



WILLIAMSON
WATER & LAND ADVISORY

Assessment of Environmental Effects

Pukenui Solar Farm

Section 127 Application to Vary Resource Consent Conditions

PROJECT PUKENUI LP

WWLA0995 | Rev. 1

15 August 2024





Section 127 Application to Vary Resource Consent Conditions

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Contents

1.	Introduction.....	1
1.1	Overview.....	1
1.2	Applicant and Property Details.....	1
1.3	Overview of Proposed Change of Conditions	2
2.	Description of the Environment	3
2.1	General.....	3
3.	Proposed Change of Conditions	5
3.1	Details of the proposed changes.....	5
3.2	Overview of Proposed Change of Conditions	5
3.3	Changes to Conditions Sought.....	5
4.	District Plan Assessment	8
4.1	Operative Far North District Plan	8
4.2	Far North Proposed District Plan.....	9
4.3	Northland Regional Council	9
5.	Assessment of Effects of Changing Conditions.....	10
5.1	Introduction.....	10
5.2	Positive Effects	10
5.3	Landscape and Visual Effects.....	10
5.4	Stormwater	11
5.5	Dust Effects	11
6.	Statutory Assessment	12
6.1	RMA Assessment.....	12
6.2	Part 2 of the RMA.....	12
6.3	National Environmental Standards.....	12
6.4	National Policy Statements.....	12
6.5	District Plan Assessment.....	12
6.6	Non-notification	13
6.6.1	Public Notification.....	13
6.6.2	Limited Notification.....	14
6.6.3	Section 95 Conclusions	14
7.	Conclusion	15

Appendices

Appendix A - Record of Title

Appendix B - Application form

Appendix C – Previously Approved Resource Consents

Appendix D - Proposed Site Layout Plan

Appendix E - Landscape Memo

1. Introduction

1.1 Overview

Williamson Water & Land Advisory (WWLA) was commissioned by Project Pukenui LP (the Applicant) to prepare this document to support an application to vary consent conditions relating to the Pukenui Solar Farm development (known as Pukenui 1 and 2 respectively) located at Lamb Road, Pukenui (the site). The changes to consent conditions are to the following resource consents from Far North District Council (FNDC) which authorise the use and operation of the solar farm on the site:

- Land use consent 2300376-RMALUC (variation approved by Far North District Council on 11 January 2024); and
- Land use consent 2220800-RMALUC (variation approved by Far North District Council on 10 January 2024).

Since land use consent was granted by FNDC, a number of design changes have been identified as a result of the stormwater design in order to better accommodate the site's topography and improve drainage.

The application is made in accordance with Section 127 of the Resource Management Act 1991 (RMA), and in fulfilment of the requirements of Section 88 of the RMA.

1.2 Applicant and Property Details

Table 1: Applicant and Property Details.

Applicant	Project Pukenui LP
Site address	121 and 124 Lamb Road, Pukenui
Owners of application site	Mt Carmel Farms Limited Ngaire Dawn O'Higgins
Site area	18.2 ha
Legal Description	Lot 1 Deposited Plan 587441 Lot 2 DP393797
Record of Title reference	1114475 CT-375274
Operative District Plan Zoning	Zone - Rural Production
Proposed District Plan Zoning & Overlays	Zone - Rural Production Non-District Plan Layers – Treaty Settlement Area of Interest Designation – TE207 Top Energy Telecommunications substation on neighbouring site
Address for service during consent processing	Williamson Water & Land Advisory Attention: Laila Alkamil Email: Laila.alkamil@wwla.kiwi Ph: 027 266 8405
Address for service during consent implementation and invoicing	Far North Solar Farm Ltd Attention: Richard Homewood Email: richard@fnfsf.co.nz Ph: 020 4130 0403

The Record of Title is attached as **Appendix A** and the Application Form is attached as **Appendix B**.

1.3 Overview of Proposed Change of Conditions

The key changes required to accommodate the necessary stormwater design include the following:

- Reduce the distance between the security fence and boundary fence for Pukenui 1 to 2.5 m;
- Revert to a 5 m gap between the security fence and boundary line for Pukenui 2;
- Minor changes to the PV module placement; and
- Increasing the total volume of earthworks undertaken in a 12-month period.
- A provision to use 300mm diameter concrete cast in situ pile in the unlikely event the structural integrity test of the pile fails.

A copy of the land use consents is attached as **Appendix C**.

2. Description of the Environment

2.1 General

The site is located on Lamb Road as illustrated in the aerial image (**Figure 1** and **Figure 2**). The site is generally surrounded by rural farmland with some scattered houses. A substation (designation TE207) owned and designated by Top Energy Ltd is located on the eastern boundary of Pukenui 2.

A subdivision of the wider site has been undertaken which results in the application site now being 2.4 ha in size (rather than 4.2 ha as in the approved consent). The portion of the site which forms the solar farm has not changed from that consented, rather a piece of land to the south has formally been detached and has its own title. The subdivision was a technical adjustment to the site and has no bearing on the solar farm or the overall development.

The entire site is zoned Rural Production in the Operative District Plan. There are no overlays or other constraints identified on the District Plan maps.

Within the Far North Proposed District Plan, the application site is zoned Rural Production. The eastern parts of the site are subject to the natural hazards and risks overlay – river flood hazard zone. The 10 year ARI event covers a small piece of the north eastern corner of Pukenui 2, and a larger area of the site is subject to the 100 year ARI.

A stormwater assessment of the proposed solar farm development was submitted with the original application. This showed the extent of the overland flow path which runs from south-west to north-east in the form of a farm drainage channel crossing the length of the property.



Figure 1. Location of Pukenui 1 located at 124 Pukenui Road. (Source: FNDC, 2024).



Figure 2. Location of Pukenui 2 located at 121 Pukenui Road. (Source: FNDC, 2024).

3. Proposed Change of Conditions

3.1 Details of the proposed changes

Since the resource consent was approved, further assessment has been undertaken to ensure that the site will operate efficiently. As a result, amendments have been made to the positioning of the solar panels to accommodate the drainage across the site. The details of the changes proposed are as follows:

- **Renewable Capacity** – The configuration and position of the solar panels within the site have changed slightly from that consented. The number of solar panels has remain the same with a total capacity of 20.803MW DC.
- **Site Layout** – Minor changes to the location of solar panels to enable the provision of a larger drainage channel within the site, with change in orientation of the Inverter PCU on the north side of Pukenui 1. The solar array proposed will be similar to that approved and details of this are provided in the revised Site Layout Plan in **Appendix D**.
- **Landscaping and fencing** – the distance between the security fence and boundary fence for Pukenui 1 has been reduced to 2.5 m and for Pukenui 2, the distance has been increased to 5 m between the security fence and boundary line (with the exemption of north-east side of Pukenui 2 which is 3m from the house to the substation along Lamb road).
- **Earthworks** – The drainage design had to be modified to provide stormwater hydraulic capacity and to operate effectively, which has resulted in the need to undertake up to 14,000 m³ of earthworks over an exposed earthwork area of 34,000 m². We note that these volumes are what was originally consented for.
- **Concreting of piles** – In the unlikely event the structural integrity test of the piles fail, an alternative method of cast in-situ concrete may be required for a small percentage of the piles installed.

3.2 Overview of Proposed Change of Conditions

The proposed changes to Land Use Consent 2300376-RMAVAR/A involves amending the following conditions:

- Condition 1 – to reference the new drawing numbers.
- Conditions 2, 4 & 5 – to reference the updated Landscape Drawing in the Landscape Memo contained within **Appendix E**.
- Condition 24 to refer to updated volumes and areas for earthworks.

In addition to this and as a result of consultation taken with the landowners of 38 Elingamite Drive (to the north of Pukenui 1), additional conditions are proposed for Land Use Consent 2300376-RMAVAR/A to require the existing bamboo on the boundary fence to be removed by the consent holder.

The proposed changes to Land Use Consent 222080-RMAVAR/A involves amending the following conditions:

- Condition 1 – to reference the new drawing numbers.
- Conditions 2,4 & 5 to reference the updated Landscape Drawing in the Landscape Memo contained within **Appendix E**.

3.3 Changes to Conditions Sought

The proposed changes to the conditions are outlined below, with additions underlined and deletions in ~~striketrough~~.

Land Use Consent 2300376-RMAVAR/A:

1. The activity shall be carried out in accordance with the plans prepared by Pukenui-1 Solar Site Layout Plan (PUK-L-1011-GA-011-~~J00795-PK-0-DWG-G003-01~~PUK-1), Revision ~~BC~~ dated ~~25/10/2023~~11/07/2024 and attached to this consent with the Council's "Approved Stamp" affixed to it.
2. The activity shall be carried out in general accordance with the assessment and approved plans prepared by Simon Cocker Landscape Architecture, referenced Landscape, Memorandum dated 14 August 2024 ~~1st November 2023~~, and attached to this consent with the Council's "Approved Stamp" affixed to them:
 - i. Landscape Plan-Figure 2b: The Proposal Landscape Mitigation

Note: Additional plant species can be planted as long as they achieve the intended purpose of provided additional screening.

4. Implementation of the landscape plan prepared by Simon Cocker contained within the Memorandum dated 14 August 2024 ~~1st November 2023~~, and provided with RMAVAR/A 2300376 is to be undertaken within the first two planting seasons (approximately March-September) directly following commencement of any of the works relating to the solar farm (from detailed design stage on) and shall be maintained by the consent holder from that point onwards to the satisfaction of the Far North District Council or duly delegated officer.
5. The vegetation and shelters belts as identified within the landscape plan prepared by landscape plan prepared by Simon Cocker, attached to the Memorandum dated 14 August 2024 ~~1st November 2023~~, and provided with RMAVAR/A 2300376 on the site shall not be cut down, damaged or destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of resource consent.
24. The works shall be carried out in general accordance with the application, specifically earthworks shall not exceed an earthworks volume of ~~34,000~~ 14,000 ~~16,935~~ 14,000 m² exposed at any one time, and a total bulk cut and fill on site ~~42,037~~ 14,000 m³ (excluding, drains, topsoil, roads, laydown, and imported aggregate); with maximum cut height of ~~± 6.5~~ 1.7 m and maximum fill depth of 1.7 m.

Advice Note: Any area that is mulched or stabilised by aggregate over the hardstand or roads is not considered exposed.

- XX. The landscaping as detailed on the landscape plan prepared by Simon Cocker Landscape Architecture titled 'Landscape Mitigation Plan' dated 13 August 2024 must be implemented within the first planting season (May to September) following the completion of the works on the site before the end of the next planting season.
- XXI. Following its establishment, the landscape planting must be maintained for a minimum of two further planting seasons with any plant losses within this time being replaced and maintained for a further planting season from date of replacement.
- XXII. The landscaping, including all planting, must be maintained and retained for the duration of the consented solar farm activity.
- XXIII. Prior to implementing the landscape plan prepared by Simon Cocker Landscape Architecture titled 'Landscape Mitigation Plan' dated 13 August 2024, the consent holder must remove all bamboo, including the bamboo on the common boundary with lot 2 DP425051, by excavation and establish a new post and wire fence on the boundary (minimum seven wire post and batten as specified within Schedule 2 of the Fencing Act 1978).

Land Use Consent 2220800-RMAVAR/A:

1. The activity shall be carried out in accordance with the approved plans prepared by Pukenui-2 Solar Farm, Revision ~~B C~~ dated ~~25/10/2023~~ 11/07/2024 drawing number ~~PUK-L-1011-GA-012J00795-PK-0-DWG-G003-01PUK-2~~, and attached to this consent with the Council's "Approved Stamp" affixed to it.
2. The activity shall be carried out in general accordance with the assessment and approved plans prepared by Simon Cocker Landscape Architecture, Memorandum dated 14 August 2024 ~~1st November 2023~~, and attached to this consent with the Council's "Approved Stamp" affixed to them:
 - Landscape Plan – Figure 2b: The Proposal Landscape MitigationNote: Additional plant species can be planted as long as they achieve the intended purpose of provided additional screening.
4. Implementation of the landscape plan prepared by Simon Cocker, dated 13 August 2024 ~~4th November 2023~~, and provided with RMAVAR/A 2220800 is to be undertaken within the first two planting seasons (approximately March-September) directly following commencement of any of the works relating to the solar farm (from detailed design stage on) and shall be maintained by the consent holder from that point onwards to the satisfaction of the Far North District Council or duly delegated officer.
5. The vegetation and shelters belts as identified within the landscape plan ~~prepared by landscape plan~~ prepared by Simon Cocker, dated 13 August 2024 ~~4th November 2023~~, and provided with RMAVAR/A 2220800 on the site shall not be cut down, damaged or destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of resource consent.

4. District Plan Assessment

4.1 Operative Far North District Plan

The revised proposal has been assessed against rules contained in the Operative FNDP and the relevant National Environmental Standards.

Table 2: Rule Assessment of Proposal.

CONSTRUCTION		
Document and Rule	Classification	Comment
NES 2011 Regulation 8(3) 'Disturbing soil'	Not applicable	The NES 2011 only applies if a piece of land has had or currently has a Hazardous Activity or Industry List (HAIL) activity undertaken or being undertaken on it. No HAIL activity is known to exist. A confirmed HAIL is present on the property adjacent to the proposed development site (Lamb Road Substation) but is highly unlikely to have resulted in any contamination on the development site.
NES-F Freshwater Management	Complies	No vegetation clearance or earthworks is proposed within 10 m of a natural wetland.
FNDP 12.3.6.1.1 'Excavation and/or fill activities in Rural Production zone'	Permitted	As in the previous application, the excavation and filling has been calculated as no more than the 14,000 m ³ permitted standard over a 12-month period.
FNDP 8.6.5.1.7(a) 'Construction Noise'	Permitted	Construction noise will meet the limits recommended in the relevant standard.
FNDP 8.6.5.1.7 'Construction noise'	Permitted	Construction noise will meet the limits as per NZS 6803P:1999 as mitigating factors include, sandy/peaty geology of the site, the distance to sensitive receptors, and the machinery to be used.
FNDP 15.1.6C.1.1 'Private access'	Permitted	Engineering standards and Appendix 3B-1 minimum standards will be complied with including; <ul style="list-style-type: none"> • 3 m wide carriageway; • 5 m wide entranceway; • If gate opens towards road, it will be setback at least 10 m back from formed road; • Gradient of 1:5
Notes: <ol style="list-style-type: none"> 1. Vegetation clearance is unrestricted if it does not contravene a rule in a NES, regional rule or district rule (Section 9 RMA). 2. The number of people onsite for construction activity is unrestricted. 3. Temporary site offices are exempt from being considered a building if there is no sewer connection. 		
OPERATION		
Document and Rule	Classification	Comment
FNDP 12.9.6.2.4 'Installation, maintenance, operation & upgrading of free-standing renewable energy devices and associated structures'	Restricted discretionary	The solar farm is unable to comply with all relevant permitted activity rules contained in Chapter 12, - Natural and Physical Resources and is not a community supply as per FNDP definitions. Therefore, it is not a permitted land use activity.
FNDP 8.6.5.1.2 'Sunlight'	Permitted	The solar arrays are only 2.7 m high at maximum tilt and will be setback from boundaries by a minimum 4 -10 m setback. For the solar arrays where it is facing the public road, the aim is to achieve a setback of 10m.

FNDP 8.6.5.1.4. 'Setback from boundaries'	Permitted	The edge of the solar tables will be approximately at least 4m -10m from the road boundaries, at the closest point. However, as they do not meet the definition of a 'building' within the FNDP, given that they do not require a Building Consent for their construction. Therefore, it is not considered that this setback standard applies to the solar tables, the inverter or the switch gear structure.
FNDP 8.6.5.1.7 'Environmental Noise'	Permitted	The operational noise emitted from the site will comply with the relevant standards.
FNDP 8.6.5.1.8 'Building height'	Permitted	Maximum height of all of the structures will be less 12 m (the solar panels are no higher than 2.7 m from ground level at maximum tilt. The switch gear building is 4 m in height, and the inverter is less than 12 m).
FNDP 8.6.5.4 'Building Coverage'	Permitted	As discussed earlier, the solar panels, inverter and switchgear structure do not meet the definition of a 'building' within the FNDP, and therefore building coverage is not relevant.
FNDP 8.6.5.4 'Stormwater management'	Discretionary	The coverage of buildings and impermeable surfacing on the site would exceed permitted and controlled activity. However, the nature of spacing between the solar panels means that the stormwater will be able to drain directly to ground. There is expected to be sufficient soakage capacity in the underlying sandy soils to negate the need for a stormwater management system.
FNDP 8.6.5.1.11 'Scale of activities'	Permitted	The net site area of Pukenui 1 and 2 is approximately 18.2 ha. The operation of the solar farm would require less than 4 persons at any one time and would comply with this standard.
<p>NOTES:</p> <p>1. Under section 9(a) of the Building Act 2004, a building does not include a NUO (Network Utility Operator). This is consistent with the interpretation made in the approved consent. Given that the structures on site are not defined as a 'building' it is not considered that the 10 m setback from boundaries under rule 8.6.5.1.4 or the building coverage under rule 8.6.5.4 applies.</p> <p>2. Renewable Energy Use and Development Activities associated with all land use activities are exempt from the traffic intensity and parking requirements.</p>		

Therefore, as per the approved consent, the matters of non-compliance with the Operative Far North District Plan relate to stormwater management, and renewable energy and efficient in the Rural Production Zone.

No new reasons for consent have been introduced.

4.2 Far North Proposed District Plan

It is noted that since the consent on the application site was approved, the Proposed District Plan was notified, and submissions received to the Proposed Plan. Most of the rules in the Proposed Plan will not come into effect until after the Council has released decisions, which has not yet occurred. Until then, current rules in the operative District Plan apply.

However, some proposed rules (which have immediate legal effect) apply as soon as the Proposed Plan is notified. In this case, it is not considered that any of these rules apply to this proposal. The application site does not contain any 'sites and areas of significance to Māori', heritage areas, historic heritage, or notable trees. Furthermore, the site does not contain any significant natural areas or earthworks which are identified as having immediate legal effect. Therefore, it is not considered that the Proposed District Plan has introduced any new consenting matters which are relevant to this section 127 application.

4.3 Northland Regional Council

The Applicant holds regional consents with Northland Regional Council in relation to the Pukenui Solar Farm. A separate section 127 application to Northland Regional Council to vary those consents will be made separate to this application.

5. Assessment of Effects of Changing Conditions

5.1 Introduction

In accordance with section 127 of the RMA, the following assessment identifies and assesses the types of effects that may arise from the proposed condition changes and cancellations only, and not the effects of the activity itself.

This assessment also outlines the measures that the applicant proposes to avoid, remedy or mitigate any potential adverse effects on the environment.

Actual and potential effects on the environment have been identified as including:

- Positive effects;
- Landscape and visual amenity effects;
- Stormwater effects; and
- Dust effects.

5.2 Positive Effects

The proposed changes to consent conditions will enable the construction and operation of the proposed Pukenui Solar Farm. This will provide numerous benefits in the form of providing a renewable source of electricity for the region, which will enable people and communities to provide for their social, cultural and economic well-being.

5.3 Landscape and Visual Effects

The landscape character has been described extensively in the Landscape Report submitted with the original application. In summary, it was described that most of the site is located within a relatively constrained visual catchment, although the elevated eastern end is more widely visible. Views are possible from the rural landscape to the north and northeast of the site, although these are fragmented by shelterbelts. The Landscape Architect considered that potential residential viewers within this part of the catchment are limited to distance properties from where views are limited by intervening vegetation.

There are no landscape features of significance within or near to the development site as it is surrounded by predominantly farmland. The proposed solar farm site is not within or adjacent to an Outstanding Natural Landscape (ONL) or Outstanding Natural Feature (ONF).

An updated Landscape Assessment to supplement that submitted with the original application has been undertaken in the form of a Memorandum and updated Planting Plan attached as **Appendix E**.

The proposal will have screen planting along the entirety of the road frontages. In addition to this, an area of landscaping is proposed along the eastern boundary. This planting has been purchased and is ready to be planted as soon as the solar panels are installed. Therefore, initially views of the proposed solar farm will be possible from these roads, but as the screen planting becomes established, the visibility of the facility will diminish over a period of 3-4 years, with maintenance of the planting to be maintained to a maximum height of between 1.8 - 2.0m (the height of the security fence).

The layout and design of the solar panels have changed only slightly from that approved, their overall height at maximum tilt remain the same. In the context of the site, and in the glimpses between the existing vegetation (including mature shelterbelts) it will have a very similar appearance to that approved. It is considered that the conclusions made by the Landscape Architect in relation to the original proposal are still valid, in that the long-term potential adverse visual amenity effect will be (at most) low for the majority of individuals. Low potential adverse visual amenity effect will be experienced by users of the roads on the south and western boundaries of the site, and these will be dimmish as the screen planting develops. Overall, the original proposal was

considered to be appropriate from a landscape and visual perspective. The Landscape Architect has considered the revised proposal for this site and advises that views into the site will be unchanged from those anticipated by the consented development.

For these reasons, it is considered that any adverse visual amenity effects on the wider environment will be consistent with those arising from the consented solar farm on the site. Any adverse effects arising from the minor changes proposed in this current proposal will be less than minor.

5.4 Stormwater

The applicant has further assessed the overland flow path crossing the site and reconsidered the site drainage. This has been undertaken in the Civil Flooding and Stormwater Report prepared by Cook Costello. The drain which currently crosses the site is still proposed to be improved slightly to allow water to flow more freely towards Lamb Road without ponding and the directed towards an existing road culvert or channel.

After a full assessment and modelling, the Civil Engineer has concluded that the stormwater within the site will have no expected impact on the upstream environment, and there will be a negligible impact on the downstream environment.

5.5 Dust Effects

Limitation of the exposed earthworks will be followed with hay to be installed if further earthworks is required. Combination of hay and seedling will be used to encourage vegetation regrowth. Appropriate dust control measures will be implemented to ensure that potential effects on neighbouring properties are minimised to the practicable extent. Dust mitigation measures are likely to include the following:

- Minimising the extent of exposed areas at any given time where possible;
- Maintaining site accesses in good condition, including with gravel to minimise dust generation;
- Ensuring that the speed of vehicles is limited on the site to prevent dust generation; and
- Appropriately covering any vehicle loads moving fine material.

Overall, with these control measures in place, potential nuisance dust effects on adjacent properties and people are considered to be less than minor.

5.6 Effects Conclusion

For the reasons outlined above, it is considered that any adverse effects resulting from the amendments to the consented solar farm, will be less than minor.

6. Statutory Assessment

6.1 RMA Assessment

Section 104 of the RMA sets out the matters to which the consent authority must have regard to, subject to Part 2 of the RMA, when considering an application for resource consent. These are:

- Any actual and potential effects on the environment of allowing the activity (refer to Section 4 above);
- Any relevant provisions of:
 - A national environmental standard;
 - Other regulations;
 - A national policy statement;
 - A New Zealand coastal policy statement;
 - A regional policy statement or proposed regional policy statement;
 - A plan or proposed plan; and
- Any other matter the consent authority considers relevant and reasonably necessary to determine the application.

Pursuant to section 127(3) of the RMA, the consideration of effects is limited to the effects of the change/cancellation of conditions only. This assessment does not revisit or reassess the original proposal in its entirety.

6.2 Part 2 of the RMA

The Court of Appeal decision in *RJ Davidson Family Trust v Marlborough District Council* [2018] NZCA 316 clarifies that if a plan has been “competently prepared” under the RMA then it may be that in many cases the consent authority will feel assured in taking a view that there is no need to refer to Part 2 as it would not add anything to the evaluation exercise. In this instance, it is considered that the relevant provisions of the Operative Far North District Plan, which were prepared regarding Part 2, cover all planning considerations that are relevant to this application. As such is it unnecessary to undertake a specific Part 2 assessment.

6.3 National Environmental Standards

There are no national environmental standards applicable to this proposal.

6.4 National Policy Statements

All relevant national policy statements were considered as part of the original applications for the solar farm. There are no changes to the conclusions reached in those assessments.

6.5 District Plan Assessment

The relevant objectives and policies have been assessed in the original application, and the proposal was considered to be consistent with these.

The objectives and policies which relate to aspects of the proposal which have changed are considered below in **Table 2**.

Table 2: Operative District Plan Objectives and Policies.

Objective / Policy	Assessment
Objective 8.3.3 – To avoid, remedy, or mitigate the adverse and cumulative effects of activities on the rural environment.	As discussed in Section 6 , the proposed works are anticipated to have a less than minor effect overall. The proposed works will be

	undertaken in accordance with best practice guidelines, including screening of the site to minimise landscape and visual effects on surrounding landowners.
Policy 8.4.3 – That any new infrastructure for development in rural areas be designed and operated in a way that safeguards the life supporting capacity of air, water, soil and ecosystems while protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna, outstanding natural features and landscapes.	The revised layout of the solar panels on the site will result in similar earthworks as the changes are minor. There is very little existing vegetation on the site given that it has historically been used for agriculture. Areas of planting are proposed which consist of native species in the same locations as consented.
Objective 12.9.3.1 – To become among the most energy self-sufficient local authorities in New Zealand through encouraging and promoting the efficient use of energy and the greater use and development of renewable energy while having appropriate regard to the special values of the District identified in the Plan.	The proposed solar farm (as amended) will provide numerous benefits for the local community, as well as on a national level, by increasing the supply of renewable energy. The amendments to its layout will enable it to operate in a more efficient manner.
Objective 12.9.3.8 – To ensure actual and potential adverse effects associated with renewable energy and energy efficiency are avoided, remedied or mitigated.	The solar panels proposed are broadly the same size and height as consented, it is their layout on the site which has changed slightly. Mitigation screening is proposed along the road boundaries in the form of a 5 m wide landscape strip on Pukenui 2 and 3m on a portion of Lamb road Pukenui 2, 4m on Pukenui 1 Korakanui O Rua road and 2.5m on along Lamb Road Pukenui 1. Any adverse rural amenity effects have been addressed earlier in the report and are considered to be comparable with that consented.

As a result of the above assessment, it is considered that the revised proposal is consistent with the relevant objectives and policies.

6.6 Non-notification

6.6.1 Public Notification

Section 95A of the RMA is relevant when a consent authority is considering whether a consent application should be considered with or without public notification.

Section 95A identifies a four-step process. Having regard to the steps in section 95A, the following points are noted:

- The applicant does not request public notification of the application.
- There is no rule or national environmental standard that precludes or requires public notification of the application.
- An assessment of effects on the environment is provided in Section 4 of this report. This assessment concludes that adverse effects on the environment related to the proposed change of conditions is less than minor.
- The application is not for any of the activities identified in section 95A(5)(9b) (i.e. a controlled activity, subdivision of land or residential activities, a boundary activity, or an activity prescribed in section 360H(1)(a)(i)).

In addition, the application is made under section 127 and under section 127(4) a consent authority must only consider the effects of the change.

Based on this assessment, we consider that this application meets the tests of the RMA to be processed without public notification.

6.6.2 Limited Notification

For applications that are not publicly notified, under section 95B, the consent authority must determine whether to give limited notification of an application to any affected parties. Section 95B identifies a four-step process. In relation to these steps, the following is noted:

- The application does not need to be notified to any parties under section 95B(4). The proposal will not affect any customary rights.
- The proposed activity is not on, adjacent to, or will affect land, that is subject of a statutory acknowledgement.
- There are no applicable rules or national environmental standards precluding limited notification.
- No special circumstances are considered to exist in relation to the application that warrant notification of the application to any other persons not already determined to be eligible for limited notification.

In addition, section 127(4) states that for the purpose of determining who is adversely affected by the consent change, the consent authority must consider, in particular, every person who made a submission on the original application and may be affected by the change. No person made any submission on the original application.

The proposed changes to this consent are minor in nature and are not anticipated to result in effects on any persons. On that basis, limited notification is not considered required.

6.6.3 Section 95 Conclusions

Following the steps set out in sections 95A and 95B, and subject to section 127(4), we consider that the application is required to be processed without public or limited notification.

7. Conclusion

This AEE report has been prepared on behalf of Project Pukenui LP to accompany a resource consent application to Far North District Council for the variations to Land Use Consent 2300376-RMALUC and 2220800-RMALUC. The proposal requires resource consent from FNDC as a discretionary activity for the changes proposed.

The AEE report draws the following conclusions:

- The proposal is consistent with Part 2 of the Resource Management Act 1991;
- The proposal is consistent with the objectives and policies of the Operative FNDCP;
- The proposal will provide numerous positive effects in relation to the provision of renewable electricity generation for the Northland region; and
- The proposal will be undertaken in accordance with robust mitigation measures to ensure adverse effects on the receiving environment is appropriately mitigated.

The Applicant requests that the application is processed on a non-notified basis. We would appreciate the opportunity to review draft conditions.

Appendix A. Record of Title



**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD**

**Guaranteed Search Copy issued under Section 60 of the Land
Transfer Act 2017**




R.W. Muir
Registrar-General
of Land

Identifier **375274**
Land Registration District **North Auckland**
Date Issued 04 December 2007

Prior References

NA21B/668 NA650/115

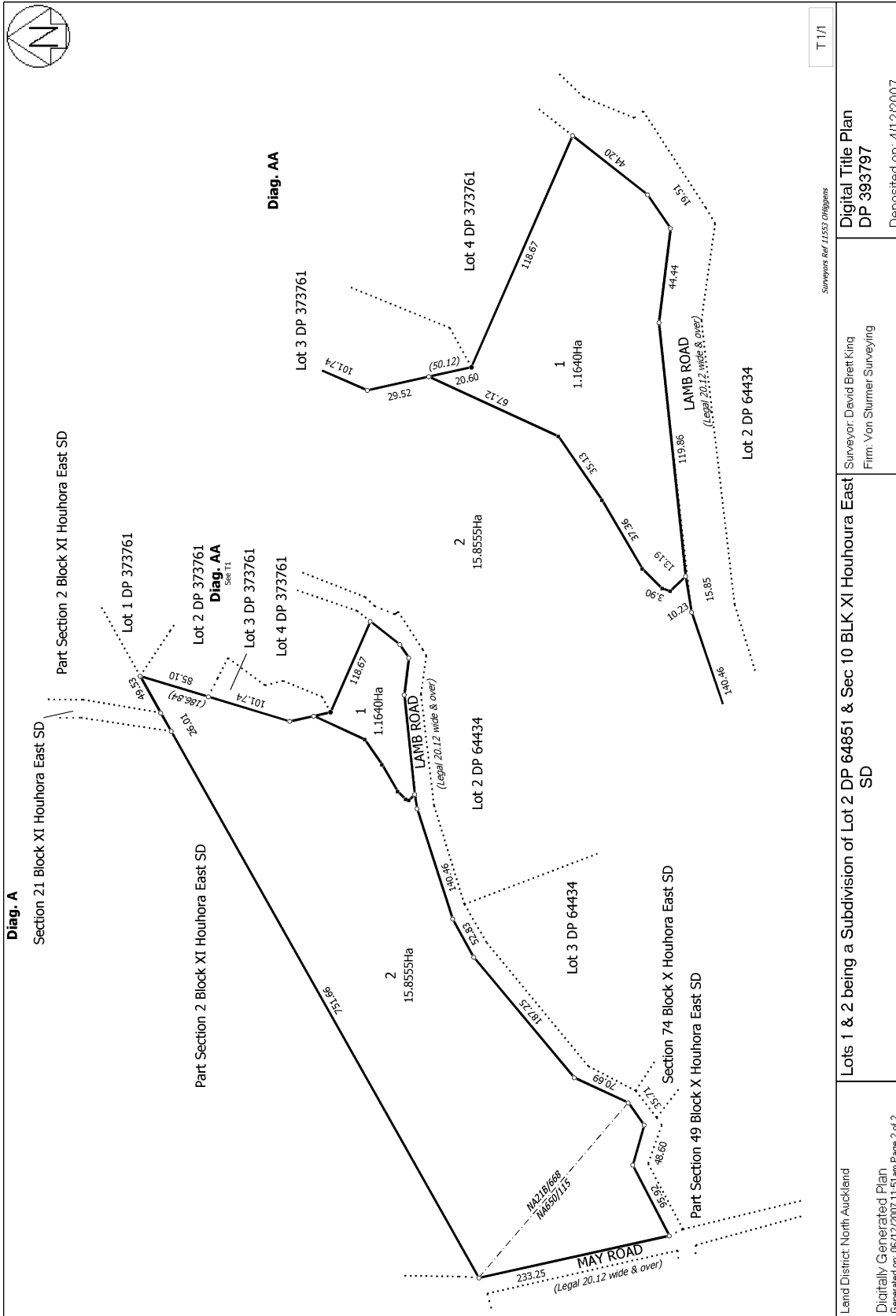
Estate Fee Simple
Area 15.8555 hectares more or less
Legal Description Lot 2 Deposited Plan 393797

Registered Owners

Ngaire Dawn O'Higgins

Interests

Appurtenant hereto is a water right specified in Easement Certificate A571349 (Affects part formerly in CT NA21B/668)
7640933.1 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 4.12.2007 at 9:00 am
12572179.1 Lease Term 30 years from 1.9.2022 (right of renewal) Record of Title 1103706 issued - 1.11.2022 at 11:22 am
12824156.1 Variation of Lease 12572179.1 - 15.1.2024 at 10:11 am





**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD**

**Guaranteed Search Copy issued under Section 60 of the Land
Transfer Act 2017**




R. W. Muir
Registrar-General
of Land

Identifier 1114475
Land Registration District North Auckland
Date Issued 30 March 2023

Prior References
NA35A/1057

Estate Fee Simple
Area 2.4620 hectares more or less
Legal Description Lot 1 Deposited Plan 587441
Registered Owners
Mt Camel Farms Limited

Interests

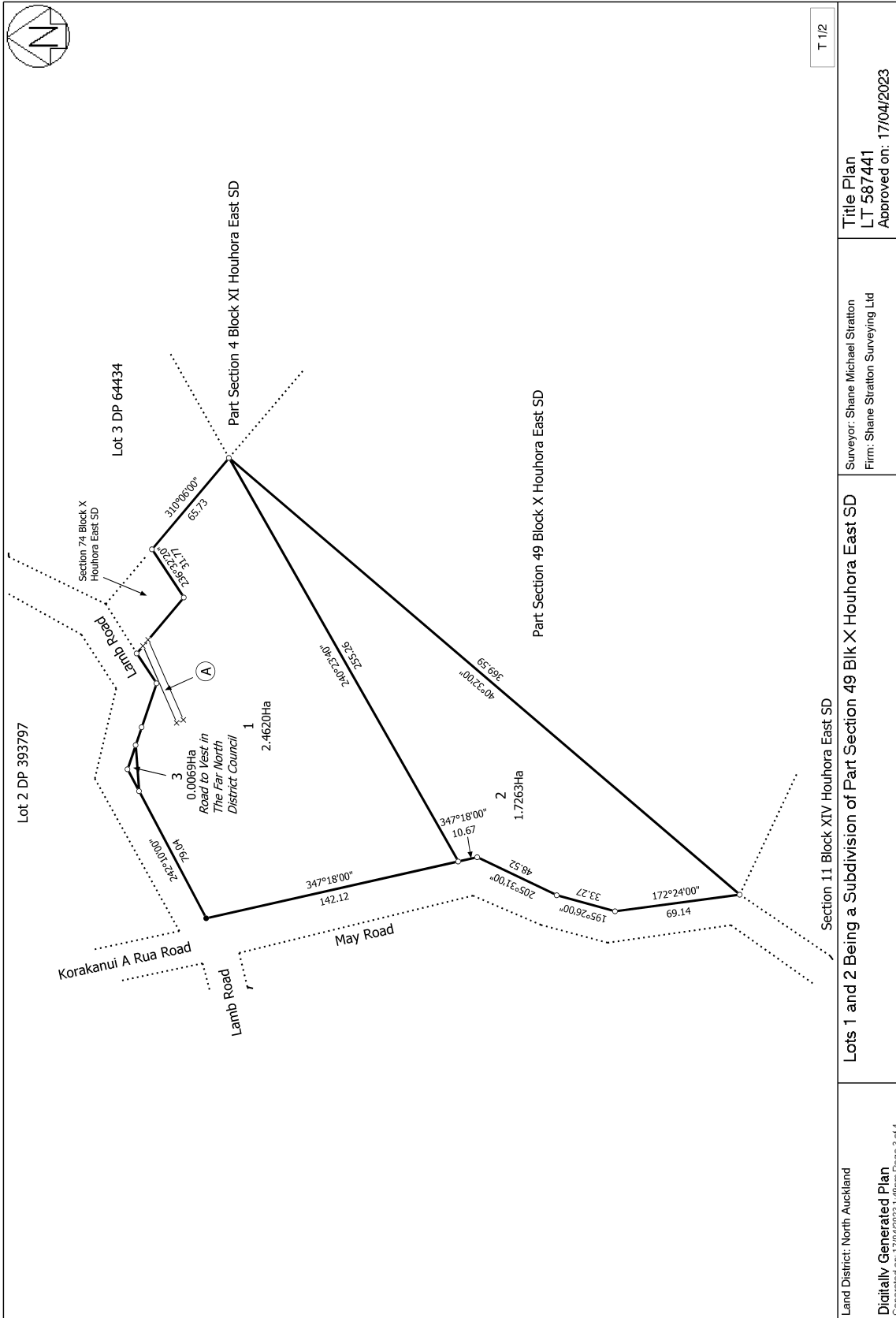
Subject to Section 8 Coal Mines Amendment Act 1950

Subject to a right (in gross) to convey electricity over part marked A on DP 587441 in favour of Top Energy Limited created by Easement Instrument 8041717.2 - 19.1.2009 at 3:57 pm

12732516.1 Lease Term 30 years from 12.5.2023 (right of renewal) Record of Title 1132720 issued - 9.6.2023 at 12:13 pm

12901915.1 Variation of Lease 12732516.1 - 20.12.2023 at 5:08 pm

12941526.1 CAVEAT BY TOP ENERGY LIMITED - 26.2.2024 at 3:46 pm



Appendix B. Application Form



Office Use Only Application Number:

APPLICATION FOR RESOURCE CONSENT OR FAST-TRACK RESOURCE CONSENT

(Or Associated Consent Pursuant to the Resource Management Act 1991 (RMA))

(If applying for a Resource Consent pursuant to Section 87AAC or 88 of the RMA, this form can be used to satisfy the requirements of Form 9)

Prior to, and during, completion of this application form, please refer to Resource Consent Guidance Notes and Schedule of Fees and Charges – both available on the Council’s web page.

1. Pre-Lodgement Meeting

Have you met with a Council Resource Consent representative to discuss this application prior to lodgement? Yes / **No**

2. Type of Consent being applied for (more than one circle can be ticked):

- Land Use
- Fast Track Land Use*
- Subdivision
- Discharge
- Extension of time (s.125)
- Change of conditions (s.127)
- Change of Consent Notice (s.221(3))
- Consent under National Environmental Standard (e.g. Assessing and Managing Contaminants in Soil)
- Other (please specify) _____

***The fast track for simple land use consents is restricted to consents with a controlled activity status and requires you provide an electronic address for service.**

3. Would you like to opt out of the Fast Track Process? Yes **No**

4. Applicant Details:

Name/s: Project Pukenui LP

Electronic Address for Service (E-mail):

Phone Numbers:

Postal Address: (or alternative method of service under section 352 of the Act)

5. Address for Correspondence: Name and address for service and correspondence (if using an Agent write their details here).

Name/s: Williamson Water and Land Advisory - Laila Alkamil

Electronic Address for Service (E-mail):

Phone Numbers:

Postal Address: (or alternative method of service under section 352 of the Act)

All correspondence will be sent by email in the first instance. Please advise us if you would prefer an alternative means of communication.

6. Details of Property Owner/s and Occupier/s: Name and Address of the Owner/Occupiers of the land to which this application relates (where there are multiple owners or occupiers please list on a separate sheet if required)

Name/s: Refer to Table 1 of the attached AEE

Property Address/
Location _____

7. Application Site Details:

Location and/or Property Street Address of the proposed activity:

Site Address/
Location: Refer to Table 1 of the attached AEE

Legal Description: _____ Val Number: _____

Certificate of Title: _____
Please remember to attach a copy of your Certificate of Title to the application, along with relevant consent notices and/or easements and encumbrances (search copy must be less than 6 months old)

Site Visit Requirements:

Is there a locked gate or security system restricting access by Council staff? Yes / No

Is there a dog on the property? Yes / No

Please provide details of any other entry restrictions that Council staff should be aware of, e.g. health and safety, caretaker's details. **This is important to avoid a wasted trip and having to re-arrange a second visit.**

Please contact the applicant prior to organising a site visit

8. Description of the Proposal:

Please enter a brief description of the proposal here. Attach a detailed description of the proposed activity and drawings (to a recognized scale, e.g. 1:100) to illustrate your proposal. Please refer to Chapter 4 of the District Plan, and Guidance Notes, for further details of information requirements.

Refer to Section 3 of the attached AEE

If this is an application for an Extension of Time (s.125); Change of Consent Conditions (s.127) or Change or Cancellation of Consent Notice conditions (s.221(3)), please quote relevant existing Resource Consents and Consent Notice identifiers and provide details of the change(s) or extension being sought, with reasons for requesting them.

9. Would you like to request Public Notification

Yes/No No

10. Other Consent required/being applied for under different legislation (more than one circle can be ticked):

- Building Consent (BC ref # if known) Regional Council Consent (ref # if known)
- National Environmental Standard consent Other (please specify)

11. National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health:

The site and proposal may be subject to the above NES. In order to determine whether regard needs to be had to the NES please answer the following (further information in regard to this NES is available on the Council's planning web pages):

Is the piece of land currently being used or has it historically ever been used for an activity or industry on the Hazardous Industries and Activities List (HAIL) yes no don't know

Is the proposed activity an activity covered by the NES? (If the activity is any of the activities listed below, then you need to tick the 'yes' circle). yes no don't know

- Subdividing land Changing the use of a piece of land
- Disturbing, removing or sampling soil Removing or replacing a fuel storage system

12. Assessment of Environmental Effects:

Every application for resource consent must be accompanied by an Assessment of Environmental Effects (AEE). This is a requirement of Schedule 4 of the Resource Management Act 1991 and an application can be rejected if an adequate AEE is not provided. The information in an AEE must be specified in sufficient detail to satisfy the purpose for which it is required. Your AEE may include additional information such as Written Approvals from adjoining property owners, or affected parties.

Please attach your AEE to this application.

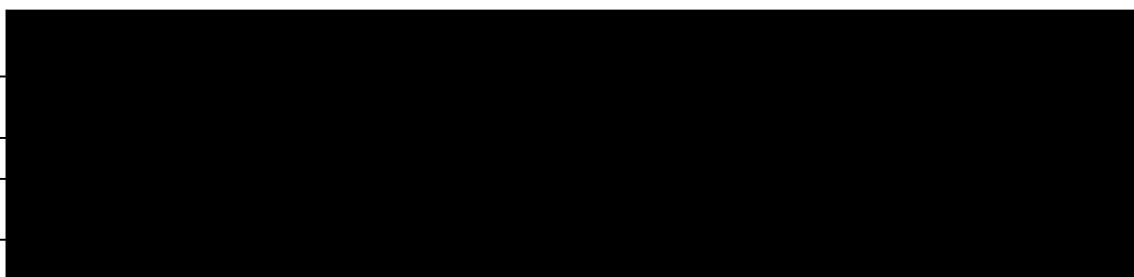
13. Billing Details:

This identifies the person or entity that will be responsible for paying any invoices or receiving any refunds associated with processing this resource consent. Please also refer to Council's Fees and Charges Schedule.

Name/s: (please write all names in full)

Email:

Postal Address:



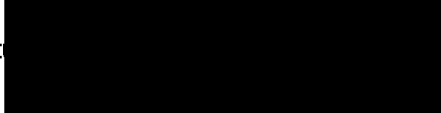
Phone Numbers: Work: _____ Home: _____ Fax: _____

Fees Information: An instalment fee for processing this application is payable at the time of lodgement and must accompany your application in order for it to be lodged. Please note that if the instalment fee is insufficient to cover the actual and reasonable costs of work undertaken to process the application you will be required to pay any additional costs. Invoiced amounts are payable by the 20th of the month following invoice date. You may also be required to make additional payments if your application requires notification.

Declaration concerning Payment of Fees: I/we understand that the Council may charge me/us for all costs actually and reasonably incurred in processing this application. Subject to my/our rights under Sections 357B and 358 of the RMA, to object to any costs, I/we undertake to pay all and future processing costs incurred by the Council. Without limiting the Far North District Council's legal rights if any steps (including the use of debt collection agencies) are necessary to recover unpaid processing costs I/we agree to pay all costs of recovering those processing costs. If this application is made on behalf of a trust (private or family), a society (incorporated or unincorporated) or a company in signing this application I/we are binding the trust, society or company to pay all the above costs and guaranteeing to pay all the above costs in my/our personal capacity.

Name: Laila Alkamil on behalf of Project Pukenui LP (please print)

Signature: _____ (signature of bill payer – **mandatory**) Date: 15/08/2024



14. Important Information:

Note to applicant

You must include all information required by this form. The information must be specified in sufficient detail to satisfy the purpose for which it is required.

You may apply for 2 or more resource consents that are needed for the same activity on the same form.

You must pay the charge payable to the consent authority for the resource consent application under the Resource Management Act 1991.

Fast-track application


Under the fast-track resource consent process, notice of the decision must be given within 10 working days after the date the application was first lodged with the authority, unless the applicant opts out of that process at the time of lodgement. A fast-track application may cease to be a fast-track application under section 87AAC(2) of the RMA.

Privacy Information:

Once this application is lodged with the Council it becomes public information. Please advise Council if there is sensitive information in the proposal. The information you have provided on this form is required so that your application for consent pursuant to the Resource Management Act 1991 can be processed under that Act. The information will be stored on a public register and held by the Far North District Council. The details of your application may also be made available to the public on the Council's website, www.fndc.govt.nz. These details are collected to inform the general public and community groups about all consents which have been issued through the Far North District Council.

Declaration: The information I have supplied with this application is true and complete to the best of my knowledge.

Name: Laila Alkamil on behalf of Project Pukenui (please print)

Signature:  (signature)

Date: 15/08/2024

(A signature made by electronic means)

Checklist (please tick if information is provided)

- Payment (cheques payable to Far North District Council)
- A current Certificate of Title (Search Copy not more than 6 months old)
- Copies of any listed encumbrances, easements and/or consent notices relevant to the application
- Applicant / Agent / Property Owner / Bill Payer details provided
- Location of property and description of proposal
- Assessment of Environmental Effects
- Written Approvals / correspondence from consulted parties
- Reports from technical experts (if required)
- Copies of other relevant consents associated with this application
- Location and Site plans (land use) AND/OR
- Location and Scheme Plan (subdivision)
- Elevations / Floor plans
- Topographical / contour plans

Please refer to Chapter 4 of the District Plan for details of the information that must be provided with an application. Please also refer to the RC Checklist available on the Council's website. This contains more helpful hints as to what information needs to be shown on plans.

Only one copy of an application is required, but please note for copying and scanning purposes, documentation should be:

UNBOUND

SINGLE SIDED

NO LARGER THAN A3 in SIZE

Appendix C. Previously Approved Resource Consents

**DECISION ON SECTION 127 APPLICATION
UNDER THE RESOURCE MANAGEMENT ACT 1991**

Decision

Pursuant to section 34(1) and sections 104, 104B, 127 and Part 2 of the Resource Management Act 1991 (the Act), the Far North District Council **grants** resource consent to change conditions 1, 2, 4, 5, 7, 12, and 24 of 2300376-RMALUC.

Applicant:	Far North Solar Farm Limited
Council Reference:	2300376-RMAVAR/A
Property Address:	124 Lamb Road, Pukenui 0484
Legal Description:	Lot 2 DP 393797
Description of Application:	Amendments to previously approved Resource Consent for a re-newable energy generating facility (Solar Farm)

The following changes to the conditions of resource consent RMALUC 2300376 are made:

(~~Strikethrough~~ indicates deletions and underline indicates additions and changes)

For clarity a complete set of conditions, as amended, are provided in Schedule 1 to this decision.

1. The activity shall be carried out in accordance with the approved plans prepared by ~~Solar Mounting Systems referenced Site Overview – 13.2 MW 16.051 MWp 26,752 CS7L-600MS Panel 110 Arrays Layout, dated 16/11/2020, drawing number G101SOV REV A,~~ **Pukenui-1 Solar Farm Site Layout Plan (J00795-PK-0-DWG-G003-01PUK-1), Revision B dated 25/10/2023** and attached to this consent with the Council's "Approved Stamp" affixed to it.
2. The activity shall be carried out in general accordance with the assessment and approved plans prepared by Simon Cocker Landscape Architecture, referenced ~~Landscape, Natural Character and Visual Amenity effects report, dated December 2020.~~ **Memorandum dated 1st November 2023,** and attached to this consent with the Council's "Approved Stamp" affixed to them:

i. Landscape Plan –Figure 2b : **The Proposal Landscape Mitigation**

Note: Additional plant species can be planted as long as they achieve the intended purpose of provided additional screening.

- 4 Implementation of the landscape plan prepared by Simon Cocker, dated ~~December 2020~~ **contained within the Memorandum dated 1st November 2023,** and provided with ~~RMALUC 2300376 RMAVAR/A 2300376~~ is to be undertaken within the first two planting seasons (approximately March-September) directly following commencement of any of the

works relating to the solar farm (from detailed design stage on) and shall be maintained by the consent holder from that point onwards to the satisfaction of the Far North District Council or duly delegated officer

- 5 The vegetation and shelters belts as identified within the landscape plan prepared by landscape plan prepared by Simon Cocker, ~~dated December 2020~~ **attached to the Memorandum dated 1st November 2023,** and provided with ~~RMALUC 2300376~~ **RMAVAR/A 2300376** on the site shall not be cut down, damaged or destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of resource consent.

- 7 The consent holder shall submit to Council a finalised Construction Management Plan for approval from Chartered Professional Engineer or the suitably qualified person as defined by Councils Engineering Standard to monitoring officer records prior to commencing construction. The plan shall contain information on, and site management procedures, for the following:

- (i) The timing of building and construction works, including hours of work, key project and site management personnel.

Note: The application provided with ~~RMALUC 2300376~~ **RMAVAR/A 2300376** offered the following hours of work. From 7:30 am to 5:30 pm weekdays, and 7:30 am to 2:00 pm Saturdays if required. No earthworks are proposed on Sundays or public holidays

- (ii) The transportation of construction materials from and to the site and associated controls on vehicles through sign-posted site entrance/exits and the loading and unloading of materials.

- (iii) Control of dust and noise on-site and any necessary avoidance or remedial measures.

- (iv) Prevention of earth and other material being deposited on surrounding roads from vehicles and remedial actions should it occur.

- (v) Publicity measures and safety measures, including signage, to inform adjacent landowners and occupiers, pedestrians and other users of Lamb Road.

- (vi) Erosion and sediment control measures to be in place for the duration of the works.

- 12 The consent holder shall engage with a suitably qualified Chartered Professional Engineer to monitor the construction as per the approved storm water **plans contained within the report titled Civil Flooding and Stormwater Report prepared by Cook / Costello dated 11th August 2023.** As a minimum, the consent holder is to engage with an Engineer to provide CM3 level monitoring as defined by Engineering NZ. A completion report with site observations and accompanying certification by a Chartered Professional Engineer is to be provided to Council's resource consents monitoring officer upon completion.

- 24 The works shall be carried out in general accordance with the application, specifically ~~for the volume of earthworks shall not exceed an~~ earthworks area of ~~34,000m²~~ **16,935m²**, and total cut and fill on site ~~44,000m³~~ **12,037m³**; with maximum cut height of ~~6.5m~~ **1 m** and maximum fill depth of ~~4.7m~~ **1 m**.

Advice Notes

Lapsing of Consent

1. *The granting of this section 127 application does not alter the lapse date of the original consent. The consent holder is recommended to check that the original consent does not lapse before it is given effect to.*

Right of Objection

2. *If you are dissatisfied with the decision or any part of it, you have the right (pursuant to section 357A of the Act) to object to the decision. The objection must be in writing, stating reasons for the objection and must be received by Council within 15 working days of the receipt of this decision.*

Reasons for the Decision

1. By way of an earlier report that is contained within the electronic file of this consent, it was determined that pursuant to sections 95A and 95B of the Act the proposed activity will not have, and is not likely to have, adverse effects on the environment that are more than minor, there are no affected persons and no special circumstances exist. Therefore, under delegated authority, it was determined that the application be processed without notification.
2. The proposed change is within the scope of the original resource consent and therefore can be considered under section 127.
3. In regard to sections 104(1)(a) and 127(3) of the Act the actual and potential effects of the proposed change will be acceptable.
4. In regard to sections 104(1)(b) and 127(3) of the Act the following statutory documents are considered to be relevant to the application:
 - a. Operative Far North District Plan 2009,
 - b. Proposed Far North District Plan 2022

There have been no changes to objectives and policies in the Operative District Plan since the original consent was issued, and the proposed changes being sought are considered to remain consistent with the existing objectives and policies in the Operative District Plan, and the Proposed District Plan.

5. In regard to sections 104(1)(c) and 127 of the Act there are no other matters relevant and reasonably necessary to determine the application.
6. Based on the assessment above the proposed change will be consistent with Part 2 of the Act.
7. Overall, for the reasons above it is appropriate for the changes of the conditions of consent to be granted.

Approval

This resource consent has been prepared by Whitney Peat – Senior Resource Planner. I have reviewed this and the associated information (including the application and electronic file material) and for the reasons and subject to the conditions above, and under delegated authority, grant this resource consent.



Tianxu (Brian) Huang

Date: 10 January 2024

Team Leader – Resource Consents

Schedule 1

Complete set of Consent Conditions for RMA LUC 2300376 as Amended by RMAVAR/A 2300376

Plans

1. The activity shall be carried out in accordance with the approved plans prepared by Pukenui-1 Solar Farm Site Layout Plan (J00795-PK-0-DWG-G003-01PUK-1), Revision B dated 25/10/2023 and attached to this consent with the Council's "Approved Stamp" affixed to it.
2. The activity shall be carried out in general accordance with the assessment and approved plans prepared by Simon Cocker Landscape Architecture, referenced Landscape,. Memorandum dated 1st November 2023, and attached to this consent with the Council's "Approved Stamp" affixed to them:
 - i. Landscape Plan –Figure 2b : The Proposal Landscape Mitigation
Note: Additional plant species can be planted as long as they achieve the intended purpose of provided additional screening.
3. That a copy of this consent complete with a set of approved plans be held on site for the duration of the construction works.

Landscaping

4. Implementation of the landscape plan prepared by Simon Cocker contained within the Memorandum dated 1st November 2023, and provided with RMAVAR/A 2300376 is to be undertaken within the first two planting seasons (approximately March-September) directly following commencement of any of the works relating to the solar farm (from detailed design stage on) and shall be maintained by the consent holder from that point onwards to the satisfaction of the Far North District Council or duly delegated officer
5. The vegetation and shelters belts as identified within the landscape plan prepared by landscape plan prepared by Simon Cocker, attached to the Memorandum dated 1st November 2023, and provided with RMAVAR/A 2300376 on the site shall not be cut down, damaged or destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of resource consent.
6. The consent holder shall ensure that the ground underneath the solar panels is covered in established vegetation at all times to prevent sediments entering stormwater. Should the vegetation under the solar panels not thrive in the shade of the solar panels, then the vegetation shall be immediately replaced with shade tolerant species.

Plans, As-Builts & Compliance

7. The consent holder shall submit to Council a finalised Construction Management Plan for approval from Chartered Professional Engineer or the suitably qualified person as defined by Councils Engineering Standard to monitoring officer records prior to

commencing construction. The plan shall contain information on, and site management procedures, for the following:

- (i) The timing of building and construction works, including hours of work, key project and site management personnel.

Note: The application provided with RMAVAR/A – 2300376 offered the following hours of work. From 7:30 am to 5:30 pm weekdays, and 7:30 am to 2:00 pm Saturdays if required. No earthworks are proposed on Sundays or public holidays

- (ii) The transportation of construction materials from and to the site and associated controls on vehicles through sign-posted site entrance/exits and the loading and unloading of materials.
 - (iii) Control of dust and noise on-site and any necessary avoidance or remedial measures.
 - (iv) Prevention of earth and other material being deposited on surrounding roads from vehicles and remedial actions should it occur.
 - (v) Publicity measures and safety measures, including signage, to inform adjacent landowners and occupiers, pedestrians and other users of Lamb Road.
 - (vi) Erosion and sediment control measures to be in place for the duration of the works.
8. The consent holder shall submit plans & details of Stormwater Mitigation works for approval from a Chartered Professional Engineer, prior to commencing construction.

In particular the plans and details shall show

- The proposed stormwater control works to be in place prior to and during construction.
- Stormwater management and mitigation system
- Onsite Stormwater mitigation system maintenance plan
- Details of the Drawings for protection against erosion, stormwater concentration and stormwater quality, which shall be designed in general accordance with the report.

Vehicle Crossings

9. The consent holder shall submit plans & details of the vehicle crossing designs by a Chartered Professional Engineer for approval by Council's Engineer or designate prior to commencing construction.
- In particular the plans and details shall show:
 - A formed double width entrance to the boundary including the culvert and the entrance plus 6m splays for a minimum distance from the existing edge.
 - All the designs should be in general accordance with the Council Engineering standards and NZS4404:2004.

Following approval of the plans and selection of the contractor, provide to Council's Resource Consent Monitoring Officer or designate;

- i. Details of the successful contractor

- ii. Details of the planned date and duration of the contract
 - iii. Details of the supervising engineer
10. Provide to Council As-built plans of vehicle crossing drawing complying with schedule 1D of NZS 4404:2004 and section 1.5.2.5 of Councils Engineering standards and guidelines.
11. Upon completion of the works specified above, provide certification of the work from a Chartered Professional Engineer (CPEng) that all work has been completed in accordance with the approved plans.

Stormwater

12. The consent holder shall engage with a suitably qualified Chartered Professional Engineer to monitor the construction as per the approved storm water plans contained within the report titled Civil Flooding and Stormwater Report prepared by Cook / Costello dated 11th August 2023. As a minimum, the consent holder is to engage with an Engineer to provide CM3 level monitoring as defined by Engineering NZ. A completion report with site observations and accompanying certification by a Chartered Professional Engineer is to be provided to Council's resource consents monitoring officer upon completion.

Review condition

13. In accordance with section 128 of the Act, the Far North District Council may serve notice on the consent holder of its intention to review conditions 8 and 12 of this consent to review the effectiveness of the controls on the stormwater discharge. The review may be initiated within 12 months of the consent being given effect to and annually thereafter. The review may be initiated if the completed stormwater management are found to be insufficient for managing adverse effects caused by stormwater discharge to adjoining/adjacent properties.
14. Should there be any adverse effect on any adjacent properties, the consent holder shall ensure that storm water attenuation and mitigation is designed, monitored and constructed by a Chartered Professional Engineer. The consent holder shall arrange any inspections required.

Note: The cost of this shall be covered by the consent holder

Access

15. Prior to any construction for solar farm, the consent holder shall provide and maintain on an ongoing basis formed, surfaced, and drained vehicle crossing entrances, in general accordance with the drawings approved as per "condition 7".
16. Provide evidence that a CTMP has been approved by Council's Corridor Access Engineer, a CAR and a WAP have been obtained. Applications for TMP and CAR are made via <https://www.fndc.govt.nz/Our-Services/Transport/Roads/Road-closures-and-restrictions> .
17. The consent holder shall ensure that all construction works shall be undertaken in accordance with the approved construction management plan.

18. The consent holder shall be responsible for ongoing repairs to the road carriageway and berms for any damage caused by construction traffic.
19. Any debris deposited on the public or private road as a result of the development shall be removed by or at the expense of the applicant.
20. The consent holder is responsible for any repairs and reinstatement required of the Lamb Road carriageway and roadside drain damaged as a result of the development. Such works, where required, will be completed to the satisfaction of the Northland Transport Alliance.

Earthworks

21. The consent holder shall Prior to commencing work on site provide a design for all earthworks on site an Erosion & Sediment Control Plan (in accordance with the requirements detailed in Auckland Council document GD05) for the approval of Council, showing extent of proposed earthworks, or extraction and proposed remediation or replacement of materials post earthworks. The ESCP is also to address stormwater runoff from the site and the prevention of sedimentation exiting the site or entering the wetland.
22. Prior to the construction of any solar panel infrastructure, the consent holder shall implement the Erosion and Sediment Control Plan approved by Condition 8 and it shall be maintained for the duration of the construction period and until the site is fully revegetated.
23. The consent holder shall ensure that the ground underneath the solar panels is always covered in established vegetation to prevent sediments entering stormwater. Should the vegetation under the solar panels not thrive in the shade of the solar panels, then the vegetation shall be immediately replaced with shade tolerant species.
24. The works shall be carried out in general accordance with the application, specifically earthworks shall not exceed an earthworks area of 16,935m², and total cut and fill on site 12,037m³; with maximum cut height of 1m and maximum fill depth of 1m.
25. The consent holder shall for the duration of the earthwork activity ensure the following measures are in place to control dust nuisance. The consent holder shall provide evidence via email rcmonitoring@fndc.govt.nz that those measures are in place during construction.
 - Earthworks areas will be watered and covered as required to limit the creation of dust;
 - The use of stockpiles and handling of excavated materials will be limited;
 - Proposed works to be carried out in a staged manner to minimise the area of cut and fill exposed.
26. The consent holder shall prior to the commencement of earthworks construction, provide a stabilized construction entrance to minimize the tracking of spoil and debris onto public road surfaces. The stabilized construction entrance shall be constructed in accordance with GD05 and be maintained throughout the duration of the earthwork

operations. A wheel wash maybe required if excessive debris or spoil is tracked onto roads.

27. The consent holder shall ensure that stormwater diversion and silt control measures are in place prior to the commencement of bulk earthworks.
28. The consent holder is responsible for arranging for buried services to be located and marked prior to commencing earthworks and is also responsible for the repair and reinstatement of any underground services damaged as a result of the earthworks.
29. The consent holder shall ensure that stockpiles of fill are located away from overland or drainage paths, and all temporary stockpiles shall be covered to suppress dust or reduce erosion.
30. The consent holder shall install a new clean water diversion drain around the top of the excavated area to reduce stormwater flow across the site for the duration of the earthworks construction period.
31. All earthworks shall be supervised by a suitably qualified Chartered Professional Engineer.
32. The consent holder shall ensure during and on completion of bulk earthworks construction that all exposed surfaces are covered with aggregate or Mulch to suppress dust or erosion, and within 6 months of completing the earthworks, re-establish vegetation cover on all exposed cut surfaces.
33. Management of activities on the subject site , with respect to the natural wetland area is to be undertaken so that the natural range of water levels and the natural ecosystem of plants and animals they support do not change as a result of such activities, except by way of a consent from the Council.

Noise

34. The proposed activity is to comply with the permitted noise levels as set out in the District Plan. Any issue of non-compliance with the prescribed levels will necessitate monitoring by council, the costs of which may be required to be recovered from the applicant.
35. That all construction works on-site are to be carried out in accordance with the noise limits recommended for residential area in NZS6803P 1984. "Measurement and assessment of noise from construction, maintenance and demolition work".

Advice Notes

1. Archaeological sites are protected pursuant to the Heritage New Zealand Pouhere Taonga Act 2014. It is an offence, pursuant to the Act, to modify, damage or destroy an archaeological site without an archaeological authority issued pursuant to that Act. Should any site be inadvertently uncovered, the procedure is that work should cease, with the Trust and local iwi consulted immediately. The New Zealand Police should also be consulted if the discovery includes koiwi (human remains). A copy of Heritage New Zealand's Archaeological Discovery Protocol (ADP) is attached for your information. This should be made available to all person(s) working on site.

2. The site is accessed off an unsealed road. Unsealed roads have been shown to create a dust nuisance from vehicle usage. It is advised that any dwelling is either located as far as possible or at least 80m from the road, and/or boundary planting within the site is utilised to assist with this nuisance. Alternatively the applicant may consider sealing their road frontage to remove the issue.
3. All storage of materials and loading and unloading of equipment and plant associated with the development shall take place within the site boundaries unless otherwise approved by Council.

**DECISION ON SECTION 127 APPLICATION
UNDER THE RESOURCE MANAGEMENT ACT 1991**

Decision

Pursuant to section 34(1) and sections 104, 104B, 127 and Part 2 of the Resource Management Act 1991 (the Act), the Far North District Council **grants** resource consent to change conditions 1, 2, 4, 5 and 11 of 2220800 RMALUC.

Applicant:	Far North Solar Farm Limited
Council Reference:	2220800-RMAVAR/A
Property Address:	121 Lamb Road, Pukenui 0484
Legal Description:	Pt Sec 49 Blk X Houhora East SD, Lot 1 DP 587441
Description of Application:	Variations to conditions of RC2220800-RMALUC pursuant to s127 of the RMA.

The following changes to the conditions of resource consent RMALUC 2220800 are made:

(~~Strikethrough~~ indicates deletions and underline indicates additions and changes)

For clarity a complete set of conditions, as amended, are provided in Schedule 1 to this decision.

The proposed changes to the conditions are outlined below, with additions underlined and deletions in strikethrough.

1. The activity shall be carried out in accordance with the approved plans prepared by ~~Aquila Capital referenced Module General Arrangement Layout, dated 12-07-2022, drawing number ACRA-NZ-GS-PUK-001, Rev K~~ **Pukenui-2 Solar Farm, Revision B dated 25/10/2023 drawing number J00795-PK-0-DWG-G003-01PUK-2**, and attached to this consent with the Council's "Approved Stamp" affixed to it.
2. The activity shall be carried out in general accordance with the assessment and approved plans prepared by Simon Cocker Landscape Architecture, ~~referenced Landscape, Natural Character and Visual Amenity effects report, dated 16 May 2022 Memorandum dated 1st November 2023~~, and attached to this consent with the Council's "Approved Stamp" affixed to them:
 - Landscape Plan –Figure 2b : **The Proposal Landscape Mitigation**

Note: Additional plant species can be planted as long as they achieve the intended purpose of provided additional screening.

- 4 ~~Implementation of the landscape plan prepared by Simon Cocker, dated 16 May 2022~~ **1st November 2023**, and provided with ~~RMALUC 2220800~~ **RMAVAR/A 2220800** is to be undertaken within the first two planting seasons (approximately March-September) directly

following commencement of any of the works relating to the solar farm (from detailed design stage on) and shall be maintained by the consent holder from that point onwards to the satisfaction of the Far North District Council or duly delegated officer.

- 5 The vegetation and shelters belts as identified within the landscape plan prepared by landscape plan prepared by Simon Cocker, dated ~~16 May 2022~~ 1st November 2023, and provided with ~~RMALUC 2220800~~ RMAVAR/A 2220800 on the site shall not be cut down, damaged or destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of resource consent.

- 11 Construct the various Drainage channels as identified within the report titled: Revised Stormwater Assessment of Proposed Solar Farm Development, Lamb Road Solar Farm by Williamson Water & Land Advisory dated: 08th Sep 2022 Ref WWLA0213 Civil Flooding and Stormwater Report – Lamb Road, prepared by Cook/Costello dated 11/08/2023.

Advice Notes

Lapsing of Consent

1. *The granting of this section 127 application does not alter the lapse date of the original consent. The consent holder is recommended to check that the original consent does not lapse before it is given effect to.*

Right of Objection

2. *If you are dissatisfied with the decision or any part of it, you have the right (pursuant to section 357A of the Act) to object to the decision. The objection must be in writing, stating reasons for the objection and must be received by Council within 15 working days of the receipt of this decision.*

Reasons for the Decision

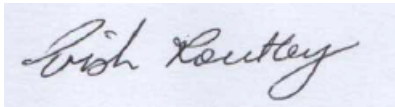
1. By way of an earlier report that is contained within the electronic file of this consent, it was determined that pursuant to sections 95A and 95B of the Act the proposed activity will not have, and is not likely to have, adverse effects on the environment that are more than minor, there are no affected persons and no special circumstances exist. Therefore, under delegated authority, it was determined that the application be processed without notification.
2. The proposed change is within the scope of the original resource consent and therefore can be considered under section 127.
3. In regard to sections 104(1)(a) and 127(3) of the Act the actual and potential effects of the proposed change will be acceptable.
4. In regard to sections 104(1)(b) and 127(3) of the Act the following statutory documents are considered to be relevant to the application:
 - a. Operative Far North District Plan 2009,
 - b. Proposed Far North District Plan 2022

There have been no changes to objectives and policies in the Operative District Plan since the original consent was issued, and the proposed changes being sought are considered to remain consistent with the existing objectives and policies in the Operative District Plan, and the Proposed District Plan.

5. In regard to sections 104(1)(c) and 127 of the Act there are no other matters relevant and reasonably necessary to determine the application.
6. Based on the assessment above the proposed change will be consistent with Part 2 of the Act.
7. Overall, for the reasons above it is appropriate for the changes of the conditions of consent to be granted.

Approval

This resource consent has been prepared by Whitney Peat – Senior Resource Planner. I have reviewed this and the associated information (including the application and electronic file material) and for the reasons and subject to the conditions above, and under delegated authority, grant this resource consent.



Patricia (Trish) Routley

Date: 9 January 2024

Manager Resource Consents

Schedule 1

Complete set of Consent Conditions for RMA LUC 2220800 as Amended by RMAVAR/A 2220800

Pursuant to Section 108 of the Act, this consent is issued subject to the following conditions:

Plans

1. The activity shall be carried out in accordance with the approved plans prepared by Pukenui-2 Solar Farm, Revision B dated 25/10/2023 drawing number J00795-PK-0-DWG-G003-01PUK-2, and attached to this consent with the Council's "Approved Stamp" affixed to it.
2. The activity shall be carried out in general accordance with the assessment and approved plans prepared by Simon Cocker Landscape Architecture, Memorandum dated 1st November 2023, and attached to this consent with the Council's "Approved Stamp" affixed to them:

- Landscape Plan –Figure 2b : The Proposal Landscape Mitigation

Note: Additional plant species can be planted as long as they achieve the intended purpose of provided additional screening.

3. That a copy of this consent complete with a set of approved plans be held on site for the duration of the construction works.

Landscaping

4. Implementation of the landscape plan prepared by Simon Cocker, dated 1st November 2023, and provided with RMAVAR/A 2220800 is to be undertaken within the first two planting seasons (approximately March-September) directly following commencement of any of the works relating to the solar farm (from detailed design stage on) and shall be maintained by the consent holder from that point onwards to the satisfaction of the Far North District Council or duly delegated officer.
5. The vegetation and shelters belts as identified within the landscape plan prepared by landscape plan prepared by Simon Cocker, dated 1st November 2023, and provided with RMAVAR/A 2220800 on the site shall not be cut down, damaged or destroyed (except for the purposes of replacing any vegetation that has died) without the prior written consent of the Council. Such consent may be given in the form of resource consent.
6. The consent holder shall ensure that the ground underneath the solar panels is covered in established vegetation at all times to prevent sediments entering stormwater. Should the vegetation under the solar panels not thrive in the shade of the solar panels, then the vegetation shall be immediately replaced with shade tolerant species.

Access

7. Upgrade the existing entrance to the lot to provide an entrance which complies with the Council's Engineering Standard FNDC/S/6 and 6D, and section 3.3.7.1 of the Engineering Standard and NZS4404:2004.

Advice: Provide evidence that a Traffic Management Plan (TMP) has been approved by Council's Corridor Access Engineer and a Corridor Access Request (CAR) obtained prior to vehicle crossings being constructed or upgraded. Application for TMP and CAR are made via <https://www.fndc.govt.nz/Our-Services/Transport/Roads/Road-closures-and-restrictions>

8. The consent holder shall be responsible for ongoing repairs to the road carriageway and berms for any damage caused by construction traffic.
9. Any debris deposited on the public or private road as a result of the development shall be removed by or at the expense of the applicant.
10. The consent holder is responsible for any repairs and reinstatement required of the Lamb Road carriageway and roadside drain damaged as a result of the development. Such works, where required, will be completed to the satisfaction of the Northland Transport Alliance

Stormwater

11. Construct the various Drainage channels as identified within the report titled: Civil Flooding and Stormwater Report – Lamb Road, prepared by Cook/Costello dated 11/08/2023
12. In accordance with section 128 of the Act, the Far North District Council may serve notice on the consent holder of its intention to review conditions 8 and 12 of this consent to review the effectiveness of the controls on the stormwater discharge. The review may be initiated within 12 months of the consent being given effect to and annually thereafter. The review may be initiated if the completed stormwater management are found to be insufficient for managing adverse effects caused by stormwater discharge to adjoining/adjacent properties.
13. Should there be any adverse effect on any adjacent properties, the consent holder shall ensure that storm water attenuation and mitigation is designed, monitored and constructed by a Chartered Professional Engineer. The consent holder shall arrange any inspections required.

Note: The cost of this shall be covered by the consent holder

Earthworks

14. All sediment control measures shall be selected, constructed and maintained in accordance with the principles and practices contained within the Auckland Council document entitled "2016/005: Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region" (GD05).

Advice: A draft CNMP has been submitted and approved as part of the consent, a final developed version shall be sent to Council's assigned monitoring officer 10 days before commencing construction.

15. The installation of all erosion and sediment controls shall be supervised by an appropriately qualified and experienced person. The Consent Holder shall provide to the council's assigned monitoring officer certification from the appropriately qualified and experienced person who supervised the installation of the erosion and sediment controls that they have been installed in accordance with the requirements of GD05.
16. The consent holder shall ensure that the ground underneath the solar panels is always covered in established vegetation to prevent sediments entering stormwater. Should the vegetation under the solar panels not thrive in the shade of the solar panels, then the vegetation shall be immediately replaced with shade tolerant species.

Noise

17. The proposed activity is to comply with the permitted noise levels as set out in the District Plan. Any issue of non-compliance with the prescribed levels will necessitate monitoring by council, the costs of which may be required to be recovered from the applicant.
18. That all construction works on-site are to be carried out in accordance with the noise limits recommended for residential area in NZS6803P 1984. "Measurement and assessment of noise from construction, maintenance and demolition work".

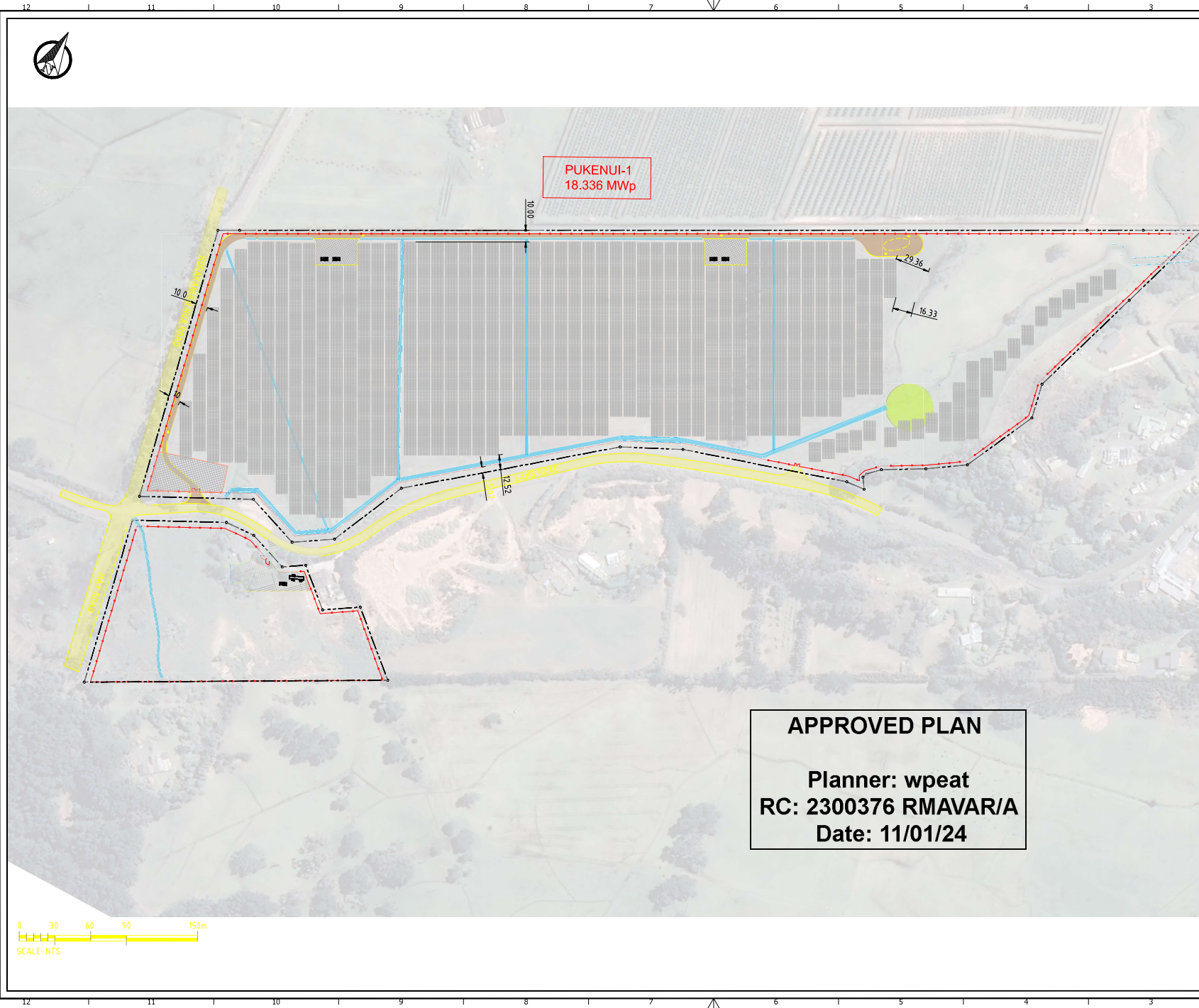
Review Clause:

19. In accordance with section 128 of the Resource Management Act 1991, the Far North District Council may serve notice on the consent holder of its intention to review those ongoing conditions (particularly Condition 19) of this consent that are subject to consent notices, annually during the month of July. The review may be initiated for any one or more of the following purposes:
 - (i) To deal with any adverse effects on the environment that may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or to deal with any such effects following assessment of the result of the Far North District Council of duly delegated Council Officer monitoring the state of the environment in the area.
 - (ii) To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment.
 - (iii) To deal with any inadequacies or inconsistencies the Far North District Council or duly delegated Council Officer considers there to be, in the conditions of the consent, following the establishment of the activity the subject of this consent.
 - (iv) To deal with any material inaccuracies that may in future be found in the information made available with the application (notice may be served at any time for this reason).
 - (v) The consent holder shall meet all reasonable costs of any such review.

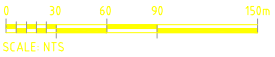
The actual and reasonable costs of any review undertaken may be charged to the consent holder, in accordance with section 36 of the Act.

Advice Notes

1. Archaeological sites are protected pursuant to the Heritage New Zealand Pouhere Taonga Act 2014. It is an offence, pursuant to the Act, to modify, damage or destroy an archaeological site without an archaeological authority issued pursuant to that Act. Should any site be inadvertently uncovered, the procedure is that work should cease, with the Trust and local iwi consulted immediately. The New Zealand Police should also be consulted if the discovery includes koiwi (human remains). A copy of Heritage New Zealand's Archaeological Discovery Protocol (ADP) is attached for your information. This should be made available to all person(s) working on site.
2. All storage of materials and loading and unloading of equipment and plant associated with the development shall take place within the site boundaries unless otherwise approved by Council.



PUKENUI-1
18.336 MWp



APPROVED PLAN

Planner: wpeat
RC: 2300376 RMAVAR/A
Date: 11/01/24

**Project Pukenui
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Partnership**



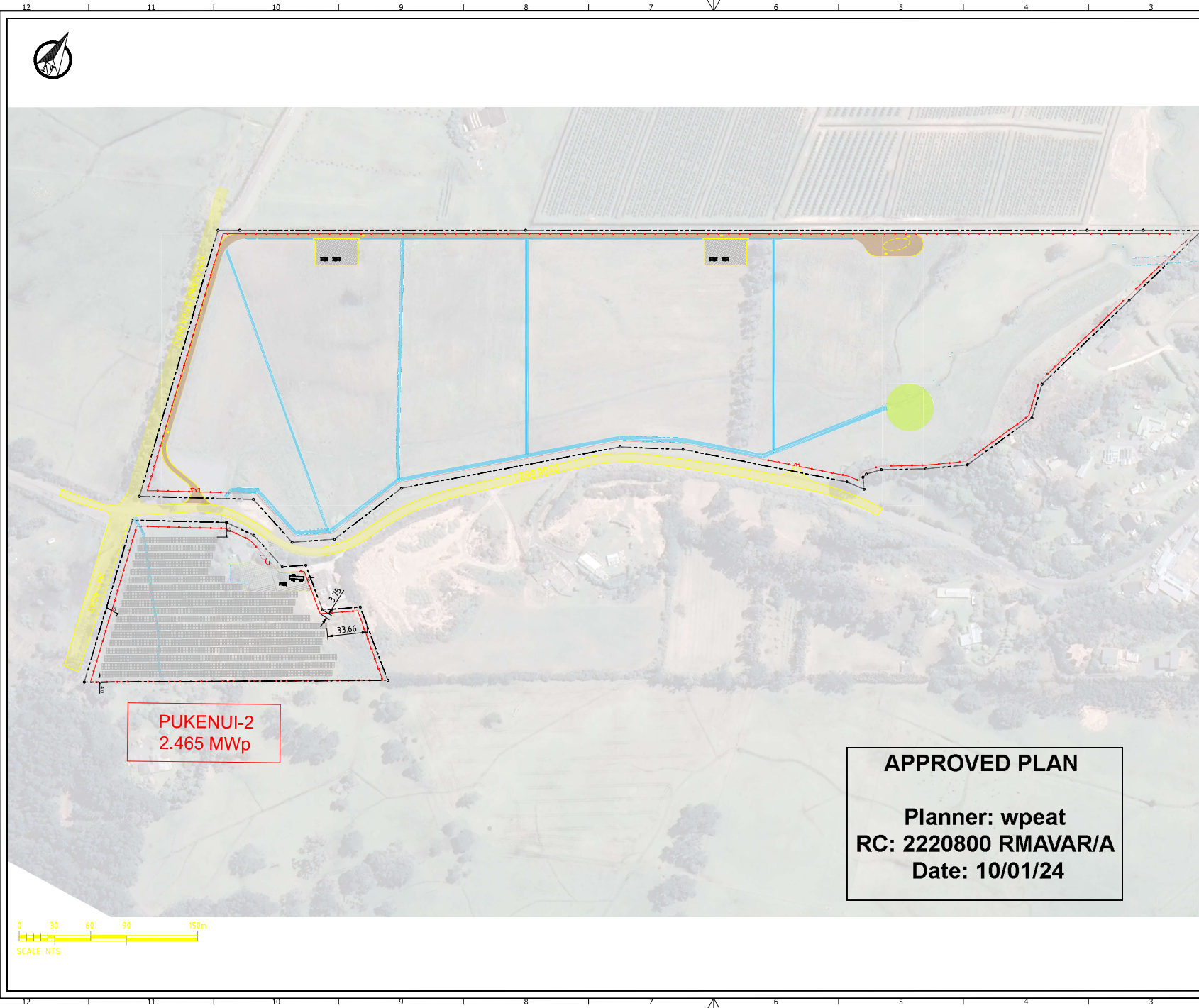
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- LEGEND:**
- SECURITY FENCE
 - PROPERTY BOUNDARY
 - ACCESS TRACK
 - LOT BOUNDARY CORNERS
 - MIDDEN - CULTURALLY SENSITIVE AREA
 - SOLAR PANELS
 - EXISTING LAYDOWN AREA
 - HARD STAND
 - WATER CHANNELS

REV	REVISION DESCRIPTION	DRWN	CHKD	DATE
B	PRELIMINARY 80%	JB	AM	25/06/23
A	PRELIMINARY	JB	AM	19/06/2023

PROJECT TITLE: PUKENUI-1 SOLAR FARM	
PROJECT LOCATION: 124 Lamb Road - Pukenui Northland 0484	
DRAWING TITLE: SITE LAYOUT PLAN	
PROJECT CODE: J00795	
DWG NUMBER: J00795-PK-0-DWG-G003-01 Puk-1	
STATUS: PRELIMINARY	SCALE: AS SHOWN
REVISION: B	SHEET SIZE: A1



Project Pukenui Limited Partnership



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- LEGEND:**
- SECURITY FENCE
 - PROPERTY BOUNDARY
 - ACCESS TRACK
 - LOT BOUNDARY CORNERS
 - MIDDEN - CULTURALLY SENSITIVE AREA
 - SOLAR PANELS
 - EXISTING LAYDOWN AREA
 - HARD STAND
 - WATER CHANNELS

REV	REVISION DESCRIPTION	DRWN	CHKD	DATE
B	PRELIMINARY 80%	JB	AM	25/06/2023
A	PRELIMINARY	JB	AM	19/06/2023

PROJECT TITLE:
PUKENUI-2 SOLAR FARM

PROJECT LOCATION:
121 Lamb Road - Pukenui Northland 0484

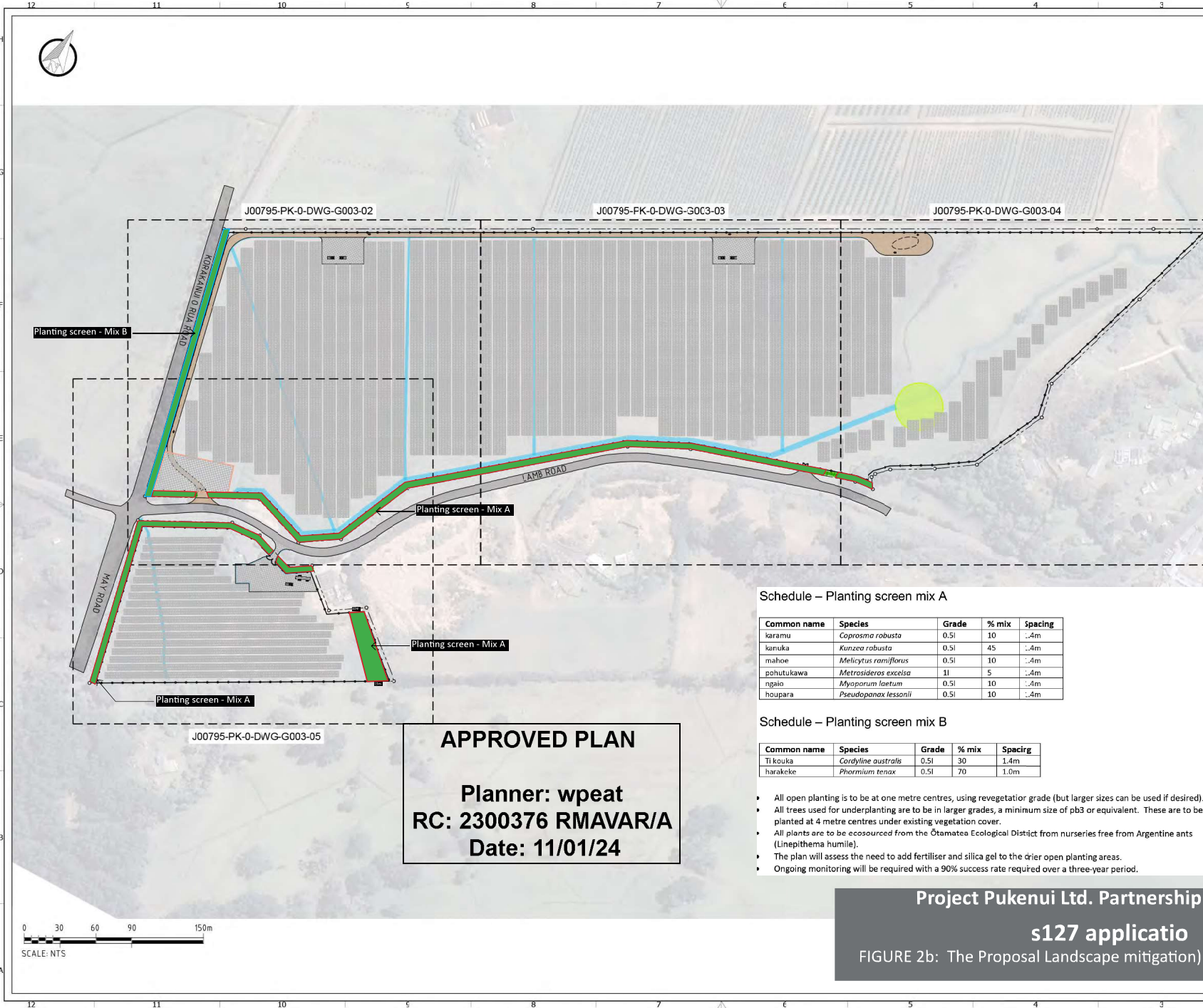
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SITE LAYOUT PLAN

PROJECT CODE: J00795
DWG NUMBER: J00795-PK-0-DWG-G003-01 Puk-2

STATUS: PRELIMINARY **SCALE:** AS SHOWN

REVISION: B **SHEET SIZE:** A1





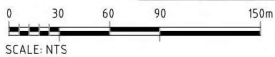
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J00795-PK-0-DWG-G003-03

J00795-PK-0-DWG-G003-04

J00795-PK-0-DWG-G003-05

APPROVED PLAN
Planner: wpeat
RC: 2300376 RMAVAR/A
Date: 11/01/24



Schedule – Planting screen mix A

Common name	Species	Grade	% mix	Spacing
karamu	<i>Coprosma robusta</i>	0.5l	10	1.4m
kanuka	<i>Kunzea robusta</i>	0.5l	45	1.4m
maho	<i>Meliccytus ramiflorus</i>	0.5l	10	1.4m
pohutukawa	<i>Metrosideros excelsa</i>	1l	5	1.4m
ngao	<i>Myoporum laetum</i>	0.5l	10	1.4m
houpara	<i>Pseudopanax lessonii</i>	0.5l	10	1.4m

Schedule – Planting screen mix B

Common name	Species	Grade	% mix	Spacing
Ti kouka	<i>Cordyline australis</i>	0.5l	30	1.4m
harakeke	<i>Phormium tenax</i>	0.5l	70	1.0m

- All open planting is to be at one metre centres, using revegetation grade (but larger sizes can be used if desired).
- All trees used for underplanting are to be in larger grades, a minimum size of pb3 or equivalent. These are to be planted at 4 metre centres under existing vegetation cover.
- All plants are to be *ecosourced* from the Ōtāatea Ecological District from nurseries free from Argentine ants (*Linepithema humile*).
- The plan will assess the need to add fertiliser and silica gel to the drier open planting areas.
- Ongoing monitoring will be required with a 90% success rate required over a three-year period.

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FIGURE 2b: The Proposal Landscape mitigation)

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LEGEND

- SECURITY FENCE
- PROPERTY BOUNDARY
- ACCESS TRACK
- LOT BOUNDARY CORNERS
- SCREENING VEGETATION
- MIDDEN - CULTURALLY SENSITIVE AREA
- SOLAR PANELS
- EXISTING LAYDOWN AREA
- HARD STAND
- WATER CHANNELS

REV	REVISION DESCRIPTION	DRWN	CHKD	DATE
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A	PRELIMINARY	JB	JM	19/08/2023

PROJECT TITLE:
 PUKENUI SOLAR FARM 1 AND 2

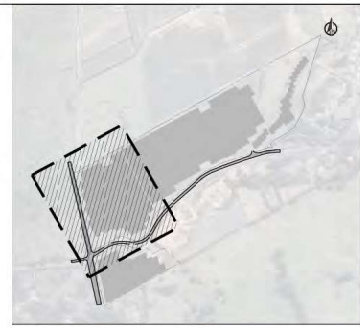
PROJECT LOCATION:
 124 & 121 Lamb Road - Pukenui Northland 0481

DRAWING TITLE:
 SITE LAYOUT PLAN

PROJECT CODE: J00795
DWG NUMBER: J00795-PK-0-DWG-G003-01

STATUS: PRELIMINARY
SCALE: AS SHOWN

REVISION: B
SHEET SIZE: A1



MATCH LINE - CONTINUED ON J00795-PK-0-DWG-G003-03

APPROVED PLAN

Planner: wpeat
RC: 2300376 RMAVAR/A
Date: 11/01/24

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FIGURE 2c: The Proposal

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LEGEND

- SECURITY FENCE
- PROPERTY BOUNDARY
- ACCESS TRACK
- LOT BOUNDARY CORNERS
- SCREENING VEGETATION
- MIDDEN - CULTURALLY SENSITIVE AREA
- SOLAR PANELS
- EXISTING LAYDOWN AREA
- HARD STAND
- WATER CHANNELS

REV	REVISION DESCRIPTION	DRWN	CHKD	DATE
B	PRELIMINARY 50%	JB	JM	29/10/2023
A	PRELIMINARY	JB	JM	19/08/2023

PROJECT TITLE:
 PUKENUI SOLAR FARM 1 AND 2

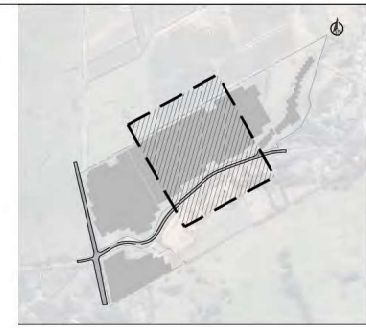
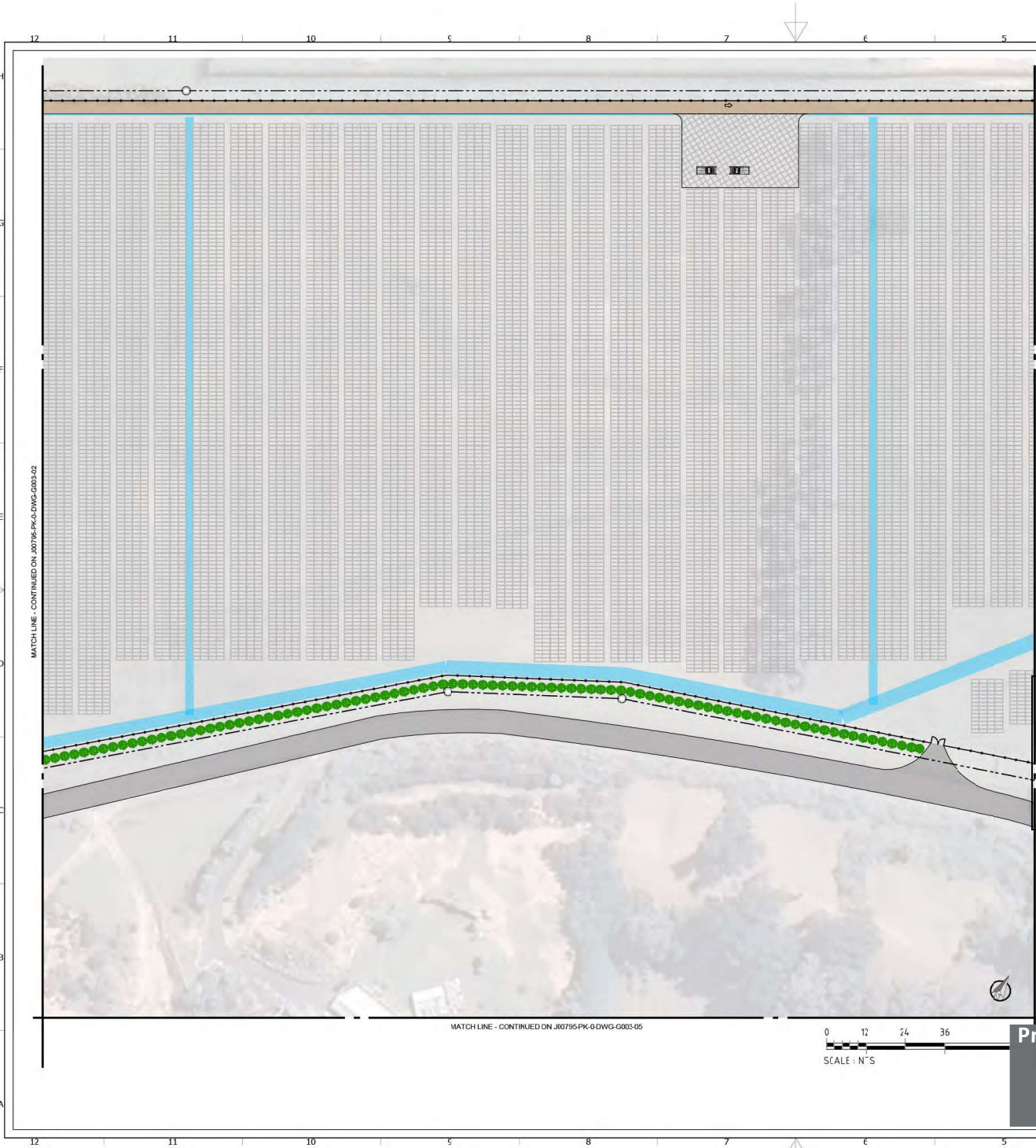
PROJECT LOCATION:
 124 & 121 Lamb Road - Pukenui Northland 0481

DRAWING TITLE:
 SITE LAYOUT BLOW-UP PLAN (1/4)

PROJECT CODE: J00795
DWG NUMBER: J00795-PK-0-DWG-G003-02

STATUS: PRELIMINARY
SCALE: AS SHOWN

REVISION: B
SHEET SIZE: A1



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LEGEND

- SECURITY FENCE
- PROPERTY BOUNDARY
- ACCESS TRACK
- LOT BOUNDARY CORNERS
- SCREENING VEGETATION
- MIDDEN - CULTURALLY SENSITIVE AREA
- SOLAR PANELS
- EXISTING LAYDOWN AREA
- HARD STAND
- WATER CHANNELS

APPROVED PLAN
Planner: wpeat
RC: 2300376 RMAVAR/A
Date: 11/01/24

REV	REVISION DESCRIPTION	DRAWN	CHKD	DATE
B	PRELIMINARY 90%	JB	JM	20/10/2023
A	PRELIMINARY	JB	JM	19/08/2023

PROJECT TITLE:
PUKENUI SOLAR FARM 1 AND 2

PROJECT LOCATION:
124 & 121 Lamb Road - Pukenui Northland 0481

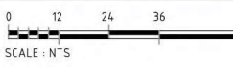
DRAWING TITLE:
SITE LAYOUT BLOW-UP PLAN (2/4)

PROJECT CODE: J00795
DWG NUMBER: J00795-PK-0-DWG-G003-03

STATUS: PRELIMINARY **SCALE:** AS SHOWN

REVISION: B **SHEET SIZE:** A1

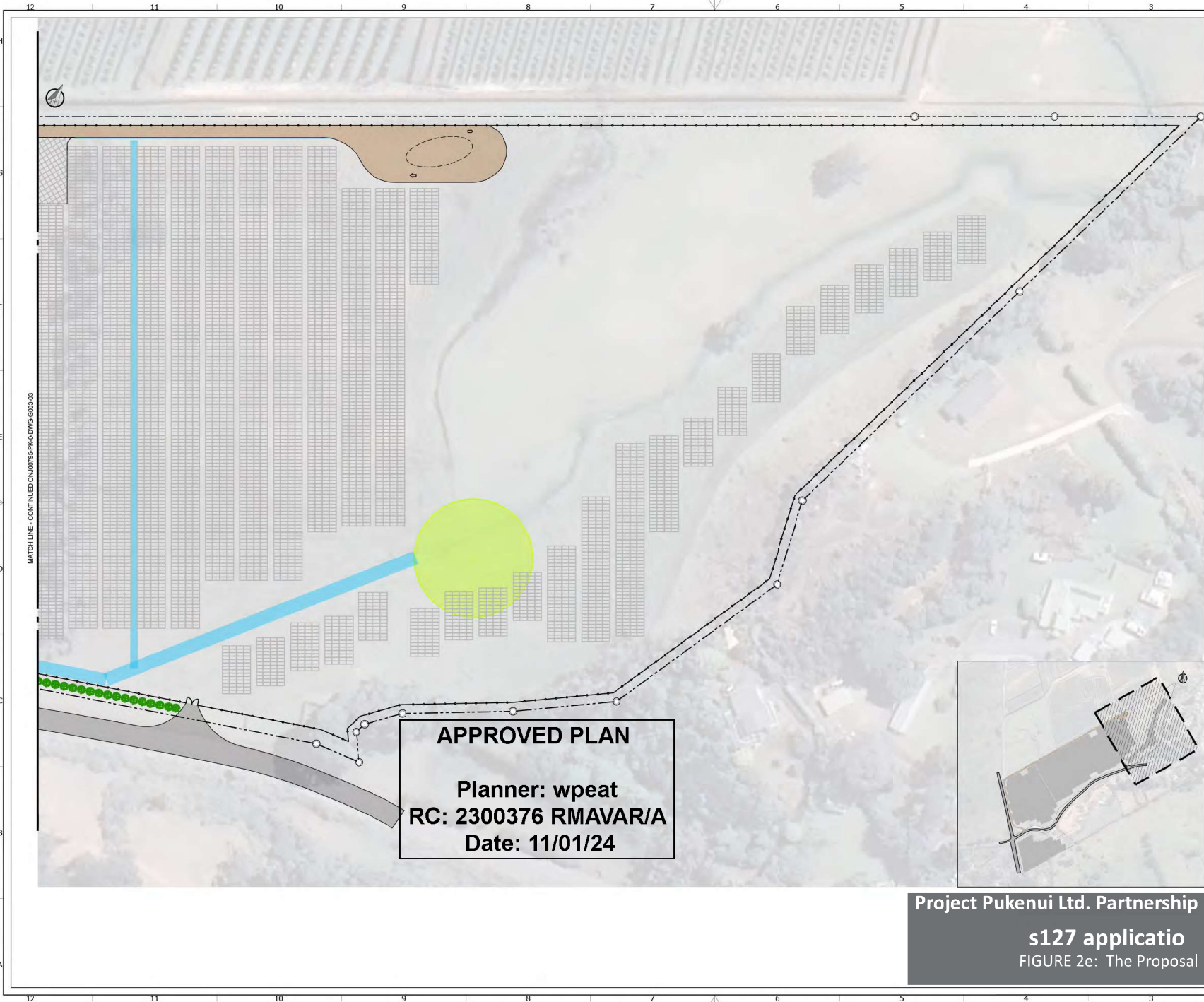
Project Pukenui Ltd. Partnership
s127 applicatio
FIGURE 2d: The Proposal



MATCH LINE - CONTINUED ON J00795-PK-0-DWG-G003-05

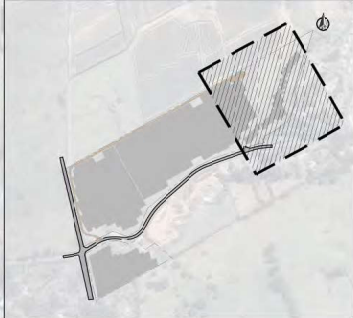
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MATCH LINE - CONTINUED ON J00795-PK-0-DWG-G003-02



MATCH LINE - CONTINUED ON J00795-PK-0-DWG-G003-03

APPROVED PLAN
 Planner: wpeat
 RC: 2300376 RMAVAR/A
 Date: 11/01/24



Project Pukenui Ltd. Partnership
s127 applicatio
 FIGURE 2e: The Proposal

Project Pukenui Limited Partnership



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- LEGEND:**
- SECURITY FENCE
 - PROPERTY BOUNDARY
 - ACCESS TRACK
 - LOT BOUNDARY CORNERS
 - SCREENING VEGETATION
 - MIDDEN - CULTURALLY SENSITIVE AREA
 - SOLAR PANELS
 - EXISTING LAYDOWN AREA
 - HARD STAND
 - WATER CHANNELS

REV	REVISION DESCRIPTION	DRWN	CHKD	DATE
B	PRELIMINARY 10%	JB	AA	25/10/2023
A	PRELIMINARY	JB	AA	19/06/2023

PROJECT TITLE:
 PUKENUI SOLAR FARM 1 AND 2

PROJECT LOCATION:
 124 & 121 Lamb Road - Pukenui Northland 0484

DRAWING TITLE:
 SITE LAYOUT BLOW-UP PLAN (3/4)

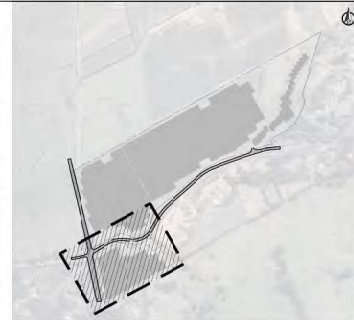
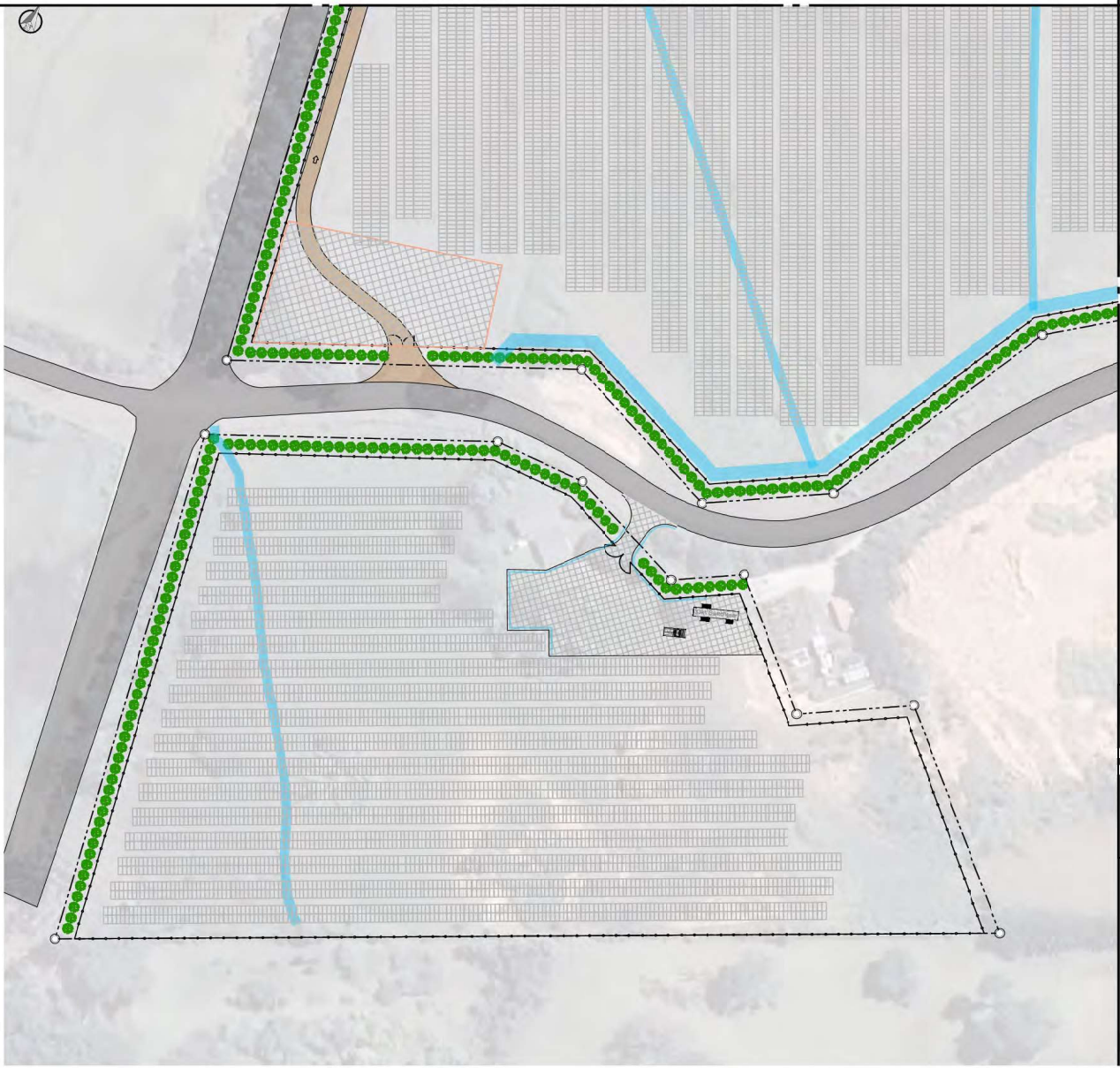
PROJECT CCDE: J00795
DWG NUMBER: J00795-FK-0-DWG-G003-04

STATUS: PRELIMINARY **SCALE:** AS SHOWN

REVISION: B **SHEET SIZE:** A1

MATCH LINE - CONTINUED CN J00795-PK-0-DWG-G003-02

MATCH LINE - CONTINUED ON J00795-PK-0-DWG-G003-03



Project Pukenui Limited Partnership



Enhar Pty Ltd.
336a Queens Parade, Fitzroy, Victoria 3065
www.enhar.com.au

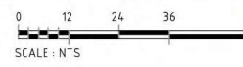
NOTES
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LEGEND

- SECURITY FENCE
- PROPERTY BOUNDARY
- ACCESS TRACK
- LOT BOUNDARY CORNERS
- SCREENING VEGETATION
- MIDDEN - CULTURALLY SENSITIVE AREA
- SOLAR PANELS
- EXISTING LAYDOWN AREA
- HARD STAND
- WATER CHANNELS

APPROVED PLAN

Planner: wpeat
RC: 2300376 RMAVAR/A
Date: 11/01/24



Project Pukenui Ltd. Partnership
s127 applicatio
FIGURE 2f: The Proposal

REV	REVISION DESCRIPTION	DRWN	CHKD	DATE
B	PRELIMINARY 50%	JB	JM	20/10/2023
A	PRELIMINARY	JB	JM	15/08/2023

PROJECT TITLE:
PUKENUI SOLAR FARM 1 AND 2

PROJECT LOCATION:
124 & 121 Lamb Road - Pukenui Northland 0488

DRAWING TITLE:
SITE LAYOUT BLOW-UP PLAN (4/4)

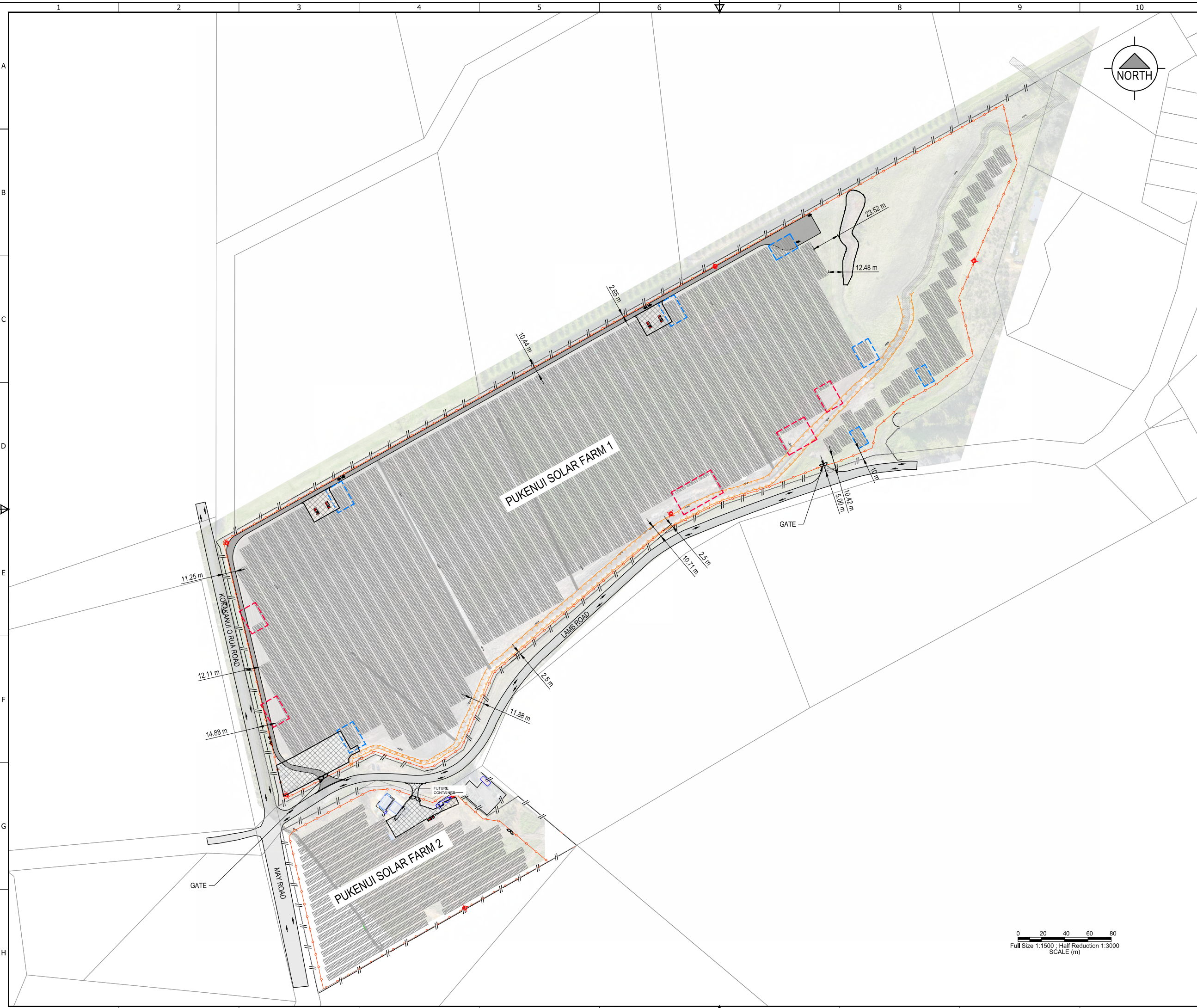
PROJECT CODE: J00795

DWG NUMBER:
J00795-PK-0-DWG-G003-05

STATUS: PRELIMINARY	SCALE: AS SHOWN
-------------------------------	---------------------------

REVISION: B	SHEET SIZE: A1
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Appendix D. Proposed Site Layout Plan



KEY PLAN

- LEGEND:
- EXISTING FENCE
 - SECURITY FENCE
 - ACCESS TRACK
 - SOLAR PANELS
 - LAYDOWN/HARDSTAND
 - TABLES ADDED
 - TABLES REMOVED
 - CCTV CAMERA LOCATIONS

NOTE
 1. AERIAL IMAGE REFLECTS SITE CONDITIONS AS OF 19-01-2024.
 2. LOCATION OF ASSETS AS PROVIDED BY PHOTON ENERGY.

REV	REVISION DESCRIPTION	DRWN	DES	CHKD	DATE
C	UPDATED LAYOUT	JR	S.S		11.07.24
B	REVISED FENCELINE	JR	S.S		05.07.24
A	UPDATED LAYOUT	JGF			17.05.24

CLIENT:
Project Pukenui Limited Partnership

EPC CONTRACTOR:

Photon Energy
 Photon Energy Engineering Australia Pty Ltd.
 ANB : 71 159 386 295
 Address: Level 5, 219-241 Cleveland St, Redfern NSW 2016, Australia
 Website: www.photonenergy.com.au , Office No. : (+612) 8021 3383

DESIGNER:

PHRONIS IRIS ENGINEERING

PROJECT:
PUKENUI SOLAR FARM 1 AND 2
 124 & 121 LAMB ROAD, PUKENUI NORTHLAND 0484, NZ

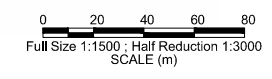
TSM-595WNEG19RC.20, QTY = 19,376 MW DC CAPACITY = 26.80
 TSM-600WNEG19RC.20, QTY = 15,456 MW AC CAPACITY = 19.46

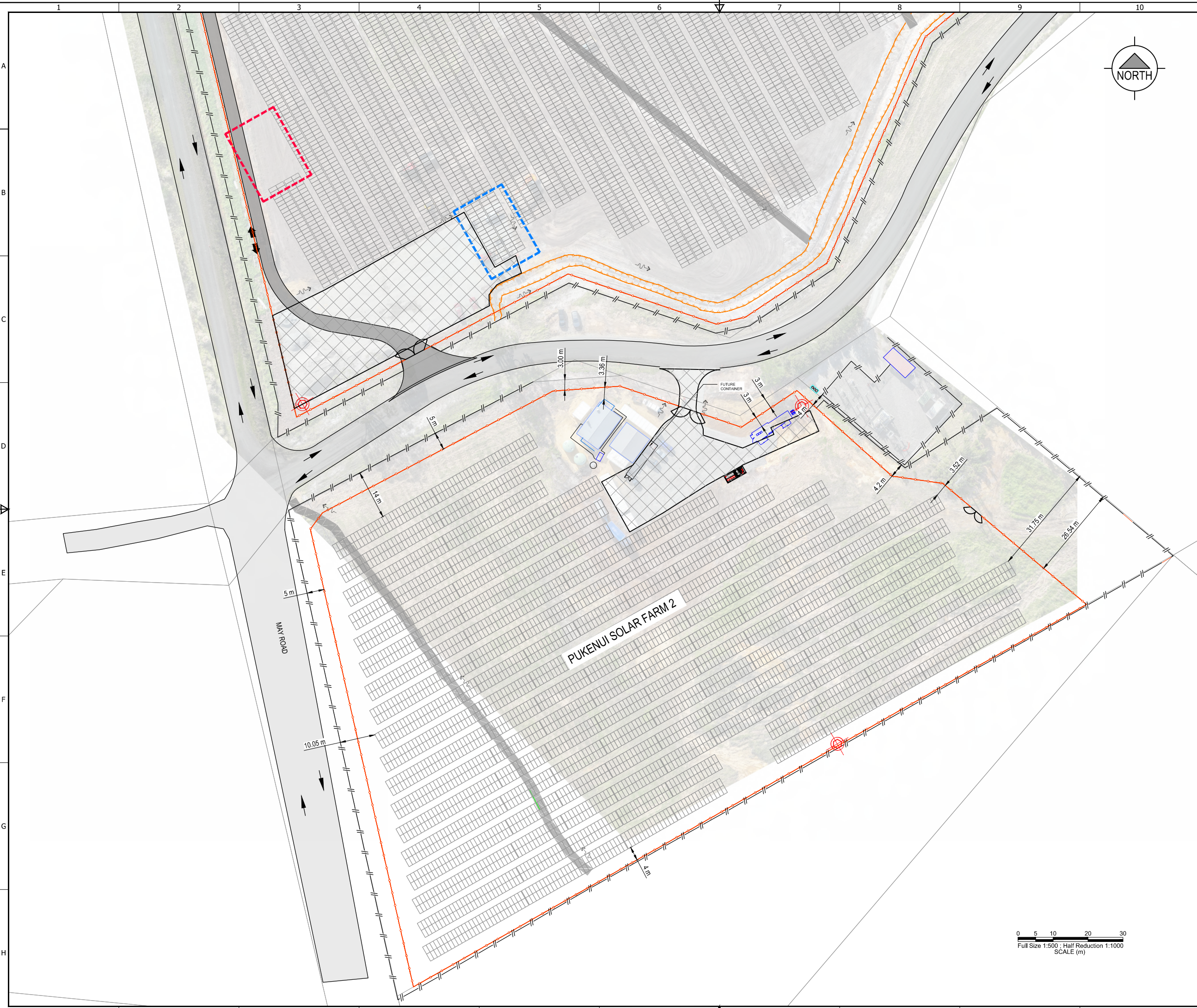
TITLE:
PUKENUI 1 SITE LAYOUT PLAN

PROJECT CODE: **PEA-23-767**

DESIGNED BY:	C.MURRELL	CHECKED BY:	S.SMITH
DRAWN BY:	C	APPROVED BY:	J.ALBERTSON
STATUS:	ISSUED FOR APPROVAL	SCALE:	1:1500
		SIZE:	A1

DRAWING No.: **PUK-L-1011-GA-011** REV.: **C**





KEY PLAN



- LEGEND:
- EXISTING FENCE
 - SECURITY FENCE
 - ACCESS TRACK
 - SOLAR PANELS
 - LAYDOWN/HARDSTAND
 - TABLES ADDED
 - TABLES REMOVED
 - CCTV CAMERA LOCATIONS

NOTE
 1. AERIAL IMAGE REFLECTS SITE CONDITIONS AS OF 19-01-2024.
 2. LOCATION OF ASSETS AS PROVIDED BY PHOTON ENERGY.

REV	REVISION DESCRIPTION	DRWN	DES	CHKD	DATE
C	UPDATED LAYOUT	JR	S.S		11/07/24
B	REVISED FENCELINE	JR	S.S		05/07/24
A	UPDATED LAYOUT	JRF			17/05/24

CLIENT:
Project Pukenui Limited Partnership

EPC CONTRACTOR:

 Photon Energy Engineering Australia Pty Ltd.
 ANB : 71 159 386 295
 Address: Level 5, 219-241 Cleveland St, Redfern NSW 2016, Australia
 Website: www.photonenergy.com.au | Office No. : (+612) 8021 3383

DESIGNER:


PROJECT:
PUKENUI SOLAR FARM 1 AND 2
 124 & 121 LAMB ROAD, PUKENUI NORTHLAND 0484, NZ

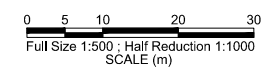
TSM-595WNEG19RC.20_QTY = 19,376 MW DC CAPACITY = 26.80
 TSM-600WNEG19RC.20_QTY = 15,456 MW AC CAPACITY = 19.46

TITLE:
PUKENUI 2 SITE LAYOUT PLAN

PROJECT CODE: **PEA-23-767**

DESIGNED BY:	C.MURRELL	CHECKED BY:	S.SMITH
DRAWN BY:	JULIAN.R	APPROVED BY:	J.ALBERTSON
STATUS:	ISSUED FOR APPROVAL	SCALE:	1:500
		SIZE:	A1

DRAWING No.: **PUK-L-1011-GA-012** REV.: **C**



Appendix E. Landscape Memo

MEMORANDUM

To: Laila Alkamil
WWLA Ltd.

From: Simon Cocker
Simon Cocker Landscape Architecture

Date: 14 August 2024

Subject: Project Pukenui Ltd. Partnership. 124 Lamb Road, Pukenui. S127 application

Application #: 2300376-RMALUC

Dear Laila,

You have requested that I provide comment on proposed amendments to the Lamb Road solar farm (Pukenui 1 and Pukenui 2). This memo will inform the s127 application which seeks consent for the proposed changes. Appendix 1 contains the Planting and Maintenance Plan (for the landscape mitigation planting). The proposal is shown in Figures 1a – 1e, (contained in Appendix 2), with the landscape mitigation planting and schedule included as Figures 1c, 1d and 1e.

I have previously prepared an Assessment of landscape, natural character and visual amenity effects. This document was prepared for the consented facility and is dated December 2020 (20233_01)¹. I subsequently prepared a brief assessment of changes to the application (dated 3 November 2023) which was included in the s127 application (2300376A-RMALUC). This memo should be read in conjunction with the assessment and previous memo. The proposed changes associated with Pukenui 1 and 2 as follows:

- Pukenui 1 (southern boundary) to have (landscaped) 2.5m gap between security fence and boundary line.
- Pukenui 2 (western and northern boundary) will have a (landscaped) 5m gap between security fence and boundary line on its western boundary, and western portion of the northern boundary. The landscaped strip along eastern portion of the northern boundary (adjoining the existing dwelling), will be 3m wide.
- Pukenui 2 (eastern boundary). The extent of planting has been reduced slightly in this area so that planting does not occur beneath the existing overhead power lines.
- Changes to the PV module layout as shown on Figures 1a – 1b.
- In the unlikely event that the structural integrity test of the pile fails, the use of a 300mm diameter concrete cast in situ pile.

Based on the above, it is proposed that condition 24 be amended to read as follows:

¹ Refer to Simon Cocker Landscape Architecture *Proposed Solar Farm, Lamb Road, Pukenui: Assessment of landscape, and visual amenity assessment*. December 2020.

24. The works shall be carried out in general accordance with the application, specifically earthworks shall not exceed an earthworks volume of 34,000 ~~16,935~~ m² exposed at any one time, and a total bulk cut and fill on site ~~12,037~~ 14,000m³ excluding, drains, topsoil, roads, laydown, and imported aggregate; with maximum cut height of ± 6.5 m and maximum fill depth of 1.7 m.

Advice Note: Any area that is mulched or stabilised by aggregate over the hardstand or roads is not considered exposed.

The changes proposed in the Pukenui 1 PV module layout are of a limited scale and will not result in any change in the anticipated visibility, nor level of potential adverse landscape and visual amenity effect of the proposal.

The change in the proposed security fence setback (and reduction in the width of screen planting strip) does have the potential to result in a change in the level of potential adverse effect. Where consequential changes are proposed that have the potential to increase the visibility of the development, mitigation planting is proposed. This is limited to the northern site boundary where a shelter belt has been removed. The potential adverse effects are discussed below.

The changes with respect to the southern boundary of Pukenui 1 are a result of detailed drainage design to provide stormwater hydraulic capacity. This has necessitated modifications, specifically an increase in the overall width of the drain (refer to the drainage section views contained in the application).

As a result, the drain batters have encroached on the proposed security fence and planting strip. The reduced strip, and realigned fence are consequential to this redesign of the drains.

On the northern boundary, screen planting is proposed as a strip of between 2.0 – 2.5m between the boundary and the security fence. Mitigation planting was not previously proposed along this boundary since views from the north (specifically a dwelling within the neighbouring property, Lot 2 DP 425051) were screened from the Site by an existing bamboo shelterbelt. Subsequently, it has become apparent that removal of the shelterbelt (on the consent holder's side of the shared boundary) would be necessitated to facilitate construction.

The owner of this neighbouring property has indicated that they prefer the establishment of a pittosporum hedge within the strip. To this end, a karo hedge is proposed, which will be maintained to a maximum height of between 1.8 – 2.0m (refer to [Figure 1c](#)).

In addition, with a view to providing some immediate screening, a temporary shade cloth screen, 1.2m in height, will be erected along that portion of the Site security fence where direct views are possible from the dwelling (refer to [Figure 1a](#)).

Potential Adverse landscape effects resulting from the changes

Abiotic and Biotic (biophysical) attributes

The landscape assessment contained in the original land use consent application considered the changes in the abiotic and biotic (biophysical) attributes of the Site that would be occasioned by the proposal. The s127 amended proposal will result no change in the biotic and abiotic attributes. There will be no change in the consented volume and area of earthworks associated with the amended proposal, and the existing ridge feature (on which the midden is situated) will be retained unaffected in its existing form (refer to [Figure 2](#)).

Social, Associative and Cultural attributes

Turning to the social, cultural and associative attributes, the assessment submitted in support of the consented proposal stated the following:

The archaeological report identifies a midden within the subject Site but determines that this feature is of low value. The midden will be destroyed as a result of the proposal.

Given the separation from public viewpoints, the lack of public access, and the screening afforded by the proposed mitigation plantings, it is the opinion of the author that the majority of the community will be unlikely to be aware of the proposed facility

Research indicates that public attitudes to solar power are generally supportive, with a ShapeNZ Poll reporting a 69% support for solar power as a preferred energy source. This suggests that public attitudes to a facility generating solar power are unlikely to be negative particularly when the scale and 'intrusiveness' of the facility is minimal. As such, it is the opinion of the author that the potential impact on social and associative attributes will be very small.

The amended s127 proposal will result in a similar level of change with regard to the social and associative attributes. It is believed that the subject Site is not imbued with any social or associative attributes, and the amended proposal will still result in the Site being occupied by a solar farm.

In terms of the cultural attributes, the amended proposal will result in no change in the impact on the midden and there will be no change in the cultural attributes resulting from the proposal.

Experiential attributes

The amended proposal includes a number of changes that have the potential to affect the degree of change in the experiential attributes of the Site. This includes:

- **Security Fence Positioning:** The security fence surrounds the entire site. The setback from the boundary to the security fence has also shifted from 5m to 2.5m on the southern boundary of Pukenui 1 to allow for modifications to the drainage design, and to 2.65m on the northern boundary.

On the southern boundary, the proposed 2.5m wide screen planting strip will allow for three rows of planting (refer to [Figure 1a](#)). The plants within these three rows will be 'staggered' such that they are offset so that they will grow to provide a dense and visually impermeable screen.

Recognising that the change from the previously consented 5m wide planting strip, to the current proposal – this being the 2.5m wide strip on the southern boundary of Pukenui 1 – is of some magnitude, the species composition, and spacing of plants has been adjusted to ensure a rapid and dense screen will become established within some 3 – 5 years.

The proposed species – kānuka, karamu and harakeke have been selected for their ability to grow rapidly in the local sandy soils, and their ability to provide a dense and multi-layered screen. [Figure 1b](#) also includes a planting detail to illustrate the positioning of the plants within the planting strip to ensure a distribution of plant species that will afford the most effective screen. For example, it is important that the harakeke is evenly spaced along the strip to provide a lower level screen as the kānuka establish a stem.

Essentially, the proposed planting screen – which will be allowed to achieve a minimum height of between 1.8m and 2.0m (a height equivalent to that of the security fence) – will form a 2.5m wide hedge which will fully screen the security

fence and structures within the Site. Whilst the reduction in the width marks a change from the consented 5m wide strip, once established, there will be no difference in the screening capacity between the consented and proposed developments.

The assessment included within the consent for the consented proposal noted that the visual catchment of the site is relatively constrained. Although the proposal will extend as a narrow strip of panels along a shallow valley to the north east, for some 165m (refer to [Figures 3 and 4](#)), the visual catchment will remain as previously identified.

As described previously, the removal of a shelterbelt within the subject Site at the western end of the northern boundary has the potential to modify the visual catchment to the north west. To mitigate potential adverse visual amenity effects, screen planting is now proposed along the section of the boundary occupied by the bamboo shelterbelt. Identified as Mix C Area 5, on sheet L1001 in the attachments, the screen planting will comprise the species described above, and will be maintained such that the security fence (and subsequently infrastructure internal to the Site) will be fully screened (a height of between 1.8 – 2.0).

The primary viewers can be gathered into four main groups, based on a commonality of views-types and geographical locations, as follows:

1. Occupants of dwellings to the north east, east and south east of the Site;
2. Users of Lamb Road and Korakanui A Rua Road;
3. Occupants of a dwelling within Lot 2 DP 425051 to the north of the Site, and;
4. Occupants of wider landscape to the south west and west.

The potential adverse visual amenity effect of the proposal will therefore, remain unchanged from the previous iteration. The level of potential adverse visual amenity effect generated by the current proposal will be unchanged from those described in my memo dated 3 November 2023, the conclusions of which were as follows:

Occupants of dwellings to the north east, east and south east of the Site

The dwelling within Lot 5 DP 153818 is located some 450m to the north east (represented by [photos 1 and 2](#). Photo locations are shown on [Figure 3](#)). The potential adverse visual effect will, in the opinion of the author, be low for occupants of this dwelling, and unchanged from the consented proposal.

The dwelling within the neighbouring property (identified as Lot 3 DP 373761) offers immediate and elevated views from the rear of the dwelling into the eastern end of the Site. There will be no change from the existing consented proposal, and overall the level of effect will be as anticipated under the existing consent.

A sleepout within the neighbouring Lot 1 DP 393797 (visible in [photos 4, 5 and 6](#)) offers narrow views to the south west across the Site. The views from the main dwelling within this property are screened by vegetation. It is the opinion of the author that there will be no change from the existing consented proposal, and overall the level of effect will be as anticipated under the existing consent.

To the south east, a dwelling elevated on the ridge above the road within Lot 3 DP 385639 offers filtered views from a distance of some 300m to the Site through existing mature eucalyptus trees.

The main outlook from this dwelling is to the east, and although the change within the Site may be evident, the filtered nature of the view, and the separation distance will temper the level of potential adverse visual amenity effect to a level that is low.

Users of Lamb Road and Korakanui A Rua Road

Users of public roads to the south and west are low in number but have a low to moderate sensitivity to change.

Direct views into the Pukenui 1 Site are possible from Lamb Road where it adjoins the Site on its southern side (refer to [photos 1 and 3](#)). Views to the Pukenui 2 Site are possible along its entire frontage on Lamb and May Roads, with the exception of when views are screened by the existing dwelling.

Once the shelter belt is removed from the Pukenui 1 western Site boundary, views into the Site will be possible from the road to the west.

Initially, views of the proposed facility will be possible from these roads, but as the screen planting becomes established, the visibility of the facility will diminish over a period of some 3 – 4 years.

It is the opinion of the author that the potential adverse visual amenity effect experienced by these individuals will be low to moderate initially, diminishing to very low over a period of 3 to 4 years.

Views to the extended portion of the solar farm (being the 'narrow strip' of solar arrays within the shallow valley) will be screened from these locations by the solar arrays within the consented farm.

Views into the Pukenui 2 Site will be fully screened by the proposed screen planting within some 3 – 4 years.

It is the opinion of the author that the potential adverse visual amenity effect experienced by these individuals will be low to moderate initially, diminishing to very low over a period of 3 to 4 years.

Occupants of a dwelling within Lot 2 DP 425051 to the north of the Site

A dwelling within Lot 2 DP 425051 is set back a minimum of 80m from the northern boundary of the Site, and is illustrated below.

The cluster of buildings within this property comprises a dwelling and a shed. The dwelling has an orientation to the north east, whilst the shed, adjoining the dwelling extends to the south west. It appears that the primary focus of the dwelling is to the north west and north east. Views to the south west are precluded by the shed, an area of planting and three water tanks. Views are possible from a number of windows toward the south from the dwelling, as is evidenced by [photos 7 and 8](#). As can be seen from [photo 8](#) however, views to the west and south west from the dwelling are screened by an existing shelterbelt which contains an avocado plantation, and along the shared boundary with the Site to the west-south-west of the dwelling, the owner has planted a row of (what appears to be) pohutukawa. It is anticipated that these trees will grow to screen views of the Site to the west-south-west of the dwelling within some 5 years.

Notwithstanding this, the proposed Mix D Area 1 screen planting will, within some 3 – 5 years fully screen views from this property to the proposed solar farm and of the security fence and it is the opinion of the author that the potential adverse visual amenity effect experienced by these individuals will be low initially, diminishing to very low over a period

of 3 to 4 years. In addition, the proposed temporary shade cloth screen will provide some initial screening of views into the Site.



Occupants of wider landscape to the south west and west

A dwelling within Pt Sec 49 Blk X Houhora East is located close to the road and offers views across the road into the Pukenui 1 Site. As with users of the road, views of the proposed facility will be possible following construction, set back some 90 metres from its road boundary. As the screen planting becomes established, the visibility of the solar panels will diminish over a period of some 3 – 4 years.

Although the solar panel structures associated with the proposal are only some 2.5m in height, they will result in a change in the character of the existing open and rural aspect across Lamb Road to the north and north east from this dwelling. As such, it is the opinion of the author that the potential adverse visual amenity effect experienced by these individuals will be as consented (moderate initially, diminishing to very low over a period of 3 to 4 years).

To the west, a dwelling separated by some 300m from the Pukenui 1 is located within NA80D/748. Occupants of the dwelling will be aware of a change in their outlook to the east, with the removal of the existing shelterbelt, and the construction of the facility. This change will affect the character of the existing rural views, but within 3 to 5 years, the facility will be substantially obscured by the proposed screen planting.

It is the opinion of the author that the potential adverse visual amenity effect experienced by these individuals will be low initially, diminishing to very low over a period of 3 to 5 years.

Views to the extended portion of the Pukenui 1 Site (being the 'narrow strip' of solar arrays within the shallow valley) will be screened from these locations by the solar arrays within the consented farm. Overall the level of effect will be as anticipated under the existing consent.

Views to the Pukenui 2 Site from the south east will be unchanged from those anticipated in the previous assessment. The reduction in the area of planting on the eastern boundary of Pukenui 2 will not diminish the screening offered since the reduced width of some 18m of planting will still provide an effective screen.

Conclusion.

The s127 proposal seeks consent for a minor change to the consented solar farm (2300376A-RMALUC). Most importantly for the matters considered in the landscape assessment, the proposal seeks a reduction in the width of the landscape planting strips along the Lamb Road frontage of Pukenui 1.

A review of the proposal against the assessment undertaken for the consented Pukenui 1 and 2 solar farms has determined that the proposed changes will not increase the level of adverse effect over that anticipated for the consented proposal, and will not increase the time taken for the proposed mitigation planting to become effective.

In the opinion of the author, the proposal is appropriate from a landscape perspective.

Yours sincerely,



Simon Cocker



Appendix 1 – Planting and Maintenance Plan

1.0 SITE PREPARATION

2.1 Identifying and Removing Weeds

The area to be planted is – in part – vegetated with pasture grasses and perennial weeds (where earthworks have not been undertaken), and in where earthworks have occurred, are in bare earth. It is possible that weed species including gorse (*Ulex europaeus*), blackberry (*Rubus fruticosus* agg.) and pampas (*Cortaderia selloana*), may have established.

Dense thickets of weed species such as gorse should be slashed or cut in advance, then be allowed to resprout prior to spraying. Care must be taken to avoid spray drift onto existing native species in the area to be planted since these plants are to be retained.

Spraying with selective chemicals should be undertaken during the initial site prep and on two further occasions to ensure a high kill rate.

Therefore, the surrounding landscape is likely to be a continuous source of reinvasion, and it is important that weed control is continued in perpetuity to ensure best results.

Optimal time to spray the weeds is approximately 3-4 weeks prior to the start of the plantings. This should be done on a sunny, calm day with little wind to ensure that spray drift is minimised. Only experienced spray operators should be used to ensure that the herbicide is applied carefully and avoiding any native vegetation. Table 1 below provides information regarding options for chemical treatment.

Table 2 details the appropriate control technique and treatment for each exotic plant species present in the vicinity of the planting areas. The technique and treatment may need to be modified subject to change in seasons, weather and/or plant growth

The weed species list is not exhaustive. For reference, the Northland Regional Pest and Marine Pathway 2017 – 2027 Management Plan provides a list of potential exotic weed species ² and ongoing monitoring of the site, and the completed plantings should be undertaken to identify exotic weed species. If further weeds are identified during works, please refer to the Weedbusters website³ for best management practice in regard to pre-planting and ongoing weed control.

Active ingredient	Herbicide trade name	Application
Metsulfuron-methyl	Associate 600 Escort Meturon	Kills ferns, conifers and most broadleaf spp except <i>Solanum</i> spp. Generally, not effective on grasses or other monocots, however high rates will kill almost anything. Acts systemically i.e will spread through entire plant to roots
Glyphosate	Roundup Renew Watkins Weedkiller McGregor's Weedout Agpro Glyphosate 360 Dow Glyphosate 360	Controls most annual and perennial grasses and broadleaved weeds. Used as a pre-planting or a release spray. Can be used successfully as a stump poison

² Waikato Regional Pest Management Plan 2014 – 2024. <https://www.bionet.nz/assets/Uploads/Waikato-Pest-Management-strategy.pdf>

³ <https://www.weedbusters.org.nz>

	Glyphosate 360	
Triclopyr 600	Scrubcutter Grazon Brush off	Kills conifers and broadleaf spp. Doesn't kill grasses, sedges, flax or other monocots or ferns and is foliar active, slightly root active
Haloxypop	Gallant Hurricane	Selectively controls grasses. Can be mixed with Versatil, Gardoprim or Simazine for controlling clovers and broadleaved weeds
Triclopyr + Picloram	Tordon Brushkiller	Kills conifers and most broadleaf spp. Doesn't kill grasses, sedges, flax or other monocots. Acts systemically i.e. will spread through entire plant to roots
Flumetsulam	Aim Flumetsulum 800 WDG	Controls and suppresses broadleaves. Necessary for controlling Creeping Buttercup.

Table 1: Types of herbicides recommended

2.2 Weed Control Strategy

A weed can be defined as “a plant that is not valued where it is growing and is usually of vigorous growth especially: one that tends to overgrow or choke out more desirable plants.” Weeds are usually invasive exotic plants that have been introduced to New Zealand by humans. Not all exotic plants are considered weeds and can also be beneficial (e.g. acting as shelter for native seedlings, provide habitat for native wildlife, riparian protection to streams).

Pest plants threaten a wide range of native habitats (including native bush, aquatic and wetland habitats) and pasture land across Northland, preventing seedling regeneration and invading pasture, wetlands and native forests. Many species have seeds that last for years in the soil, requiring extensive monitoring and surveillance programmes. It is recommended that particular attention be paid to controlling / eradicating the remaining bamboo associated with the shelterbelt on the northern Site boundary prior to planting. This species has the potential to invade the planting strip and will be harder to suppress once the strip is planted.

Weed control				
Common Name	Botanical name	How	When	Notes
Pampas	<i>Cortaderia sellanao</i>	<p>Establish that the species is not toetoe (look for erect seed heads in autumn)</p> <ol style="list-style-type: none"> Physical control: Dig or grub out seedlings or small plants. Chainsaw small plants and remove sizeable plants by bulldozer. Compost or leave on site to rot down. Burn or bury any flowerheads. Spray: 520g/L haloxypop-P-methyl (150ml/10l + crop oil) to avoid off-target damage to broadleaf plants or glyphosate (100ml/10L + penetrant) for very dense sites. Use a marker dye to avoid wastage and a foaming agent to help prevent spray drift. Leave the plants in the ground until the roots have died off 	Spray spring to summer	Repeat every six months.
Inkweed	<i>Phytolacca octandra</i>	<ul style="list-style-type: none"> Pull out small plants Slash close to ground and leave to rot 	Anytime	



		<ul style="list-style-type: none"> Cut down and paint stump with metsulfuron-methyl (1g/l) 		
Bamboo	<i>Pseudosasa japonica</i>	<ul style="list-style-type: none"> Cut down near the ground: Mulch leaves and stems. Dig out rhizomes and root mass, and dispose of them at a refuse transfer station. Cut down near the ground: Mulch stems and leaves. Allow to resprout, and spray the new growth with amitrole (333ml/L + penetrant) or 520g/L haloxyfop-P-methyl (150ml/10L + penetrant) before the regrowth reaches 60 cm tall. Again, allow to resprout and spray the regrowth. Usually 4-5 applications are required before it stops resprouting 	Any time	
Blackberry	<i>Rubus fruticosus agg.</i>	<ul style="list-style-type: none"> metsulfuron-methyl 7.5g/15l Cut and paste stumps with Glyphosate 200-800mls/L 	Summer – autumn	
Woolly nightshade	<i>Solanum mauritanium</i>	<ul style="list-style-type: none"> Tordon Brushkiller or triclopyr 600EC (100ml/l) or Vigilant Gel 	Any time	
Gorse	<i>Ulex europaeus</i>	<ul style="list-style-type: none"> Stump swab: glyphosate (250ml/L) or metsulfuron-methyl 600g/kg (2g/L) or triclopyr 600 EC (250ml/L) or a product containing 100g picloram+300g triclopyr/L (100ml/L) or picloram gel. Spray (spring-summer): triclopyr 600 EC (20ml/10L) or triclopyr 300 EC (40ml/10L). Spray (autumn-winter): metsulfuron-methyl 600g/kg (5g/10L + penetrant (knapsack) or 20g/100L + penetrant (spraygun) or a product containing 100g picloram+300g triclopyr/L (250ml/100L (spraygun)). Frilling: With a sharp chisel or axe, make a deep cut into the sapwood at regular intervals around the base of the tree, taking care not to ring-bark the plant. Immediately saturate each cut with a product containing 100g picloram+300g triclopyr/L (undiluted). 	As stated.	

Table 2. Weed control recommendations

2.3 Weebusters NZ – online tools for identifying weeds

Weebusters NZ is a weed awareness and education programme that aims to protect New Zealand's environment from the increasing weed problem. The Weebusters website provides a useful easy to use guide for identifying problematic

weeds. Information can be sourced from the following website link – www.weedbusters.org.nz

3.0 Site Preparation

Scope

This section of the specification covers site preparation in the event of minor landscape earthworks and topsoil re-spreading. Where planting is to be in natural (unmodified ground), no spreading of topsoil is required. Where earthworks have occurred, topsoil shall be imported, or stockpiled topsoil shall be spread to the minimum depths specified below.

Note: It is understood that topsoil will be available on site as a result of excavation of trenches. The landscape contractor is to co-ordinate with the Project Manager (and / or project landscape architect) early in the project regarding requirements for topsoil and placement of topsoil in the required locations.

Unsuitable Materials

The contractor shall ensure that all planting is undertaken on suitable material which will sustain the proposed plant species. Unsuitable materials would include:

- *soil that is too weak to provide support for new planting*
- *soil containing rubbish or contaminated materials*
- *soil containing pest plant material*

The contractor may supply a methodology to remediate unsuitable materials. This shall be approved by the Project Manager (and / or project landscape architect) prior to commencement.

Should dormant seed or plant pest seed be present or identified onsite the contractor shall supply a methodology to control any infestation. This shall be approved by the Project Manager (and / or project landscape architect) prior to commencement.

Failure to identify unsuitable material or plant pest emergence would not alleviate the contractor of their responsibilities to control these issues or any infestation.

Earthworks and Topsoil

Topsoil shall not be placed and spread if the earth-worked sub-surfaces are not to the required standard. All subsurface works, including drainage shall be completed by the Contractor prior to topsoil spreading. Refer to site preparation and topsoil quality inspections.

Earth worked areas ready for the contractor to commence landscape work shall be such that earth-worked surfaces:

- *have sufficient drainage and fall to shed water in a controlled manner and prevent ponding and riling (erosion);*
- *are free of organic material, pest plants, contaminants, stumps, branches and construction debris;*

- *have been placed and compacted in layers no greater than 100mm thick and compacted by track rolling in 4 passes with equipment in excess of 10 tonnes weight or other approved methods to prevent undue settlement.*

Unsuitable Materials

Should sub-surfaces include unsuitable materials and are not to the required standard, topsoiling shall not proceed until directed by the Project Manager (and / or project landscape architect). A topsoil stockpile is located on site. Use of this material shall be confirmed by the Project Manager (and / or project landscape architect).

Topsoil Respreading

Topsoil shall be spread to the compacted depth as stated in for the following areas:

- *Grassed areas 75mm;*
- *planted areas 150mm;⁴*

Topsoil shall not be placed and spread if the earth-worked sub-surfaces do not have sufficient fall to shed water in a controlled manner to prevent ponding.

Topsoil shall not be placed until the sub-surfaces are at the required standard. Unduly compacted areas (such as in traffic routes) shall be loosened by ripping or discing (to the full depth of a spade) prior to final levelling in readiness for topsoiling.

Topsoil shall not be placed and spread when the ground or topsoil are excessively wet or in a condition which would be detrimental to the work.

Final grading of the topsoil shall be carried out to ensure a true specified level and slope and to avoid dishing or other depressions where water may collect. Unduly compacted areas (such as in traffic routes) which may have occurred during the topsoil spreading process shall be loosened by ripping or discing prior to final levelling.

The final grade shall allow for subsidence so that after settlement the levels shall be the final specified levels.

Imported / stockpiled topsoil

The contractor is to co-ordinate with the Project Manager (and / or project landscape architect) early in the project regarding both the volumes of topsoil required for planting and the specifications for the imported / stockpiled topsoil. Imported / stockpiled topsoil shall be carefully managed to avoid any contamination, seeds or undesirable material being brought to site.

Final Grading

The Contractor shall ensure that –

- *All earthworks shall have been shaped to integrate the works with the surrounding landform.*
- *All areas to be planted (or grassed) shall have been contoured when the topsoil is reasonably dry and workable to smooth flowing contours with falls for adequate drainage and, removing all minor hollows and ridges.*

⁴ It is understood that imported topsoil will be required for an area within the eastern portion of Pukenui 2. The volume equates to some 30m³.
12

- *All planting beds shall be crowned to provide a gently rounded profile to completed planter beds.*

Inspections

The Contractor shall notify the Project Manager (and / or project landscape architect) for inspection of the works following:

- *Set out for clearing*
- *On completion of the clearance*
- *During site preparation, identification of sub-surfaces being at the required standard.*

4.0 Topsoil supply

Materials

Topsoil is defined as “the top layer of soil characterised by the presence of organic matter”. In order to be retained for use on site, topsoil shall meet certain specific characteristics.

Imported / stockpiled topsoil shall be carefully managed to avoid any contamination, weed seeds or undesirable material being brought to site.

In some situation soil mixes may be used rather than topsoil. Any soil mix shall be a proven alternative to topsoil. The required proportions of each constituent part of the soil mix shall be consistent throughout the soil mixes.

Preparation of Formation

Sub Soil Preparation

Prior to any cultivation or grading the subsoil shall be completely cleared of all weed growth using an approved herbicide in accordance with the clause for herbicide treatment below.

Formation Level

The site shall be brought to formation level using a suitable subsoil material. All soil handling should be carried out when the soil is sufficiently dry and not plastic. The formation level shall be completely free of all rubbish, bricks and concrete and shall be decompacted, scarified, or ripped to a depth of 300mm (if a greater or lesser depth is required due then the contractor shall prepare a method statement and provide a performance specification for typical substrates) prior to any topsoiling taking place. The Contractor shall liaise with the Project Manager (and / or project landscape architect) on formation levels to ascertain which areas can be reinstated to the soil depths specified or otherwise reinstated. Formation levels shall align with the landscape treatments including setting out of planted areas and tree pits prior to the commencement of topsoiling.

The Contractor shall provide short stakes to mark the exact positions of tree and climber pits for acceptance by the Project Manager (and / or project landscape architect) prior to excavation and retain in the same position after topsoiling.

Topsoil Depths in planted areas (including eastern boundary screen bund) are to be as follows:

- *In grass areas 75mm;*

- *In shrub bed areas 150mm;*

In locations where planting natural ground topsoil depths will vary. The Contractor shall locate planting areas, and tree pits for acceptance by the Project Manager (and / or project landscape architect) prior to implementation.

Workmanship

Topsoil Spreading

Topsoil shall be spread and consolidated but not compacted.

Weather

The Contractor shall spread the topsoil during appropriate dry weather free of frost.

Ground Modelling

There shall be an even grade with no depressions that will result in water ponding or hollows.

Gradients

Finished gradients are to be smooth, flowing, and free of minor hollows and high spots and marry in neatly with paving, kerbs, edgings, manhole covers and existing levels.

Contamination

Any areas of topsoiling that are contaminated with subsoil, rubbish, bricks, concrete, tarmac and other deleterious material shall be removed by the Contractor in the course of carrying out the earthworks.

The Contractor shall be required to carry out stone picking to all topsoiling to ensure it is free from all stones greater than 50mm

Compaction

Topsoiled areas shall be in an uncompacted and uncontaminated state prior to setting out of shrub and grass areas.

5.0 PLANTING AREAS

5.1 Planting Program (timeframes)

Ideally the planting should be undertaken during the autumn/winter season (April – end of August) to ensure the best plant establishment and growth rates are achieved. Work must only be undertaken when the weather is suitable (i.e. mild, dull and moist) and when the ground is moist and workable. Should planting be undertaken outside of this time, irrigation might be required.

5.2 Planting Methodologies

Final plant densities for the planting areas shall be as stated in the schedules below.

The above plant spacing is an average general overall plant density guide for the site and is dependent on species combinations and growth form. All plants shall be spaced and planted to replicate naturalness minimizing planting in straight rows.

Larger grade plants (≥ 1 litre) shall be planted in hand dug holes. The base of the planting hole is to be broken up / roughened with double spade cut to shatter soil structure to allow rapid root formation and nutrient uptake.

All Plant species should be planted with a controlled release (2-year) general fertilizer (such as 'Nugrow' or 'Polygon') and rain crystals. A further side dressing of Nugrow 4-month slow release topdressing is recommended in November in the first year of maintenance. This will not burn any plants roots as it is released by soil microbiological activity. Both the fertilizer and rain crystals shall be applied according to the manufacturer's recommendations for the plant size. The rain crystals shall be distributed through the base of the hole amongst the shattered soil.

5.3 Plant Quality

The plant species must be hardened off such that they are selected wind and sun tolerant and are expected to act both as excellent windbreak and shelter planting to the property. Species selection has been developed in line with soil type, site location, species found within the wider area and species maturity height.

- Optimal plant stock will be used in the planting which have the following attributes:
- Healthy, vigorous, and free from obvious signs of disease and pests;
- Of at least average size for the specified pot/plastic bag size
- Well-developed root system with a high amount of new root growth;
- Not root bound; and
- Well-branched and symmetrically shaped.

All plant stock shall be well watered prior to planting, free of weeds and pests, and shall be hardy and healthy nursery stock, free of disease, pests and without any physical damage

All plants are to be eco-sourced from the Aupouri Ecological District (or adjoining ecological districts if not available from the Aupouri District), from nurseries free from Argentine ants (*Linepithema humile*).

6.0 PROPOSED AREAS TO BE REVEGETATED / PLANTED

The proposed planting mixes have been selected to be appropriate to the site conditions.

The planting areas are as follows:

- Plant mix A (on the boundaries of Pukenui 2);
- Plant mix B (on the western boundary of Pukenui 1), and;
- Plant mix C (on the southern (road boundary of Pukenui 1).
- Plant mix D (on the northern boundary of Pukenui 1).

6.1 Plant schedules

Common name	Species	Grade	% mix	Spacing	Area 1 1,217m ²	Area 2 92m ²	Area 3 1,138m ²	Total
karamu	<i>Coprosma robusta</i>	0.5l	10	1.4m	70	5	65	140
kanuka	<i>Kunzea robusta var. linearis</i>	0.5l	45	1.4m	320	24	280	620
mahoe	<i>Meliclytus ramiflorus</i>	0.5l	10	1.4m	70	5	65	140
pohutukawa	<i>Metrosideros excelsa</i>	1l	5	1.4m	35	3	30	68
ngaio	<i>Myoporum laetum</i>	0.5l	20	1.4m	140	11	130	281
houpara	<i>Pseudopanax lessonii</i>	0.5l	10	1.4m	70	5	65	140

Table 3: Schedule – Planting screen mix A

Common name	Species	Grade	% mix	Spacing	Area 1 944m ²	Area 2 92m ²	Total
Ti kouka	<i>Cordyline australis</i>	0.5l	30	1.4m	166	16	182
harakeke	<i>Phormium tenax</i>	0.5l	70	1.0m	757	74	831

Table 4: Schedule – Planting screen mix B

Common name	Species	Grade	% mix	Spacing	Area 1 89m ²	Area 2/3 1,250m ²	Area 4 95m ²	Total
karamu	<i>Coprosma robusta</i>	0.5l	30	1.2m	20	300	25	515
kanuka	<i>Kunzea robusta var. linearis</i>	0.5l	50	1.2m	35	500	40	860
harakeke	<i>Phormium tenax</i>	0.5l	20	1.2m	15	200	15	345

Table 5: Schedule – Planting screen mix C (Planting layout shown in detail plan on L1001)

Common name	Species	Grade	Spacing	Area 1 750m ²	Total
karo	<i>Pittosporum crassifolium</i>	0.5l	1.0m	750	750

Table 6: Schedule – Planting screen mix D

7.0 Maintenance and Monitoring of Planting

7.1 Planting and Weed control management

Table 6 below outlines a planting maintenance schedule for the property to extend over a three-year maintenance period from the date of the plantings being established.

Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	As req
Year 1													
Site preparation													
Planting													
Weed control													
Monitoring													
Plant replacement													
Fert													
Hedge height control													
Year 2													
Weed control													
Monitoring													
Plant replacement													
Fert													
Hedge height control													
Year 3													
Weed control													
Monitoring													

Plant replacement															
Fert															
Hedge height control															

Table 6: Planting maintenance schedule

A continuous 3-year establishment period for management of the planting area shall involve the releasing and/or replacement plants if necessary. Over the 3-year establishment management period from the completion date of planting, any plants that do not survive each consecutive year shall be replaced during the winter or spring/autumn season to stop invasive weeds making use of these light gaps. This shall be conducted until at least 90% canopy closure is achieved.

Regular monitoring shall be undertaken at 6 monthly intervals and/or dependent on prevailing weather conditions this can be done in conjunction with the weed management recommendations. Releasing - keeping invasive grass and broadleaf weeds away from the plants, especially during spring seasons shall be achieved using careful surround/foilage spraying or stump painting using Glyphosate or other required chemicals to manufacturer’s instructions to be carried out on a windless day to minimize spray drift. This shall be undertaken in spring to autumn as necessary using backpack sprayers. Often hand releasing is best conducted to get the weeds well away from the plant before spraying. Control of weeds shall be undertaken for the 3-year establishment period or until canopy closure is achieved, after which a further Council site visit shall be organized. Refer to section 2 for details of weed control.

Maintenance shall also include the checking of plant stakes and ties, the replacement of plant failures, the removal of litter, and the height control of screen plantings along the road frontage. With regard to this latter requirement, the height of the planting screen shall be maintained to a minimum height of between 1.8m and 2.0m (the height of the security fence).

After the three-year establishment period, a reduced level of maintenance will be required. The planting shall be retained and maintained for the life of the consent with the replacement of plant failures being undertaken within the first planting season following death of the plant in question.

8.0 DISEASE PREVENTION

8.1 Myrtle Rust

Best practices for preventing the spread of myrtle rust caused by *Austropuccini psidii* shall be adhered to when working with plants within the Myrtaceae family e.g. manuka.

- Visually check all plants for signs and symptoms of myrtle rust before entering site.
- Inspect plants of planting and first flush of new growth
- Undertake regular inspections of Myrtaceae on maintenance inspections
- Contact Ministry for Primary Industries if Myrtle rust is suspected
- Ensure a regular fungicide program has been conducted in the nursery the plants area acquired. For further information please see <https://www.mpi.govt.nz/protection-and-response/responding/alerts/myrtle-rust>

9.0 FURTHER RECOMMENDATIONS:

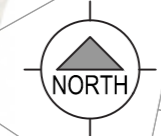
- Pest plant control is to be conducted in accordance with recommended control measures. It is advised that a qualified pest plant control operator is engaged for this project and their control programme recorded and monitored for Council purposes.
- There is potential for young plants to be browsed by pest animals such as rabbits or possums. Should this occur, it is recommended that a specialist pest control contactor be engaged.

Appendix 2 – Figures

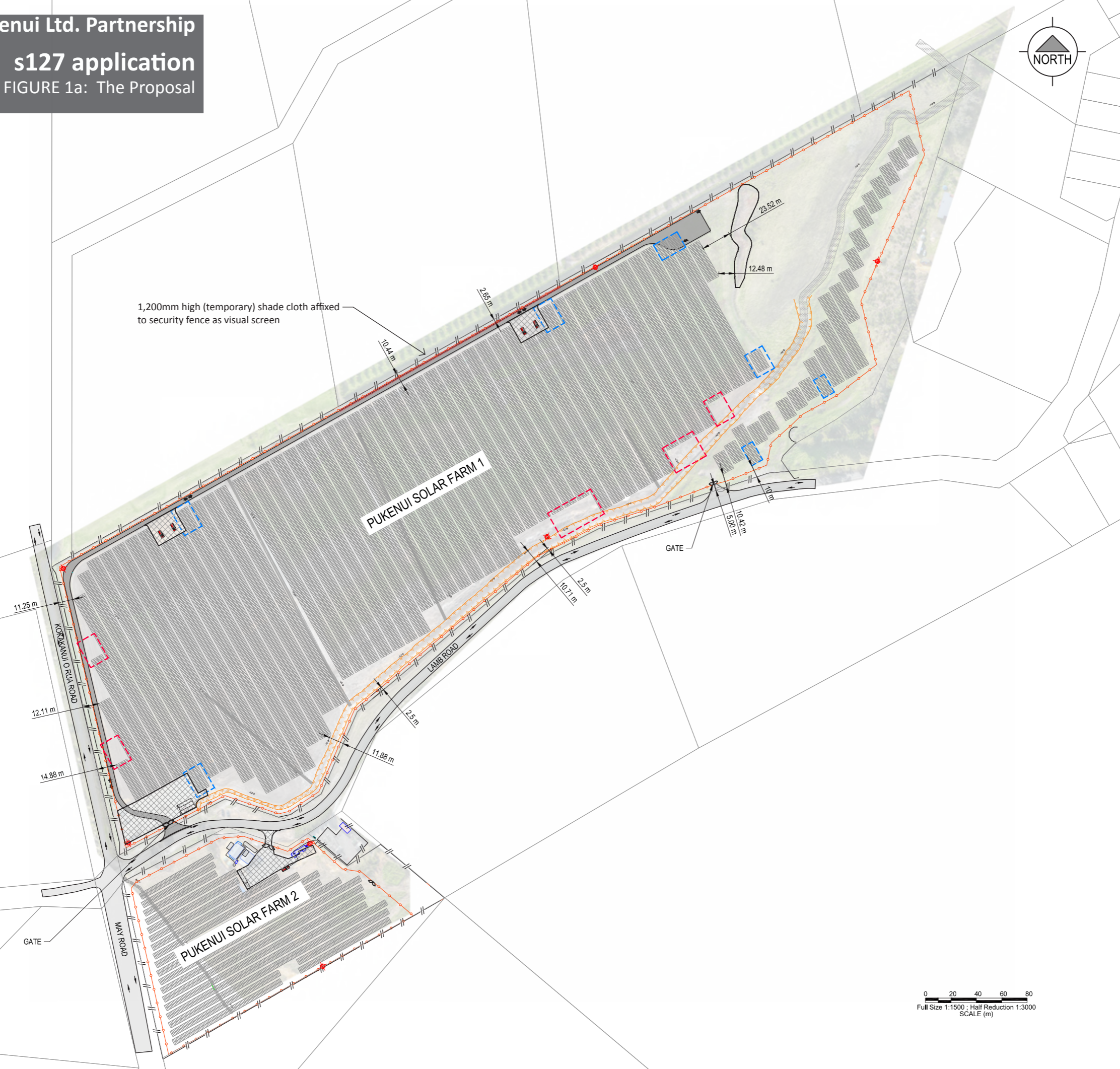
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FIGURE 1a: The Proposal



1,200mm high (temporary) shade cloth affixed to security fence as visual screen



KEY PLAN

- LEGEND:
- EXISTING FENCE
 - SECURITY FENCE
 - ACCESS TRACK
 - SOLAR PANELS
 - LAYDOWN/HARDSTAND
 - TABLES ADDED
 - TABLES REMOVED
 - CCTV CAMERA LOCATIONS

NOTE
 1. AERIAL IMAGE REFLECTS SITE CONDITIONS AS OF 19-01-2024.
 2. LOCATION OF ASSETS AS PROVIDED BY PHOTON ENERGY.

REV	REVISION DESCRIPTION	DRWN	DES	CHKD	DATE
C	UPDATED LAYOUT	J.R	S.S		11.07.24
B	REVISED FENCELINE	J.R	S.S		05.07.24
A	UPDATED LAYOUT	JOF			17.05.24

CLIENT:
Project Pukenui Limited Partnership

EPC CONTRACTOR:

 Photon Energy Engineering Australia Pty Ltd.
 ANB : 71 159 386 295
 Address: Level 5, 219-241 Cleveland St, Redfern NSW 2016, Australia
 Website: www.photonenergy.com.au , Office No. : (+612) 8021 3383

DESIGNER:

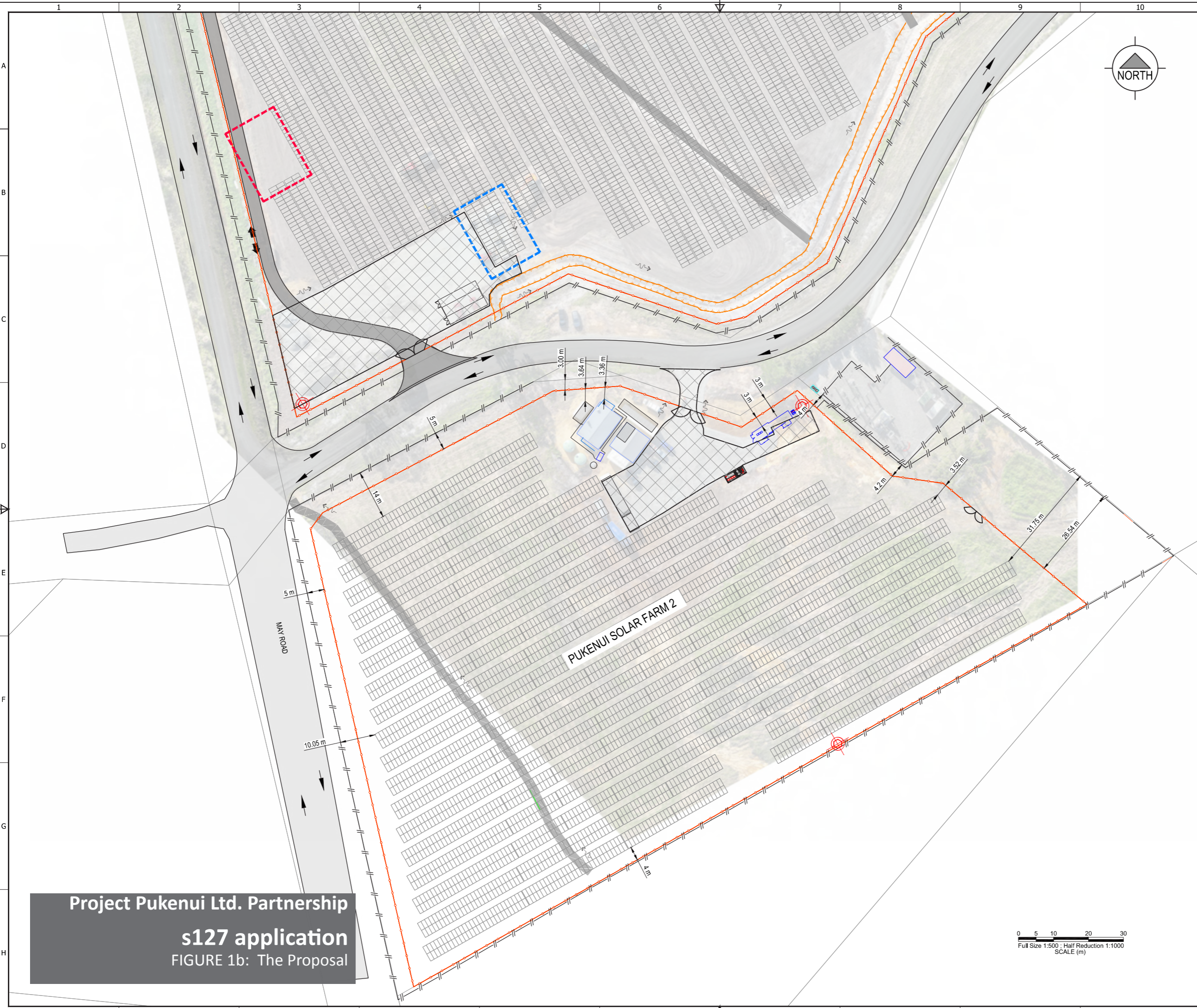
PROJECT:
PUKENUI SOLAR FARM 1 AND 2
 124 & 121 LAMB ROAD, PUKENUI NORTHLAND 0484, NZ
 TSM-595WNEG19RC.20. QTY = 19,376 MW DC CAPACITY = 26.80
 TSM-600WNEG19RC.20. QTY = 15,456 MW AC CAPACITY = 19.46

TITLE:
PUKENUI 1 SITE LAYOUT PLAN

PROJECT CODE: **PEA-23-767**

DESIGNED BY:	C.MURRELL	CHECKED BY:	S.SMITH
DRAWN BY:	C	APPROVED BY:	J.ALBERTSON
STATUS:	ISSUED FOR APPROVAL	SCALE:	1:1500
		SIZE:	A1

DRAWING No.: **PUK-L-1011-GA-011** REV.: **C**



KEY PLAN

LEGEND:

- EXISTING FENCE
- SECURITY FENCE
- ACCESS TRACK
- SOLAR PANELS
- LAYDOWN/HARDSTAND
- TABLES ADDED
- TABLES REMOVED
- CCTV CAMERA LOCATIONS

NOTE

1. AERIAL IMAGE REFLECTS SITE CONDITIONS AS OF 19-01-2024.
 2. LOCATION OF ASSETS AS PROVIDED BY PHOTON ENERGY.

REV	REVISION DESCRIPTION	DRWN	DES	CHKD	DATE
C	UPDATED LAYOUT	J.R	S.S		11.07.24
B	REVISED FENCELINE	J.R	S.S		05.07.24
A	UPDATED LAYOUT	JOF			17.05.24

CLIENT:

Project Pukenui Limited Partnership

EPC CONTRACTOR:

Photon Energy
 Photon Energy Engineering Australia Pty Ltd.
 ANB : 71 159 386 295
 Address: Level 5, 219-241 Cleveland St, Redfern NSW 2016, Australia
 Website: www.photonenergy.com.au , Office No. : (+612) 8021 3383

DESIGNER:

PHRONIS IRIS ENGINEERING

PROJECT:

PUKENUI SOLAR FARM 1 AND 2
 124 & 121 LAMB ROAD, PUKENUI NORTHLAND 0484, NZ

TSM-595WNEG19RC.20. QTY = 19,376 MW DC CAPACITY = 26.80
 TSM-600WNEG19RC.20. QTY = 15,456 MW AC CAPACITY = 19.46

TITLE:

PUKENUI 2
 SITE LAYOUT PLAN

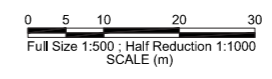
PROJECT CODE: **PEA-23-767**

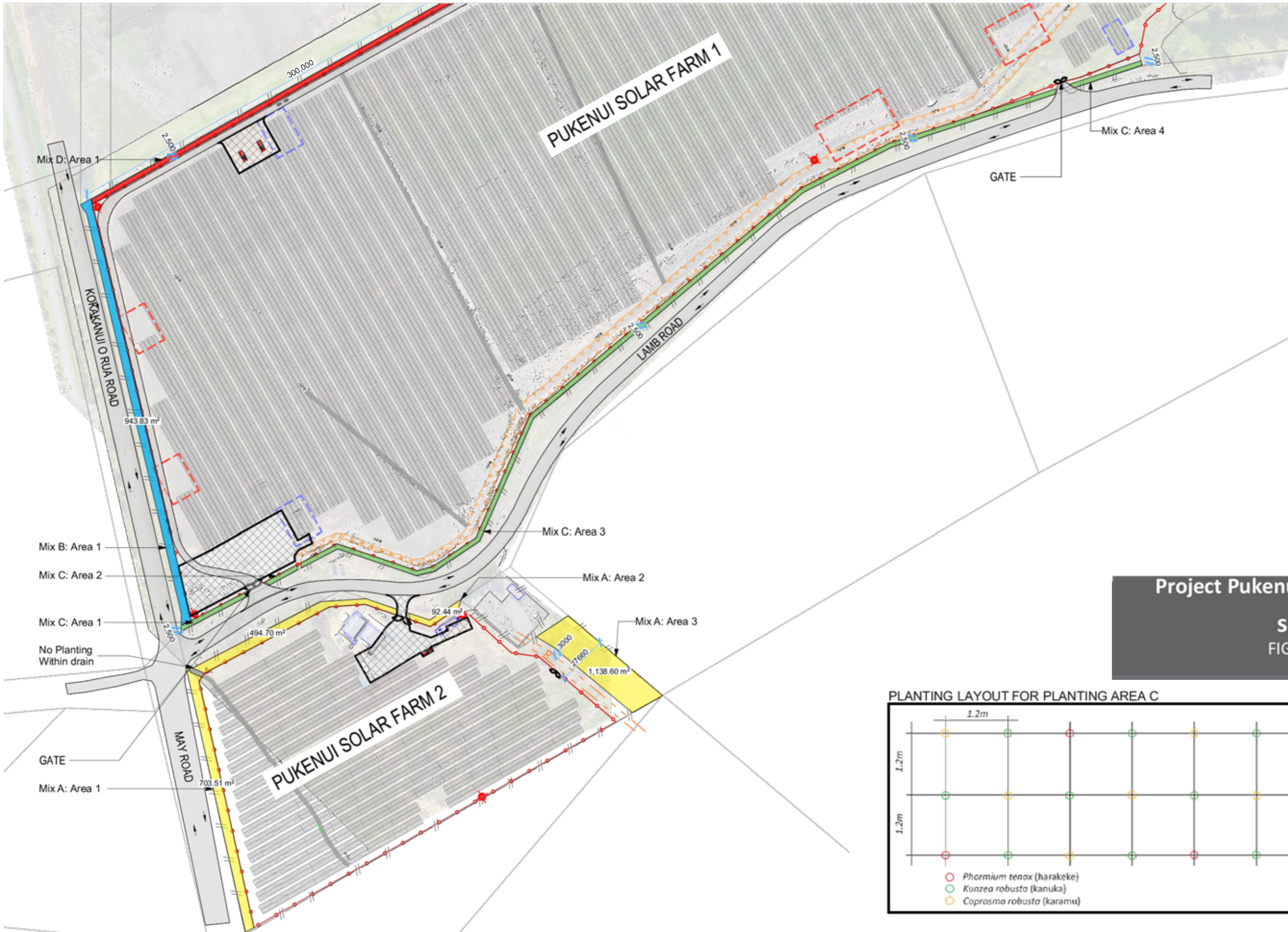
DESIGNED BY:	C.MURRELL	CHECKED BY:	S.SMITH
DRAWN BY:	JULIAN.R	APPROVED BY:	J.ALBERTSON
STATUS:	ISSUED FOR APPROVAL	SCALE:	1:500
		SIZE:	A1

DRAWING No.: **PUK-L-1011-GA-012**

REV.: **C**

Project Pukenui Ltd. Partnership
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 FIGURE 1b: The Proposal





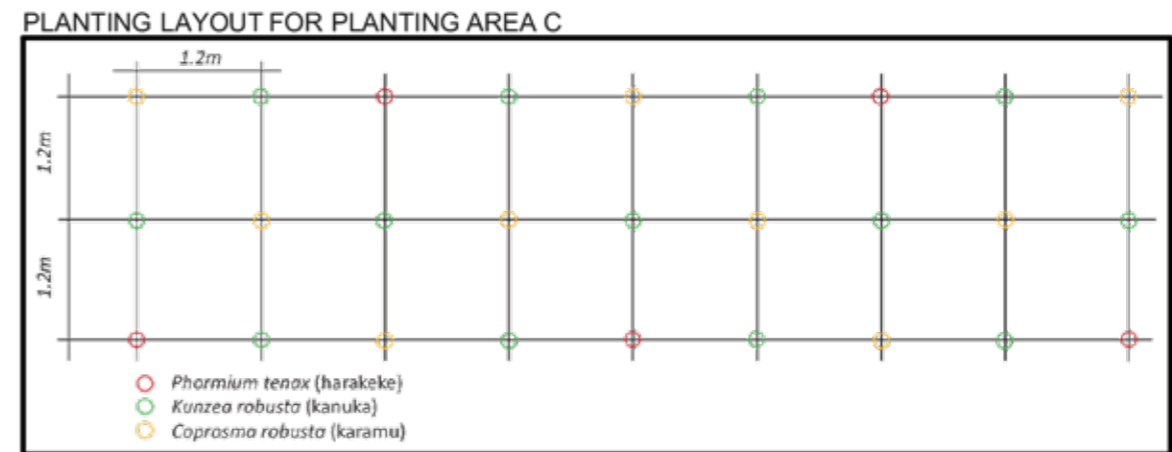
GENERAL NOTES
 These drawings shall be read in conjunction with all other Consultants drawings, specifications and such written instructions as may be issued at anytime during the Contract.

Contractor is responsible for under and above ground services.

Confirm all existing construction, dimensions, heights and levels before commencing works. Any discrepancy shall be referred to the Landscape Architect for decisions before proceeding with the works.

- LEGEND**
- Planting Mix A
 - Planting Mix B
 - Planting Mix C
 - Planting Mix D

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 FIGURE 1c: The Proposal



Client
Photon Energy
 Consultants

Rev. Date Notes
 13/08/2024

Project
Pukenui Solar Farm 1 and 2 (Lamb Road)

Title
Landscape mitigation plan

Page Title
Planting area Pukenui 1

Do not scale.
 The contractor shall verify all dimensions before commencing work, and all discrepancies to be referred to Context Architects Ltd for clarification. These plans are confidential and are not to be discussed or copied without the express permission of Context Architects Ltd.

Scale **1:2000 @ A1** | Project No. **20223** | Drawing no. **L1001** | Rev. **2**



GENERAL NOTES
 These drawings shall be read in conjunction with all other Consultants drawings, specifications and such written instructions as may be issued at anytime during the Contract.

Contractor is responsible for under and above ground services.

Confirm all existing construction, dimensions, heights and levels before commencing works. Any discrepancy shall be referred to the Landscape Architect for decisions before proceeding with the works.

- LEGEND**
- Planting Mix A
 - Planting Mix B
 - Planting Mix C

Project Pukenui Ltd. Partnership
s127 application
 FIGURE 1d: The Proposal



Client
Client
 Photon Energy
 Consultants

Rev.	Date	Notes
	13/08/2024	
Project Pukenui Solar Farm 1 and 2 (Lamb Road)		

Title
Landscape mitigation plan

Page Title
Planting area Pukenui 2

Do not scale.
 The contractor shall verify all dimensions before commencing work, and all discrepancies to be referred to Context Architects Ltd for clarification. These plans are confidential and are not to be discussed or copied without the express permission of Context Architects Ltd.

Scale 1:1000 @ A1	Project No. 20223	Drawing no. L1002	Rev. 2
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Schedule – Planting screen mix A

Common name	Species	Grade	% mix	Spacing	Area 1 1,217m ²	Area 2 92m ²	Area 3 1,138m ²	Total
karamu	<i>Coprosma robusta</i>	0.5l	10	1.4m	70	5	65	140
kānuka	<i>Kunzea robusta var. linearis</i>	0.5l	45	1.4m	320	24	280	620
mahoe	<i>Melicytus ramiflorus</i>	0.5l	10	1.4m	70	5	65	140
pōhutukawa	<i>Metrosideros excelsa</i>	1l	5	1.4m	35	3	30	68
ngāio	<i>Myoporum laetum</i>	0.5l	20	1.4m	140	11	130	281
houpara	<i>Pseudopanax lessonii</i>	0.5l	10	1.4m	70	5	65	140

Schedule – Planting screen mix B

Common name	Species	Grade	% mix	Spacing	Area 1 944m ²	Area 2 92m ²	Total
Ti kōuka	<i>Cordyline australis</i>	0.5l	30	1.4m	166	16	182
harakeke	<i>Phormium tenax</i>	0.5l	70	1.0m	757	74	831

Schedule – Planting screen mix C (Planting layout shown in detail plan on L1001)

Common name	Species	Grade	% mix	Spacing	Area 1 89m ²	Area 2/3 1,250m ²	Area 4 95m ²	Total
karamu	<i>Coprosma robusta</i>	0.5l	30	1.2m	20	300	25	345
kānuka	<i>Kunzea robusta var. linearis</i>	0.5l	50	1.2m	35	500	40	575
harakeke	<i>Phormium tenax</i>	0.5l	20	1.2m	15	200	15	230

Schedule – Planting screen mix D

Common name	Species	Grade	Spacing	Area 1 750m ²	Total
karo	<i>Pittosporum crassifolium</i>	0.5l	1.0m	750	750

GENERAL NOTES

These drawings shall be read in conjunction with all other Consultants drawings, specifications and such written instructions as may be issued at anytime during the Contract.

Contractor is responsible for under and above ground services.

Confirm all existing construction, dimensions, heights and levels before commencing works. Any discrepancy shall be referred to the Landscape Architect for decisions before proceeding with the works.

Project Pukenui Ltd. Partnership
s127 application
 FIGURE 1e: The Proposal



Client
Client

Photon Energy

Consultants

Rev. Date Notes
13/08/2024

Project
Pukenui Solar Farm 1 and 2 (Lamb Road)

Title
Landscape mitigation plan

Page Title
Planting Schedule

Do not scale.
The contractor shall verify all dimensions before commencing work, and all discrepancies to be referred to Context Architects Ltd for clarification. These plans are confidential and are not to be discussed or copied without the express permission of Context Architects Ltd.

Scale

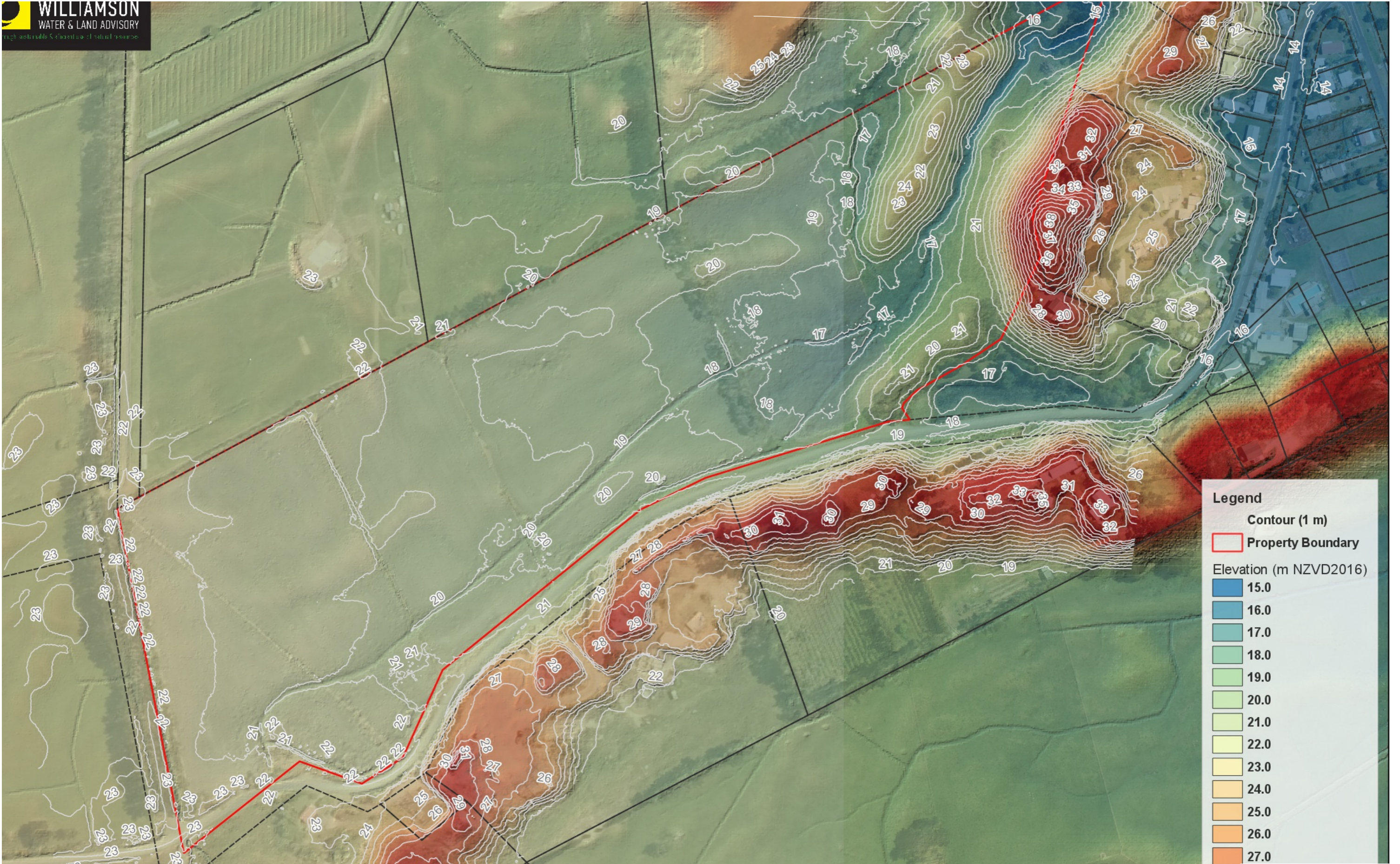
@ A1

Project No.
20223

Drawing no.
L1003



Rev.
2



0m 50m 100m 150m

Project Pukenui Ltd. Partnership

s127 application

FIGURE 2: The topography of the Site



Project Pukenui Ltd. Partnership
s127 application

FIGURE 3: Topography of the Site and its context

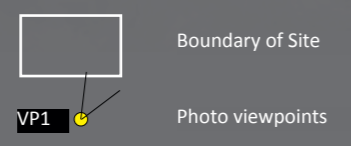
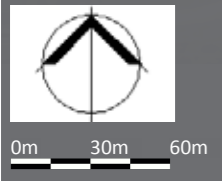




Photo 1: View to north east across Site from Lamb Road boundary

Photo taken: 3 December 2020

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s127 application

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)



Simon Cocker
Landscape Architecture



Photo 2: View to east from eastern edge of Site

Photo taken: 3 December 2020

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s127 application

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)



Simon Cocker
Landscape Architecture



Photo 3: View to shallow valley from Lamb Road frontage

Photo taken: 3 December 2020

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Photo 4: View to the midden and shallow valley from Site to west

Photo taken: 3 December 2020

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Landscape Architecture



Photo 5: View south across shallow valley (pan 1 of 2)

Photo taken: 3 December 2020

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Photo 6: View south east across shallow valley (pan 2 of 2)

Photo taken: 3 December 2020

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Landscape Architecture



Photo 7: View north from northern boundary

Photo taken: By others. July 2024.

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Photo 8: View north from northern boundary

Photo taken: By others. July 2024.

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