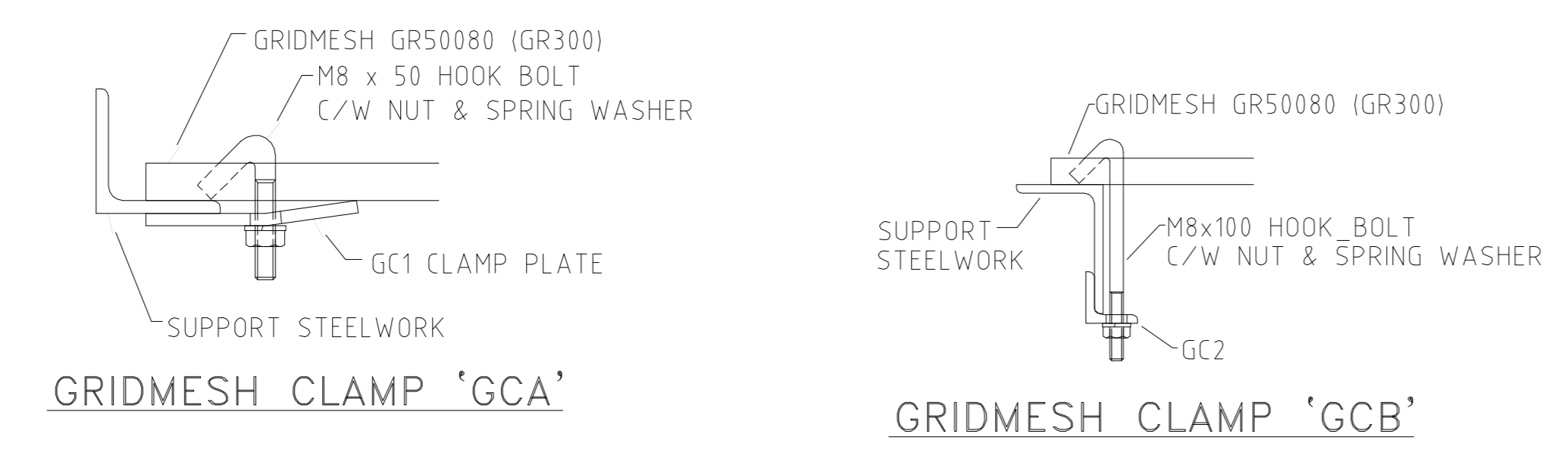
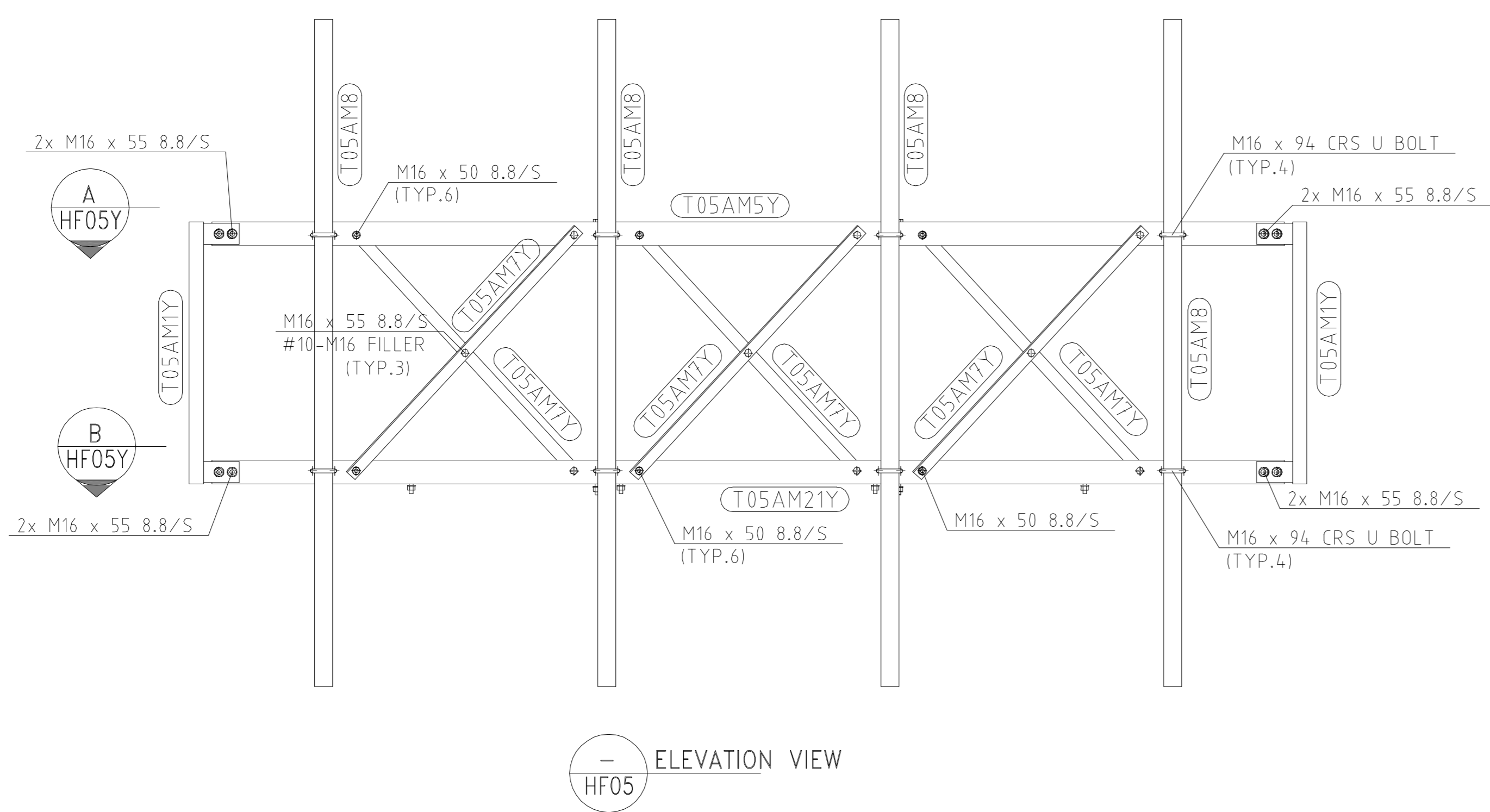
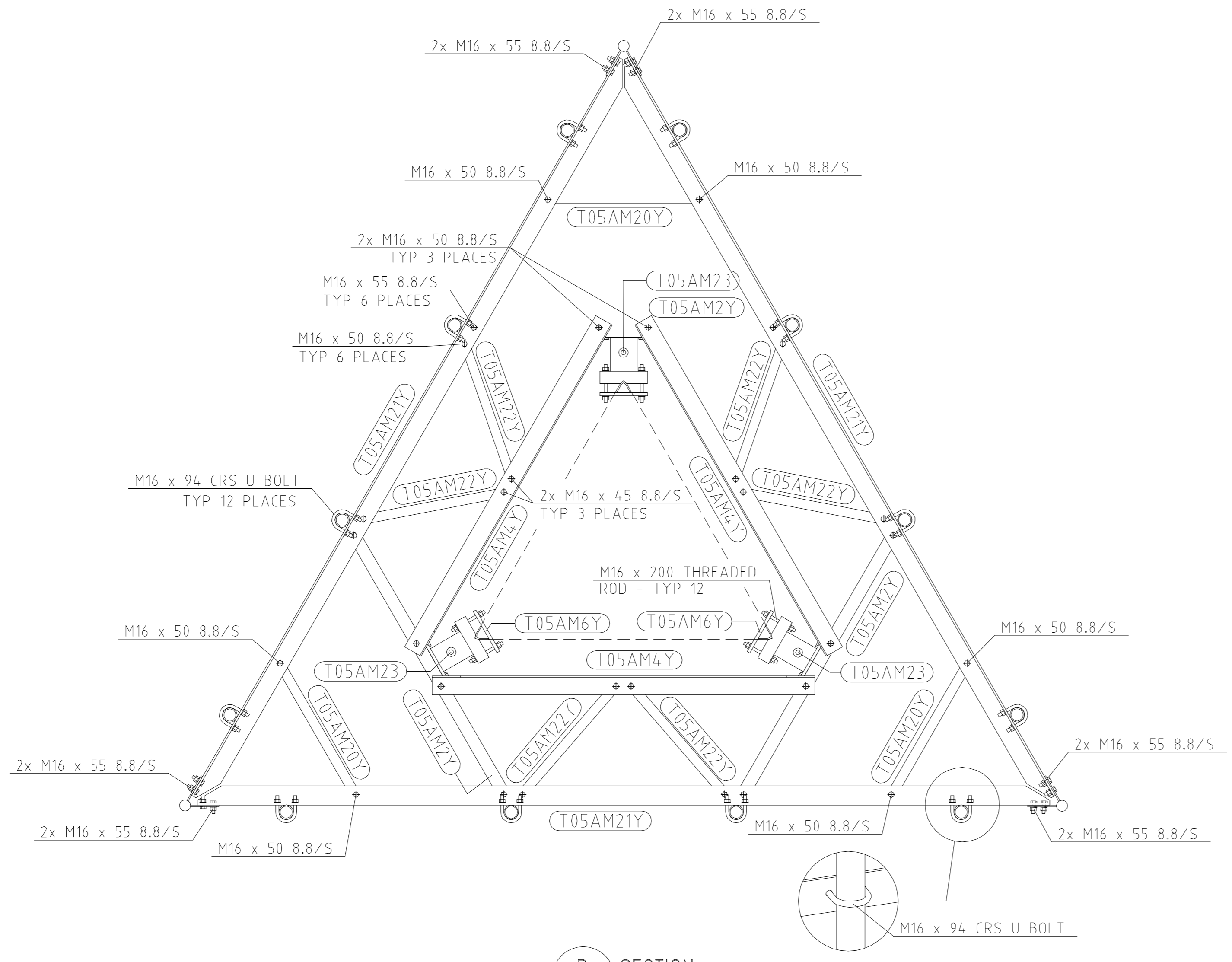
LeBLANC
 teleblancgroup.com

FSC
 SITE:
 45m SELF SUPPORTED TOWER -- FSGM
 GENERAL ARRANGEMENT

SCALE: NTS
 DRAWING NUMBER: 0



**SIDE ELEVATION
LTE ANTENNA MOUNT**



- NOTES:**
- ALL BOLT Ø10mm AND BELOW TO BE GR 4.6/S
 - ALL BOLT TO BE C/W NUT & SPRING WASHER.
 - ALL BOLT TO BE SNUG TIGHTENED IN ACCORDANCE WITH BOLTING PROCEDURE 8.8/S WITH THREADS INCLUDED IN SHEAR PLANE, UNLESS NOTED X/S.
 - MARKED WITH (H) HIGH TENSIL AND OTHER ARE MILD STEEL

HEADFRAME - HF05Y
LIST OF MATERIAL

MARK	QTY	MATERIAL	LENGTH	WEIGHT	TOT WT
T05AM23	6	ASSY-160 TFC	251	12.97	77.814
T05AM1Y	3	ASSY-60 ROUND	1100	27.76	83.294
T05AM2Y	3	TFC 160	1644	32.41	97.221
T05AM3Y	3	TFC 160	1644	32.41	97.221
T05AM4Y	3	L100x100x7	2019	21.82	65.472
T05AM5Y	3	L100x100x10	4502	67.93	203.804
T05AM6Y	6	PLATE 251x160x16	251	5.04	30.237
T05AM7Y	18	L 50x50x5	1408	5.30	95.358
T05AM8	12	76.1 x 5.9 CHS	2800	28.51	342.066
T05AM9Y	3	GMW50080 1573x834	1573	15.31	45.937
T05AM10Y	3	GMW50080 2274x641	2274	19.17	57.499
T05AM20Y	3	L50x50x5	856	3.21	9.630
T05AM21Y	3	L100x100x10	4502	67.93	203.804
T05AM22Y	6	L50x50x5	815	3.07	18.395
TOTAL WEIGHT = 1427.75 Kg					

QTY	BOLT SIZE	WEIGHT	TOTAL WT
9	#10-M16 FILLER	0.196	1.764
6	M16 x 45 8.8/S	0.179	1.074
54	M16 x 50 8.8/S	0.185	9.990
45	M16 x 55 8.8/S	0.193	8.685
24	M16 x 60 8.8/S	0.199	4.776
24	M16 x 94 CRS U BOLT	0.510	12.240
24	M16 x 200 THREADED ROD c/w	0.440	10.560
2 x NUTS			
45	M8 x 50 HOOK BOLT	0.05	2.250
6	M8 x 100 HOOK BOLT	0.065	0.395
45	GC1 CLAMP	0.110	4.950
6	GC2 CLAMP	0.08	0.480
TOTAL WEIGHT = 57.159 Kg			



REV.	DESCRIPTION	BY	DATE	APRV.
0	ISSUED FOR CONSTRUCTION	MDH	02.01.23	
		DRAWN	CHK'D	APRV'D
		MDH		
		DATE:	DATE:	DATE:
		30.12.22		

SITE: GENERIC
TRIANGULAR SS TOWER HEADFRAME WITH PLATFORM
ANTENNA MOUNT - ERECTION DETAIL

SCALE	DRAWING NUMBER	REV.
NTS	TM-2-HF05Y	0

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
**REGIONAL AUSTRALIA
NETWORK**
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
DETAILED HEADFRAME DESIGN

Drawing Status:
DRAFT

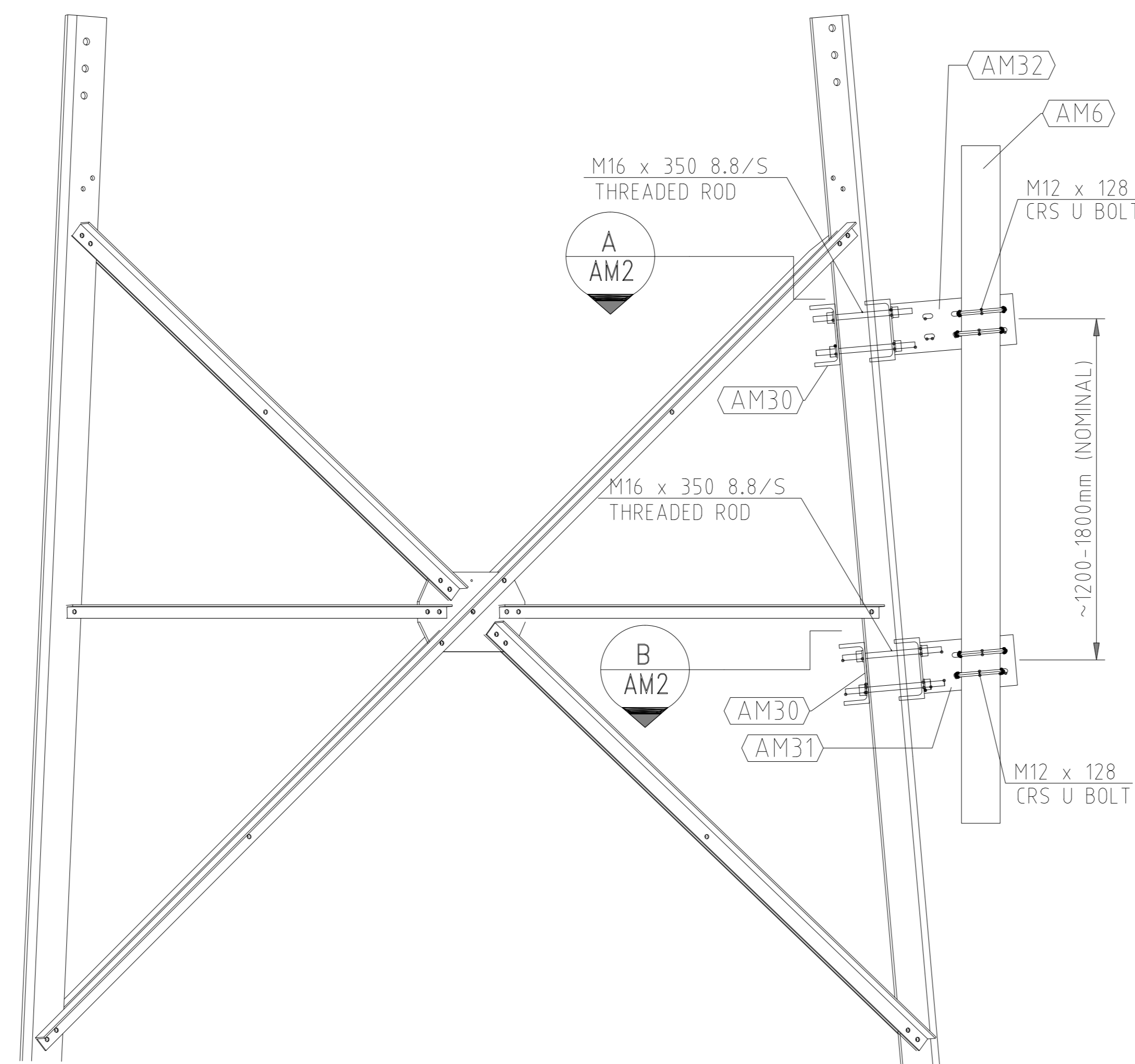
Drawing No.
P6MOOR004-S3

Revision:
A

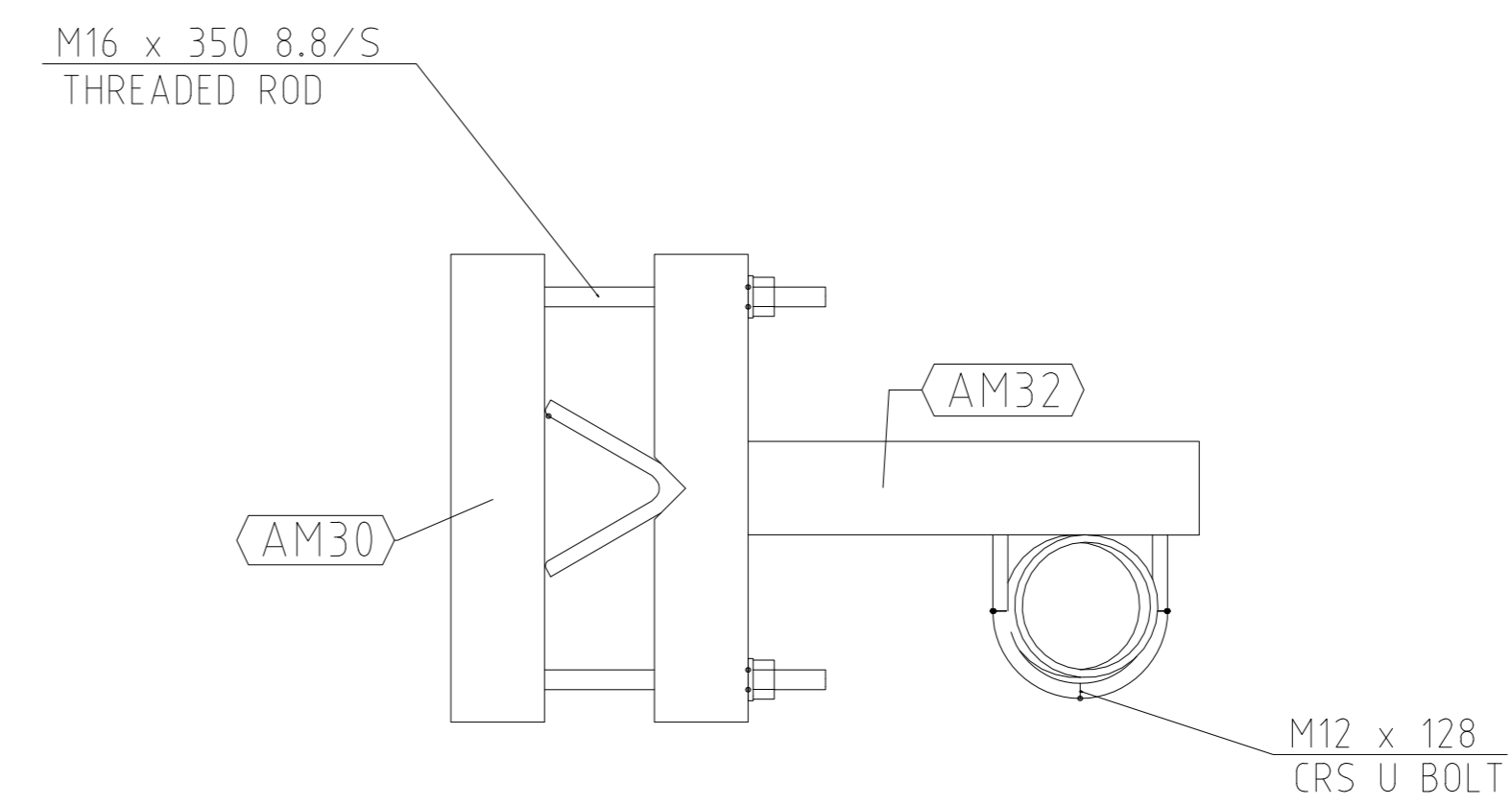
DO NOT SCALE

SDH MICROWAVE LEG MOUNT LIST OF MATERIAL					
MARK	QTY	MATERIAL	LENGTH	WEIGHT	TOTAL WT.
AM6	1	114.3 x 5.4 CHS	2000	32.00	32.00
AM30	2	180 PFC	375	7.84	15.68
AM31	1	ASSY - 180 PFC	375	14.09	14.09
AM32	1	ASSY - 180 PFC	436	15.77	15.77
TOTAL WEIGHT = 77.54 Kg					

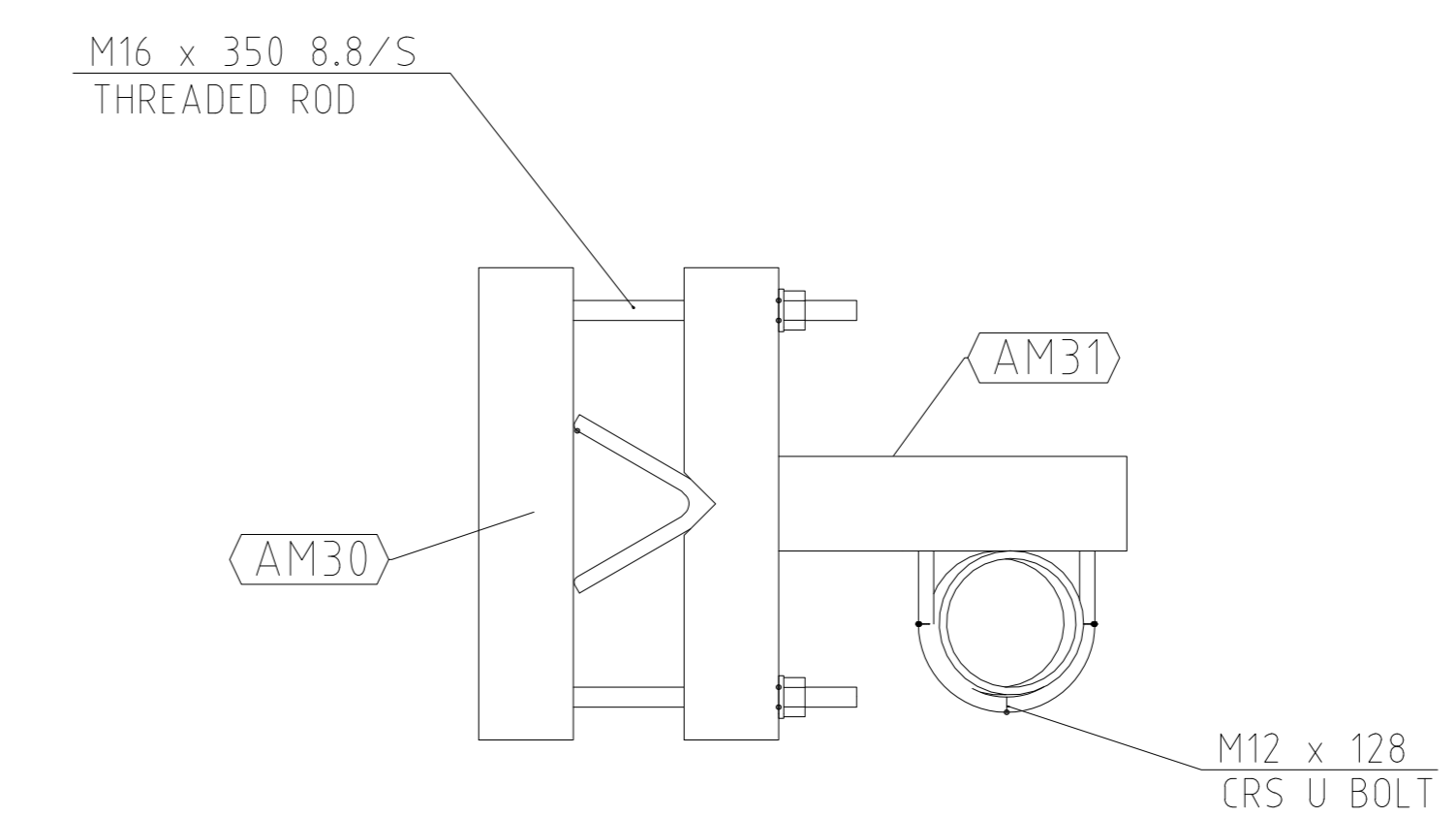
QTY	BOLT SIZE	WEIGHT	TOTAL WT.
4	M12 x 128 CRS U BOLT	0.3819	1.527
8	M16 x 350 THREADED ROD	0.6837	5.470
TOTAL WEIGHT = 7.00 Kg			



— ELEVATION
AM2



— SECTION
AM2



— SECTION
AM2

*** THIS LEG MOUNT SUITABLE FOR BOTH TAPERED AND STRAIGHT TOWER SECTIONS

REV.	DESCRIPTION	BY	DATE	APRV.
4	ISSUE FOR CONSTRUCTION	AS	31.03.22	
3	ISSUE FOR CONSTRUCTION	LR	14.09.20	
2	ISSUE FOR CONSTRUCTION	LR	22.05.15	
1	ISSUE FOR CONSTRUCTION	ZH	11.02.15	

- NOTES
- ALL BOLT Ø10mm AND BELOW TO BE GR 4.6.
ALL BOLT Ø12mm AND ABOVE TO BE GR 8.8.
 - ALL BOLT TO BE C/W NUT & SPRING WASHER.
ALL HOT DIP GALV. FINISH.
 - ALL BOLT TO BE SNUG TIGHTENED IN ACCORDANCE WITH BOLTING PROCEDURE 8.8/S WITH THREADS INCLUDED IN SHEAR PLANE, UNLESS NOTED X/S.
 - ALL STEEL TO BE Gr S5400 U.O.N

DRAWN	CHECK'D	APRV'D
DALI		
DATE:	DATE:	DATE:
29.11.07		

INSTALLATION NOTES

- LEG CLAMPS TO BE POSITIONED AS CLOSE AS POSSIBLE TO THE TOWER BRACING OR HORIZONTAL MEMBERS.



GENERIC LATTICE TOWER LEG MOUNT TYPE A – ERECTION DETAIL			
SCALE	DRAWING NUMBER	REV.	
NTS	TM-2-AM2	4	

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
DETAILED MICROWAVE MOUNT DESIGN

Drawing Status:
DRAFT

Drawing No.
P6MOOR004-S4

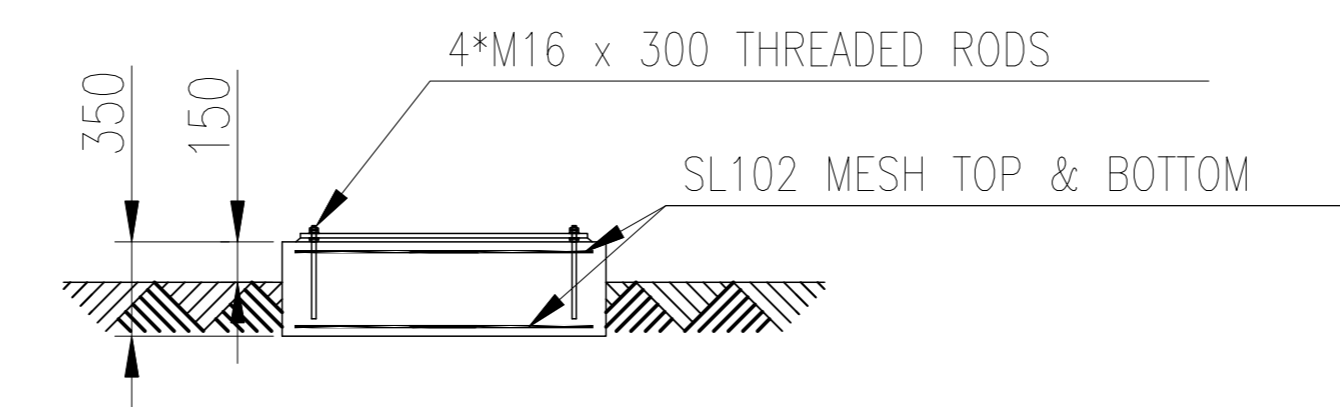
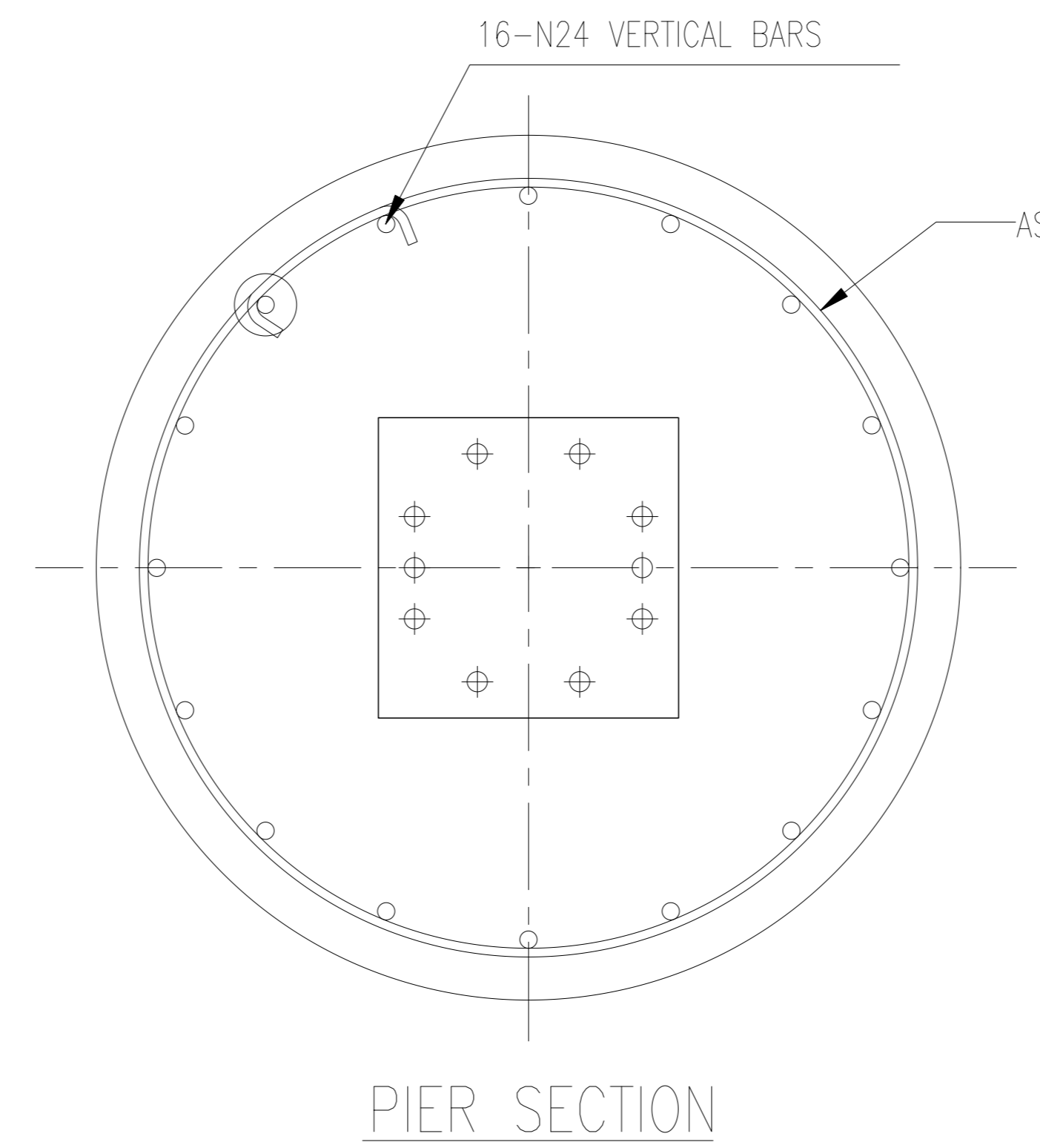
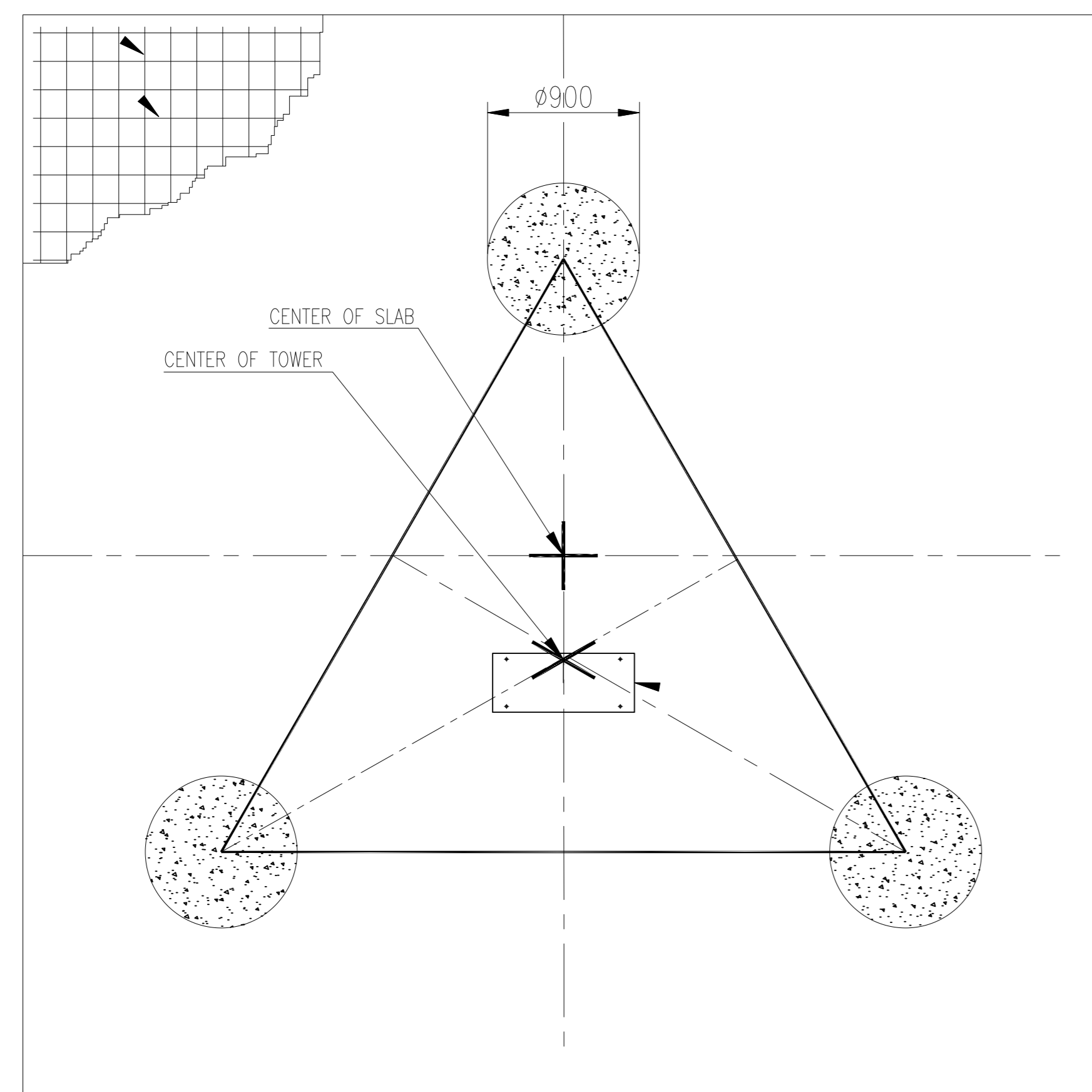
Revision:
A

DO NOT SCALE

TOWER FOUNDATION TABLE / FOUNDATION REINFORCEMENT				
AS1	AS2	AS3	AS4	AS5
N24 @ 250mm	N24 @ 250mm	16-N24 VERT BARS	N12 @ 200mm	N16 @ 250mm
BOTH WAYS	BOTH WAYS	PER PEDESTAL	EACH LEVEL	EACH FACE

QUANTITY TAKE-OFF			
CONCRETE VOL.	REBARS WT.	EXCAVATION BCM VOL.	BACKFILL VOL.
33.2 CU.M	3679.0 KG	77.8 CU.M	44.9 CU.M

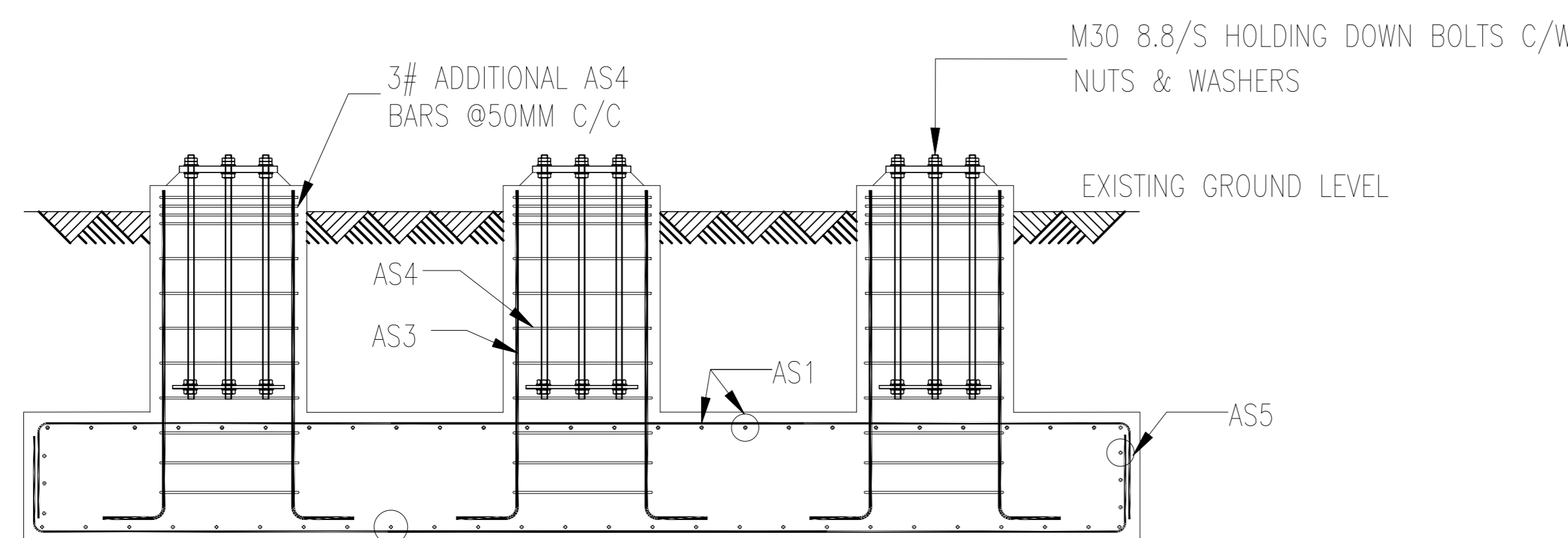
- NOTES
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 - CONCRETE BASED ON CHARACTERISTIC COMPRESSIVE (CYLINDER) STRENGTH AT 28 DAYS OF MINIMUM 25.00 MPa ACCORDING TO AS3600-2018. NO STRUCTURE SHALL BE ERRECTED ON THE FOUNDATION UNTIL THE MINIMUM DESIGN STRENGTH HAS BEEN CONFIRMED AT 7 DAYS.
 - REINFORCING STEEL ACCORDING TO AS/NZS 4671-2019. GRADE 500 DEFORMED BARS.
 - MINIMUM CONCRETE COVER = 50mm.
 - UNIT WEIGHT OF DRY COMPACTED SOIL = 18 kN/cu.m.
 - ALLOWABLE END BEARING PRESSURE = 250 kN/sq.m.
 - CONCRETE SUPPLY/TESTING SHALL BE AS PER:-
 - AS1012 - METHOD OF TESTING CONCRETE.
 - AS1379-2007 - SPECIFICATION AND SUPPLY OF CONCRETE.
 - BACKFILL MATERIALS SHALL BE PLACED ON 300mm LAYERS & COMPACTED TO 95% OF THE MAX. DRY DENSITY IN ACCORDANCE WITH AS1289.5.2.1
 - GENERALLY, THERE SHALL BE NO CONTACT BETWEEN REINFORCEMENT & ANCHOR BOLTS. HOWEVER, IF THERE IS ANY CONTACT, ISOLATION MATERIAL SUCH AS NEOPRENE MATERIAL IS TO BE INSERTED TO AVOID CORROSION.
 - ANCHOR BOLTS TO BE HOT-DIPPED GALVANIZED.
 - NO CONSTRUCTION JOINTS ARE ALLOWED, EXCEPT AT THE INTERFACE OF PAD AND CHIMNEY (SEE CONSTRUCTION JOINTS NOTE BELOW).
 - ALL GROUT SHALL BE 75mm THICKNESS, NON-FERROUS & NON SHRINK GROUT EDGES SHALL BE TAPERED OFF AT 45 DEGREES OR VERTICAL.
 - THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE TOWER SETTING TEMPLATE DRAWING.
 - THE SPACING OF LIGATURE FROM THE TOP AND BOTTOM SHALL BE 50mm.
 - THE BASE EXCAVATION SHALL BE CLEAR OF LOOSE MATERIAL AND DEBRIS.
 - PRIOR TO CONCRETING, THE REINFORCEMENT SHALL BE INSPECTED BY A COMPETENT PERSON FOR COMPLIANCE, CONFORMANCE AND APPROVAL.
 - WATER SHALL NOT BE ALLOWED TO POND IN FOOTING FOR ANY LENGTH OF TIME.
 - CONCRETE CURING SHALL BE AS PER AS 3600-2018.
 - THIS DRAWING MUST BE READ IN CONJUNCTION WITH:
 - GEOTECHNICAL REPORT NO. 1230965-1 BY CIVILTEST DATED 08/09/2023.
 - THIS FOUNDATION HAS BEEN DESIGNED ASSUMING THE BOREHOLE START LEVEL AND THE FINISHED GROUND LEVEL ARE THE SAME.
 - PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL VERIFY THAT THE LOCATION IS CLEAR OF ALL UNDERGROUND SERVICES.
 - THE TEMPERATURE DIFFERENTIAL ACROSS THE CROSS-SECTION OF THE CONCRETE MEMBER BEING CONSTRUCTED SHALL NOT EXCEED VALUES BASED ON THE COARSE AGGREGATE USED IN THE CONCRETE OF: 28°C FOR GRANITE, 32°C FOR BASALT AND 35°C FOR LIMESTONE UNTIL THE IN-SITU MATURITY EXCEEDS 3 DAYS. A CONCRETE CRACK ASSESSMENT ANALYSIS CAN BE USED TO JUSTIFY HIGHER VALUES OF DIFFERENT COARSE AGGREGATE TYPES.



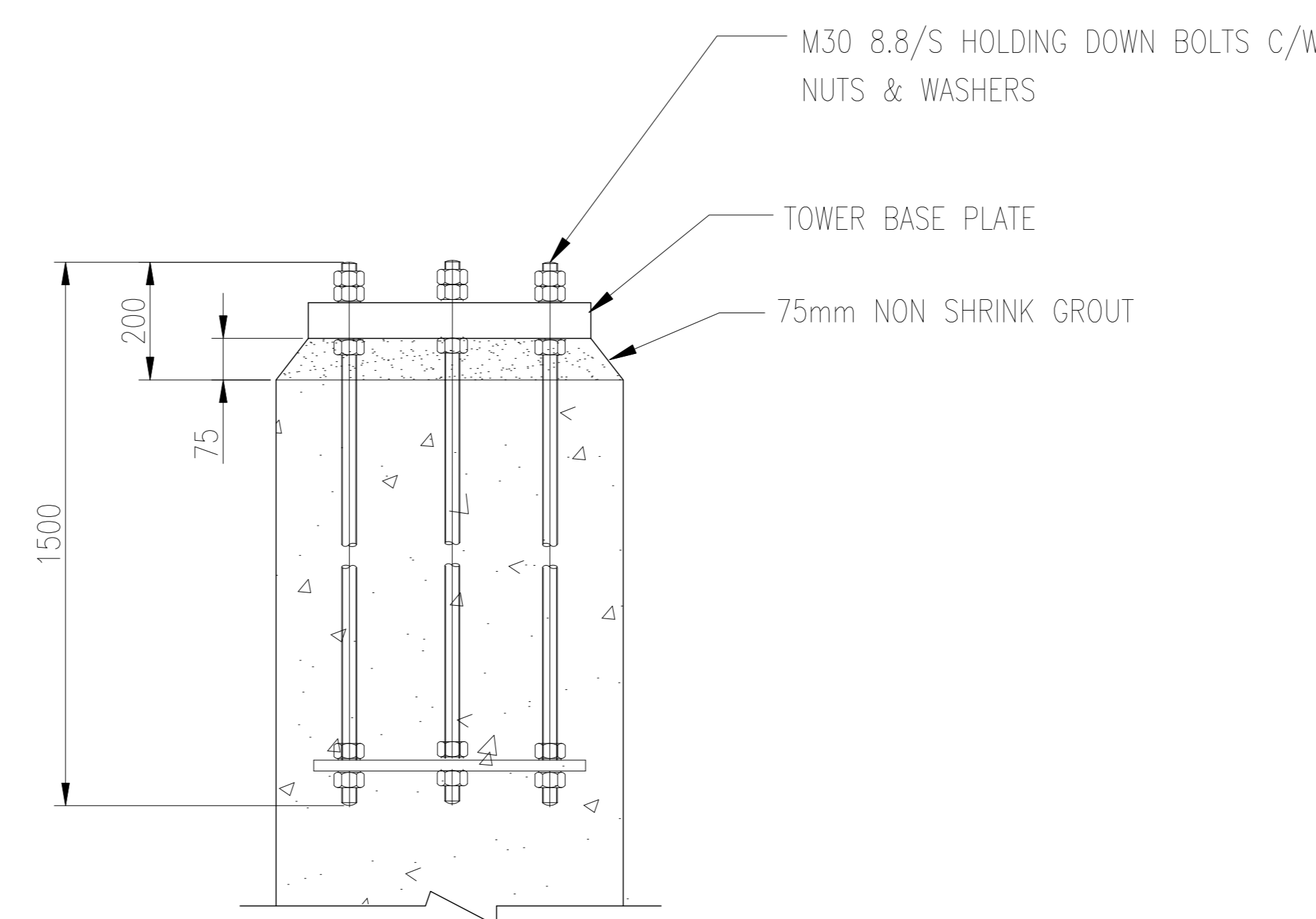
SECTIONAL ELEVATION OF LADDER FND SLAB

* TO BE CONFIRMED FROM ACTUAL SETTING TEMPLATE DIMENSION

TOWER FOUNDATION PLAN



SECTIONAL ELEVATION



TYPICAL ANCHOR BOLT DETAIL

ADDITIONAL NOTES

- AT ALL CONSTRUCTION JOINTS, ALL LAITANCE SHALL BE THOROUGHLY REMOVED TO FULLY EXPOSE THE COARSE AGGREGATE MATRIX AND THE JOINT THOROUGHLY CLEANED AND WETTED PRIOR TO THE PLACEMENT OF ABUTTING CONCRETE.

REV.	DESCRIPTION	BY	DATE	APRV.
0	ISSUED FOR CONSTRUCTION	KL	14.11.23	
		HN	13.03.23	



FSG
SITE:
45M FSGM TRI. S.S TOWER
PAD & CHIMNEY FOUNDATION

SCALE	DRAWING NUMBER	REV.
NTS		0

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
TOWER/MONOPOLE FOUNDATION FOOTING DESIGN

Drawing Status:
DRAFT

Drawing No.
P6MOOR004-S5

Revision:
A

DO NOT SCALE

Solar Frame Design and Construction

Refer to the following documents:

1. Clenergy-PV-ezRack-SolarTerrace-III-A-with-Concrete-Brochure-18022021-web.pdf

Clenergy-PV-ezRack-SolarTerrace-III-A-Double-Support-Datasheet-15022021.pdf

Clenergy-PV-ezRack-SolarTerrace-III-A-Installation-Guide-V3.2.pdf

SOLUTION1_ DC_LOAD_6207W_UPDATE20230518.pdf

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA
NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:

SOLAR FRAME DESIGN

Drawing Status:

DRAFT

Drawing No.

P6MOOR004-S6

Revision:

A

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SOLAR FRAME FOOTINGS/ ODU FOOTINGS

REFER TO THE FOLLOWING DOCUMENTS

OPTION 1 PIER (Preferred Option if NO Rocks Hit) : Solar Footings - Pier Foundations OPTION 1.pdf

OPTION 2 STRIP (Alternate Option if Rocks Encountered) : Solar Footings - Strip Foundations OPTION 2.pdf

Carport Drawing: Solar Footing GA Carport Type - SOLF-S201_rotate.pdf

Solar Frame Foundations Decision criteria

The foundation type for solar frames will be a pier foundation if no rocks are identified during the foundation work for tower on site.

If rocks are present, the foundation type will be a strip foundation.

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA
NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
**SOLAR FRAME/ ODU
FOUNDATION/ FOOTING DESIGN**

Drawing Status:
DRAFT

Drawing No.
P6MOOR004-S7

Revision:
A

REFER TO LEBLANC TOWER DRAWING STRUCTURAL ASSESSMENT REPORT

XXXXXX Rev.0 PAGE 1 – PAGE 7

FILENAME: XXXXXX - Structural Assessment Report Rev.0.pdf

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA
NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
TOWER DESIGN CERTIFICATION
Drawing Status:
DRAFT
Drawing No.
P6MOOR004-S8
Revision:
A

DO NOT SCALE

TO BE COMPLETED

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA
NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
**HEADFRAME DESIGN
CERTIFICATION**
Drawing Status:
DRAFT

Drawing No. P6MOOR004-S9
Revision: **A**

DO NOT SCALE

TO BE COMPLETED

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				



Project:
REGIONAL AUSTRALIA NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
**MICROWAVE MOUNT
DESIGN CERTIFICATION**

Drawing Status:
DRAFT

Drawing No.
P6MOOR004-S10

Revision:
A

DO NOT SCALE

CERAGON MICROWAVE BACKHAUL



Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				









Project:
REGIONAL AUSTRALIA NETWORK
 SITE No: P6MOOR004
MILING
 MILING NORTH ROAD

Drawing Title:
TRANSMISSION PLUMBING DIAGRAM
 Drawing Status:
DRAFT

Drawing No. **P6MOOR004-T1** Revision: **A**

MERCS SIGNAGE

SIGN NAME	SYMBOL	SIGN IMAGE	SIZE / MATERIAL	LOCATION	FIXING METHOD
MERCS-1 (RF HAZARD AREA SIGN)	S1		400H x 350W METAL OR SELF ADHESIVE 200H x 175W METAL OR SELF ADHESIVE	EWP ACCESS ONLY. CONSULT SAE FOR ANY COMMUNITY SENSITIVITIES. SAFETY CHAINS, BALLARD, SHROUDS ETC. RESERVES ETC. SYSTEM.	CENTRE OF SIGN TO BE 1500mm ABOVE FLOOR LEVEL AND 400mm FROM DOOR EDGE. AFFIXED VIA SCREW-FIXED, RIVETED OR SELF-ADHESIVE. CENTRE OF SIGN TO BE 1500mm ABOVE BASE OF MONOPOLE. AFFIXED VIA STEEL STRAPS OR WEATHERPROOF ADHESIVE CENTRE OF SIGN TO BE 1500mm ABOVE BASE OF TOWER LEG. AFFIXED VIA STEEL STRAPS (NOT OBSCURING SIGN OR SCREWED) TO STEEL BRACKET. CENTRE OF SIGN TO BE AT LEAST 3m BELOW ANTENNAS OR DISHES AND MIN. 5m ABOVE THE BASE OF THE STRUCTURE ONE SIGN PER CLIMBING ACCESS POINT.
MERCS-2 (MCF INFORMATION SIGN)	S2		180H x 250W METAL	ON ALL TOWER AND MONOPOLE FACILITIES – FIXED TO SITE ACCESS GATES. MAY BE INSTALLED ON ROOFTOP ACCESS DOORS THAT ARE NOT RESTRICTED ACCESS (i.e. DOORS THAT DO NOT HAVE MERCS-1 SIGNAGE INSTALLED).	CENTRE OF SIGN TO BE 1500mm ABOVE GROUND LEVEL AND 400mm FROM PADLOCK SIDE OF DOUBLE ACCESS GATES. SIGN TO BE FIXED VIA STAINLESS STEEL OR CORROSION RESISTANT CABLE TIES.
MERCS-3 (GENERAL PUBLIC RF HAZARD SIGN)	S3		400H x 350W METAL OR SELF ADHESIVE 200H x 175W METAL OR SELF ADHESIVE	NEAR AREAS THAT EXCEED PUBLIC EXPOSURE LIMITS IN A CONTROLLED AREA (e.g. WALKWAYS PASSING IN FRONT OF TRANSMITTING ANTENNAS OR DISHES). IF BARRIERS ARE REQUIRED, LOCATION OF BARRIERS (E.G. CHAINS) AND SIGN TO BE SHOWN ON FC DRAWING. NEED OWNER APPROVAL FOR THE BARRIERS.	SIGN TO BE INSTALLED AT ENTRY POINT TO CONTROLLED AREAS (ESPECIALLY ON LARGE ROOFTOPS WITH MULTIPLE ACCESS POINTS OR POOR ACCESS RESTRICTION) – ON HANDRAIL, SAFETY CHAIN, BALLARD, SHROUD OR WALL. SIGN TO BE FIXED VIA FIXING SCREWS OR WEATHERPROOF ADHESIVE.
MERCS-4 (OCCUPATIONAL RF HAZARD SIGN)	S4		400H x 350W METAL OR SELF ADHESIVE 200H x 175W METAL OR SELF ADHESIVE	NEAR AREAS THAT EXCEED OCCUPATIONAL EXPOSURE LIMITS IN A CONTROLLED AREA (e.g. EME EXCLUSION ZONES ON GROUND WITHIN COMPOUNDS OR ON STRUCTURES CAUSED BY TRANSMITTERS NEARBY). IF BARRIERS ARE REQUIRED, LOCATION OF BARRIERS (E.G. CHAINS) AND SIGN TO BE SHOWN ON FC DRAWING. NEED OWNER APPROVAL FOR THE BARRIERS.	SIGN TO BE INSTALLED AT ENTRY POINT TO CONTROLLED AREAS (EITHER SIDE OF CLIMBING BARRIERS ON STRUCTURES OR ON SMALL DIAMETER FREE-STANDING POLE ON GROUND EITHER SIDE OF EXCLUSION ZONES). SIGNAGE ON STRUCTURES IS NOT TO IMPEDE OPERATION OF FALL ARREST SYSTEM. SIGN TO BE FIXED VIA SCREWS, RIVETS OR STEEL STRAPS.
MERCS-5 (TRANSMITTING ANTENNA SIGN)	S5		100 x 100 x 100 SELF ADHESIVE 200 x 200 x 200 METAL	REQUIRED ON BACK OF EACH PANEL ANTENNA ON ROOFTOP SHARED FACILITY. ALTERNATIVELY INSTALL SIGNAGE FOR NON-DWE AWARE ROOFTOP WORKERS WHERE THEY MAY INADVERTENTLY ACCESS AN EME OVERHEAD HAZARD ZONE ON FOOT, OR VIA ACCESS LADDER, EWP ETC.	CENTRE OF SIGN TO BE INSTALLED ON REAR OF PANEL ANTENNAS AND AT BASE OF OMNI ANTENNA MOUNTS, PREFERABLY 1600mm ABOVE NORMAL ACCESS (ROOF) LEVEL. SIGN TO BE SELF-ADHESIVE TO BACK OF PANEL ANTENNAS. SIGN TO BE INSTALLED MOUNTING POLE OF ANTENNA SO THAT IT'S VISIBLE FROM NORMAL ACCESS (ROOF) LEVEL (e.g. ROOF EDGES IN THE VICINITY OF TRANSMITTING ANTENNAS OR DISHES INSTALLED ABOVE). SIGN TO BE FIXED VIA SCREWS OR RIVETS TO MOUNTING POLES OF PANEL ANTENNAS.
MERCS-6 (TRANSMITTING MICROWAVE SIGN)	S6		110H x 200W SELF ADHESIVE 55H x 100W SELF ADHESIVE	REQUIRED ON ALL ROOFTOP SHARED FACILITIES TO IDENTIFY LOW POWER TRANSMITTING MICROWAVE ANTENNAS (DISHES). THESE TRANSMITTERS EME EXCLUSION ZONES ARE CONTAINED WITHIN THE DIAMETER OF THE ANTENNA (i.e. TRANSMIT LINEALLY FROM WITHIN).	SIGN TO BE INSTALLED AT REAR OF DISH HEAD UNIT OR RADIO UNIT FACING IN THE DIRECTION FROM WHICH ROOFTOP VISITOR WOULD MOST LIKELY APPROACH. SIGNAGE SHOULD NOT IMPEDE DISH OPERATION OR COOLING. DO NOT INSTALL SIGNAGE ON FRONT OF DISHES. THIS SIGNAGE DOES NOT APPLY TO GRIDPAK ANTENNAS.

THIS TABLE IS BASED ON MOBILE CARRIERS FORUM (MCF) DOCUMENT
'FACILITY RF EME SIGNAGE - 7.1.01 PREFERRED SITE SIGNAGE'
AND COMPLIES WITH ARPANSA'S RADIATION PROTECTION STANDARD (RPS3) [1]

Rev	Date	Revision Details	Consultant	CAD Designer	Verifier	Approver
A	02/01/2024	DRAFT				

DO NOT SCALE



Project:
REGIONAL AUSTRALIA
NETWORK
SITE No: P6MOOR004
MILING
MILING NORTH ROAD

Drawing Title:
**FSG EME SAFETY SIGNAGE
REQUIREMENTS**
Drawing Status:
DRAFT
Drawing No.
P6MOOR004-Z1
Revision:
A