Burrundulla Mini Sustainable Energy Park

Landscape and Visual Impact Assessment

August 2022

Contents

1. Introduction

This report has been prepared to assess the visual impacts of the proposed 2 x 5MW solar farm at 3B Sydney Road, Burrundulla, known as 'Burrundulla Mini Sustainable Energy Park' (the proposal).

This visual impact assessment identifies the potential visual impacts of the proposal on views from surrounding areas. This will include an assessment of the impact on views from the public domain (including the Castlereagh Highway and surrounding roads) and nearby private properties.

2. The proposal

The layout of the key elements of this proposal is shown on the General Arrangement Plan, included in Attachment A.

The proposal would include solar panel arrays (up to 2.757 metres tall), solar farm fencing and access tracks shown in the Fencing Details, Gate Details and Nextracker Array Details, included in Attachment A. There is no lighting proposed as a part of the proposal.

The proposal would include setbacks and landscaped areas as shown in the Landscape Concept Plan, included in Attachment B. This would be:

a) North eastern boundary - 200 metre setback from the Castlereagh Highway that includes mounding with pasture grasses suitable for grazing and scattered trees.

b) Eastern boundary - 100 metre setback from the eastern site boundary that includes mounding to the north and south of this area with pasture grasses suitable for grazing and scattered trees.

c) Southern boundary - 100 metres wide (in the west) and 250.5 metres wide (in the east) set back that would remain as pasture for grazing. There would be a mound directly to the south of the eastern panel array area and a mound to the southeast of the western panel array area both with scattered trees. There would also be a native screening vegetation to the south of the western panel array area.

d) North western boundary (south of the existing trees) – Additional trees to the south of the existing trees, scattered trees in the south western corner of the site, and a 10 metre-wide area of native screen planting adjacent to the western panel array area.

e) North western boundary (north of the existing trees) - 10-metre-wide area of native screen planting along the site boundary.

f) Within the site - Large trees scattered through the centre of the site.

The proposed mounding would be about three metres tall and 30 metres wide (maximum 1:5 gradient). These mounds would include pasture grass and scattered trees and be suitable for grazing. Mounding has been located close to the solar panel array areas and on higher ground to maximise their screening effect. The mounding does not fully enclose the site to maintain natural drainage across the site.

The proposed planting includes a mix of large shrubs and small native trees in the screen planting areas, and large native trees as scattered trees.

Planting in the proposed 10-metre-wide native screen planting areas would be laid out in a staggered arrangement and at a density to achieve an overlap between plant foliage and maximise the screening effect.

The plan includes a three month (13 week) establishment and 24-month monitoring period to ensure establishment of the proposed planting areas. The proposed planting would be subject to ongoing maintenance as a part of the operations phase of the solar farm. Further detail has been provided in the Vegetation Management Plan.

3. Planning context

There are several state and local government planning documents which provide relevant guidance for the consideration of visual impact and also set out the desired planning outcomes for the study area. These are summarised in the following paragraphs.

3.1. State and regional planning documents

3.1.1. Central West and Orana Regional Plan

The *Central West and Orana Regional Plan 2036* (DPIE, 2017) is intended to guide the NSW Government's land use planning priorities and decisions over the next 20 years. The region's '*rich soils, mountains and vast plains form a mosaic of beautiful landscapes*' (p.8).

Aim 9.2 of Direction 9 Increase renewable energy generation, is to … '*Facilitate small-scale renewable energy projects using bioenergy, solar, wind, small-scale hydro, geothermal or other innovative storage technologies through local environment plans.*' (p.31).

3.1.2. Central-West Orana Renewable Energy Zone

The Central-West Orana Renewable Energy Zone (REZ) was formally declared in 2021. The REZ is a 'modern-day power station'. (https://www.energy.nsw.gov.au /renewables/renewable-energy-zones)

EnergyCo NSW will be delivering the new transmission infrastructure that will support the generating projects within the REZ.

The intention is that the REZ will combine renewable energy generation (such as wind and solar), with storage (such as batteries) and transmission (high-voltage poles and wires). Mudgee is located within this REZ.

3.2. Local Government planning

The proposal is located in the Mid-Western Regional Council area. Relevant parts of the Mid-Western Regional Local Strategic Planning Statement 2020 (LSPS), Mid-Western Local Environmental Plan 2012 (LEP) and Mid-Western Development Control Plan 2013 (DCP) are summarised in the following section.

3.2.1. Mid-Western Regional Council Local Strategic Planning Statement

Our Place 2040 Mid-Western Regional Local Strategic Planning Statement (LSPS) (Mid-Western Regional Council, 2020) sets out the vision for the area in 2036 and the actions that will be taken to achieve this vision.

It provides the land-use planning framework for the Mid-Western region, based around five themes. Each these includes planning priorities, objectives and actions to "*provide for sustainable growth and development, having regard to the Region's unique heritage, environment and rural character"* (p.10).

Mudgee is identified as the main town of the region. The Castlereagh Highway runs through the centre of the Region in a southeast to northwest direction. The Castlereagh Highway, to the northwest of the proposal site, is identified as a 'Main Entrance Corridor' in the Mudgee structure plan (Figure 4, p.13).

The plan is structured around several themes supported by planning priorities. Of relevance, The Planning Priority 3 for the theme 'Looking after our community' is to … "*Maintain and promote the aesthetic appeal of the towns and villages within the Region*." (p.17)

The rationale for Planning Priority 3 is described in the plan. It states that … "*The unique landscapes surrounding the towns and village are highly valued and contribute to the overall appeal of the Region. Protecting these landscapes and rural settings into the future will ensure a positive experience for visitors and a good quality of life for residents*." (p.21)

The plan specifically refers to the landscape of Mudgee, stating that … "*Mudgee's urban area is nestled against the backdrop of hills, providing a sense of enclosure to the south. The landscape opens up to the northern and eastern areas of Mudgee with relatively flat agricultural land located along the Cudgegong River*." (p.21).

Theme 3, 'Building a strong local economy' is supported by land use action e. … "*Consider renewable energy development in appropriate areas that avoids impacts on the scenic rural landscape and preserves valuable agricultural land*." (p.27)

3.2.2. Mid-Western Regional Council Local Environmental Plan 2012

Land use zoning

The proposal site is zoned RU4 Primary Production Small Lots. Objectives of this zone include:

a) *"To enable sustainable primary industry and other compatible land uses."*

b) *"To encourage and promote diversity and employment opportunities in relation to primary industry enterprises, particularly those that require smaller lots or that are more intensive in nature."*

c) *"To minimise conflict between land uses within this zone and land uses within adjoining zones."*

d) *"To ensure that land is available for intensive plant agriculture."*

e) *"To encourage diversity and promote employment opportunities related to primary industry enterprises, particularly those that require smaller holdings or are more intensive in nature."*

Of relevance to the visual impact assessment, is the potential for intensive agricultural uses on smaller lots and how this will influence the existing and intended future character of the area.

Visually sensitive land near Mudgee

Clause 6.10, Visually sensitive land near Mudgee, has the objective "*to protect the visually and environmentally significant land on the urban fringe of the town of Mudgee*" (cl.6.10(1))

This clause applies to land shown as "Visually Sensitive Land" on the Visually Sensitive Land Map, which was amended and came into effect in November 2019 (after the application for this proposal was submitted), to include the proposal site.

The LEP states that:

"Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development—

(a) will complement the visual setting forming the backdrop to Mudgee, and

(b) will be designed, set back and sited to respond sympathetically to the landform of the site on which the development is proposed to be carried out and will minimise visual intrusion. (cl.6.10(3))

This assessment will describe how the proposal has been set back and sited to respond sympathetically to the landform of the site. The results of the visual impact assessment will also demonstrate how the proposal minimises visual intrusion, and that while the site does not form a part of the backdrop to Mudgee, the proposal will complement the visual setting which does form the backdrop to Mudgee by maintaining areas of pasture and introducing scattered trees across the site which complement the character of the rural valley which includes a complex mix of uses.

Heritage

The Wallinga homestead, located about 800 metres south east of the proposal site, is a local heritage item (Item number 1401).

The heritage conservation clause aims to '*conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views'* (cl. 5.10).

This property was visited and an assessment of views from this dwelling are contained in chapter 6 of this report.

3.2.3. Mid-Western Regional Council Development Control Plan 2013

The Mid-Western Regional Council Development Control Plan (DCP) supports the LEP by providing additional objectives and controls for administering development.

Amendment No 3 of the DCP was in force at the time the Application was lodged, and Amendments No 4 and 5 were enacted after the Application was lodged. In accordance with the transitional provisions, the Application will be assessed under Amendment No 3 of the DCP. (Refer to Planning advice letter at Attachment C)

While it does not apply to this Application, Amendment 5 of the DCP includes provisions for solar energy farms (cl. 6.5) in Part 6 'Development in Rural Areas'. The provisions are listed here.

Part 6 Development in Rural Areas: Solar energy farms:

This part of the DCP sets out the following requirements for a visual impact assessment of solar energy farm proposals.

"*A description and assessment of the visual effects on all scenic, neighbouring and public view locations including photomontages, plate or panoramic photomontages, computer assisted photo simulations or other graphic representations of the appearance of the solar arrays and ancillary infrastructure such as inverters, transmission lines and battery storages. Viewshed modelling via the use of a suitable GIS (e.g. "MapInfo") is recommended."* (p. 80)

This assessment report contains both GIS viewshed modelling and photomontages and considers the visual effects of the solar arrays and ancillary infrastructure on all scenic, neighbouring and public view locations.

This section of the DCP also contains a set of controls, including:

a) *"The developer should assess the visual impact of the project including an assessment of the development on the scenic value and character of the locality. This assessment should consider how the proposal will maintain the unique local character of the area, all significant vistas and also examine local community values towards key elements which form the identity of the area being impacted by the proposal.*

b) *The development should be carried out in a way that minimises any physical adverse effects on adjoining land and the development site, including, but not limited to native vegetation loss*

c) *The developer should assess the cumulative impact of the development having regard to solar energy farms already built and those approved but not yet constructed. Council does not favour large expanses of land being covered with solar energy farms where there is significant cumulative impact.*

d) *Where the proposal is located within a 5km radius from main townships and villages, the proposal must demonstrate that it will not impact on the scenic value and character of the locality.*

e) *Solar Energy Farms should not be located within 500m of any dwelling not associated with the development or from any lot upon which a dwelling may be constructed.*

f) *Solar Energy Farms should not be located within 200m from a formed Local Public Road or 500m from a Regional or State Road. A greater distance may be required by the road authority where visual impact mitigation is necessary.*

g) *Solar Energy Farms should not be located within 100m from a non-related property boundary; existing and proposed screenings may be used to minimise visual impacts to non-related properties. However, screening is not the only preferred method of minimising visual impact. Solar arrays shall be located in positions so as to have minimal visual impact on nearby properties, especially existing dwellings and lots on which dwellings may be constructed.*

h) *Solar Energy Farm locations are to be sensitive to existing related dwellings on the subject site. Noise and glare should be minimised in all respects.*

i) *Solar Energy Farms should not surround a non-related property. Solar arrays shall be located with the specified setbacks from property boundaries to minimise the visual impact of the development on adjacent and nearby non-related property.*

j) *All infrastructure should be located in low visual impact locations and interconnection cables/wiring and the like should be underground.* (cl.6.5).

In the event that these provisions were applicable, this Applications would meet the assessment method and scope requirements, in the following impact assessment at Chapter 4, 5 and 6 of this report. A summary of how the Application would meet these requirements is also provided in Chapter 7 of this report.

4. Site and setting

4.1. Study area

The proposal site is located on the south western side of the Castlereagh Highway, about 2.4 kilometres southeast of Mudgee. (Refer to Attachment D, Figure 1)

The site is located in a valley enclosed by mountains and hills to the west, south and east. This includes a mountain range to the west and southwest, that contains the Avisford Nature Reserve, which forms a forested ridgeline. The hills to the east and northeast, include Mt Frome a domed hill that rises above the surrounding landform. Mt Frome is a distinctive visual feature within this landscape. (Refer to Attachment D, Figure 2 and 3) These mountains and hills form the visual backdrop to Mudgee.

To the southeast the landform rises to small hills and there are several small spurs extending from the hills towards the plain that form an undulating topography. The valley gently slopes towards the Cudgegong River to the northeast.

The Castlereagh Highway passes through the Burrundulla valley, crossing the hills in the south and extending north to Mudgee. The site is located to the southwest of the highway.

The site is set within an area of mixed rural character uses including small wineries, fields under grazing with associated rural dwellings, smaller rural lifestyle holdings some with holiday accommodation, and a wedding and reception venue. To the west of the site there is a cellar door with café and a small vineyard (Burrundulla Wines). Further west, along Spring Flat Road, about 550 metres from the site, is land zoned rural residential land (R5 Large Lot Residential zoning) which is yet to be developed.

4.2. The site

The site is largely cleared of vegetation and under rural use. The site has historically been used for both cropping activities and grazing livestock. There are a few scattered mature trees on the site, and a single row of mature eucalypts planted along the western boundary (refer Figure 4-1).

The site appears as generally flat, with a gentle slope across the site from the south to north and also sloping towards the middle of the site which drains northwards towards a large dam in the centre north of the site (refer Figure 4-2). This dam includes a steeply sided mound which rises about three metres above the site. There is an existing transmission line crossing the site, parallel to the Castlereagh Highway.

FIGURE 4-1 EXISTING TREES ALONG THE NORTH WESTERN BOUNDARY OF THE SITE

FIGURE 4-2 SITE UNDER CULTIVATION SHOWING AN EXISTING TREE (TO BE RETAINED), TRANSMISSION LINES AND DAM

4.3. Visual catchment

The visual catchment is the area from which the proposal would be seen (refer Figure 4-3 and Attachment D Figure 4). This area has been identified using LiDAR data and the height of the proposed solar arrays in GIS software.

A series of points were placed across the proposed solar array area and the proposed mounding added to the terrain model.

The visual catchment identifies the likely potential visibility of the site which has been graded from low through to high based on the number of points on the solar array area that would theoretically be visible. This analysis does not take into consideration factors such as viewing distance or the angle of view (effect of foreshortening), nor the compatibility of the solar arrays in the landscape. However, it illustrates the pattern of visibility within the study area.

The Visual Catchment for the site extends:

a) To the north, where there would be glimpses to the project from a short section of the Castlereagh Highway and fields to the north extending to Burrundulla Road at a distance of about 500 metres

b) To the north at a distance of about one to two kilometres on the foothills surrounding Rocky Waterhole Road and to the upper slopes of Mt Frome

c) To the east and southeast, on fields directly adjacent to the site and then on the northwest facing slopes of the undulating fields about 500 metres from the site and with some patches where there is a potential view to the south to about one kilometre from the site

d) To include an area to the east about one kilometre from the site to the north of the highway where there is a small rise

e) To the southeast of the site, to the north and west facing slopes of the hills located between two and three kilometres from the site, including from a short section of the Castlereagh Highway

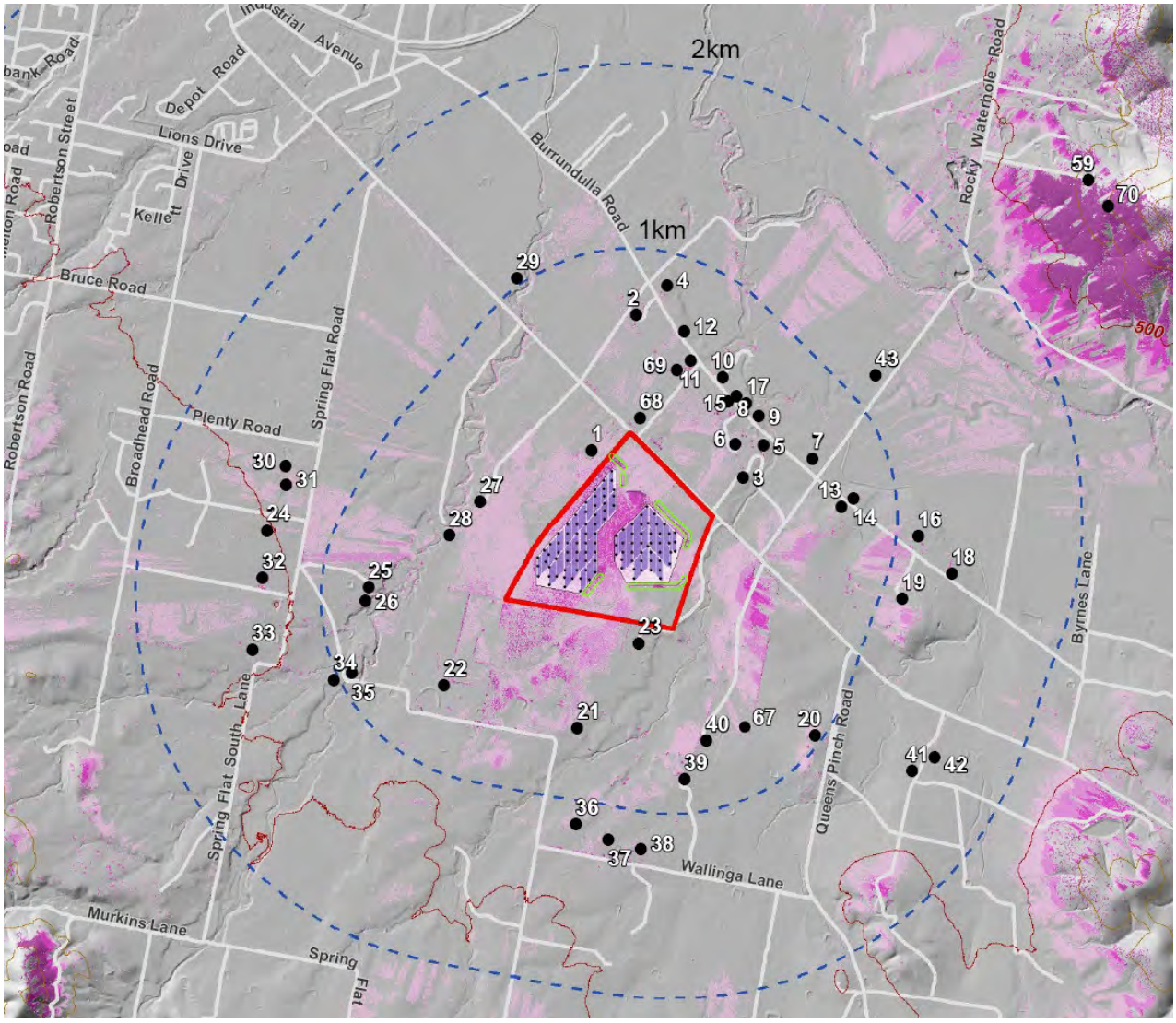
f) To the southwest of the site across the adjacent fields and extending to Spring Flat Road

g) To the southwest and west across adjacent fields about 500 metres from the site

h) To the west on fields beyond the Oaky Creek at about one kilometre from the site, including a section of Spring Flat Road near Hill Sixty Drive.

The visual catchment for the site shows the potential for a small area of the panel arrays to be seen from a limited area within the valley (to about 500 metres), and with a higher potential for views to the site from elevated areas which are generally over 2km from the site. Within 1km of the site, there is a greater potential for views of the solar panel arrays from the fields directly to the south of the site (where there is screening vegetation proposed) and from a section of the driveway to 344 Castlereagh Highway (OP40 and 67), which is elevated and where there would be a gap in the proposed mounding. This view is assessed in section 6 of this report (Refer to Appendix F, Figures 37, 38 and 39).

This visual catchment was used to inform fieldwork and the selection of viewpoints for the assessment of public domain views (refer to section 5 of this report) and private dwellings (refer to section 6 of this report).



Proposal site
Distance from the site
Contour (250m)
Contour (50m)
Observer point
Mounding
Area of solar farm potentially visible
Small
High

Observer point (OP) addresses

OP 1	3b Sydney Road (Associated property)
OP 2	252 Burrundulla Road, Burrundulla
OP 3	446 Rocky Waterhole Road, Burrundulla
OP 4	253 Burrundulla Road, Burrundulla
OP 5	354 Burrundulla Road, Burrundulla
OP 6	328 Burrundulla Road, Burrundulla
OP 7	371 Burrundulla Road, Burrundulla
OP 8	322 Burrundulla Road, Burrundulla
OP 9	331 Burrundulla Road, Burrundulla
OP 10	297 Burrundulla Road, Burrundulla
OP 11	290 Burrundulla Road, Burrundulla
OP 12	275 Burrundulla Road, Burrundulla
OP 13	404 Burrundulla Road, Burrundulla
OP 14	447 Burrundulla Road, Burrundulla
OP 15	321 Burrundulla Road, Burrundulla
OP 16	447 Burrundulla Road, Burrundulla
OP 17	327 Burrundulla Road, Burrundulla
OP 18	473 Burrundulla Road, Burrundulla
OP 19	452 Burrundulla Road, Burrundulla
OP 20	46 Queens Pinch Road, Spring Flat
OP 21	411 Spring Flat Road, Spring Flat
OP 22	345 Spring Flat Road, Spring Flat
OP 23	312 Castlereagh Highway, Spring Flat
OP 24	17 Hill Sixty Drive, Spring Flat
OP 25	217 Spring Flat Road, Spring Flat
OP 26	217 Spring Flat Road, Spring Flat
OP 27	3b Sydney Road, Mudgee (Associated property)
OP 28	3b Sydney Road, Mudgee (Associated property)
OP 29	139 Castlereagh Highway, Burrundulla
OP 30	15 Plenty Road, Spring Flat
OP 31	14 Hill Street Sixty Drive, Spring Flat
OP 32	17 Hill Sixty Drive, Spring Flat
OP 33	46 Spring Flat South Lane, Spring Flat
OP 34	282 Spring Flat Road, Spring Flat
OP 35	281 Spring Flat Road, Spring Flat
OP 36	13 Wallinga Lane, Spring Flat
OP 37	39 Wallinga Lane, Spring Flat
OP 38	55 Wallinga Lane, Spring Flat
OP 39	83 Wallinga Lane, Spring Flat (Old Wallinga House)
OP 40	344 Castlereagh Highway, Spring Flat
OP 41	470 Castlereagh Highway, Burrundulla
OP 42	470 Castlereagh Highway, Burrundulla
OP 59	241 Rocky Waterhole Road
OP 67	344 Castlereagh Highway, Spring Flat (Short term accommodation)
OP 68	243 Castlereagh Highway (Former plant nursery)
OP 69	243 Castlereagh Highway
OP 70	241 Rocky Waterhole Road (Main house)

FIGURE 4-3 VISUAL CATCHMENT

5. Visual Impact Assessment - public domain views

5.1. Approach

While there are no specific legislative requirements for the methodology of an assessment of small scale solar farms in New South Wales, the industry typically refers to the guidance offered by:

i. *Guidance note EIA-N04 Guidelines for Landscape Character and Visual Impact Assessment*, TfNSW 2020) and

ii. *The Guidance Note for Landscape and Visual Assessment* (GNLVA), Australian Institute of Landscape Architects Queensland (2018).

The methodology used for this assessment is described below and draws upon the direction offered by these documents for the scoping of this assessment, key terminology and the main steps undertaken.

5.2. Methodology

5.2.1. Identifying receptors

Views have been selected to represent the range of locations from which the proposal would be seen. These viewing positions have prioritised locations where there would be a larger number of potential viewers, designated viewing locations and scenic routes, arrival points, and views to particular landscape features such as ridgelines and mountains (such as Mt Frome).

5.2.2. Assessment steps

An assessment of each view has been undertaken in the following steps:

A. Describe the existing conditions seen in the view

B. Identify the sensitivity of the viewer (refer Table 5-1)

C. Identify the magnitude of change created by the proposal (refer Table 5-2)

D. Combine these characteristics to assign a level of visual impact (refer Table 5-3).

E. Describe mitigation measures and assign a revised level of visual impact with mitigation if appropriate (refer Table 5-3).

5.2.2.1 Visual sensitivity

Visual sensitivity combines the nature of the viewer and quality of the view. The nature of the view takes into account the number of viewers and duration of a view, as well as the activity taking place at the viewing location. Locations from which a view would potentially be seen for a longer duration, where there are higher numbers of potential viewers and where visual amenity is important to viewers, would be regarded as having a higher visual sensitivity.

In addition, any views recognised by local, state, or federal planning regulations would, by nature of their recognition in these documents, increase the sensitivity level of the view.

Table 5-1 describes the sensitivity levels that have been used for this assessment.

TABLE 5-1 VISUAL SENSITIVITY LEVELS

Visual sensitivity	Description
High	Heavily experienced view to a feature or landscape that is iconic to a major portion of a city or a non-metropolitan region, or a designated view in a natural area to a landscape of high visual amenity. It may be a view from of regional open space or designated viewpoint for example. These views are generally unique or uncommon within the regional landscape.
Medium	Views experienced by a concentration of residents and/or local recreational users, views identified in the planning provisions as having value to the wider community, and / or views with moderate level of visual amenity and visual coherence. These may be a gateway view, view from an identified scenic route and/or large numbers of road or rail users, and or/ views to important visual features. These views are less common within the landscape.
Low – medium	Views from a moderate number of receptors, and / or views including local features which are identified in the planning provisions as having value to the local community, and / or views with a minor to moderate level of visual amenity and visual coherence.

Visual sensitivity	Description
	These may be views seen from the entry to a place, a local collector road, a view with some landscape features, and views from larger groups of residences.
Low	Views from a small number of receptors, and / or views not including features identified in the planning provisions as having value to the wider community, and / or views which have a lower or fragmented quality and lacks coherence. These may be views seen from local roads, briefly glimpsed views to landscape features, and views from small groups of residences. These views are likely to be common within the landscape.

5.2.2.2 Magnitude of change

Magnitude is the … '*measurement of the scale, form and character of a development proposal when compared to the existing condition. In the case of visual assessment this also relates to how far the proposal is from the viewer.*' (TfNSW 2020)

The magnitude of change considers the extent of change resulting from the proposal and the compatibility of these new elements with the surrounding landscape.

TABLE 5-2 MAGNITUDE LEVELS

Magnitude	Description
High	The proposal is visually dominant and / or contrasts substantially with the character of the view. It would result in a substantial change in the amenity of the view.
Medium	The proposal is somewhat prominent and / or is not compatible with the character of the view. It would result in a noticeable change in the amenity of the view.
Low	The proposal is not visually prominent and / or is visually compatible with the character of the view. It would result in a slight change in the amenity of the view.
Negligible	The proposal is not visible, is not visually prominent in the view and / or is compatible with the character of the view. It would result in no perceived change in the amenity of the view.

Magnitude of change will be determined by characteristics of the view, such as distance, landform, backdrop, intervening vegetation etc. There are also characteristics of the proposal which are: scale, form, and line/alignment. Changes to a view can result in an improvement or reduction in visual amenity.

A high magnitude of change would result if the development contrasts strongly with the existing characteristics of the view. A low magnitude of change occurs if there is a high level of integration of form, line, shape, pattern, colour or texture values between the proposal and its visual setting.

In some circumstances, there may be a visible change to a view which does not alter the amenity of the view, this would be due to the compatibility of the proposal and capacity of the view to accommodate the change without losing valued elements. Figure 5-2 lists the categories used to describe the magnitude of change.

An assessment of the magnitude of change has been undertaken for the project of day 1 (that is with mounding in place but assuming no screening by vegetation) and then with mitigation, which assumes the presence of the proposed vegetation, which would establish over time.

Photomontages have been prepared to illustrate the location, massing and scale, character of the proposal. These combine the engineering design with a photograph using a 3D model and photo editing techniques to create a photorealistic impression of the proposal. They will be used to illustrate the magnitude of change.

The photomontages used in this report have been prepared in accordance with the NSW Land and Environment Court Policy. (Refer to Attachment F)

In accordance with this policy, these photomontages have been verified with surveyed points that confirms the location of the camera and points within the view. (Refer to Attachment G)

Photomontages were prepared for all locations requested by Council's planning expert. This includes three locations along the Castlereagh Highway.

The photomontages include views showing a wireframe (to identify the location of the solar farm where it is not clearly apparent in the photomontage), the day one scenario (including panel arrays, inverters and the solar farm fencing, and mounding without vegetation), and with vegetation (with trees shown an assumed height of about five to six metres). This represents the expected growth of trees within about five years.

5.2.2.3 Assigning impact levels

A visual impact level has been determined for each view by combining the sensitivity and magnitude level according to the matrix presented in Table 5-3.

This matrix is based on the 'Landscape character and visual impact rating matrix' contained in the *Guidance note EIA-N04 Guidelines for Landscape Character and Visual Impact Assessment* (Figure 7, p.12, TfNSW, 2020).

TABLE 5-3 VISUAL IMPACT LEVELS

	High sensitivity	Medium sensitivity	Low sensitivity	Negligible sensitivity
High magnitude of change	High adverse	High- moderate adverse	Moderate adverse	Negligible
Medium magnitude of change	High - moderate adverse	Moderate adverse	Moderate - Minor adverse	Negligible
Low magnitude of change	Moderate adverse	Moderate-minor adverse	Minor adverse	Negligible
Negligible magnitude of change	Negligible	Negligible	Negligible	Negligible

5.3. Assessment of representative viewpoints

Viewpoints were selected to represent the views from:

i. Castlereagh Highway

ii. Burrundulla Road

iii. Rocky Waterhole Road

iv. Spring Flat Road.

The location of these views is shown in Figure 5-1 and Attachment E Viewpoint location plans and viewpoint panoramas, and an assessment of visual impact has been summarised in the following pages.

Note, the visual catchment map (refer section 4.3 of this report and to Attachment D, Figure 4) and site investigations confirmed that there would not be a view to the proposal from Queens Pinch Road (refer to Attachment E, Figure 11, Viewpoint 10) or Wallinga Lane and therefore there would not be a visual impact from these locations.

Furthermore, it was confirmed on site with Council officers that there are no viewing locations on the upper slopes of the surrounding hills and mountains to the south, east, west, and north of the site (including locations above AHD 503.66) from which there would be a potential view or visual impact.

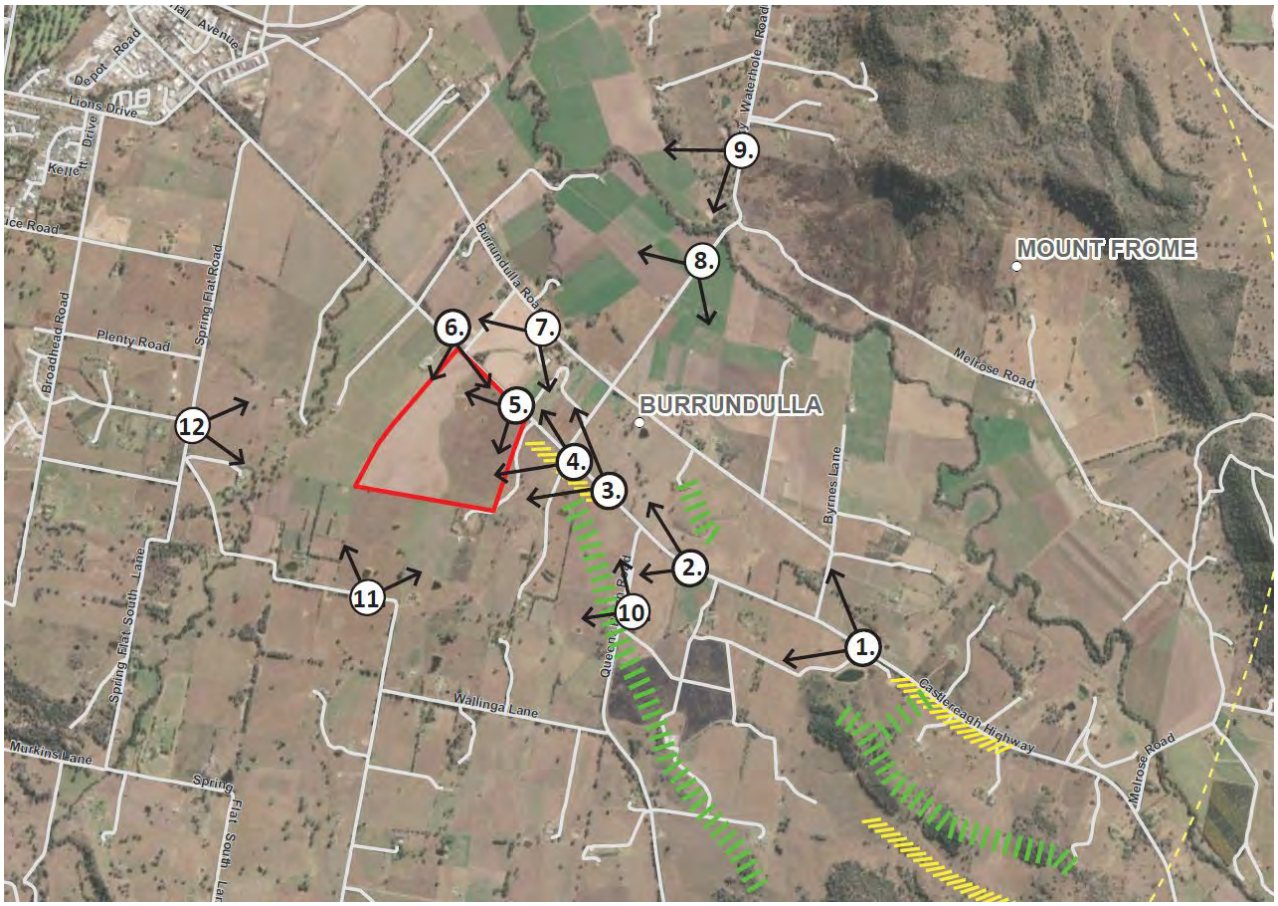


FIGURE 5-1 VIEWPOINT LOCATION PLAN

5.3.1.Views from the Castlereagh Highway

A. Existing conditions

There are views to the site from the northbound lane of the Castlereagh Highway from a short section, about two kilometres south of the site as the highway crosses First Ridge (refer to viewpoint 1 Figure 5-2). This is a panoramic view, glimpsed from vehicles travelling at 100 kmph along the highway. In this view, there is a panoramic view across a patchwork of fields set within a framework of mature vegetation.

Travelling north, site is then out of view due to the roadside vegetation, roadside cuttings, and undulating landform (refer to Viewpoint 2 and 3, Figure 5-4 and 5-5) The site becomes visible again, glimpsed through trees and across property driveways, from about 400 metres to the south of the site (refer to Viewpoint 4, Figure 5-6).

As the highway passes the site there is an unobstructed view directly to the south (refer to Viewpoint 5, Figure 5-8). In this view the site is generally flat so that the northern are of the field is most visible. There is an embankment forming a dam in the centre which also screens the southern areas of the site and adjacent areas as vehicles pass. There is a backdrop of vegetation and mountains enclosing this view.

This unobstructed view is experienced from vehicles travelling at 100km per hour, and therefore for a few seconds on the ridgeline, and between 15 and 20 seconds while passing the site.

B. Sensitivity

The Castlereagh Highway provides the main entry to Mudgee and approach from Sydney for visitors. The view includes intermittent views to local landscape features including a backdrop of vegetated ridgelines and Mt Frome. This view is of **medium** visual sensitivity

5.3.1.1. Viewpoint 1: View northwest from the Castlereagh Highway near first ridge

C. Magnitude of change (day 1):

The solar farm would be seen in the background of this view, at a distance of over two kilometres. Parts of both the eastern and western arrays would be visible from this elevated location, where they rise above the proposed mounding on the northeastern and eastern side of the site. The panels would be aligned north to south, across this view, so that the panel arrays would overlap and appear as a thin linear shape extending across a field in the centre of the view.

At this distance the solar panels would visually merge to appear as a block of colour rather than individual panels. The photomontage (refer Figure 5-3 and Attachment F, Figure 16) shows the scale of solar farm in this view and the mitigating effect of distance on the visibility of the panel arrays.

While at this point the view from the highway is aligned towards the solar farm site, the solar farm infrastructure would not be prominent in this view. It would be viewed against a backdrop of vegetation and would be absorbed into the setting with fields of different colours (under cultivation) forming somewhat of a patchwork of fields amongst a framework of trees.

This view would be glimpsed from vehicles on the highway moving at speeds of up to 100 km/hr so that it is seen for only a few seconds on the journey to Mudgee.

The proposal would comprise a small part of this panoramic view and would not detract from the landscape features of the surrounding vegetated ridgelines and hills which form the backdrop to Mudgee and are seen from this location. Overall, there would be a **negligible** magnitude of change from this location.

D. Visual impact: **Negligible.**

E. Visual impact with mitigation:

Scattered trees are proposed along the eastern side of the solar farm fence would provide some screening of the eastern edge of the solar farm over time. Further areas of revegetation across the southern areas of the site would provide some screening of the southern section of the western array. The introduction of tree canopy between the solar farm arrays, would also provide some filtering of views to the western array, further reducing the visible area of the panels and breaking up the linear shape of the development.

Combined, these areas of vegetation would provide screening and visual softening of the solar farm over time, allowing the solar farm to be further absorbed of into the background of the view. The visual impact level would be reduced to **negligible**.

FIGURE 5-2 VIEWPOINT 1: VIEW NORTHWEST FROM THE CASTLEREAGH HIGHWAY NEAR FIRST RIDGE ABOUT 2.4 KM FROM THE SITE

FIGURE 5-3 VIEWPOINT 1: VIEW NORTHWEST FROM THE CASTLEREAGH HIGHWAY NEAR FIRST RIDGE ABOUT 2.4 KM FROM THE SITE, PHOTOMONTAGE

FIGURE 5-4 VIEWPOINT 2: VIEW NORTHWEST FROM THE CASTLEREAGH HIGHWAY NEAR FIRST RIDGE ABOUT 1.3 KM FROM THE SITE

FIGURE 5-5 VIEWPOINT 3: VIEW NORTHWEST FROM THE CASTLEREAGH HIGHWAY ABOUT 400 METRES FROM THE SITE

FIGURE 5-6 VIEWPOINT 4: VIEW NORTHWEST FROM THE CASTLEREAGH HIGHWAY ABOUT 350 METRES FROM THE SITE

FIGURE 5-7 VIEWPOINT 4: VIEW NORTHWEST FROM THE CASTLEREAGH HIGHWAY ABOUT 350 METRES FROM THE SITE, PHOTOMONTAGE (DAY 1)

5.3.1.2. Viewpoint 4: View from the Castlereagh Highway about 350 metres from the site

C. Magnitude of change (day 1):

The mounding along the northeastern and eastern side of the proposed eastern panel arrays would be seen in the middle ground of this view through roadside trees. (Refer to figure 5-7 and Attachment E, Figure 18) The solar arrays and solar farm security fencing would be set back about 200 metres from the highway, behind the proposed mounding, and would not be visible. The western array would also be screened by the dam embankments.

This view would be glimpsed from vehicles on the highway moving at speeds of up to 100 km/hr so that it is seen for only a few seconds on the journey to Mudgee.

The rural character of the roadside landscape would be maintained as grazing would continue across the visible areas of the site. The proposed mounding would be consistent in character with the undulating landform seen in views from the highway, and would maintain views to the distant mountains which form the backdrop to Mudgee.

Overall, there would be a **negligible** magnitude of change from this location.

D. Visual impact: **Negligible.**

E. Visual impact with mitigation:

Trees would be scattered across the mounding and fields along the northeastern and eastern side of the solar farm. Over time, these trees would enhance the character of this view, providing amenity to views from the Highway. These trees would be consistent with the character of the landscape in the vicinity of the site, which includes rural fields with trees along field boundaries and watercourses. The visual impact level would remain as **negligible**.

FIGURE 5-8 VIEWPOINT 5: VIEW SOUTHWEST FROM THE CASTLEREAGH HIGHWAY ALONGSIDE THE SITE

5.3.1.3. Viewpoint 5: View from the Castlereagh Highway alongside the site

C. Magnitude of change (day 1):

The proposed mounding along the northeastern side of the solar farm, together with the existing mound associated with the dam, would provide a landform that overlaps and would provide an almost continuous screening of views into the panel array areas from the Highway. The solar farm, including arrays, inverters, and fences, would be set back about 200 metres from the highway and would not be visible above the proposed mounding. (Refer to Figure 5-8 and Attachment E, Figure 8)

The proposed mounding would maintain the rural character of the roadside landscape, being gently undulating and covered in pasture grasses that would allow grazing to continue. Views to the to the distant mountains, which form the backdrop to Mudgee, would be maintained.

This view would be seen from vehicles on the highway moving at speeds of up to 100 km/hr so that it would be seen for about 15 to 20 seconds on the approach to Mudgee.

Overall, due to the setback and proposed mounding there would be a **negligible** magnitude of change in views from this location.

D. Visual impact: **Negligible.**

E. Visual impact with mitigation:

The scattered trees along the northeastern side of the solar farm and scattered trees within the centre of the site would enhance the amenity of views from the Highway. These trees would be consistent with the character of the landscape in the vicinity of the site, which includes rural fields within a framework of trees, and enhance the character of this view over time.

The visual impact level would remain as **negligible**.

FIGURE 5-9 VIEWPOINT 6: VIEW SOUTHEAST FROM THE CASTLEREAGH HIGHWAY, ABOUT 100 METRES FROM THE SITE

FIGURE 5-10 VIEWPOINT 6: VIEW SOUTHEAST FROM THE CASTLEREAGH HIGHWAY, ABOUT 100 METRES FROM THE SITE, PHOTOMONTAGE (DAY 1)

5.3.1.4. Viewpoint 6: View southeast from the Castlereagh Highway

A. Existing conditions:

In southbound views from the Castlereagh Highway there is a view to the site about 100 metres to the south and alongside the site. (Refer Viewpoint 6, Figure 5-9 and Attachment F, Figure 20). This view includes the hills to the east and south of Mudgee and also a view to Mt Frome which form the backdrop to Mudgee. As the highway passes the site there is an unobstructed view directly to the south. This unobstructed view is experienced from vehicles travelling at 100 kilometres per hour, and therefore for between 15 and 20 seconds while passing the site.

B. Magnitude of change (day 1):

The mounding along the northeastern side of the solar farm would be seen in the middle ground of this view. The solar arrays, inverters and fencing would be set back about 200 metres from the highway and would be mostly screened by the proposed intervening mounds and the mound associated with the existing dam in the centre of this view. (Refer to Figure 5-10 and Attachment F, Figure 21)

There would, however, be some glimpses to the solar farm infrastructure (arrays and fences) in the gaps between the proposed mounding and the mound associated with the existing dam. Where visible, the panel arrays and solar farm fencing would be located beyond the existing transmission lines and would be of a small vertical scale relative to other structures in the landscape, such as the large agricultural sheds also seen from this section of the Highway.

The visible portion of the panel array area would have a short frontage to the Highway so that there would not be one continuous length of panels visible from this section of the highway.

Overall, while there would be glimpses to the panel array area, these glimpses would be viewed at speed from vehicles travelling along the highway and not prominent in the view. Due to the setback of this infrastructure from the highway, and low vertical scale of the proposed arrays, there would be a **negligible** magnitude of change to views from this location.

C. Visual impact: **Negligible.**

D. Visual impact with mitigation:

The scattered trees along the northeastern side of the solar farm and scattered trees within the centre of the site would enhance the amenity of this view from the Highway. These trees would be consistent with the character of the landscape in the vicinity of the site, which includes rural fields within a framework of trees, and enhance the character of this view over time.

The visual impact level would remain as **negligible**. (Refer Figure 5-11 and Attachment F, Figure 22)

FIGURE 5-11 VIEWPOINT 6: VIEW SOUTHEAST FROM THE CASTLEREAGH HIGHWAY, ABOUT 100 METRES FROM THE SITE, PHOTOMONTAGE SHOWING VEGETATION (SCATTERED TREES SHOWN AT ABOUT 5-6 METRES HIGH)

FIGURE 5-12 VIEWPOINT 7: VIEWS FROM BURRUNDULLA ROAD

5.3.2.Views from Burrundulla Road

5.3.2.1. Viewpoint 7 View from Burrundulla Road

A. Existing conditions:

There are views from a short section of Burrundulla Road directly to the north of the site. The foreground of this view includes existing fields which are on relatively flat landform. The Castlereagh Highway, with a regular stream of vehicles, can be seen in the middle ground of the view. There is a group of trees associated with a dam to the north of the highway and trees on adjacent fields that partly screens the site.

Beyond the highway the existing transmission line and embankments of a dam, located in the centre of the site, are visible. The view is enclosed by a vegetated ridgeline and hills including the Avisford Nature Reserve. There are several dwellings and rural sheds visible from this location, and an existing group of solar panels (about 85 metres away) are located in the foreground field. (Refer Figure 5-12 and Attachment E, Figure 10)

B. Visual sensitivity:

This view is from a local road which provides access to local rural properties. This road is located within an area mapped as 'Visually sensitive land near Mudgee'. The view includes local landscape features including a backdrop of vegetated ridgelines. This view is of **low-medium** visual sensitivity.

C. Magnitude of change (day 1):

The proposed mounding along the north eastern side of the proposed solar farm would be seen in the middle ground of this view. The proposal site boundary is about 500 metres from Burrundulla Road and the solar farm fence and panel arrays would be located a further 200 metres from the property boundary, and beyond the proposed mounding.

There may be glimpses to the north eastern edge of the eastern panel array area (left of view), adjacent to the dam. There would not be panels near the dam and the western array area would also be screened by the existing trees to the north of the highway. As the panels would be aligned north to south there may be glimpses along the panel arrays as they would be extending away from the viewer. The panels would comprise a very small portion of this view and is unlikely to be distinguishable in this view.

Overall, the proposal would comprise a very small part of the overall view and would not obstruct the view to the vegetated ridgeline and hills in the background. This would be a **negligible** magnitude of change.

D. Visual impact: **Negligible.**

E. Visual impact with mitigation:

There would be scattered trees located along the northeastern side of the solar farm fence, on the proposed mounding, beyond the transmission line and set back from the Highway. These trees would enhance the amenity of this view, being consistent with the character of the landscape in the vicinity of the site. The visual impact level would remain as **negligible**.

5.3.3.Views from Rocky Waterhole Road

5.3.3.1. Viewpoint 8 and 9: Views from Rocky Waterhole Road

A. Existing conditions:

The site is not visible from much of Rocky Waterhole Road due to the screening effect of vegetation within the fields to the north of the Castlereagh Highway. (Refer to Figure 5-13 and Attachment E, Figure 10)

The site can be seen, however, from the elevated areas of Rocky Waterhole Road where there are panoramic views across the valley. In this view fields can be seen amongst a framework of trees on the intervening fields and associated with the Cudgegong River. The Castlereagh Highway can be seen intermittently and there are dwellings and rural sheds scattered across the view. (Refer to Figure 5-14 and Attachment E, Figure 11)

B. Visual sensitivity:

This view is from a local road which provides access to local rural properties. This road is located within an area mapped as 'Visually sensitive land near Mudgee'. The view includes the local landscape features including vegetated ridgelines in the background. This view is of **low-medium** visual sensitivity.

C. Magnitude of change (day 1):

There would be glimpses to the solar farm in the background of this view (at a distance of about 2.5 kilometres). The solar farm would be partly screened by the proposed mounding and trees north of the highway. At this distance it would be difficult to discern the panels as they would merge visually, and the solar

arrays would be seen as a coloured area amongst the fields glimpsed amongst a framework of trees.

The proposal would occupy a small part of the overall view. Due to the distance and low profile of the solar arrays, the proposal would not be prominent in this view. This would be a **negligible** magnitude of change.

D. Visual impact: **Negligible.**

E. Visual impact with mitigation:

The scattered trees proposed along the boundaries of the site, and also through the centre of the site, would be consistent with the character of this view and provide improved amenity over time. The visual impact level would remain as **negligible**.

FIGURE 5-13 VIEWPOINT 8: VIEW FROM ROCKY WATERHOLE ROAD

FIGURE 5-14 VIEWPOINT 9: VIEW FROM ROCKY WATERHOLE ROAD, ZOOM

5.3.4. Views from Spring Flat Road

5.3.4.1. Viewpoint 11: View north from Spring Flat Road

A. Existing conditions:

From the short sections of Spring Flat Road there are views towards the site which include open fields on flat terrain. There are scattered and rows of mature trees mainly on the intervening field boundaries. (Refer to Figure 5-15 and Attachment E, Figure 12) There are large several large sheds visible in the middle and background of this view and most dwellings are screened by vegetation. The vegetation in the background of this view includes the trees along the western boundary of the site, and trees associated with the cellar door, rural residences, and farms, in the vicinity of the Castlereagh Highway. This view includes Mt Frome (right of view) and associated vegetated ridgelines in the far background which form the backdrop to Mudgee.

B. Visual sensitivity:

This view is from a local road which provides access to local rural properties. This road is located within an area mapped as 'Visually sensitive land near Mudgee'. The view includes local landscape features including vegetated ridgelines and Mt Frome. This view is of **low-medium** visual sensitivity.

C. Magnitude of change (day 1):

The solar farm would be seen in the background of this view, with the site boundary about 650 metres from the road and with the solar farm fence and panel arrays a further 100 to 250 metres from the property boundary. There would be a mound located along the southern edge of the eastern panel array that would screen views to this area of the solar farm. However, due to the flat topography of the site, the western edge of the eastern panel array area and the southern edge of the western panel array area would be visible. These views would include glimpses along the panel arrays as they would be aligned north to south, extending away from the viewer. The panels would be a maximum height of 2.757 metres tall, lower in height than other shed structures also seen from Spring Flat Road.

The visible portion of the solar farm would comprise a small part of the overall view and would not obstruct the view to nor reduce the prominence of the vegetated ridgelines and Mt Frome in the background. This would be a **low** magnitude of change.

D. Visual impact: **Minor adverse**

E. Visual impact with mitigation:

There would be a 10-metre-wide area of screening vegetation installed along the southern side of the solar fence of the western panel array area. There would also be additional trees provided through the centre of the two panel array areas and across the proposed mounding. This vegetation would screen the solar farm over time, reducing the visual impact level to **negligible**.

FIGURE 5-15 VIEWPOINT 11: VIEW NORTH FROM SPRING FLAT ROAD

FIGURE 5-16 VIEWPOINT 12: VIEW EAST FROM SPRING FLAT ROAD

5.3.4.2. Viewpoint 12: View east from Spring Flat Road

A. Existing conditions:

There are views from a small section of Spring Flat Road, west of the site. (Refer to Figure 5-16 and Attachment E, Figure 12) These views include gently undulating fields in the foreground and trees associated with Oaky Creek in the middle ground. These trees partly screen the fields beyond the creek, including much of the proposal site. There are several dwellings and rural sheds scattered across this view, mainly located along the creek. This view includes Mt Frome (left of view) and associated vegetated ridgelines in the far background, enclosing the view.

B. Visual sensitivity:

This view is from a local road which provides access to local rural properties. This road is located within an area mapped as 'Visually sensitive land near Mudgee'. The view includes local landscape features including vegetated ridgelines and Mt Frome. This view is of **low-medium** visual sensitivity.

C. Magnitude of change (day 1):

The southern end of the solar farm would be seen in the background of this view, partly screened by the trees along Oaky Creek, and the trees along the western site boundary at a distance of about 1.2 kilometres.

The western edge of the solar arrays in the southern areas of the site would be visible. The north south aligned panel arrays being aligned across the view and as the site is relatively flat, the western most panels would mostly screen the panels behind them. At this distance it would be difficult to discern the panels as they merge visually. The panels would be a maximum height of 2.757 metres tall and comprise a thin linear development across small part of one field. The proposed mounding would also be visible to the south and west of the panel arrays, appearing as undulating landform consistent with the character of the surrounding landscape.

The proposal would comprise a small part of the overall view and would not obstruct the view to the vegetated ridgelines and Mt Frome in the background. Due to the distance and low profile of the solar arrays, the proposal would not be prominent in this view. This would be a **low** magnitude of change.

D. Visual impact: **Minor adverse.**

E. Visual impact with mitigation:

There would be additional trees provided along the field boundary and a 10-metre-wide area of screening vegetation installed along the western and southern side of the solar fence of the western panel array area. There would also be scattered trees on the mounding proposed for the southern and western areas of the site. This vegetation would screen the solar farm over time, reducing the visual impact level to **negligible**.

5.4. Summary of visual impacts - public domain

The visibility mapping (refer to Attachment D, Figure 4) and site investigations confirmed that there would not be a view to the proposal from Queens Pinch Road (refer to Attachment E, Figure 11, Viewpoint 10) or Wallinga Lane and therefore there would not be a visual impact from these locations.

The following table (Table 5-4)summarises the impacts identified in the viewpoint assessment.

Note, as the is no lighting proposed, there would not be a visual impact from the public domain at night.

TABLE 5-4 SUMMARY OF VIEWPOINT ASSESSMENT

			Without mitigation		With mitigation	
	Viewpoint number and location	Sensitivity	Magnitude	Visual impact	Magnitude	Visual impact
	Views from the Castlereagh Highway					
	Viewpoint 1: View northwest from the Castlereagh Highway	Medium	Negligible	Negligible	Negligible	Negligible
	Viewpoint 4: View from the Castlereagh Highway about 350 metres from the site	Medium	Negligible	Negligible	Negligible	Negligible
	Viewpoint 5: View from the Castlereagh Highway alongside the site	Medium	Negligible	Negligible	Negligible	Negligible
	Viewpoint 6: View southeast from the Castlereagh Highway	Medium	Negligible	Negligible	Negligible	Negligible
	Views from Burrundulla Road					
	Viewpoint 7: View south from Burrundulla Road	Low - medium	Negligible	Negligible	Negligible	Negligible
	Views from Rocky Waterhole Road					
	Viewpoints 8 and 9: Views from Rocky Waterhole Road	Low - medium	Negligible	Negligible	Negligible	Negligible
	Views from Springs Flat Road					
	Viewpoint 11: View north from Spring Flat Road	Low - medium	Low	Minor adverse	Negligible	Negligible
	Viewpoint 12: View east from Spring Flat Road	Low - medium	Low	Minor adverse	Negligible	Negligible

6. Visual Impact Assessment - private dwellings

6.1. Approach

The assessment of visual impact on views from private dwellings is guided by the planning principles for 'view sharing' provided in the judgement of the NSW Planning Environment court in the *Tenacity Consulting V Warringah Council* [2004), NSWLEC 140.

6.2. Methodology

6.2.1. Identifying receptors

The judgement indicates that the most affected dwellings should be considered only. For the purposes of this assessment, all dwellings within one kilometre have been identified and assessed. Beyond this, the visual catchment plan (refer Attachment D, Figure 4) has been used to identify residences which may have a view to the proposal.

For the purposes of this assessment, an observer point has been selected for each dwelling and assigned a unique number.

6.2.2. Assessment steps

To determine whether or not view sharing is reasonable the judgement suggests the following four-step assessment be undertaken.

Step 1: Assess views to be affected, noting:

I. water views are valued more highly than land views

II. iconic views are valued more highly than views without icons

III. whole views are valued more highly than partial views.

Step 2: Consider from what part of the property the views are obtained, noting:

I. the primary view from the property i.e. if the view is from the front, rear or across a side boundary.

II. whether the view is enjoyed from a standing or sitting position, if relevant.

Step 3: Assess the extent of the impact, noting:

I. this should be undertaken from the whole of the property (residence), not just for the view that is affected

II. the impact on views from living areas is more significant than from bedrooms or service areas

III. views from kitchens are highly valued because people spend so much time in them.

Step 4: Assess the reasonableness of the proposal that is causing the impact, noting that:

I. a development that complies with all planning controls would be considered more reasonable than one that breaches them

II. "with a complying proposal, the question should be asked whether a more skilful design could provide the applicant with the same development potential and amenity and reduce the impact on the views of neighbours. If the answer to that question is no, then the view impact of a complying development would probably be considered acceptable and the view sharing reasonable."

To identify the extent of impact (step 3) viewshed analysis has been used as well as observations from the site and surrounding areas. Step 3 has been supported by photomontages.

Our assessment team visited all properties identified by Council's planning expert in July of 2022 (mid-winter) and photographs have been taken for use in this assessment.

Photomontages are photorealistic impressions created by combining a modelled image of the solar farm with a photograph using 3D modelling and photo editing techniques. The photomontages used in this report have been prepared in accordance with the NSW Land and Environment Court Policy. (Refer Attachment F) In accordance with this policy, these photomontages have been verified with surveyed points that confirms the location of the camera and points within the view. (Refer to Attachment G)

Photomontages were prepared for all locations requested by Council's planning expert. This includes views from the three dwellings located within 500 metres of the proposal and from the driveway of a private property to the east of the proposal site.

6.3. Assessment of views from private dwellings

An assessment of the potential visual impact of the proposal from private dwellings has been undertaken. This assessment includes all dwellings identified by Council's planning expert. Each residential property has been considered in accordance with the principles of view sharing (refer to Methodology at section 6.2). This assessment is summarised in Table 6-2. Further detail for those properties with a view to the site is contained in the following paragraphs.

6.3.1. Views from dwellings north of the highway

Most dwellings to the north of the proposal site, on Burrundulla Road, would not have a view to the proposal site due to the flat landform and intervening vegetation.

There is two dwellings located to the north of the highway that have the potential for a view to the proposal site (OP3 and OP6).

6.3.1.1. 371 Burrundulla Road (OP6)

While the house at 371 Burrundulla Road (OP6) is primarily oriented away from the proposal site, there is a window from the living area oriented south and towards the site. It is noted, however, that there is an evergreen conifer shrub outside this window that would further restrict any view towards the site. (Refer to Attachment F, Figure 24)

This southerly view from the dwelling includes gardens in the foreground as well as a large agricultural shed (at a distance of about 75 metres) and vehicle parking (a tractor and truck at the time of our site visit). This view includes the Castlereagh Highway in the middle ground, and glimpses to the proposal site beyond. (Refer to Figure 6-1 and Attachment F, Figure 25)

The view from this dwelling (OP6) south towards the site would be screened in summer, and substantially filtered in winter, by trees and shrubs within the garden. This view is further limited by the large shed that blocks views to the eastern areas of the proposal site. This is not a view of high scenic value.

Through this vegetation there would be glimpses to the proposed mounding, viewed across, and set back from the highway. This mounding would obstruct any view of the northeastern edge of the eastern and western panel arrays. The proposed mounding would be in character with the undulating landform in the vicinity of the site and there be a **negligible visual impact**. (Refer Figure 6-2 and Attachment F, Figure 26)

The scattered trees proposed for the mounding along the north eastern side of the solar farm would enhance the character of the existing view to the site, resulting in a positive impact on this view. (Refer Attachment F, Figure 27)

It was noted on site that there would be views towards the site from the fields between the dwelling and the highway, including from the farm access track (not the main approach to the house) that leads to a gate on the Castlereagh Highway. From this location the proposed mounding would screen the views to the proposed panel array areas from this location.

6.3.1.2. 466 Rocky Waterhole Road (OP3)

The house at 466 Rocky Waterhole Road (OP3) is also oriented away from the proposal site, however, there is a window on the south facing wall of the house from which there would be a view towards the site. (Refer Attachment F, Figure 28)

This southerly view from the dwelling includes the Castlereagh Highway in the middle ground, and glimpses to the proposal site beyond. The view to the site is filtered through trees within the gardens and of the dwelling, scattered trees along the driveway and along the Castlereagh Highway. (Refer Figure 6-3 and Attachment F, Figure 29)

From this location there would be a view across the highway, to the proposed mounding, that would be set back almost 500 metres from this location. The western panel array would not be visible, and the proposed mounding would obstruct the view of the northern areas of the eastern panel arrays. Due to the angle of this view, there would be a glimpse to the southern end of the eastern panel array area, at a distance of over 600 metres, beyond the proposed mounding. (Refer Figure 6-4 and Attachment F, Figure 30)

FIGURE 6-1: EXISTING VIEW TOWARDS THE SITE FROM THE GARDEN OF 328 CASTLEREAGH HIGHWAY (OP 6)

FIGURE 6-2: VIEW TOWARDS THE SITE FROM THE GARDEN OF 328 CASTLEREAGH HIGHWAY (OP 6), PHOTOMONTAGE (DAY 1)

FIGURE 6-3: EXISTING VIEW TOWARDS THE SITE FROM THE GARDEN OF 446 ROCKY WATERHOLE ROAD (OP 3)

FIGURE 6-4: VIEW TOWARDS THE SITE FROM THE GARDEN OF 446 ROCKY WATERHOLE ROAD (OP 3), PHOTOMONTAGE (DAY 1)

The small area of panels visible would be readily absorbed into the background of this view. There would be no obstruction of the mountains which form the backdrop to Mudgee and the proposed mounding would be in character with the undulating landform in the vicinity of the site. Overall, there be a **negligible visual impact**.

The scattered trees proposed for the mounding along the northeastern and western side of the solar farm would provide some screening of the small visible area of the panel arrays and enhance the character of the existing view to the site. This would improve the amenity of this view. (Refer Attachment F, Figure 30)

It was noted on site that there would be views towards the site from the fields between the dwelling (OP3) and the highway, including from the driveway which that leads to a gate on the Castlereagh Highway and is the main approach to the house. Due to the angle of the view from this driveway, the proposed mounding would screen the views to the proposed panel array areas. (Refer Attachment F, Figure 28)

6.3.1.3. 241 Rocky Waterhole Road (OP59 OP70)

This property includes two dwellings, both located on the south west facing slopes of Mount Frome. The lower dwelling (OP59) has a primary view oriented to the north away from the proposal site. However, due to the elevation, there the proposal would be visible in views from the side of the house near the garage.

The main dwelling is elevated over twenty metres above the valley and has living areas oriented that capture over 180 degrees including the site within the centre of these views.

Both dwellings have panoramic views which include a complex landscape with a range of land uses and activities visible. These views have a high capacity to absorb change, particularly in the landscape which forms the valley floor, due to the range of uses, undulating landform framework of trees and distance. The solar farm would be visible as two separate panel array areas, set within fields and amongst trees. At this distance, almost three kilometres from the site, the panels within each panel array area would visually merge and appear as a block of colour.

Overall, there would be a low visual impact on day one, with the scattered trees visually separating and partly screening views to the solar farm so that it is absorbed into these views and there would be a **negligible visual impact**. (Refer to Attachment F, Figures 32, 33 and 34)

6.3.2. Views from dwellings south of the highway

6.3.2.1. 312 Castlereagh Highway (OP23)

There is one dwelling to the south of the site that is located within 500 metres of the proposal site. This dwelling (OP 23) at 312 Castlereagh Highway, Spring Flat is located about 330 metres from the proposal location of the closest panel array. Due to the existing trees surrounding this dwelling there would be a limited view to the site, even in winter when there would be no leaf on the deciduous trees. This dwelling is located at a lower level than the site, and the site rises to the north, so that the natural landform provides a visual separation between the proposed solar farm infrastructure and this dwelling. (Refer to Figure 6-5 and Attachment F, Figures 40, 41, 42 and 43)

The primary view from this dwelling is northeast towards Mt Frome, oriented away from the proposal site. However, there are also views from the verandas surrounding this dwelling to the north, towards the site. The proposal would be set back from the property boundary by about 200-250 metres and the proposed mounding to the south of the solar farm fence and eastern panel array area would screen any view to the solar farm infrastructure. The areas to the south of the mound would be maintained for grazing and there would be no alteration to the character of this part of the view. (Refer to Figure 6-6 and Attachment F, Figure 42 and 43). As there would be no solar farm infrastructure seen in this view, there would be a **negligible visual impact**.

Scattered trees proposed for the mounding and field to the south of the eastern solar array area would be glimpsed through the intervening trees and seen on from the driveway on the approach to the dwelling, enhancing the amenity of these views. The primary view towards Mt Frome from this dwelling would not be obstructed or altered in any way. Overall, there would continue to be a **negligible visual impact** from the dwelling at 312 Castlereagh Highway (OP 23).

FIGURE 6-5: EXISTING VIEW TOWARDS THE SITE FROM DWELLING AT 312 CASTLEREAGH HIGHWAY (OP 23)

FIGURE 6-6: VIEW FROM THE DWELLING AT 312 CASTLEREAGH HIGHWAY (OP 23), PHOTOMONTAGE (DAY 1)

It was noted on site that there would also be views from a short section of the driveway, where the landform on the site dips, to the eastern edge of the eastern solar array area. From this location the solar arrays would be set back 100 metres from the adjoining property boundary. There would also be scattered trees along the eastern side of the eastern solar panel array area, outside the solar farm fencing. These trees would provide filtering of this view over time. (Refer to Attachment F, Figure 44 image A)

The landform and proposed mounding would screen views from the southern end of the driveway, and also the view south from the entry to the property. (Refer to Attachment F, Figure 44 image B).

6.3.2.2. 3b Sydney Road (OP 27 and 28)

There are also two associated dwellings to the northwest of the site within 500 metres of the proposal site (OP 27 and 28). These dwellings would have a view from the side of their dwellings towards the north western edge of the western solar array, filtered by the existing trees along the north western boundary of the site. Due to the low scale of the solar panel arrays and flat landform, this would result in a **low visual impact**. Further screening vegetation would block the view to the solar arrays. With the establishment of this vegetation any visual impact would be reduced to **negligible**.

6.3.2.3. 46 Queens Pinch Rad (OP20)

There is a dwelling at 46 Queens Pinch Road (OP 20) that would potentially have a view to the proposal site. This property appears to have panoramic views with a primary north easterly view to Mt Frome and the surrounding hills (oriented away from the proposal site). The view to the northwest from this property is likely to include parts of the central area of the proposal site in the middle to background (over one kilometre away). This area would be viewed between the proposed mounding along the eastern side of the site and over undulating landform and intervening vegetation. The affected view to the northwest is likely to be from the outdoor areas and gardens to the side of the house. Overall, there would be a **negligible visual impact** due to the distance the panels and small are of the view affected. At this distance, the panels would visually merge and appear as a block of colour across one field. Trees proposed for the eastern site boundary and within the centre of the site would reduce the visibility of the solar farm over time, reducing this potential visual impact to **negligible**.

6.3.2.4. 344 Castlereagh Highway (OP40 and OP67)

There would not be a view to the proposal from the dwelling on at 344 Castlereagh Highway (OP 40). There would, however, be a view to the proposal from the short term accommodation building on the site (OP 67). From this building there would be a small glimpse to the eastern side of the site, and the propose mounding that would screen any view to the panel arrays beyond. Over time the proposed scattered trees along the mounding on the eastern side of the solar farm would further fill the gap in these trees. (Refer to Attachment F, Figures 35 and 36)

The view from the driveway which approaches both the primary dwelling (OP40) and the short term accommodation (OP 67) was also identified as a location from which there would be a view to the solar farm. (Refer to Attachment F, Figures 35, 37, 38 and 39) In this view the proposed mounding along the eastern side of the eastern solar farm array would screen any view to the southern and northern ends of the panel array.

The central portion of the western solar panel array would, however, be visible where the landform of the site dips. In this area, the solar panels would be viewed at a distance of about 450 metres, the panels would be aligned north to south, across this view, so that the closest panel array would screen those behind and appear as a thin linear shape extending across a field in the centre of the view. The panel arrays would have a low profile and sit below the backdrop of trees and the mountains which form the backdrop to Mudgee. This view would be seen from private moving vehicles and is a view oriented west, and not in the main viewing direction from the vehicle, which would be north or south along the driveway. Overall, there would not be a material adverse visual impact from this location.

FIGURE 6-7: VIEW WEST FROM THE DRIVEWAY OF 344 CASTLEREAGH HIGHWAY (OP40 AND OP 67)

FIGURE 6-8: VIEW WEST FROM THE DRIVEWAY OF 344 CASTLEREAGH HIGHWAY (OP40 AND OP 67), PHOTOMONTAGE (DAY 1)

FIGURE 6-9: VIEW EAST FROM SPRING FLAT ROAD NEAR OP 30 AND OP 31

6.3.2.5. 83 Wallinga Lane (OP39)

The dwelling at 83 Wallinga Lane (OP 39) has a local heritage listing and is oriented northeast. There would not be a view to the proposal from the dwelling due to vegetation within the intervening garden areas. There would be a view to the proposal from the edge of the garden. This view would be partly screened by the proposed mounding and any view of the panel arrays would be readily absorbed into the background of the view.

Over time the proposed scattered trees along the eastern property boundary would further filter and screen any view to the solar farm. (Refer to Attachment F, Figure 45 and 46)

6.3.2.6. 411 Spring Flat Road (OP21)

There would be no view to the solar farm from the residence at 411 Spring Flat Road (OP 21). There is an oblique view from a fire pit to the east of the dwelling towards the south eastern area of the site.

There would not be a view to the solar farm from this location due to the intervening landform and the proposed mounding. (Refer to Attachment F, Figure 47)

6.3.2.7. 345 Spring Flat Road (OP22)

There would not be a view to the proposal site from the dwelling at 345 Spring Flat Road (OP 22), an adjoining property.

There may be distant glimpses to parts of the proposal area from the wedding venue area. In these glimpses the solar panels would be of a small scale and comprise a small portion of the view, so that it would not cause in a visual impact.

There would also be views of the southwestern edge of the western panel array from the adjacent fields on this property. Views from all areas of the property cannot reasonably be protected, however, the solar farm fence and panels would be set back 100 metres from this property boundary. Due to the low profile of the panel arrays and distance, the panels would recede in this view and not obstruct any view to Mt Frome.

This view to the solar farm would be screened over time by a 10-metre-wide area of native screening vegetation that would be located adjacent to the south of the solar fencing. It is also proposed that a group of trees be located on the south western corner of the proposal site to provide further filtering of any view to the site from this property. The location of this screening vegetation, set back from the property boundary, would maintain the views

from the property at 345 Spring Flat Road (OP 22) to Mt Frome and the surrounding hills which form the backdrop to Mudgee.

6.3.2.8. Spring Flat Road (OP30 and 31).

There may be glimpses to the site from properties on Spring Flat Road to the west of the site (OP 24, 30 and OP 31), however, due to intervening vegetation, distance and the small scale of the panel arrays, the proposal would not be prominent and there would be a **negligible visual impact**.

TABLE 6-1 REVIEW OF POTENTIAL VISUAL IMPACT ON PRIVATE DWELLINGS (OBSERVER POINTS)

Ref. No.	Property address	**Step 1:** Assess views to be affected.	**Step 2:** From what part of the property are the views obtained.	**Step 3:** Assess the extent of the impact					**Step 4**: Assess the reasonableness of the proposal that is causing the impact
				Distance (dwelling to nearest panel array)	Visible area of the proposal	Visual impact (day 1)	Effect of proposed vegetation	Residual visual impact	
North of the Castlereagh Highway									
OP 2	252 Burrundulla Road, Burrundulla	It is not likely that there would be a view to the site from this property due to the flat landform and intervening vegetation.	N/A	870 metres	None	-	-	-	N/A
OP 3	446 Rocky Waterhole Road, Burrundulla	The view south towards the site includes the Castlereagh Highway and a billboard sign in the middle ground. This view includes some filtering by trees in the garden and along the driveway. Refer to Attachment F, Figures 28 and 29.	This property would have northerly views to Mt Frome and the surrounding hills (away from the proposal site). The affected view to the south is from the gardens adjacent to the house and from other rooms within the house at an oblique angle.	460 metres	The mounding along the northeastern edge of the eastern panel array would be visible. A short section of the panel array to the south of the eastern panel array would be visible and not prominent in this view. Refer to Attachment F, Figure 30.	Negligible	There would be scattered trees along the northeast and eastern sides of the solar farm that would improve the amenity of this view and provide some screening of the visible area of the panel array. Refer to Attachment F, Figure 31.	Negligible	N/A
OP 4	253 Burrundulla Road, Charnwood Estate Winery (no cellar door)	It is not likely that there would be a view to the site from this property due to the landform and intervening vegetation.	N/A	1 kilometre	None	-	-	-	N/A

Ref. No.	Property address	Step 1: Assess views to be affected.	Step 2: From what part of the property are the views obtained.	Step 3: Assess the extent of the impact					Step 4: Assess the reasonableness of the proposal that is causing the impact
				Distance (dwelling to nearest panel array)	Visible area of the proposal	Visual impact (day 1)	Effect of proposed vegetation	Residual visual impact	
OP 5	354 Burrundulla Road, Burrundulla	It is not likely that there would be a view to the site from this property due to the flat landform and intervening vegetation.	If there is a view, it would be seen through the working areas of the neighbouring farms.	675 metres	None	-	-	-	N/A
OP 6	328 Burrundulla Road, Burrundulla	The view southwest towards the site is screened by vegetation in the gardens, and a large existing farm shed. This view includes the working areas of the farm (shed and farm vehicle parking). The Castlereagh Highway is also visible in the middle ground of this view. While there are glimpses to mountains in the background, this is not a view of high scenic value. Refer to Attachment F, Figure 24 and 25.	The main living areas of this dwelling are oriented to the north to capture the view to Mt Frome (away from the proposal site). The affected view is from the side gardens and from a partly obstructed south facing window of the living area of the house.	550 metres	There would be no panels visible from this location. There would be a view to the mounding along the northeastern side of the panel arrays. Refer to Attachment F, Figures 26 and 27.	Negligible	The scattered trees proposed for the areas along the northeastern edge of the solar farm would be glimpsed in the background and would provide improves to the character of these views over time.	Negligible	N/A
OP 7	371 Burrundulla Road, Burrundulla	It is not likely that there would be a view to the site from this property due to the flat landform and intervening vegetation.	N/A	840 metres	None	-	-	-	N/A
OP 8	322 Burrundulla Road, Burrundulla	It is not likely that there would be a view to the site from this property due to the flat	N/A	715 metres	None	-	-	-	N/A

Ref. No.	Property address	Step 1: Assess views to be affected.	Step 2: From what part of the property are the views obtained.	Step 3: Assess the extent of the impact					Step 4: Assess the reasonableness of the proposal that is causing the impact
				Distance (dwelling to nearest panel array)	Visible area of the proposal	Visual impact (day 1)	Effect of proposed vegetation	Residual visual impact	
		landform and intervening vegetation.							
OP 9	331 Burrundulla Road, Burrundulla	It is not likely that there would be a view to the site from this property due to the flat landform and intervening vegetation.	N/A	760 metres	None	-	-	-	N/A
OP 10	297 Burrundulla Road, Burrundulla	It is not likely that there would be a view to the site from this property due to the flat landform and intervening vegetation.	N/A	750 metres	None	-	-	-	N/A
OP 11	290 Burrundulla Road, Burrundulla	It is not likely that there would be a view to the site from this property due to the flat landform and intervening vegetation.	N/A	630 metres	None	-	-	-	N/A
OP 12	275 Burrundulla Road, Burrundulla	It is not likely that there would be a view to the site from this property due to the flat landform and intervening vegetation.	N/A	840 metres	None	-	-	-	N/A
OP 13	404 Burrundulla Road, Burrundulla	There would not be a view to the site from this property due	N/A	900 metres	None	-	-	-	N/A

Ref. No.	Property address	Step 1: Assess views to be affected.	Step 2: From what part of the property are the views obtained.	Step 3: Assess the extent of the impact					Step 4: Assess the reasonableness of the proposal that is causing the impact
				Distance (dwelling to nearest panel array)	Visible area of the proposal	Visual impact (day 1)	Effect of proposed vegetation	Residual visual impact	
OP 14	447 Burrundulla Road, Burrundulla	to the intervening landform, vegetation, and buildings.	N/A	965 metres	None	-	-	-	N/A
OP 15	321 Burrundulla Road, Burrundulla	There would not be a view to the site from this dwelling due to the flat landform and intervening vegetation and buildings.	None	760 metres	None	-	-	-	N/A
OP 16	447 Burrundulla Road, Burrundulla	There would not be a view to the site from this dwelling due to the intervening landform and vegetation.	None	1.3 kilometres	None	-	-	-	N/A
OP 17	327 Burrundulla Road, Burrundulla	There would not be a view to the site from this dwelling due to the flat landform and intervening vegetation.	None	760 metres	None	-	-	-	N/A
OP 18	473 Burrundulla Road, Burrundulla	There would not be a view to the site from this dwelling due to the intervening landform and vegetation.	None	1.5 kilometres	None	-	-	-	N/A
OP 19	452 Burrundulla Road, Burrundulla	There would not be a view to the site from this dwelling due to the intervening landform and vegetation.	None	1.24 kilometres	None	-	-	-	N/A

Ref. No.	Property address	Step 1: Assess views to be affected.	Step 2: From what part of the property are the views obtained.	Step 3: Assess the extent of the impact					Step 4: Assess the reasonableness of the proposal that is causing the impact
				Distance (dwelling to nearest panel array)	Visible area of the proposal	Visual impact (day 1)	Effect of proposed vegetation	Residual visual impact	
OP 29	139 Castlereagh Highway, Burrundulla	It is not likely that there would be a view to the site from this property due to the intervening vegetation and flat landform.	None	1.15 kilometres	None	-	-	-	N/A
OP 43	382 Rocky Waterhole Road, Burrundulla	It is not likely that there would be a view to the site from this property due to the flat landform and intervening vegetation and buildings.	None	1.37 kilometres	None	-	-	-	N/A
OP 59	241 Rocky Waterhole Road	South westerly panoramic view from an elevated location. This view is enclosed by the mountains which form a backdrop to Mudgee, the proposal site is located on the valley floor, set below the mountains. The view includes a patchwork of fields, the outskirts of Mudgee and a range of scattered built structures. Refer to Attachment F, Figure 32.	The primary views from this dwelling are oriented to the northeast and away from the proposal site. The view towards the site is from the side of the house, near the garage, towards the site.	2.94 kilometres	The eastern and western panel array areas would each be visible, due to the elevated position of this view. At this distance, the panels within the array areas would visually merge and each appear as a block of colour. The proposal would comprise a small portion of a visually complex panoramic view.	Low	The additional scattered trees surrounding and between the eastern and western panel arrays would provide some screening of the proposal, reducing the overall area of panels visible.	Negligible	Electricity generating works are permitted with consent in the RU4 zone in the Western Regional Council LEP. This dwelling is over 500 metres from the solar farm, complying with this Western Regional Council DCP control. The layout incorporates setbacks and landscape works to reduce the visibility of the proposal. This visual impact is therefore considered to be reasonable.
OP 70	241 Rocky Waterhole Road (main house)	Broad panoramic view from an elevated location. This view is over 180 degrees wide and includes a substantial portion	The main living areas, kitchen address a large deck that is oriented to capture this view.	2.955 kilometres	The eastern and western panel array areas would each be visible, due to the	Low	The additional scattered trees surrounding and between the	Negligible	Electricity generating works are permitted with consent in the RU4 zone in the Western Regional

Ref. No.	Property address	Step 1: Assess views to be affected.	Step 2: From what part of the property are the views obtained.	Step 3: Assess the extent of the impact					Step 4: Assess the reasonableness of the proposal that is causing the impact
				Distance (dwelling to nearest panel array)	Visible area of the proposal	Visual impact (day 1)	Effect of proposed vegetation	Residual visual impact	
		of the valley. The valley is a complex landscape including a range of land uses and activities. The view is enclosed by the mountains which form a backdrop to Mudgee. This view has a high scenic value. The proposal site is located on the valley floor in the mid to background of this view. Refer to Attachment F, Figures 32, 33 and 34.	This is the primary view from this dwelling.		elevated position of this view. At this distance, the panels within the array areas would visually merge and each appear as a block of colour. The proposal would comprise a small portion of a broad and visually complex view. Refer to Attachment F, Figures 34 and 31.		eastern and western panel arrays would provide some screening of the proposal, reducing the overall area of panels visible.		Council LEP. This dwelling complies with the Western Regional Council DCP control of dwellings to be 500 metres from the solar energy farm. Furthermore, the design has incorporated setbacks, mounding and landscape works to reduce the visibility of the proposal. This visual impact is therefore considered to be reasonable.
South of the Castlereagh Highway									
OP 1	3b Sydney Road, Mudgee (Associated property)	Views mainly to the north and vineyard to the west. There are northerly views to Mt Frome and the surrounding hills (oriented away from the proposal site).	Burrundulla Wines, including cellar door and onsite café. There would be a secondary view from the eastern side of the café towards the site.	135 metres	There may be glimpses to the northern tip of the western panel array.	Negligible	The proposed screening vegetation along the northwestern boundary of the site would screen any view of the panel arrays over time.	Negligible	N/A
OP 20	46 Queens Pinch Road, Spring Flat	This property appears to have panoramic views with a primary north easterly view to Mt Frome and the	It is likely that the main living areas of this dwelling would be oriented to the north to capture the view to Mt Frome (away from the proposal site).	1.187 kilometres	Potential view to the central areas of the site, where visible between the proposed mounding,	Negligible	The scattered trees proposed for the eastern site boundary and within the centre	Negligible	

Ref. No.	Property address	Step 1: Assess views to be affected.	Step 2: From what part of the property are the views obtained.	Step 3: Assess the extent of the impact					Step 4: Assess the reasonableness of the proposal that is causing the impact
				Distance (dwelling to nearest panel array)	Visible area of the proposal	Visual impact (day 1)	Effect of proposed vegetation	Residual visual impact	
		surrounding hills (oriented away from the proposal site). The view to the northwest from this property is likely to include parts of the central area of the proposal site in the middle to background, viewed over undulating landform and intervening vegetation.	The affected view to the northwest is likely to be from the outdoor areas and gardens to the side of the house.		and viewed over intervening undulating landform and trees. Due to the distance, the panels would visually merge and appear as a block of colour across a small part of one field.		of the site would provide some additional filtering of views to the panel arrays.		
OP 21	411 Spring Flat Road, Spring Flat	There would be no view to the proposal from the dwelling due to a shed and trees which obstructs any northerly view towards the proposal site. There is a view across intervening fields towards the proposal site. Refer to Attachment F, Figure 47.	The affected view to the north is an oblique view from the garden in the vicinity of a fire pit.	760 metres	There would be no view to the proposal due to the rising landform on intervening fields, the distance to the panel arrays and proposed mounding along the southern side of the panel arrays.	Negligible	The scattered trees proposed for the southern edge of the solar farm would be glimpsed rising above the intervening landform in the background of this view.	Negligible	N/A
OP 22	345 Spring Flat Road, Spring Flat	This property has views oriented north directed along long rows of existing mature trees (not oriented towards the proposal site). There are views to the hills in the north. Mt Frome is not visible from the house due to the mature trees in the existing gardens.	The living areas of this dwelling are located to the north and not oriented towards the proposal site. The areas used as a wedding venue are also be located within the existing rows of trees and do not have a clear view to the site. The owners of this property indicated that all areas of their	775 metres (about 600 metres from the wedding venue area)	There would not be a view to the proposal from the dwelling. There may be distant glimpses to parts of the proposal area from the wedding venue area.	Negligible -	The vegetation proposed for the south and western boundaries of the solar farm would effectively screen the view to the proposal over time.	Negligible -	N/A

Ref. No.	Property address	Step 1: Assess views to be affected.	Step 2: From what part of the property are the views obtained.	Step 3: Assess the extent of the impact					Step 4: Assess the reasonableness of the proposal that is causing the impact
				Distance (dwelling to nearest panel array)	Visible area of the proposal	Visual impact (day 1)	Effect of proposed vegetation	Residual visual impact	
		This property is also used as a venue for wedding functions. This includes areas for wedding services to the north of the dwelling. These areas are also enclosed by rows of mature trees which divide the areas surrounding the dwelling. Refer to Attachment F, Figure 48 and 49.	property are used for photography, including areas near the proposal site. However, no evidence of photography from this area has been found.		Potential view to the southwestern edge of the western panel array from the adjacent fields. Noting that views from all areas of the property are not protected. Refer to Attachment F, Figure 48 and 49.				
OP 23	312 Castlereagh Highway, Spring Flat	This property has north easterly views to Mt Frome and the surrounding hills (oriented away from the proposal site). This dwelling is located at a level lower than the site, and the gently rising landform limits views into the site. There are numerous tree along the northern side of the dwelling, that would screen views towards the site in summer and in winter (when the deciduous trees have lost their leaf) partly screen views towards the site.	The affected view, directly north, would include is a view from the verandah of the dwelling. From this location there would be a view to the mounding proposed to be located to the south of the eastern solar array area There would also be some views to the eastern edge of the eastern panel array area from the driveway on the approach to this dwelling.	335 metres	The panel arrays would not be visible from the dwelling. From the driveway, the solar arrays would be set back 100 metres from the adjoining property boundary. The proposed mounding and existing landform would limit views to the proposed eastern arrays to a short section of the driveway where the landform dips. The mounding would restrict views	Negligible	The proposed scattered trees and ongoing grazing would maintain and improve the amenity of views from the house and driveway.	Negligible	N/A

Ref. No.	Property address	Step 1: Assess views to be affected.	Step 2: From what part of the property are the views obtained.	Step 3: Assess the extent of the impact					Step 4: Assess the reasonableness of the proposal that is causing the impact
				Distance (dwelling to nearest panel array)	Visible area of the proposal	Visual impact (day 1)	Effect of proposed vegetation	Residual visual impact	
					from highpoint on the driveway at the entry to the property.				
OP 25	217 Spring Flat Road, Spring Flat	It is not likely that there would be a view to the site from these properties due to intervening vegetation, particularly along Oaky Creek.	None	915 metres	None	-	-	-	N/A
OP 26	217 Spring Flat Road, Spring Flat		None	940 metres	None	-	-	-	N/A
OP 27	3b Sydney Road, Mudgee Associated property	This property would have view north and south to the surrounding hills and potentially views to Mt Frome to the northeast.	The main living areas appear to be located to the north of the dwelling, and there would be views to the proposal from the east facing rooms of the dwelling.	425 metres	The northwestern edge of the western array area would be seen, partly obstructed by the existing trees along the northwestern boundary of the site.	Low	The vegetation proposed along the western boundary of the site would screen the solar farm infrastructure over time.	Negligible	N/A
OP 28	3b Sydney Road, Mudgee Associated property	This property would have view north and south to the surrounding hills and potentially views to Mt Frome to the northeast.	The main living areas appear to be located to the north of the dwelling, and there would be views to the proposal from the east facing rooms of the dwelling.	490 metres					N/A
OP 24	17 Hill Sixty Drive, Spring Flat	This property would have northeast facing views, oriented towards Mt Frome and the surrounding hills.	It is likely that there would be living areas oriented to the north and northeast.	1.45 kilometres	There may be glimpses to the southern areas of the solar farm where there are gaps in intervening vegetation along	Negligible	The vegetation proposed along the north western boundary of the solar farm fence would screen the view to the	Negligible	N/A
OP 30	15 Plenty Road, Spring Flat	This property would have northeast facing views,	It is likely that there would be living areas oriented to the north and northeast.	1.4 kilometres					

Ref. No.	Property address	Step 1: Assess views to be affected.	Step 2: From what part of the property are the views obtained.	Step 3: Assess the extent of the impact					Step 4: Assess the reasonableness of the proposal that is causing the impact
				Distance (dwelling to nearest panel array)	Visible area of the proposal	Visual impact (day 1)	Effect of proposed vegetation	Residual visual impact	
		oriented towards Mt Frome and the surrounding hills.			Spring Flat Road and Oaky Creek. These glimpses would be in the background of the view. Due to the distance, intervening elements and low profile of the solar arrays, the solar farm would be readily absorbed into this view		proposal over time. The increased vegetation cover would be compatible with the vegetation along the creek and adjacent fields and improve the amenity of these views.		
OP 31	14 Hill Street Sixty Drive, Spring Flat	This property would have northeast facing views, oriented towards Mt Frome and the surrounding hills.	It is likely that there would be living areas oriented to the north and northeast.	1.4 kilometres					
OP 32	17 Hill Sixty Drive, Spring Flat	This property would have northeast facing views, oriented towards Mt Frome and the surrounding hills.	It is likely that there would be living areas oriented to the north and northeast.	1.48 kilometres					
OP 33	46 Spring Flat South Lane, Spring Flat	It is not likely that there would be a view to the site from this property due to the intervening landform and vegetation.	None	1.59 kilometres	None	-	-	-	
OP 34	282 Spring Flat Road, Spring Flat	It is not likely that there would be a view to the site from this property due to the intervening vegetation, particularly around Oaky Creek.	None	1.25 kilometres	None	-	-	-	N/A
OP 35	281 Spring Flat Road, Spring Flat		None	1.15 kilometres	None	-	-	-	N/A
OP 36	13 Wallinga Lane, Spring Flat	It is not likely that there would be a view to the site from this property due to the intervening landform and vegetation.	None	1.25 kilometres	None	-	-	-	N/A
OP 37	39 Wallinga Lane, Spring Flat		None	1.35 kilometres	None	-	-	-	N/A

Ref. No.	Property address	Step 1: Assess views to be affected.	Step 2: From what part of the property are the views obtained.	Step 3: Assess the extent of the impact					Step 4: Assess the reasonableness of the proposal that is causing the impact
				Distance (dwelling to nearest panel array)	Visible area of the proposal	Visual impact (day 1)	Effect of proposed vegetation	Residual visual impact	
OP 38	55 Wallinga Lane, Spring Flat	It is not likely that there would be a view to the site from this property due to the intervening landform and vegetation.	None	1.44 kilometres	None	-	-	-	N/A
OP 39	83 Wallinga Lane, Spring Flat	This house is local heritage listed. There is not a view to the site from this dwelling due to the intervening vegetation. There are glimpses to the site in the background of views from the garden. Refer to Attachment F, Figure 45 and 46.	There is not a view to the site from this dwelling due to the intervening vegetation and landform. There are glimpses to the site in the background of views from the garden.	1.08 kilometres	There may be glimpses of the mounding along the southeastern corner of the eastern panel array area. Refer to Attachment F, Figure 45 and 46.	Negligible	The scattered trees proposed for the eastern site boundary of the solar farm would be glimpsed in the distance and soften any visible areas of the proposal.	Negligible	N/A
OP 40	344 Castlereagh Highway, Spring Flat (main house)	This dwelling has north easterly views towards Mt Frome and the surrounding hills (oriented mainly north and away from the proposal site). There is no view of the site from this dwelling due to the landform and intervening vegetation, including trees along the western boundary of the garden. Refer to Attachment F, Figure 35, 37, 38 and 39.	There would be a view to the site on the driveway approaching the dwelling. The main living areas of this dwelling are likely to be oriented towards the view to Mt Frome in the northeast (oriented away from the proposal site). There is also a pool on the eastern side of the dwelling, located away from the proposal site.	895 metres	From the driveway there would be a view to part of the eastern side of the panel arrays.	None from the dwelling	The scattered trees proposed for the eastern site boundary of the solar farm would filter views to the panel arrays over time. The increased vegetation cover would be compatible with the vegetation cover on the adjacent fields and improve the	-	N/A

Ref. No.	Property address	Step 1: Assess views to be affected.	Step 2: From what part of the property are the views obtained.	Step 3: Assess the extent of the impact					Step 4: Assess the reasonableness of the proposal that is causing the impact
				Distance (dwelling to nearest panel array)	Visible area of the proposal	Visual impact (day 1)	Effect of proposed vegetation	Residual visual impact	
							amenity of these views.		
OP 67	344 Castlereagh Highway, Spring Flat (short term accommodation)	There is a glimpsed slot view to the proposal site through a break in a corridor of trees. This view forms a small part of a wider view which includes rural fields, several rows of trees and a backdrop of hills in the vicinity of Mt Frome.	A slot view to the proposal site can be seen from the verandah of this building. It forms a small part of a wider view from this dwelling.	890 metres	The proposed mounding would screen the view to the panel arrays.	Negligible	The scattered trees proposed for the intervening mound would provide further amenity to this view.	-	N/A
OP 41	470 Castlereagh Highway, Burrundulla	There would not be a view to the site from this property due to the intervening landform.	None	1.69 kilometres	None	-	-	-	N/A
OP 42	470 Castlereagh Highway, Burrundulla	There would not be a view to the site from this property due to the intervening landform.	None	1.74 kilometres	None	-	-	-	N/A

6.4. Summary of visual impacts – private dwellings

The following table (Table 6-1) summarises the visual impacts from those dwellings that were identified as having a potential view to the site.

Overall, there are negligible visual impacts from most dwellings surrounding the site. There are, however, a few locations where there would be a low visual impact. In these locations the proposed native screening vegetation and scattered trees would reduce the visual impacts to negligible over time and provide improvements to local views.

Note, as the is no lighting proposed there would not be a visual impact from private dwellings at night.

TABLE 6-2 SUMMARY OF VIEWPOINT ASSESSMENT

			Without vegetation screening	With vegetation screening
	Viewpoint number and location	**Distance** (to panel array	**Visual impact**	**Visual impact**
Properties north of the Castlereagh Highway				
OP3	446 Rocky Waterhole Road, Burrundulla	460 metres	Negligible	Negligible
OP6	328 Burrundulla Road, Burrundulla	550 metres	Negligible	Negligible
OP59	241 Rocky Waterhole Road	2.94 km	Low	Negligible
OP70	241 Rocky Waterhole Road (main house)	2.95 km	Low	Negligible
Properties south of the Castlereagh Highway				
OP1	3b Sydney Road, Mudgee (associated)	135 metres	Negligible	Negligible
OP20	46 Queens Pinch Road, Spring Flat	1.187 km	Negligible	Negligible
OP21	411 Spring Flat Road, Spring Flat	760 metres	Negligible	Negligible
OP22	345 Spring Flat Road, Spring Flat	775 metres	Negligible	Negligible
OP23	312 Castlereagh Highway, Spring Flat	335 metres	Negligible	Negligible
OP24	17 Hill Sixty Drive, Spring Flat	1.45 km	Negligible	Negligible
PO27	3b Sydney Road, Mudgee (associated)	425 metres	Low	Negligible
OP28	3b Sydney Road, Mudgee (associated)	490 metres	Low	Negligible
OP 30	15 Plenty Road, Spring Flat	1.4 km	Negligible	Negligible
OP 31	14 Hill Street Sixty Drive, Spring Flat	1.4 km	Negligible	Negligible
OP 32	17 Hill Sixty Drive, Spring Flat	1.48 km	Negligible	Negligible
OP39	83 Wallinga Lane	1.08 km	Negligible	Negligible
OP40	344 Castlereagh Highway, Spring Flat	895 metres	Negligible	Negligible
OP67	344 Castlereagh Highway, Spring Flat (short term accommodation)	890 metres	Negligible	Negligible

7. Response to the Mid-Western Council planning provisions

Table 8-1 summarises how the proposal has responded to the provisions of the Mid-Western Regional Council's Local Environmental Plan and Development Control Plan, noting that the Section 6.5 of the DCP does not apply to this Application.

TABLE 7-1 RESPONSE TO THE MID-WESTERN COUNCIL PLANNING PROVISIONS

Mid-Western Regional Council Local Environmental Plan 2012	
Relevant controls:	**Response**
Visually sensitive land near Mudgee *"Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development—* *(a) will complement the visual setting forming the backdrop to Mudgee, and* *(b) will be designed, set back and sited to respond sympathetically to the landform of the site on which the development is proposed to be carried out and will minimise visual intrusion.* (cl.6.10(3))	The proposal site is not located on land that forms the backdrop to Mudgee. It is located within the valley and would not obstruct any view to the surrounding hills which are the visual backdrop to Mudgee. The proposal would result in minor and negligible visual impacts from the public domain areas on day one. These visual impacts would reduce to negligible with the implementation of the proposed scattered trees and native screen planting. The overall low levels of visual impact together with the establishment of a large number of trees across the site, would contribute positively to the character of this area of the visually sensitive land near Mudgee. The proposal would complement the visual setting by being visually absorbed into the setting and by providing amenity improvements with the introduction of a large number of trees across the site. The proposal layout has incorporated setbacks to respond to the landform and surrounding land uses. These setbacks have been informed by the potential visibility of the site from the highway and private dwellings. These setbacks include a: • 200 metre setback from the Castlereagh Highway • 200-250-metre setback from the southern boundary near the closest dwelling (OP 23) • 100-metre setback from the eastern and western end of the southern property boundaries The proposal minimises visual intrusion by setting the proposal back from the boundaries, neighbouring properties and the Castlereagh Highway, and the use of mounding along the north eastern, eastern and south eastern areas of the site. This reduces the extent of solar array panels that would be visible from the Highway, and from surrounding dwellings. Also, by breaking the panel array area up into two areas, there would not be a large visible are of panels from distant, elevated viewing locations. The proposed scattered trees proposed to surround the site and be located through the centre of the site would, breaking it up visually, and allowing for greater screening of the arrays from distant, elevated locations.

Mid-Western Regional Council Development Control Plan 2013	
Relevant controls:	**Response**
Part 6 Development in Rural Areas: Solar energy farms, Clause 6.5 • *The developer should assess the visual impact of the project including an assessment of the development on the scenic value and character of the locality. This assessment should consider how the proposal will maintain the unique local character of the area, all significant vistas and also examine local community values towards key elements which form the identity of the area being impacted by the proposal.*	This report contains a detailed assessment of the potential visual impacts of the proposal including consideration of all significant vistas.
• *The developer should assess the cumulative impact of the development having regard to solar energy farms already built and those approved but not yet constructed. Council does not favour large expanses of land being covered with solar energy farms where there is significant cumulative impact.*	There are no other solar farm developments proposed in the vicinity of this proposal and therefore there would not be a cumulative visual impact.
• Where the proposal is located within a 5km radius from main townships and villages, the proposal must demonstrate that it will not impact on the scenic value and character of the locality.	The solar farm would be located within five kilometres of Mudgee and the assessment has demonstrated that there would be a negligible visual impact from all locations. The proposal would therefore not adversely impact upon the scenic value and character of the locality.
• *Solar Energy Farms should not be located within 500m of any dwelling not associated with the development or from any lot upon which a dwelling may be constructed.*	There are two non-associated dwellings within 500 metres of the solar farm arrays. A detailed assessment of the potential visual impact from these properties has been undertaken and mitigation measures implemented to ensure there is a negligible visual impact from these dwellings.
• *Solar Energy Farms should not be located within 200m from a formed Local Public Road or 500m from a Regional or State Road. A greater distance may be required by the road authority where visual impact mitigation is necessary.*	The solar farm would be set back 200 metres from the Highway, and the assessment has demonstrated that the visibility of the proposal would be limited to several fleeting glimpses from the highway. From these locations there would be a minor adverse visual impact and negligible visual impact. Views from the highway would be improved by additional trees scattered along the northeast and eastern side of the proposal site.
• *Solar Energy Farms should not be located within 100m from a non-related property boundary; existing and proposed screenings may be used to minimise visual impacts to non-related properties. However, screening is not the only preferred method of minimising visual impact. Solar arrays shall be located in positions so as to have minimal visual impact on nearby properties, especially existing dwellings and lots on which dwellings may be constructed.*	the solar farm infrastructure is located 100 metres from all non-related property boundaries in accordance with the DCP requirement. A combination of setbacks, mounding and screening vegetation have been used to minimise visual impact from non-related properties.

• *Solar Energy Farms should not surround a non-related property. Solar arrays shall be located with the specified setbacks from property boundaries to minimise the visual impact of the development on adjacent and nearby non-related property.*	The solar farm would not surround any non-related property.
• *All infrastructure should be located in low visual impact locations and interconnection cables/wiring and the like should be underground.*	The interconnection cables/wiring would be located underground.

Attachment A – General arrangement plan and details

SITE INFORMATION

LOT / DP	6/1069441
ADDRESS	3B SYDNEY ROAD, BURRUNDULLA, NSW 2850
LGA	MID-WESTERN REGIONAL COUNCIL
LAT / LONG	-32.6337 / 149.625628
LOT AREA	67.4 ha
FENCED AREA	26.0 ha (A: 14.7 ha, B: 11.3 ha)
DNSP	ESSENTIAL ENERGY

PROJECT INFORMATION

AC CAPACITY	5.0 MW
INVERTERS	2 x 3.0 MW AC
TRACKER SPACING (N-S)	MIN. 1 m
ARRAY PITCH	6.25 m
CONNECTION VOLTAGE	22 kV
CONNECTION FEEDER	ESSENTIAL ENERGY MUD62
CONNECTION SUBSTATION	ESSENTIAL ENERGY MUDGEE
SECURITY FENCE SETBACK	MIN. 10 m FROM OPTION BOUNDARY
ARRAY SETBACK	MIN. 10 m FROM SECURITY FENCE
ACCESS PATH WIDTH	6.0 m & 4.0 m

1 / - GENERAL ARRANGEMENT PLAN

SCALE: 1:5000

DEVELOPMENT APPLICATION

NO.	STAGE	DATE
1	ISSUED FOR DA APPROVAL	13/06/2019
2	UPDATED EMERGENCY EXIT	11/10/2019
3	UPDATED FOR DA RESUBMISSION	30/09/2020
4	DEVELOPMENT APPLICATION	17/12/2021
5	DEVELOPMENT APPLICATION	30/06/2022
6	----	----

NOTES

1. SYSTEM INFORMATION IS THE SAME FOR SYSTEM A AND SYSTEM B.
2. NEW VEGETATION AREAS ARE INDICATIVE, REFER TO LANDSCAPE CONCEPT PLAN

PARTNERS

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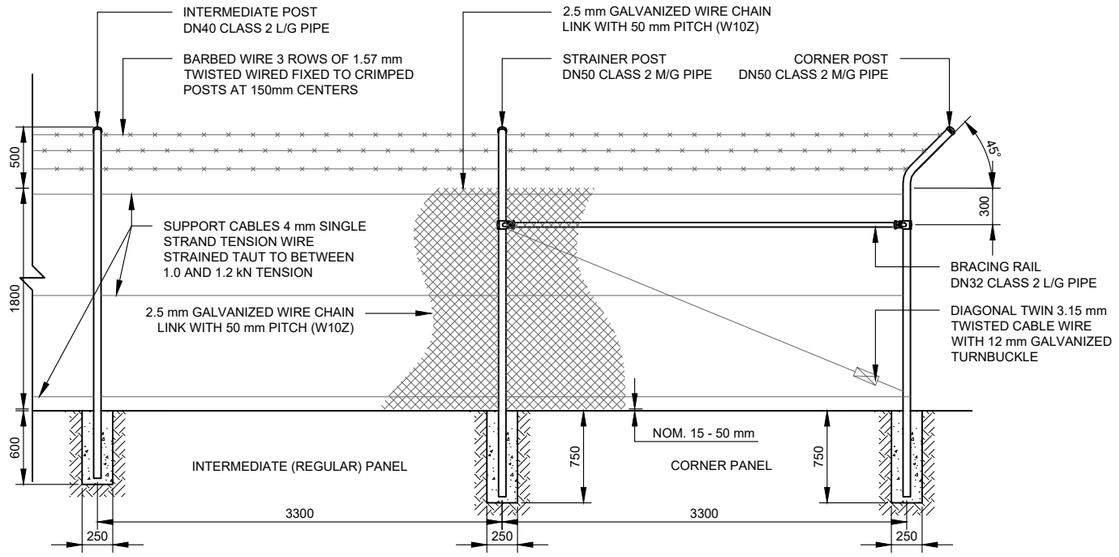
DRAWN MJB
CHECKED NL
APPROVED NL

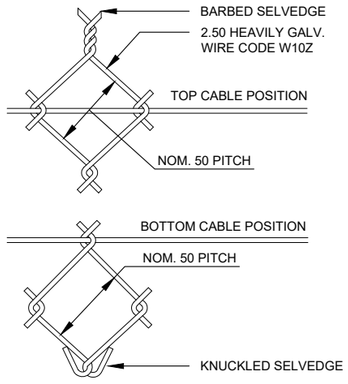
DRAWING **GENERAL ARRANGEMENT PLAN**

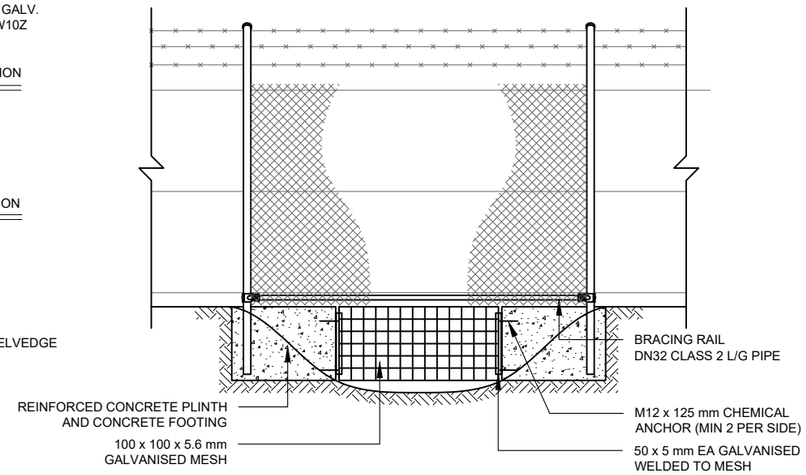
PROJECT BURRUNDULLA MINI SUSTAINABLE ENERGY PARK
CLIENT ITP DEVELOPMENT
ADDRESS 3B SYDNEY ROAD
BURRUNDULLA, NSW 2850

DRAWING NO. **MUD3C-G-2100**

SCALE	AS NOTED
SHEET SIZE	A3
ORIG. DATE	13/1/21
REV. DATE	30/6/22
REV NO.	5







1 - TYPICAL FENCE SECTION

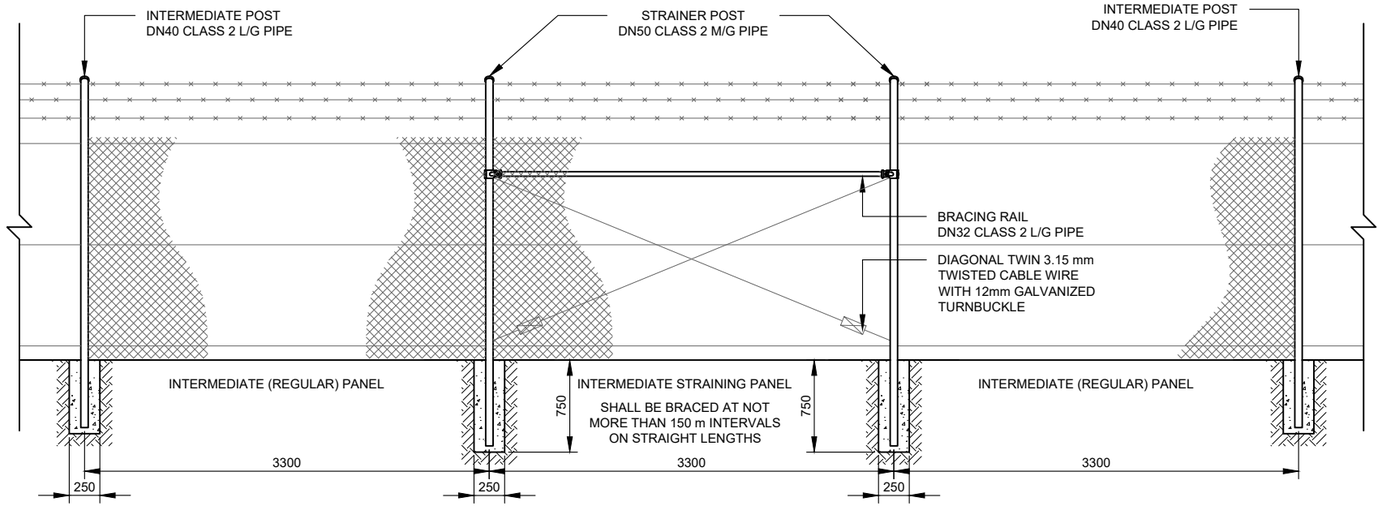
SCALE: 1:50

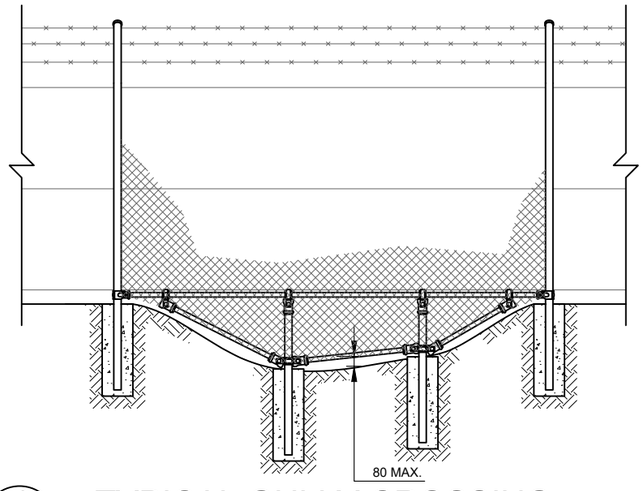
FENCE AND GATES TO BE DESIGNED AND CONSTRUCTED TO AS 1725 PART 1

3 - TYPICAL STORMWATER CROSSING

SCALE: 1:50

FENCE AND GATES TO BE DESIGNED AND CONSTRUCTED TO AS 1725 PART 1





2 - INTERMEDIATE STRAINING PANEL FENCE SECTION

SCALE: 1:50

FENCE AND GATES TO BE DESIGNED AND CONSTRUCTED TO AS 1725 PART 1

4 - TYPICAL GULLY CROSSING

SCALE: 1:50

FENCE AND GATES TO BE DESIGNED AND CONSTRUCTED TO AS 1725 PART 1

DEVELOPMENT APPLICATION

NO.	STAGE	DATE
1	ISSUED FOR DA APPROVAL	13/06/2019
2	DEVELOPMENT APPLICATION	16/12/2021
3	----	----
4	----	----
5	----	----
6	----	----

NOTES

1. GALVANISED STEEL FINISH.

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AUSTRALIA

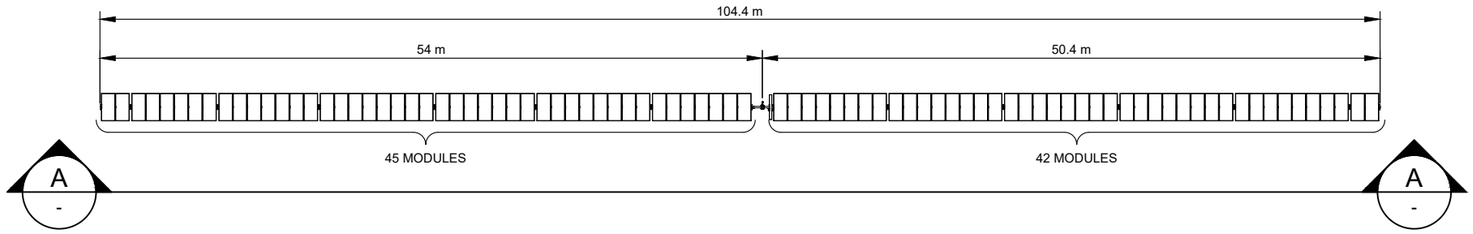
DRAWN MJB
CHECKED ----
APPROVED ----

DRAWING **FENCING DETAILS**

PROJECT BURRUNDULLA MINI SUSTAINABLE ENERGY PARK
CLIENT ITP DEVELOPMENT
ADDRESS 3B SYDNEY ROAD
BURRUNDULLA, NSW 2850

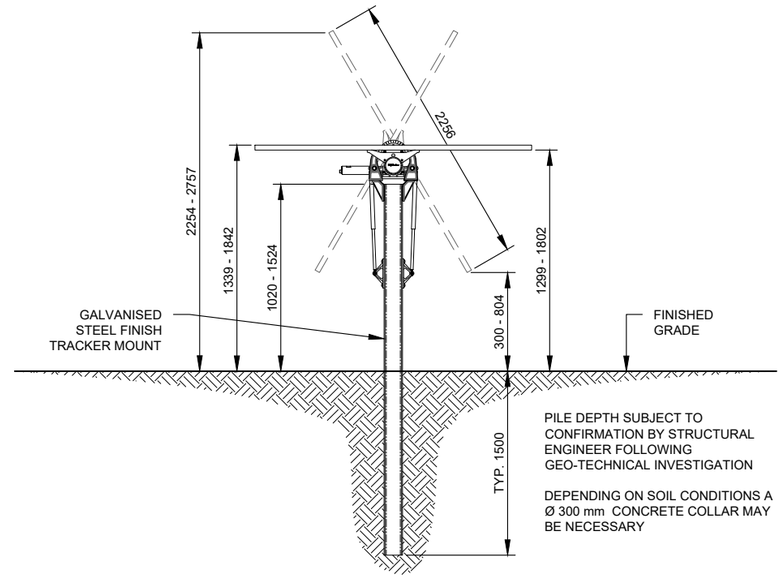
DRAWING NO. **MUD3C-C-5300**

SCALE	AS NOTED
SHEET SIZE	A3
ORIG. DATE	23/11/18
REV. DATE	16/12/21
REV NO.	**2**



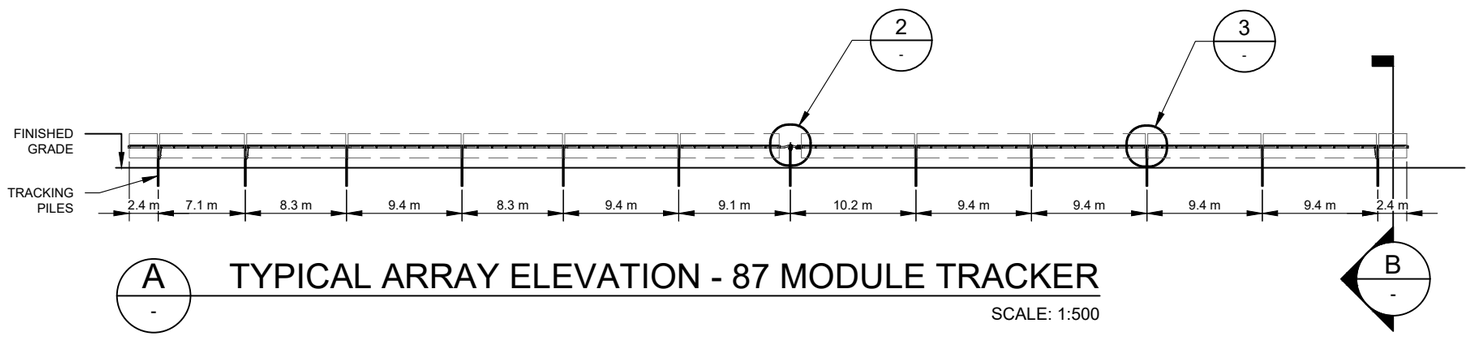
1 - TYPICAL ARRAY PLAN - 87 MODULE TRACKER

SCALE: 1:500



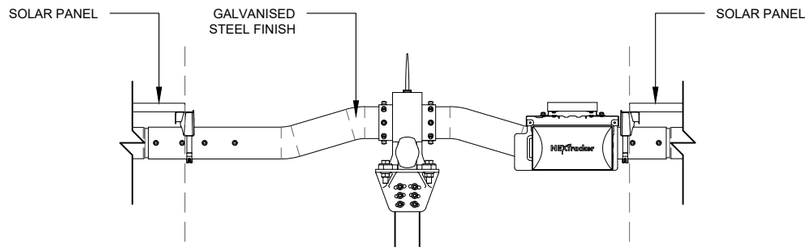
B - TYPICAL ARRAY END ELEVATION

SCALE: 1:50



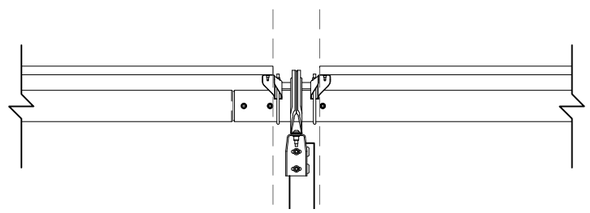
A - TYPICAL ARRAY ELEVATION - 87 MODULE TRACKER

SCALE: 1:500



2 - SELF POWERED CONTROLLER DETAIL

SCALE: NTS



3 - DAMPER DETAIL

SCALE: NTS

DEVELOPMENT APPLICATION

NO.	STAGE	DATE
1	ISSUED FOR DA APPROVAL	13/06/2019
2	DEVELOPMENT APPLICATION	16/12/2021
3	----	----
4	----	----
5	----	----
6	----	----

NOTES

1. TRACKER AND MODULE DIMENSIONS ARE INDICATIVE AND SUBJECT TO CHANGE BY THE MANUFACTURER WITHOUT NOTICE.

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APPROVED ----

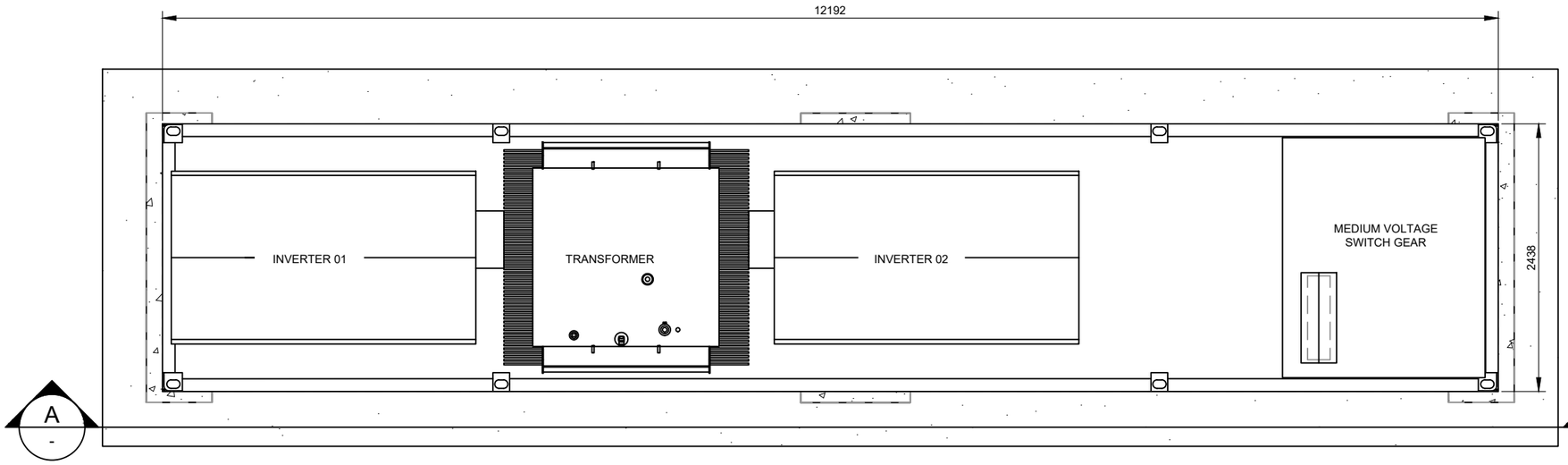
DO NOT SCALE.
ALL MEASUREMENTS IN MM UNLESS OTHERWISE STATED.

DRAWING **NEXTRACKER ARRAY DETAILS**

PROJECT BURRUNDULLA MINI SUSTAINABLE ENERGY PARK
CLIENT ITP DEVELOPMENT
ADDRESS 3B SYDNEY ROAD
BURRUNDULLA, NSW 2850

DRAWING NO. **MUD3C-E-3400**

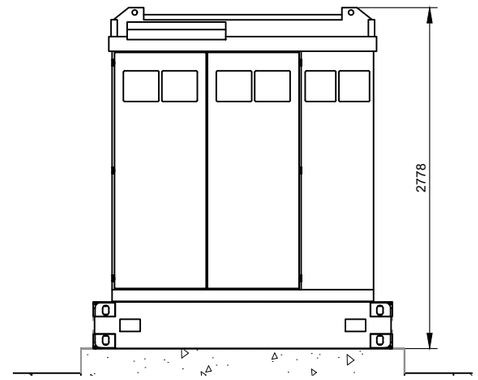
SCALE	AS NOTED
SHEET SIZE	A3
ORIG. DATE	17/1/19
REV. DATE	16/12/21
REV NO.	2



A - A -

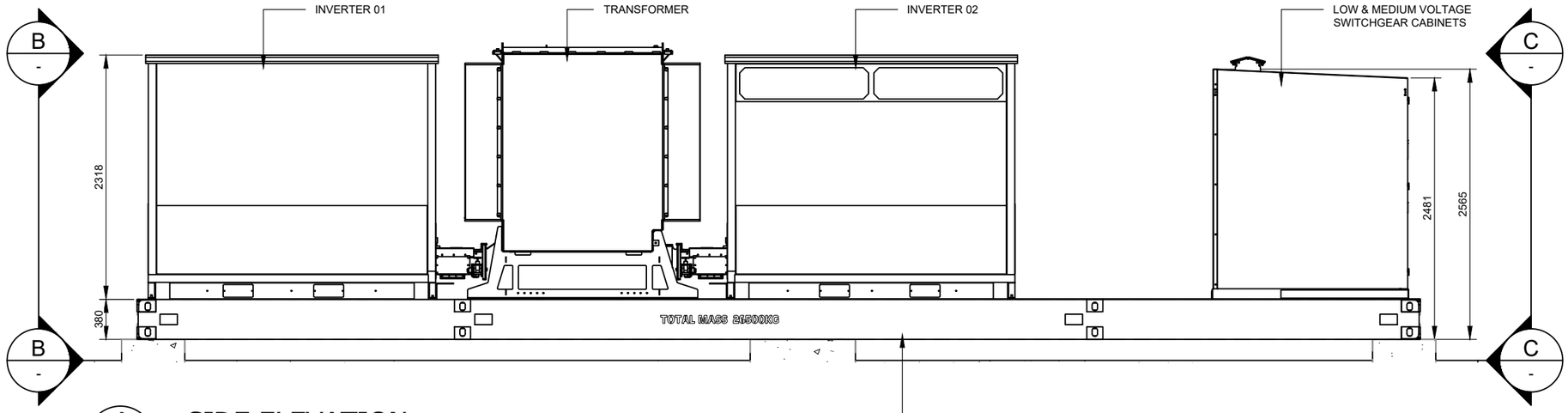
1 - PLAN VIEW

SCALE: 1:50



C - END ELEVATION

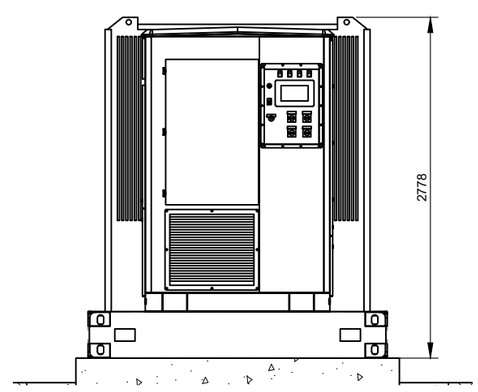
SCALE: 1:50



B - B - C - C -

A - SIDE ELEVATION

SCALE: 1:50



B - END ELEVATION

SCALE:1:50

DEVELOPMENT APPLICATION

NO.	STAGE	DATE
1	ISSUED FOR DA APPROVAL	13/06/2019
2	DEVELOPMENT APPLICATION	16/12/2021
3	----	----
4	----	----
5	----	----
6	----	----

NOTES

1. GALVANISED AND PAINTED STEEL FINISH.

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ALL MEASUREMENTS IN MM UNLESS OTHERWISE STATED.

DRAWING **INVERTER STATION DETAILS**

PROJECT BURRUNDULLA MINI SUSTAINABLE ENERGY PARK

CLIENT ITP DEVELOPMENT

ADDRESS 3B SYDNEY ROAD
BURRUNDULLA, NSW 2850

DRAWING NO. **MUD3C-E-4300**

SCALE	AS NOTED
SHEET SIZE	A3
ORIG. DATE	10/9/18
REV. DATE	16/12/21
REV NO.	2

Attachment B – Landscape concept plan

iris

Burrundulla Mini Sustainable Energy Park

3B Sydney Road, Burrundulla, IT Power (Australia) Pty Ltd

Landscape Concept

July 2022

Image 1 - Existing trees along the western boundary of the site

Image 2 - Native screen planting on adjacent property, viewed from the site

EXISTING CONDITIONS:

The site includes a few scattered trees but is otherwise cleared and has historically been used for grazing and cropping. There is a single row of mature trees along part of the western boundary of the site (image 1).

There is also some native vegetation on the adjoining site to the south which is forming a visual screen (image 2). There are ornamental trees and gardens along the surrounding driveways and around the residential dwellings (image 3).

Image 3 - Callistemon sp. forming a dense hedge on neighbouring property

LANDSCAPE STRATEGY:

A landscape concept plan has been developed based on consideration of the potential visibility of the site. The objectives of this landscape plan are to:

- Reduce the visibility of the site from adjacent sensitive recievers (including neighbouring residences and views from the Castlereagh Highway)
- Improve the character of the landscape through the restoration of native vegetation
- Provide habitat and increase local biodiversity through the use of local plant species.

The landscape plan identifies three landscape treatments for the site. These are:

1. Native screen planting (10 metres wide)
2. Mounding with scattered trees in pasture
3. Scattered trees in pasture

These landscape treatments are shown on the landscape plan on Figure 2.

To ensure the suitability of planting for the local conditions, the plant species proposed for these landscape treatments have been selected from the:

- *Native Species Revegetation, A Guide for the Mid Western Regional Council Area,* Watershed Landcare Incorporated (in association with the Australian Government National Landcare Program)
- *Native Plants for Mudgee Gardens, Australian Plant Society,* Central West Group, 2010
- *Planting your patch, A guide to revegetation on your property,* State of New South Wales Local Land Services, 2016.

Further consultation with Council Officers and local land care groups would be undertaken during detail design.

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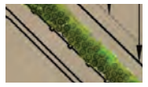
Burrundulla Mini Sustainable Energy Park

Landscape Concept - IT Power (Australia) Pty Ltd

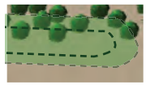
FIGURE 1: EXISTING CONDITIONS & LANDSCAPE STRATEGY

Date: July 2022
Job Number: 2021-223
Drawn: SR
Issue: Rev2

Key:



1. Native screen planting (10 metres wide)



2. Mounding (max. 1:5 slope to 3 metres tall) with scattered trees in pasture

3. Scattered trees in pasture

Existing trees to be retained

Existing trees to be removed

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Burrundulla Mini Sustainable Energy Park

Landscape Concept - IT Power (Australia) Pty Ltd

FIGURE 2: LANDSCAPE PLAN

Date: 1 July 2022
Job Number: 2021-223
Drawn: SR
Issue: Rev3

1. NATIVE SCREEN PLANTING

A mix of native trees and shrubs with a dense and compact habit have been selected to provide a maximum screening effect.

The following plant list includes a number of 'pioneer species' which should establish quickly and form an effective visual screen in the short term. While some of these species are relatively short lived (7-12 years), they will disperse seed and new plants will regenerate so that a self-sustaining vegetation screen is maintained in the long term.

Plant list:

Species name, Common name	Mature height
Native trees	
*Acacia falciformis, Broad-leaved hickory**	*2-10m*
*Acacia implexa, Black wattle**	*5-12m*
*Allocasuarina verticalla, Drooping she-oak**	*3-7m*
*Callistemon salignus, Willow bottlebrush**	*3-10m*
Callistemon viminalis, Weeping bottlebrush+	*6-9m*
*Eucalyptus albens, White box**	*25m*
*Eucalypt dealbata, Tumble-down red gum**	*15m*
Native shrubs	
Acacia decora, Western silver wattle-*	*2-4m*
*Acacia difformis, Drooping wattle**	*1-6m*
*Acacia hakeoides, Hakea wattle**	*1-6m*
Acacia spectabilis, Mudgee wattle-*	*1-4m*
Callistemon citrinus, Crimson bottlebrush+*	*1-3m*
*Dodonaea viscosa 'angustifolia', Sticky hop bush**	*1-5m*
*Dodonea viscosa 'cuneata' Wedge-leaf hop bush**	*1-3m*
*Melicytus dentatus, Tree violet/Gruggly bush**	*1-3m*

Source:

** Native species revegetation, A Guide for the Mid Western Regional Council Area, Watershed Landcare Incorporated*
+ from Australian Plants Society, Central West Group, Native plants for Mudgee Gardens
- Pioneer species, fast growing, relatively short lived (up to 12 years)

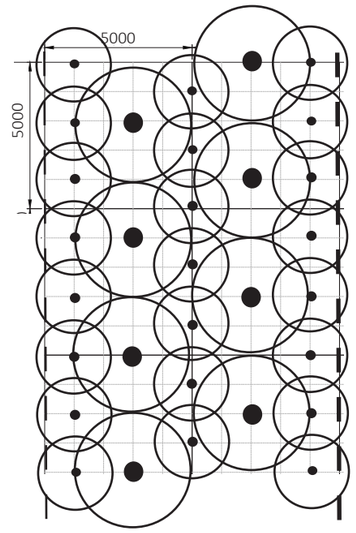
Plant set-out matrix

Trees and shrubs will be staggered to maximise the screening effect.

Specification notes

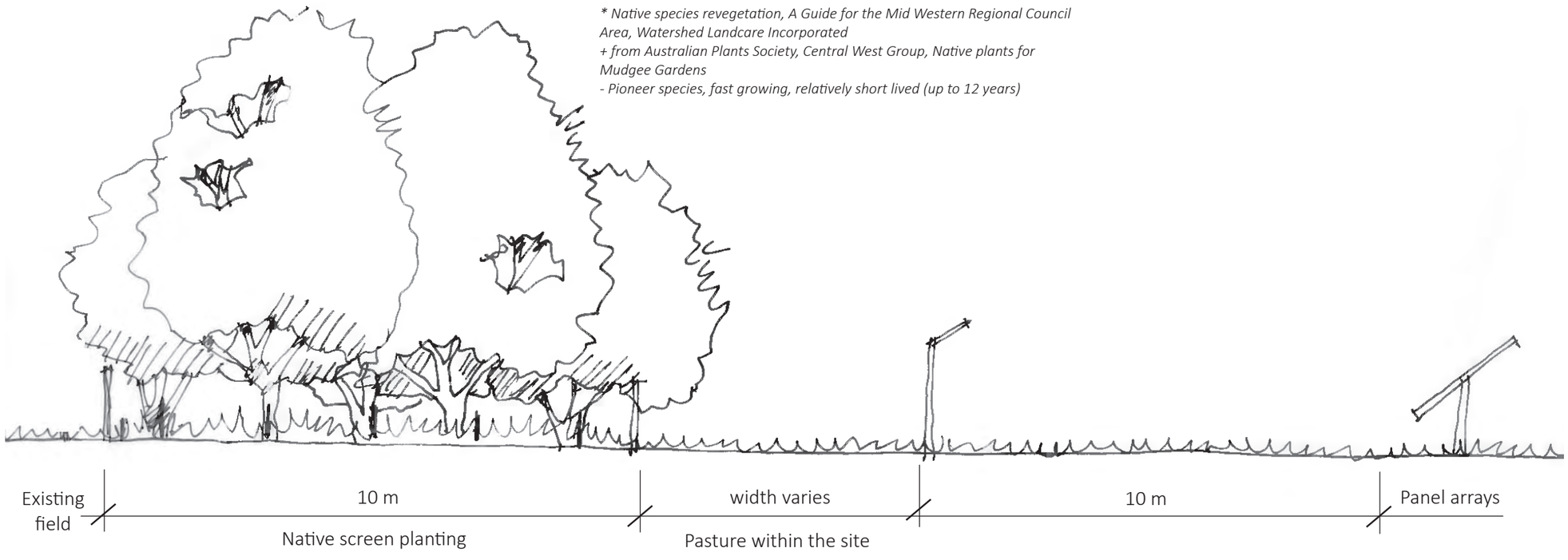
- Five offset rows of trees and shrubs as per the set out matrix.
- Ripped lines to a depth of 500mm and cultivated to a depth of 150mm. Ripping to follow the contours
- 3 month (13 week) establishment followed by a 21 month monitoring period (total 24 months). Ongoing maintenance would be managed by the operator for the life of the project.
- Refer to the Vegetation Management Plan for further details.

10 metre wide screening matrix



KEY

- Small trees
- Shrubs
- Solar farm security fence
- Site boundary fence



A - A Indicative cross section, Native screen planting

Scale: 0m 1 2 5m

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Burrundulla Mini Sustainable Energy Park

Landscape Concept - IT Power (Australia) Pty Ltd

FIGURE 3: NATIVE SCREEN PLANTING

Date: July 2022 Drawn: SR
Job Number: 2021-223 Issue: Rev3

3. SCATTERED TREES IN PASTURE

Areas within the solar farm fence will be sown with pasture grasses to allow for grazing of the property during operation.

Groups and scattered individual trees will be located through the centre of the site within the pasture grass. These trees will be local native species with a single trunk and open canopy. These will provide some filtering of views where the solar farm can be seen from elevated areas, provide tree canopy cover and habitat.

Plant list:

Species name, Common name	Mature height
Large native trees	
*Angophora floribunda, Rough barked apple**	*30m*
*Eucalyptus albens, White box**	*25m*
*Eualyptus blakelyi, Blakelys red gum**	*20m*
*Eucalyptus bridgesiana, Apple box**	*20m*
*Eucalyptus microcarpa, Western grey box**	*25m*
*Eucalyptus melliodora, Yellow box**	*30m*

Source:

** Native species revegetation, A Guide for the Mid Western Regional Council Area, Watershed Landcare Incorporated*

Plant set-out

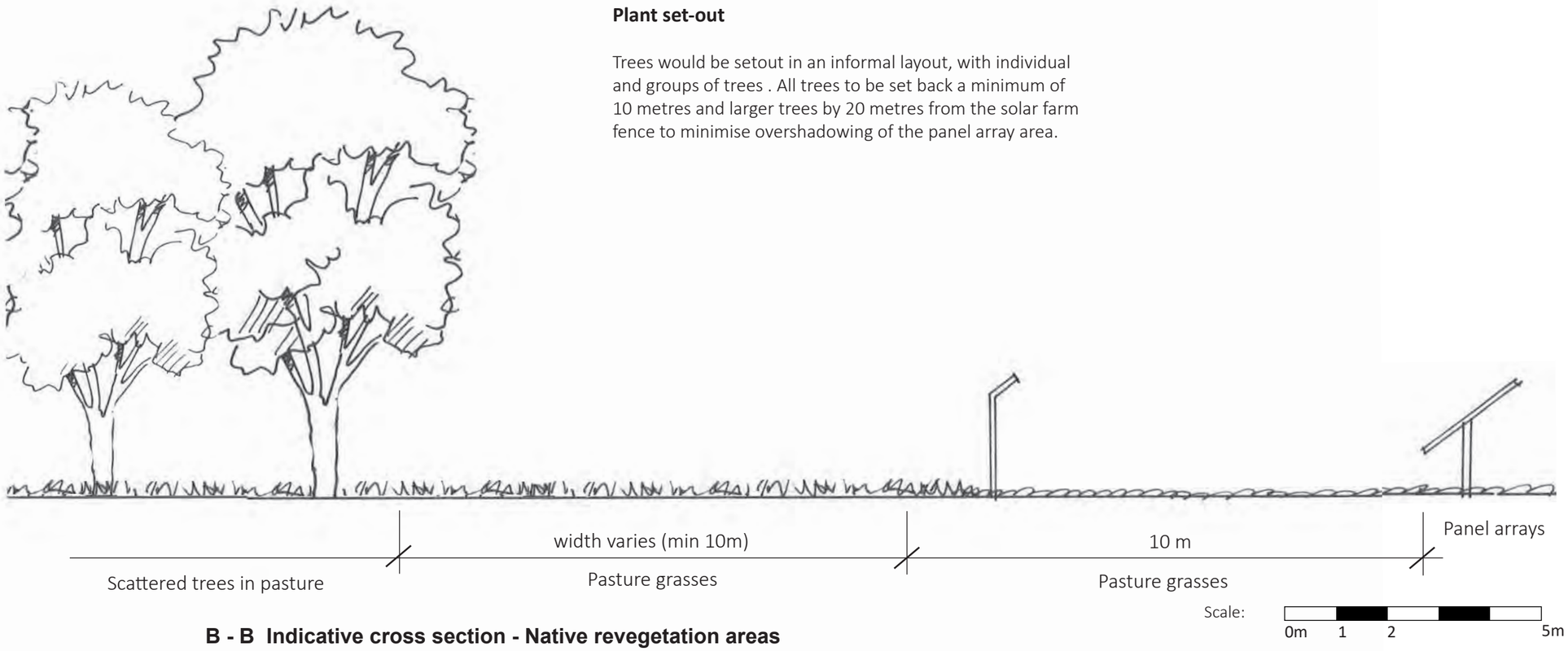
Trees would be setout in an informal layout, with individual and groups of trees . All trees to be set back a minimum of 10 metres and larger trees by 20 metres from the solar farm fence to minimise overshadowing of the panel array area.

Specification notes

- Individual planting holes to be excavated, backfilled with ameliorated site soil and mulch to be applied across disturbed area.
- 3 month (13 week) establishment followed by a 21 month monitoring period (total 24 months). Ongoing maintenance would be managed by the operator for the life of the project.
- Refer to the Vegetation Management Plan for further details.

Eucalyptus mellidora, Yellow box

Eucalyptus albens, White box



B - B Indicative cross section - Native revegetation areas

2. MOUNDING WITH SCATTERED TREES IN PASTURE

Mounds would be located to provide an immediate screening effect in views from the Castlereagh Highway and residences within 500 metres of the panel arrays. The mounding would be gently sloping (to a maximum gradient of 1:5) to fit within the character of the surrounding undulating landform. Mounding has been located on higher ground, where possible, to maximise their effectiveness. These areas would be sown with pasture grasses and suitable for grazing during operation.

Scattered individual trees will be located across the mounds to improve the amenity of views from surrounding areas. These trees will be local native species with a single trunk and open canopy. These trees will provide some filtering of views where the solar farm can be seen from elevated areas, provide tree canopy cover and habitat.

Plant list:

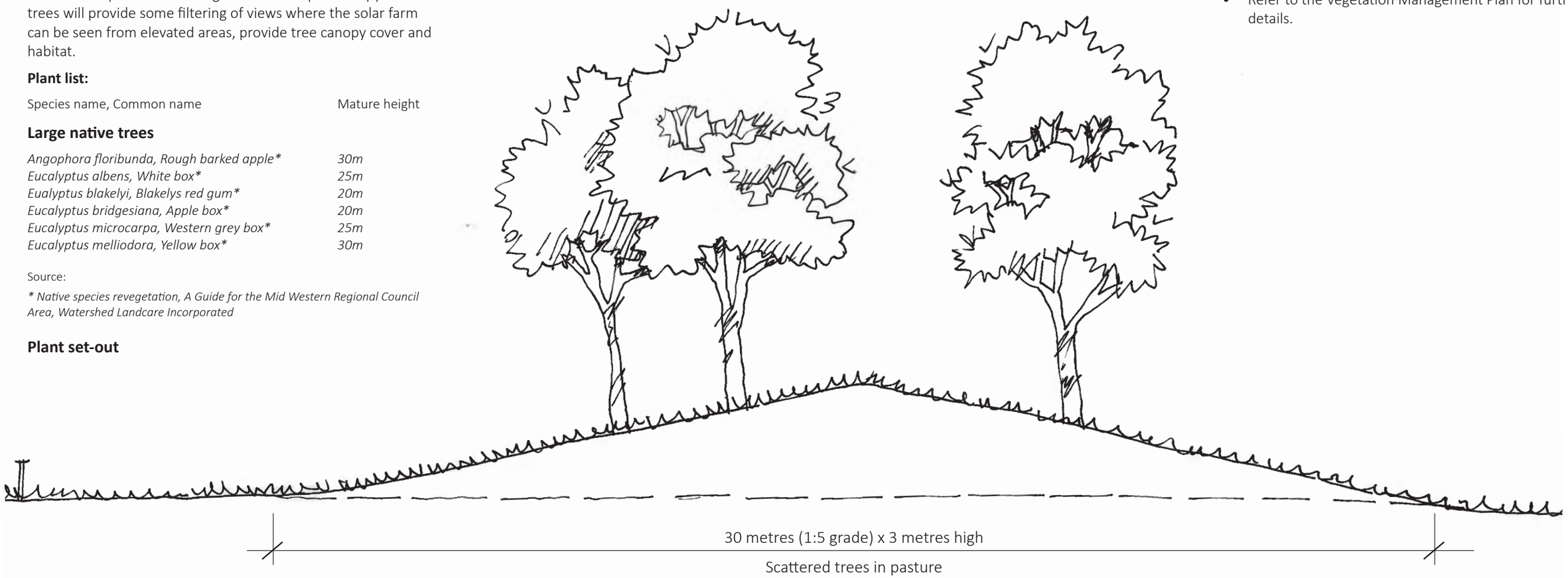
Species name, Common name	Mature height
Large native trees	
*Angophora floribunda, Rough barked apple**	*30m*
*Eucalyptus albens, White box**	*25m*
*Eualyptus blakelyi, Blakelys red gum**	*20m*
*Eucalyptus bridgesiana, Apple box**	*20m*
*Eucalyptus microcarpa, Western grey box**	*25m*
*Eucalyptus melliodora, Yellow box**	*30m*

Source:

** Native species revegetation, A Guide for the Mid Western Regional Council Area, Watershed Landcare Incorporated*

Plant set-out

Trees would be setout in an informal layout, with individual and groups of trees . All trees to be set back a minimum of 10 metres and larger trees by 20 metres from the solar farm fence to minimise overshadowing of the panel array area.



C - C Indicative cross section, mounding with scattered trees in pasture areas

Scale: 0m 1 2 5m

Specification notes

- Individual planting holes to be excavated, backfilled with ameliorated site soil and mulch to be applied across disturbed area.
- 3 month (13 week) establishment followed by a 21 month monitoring period (total 24 months). Ongoing maintenance would be managed by the operator for the life of the project.
- Temporary fences and / or tree guard sleeves and stakes to be installed and maintained untill trees would not be impacted by grazing livestock.
- Refer to the Vegetation Management Plan for further details.

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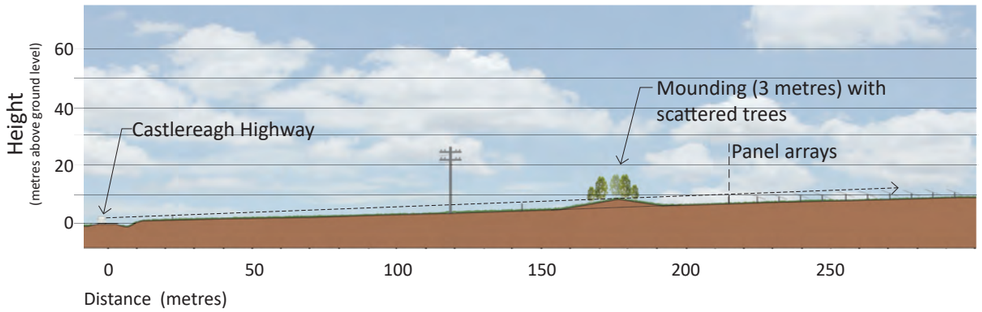
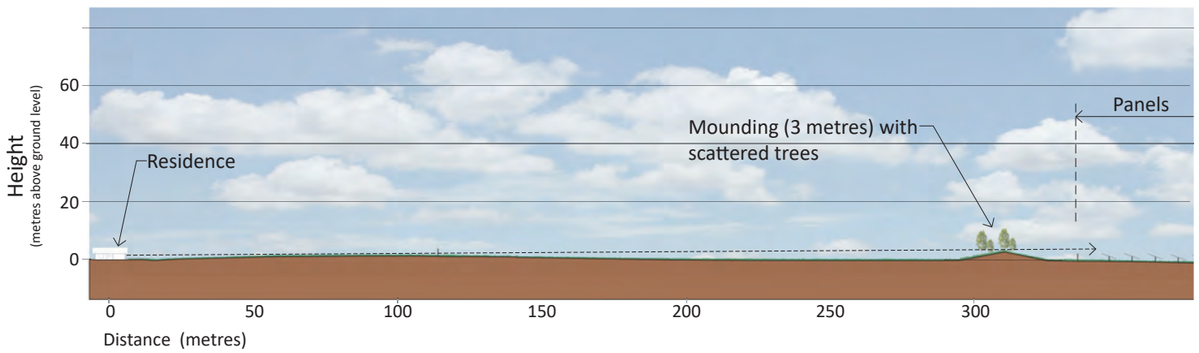
Landscape Concept - IT Power (Australia) Pty Ltd

FIGURE 5: SCATTERED TREES IN PASTURE AREAS

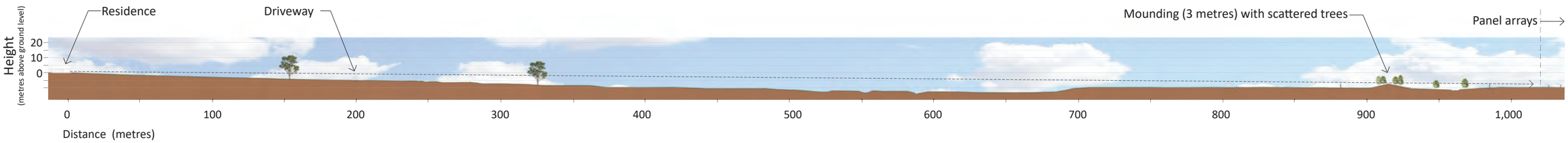
Date: July 2022 Drawn: SR
Job Number: 2021-223 Issue: Rev1



D - D Long section showing screening effect of mounding on views from the Castlereagh Highway



E - E Long section showing screening effect of mounding on view from dwelling at 312 Castlereagh Highway



F - F Long section showing screening effect of mounding on views from short term holiday let at 433 Castlereagh Highway

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FIGURE 6: LONG SECTIONS

Date: July 2022
Job Number: 2021-223
Drawn: SR
Issue: Rev1

Attachment C – Planning advice letter

Beatty, Hughes & Associates

T +61 2 8203 2381
E admin@beattyhughes.com.au

Suite 2303, Level 23, Governor Macquarie Tower
One Farrer Place Sydney NSW 2000

www.beattyhughes.com.au

Our Ref: JMH:SAF:602

3 March 2022

BY EMAIL

Suzie Rawlinson
Director
IRIS Visual Planning + Design
78 Macgregor Terrace
Bardon QLD 4065

Email: suzie@irisvisual.com.au

PRIVILEGED AND CONFIDENTIAL

Dear Suzie

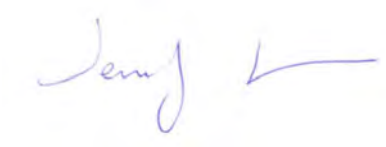
Re: IT Power (Australia) Pty Ltd (Applicant) - Development Application for 'Burrundulla Mini Sustainable Energy Park' at 3B Sydney Road, Burrundulla (Application) – visual assessment

We refer to our client's instructions to you to prepare a visual impact assessment report in relation to the Application.

As you are aware, the Mid-Western Regional Development Control Plan 2013 (**DCP**) applies to 3B Sydney Road, Burrundulla and to the Application. Amendment No 3 of the DCP was in force at the time the Application was lodged, and Amendments No 4 and 5 were enacted after the Application was lodged.

In accordance with the transitional provision in clause 1.4 of both Amendment No. 4 and Amendment No. 5 of the DCP, we confirm the Applicant's election to have the Application assessed under Amendment No 3 of the DCP.

Yours faithfully



Jennifer Hughes / Timothy Allen
Principal / Solicitor
Beatty, Hughes & Associates
ABN 44 273 924 764

Attachment D – Site and setting

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Figure 1: Site Location

SOURCE:
Cadastral Boundary, State forest & National Parks : NSW Department of Finance, Services and Innovation 2021
Imagery: Maxar 2021

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Kilometers

A3 Scale: 1:40,000

File:BurrundullaSolar-Fig1-SiteLocation-211123 Date: 23/11/2021

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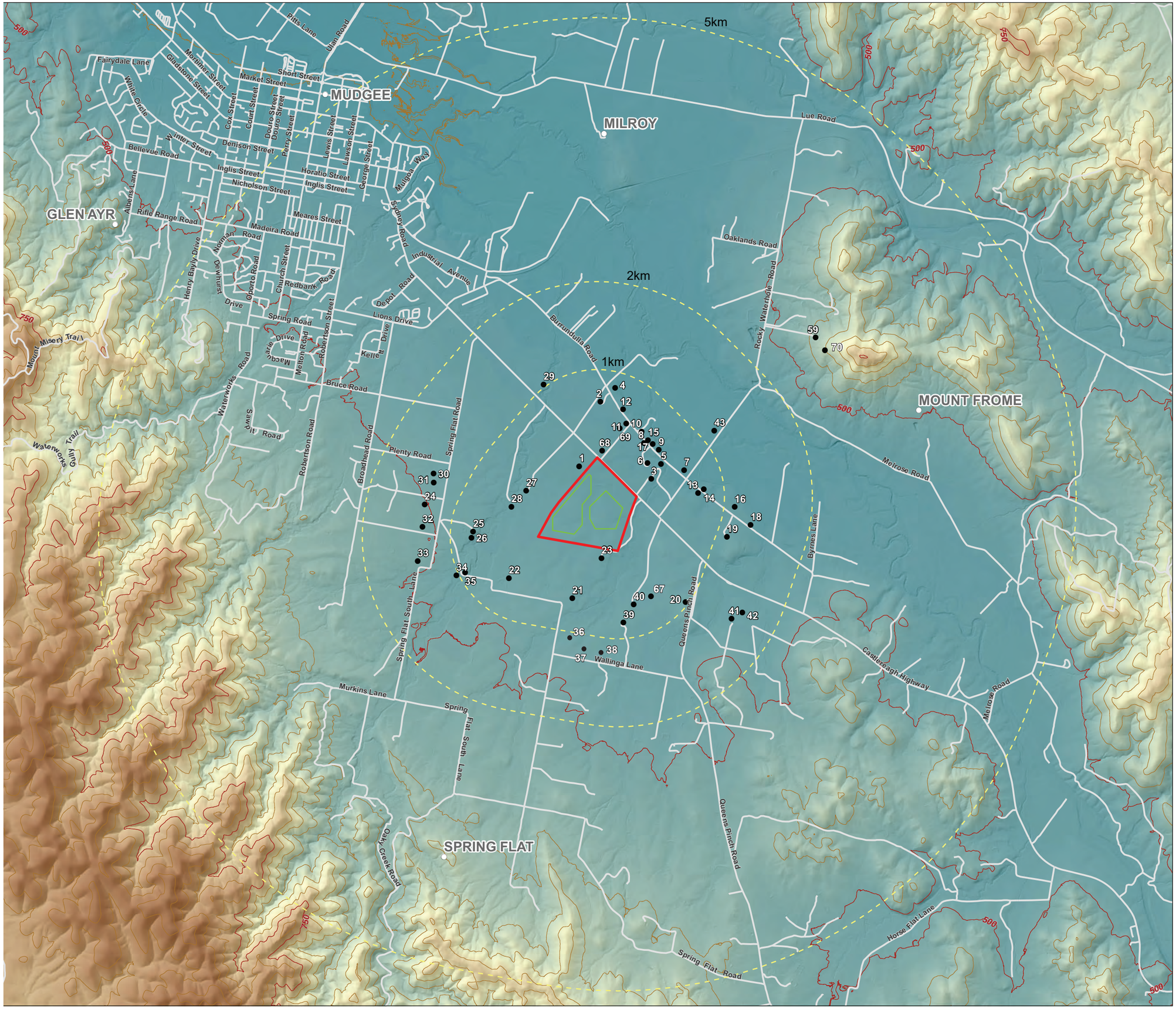

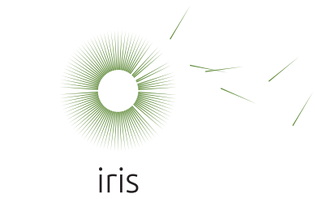

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Figure 2: Topography, regional context

- Proposal site
- Solar farm footprint
- Observer point
- Distance from the site
- Contour (50m)
- Contour (10m)

Elevation (AHD)

High : 925m

Low : 442m

SOURCE:
Cadastral Boundary, State forest & National Parks : NSW Department of Finance, Services and Innovation 2021
Surface analysis: Derived from LiDAR - MUDGEE 2m Digital Elevation Model © Department Finance, Services and Innovation 2016/17 .

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File:BurrundullaSolar-Fig2a-Topography-220720 Date: 20/07/2022

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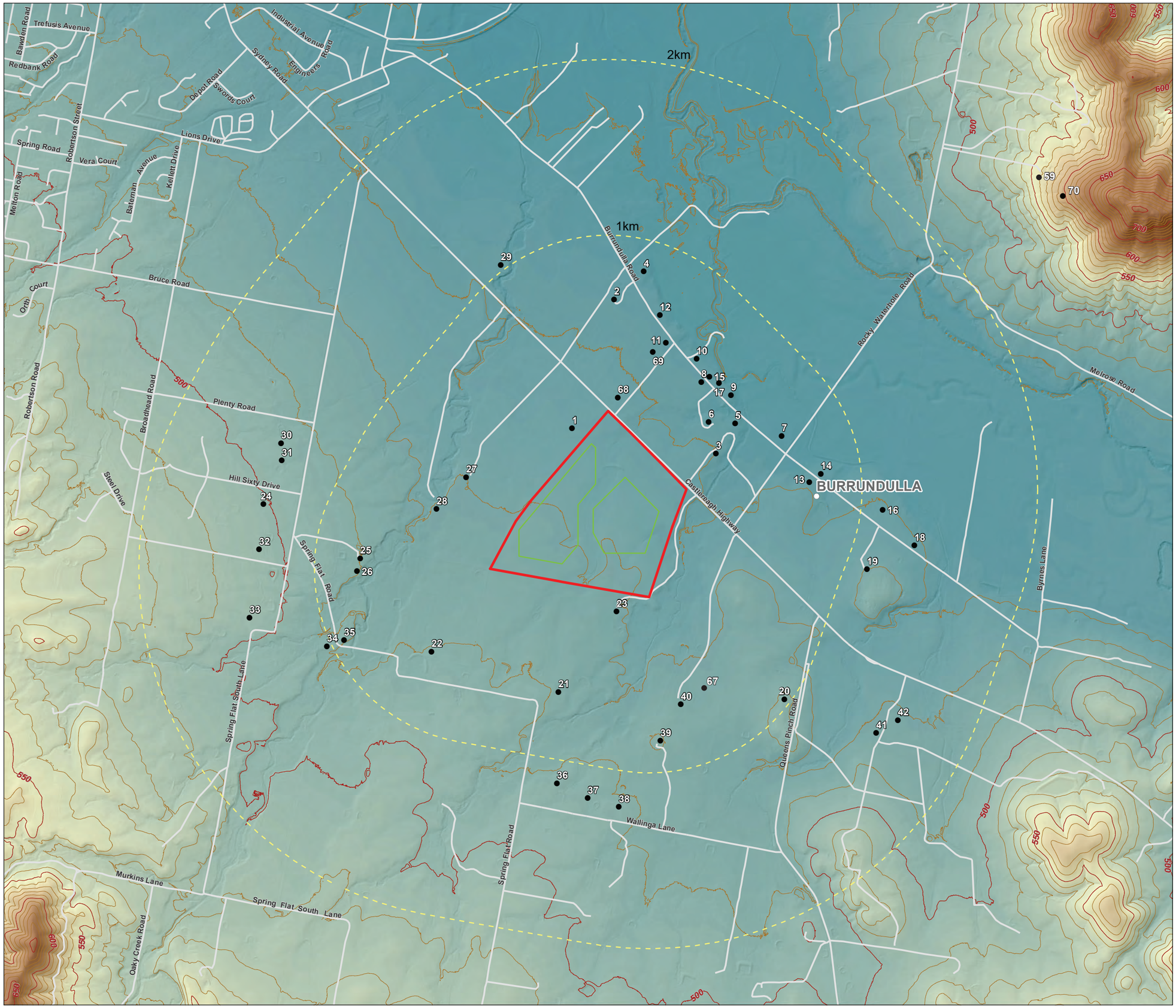

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Figure 3: Topography, local context

- Proposal site
- Solar farm footprint
- Observer point
- Distance from the site
- Contour (50m)
- Contour (10m)

Elevation (AHD)

High : 754m

Low : 455m

SOURCE:
Cadastral Boundary, State forest & National Parks : NSW Department of Finance, Services and Innovation 2021
Surface analysis: Derived from LiDAR - MUDGEE 2m Digital Elevation Model © Department Finance, Services and Innovation 2016/17 .

N W E S

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Kilometers

A3 Scale: 1:20,000

File:BurrundullaSolar-Fig2b-Topography-20K-220720 Date: 20/07/2022

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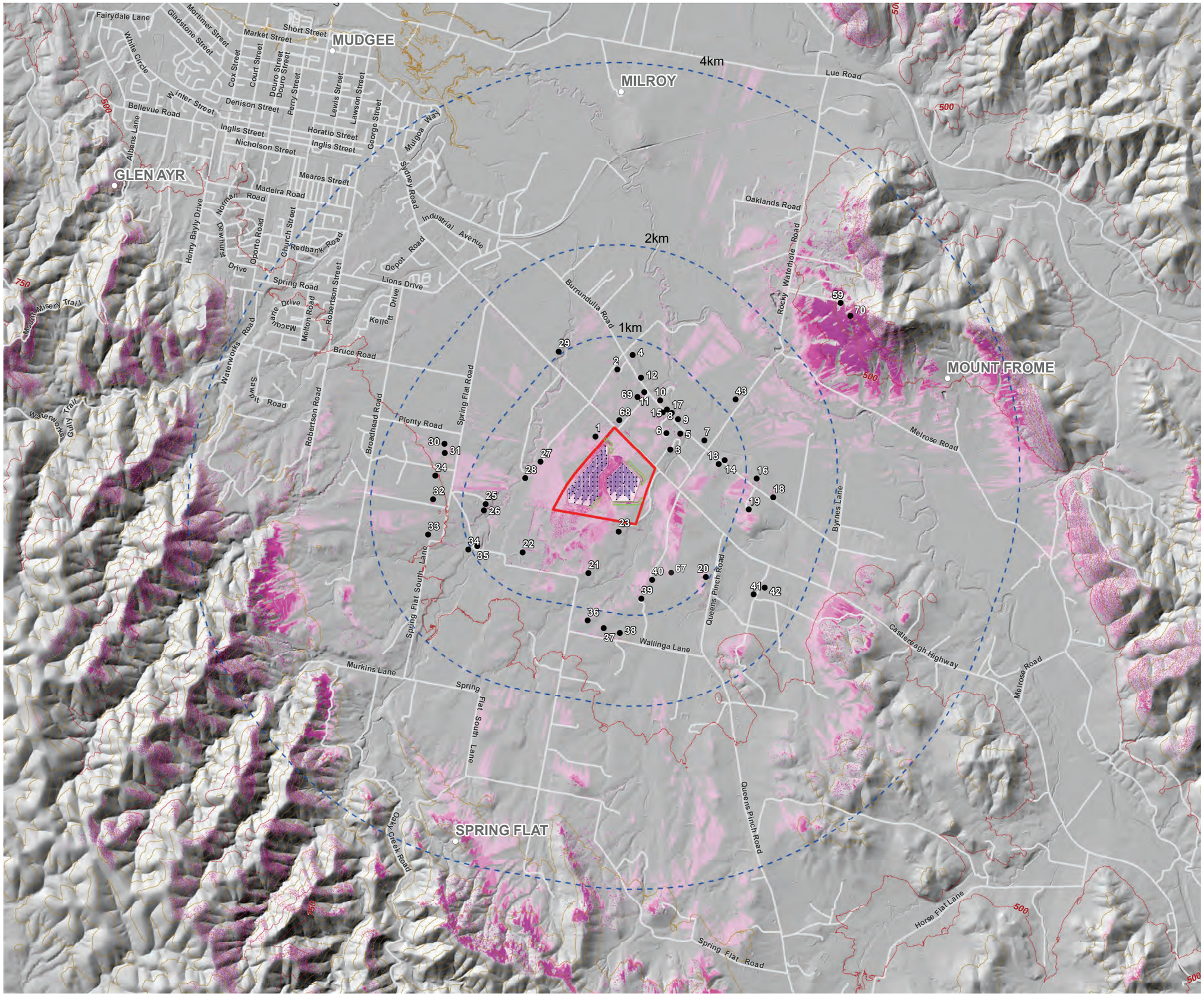

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Figure 4: Visual Catchment

- Proposal site
- Distance from the site
- Contour (250m)
- Contour (50m)
- Panel array area
- Observer point
- Mounding

Area of solar farm potentially visible

- Small
- High

SOURCE:
Cadastral Boundary, State forest & National Parks : NSW Department of Finance, Services and Innovation 2021
Imagery: Maxar 2021
Surface analysis: Derived from LiDAR - MUDGEE 2m Digital Elevation Model © Department Finance, Services and Innovation 2016/17 .

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Kilometers

A3 Scale: 1:40,000

File:BurrundullaSolar-Fig3-VisualCatchment-SolarFarm-220722

Date: 22/07/2022

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Figure 5: Viewpoint location plan, views from the Highway

Key:

- Site boundary
- Distance from the site
- NPWS Reserves
- Local ridgeline
- Cutting
- View locations

SOURCE:
Cadastral Boundary, State forest & National Parks : NSW Department of Finance, Services and Innovation 2021
Imagery: Maxar 2021

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Kilometers

A3 Scale: 1:40,000

File:BurrundullaSolar-Fig1-SiteLocation-211123 Date: 23/11/2021

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Attachment E – Viewpoint location plans and viewpoint panoramas

View north west from the Castlereagh Highway

Viewpoint 1. Existing view north west from the Castlereagh Highway, about 2.4 kilometres from the site

Viewpoint 2. Existing view, about 1.48 kilometres from nearest panel array

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Figure 6: Castlereagh Highway - Viewpoint 1 and 2

Date: February 2022
Job Number: 2022-223
Drawn: SR
Issue: REV1

View north from the Castlereagh Highway

Viewpoint 3. Existing view, about 585 metres from nearest panel array

Viewpoint 4. Existing view, about 485 metres from nearest panel

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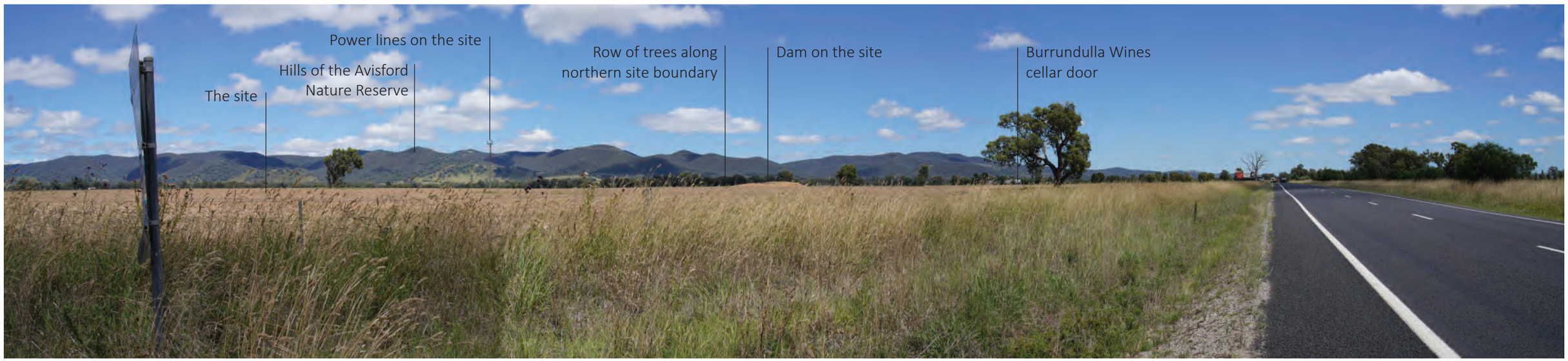
Figure 7: Castlereagh Highway - Viewpoint 3 and 4

Date: February 2022 Drawn: SR
Job Number: 2022-223 Issue: REV1

Views north west from the Castlereagh Highway



Viewpoint 5. Existing view, about 200 metres from nearest panel

Viewpoint 6. Existing view, about 300 metres from nearest panel

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Figure 8: Castlereagh Highway - Viewpoint 5 and 6

Date: February 2022
Job Number: 2022-223
Drawn: SR
Issue: REV1

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Figure 9: Photograph location plan, views from surrounding areas

Key:

- Site boundary
- 5 kilometre distance from site
- NPWS Reserves
- 1. Photograph location

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Views south west from Burundulla Road

Viewpoint 7. View south west from Burrundulla Road about 700 metres from nearest panel array

Views from Rocky Waterhole Road

Viewpoint 8. View south west from Rocky Waterhole Road about 1.8 kilometres from the nearest panel array, zoomed view

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Figure 10: Viewpoint 7 and 8

Date: February 2022
Job Number: 2022-223
Drawn: SR
Issue: REV1

Views from Rocky Waterhole Road

VIewpoint 9. View south from Rocky Waterhole Road about 2.5 kilometres from the proposal site

View from Queens Pinch Road

Viewpoint 10. View west from Queens Pinch Road about 1 kilometre from proposal site

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Figure 11: Viewpoint 9 and 10

Date: February 2022
Job Number: 2022-223
Drawn: SR
Issue: REV1

Views from Spring Flat Road

Viewpoint 11. View north from Spring Flat Road, about 800 metres from the nearest panel array

Viewpoint 12. View east from Spring Flat Road, about 1.2 kilometres from proposal site

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Figure 12: Viewpoint 11 and 12

Date: February 2022
Job Number: 2022-223
Drawn: SR
Issue: REV1

Attachment F – Photomontages, NSW LEC requirements, and photomontage accuracy report

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Figure 13: Photomontage loation plan, Views from the Castlereagh Highway

Key:

Site boundary

1. Photomontage view location

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Figure 14: Viewpoint 1, Castlereagh Highway, Existing photograph

Date: July 2022
Job Number: 2022-223

Figure 15: Viewpoint 1, Castlereagh Highway, 3D Wireframe

Date: July 2022 Drawn: Digital Line

Job Number: 2022-223

Figure 16: Viewpoint 1, Castlereagh Highway, Photomontage (day 1)

Date: August 2022 Drawn: Digital Line

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Figure 17: Viewpoint 4, Castlereagh Highway, Existing photograph
Date: August 2022

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Figure 18: Viewpoint 4, Castlereagh Highway, Photomontage (day 1)

Date: August 2022 Drawn: Digital Line
Job Number: 2022-223

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Figure 19: Viewpoint 4, Castlereagh Highway, Photomontage with trees shown

Date: August 2022 Drawn: Digital Line

Figure 20: Viewpoint 6, Castlereagh Highway, Existing photograph

Date: August 2022 Drawn: Digital Line

Figure 21: Viewpoint 6, Castlereagh Highway, Photomontage (day 1)

Date: August 2022 Drawn: Digital Line

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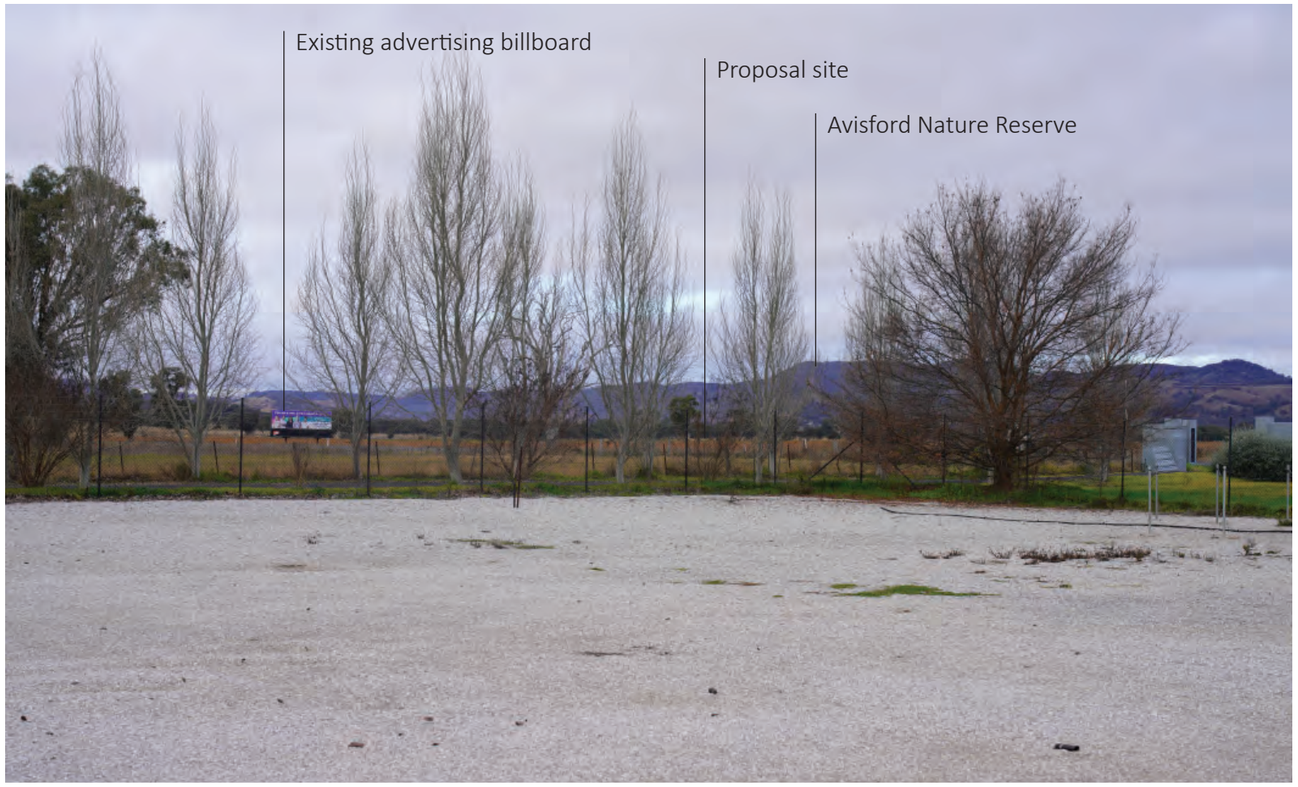
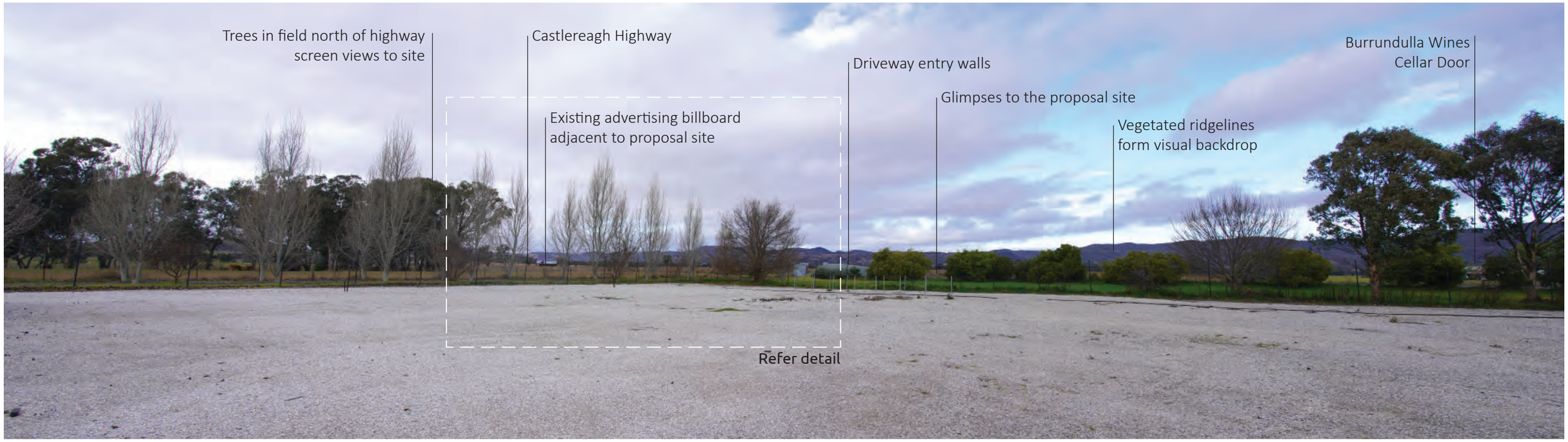
Figure 22: Viewpoint 6, Castlereagh Highway, Photomontage with trees shown

Date: August 2022 Drawn: Digital Line



Detail view towards the site



Existing view towards the site from OP68

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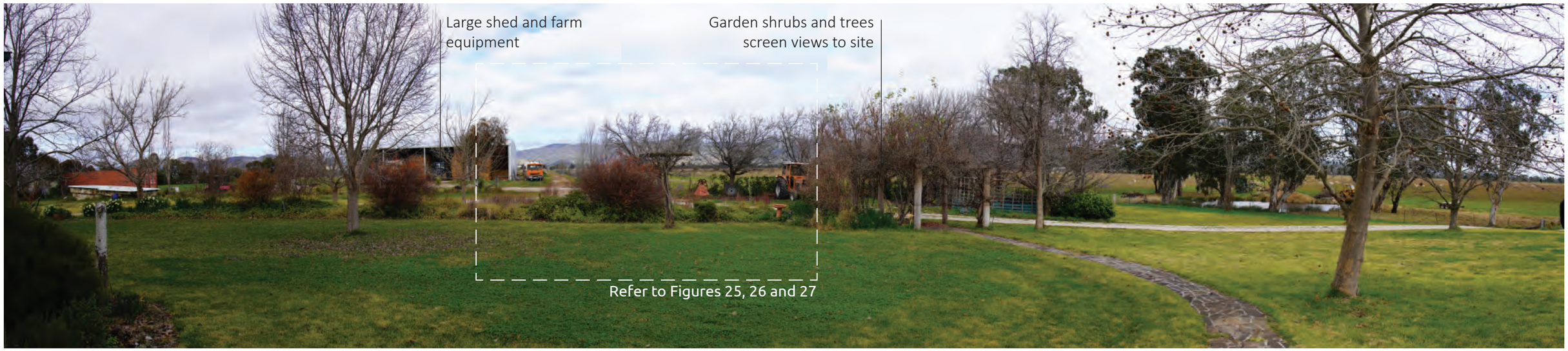
Figure 23: 243 Castlereagh Highway (OP68), Existing views
Date: August 2022

Southwest facing windows of dwelling with evergreen trees

View from track towards dwelling



Existing view towards the site from the south western side of the dwelling

Existing view towards the site from driveway of OP6

Figure 25: 328 Burrundilla Road (OP6), Existing photograph

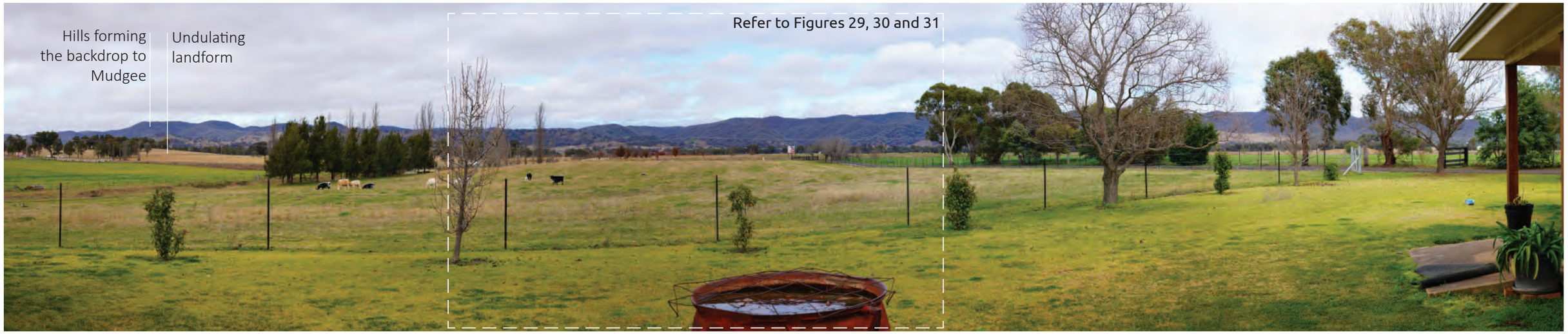
Date: August 2022

Figure 26: 328 Burrundilla Road (OP6), Photomontage (day 1)

Date: August 2022 Drawn: Digital Line

Figure 27: 328 Burrundilla Road (OP6), Photomontage with trees shown

Date: August 2022 Drawn: Digital Line



Existing view towards the site from OP3

Existing view towards the site from driveway of OP3

Figure 29: 446 Rocky Waterhole Road (OP3), Existing photograph

Date: August 2022

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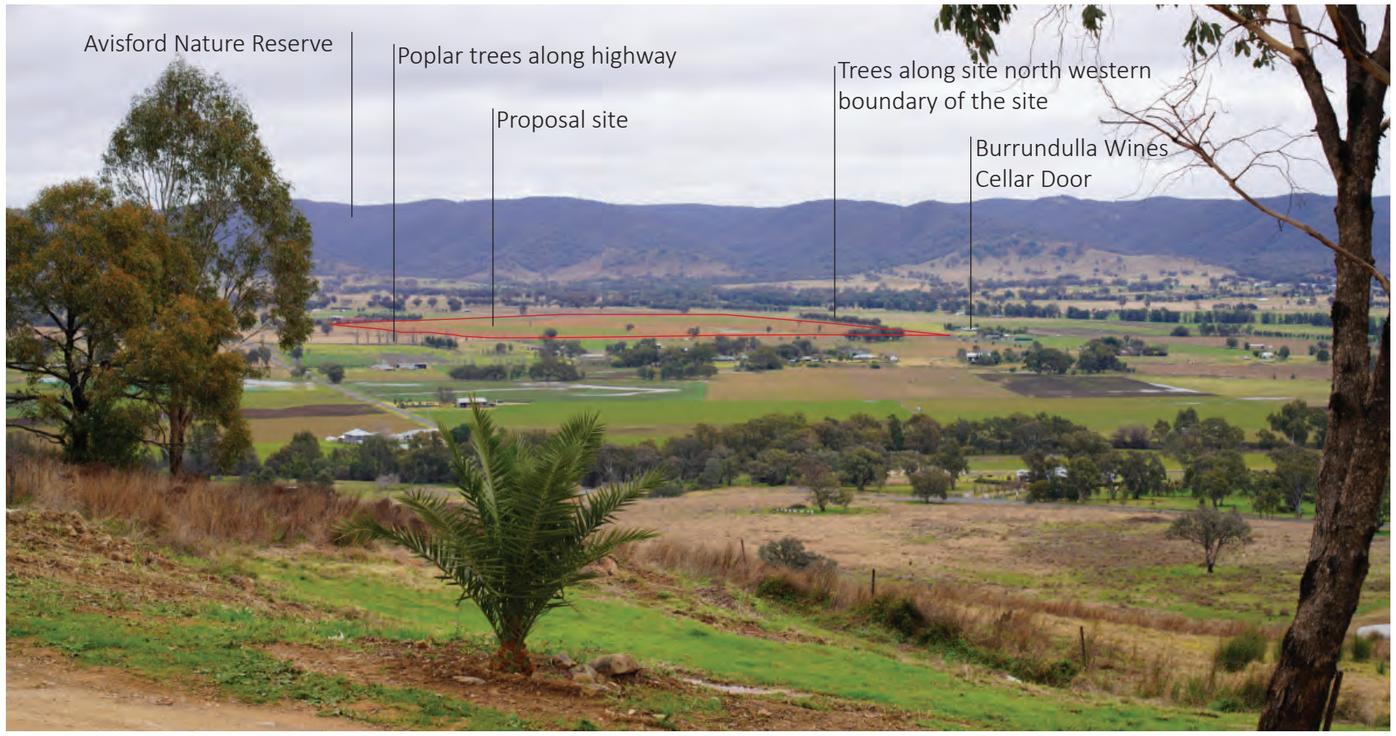
Figure 30: 446 Rocky Waterhole Road (OP3), Photomontage (day 1)

Date: August 2022 Drawn: Digital Line

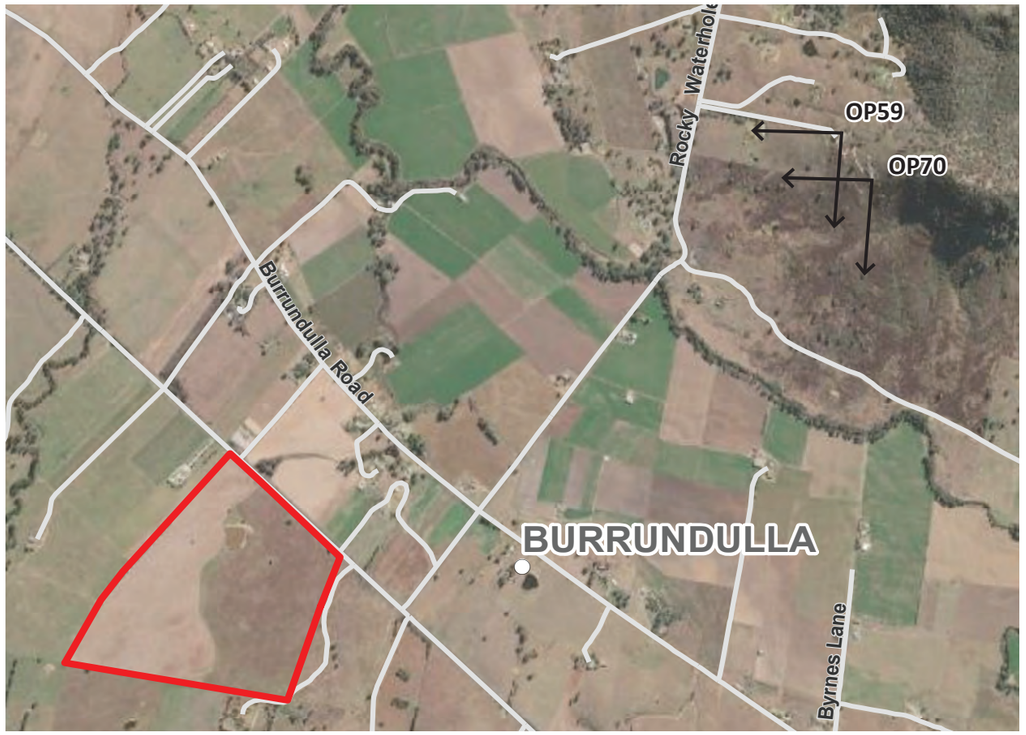
Job Number: 2022-223

Figure 31: 446 Rocky Waterhole Road (OP3), Photomontage with trees shown

Date: August 2022 Drawn: Digital Line



Detail view towards the site



Existing panoramic view from near dwelling showing approximate location of the proposal site

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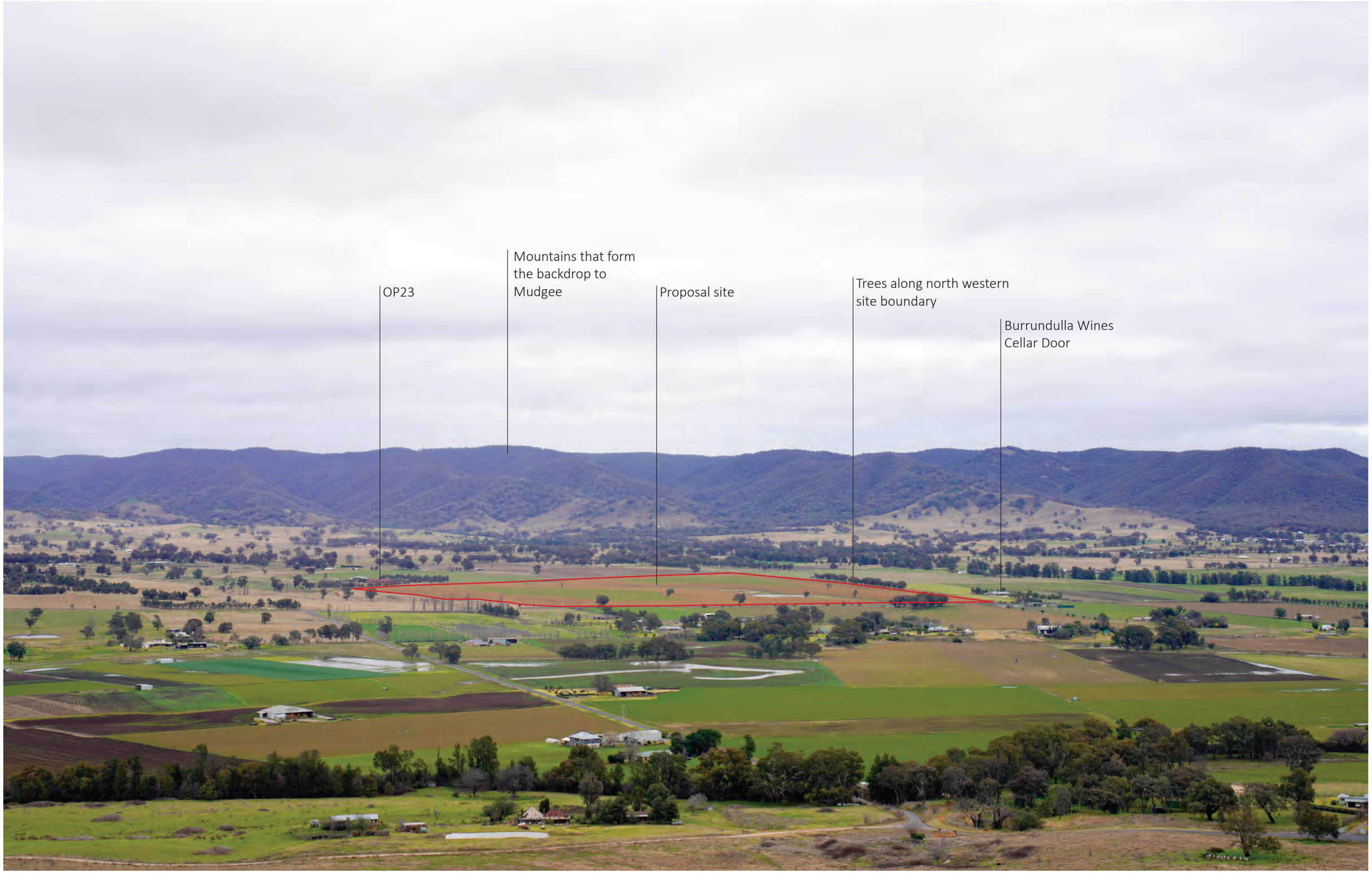
Figure 32: 241 Rocky Waterhole Road (OP59), Existing view

Date: August 2022
Job Number: 2022-223

Existing panoramic views from OP70 towards the site



Existing view from OP70 showing approximate location of the proposal site

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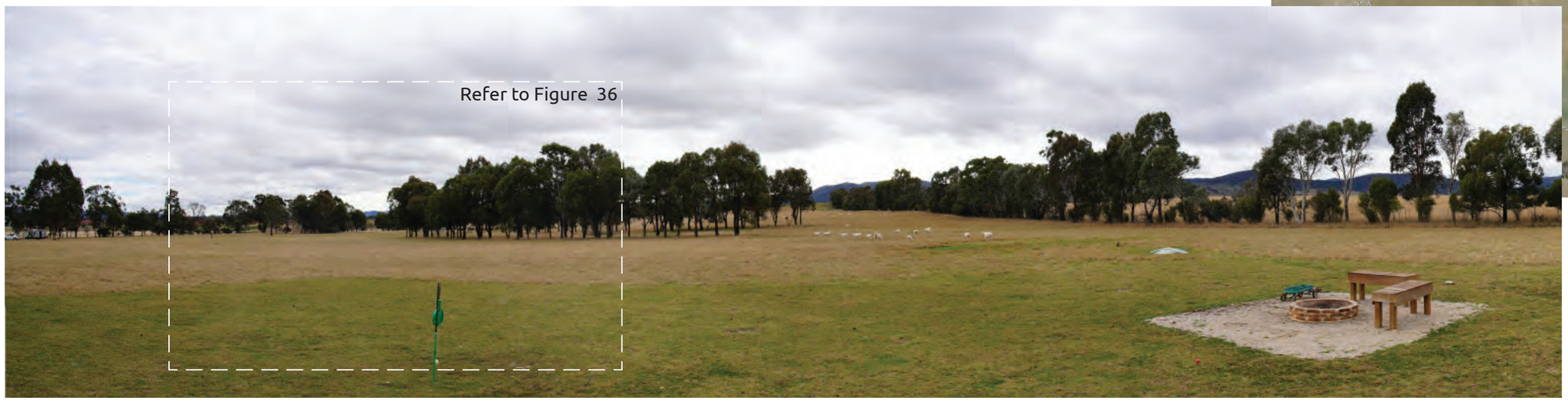
Figure 34: 241 Rocky Waterhole Road (OP70), Existing view

Date: August 2022
Job Number: 2022-223

View showing short term accommodation building

View from outdoor entertaining area



Existing view from deck of short term accommodation building towards the proposal site

Existing view from driveway towards the proposal site

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Figure 35: 344 Castlereagh Highway (OP40), Existing views

Date: August 2022
Job Number: 2022-223

Figure 36: 344 Castlereagh Highway (OP40), Existing view

Date: August 2022
Job Number: 2022-223

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Figure 37: 344 Castlereagh Highway (OP40), Existing view

Date: August 2022
Job Number: 2022-223

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Figure 38: 344 Castlereagh Highway (OP40), Photomontage (day 1)

Date: August 2022 Drawn: Digital Line

Job Number: 2022-223

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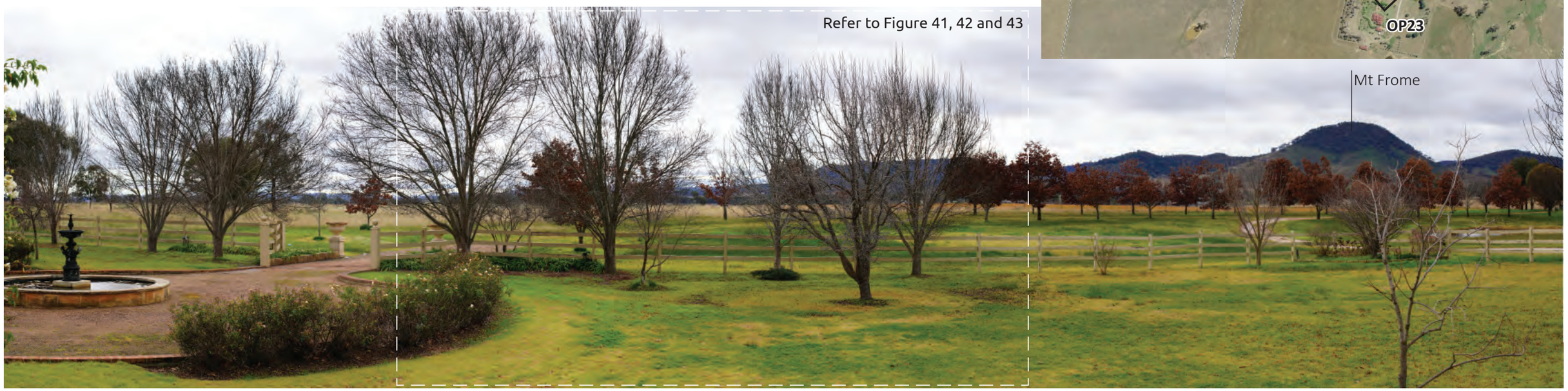
Figure 39: 344 Castlereagh Highway (OP40), Photomontage with trees shown

Date: August 2022
Job Number: 2022-223

Drawn: Digital Line

View showing dwelling at 312 Castlereagh Highway (OP23)



A. Existing view from dwelling towards the site from front garden

B. Existing view from driveway towards the proposal site

Figure 40: 312 Castlereagh Highway (OP23), Existing views

Date: August 2022
Job Number: 2022-223

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Figure 41: 312 Castlereagh Highway (OP23), Existing view

Date: August 2022
Job Number: 2022-223

Figure 42: 312 Castlereagh Highway (OP23) Photomontage (day 1)

Date: August 2022 Drawn: Digital Line

Job Number: 2022-223

Burrundulla Mini Renewable Energy Project

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Figure 43: 312 Castlereagh Highway (OP23), Photomontage with trees shown

Date: August 2022 Drawn: Digital Line

Job Number: 2022-223

A. Existing view from driveway towards the proposal site

B. Existing view from driveway towards the proposal site

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Burrundulla Mini Renewable Energy Project
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Figure 44: 312 Castlereagh Highway (OP23), Existing views

Date: August 2022
Job Number: 2022-223

View to main entrance at eastern side of house

View across fields towards the site from northern garden fenceline

View from outdoor entertaining area at northern side of house

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www.irisvisual.com.au | 16/109 Musgrave Road, Red Hill, 4059

Burrundulla Mini Renewable Energy Project

ITP Renewables

Figure 45: 83 Wallinga Lane (OP39), Exisitng views towards site

Date: August 2022
Job Number: 2022-223

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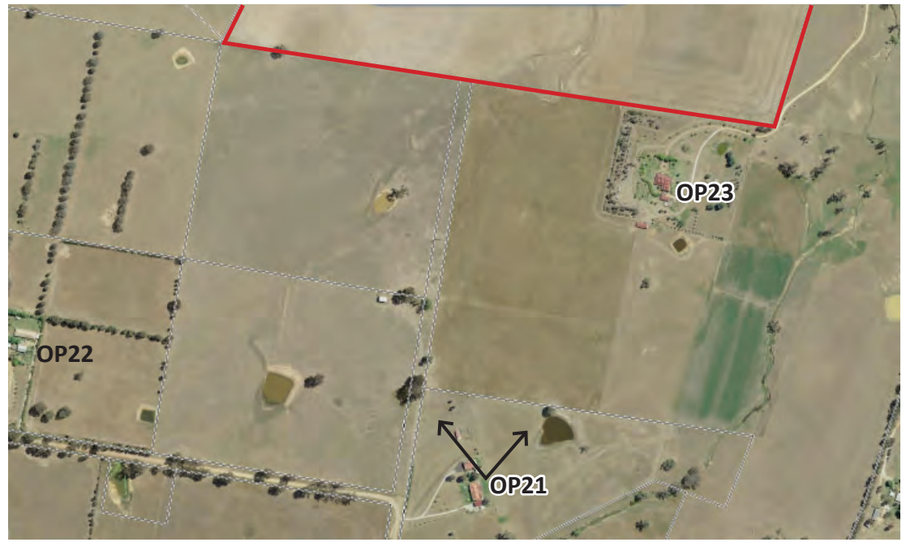
Landscape Planning | Visual Assessment | Landscape Architecture
www.irisvisual.com.au | 16/109 Musgrave Road, Red Hill, 4059

Burrundulla Mini Renewable Energy Project
ITP Renewables

Figure 46: 83 Wallinga Lane (OP39), Exisitng view from garden

Date: August 2022
Job Number: 2022-223



Existing view from garden towards site

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Landscape Planning | Visual Assessment | Landscape Architecture
www.irisvisual.com.au | 16/109 Musgrave Road, Red Hill, 4059

Burrundulla Mini Renewable Energy Project
ITP Renewables

Figure 47: 411 Spring Flat Road (OP21), Existing view

Date: August 2022
Job Number: 2022-223

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www.irisvisual.com.au | 16/109 Musgrave Road, Red Hill, 4059

Burrundulla Mini Renewable Energy Project
ITP Renewables

Figure 48: 345 Spring Flat Road (OP22), Existing view

Date: August 2022
Job Number: 2022-223

iris

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www.irisvisual.com.au | 16/109 Musgrave Road, Red Hill, 4059

Burrundulla Mini Renewable Energy Project

ITP Renewables

Figure 49: 345 Spring Flat Road (OP22), Existing view

Date: August 2022 Drawn: Digital Line

Job Number: 2022-223

ABN 79 085 185 833
PO Box 860
Neutral Bay NSW 2089
Ph. 02 9953 2312 Fax 02 8003 9708
e-mail info@digitalline.com.au
website www.digitalline.com.au

Att: Suzie Rawlinson
Iris Visual
78 Macgregor Terrace, Bardon, 4065,

Re: Project Burrundulla Solar Farm, Mudgee, NSW, 2850

05/08/2022

Dear Suzie,

The photomontage provided for the development proposed at the property Burrundulla Solar Farm, Mudgee, NSW, 2850 was prepared utilizing the latest technology and the following methodology:

1. Digital Line Pty Ltd was created in Sydney, NSW in November 1998. The company creates 3D computer generated graphics, including photomontages for the analysis of visual impacts of Development Applications.
2. Photomontages created by Digital Line have been successfully used by our clients in Randwick, Woollahra, Waverley and other NSW councils. In 2009 and in 2013, Digital Line was announced as a winner of the tender for the preferred supplier of DA photomontages for Randwick City Council.
3. For creating photomontages Digital Line Pty Ltd uses specialized software 3DStudio MAX 2016, created by Autodesk®. Software is licensed and registered with Autodesk®, S/N 398-15013741 .
4. Digital Line use the “Camera Match utility” system from 3DStudio MAX for creating the photomontages:
    4.1. The following input information was required for creating the photomontages:
    - High resolution digital photograph of the site, taken from each viewing place.
    - Architectural plans and elevations in DWG format.
    - Certified survey plans.
    4.2. The Camera Match utility uses a bitmap background photo and five or more special "CamPoint" objects to create or modify a camera match so that its position, orientation, and field of-view matches that of the camera that originally created the photo.
    4.3. An accurate 3d model is created from the architectural drawings and this is then superimposed on the original photograph
    4.4. After determining the position of the camera match we check accuracy by comparing the photograph and 3d model with existing objects (such as height poles, buildings, trees and other objects, the locations and heights of which can be derived from survey data)
    4.5. For a detailed explanation of the processes involved, please call Digital Line Pty Ltd
5. The “Camera Match utility” system from 3DStudio MAX currently is the most accurate system for creating images used in the preparation of photomontages.
6. I certify that the photomontage complies with the Land and Environment Court policy and is an accurate representation of the proposed development.

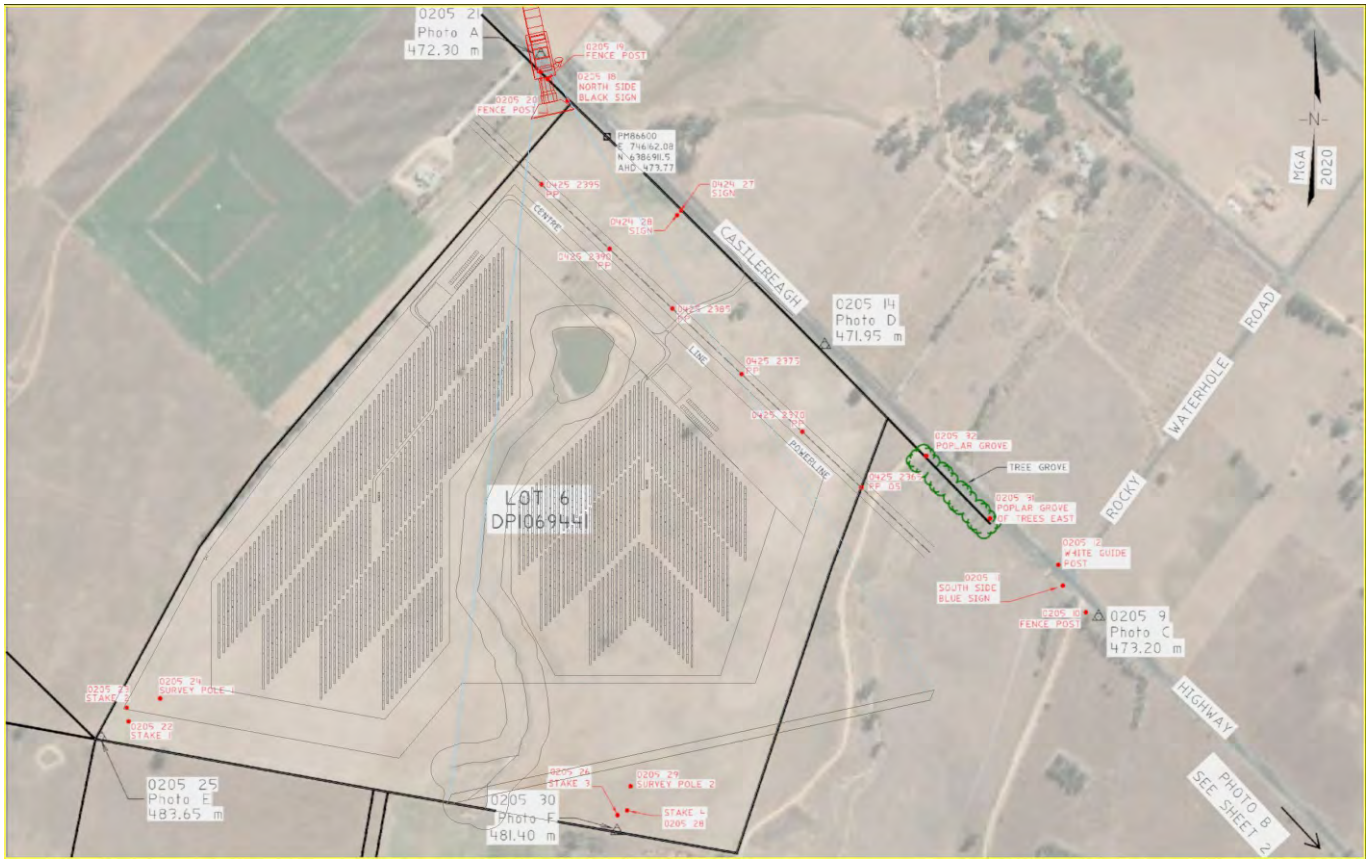
Attached to this letter: Burrundulla Solar Farm, Mudgee, NSW, 2850 - CamA Photomontage Expert Report

Sincerely yours,

Leonid Medvedskiy
Director

1a. Existing Photograph-the current, unchanged view of the location depicted in the photomontage from the same viewing point as that of the photomontage

1b. existing photograph with the wire frame lines depicted so as to demonstrate the data from which the photomontage has been constructed



1c. 2D plan showing the location of the camera and target point that corresponds to the same location the existing photograph was taken

1d. Survey data.

The accurate 2D survey data has been used for preparation of the photomontage

i. To build the 3D models of existing buildings as shown in the wireframe.
ii. To establish the accurate camera location and RL

2a. The name and qualifications of the surveyor who prepared the survey information from which the underlying data for the wire frame from which the photomontage was derived:

Surveyor Comany:
O'Ryan Geospatial
129 Church St, Mudgee NSW 2850
(02) 9057 4101
Email: greg@oryangeospatial.com.au

Surveyors Reference: 22-938

2b. The camera type and field of view of the lens used for the purpose of the photograph in 1a. from which the photomontage was derived:

Camera: SONY ILCE-7RM4A
Focal Length(35 mm film camera equivalent) 50 mm

ABN 79 085 185 833
PO Box 860
Neutral Bay NSW 2089
Ph. 02 9953 2312 Fax 02 8003 9708
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6. I certify that the photomontage complies with the Land and Environment Court policy and is an accurate representation of the proposed development.

Attached to this letter: Burrundulla Solar Farm, Mudgee, NSW, 2850 - CamB Photomontage Expert Report

Sincerely yours,

Leonid Medvedskiy
Director

1a. Existing Photograph-the current, unchanged view of the location depicted in the photomontage from the same viewing point as that of the photomontage

1b. existing photograph with the wire frame lines depicted so as to demonstrate the data from which the photomontage has been constructed

1c. 2D plan showing the location of the camera and target point that corresponds to the same location the existing photograph was taken

1d. Survey data.

The accurate 2D survey data has been used for preparation of the photomontage

i. To build the 3D models of existing buildings as shown in the wireframe.
ii. To establish the accurate camera location and RL

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129 Church St, Mudgee NSW 2850
(02) 9057 4101
Email: greg@oryangeospatial.com.au

Surveyors Reference: 22-938

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Focal Length(35 mm film camera equivalent) 50 mm

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Neutral Bay NSW 2089
Ph. 02 9953 2312 Fax 02 8003 9708
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Att: Suzie Rawlinson
Iris Visual
78 Macgregor Terrace, Bardon, 4065,

Re: Project Burrundulla Solar Farm, Mudgee, NSW, 2850

05/08/2022

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6. I certify that the photomontage complies with the Land and Environment Court policy and is an accurate representation of the proposed development.

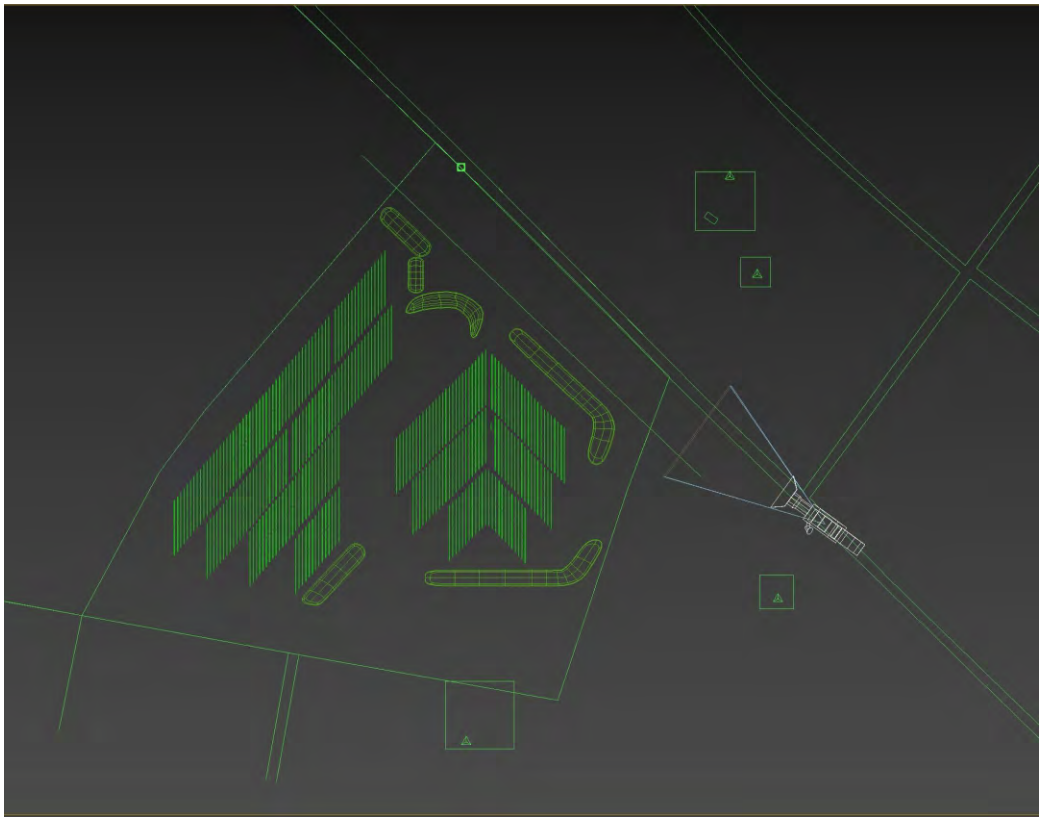
Attached to this letter: Burrundulla Solar Farm, Mudgee, NSW, 2850 - CamC Photomontage Expert Report

Sincerely yours,

Leonid Medvedskiy
Director

1a. Existing Photograph-the current, unchanged view of the location depicted in the photomontage from the same viewing point as that of the photomontage

1b. existing photograph with the wire frame lines depicted so as to demonstrate the data from which the photomontage has been constructed



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(02) 9057 4101
Email: greg@oryangeospatial.com.au

Surveyors Reference: 22-938

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e-mail info@digitalline.com.au
website www.digitalline.com.au

Att: Suzie Rawlinson
Iris Visual
78 Macgregor Terrace, Bardon, 4065,

Re: Project Burrundulla Solar Farm, Mudgee, NSW, 2850

05/08/2022

Dear Suzie,

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6. I certify that the photomontage complies with the Land and Environment Court policy and is an accurate representation of the proposed development.

Attached to this letter: Burrundulla Solar Farm, Mudgee, NSW, 2850 - Cam “PhotoA0706" Photomontage Expert Report

Leonid Medvedskiy
Director

1a. Existing Photograph-the current, unchanged view of the location depicted in the photomontage from the same viewing point as that of the photomontage

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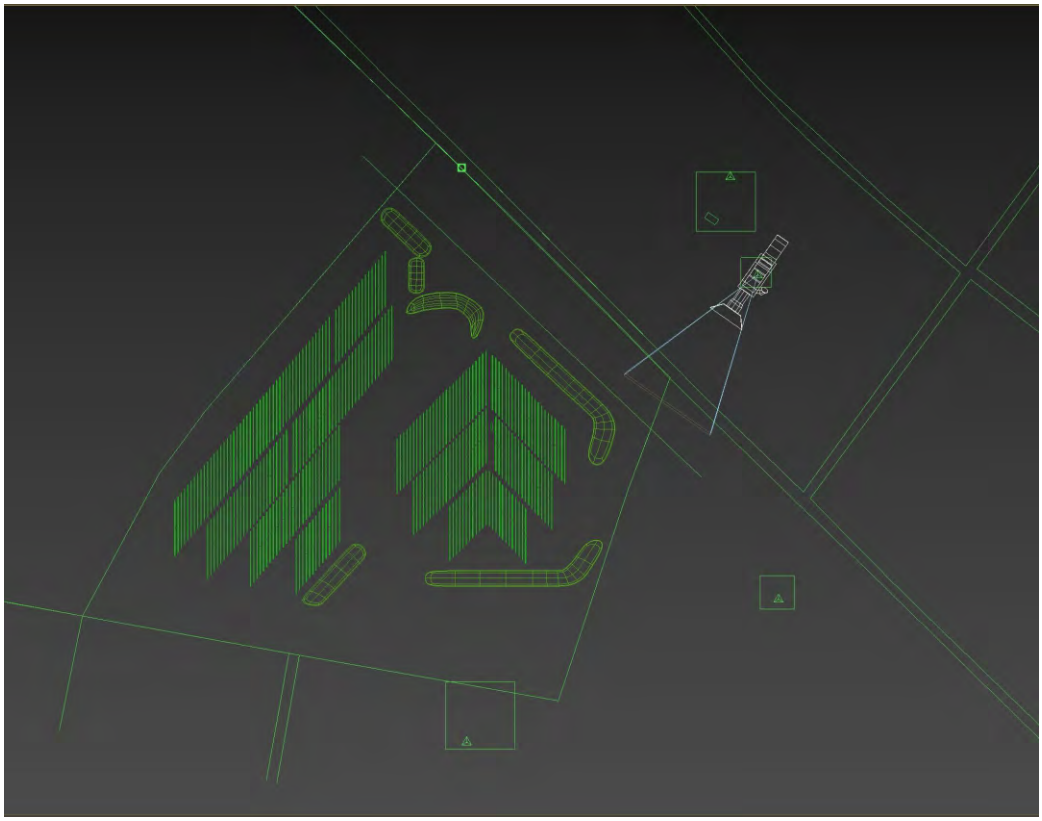

1c. 2D plan showing the location of the camera and target point that corresponds to the same location the existing photograph was taken

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O'Ryan Geospatial
129 Church St, Mudgee NSW 2850
(02) 9057 4101
Email: greg@oryangeospatial.com.au

Surveyors Reference: 22-938

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Camera: SONY ILCE-7RM4A
Focal Length(35 mm film camera equivalent) 50 mm

ABN 79 085 185 833
PO Box 860
Neutral Bay NSW 2089
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website www.digitalline.com.au

Att: Suzie Rawlinson
Iris Visual
78 Macgregor Terrace, Bardon, 4065,

Re: Project Burrundulla Solar Farm, Mudgee, NSW, 2850

05/08/2022

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Attached to this letter: Burrundulla Solar Farm, Mudgee, NSW, 2850 - Cam “PhotoB0706" Photomontage Expert Report

Leonid Medvedskiy
Director

1a. Existing Photograph-the current, unchanged view of the location depicted in the photomontage from the same viewing point as that of the photomontage

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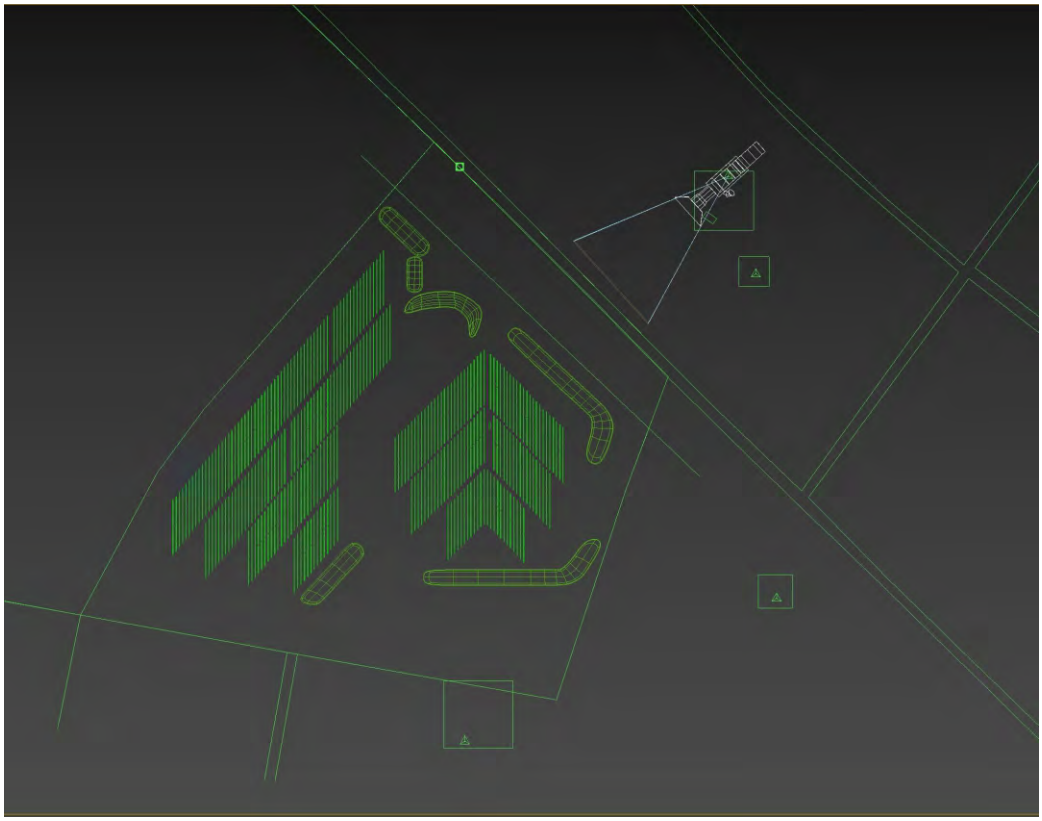

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Attached to this letter: Burrundulla Solar Farm, Mudgee, NSW, 2850 - Cam “PhotoC0706" Photomontage Expert Report

Leonid Medvedskiy
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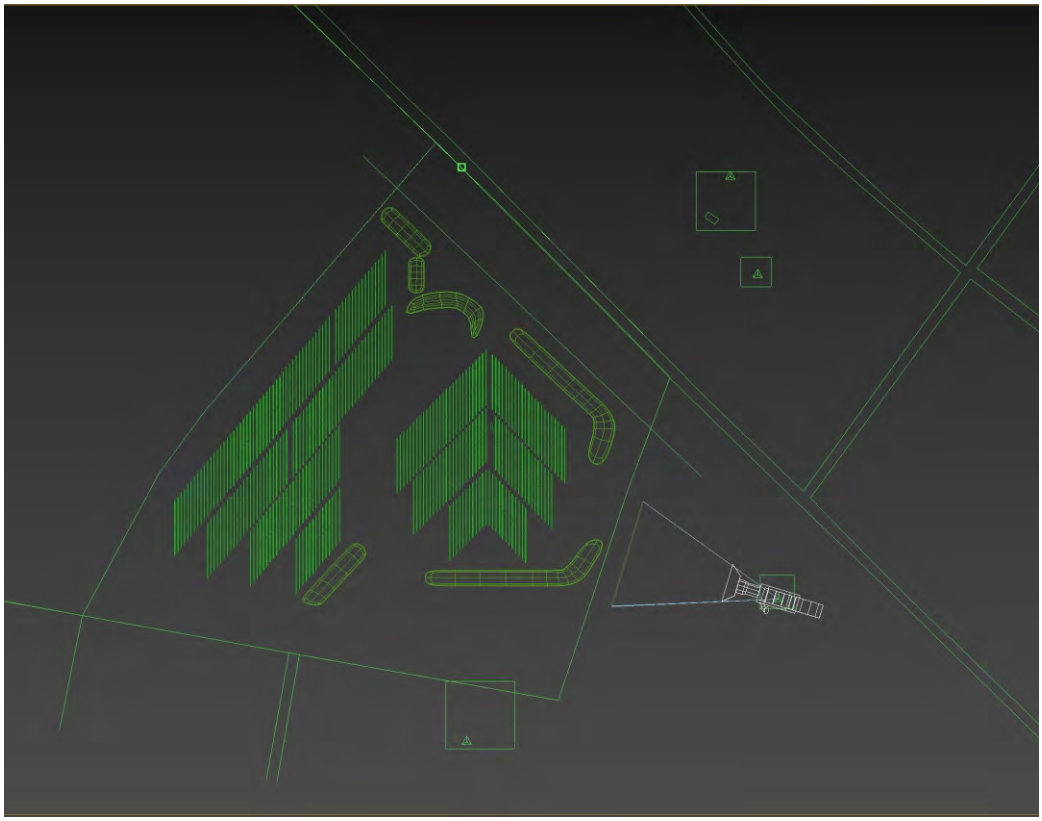
1a. Existing Photograph-the current, unchanged view of the location depicted in the photomontage from the same viewing point as that of the photomontage

1b. existing photograph with the wire frame lines depicted so as to demonstrate the data from which the photomontage has been constructed



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Att: Suzie Rawlinson
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05/08/2022

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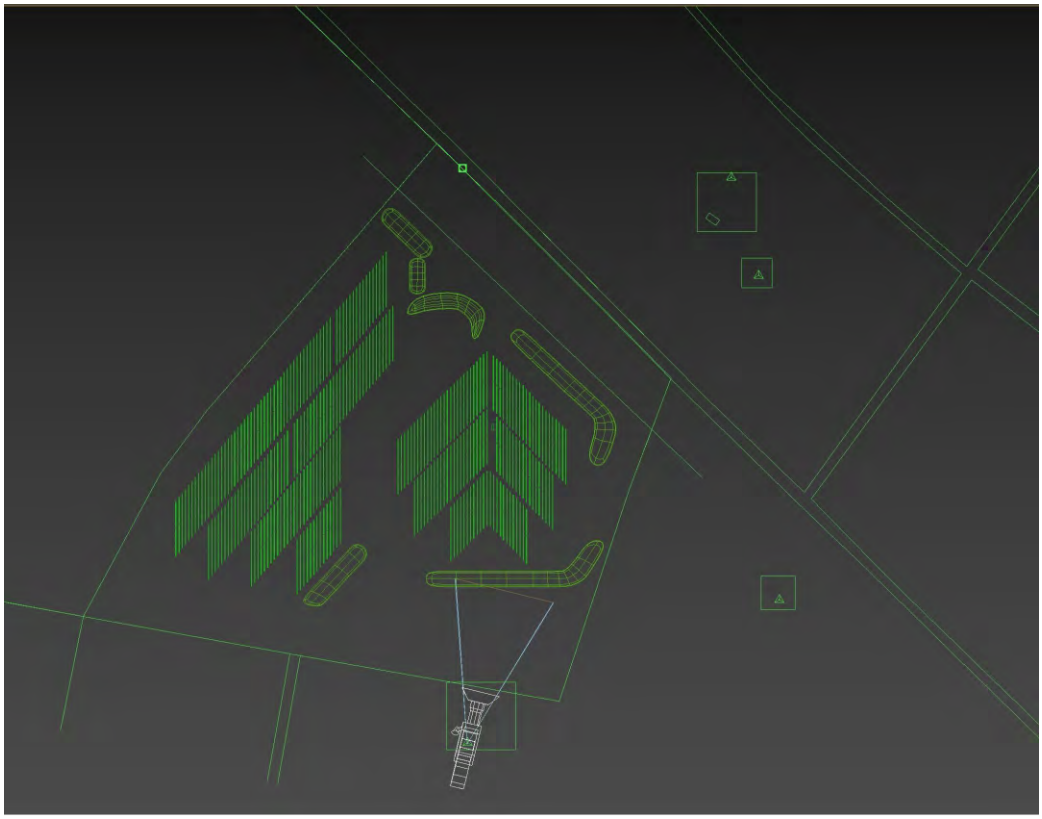
Attached to this letter: Burrundulla Solar Farm, Mudgee, NSW, 2850 - Cam “PhotoD" Photomontage Expert Report

Leonid Medvedskiy
Director

1a. Existing Photograph-the current, unchanged view of the location depicted in the photomontage from the same viewing point as that of the photomontage

1b. existing photograph with the wire frame lines depicted so as to demonstrate the data from which the photomontage has been constructed



1c. 2D plan showing the location of the camera and target point that corresponds to the same location the existing photograph was taken

1d. Survey data.

The accurate 2D survey data has been used for preparation of the photomontage

i. To build the 3D models of existing buildings as shown in the wireframe.
ii. To establish the accurate camera location and RL

2a. The name and qualifications of the surveyor who prepared the survey information from which the underlying data for the wire frame from which the photomontage was derived:

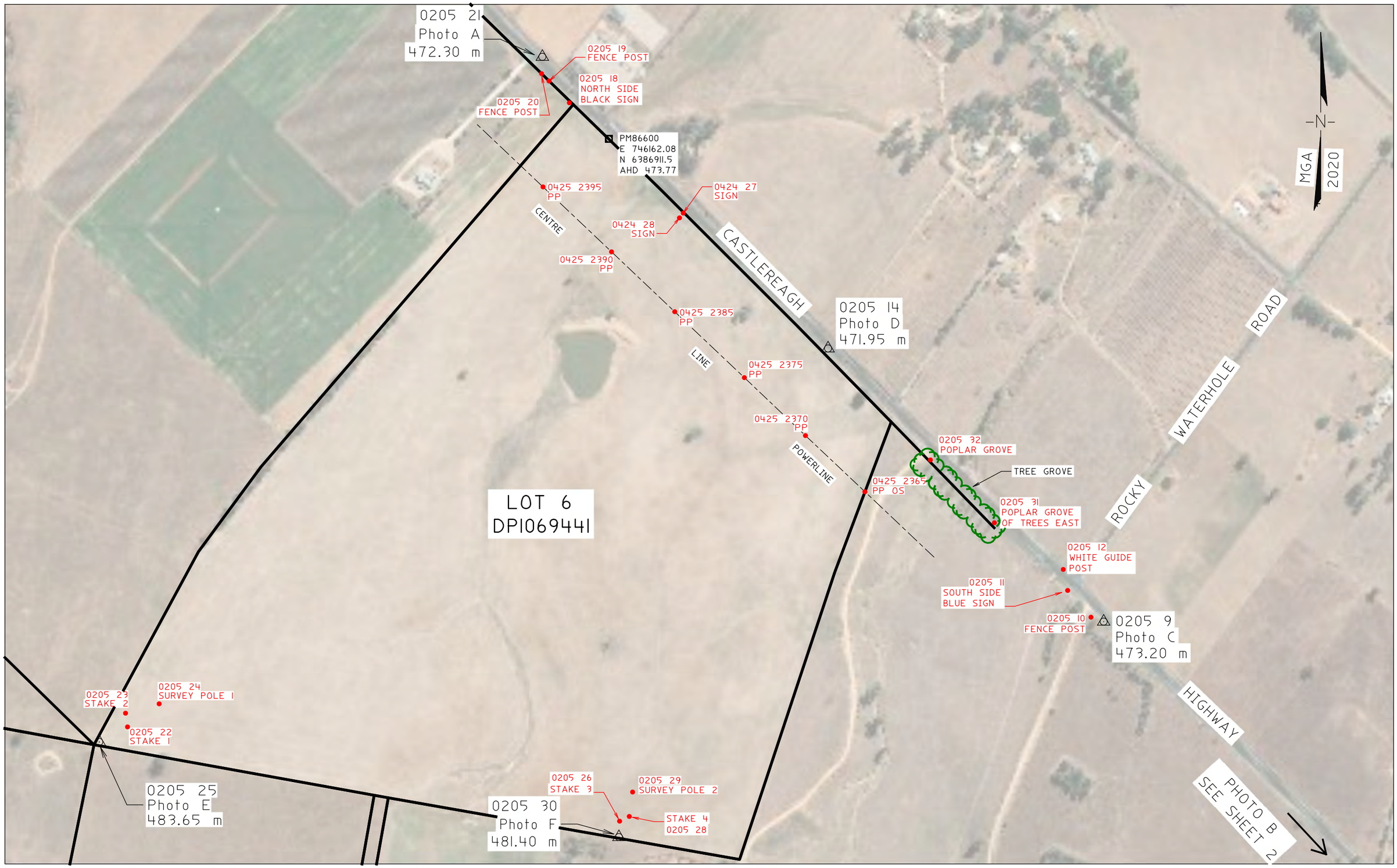
Surveyor Comany:
O'Ryan Geospatial
129 Church St, Mudgee NSW 2850
(02) 9057 4101
Email: greg@oryangeospatial.com.au

Surveyors Reference: 22-938

2b. The camera type and field of view of the lens used for the purpose of the photograph in 1a. from which the photomontage was derived:

Camera: SONY ILCE-7RM4A
Focal Length(35 mm film camera equivalent) 50 mm

Attachment G – Survey details used for the preparation of photomontages



REFER TO SHEET 2 FOR PHOTO B STATION OVERVIEW

NOTE: ALL ELEVATIONS ARE TO
GROUND LEVEL AT THE STATED LOCATIONS.

No.	DATE	REVISION DETAILS

HEIGHTS WERE DERIVED FROM PM 86600 473.77 AHD (CORS)
SCALED TO GROUND SF 1.000269094

NO CADASTRAL BOUNDARIES WERE INVESTIGATED
FOR THE PURPOSE OF THIS SURVEY

PREPARED BY
O'RYAN GEOSPATIAL
ABN: 28616175823
129 CHURCH STREET
MUDGEE NSW
(02) 9057 4101

CLIENT:
SUZIE RAWLINSON
IRIS VISUAL

SCALE: 1:5000 @A3	DATUM: AHD		
CONTOUR INTERVAL N/A	DRAWN AWB	CHECKED GP	
LGA & LOCALITY MID-WESTERN, BURRUNDULLA			

TITLE
OVERVIEW OF PHOTO
POINTS TAKEN OVER 3B SYDNEY ROAD,
BURRUNDULLA

REVISION 0

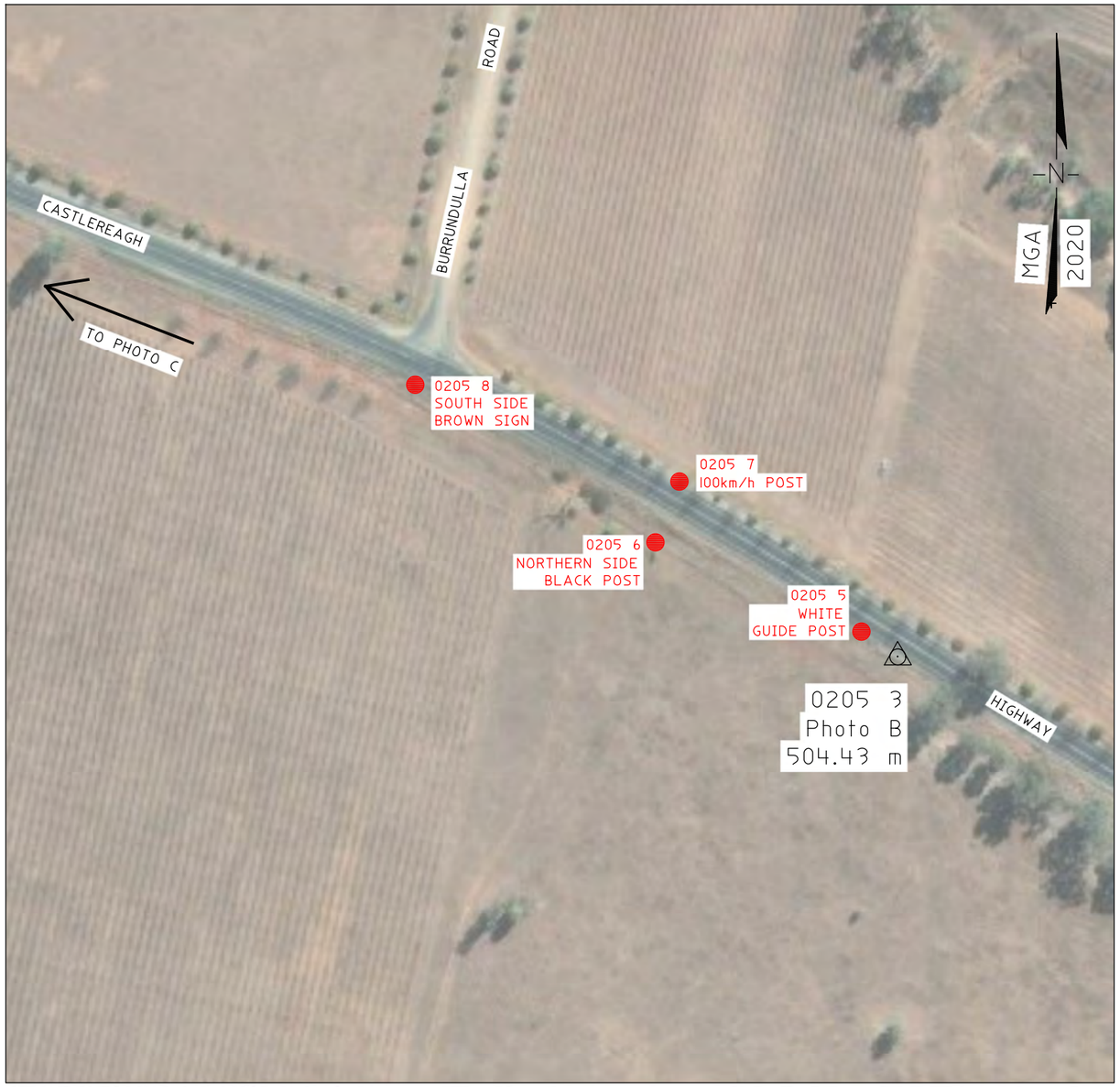
DWG No	JOB No	SHEET
22-938	22-938	SHEET 1 OF 2 SHEETS

PHOTO REFERENCE POINTS

POINT	POINT CODE	EASTING	NORTHING	ELEVATION
0205 5	WHITE GUIDE POST	748610.30	6385091.48	503.77
0205 6	NORTHERN SIDE BLACK POST	748539.03	6385122.37	500.14
0205 7	100km/h post	748547.32	6385143.43	499.90
0205 8	SOUTH SIDE BROWN SIGN	748455.93	6385176.91	494.00
0205 10	FENCE POST	746838.60	6386238.99	473.13
0205 11	SOUTH SIDE BLUE SIGN	746805.90	6386276.54	471.71
0205 12	WHITE GUIDE POST	746799.75	6386306.01	471.93
0205 18	NORTH SIDE BLACK SIGN	746107.15	6386960.70	472.61
0205 19	FENCE POST	746078.71	6386991.22	472.19
0205 20	FENCE POST	746068.22	6387001.57	472.08
0205 22	STAKE 1	745487.65	6386085.12	483.38
0205 23	STAKE 2	745484.86	6386104.34	483.15
0205 24	SURVEY POLE 1	745532.01	6386117.49	483.56
0205 26	STAKE 3	746177.64	6385952.88	481.32
0205 28	STAKE 4	746191.21	6385959.49	481.18
0205 29	SURVEY POLE 2	746195.86	6385993.73	480.74
0205 31	POPLAR GROVE OF TREES EAST	746703.17	6386371.50	468.88
0205 32	POPLAR GROVE OF TREES WEST	746613.43	6386459.66	469.58
0424 27	SIGN	746266.93	6386805.93	471.79
0424 28	SIGN	746261.64	6386799.24	471.89
0425 2365	PP OS	746521.61	6386414.93	472.80
0425 2370	PP	746438.25	6386493.79	473.72
0425 2375	PP	746352.59	6386575.11	470.83
0425 2385	PP	746254.97	6386667.56	474.09
0425 2390	PP	746166.34	6386751.60	472.82
0425 2395	PP	746070.25	6386842.67	474.09

PHOTO POINTS

POINT	POINT CODE	EASTING	NORTHING	ELEVATION
0205 3	Photo B	748622.81	6385082.87	504.43
0205 9	Photo C	746856.41	6386232.81	473.20
0205 14	Photo D	746469.95	6386616.10	471.95
0205 21	Photo A	746069.31	6387025.15	472.30
0205 25	Photo E	745448.00	6386064.04	483.65
0205 30	Photo F	746176.65	6385930.50	481.40



SCALE 1 : 2000 @ A3

No.	DATE	REVISION DETAILS

NO CADASTRAL BOUNDARIES WERE INVESTIGATED
FOR THE PURPOSE OF THIS SURVEY
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SCALED TO GROUND SF 1.000269094
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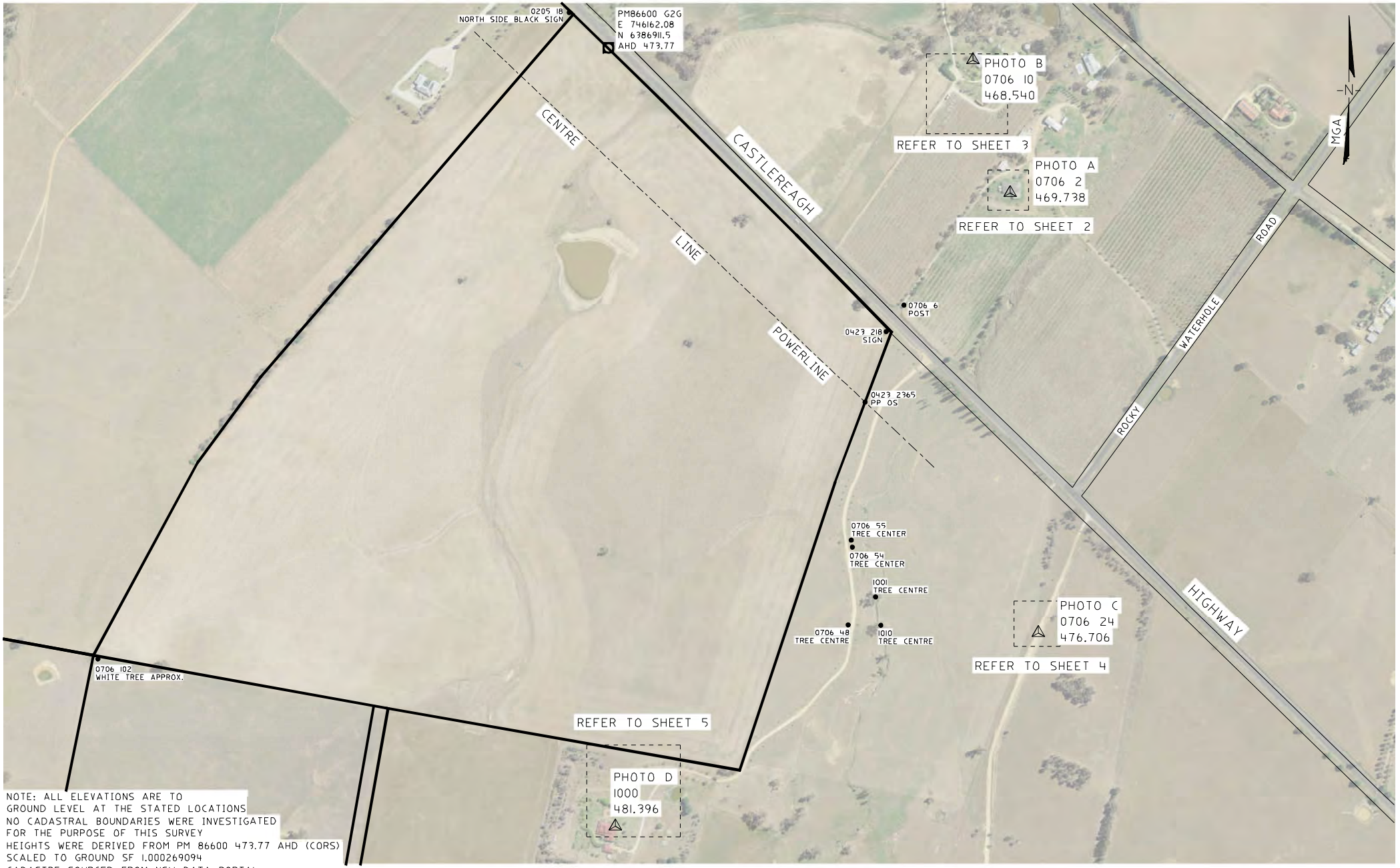
GROUND LEVEL AT THE STATED LOCATIONS.

PREPARED BY
O'RYAN GEOSPATIAL
ABN: 28616175823
129 CHURCH STREET
MUDGEE NSW
(02) 9057 4101

CLIENT:
SUZIE RAWLINSON
IRIS VISUAL

SCALE: AS SHOWN
DATUM: AHD
CONTOUR INTERVAL: N/A
DRAWN: AWB
CHECKED: GP
LGA & LOCALITY: MID-WESTERN, BURRUNDULLA

TITLE: OVERVIEW OF PHOTO POINTS TAKEN OVER 3B SYDNEY ROAD, BURRUNDULLA
REVISION: 0
DWG No: 22-938
JOB No: 22-938
SHEET 2 OF 2 SHEETS



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CADASTRE SOURCED FROM NSW DATA PORTAL
OTHORECTIFIED PHOTO SOURCED FROM GLOBAL MAPPER

SCALE 1:5000 @ A3

No.	DATE	REVISION	DETAILS

PREPARED BY
O'RYAN GEOSPATIAL
ABN: 28616175823
129 CHURCH STREET
MUDGEE NSW
(02) 9057 4101

CLIENT:
SUZIE RAWLINSON
IRIS VISUAL

SCALE: AS SHOWN	DATUM: MGA AHD	
CONTOUR INTERVAL N/A	DRAWN AWB	CHECKED GP
LGA & LOCALITY MID-WESTERN, BURRUNDULLA		

TITLE
OVERVIEW OF PHOTO POINTS TAKEN OVER 3B SYDNEY ROAD, BURRUNDULLA

REVISION 0

DWG No 22-938 Plan MGA Zone 55.vce	JOB No 22-938	SHEET 1 OF 5 SHEETS

SCALE 1:300 @A3

PHOTO A CONTROL POINTS

POINT	POINT CODE	EASTING	NORTHING	ELEVATION
0706 2	PHOTO A	746725.08	6386707.84	469.74
0205 18	NORTH SIDE BLACK SIGN	746107.15	6386960.70	472.61
0423 218	SIGN	746551.15	6386513.66	472.95
0425 2365	PP OS	746521.61	6386414.93	472.80
0706 3	STAR POST	746720.19	6386694.96	469.74
0706 4	STAR POST	746716.40	6386695.96	469.77
0706 5	STAR POST	746712.24	6386697.10	469.82
0706 6	POST	746576.06	6386550.80	471.88

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CADASTRE SOURCED FROM NSW DATA PORTAL
OTHORECTIFIED PHOTO SOURCED FROM GLOBAL MAPPER

No.	DATE	REVISION	DETAILS

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(02) 9057 4101

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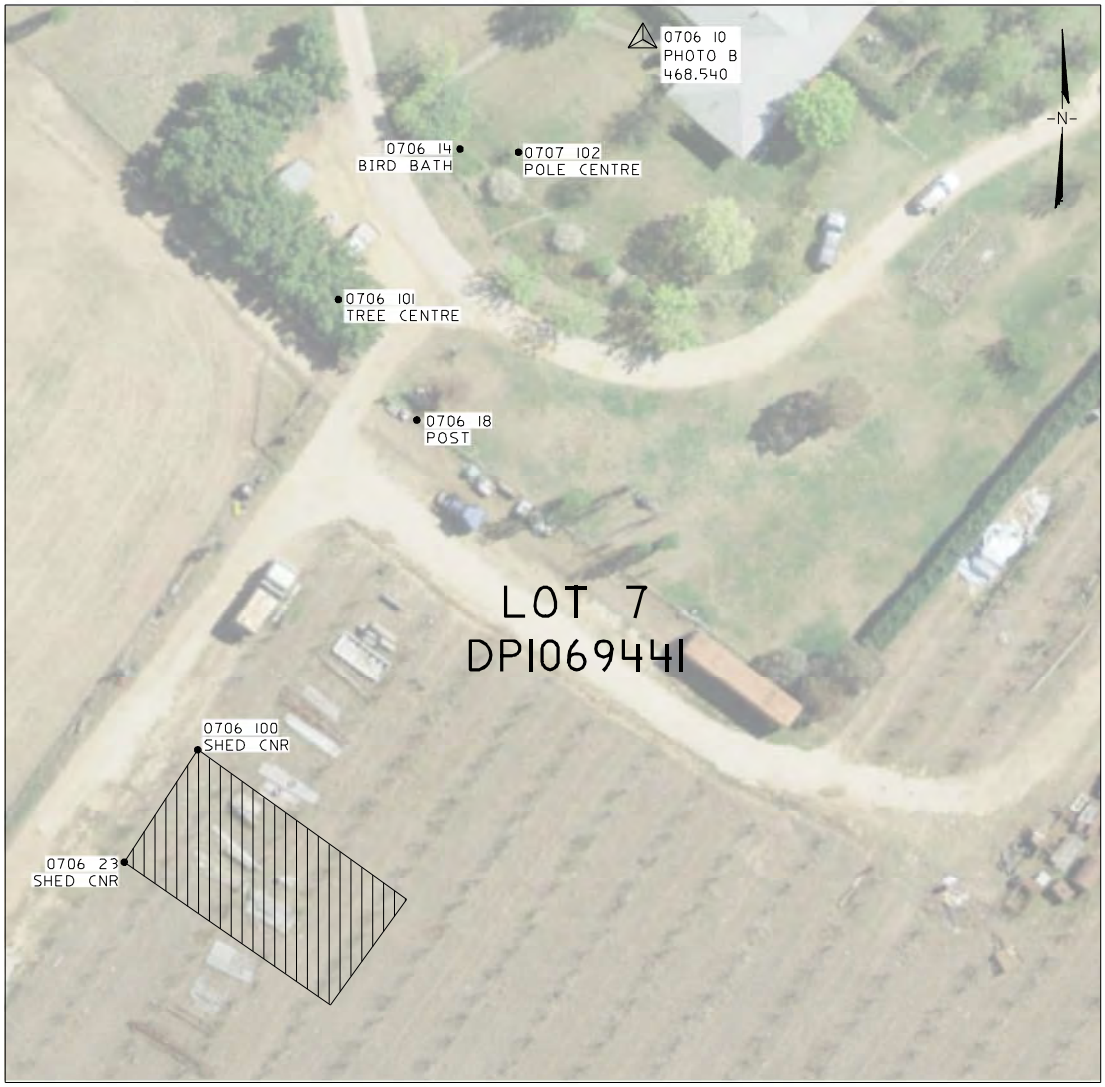
SCALE: AS SHOWN	DATUM: MGA AHD	
CONTOUR INTERVAL N/A	DRAWN AWB	CHECKED GP
LGA & LOCALITY MID-WESTERN, BURRUNDULLA		

TITLE: OVERVIEW OF PHOTO POINTS TAKEN OVER 3B SYDNEY ROAD, BURRUNDULLA

REVISION: 0

DWG No 22-938 Plan MGA Zone 55.vce

JOB No 22-938



SCALE 1:500 @ A3

PHOTO B CONTROL POINTS				
POINT	POINT CODE	EASTING	NORTHING	ELEVATION
0706 10	Photo B	746672.85	6386893.96	468.54
0706 14	BIRD BATH	746655.78	6386883.71	468.24
0706 18	POST	746651.74	6386858.37	468.86
0706 23	SHED CNR	746624.38	6386817.05	470.27
0706 100	SHED CNR	746631.26	6386827.54	469.24
0706 101	TREE CENTRE	746644.40	6386869.65	468.71
0707 102	POLE CENTRE	746661.24	6386883.41	468.50

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CADASTRE SOURCED FROM NSW DATA PORTAL
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(02) 9057 4101

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IRIS VISUAL

SCALE: AS SHOWN	DATUM: MGA AHD	
CONTOUR INTERVAL N/A	DRAWN AWB	CHECKED GP
LGA & LOCALITY MID-WESTERN, BURRUNDULLA		

TITLE
OVERVIEW OF PHOTO POINTS TAKEN OVER 3B SYDNEY ROAD, BURRUNDULLA

REVISION 0

DWG No 22-938 Plan MGA Zone 55.vce
JOB No 22-938
SHEET 3 OF 5 SHEETS

SCALE 1:300 @A3

PHOTOS C CONTROL POINTS				
POINT	POINT CODE	EASTING	NORTHING	ELEVATION
0706 24	PHOTO C	746764.44	6386091.51	476.71
0706 25	STAR POST	746758.53	6386092.57	476.68
0706 31	STAR POST	746751.79	6386096.09	476.33
0706 54	TREE CENTER	746503.72	6386211.69	471.39
0706 55	TREE CENTER	746502.22	6386221.46	471.06
0706 102	WHITE TREE APPROX.	745446.91	6386054.98	483.60
1001	TREE CENTRE	746536.36	6386141.93	471.13
1010	TREE CENTRE	746543.69	6386102.14	471.29
1012	STAR POST	746750.45	6386092.65	476.36

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LGA & LOCALITY MID-WESTERN, BURRUNDULLA		

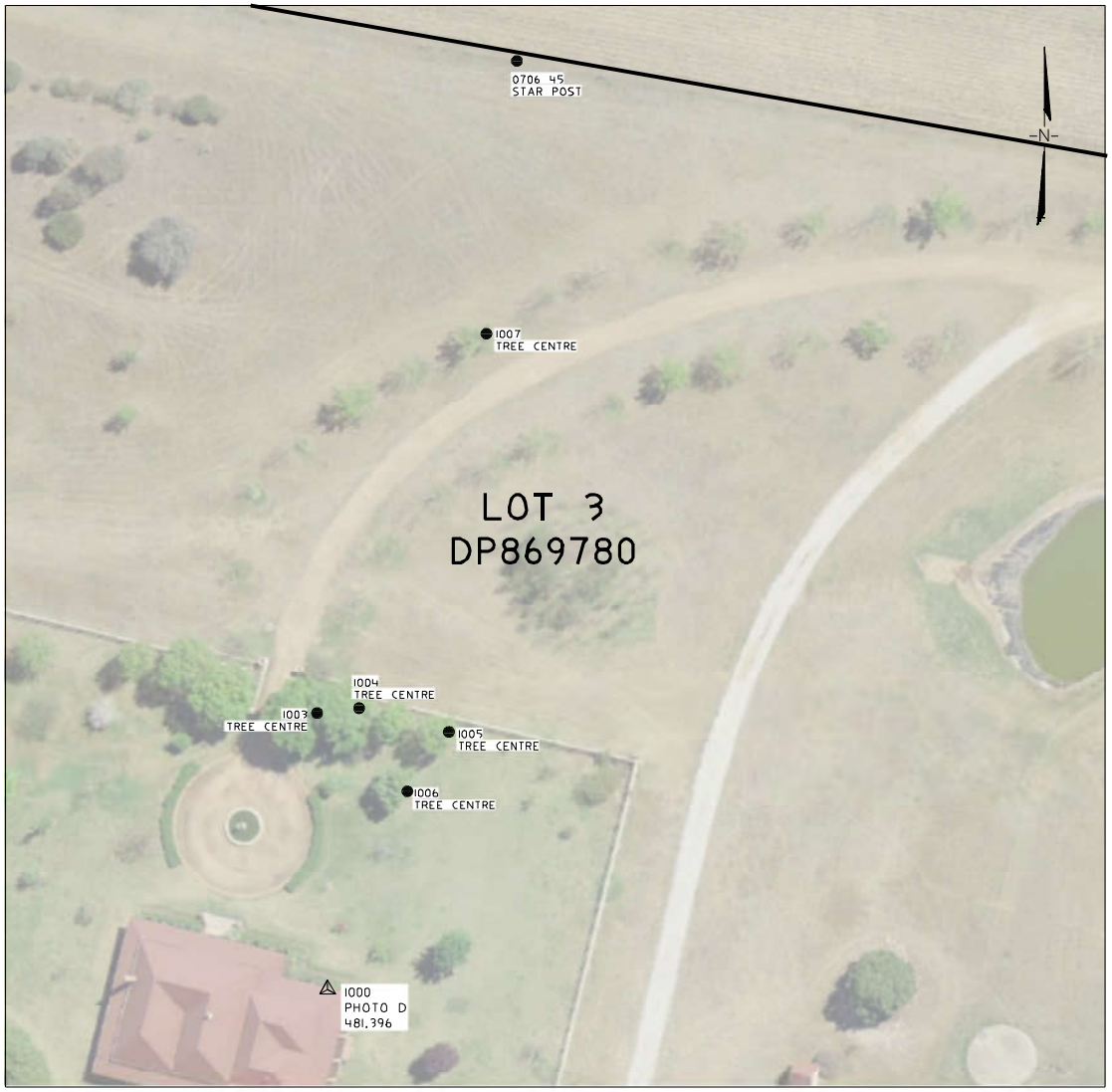
TITLE: OVERVIEW OF PHOTO POINTS TAKEN OVER 3B SYDNEY ROAD, BURRUNDULLA

REVISION: 0

DWG No 22-938 Plan MGA Zone 55.vce

JOB No 22-938

SHEET 4 OF 5 SHEETS



SCALE 1:600 @A3

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CADASTRE SOURCED FROM NSW DATA PORTAL
OTHORECTIFIED PHOTO SOURCED FROM GLOBAL MAPPER

PHOTO D CONTROL POINTS

POINT	POINT CODE	EASTING	NORTHING	ELEVATION
1000	PHOTO D	746171.61	6385820.37	481.40
0706 45	STAR POST	746192.94	6385924.99	481.08
1003	TREE CENTRE	746170.43	6385851.51	480.71
1004	TREE CENTRE	746175.18	6385852.06	480.27
1005	TREE CENTRE	746185.28	6385849.38	479.88
1006	TREE CENTRE	746180.61	6385842.69	480.24
1007	TREE CENTRE	746189.50	6385894.26	480.68

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TITLE: OVERVIEW OF PHOTO POINTS TAKEN OVER 3B SYDNEY ROAD, BURRUNDULLA

REVISION: 0

DWG No 22-938 Plan MGA Zone 55.vce | JOB No 22-938 | SHEET 5 OF 5 SHEETS