Landscape and Visual Impact Assessment

Panorama Battery Energy Storage System (BESS)

Panorama BESS Subco Pty Ltd

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Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Panorama BESS Subco Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

Acknowledgement of Country

SLR Consulting acknowledges the Wiradjuri people who are the traditional custodians of the land and pays respect to Elders past and present.

Amendment Report

The Amendment Report for the Panorama Battery Energy Storage System (BESS) outlines key modifications to the project following the Environmental Impact Statement (EIS) submission. The primary amendments include upgrading the BESS technology from the Solbank 2.0 to the Solbank 3.0 system, which enhances energy density and storage capacity while reducing the facility's layout footprint by 0.35 hectares. Additionally, the Development Footprint has been expanded by 1.57 hectares to improve site stability and reduce civil engineering costs. The project now includes landscape screening measures to mitigate visual impacts, with 3.0 metre high perforated screen panels installed around the facility. These amendments address technical advancements, design optimisations, and stakeholder feedback while maintaining compliance with regulatory requirements. Environmental assessments have identified key potential impacts, related to visual amenity, which are further evaluated in this updated this Landscape and Visual Impact **(LVIA)** Report.

Bathurst Regional Council comments

The revised Landscape and Visual Impact Assessment (LVIA) for the Panorama Battery Energy Storage System (BESS) at 749 and 800 Mid Western Highway, Evans Plains, addresses key concerns raised by Bathurst Regional Council in their submission to the Department of Planning, Housing and Infrastructure. In a letter dated 14 August 2024, signed by Neil Southorn, Director of Environmental, Planning & Building Services, the Council provided comments on the application, including considerations related to the project's strategic context and visual impact. The revised LVIA directly responds to these concerns, refining mitigation strategies to enhance integration with the surrounding environment.

Strategic context

The proposed BESS is situated in a rural area, with adjacent land zoned for large-lot residential use, a portion of which remains undeveloped. Bathurst Regional Council highlighted the potential for residential expansion closer to the site in their submission, emphasising the need to consider this future growth in the impact assessment. The revised LVIA incorporates these considerations, ensuring the project aligns with planning objectives and maintains compatibility with the landscape character.

Refer to **Section 11.0**

Landscape and Visual Impact Assessment

The initial LVIA identified a moderate visual impact on certain residential viewpoints, prompting concerns from Council regarding the effectiveness of proposed mitigation measures. In response, the revised assessment strengthens commitments to visual integration by preparing a Landscape Concept Plan (LCP). The LCP illustrates a proposed mitigation strategy by installing a perforated screen to the boundary of the Proposed BESS Facility. The revised LVIA eliminates ambiguity regarding mitigation measures, ensuring a structured approach to reducing visual impacts.

By addressing the concerns raised in Bathurst Regional Council's 14 August 2024 letter, the updated LVIA reinforces the project's commitment to minimising its visual impact and maintaining the rural and scenic character of the Bathurst region.

Refer to **Section 13.1**

Executive Summary

Bathurst Panorama BESS SubCo Pty Ltd (Panorama BESS SubCo) is proposing to develop a battery energy storage system (BESS) with ancillary infrastructure at 800 Mid-Western Highway, Evans Plains, Bathurst NSW located approximately six (6) km southwest of Bathurst regional centre. The intent of this document is to inform the content of the Secretary's Environmental Assessment Requirements (SEARs) of the Landscape and Visual Impact Assessment (LVIA). This was prepared as part of the requirements for a State Significant Development (SSD) administered by the NSW Department of Planning, Housing and Infrastructure (DPHI). The key issues are to address:

> *Visual – including a detailed assessment of the likely visual impacts (including night lighting) of all components of the project (including transmission lines and other ancillary infrastructure) on surrounding residences, scenic or significant vistas and road corridors in the public domain.*

Panorama BESS consists of Solbank BESS containers (or enclosures) with a rated capacity of the Solbank 3.0 system is 4.7MWh with an energy density of 339kWh/m². This is an increase to the Solbank 2.0 system that was exhibited as part of the EIS prepared in 2024 with a rated capacity of 2.75MWh with an energy density of 198kWh/m².

Access to the site is via an existing road off the Mid-Western Highway and the proposed development will occupy a total area up to two (2) hectares (ha) within the Lot.

The LVIA generally applies the assessment techniques set out in the following:

1. *'Guidelines for Landscape and Visual Impact Assessment, Third Edition'* (LI & IEMA 2013) prepared by The Landscape Institute and the Institute for Environmental Management and Assessment (UK);
2. *'Guidelines for landscape character and visual impact assessment'* (TfNSW August 2020) Environmental impact assessment practice note EIA-N04 Prepared by Transport for NSW; and
3. *'Technical Supplement Landscape and Visual Impact Assessment; Large-scale Solar Energy Guideline'* (DPE August 2022), Prepared by Department of Planning and Environment (the **Technical Supplement**).

All guidelines above require the evaluation of potential impacts of the development on sensitive visual receptors and the determination of the effect significance when viewed at key public and private vantage points. This is undertaken in two (2) steps; firstly by assessing the contextual landscape character and secondly, by evaluating visual impact of the proposed development within its surroundings. As part of the assessment, a literature review of the relevant planning framework related to landscape and scenic values is included to ascertain what development outcomes the community anticipates for the region.

Due to the specific requirements of the technical supplement visual impact assessment guides, a second set of results are included. Where assessment measures were not fit-for-purpose, methodologies from the other guides were applied.

The LVIA identified a consistent requirement at both state and local government levels to protect and enhance the scenic quality of the Bathurst region for both environmental and economic benefit. This is due to the unique rural and agricultural setting that characterises the Bathurst region.

To objectively determine the visual impact of the proposed development, five (5) key public vantage points and several private receptor points have been assessed to ascertain the effect significance of the development within its surrounding scenic surroundings. At these

five (5) key public vantage points, the effect significance was identified to be Moderate to Minor.

This was due to:

- the elevated position that resulted in higher levels receptor sensitivity; and
- generally high scenic and landscape values identified in the state and local planning documents.

The impact significance of nearby private receptors varied. It produced Moderate to Negligible impact ratings. This range varied due to:

- established vegetation reducing visibility;
- the location of receptors in relation to adjacent topography; and
- the orientation of the private receptors in relation to the development site.

In all instances, any effect significance rating can be reduced by minimising the visual impacts of the development and by integrating it within its surrounding context. In regard to the ratings this would see a reduction to the magnitude of change in the landscape character. Currently, the development with no mitigation measures received a magnitude of change rating of Low and Negligible with an effect significance of Moderate to Minor; It is described as:

- minor memorable change to the landscape or views; and / or
- landscape dominant element and built form / development well integrated within it.

This produces an effect significance of Moderate to Minor and as per the Technical Supplement, a visual impact of Moderate to Low.

Following the implementation of the prescribed mitigation measures identified the development would blend into its surrounds, the magnitude of change rating would reduce to Negligible or Very Low magnitude; this is described as:

- no memorable or rarely perceptible change to landscape character or key views.

This would reduce the effect significance at key vantage points to **Minor-Moderate** to **Minor-Negligible** and as described in the Technical Supplement, a visual impact rating of **Low** and **Very low.**

The five (5) key public vantage point locations were also objectively assessed as per stages 3 (visual sensitivity) and 4 (visual impact) of the Technical Supplement. Guidelines for visual magnitude rating were not utilised as they could not be applied to the proposed development due its specific parameters for assessing solar arrays. Having regard to the framework of the Technical Supplement, at these five (5) keys public vantage points, the effect significance was identified to be **Moderate** to **Low**; this was due to:

- the elevated position that resulted in higher levels of receptor sensitivity; and
- generally high scenic and landscape values identified in the state and local planning documents.

It is recommended that the proposed development consider the implementation of mitigation measures to meet the local and planning objectives in protecting and enhancing the rural scenic views and vistas that characterise the Bathurst region. The implementation of the measures would demonstrate that the development aligns with the aims and objectives for maintaining the rural landscape character of the Bathurst region and would assist in visually integrating / blend the proposed development with its surrounding context.

Mitigation measures can be effectively achieved for the site, through a range of options. The proposed mitigation is to colour all visible infrastructure elements to blend with its surrounding context by colour-matching with natural elements. This strategy will effectively mitigate the proposal to the surrounds.

The following table includes examples from the Bathurst Planning context in managing scenic amenity for the region.

Planning Instrument	Relevant Action	Mitigation Measure	Reducing the Effect Significance
Bathurst Region Rural Strategy 2010	*Avoid locating new development on ridges and hilltops.*	**Reduce the presence of the infrastructure by reducing its visibility within an elevated location. Such as locating behind existing terrain.**	Following the implementation of the prescribed mitigation measures identified, the development would blend into its surrounds. The magnitude of change rating would reduce to **Negligible** or **Very low** magnitude of change; this is described as: • *no memorable or rarely perceptible change to landscape character or key views.*
	Require the use of building materials that are naturally textured and coloured and are sympathetic to the natural environment and are not reflective.	**All infrastructure elements visible from private receptor points and public vantage points to blend in with its surrounding context by colour matching with natural elements.**	
Bathurst Vegetation Management Plan 2019	*Plan for urban development to protect the rural landscape and to provide a sense of containment of the built environment.*	**See above and below**	
	Ensure rural landscapes retain the visual characteristics of such a landscape with the advent of any future development.	**Utilise species from the endemic Central Tableland Clay Apple Box Grassy Forest (PCT3366), plant around the existing stand of trees above the site and establishing new stands of trees below the site (Where practical to do so and at distances and spacing to meet APZ fire safety requirements in accordance with Appendix 4 of PBP 2019). This creates vegetative buffering that is in character with its surroundings.**	

To address the comments stated within the letter prepared by Bathurst Regional Council 14 August 2024, refer to **Section 13.1**for the conceptual mitigation measures to achieve the lower effect significance rating.

Table of Contents

Basis of Report ..... **i**
Amendment Report ..... **ii**
Bathurst Regional Council comments ..... **ii**
Executive Summary ..... **iii**
Acronyms and Abbreviations ..... **x**
1.0 Introduction **1**
1.1 Purpose of this Document 1
2.0 Project Description **2**
2.1 The Infrastructural Proposal 2
2.2 Infrastructure Layout and Location 3
2.3 Fencing and Lighting 3
2.4 Description of amendments 3
2.4.1 Change in battery storage technology 4
2.4.2 Increase in the Development Footprint 4
2.4.3 Landscape screening 5
2.4.4 Potential impacts as a result of the amended Project 5
2.5 Visualisation of BESS component and configuration 5
3.0 Planning Context **9**
3.1 Regional Planning Documents 9
3.1.1 Draft Central West and Orana Regional Plan 2041 9
3.2 Local Government Planning 10
3.2.1 Bathurst Local Strategic Planning Statement 10
3.2.2 Bathurst Regional Local Environmental Plan 2014 11
3.2.3 Bathurst Regional Council Development Control Plan 2014 11
3.2.4 Bathurst Region Rural Strategy 11
3.2.5 Bathurst Region Vegetation Management Plan 2019 12
4.0 Landscape and Visual Assessment Guidelines Review **14**
4.1 Step 1 Review for Determining Viewpoint Sensitivity 15
4.2 Step 2 Review for Determining Scenic Quality 16
4.3 Step 3 Review for Determining Visual Sensitivity 19
4.4 Technical Supplement Stage 4 – Visual Impact 20
5.0 Landscape Character Assessment **21**
5.1 Regional Landscape 21
5.1.1 Landform 21
5.1.2 Major Waterways 21

5.1.3 Vegetation 21
5.1.4 Access 22
5.2 Local Landscape 22
5.2.1 Landform 22
5.2.2 Waterways 22
5.2.3 Vegetation 22
5.2.4 Access 22
5.2.5 Land use 24
6.0 Visual Impact Assessment 31
6.1 Process 31
6.2 Determining Key Vantage Points 31
6.3 Zone of Theoretical Visibility (ZTV) 32
6.3.1 Amendment report submission 34
6.4 Assessment of Visual Impacts for Key Receptors 34
6.5 Receptor Sensitivity 36
6.6 Magnitude of Landscape Change 37
6.7 Impact Significance on the Landscape Character 38
6.8 Views and Visibility 38
6.9 Assessment of Vantage Points 39
6.10 Summary of Potential Visual Impact to Landscape Character 40
6.10.1 Vantage Point 1 (Viewpoint ID 3) 40
6.10.2 Vantage Point 2 (Viewpoint ID 11) 43
6.10.3 Vantage Point 3 (Viewpoint ID 24) 46
6.10.4 Vantage Point 4 (Viewpoint ID 27) 49
6.10.5 Vantage Point 5 (Viewpoint ID 34) 52
7.0 Summary of Assessment for Public Receptors 55
8.0 Summary of Assessment for Public Receptor Technical Supplement 56
9.0 Post-mitigation effect significance results 56
10.0 Summary of Assessment for Private Receptors 57
11.0 Visual impact on future anticipated development 59
11.1 Bathurst Regional Local Environmental Plan 2014 60
12.0 Limitations and Assumptions 61
13.0 Mitigation Measures 62
13.1 Proposed mitigation strategy 63
13.1.1 Landscape Concept Plan 63
14.0 Conclusion 65

14.1 Amendment report 66
15.0 References 67
15.1 Landscape Character and Visual Analysis 67
15.2 Geographic Information System 67

Tables in Text

Table 1: Proponent Details 2
Table 2 Comparison of amendments to the Project in terms of key parameters 4
Table 3: Viewpoint Sensitivity Levels and Examples (Table 5 of Technical Supplement). 16
Table 4: Frame of References for Scenic Quality Values (Table 6 of Technical Supplement) 17
Table 5: Visual Reference of Scenic Quality Values (Table 7 of the Technical Supplement) 18
Table 6: Viewpoint Sensitivity Matrix (Table 8 of the Technical Supplement) 19
Table 7: Visual Impact Matrix 20
Table 8: Height of Proposed Infrastructure Elements 32
Table 9: Key Public Receptor Viewpoint Locations 34
Table 10: Receptor Sensitivity Rating 36
Table 11: Magnitude of Change 37
Table 12: Effect Significance Rating 38
Table 13: Public Vantage Points Identified on the Field Trip 39
Table 14: Vantage Point VP1 (Viewpoint ID 3) – Summary of Visual Impact Assessment . 41
Table 15: Vantage Point VP1 (Viewpoint ID 3) – Summary of Visual Impact (Technical Supplement) 42
Table 16: Vantage Point VP2 (Viewpoint ID 11) – Summary of Visual Impact Assessment 44
Table 17: Vantage Point VP2 (Viewpoint ID 11) – Summary of Visual Impact (Technical Supplement) 45
Table 18: Vantage Point VP3 (Viewpoint ID 24) – Summary of Visual Impact Assessment 47
Table 19: Vantage Point VP3 (Viewpoint ID 24) – Summary of Visual Impact (Technical Supplement) 48
Table 20: Vantage Point VP4 (Viewpoint ID 27) – Summary of Visual Impact Assessment 50
Table 21: Vantage Point VP4 (Viewpoint ID 27) – Summary of Visual Impact (Technical Supplement) 51
Table 22: Vantage Point VP5 (Viewpoint ID 34) – Summary of Visual Impact Assessment 53
Table 23: Vantage Point VP5 (Viewpoint ID 34) – Summary of Visual Impact (Technical Supplement) 54
Table 24: Summary of Visual Impact Ratings for Each Public Vantage Point 55
Table 25: Summary of Visual Impact Ratings for Each Public Vantage Point as per Technical Supplement Process 56

Table 26: Nearby Private Receptors 58
Table 27: Mitigation Measures 62

Figures in Text

Figure 1 Panorama BESS Layout 6
Figure 2: Solbank Energy Storage System Datasheet 7
Figure 3: Project Site Plan Rev N 8
Figure 4: Regional context of the site 23
Figure 5: Plant Community Types (PCT) present on site 25
Figure 6: Plant Community Types (PCT) in the surrounding region 26
Figure 7: Landscape Character Zones 27
Figure 8: Topography 28
Figure 9: Slope analysis 29
Figure 10: Land use 30
Figure 11: Viewpoint locations 33
Figure 12: Visibility Results 35
Figure 13 Zone R5 Lot 89/-/DP270167 Hartwood Avenue Robin Hill 59
Figure 14 Lot 89/-/DP270167 visibility results excerpt 61
Figure 15 Landscape concept plan 64

Photos in Text

Photo 1: VP1 – Location Description 40
Photo 2: VP2 – Location Description 43
Photo 3: VP3 – Location Description 46
Photo 4: VP4 – Location Description 49
Photo 5: VP5 – Location Description 52

Appendices

Appendix A Public Vantage Points
Appendix B Private and Public Viewpoints
Appendix C Landscape Concept Plan
Appendix D Viewshed Infrastructure Heights Site Layout

Acronyms and Abbreviations

Abbreviations	Definitions
°	Degrees bearing of a point in the angle measured in a clockwise direction from the north line.
Ha	hectare
Km	kilometre
Km/h	kilometres per hour
m	metre
m²	metres squared

Initialism	Definition
AHD	Australian height datum
BLSPS	Bathurst Local Strategic Planning Statement
BRLEP	Bathurst Regional Local Environmental Plan
BRRS	Bathurst Regional Rural Strategy
BVMP	Bathurst Vegetation Management Plan
DCP	Development Control Plan
DPHI	Department of Planning, Housing, and Infrastructure
DPE	Department of Planning And Environment (now DPHI)
CAD	computer aided design
CHM	canopy and building height model
DFOV	display field of view
DTM	digital terrain model
GIS	geographical information system
HFOV	horizontal field of view
kVA	kilovolt-ampere
kW	kilowatt
LiDAR	light detection and ranging
LGA	local government area
LVIA	landscape and visual impact assessment
MWh	megawatt - hour
O&M	Operations and Maintenance
PCT	plant community types
PPU	poultry production unit
SEARs	secretary's environmental assessment requirements
VA	visual amenity
VFOV	vertical field of view
VP	viewpoint
ZTV	zone of theoretical visibility

Term	Definition
Apparent Horizon	The theoretical limit of visibility where the surface of the earth is no longer visible, accounting for atmospheric diffraction.
Background	Elements at the furthest reaches of a view.
Baseline	The environmental conditions against which any future changes can be measured or predicted and assessed.
Cylindrical image projection	Standard type rendered by traditional panoramic image captures that maintain a more accurate relative sizes of objects than rectilinear projections, however this is done at the expense of rendering lines parallel to the viewer's line of sight as being curved (even though would otherwise appear straight)
Foreground	Elements at the closest reaches of a view
Geographical information system	A system that captures, stores, analyses, manages and presents data linked to location. It links spatial information to a digital database.
Impact significance or effect significance	Is the evaluation of receptor sensitivity and magnitude of change where a rating is determined based off visual impacts objectively observed or predicted through a process of assessment of the proposed development.
Landscape	A spatially heterogeneous area scaled relative to the process of interest. Encompasses physical / environmental values and human values.
Light Detection and Ranging	Is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variables distances) to the Earth. These light pulses, combined with other data recorded by the airborne system, generate precise, three-dimensional information about the shape of the site and its characteristics.
Magnitude of Change	A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short- or long-term duration.
Midground	Elements between the foreground and background.
Mitigation Measures	Are means to prevent, reduce, or control adverse environmental effects of a development, and include restitution for any damage to the environment caused by those effects through replacement, restoration, compensation or any other means.
Operations and Maintenance Building	An operations and maintenance are a control, administration, operations and maintenance building installed in proximity to the battery energy storage system enclosures.
Project Area	Refer to the area(s) where key planning proposal elements are located.
Projection	Refers to image projection that occurs whenever a curved surface is mapped onto a flat surface, or vice versa, in particular with panoramic photography.
Receptors	Refers to Individuals and / or defined groups of people who have the potential to be affected by a proposal in both the public and private realm.
Receptor Sensitivity	The extent to which the surrounding landscape when viewed from the receptor point can accept a change of a particular type and scale without unacceptable adverse impacts on its character.
Rectilinear Image Projection	Rectilinear image projections map all straight lines in three-dimensional space to straight lines on the flattened two-dimensional grid. Its primary disadvantage is that it can greatly exaggerate perspective as the angle of view increases, leading to objects appearing skewed at the edges of the frame. It is for this reason that rectilinear projections are generally not recommended for angles of view much greater than 120 degrees.
Sensitive receivers / receptors	Individuals and / or defined groups of people who have the potential to be affected by a proposal.
The Development Site	Refers to proposed battery energy storage system and all ancillary infrastructure relevant to the assessment.
The project	Refers to the planning proposal to seek development application approval.
The site	Refers to the area where key subdivision is to occur.

Term	Definition
True horizon	The theoretical limit of visibility where the surface of the earth is no longer visible, assuming a perfect sphere and no atmosphere.
Vantage point	A location assessed under this assessment as potentially being impacted by the Project.
Viewpoint	A location that offers views of the surrounding area.
Viewshed map	A viewshed map is the geographical area that is visible from the location. It includes all surrounding points that are in the line-of-sight with that location and excludes points that area beyond the horizon or obstructed by terrain and other features.
Visual absorbance capacity	The capacity of a landscape to accommodate physical changes without a change in its character.
Visual amenity	The overall pleasantness of the views people enjoy of their surroundings, which provide an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or traveling through an area.
Visual catchment area	Identifies the area within which the Project can potentially by seen.
Visual impact assessment	The analysis of changes in the appearance of the landscape because of a development. Impacts may be negative and/or positive.
Visual receptors	Individuals and / or defined groups of people who have the potential to be affected by a proposal.
Zone of theoretical visibility	A map, digitally produced, showing areas of land within which, a development is theoretically visible.

1.0 Introduction

1.1 Purpose of this Document

The Environmental Planning and Assessment Act 1979 (EP&A Act) and Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) form the statutory framework for the environmental impact assessment and planning approval of development in New South Wales (NSW). Both the EP&A Act and the EP&A Regulation are administered by the NSW Department of Planning, Housing and Infrastructure (DPHI).

This Landscape and Visual Impact Assessment (**LVIA**) has been prepared for a State Significant Development (SSD) being prepared by SLR Consulting Pty Ltd on behalf of the proponent Panorama BESS SubCo for a Battery Energy Storage System (BESS).

The purpose of this LVIA is to respond to the requirements of the Secretary's Environmental Assessment Requirements (SEARs) issued by DPHI, as a delegate to the Minister for Planning, for the Environmental Impact Statement (EIS) for the project.

In particular, this LVIA is to address the key issues that states the EIS must address the following specific matters:

> *Visual – including a detailed assessment of the likely visual impacts (including night lighting) of all components of the project (including transmission lines and any other ancillary infrastructure) on surrounding residences, scenic, or significant vistas and road corridors in the public domain.*

In addition, key considerations stated within the letter prepared by Bathurst Regional Council dated 14 August 2024 have also been addressed relating to visual impact on adjacent large-lot residential and providing a visual mitigation strategy.

2.0 Project Description

Table 1: Proponent Details

Requirement	Detail
Proponent	Panorama BESS SubCo
ABN/ACN	Panorama BESS SubCo Pty Ltd (ACN 657 629 500) as trustee for the Panorama BESS Unit Trust (ABN 38 905 415 690)
Postal Address	Suite 4.02, Level 4, 99 King Street, Melbourne

2.1 The Infrastructural Proposal

The proposed Panorama BESS consists of SolBank BESS containers (or enclosures) with a total delivery capacity of 100 MW and useable capacity of 200 MWh to be located at 800 Mid-Western Highway (Lot 2 DP864272) (the Lot) and the adjacent to the existing TransGrid substation (Lot 521 DP 603541) at 749 Mid-Western Highway (referred to as The Project). Access to the site is via an existing road off the Mid-Western Highway and the proposed development will occupy a total area up to two (2) ha within the Lot. The Project Site is located approximately six (6) km south-west of Bathurst.

The key elements of the Project include:

- installation and operation of a SolBank BESS including lithium iron phosphate (LiFePO4) batteries, enclosures, inverters, and transformers.
- Associated ancillary infrastructure including:
  - a 132 kV underground cable connecting a 132/33 kV switch building to the existing substation;
  - formalisation of existing access from the Mid-Western Highway and existing access road within Lot 2 DP 864272 to accommodate heavy vehicles;
  - proposed access road from the BESS to connect to the existing access road within Lot 2 DP 864272;
  - operations and Maintenance (O&M) building;
  - stormwater management infrastructure, lighting, and security fencing; and
  - construction laydown areas.
- Decommissioning of the SolBank BESS at the end of life (EOL) including disassembly and removal of associated infrastructure from the site, to be returned as close as possible to its existing condition.

Construction of the Project is anticipated to take approximately 14 to 15 months and it is expected that the operational life of the Project would be approximately 20 years, after which the BESS would be decommissioned and the infrastructure removed, returning the site to its original use.

During the operational phase, activities on site will generally involve monitoring, testing and maintenance of equipment as well as receipt of goods, removal of waste and other general site maintenance (such as care of groundcover). It is anticipated that the site will be monitored and controlled remotely with a few people coming to site periodically for other activities.

2.2 Infrastructure Layout and Location

The proposed BESS is located southwest of an existing substation. Below is a list of the main infrastructure components (and relevant dimensions) that may contribute to noticeable change within the surrounding landscape. This includes:

- 48 x BESS storage units (6.0m x 2.4m x 2.9m H);
- Gantry and Poles (8m H);
- 32 x Inverters (2.3m H);
- 1 x O&M Building (3.5m H);
- 1 x 33/132kV Substation (3.5m H); and
- 1 x Switchroom (3.5m H).

Refer to **Figure 3** for infrastructure layout and location.

These infrastructure components are enclosed within a fenced (and screened) compound that is 5.04ha. The arrangements of infrastructure components are organised into 3 main areas that are surrounded by a 7m wide internal road. Within 2 of the areas the BESS storage units and Inverters have been organised into a grid pattern that will be located on a benched area at approximately RL 741m. Development footprint includes an area of 5.04ha where earthworks modelling indicate a gentle sloping rectangular zone that is cut into the side of the existing terrain. This creates minor cuttings to the east and west of the site. A minor batter slope is created to the north which features the main vehicle access to the BESS Facility and a moderate batter slope to the south. In all batter slope instances gradients are no greater than 25%, with the exception of the vehicle access which is at compliant grades.

Refer to the **Section 2.4** for details regarding project amendments.

2.3 Fencing and Lighting

The Project Site would be secured with permanent security fencing and access gates. Lighting for the Project is limited to the installation of emergency flood lighting which will not be operated during construction as construction is limited to standard daylight hours. Emergency flood lighting would remain during operation.

2.4 Description of amendments

The Applicant has now determined to make specific changes to the Project as exhibited in the EIS (SLR 2024). The proposed amendments to the Project involve a change in technology of the battery energy storage from the Solbank 2.0 system to the Solbank 3.0 system, and an increase in the Development Footprint to address the following issues:

- Improvements in battery energy storage technology since the submission of the EIS mean that the Solbank 3.0 system offers an increased capacity and enhanced energy density per battery container while reducing the BESS layout footprint by approximately 20% or 0.35 ha.
- Increase in the Development Footprint to facilitate civil battering and realignment to improve safety and stability of the Project while reducing civil costs.

The amendments to the Development Footprint have been informed through discussions with the Applicants civil consultant during the detailed design process.

The table below is included for a comparison of amendments to the Project. **Figure 3** illustrates the amended proposed site layout.

Table 2 Comparison of amendments to the Project in terms of key parameters

Element	Approved EIS Project	Amended Project	Moderate Viewpoint Sensitivity
Change in technology of the BESS	Solbank 2.0 system	Solbank 3.0 system	***Change in technology from the Solbank 2.0 to Solbank 3.0 BESS. Reduction in BESS layout footprint by 0.35 ha***
Development footprint	3.47ha	5.18ha	***+1.71ha***
Total change in Development Footprint			***+1.71ha***

2.4.1 Change in battery storage technology

The chosen BESS technology during the EIS process was the **Solbank 2.0** Energy Storage with Lithium Iron Phosphate (LFP) battery chemistry. The main components of the BESS are comprised of 20-foot-high containers with dimensions of 6058 millimetres (mm) x 2438mm x 2896mm each, with a system configuration of 8 racks with 69 battery cells. Other components include a BMS box, liquid cooled chiller with additional systems including thermal management, fire protection and explosion protection systems.

The rated capacity of the **Solbank 2.0** system is 2.75MWh with an energy density of 198kWh/m²

Since the submission of the EIS, the BESS technology has been changed. The **Solbank 3.0** is a Lithium Iron Phosphate (LFP) battery chemistry. The main components of the BESS are comprised of 20-foot-high containers with dimensions 6058mm x 2438mm x 2896mm each, consisting of a system configuration of 12 racks with 104 battery cells with a smart liquid cooling system with additional systems including thermal management, fire protection and explosion protection systems.

The rated capacity of the **Solbank 3.0** system is 4.7MWh with an energy density of 339kWh/m².

2.4.2 Increase in the Development Footprint

The Development Footprint includes all areas that may be disturbed by the Project during the construction, operation and decommissioning phases. The total area of the Development Footprint identified during the EIS process is **3.47ha**.

Since the submission of the EIS, the Applicant has engaged a civil consultant to undertake a more detailed design process to determine approximate civil requirements. The civil consultant informed the Applicant that shifting the location and orientation of the Development Footprint to the west by approximately 40m would best minimise civil costs. Further discussions informed that the benching of the BESS would require additional civil battering to improve the safety and landform stability of the Project. As a result, the amended Development Footprint would be approximately **5.18ha.**

2.4.3 Landscape screening

In response to submissions received, the Applicant has undertaken additional visual impact assessment and is now determined to implement a visual screen to enclose the BESS Facility. SLR prepared a Landscape Concept Plan (refer to **Appendix C**), and have proposed the following visual screening:

- 3.0m high perforated screen panels along the northern, western and southern perimeter of the BESS Facility
- 0.1m stainless steel square posts
- stainless steel base plate
- Panels and posts to be coloured 'Evergreen' or similar

The Landscape Concept Plan supports an updated Landscape and Visual Impact Assessment (LVIA) which is further discussed in **Section 13.1** of this report.

2.4.4 Potential impacts as a result of the amended Project

Several environmental impacts have been identified as a result of the proposed amendments. These include:

- Noise impacts
- Visual amenity impacts
- Traffic

This LVIA details all the visual amenity impacts inclusive of the key modifications and concerns raised by Bathurst Regional Council in a letter addressing SSD-50587460 publicly exhibited proposal dated 14 August 2024.

2.5 Visualisation of BESS component and configuration

The BESS enclosures are to be organised in rows and integrated with power conversion systems (inverters / transformers) servicing a number of enclosures to convert direct current from the battery to alternating current required with the electricity network. The power distribution feeding electrical power to the substation is to include underground cabling.

For the details of the proposed amendments to the Project's Development Footprint and BESS layout refer to **Figure 1**

For an example of a single BESS enclosure and amended Solbank 3.0, refer to **Figure 2**

For an illustration of the Project Site Plan Rev N refer to **Figure 3.**

Figure 1 Panorama BESS Layout

Figure 2: Solbank Energy Storage System Datasheet

Storage Block

ENERGY STORAGE SYSTEM
S-5016-2H-EU | S-5016-4H-EU
Capacity: 5.0 MWh

e-STORAGE, a subsidiary of **Canadian Solar**, is a world-class energy storage solution provider, specializing in storage system design, manufacturing, and integration of battery energy storage systems for utility-scale applications.

The company offers value-added system consulting and turnkey EPC services, in addition, we provide customers with our proprietary LFP battery solution SolBank.

Together, we are building a brighter, greener future for all.

Storage Block 3.0 Highlights

- **Cutting-Edge Technology**: Storage Block 3.0 features high-density LFP cells, an active balancing BMS, and an innovative liquid cooling TMS, ensuring optimal safety.
- **Compliance and Certifications**: Storage Block 3.0 adheres to all industry standards: IEC 62619, IEC 63056, IEC 62477-1, IEC 62933-5-2, IEC 61000-6-2, UL 9540A, NFPA 855, NFPA 69, UN38.3/UN3536, ensuring rigorous safety and performance criteria.

Key Features

Enhanced Energy Density

- Utilizes 314 Ah battery cells and compact integration, increases single container energy density up to 45%
- Reduces land cost by up to 35% in a 100MWh project

Safety

- IP67-rated pack design
- Up to 20% faster detection of abnormal and automatic protection
- Advanced pack thermal isolation, electrical redundancy protection, and multi-level fire protection, effectively minimize potential issues

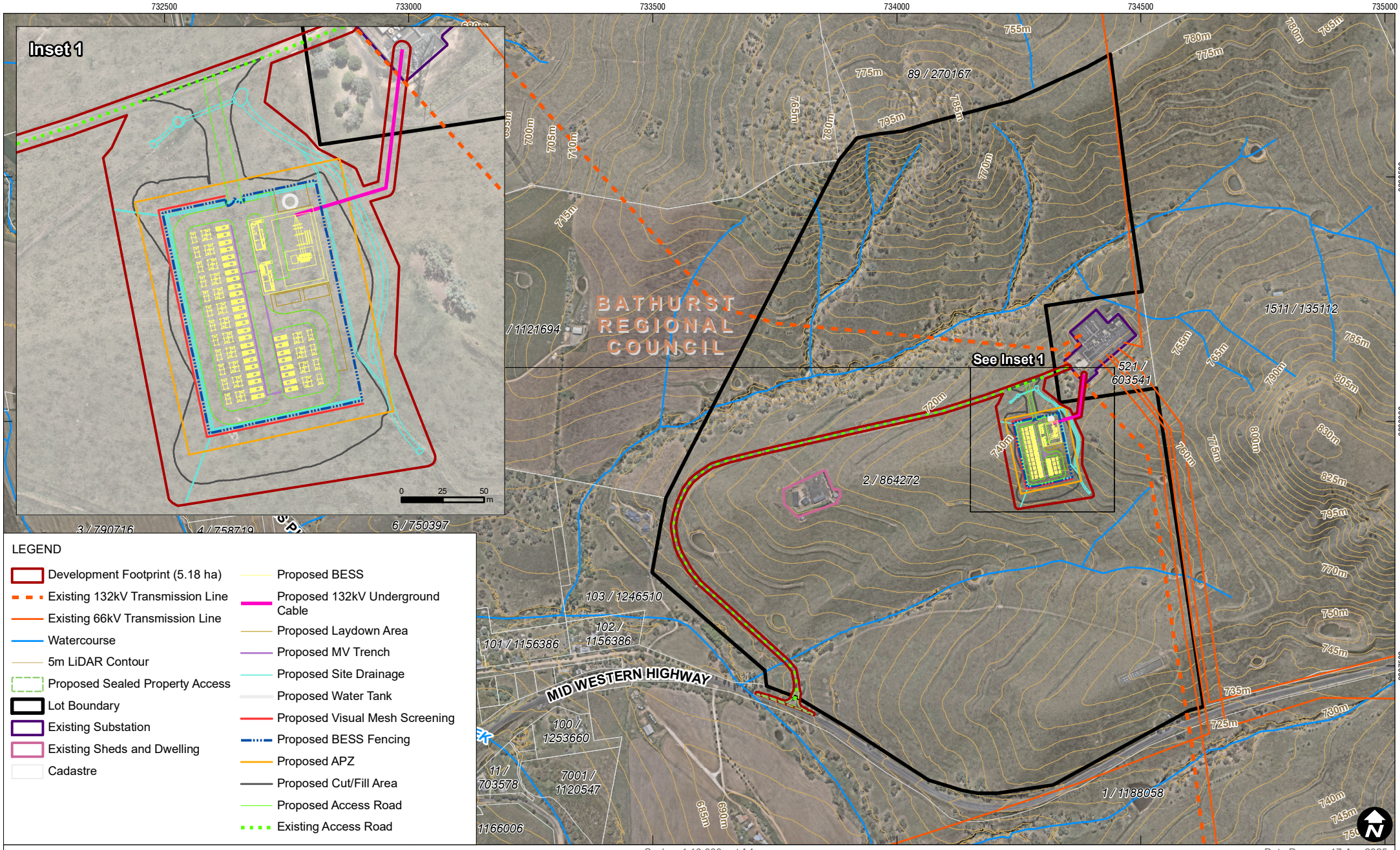
Intelligent Control

- Liquid cooling cuts auxiliary consumption up to 30%
- Active balance and string-level management, guarantee high efficiency and availability

Compatibility & Installation

- Supports various PCS topologies
- Turn-key integration and stationery certification, reduce project schedule risks by up to 40%
- Plug-and-play setup for streamlined commissioning

Storage Block 3.0 www.csestorage.com



Scale: 1:10,000 at A4
Coordinate System: GDA 1994 MGA Zone 55

Date Drawn: 17-Apr-2025
Project Number: 660.30234.00000

Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (February, 2025)
Elevation data supplied by DCS Spatial Services (July, 2019)

SLR

Proposed Infrastructure from REV N (Panorama-BESS-100MW-2hr_RevN)

PROJECT SITE PLAN REV N

FIGURE 3

H:\Projects-SLR\660-SrvWOL\660-WOL\660.30234.00000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR66030234_APPENDIX_G1_SitePlanREVN_004.mxd

3.0 Planning Context

Consideration of the visual impacts of proposed state significant infrastructure is identified in several regional and local government guidance documents. They set out the desired planning outcomes for development within the study area. These have been included in the assessment as it provides a framework of the communities anticipated expectations for the region.

3.1 Regional Planning Documents

3.1.1 Draft Central West and Orana Regional Plan 2041

The Draft Central West and Orana Regional Plan 2041 (DPIE 2021) is a strategic framework for the region that guides land use planning decisions in the region by the NSW Government, councils, and others to the year 2041. In the vision statement one of the concerns the plan identifies is environmental and heritage values of the Central West and Orana region. In particular the plan states:

> *The character and identity of the region is celebrated and protected. Scenic landscapes ranging from the globally recognised Blue Mountains and the western plains to unique local settings such as the communities of Wellington and Coonabarabran which enjoys vistas of Mt Arthur Reserve and the Warrumbungle Range, provide aesthetic, social and economic value to the region.*

Part 1 – Region-shaping investment outlines Objective 2: Support the State's transition to Net Zero by 2050 and deliver the Central – West Orana Renewable Energy Zone. It states:

> *There are concerns about projects impacting on the rural landscape and visual catchment values of the regional cities in particular. A sustainable renewables industry also includes remediation of sites and reinstatement of soil profiles to achieve pre-production land values, as well as consideration of end-of-life recycling.*

Part 2 – A sustainable and resilient place outlines Objective 9: Ensure site selection and design embraces and respects the region's landscapes, character, and cultural heritage. The objective states:

> *The region's scenic and cultural landscapes provide unique settings for its urban areas and a strong link to its natural and historic landscapes… Visual landscapes and settings can be impacted through activities such as residential development encroaching on scenic backdrops and ridgelines and infrastructure development such as renewable energy projects… Scenic and cultural landscapes should be protected for their aesthetic, social and economic values and for the character and identity of the region.*

Part 2 continues to provide Strategy 9.1 which (for scenic amenity) states:

> *Strategic and local planning will strengthen the amenity in centres across the region by:*
>
> - *identifying and protecting scenic and cultural landscapes; and*
> - *providing guidance on new development to ensure that views of scenic and cultural landscapes, particularly views from the public realm, are protected.*

Part 5 – Local government priorities for Bathurst Regional Council LGA state for scenic amenity:

> *Aboriginal and non-aboriginal built heritage, heritage parks and gardens, natural landscape and vistas.*

3.2 Local Government Planning

The local government planning for land use is informed by both local and state government planning policies. In relation to the proposal, the Development Site is located within the Bathurst Regional Council local government area. Under the NSW Strategic Planning framework, the following documents outline the management of landscape values that are relevant to the proposal. These documents include the following:

- Bathurst Local Strategic Planning Statement;
- Bathurst Regional Local Environmental Plan;
- Bathurst Development Control Plan;
- Bathurst Region Rural Strategy; and
- Bathurst Vegetation Management Plan.

The relevant parts of these documents are summarised below.

3.2.1 Bathurst Local Strategic Planning Statement

The purpose of this planning statement is to outline the Region's economic, social, and environmental land use needs over the next 20 years as the region grows and changes and how it is to be managed into the future. Community consultation stated that with regard to the environment:

> *The natural environment and rural landscape are a major drawcard for the Bathurst Region. The community said that they want it protected and enhanced. They also identified the following challenges that need to be addressed… the need to balance developing land against the retention of the natural character of the region….*

One of the main messages' communities related to landscape values within region states:

> *Manage growth to protect the Region's heritage and maintain local character.*

In response to these communities' sentiments the following themes and planning priorities were identified that relate to managing landscape values that help shape the land use future of the Bathurst Region. As stated in:

- Planning Priority 9 – Protect Indigenous cultural heritage;
- Planning Priority 10 – Protect European and non-indigenous heritage;
- Planning Priority 11 – Maximise the Region's tourism opportunities;
- Planning Priority 12 – Enhance environmentally sensitive land and biodiversity; and

  - 1.4 protect and improve the region's landscapes, views, vistas and open space.

Under Planning Priority 12 – Enhance environmentally sensitive land and biodiversity it states:

> *The Bathurst Region enjoys a range of important landscape and vistas.*

It also outlines the Bathurst Vegetation Management Plan (BVMP 2019):

> *Identifies that the landscapes surrounding the city give it a sense of containment and provide a backdrop to the views from within and into the city. The landscapes provide for visual amenity and valued vistas into and out of the city. The floodplain and the rural surrounding Bathurst contribute to the unique rural identity of the city.*

The guiding landscape value principles of the BVMP 2019 that relate to the proposal include:

- *retain the slopes and hilltops as much as possible;*
- *preserve the ridges and hills running generally to the north, south and west of Bathurst; and*
- *protect the gentler slopes to the north, east and southwest.*

3.2.2 Bathurst Regional Local Environmental Plan 2014

The Bathurst Regional Local Environmental Plan (LEP 2014) states the particular aims that relate to landscape values. This includes:

> *(l) to protect and enhance the region's landscapes, views, vistas, and open spaces.*

Under the LEP 2014 the Development Site is located within the Land Zoning Map (Sheet LZN_005DA) Zone RU1 Primary Production which states the objective of the zone:

> *To maintain the rural and scenic character of the land.*

3.2.3 Bathurst Regional Council Development Control Plan 2014

The aim of the Bathurst Regional Council Development Control (DCP 2014) is to allow detailed provisions to be made to control and guide development within the Bathurst Regional LGA. Priorities and objectives outlined in DCP 2014 that relate to landscape values are identified in the following sections that apply to all land within the Bathurst Regional Council. These include:

> *9 Environmental considerations*
>
> *Strategic Objective*
>
> *a) to protect, enhance and manage areas of high biodiversity conservation values and scenic quality.*
>
> *9.10 Vegetation management and biodiversity*
>
> *9.10.1 Objectives*
>
> *c) to protect, maintain and improve the diversity and stability of landscapes and waterways, minimise urban heat and other climate change impacts, reduce stormwater runoff and improve visual amenity of streetscapes and landscapes contributing to community well-being.*
>
> *10 Urban design & heritage conservation*
>
> *Strategic Objective*
>
> *b) to protect the Bathurst Region's Indigenous heritage and history and significant streetscape and landscape features.*
>
> *c) to protect and enhance the community's sense of identity and place.*

3.2.4 Bathurst Region Rural Strategy

Within the Bathurst Region Rural Strategy (BRRS 2010) it is identified under the following sections to protect the general scenic qualities of the region. BRRS 2010 states:

> *6.0 Environmental opportunities*
>
> *Outlines the environmental opportunities and constraint that may impact on the rural and village areas.*

6.2 Rural landscape and features

The rural landscape has important cultural and tourist value. The landscape is important to the region's identity and character. The Department of Environment and Conservation have indicated a need to identify and protect environmentally sensitive lands including scenic landforms. The community expressed a desire to protect hilltops and ridges, natural landscapes and rural views and vistas, again not only for the obvious environmental benefits but also for the potential economic benefits, for example eco-tourism. The community highlighted the importance of tourism to the villages and rural areas.

Priority: To determine the best way to protect and enhance rural landscapes and features.

- *the following key issues require consideration in order to determine how best to achieve this priority;*
- *identify areas of high scenic quality and important landscape features; and*
- *identify the best means to protect areas of high scenic value.*

6.2.1 Areas of high scenic quality and important landscape features

Scenic Drives

It could be argued that all roadways throughout the rural areas have a scenic value. Key scenic drives include:

All drives from Bathurst to all village and settlement locations and drives between villages and settlement locations.

As identified in the local government planning documents viewing corridors such as highways, sealed and unsealed roads within the Bathurst Region can be considered as having a scale of scenic quality based upon the volume of visitations. This is reflected by rating scenic quality and / or receptor sensitivity as High for highways, Medium For sealed collector roads and Low for unsealed local roads due to the volume of motorists that frequent these viewing corridors.

6.2.2 Protection of rural landscape and features

Key threats to scenic quality include inappropriately sited development located adjacent to roadways and new rural lifestyle living subdivision located within or near to key natural landscape areas.

The following actions are recommended to ensure that the general scenic quality of the region is protected.

The three (3) relevant actions for the proposed development to protect the general scenic qualities of the region include:

- *establish appropriate minimum setbacks to roadways for new development including associated revegetation between the development and the roadway…;*
- *avoid locating new development on ridges and hilltops where it is highly visible; and*
- *require the use of building materials that are naturally textured and coloured and are sympathetic to the natural environment and are not reflective.*

3.2.5 Bathurst Region Vegetation Management Plan 2019

The Bathurst region vegetation management plan (BRVM 2019) establishes a series of aims and objectives in managing the environmental factors that influence the vegetation of the

Bathurst region. It identifies the importance of vegetation management in rural villages and surrounding lands by:

> *… protection of its scenic quality within its agricultural setting.*

Within the theme consideration of the plan BRVM 2019 outlines specific points relevant to landscape values. These include:

- *the need to protect the landscape value of the ridges and prominent hills around the land systems of the Bathurst Regional LGA;*
- *the interface between the urban, village and rural landscapes;*
- *the visual appeal of Bathurst City as it is approached from the major access roads; and*
- *protect and promote the scenic values, views, and vistas within the rural landscapes.*

For the management of these landscapes within Bathurst the BRVM 2019 states relevant guiding principles, such as:

- *the edge of the urban development should be contained, with ridges and hills running generally north-south to the west of Bathurst being preserved;*
- *the scenic value of the wooded slopes and ridges should be protected and promoted to ensure the Region's rural landscapes, views and vistas are preserved and enhanced.*

To protect and enhance the significant natural landscapes the plan states objective 1: To protect the Bathurst Regional LGA's rural identity through landscape protection. Two of the strategies that is relevant to the development proposal is:

- *L2 Plan for urban development to protect the rural landscape and to provide a sense of containment of the built environment; and*
- *L3 Ensure rural landscapes retain the visual characteristics of such a landscape with the advent of any future development.*

The BRVM 2019 identifies the importance of gateways as the main entrances into the city of Bathurst. These entrances:

> reflect the identity of Bathurst and the surrounding heritage and natural environment whilst providing a strong entrance statement, often of heritage significance***.***

They are recognised as being important features as they represent the following principles related to the Development Site:

> ***the beginning of the transition between a rural environment and the Bathurst urban environment.***

The Development Site is located on the Mid-western Highway the southwestern entry into the city. It is characterised as:

> ***the road reserve along the Mid-Western Highway retains or is flanked by remnant Box-Gum Woodland in a 'rural, semi-rural' setting, typifying the character of the gateway.***

BRVM 2019 goes on further to state the guiding principles for managing gateways:

> ***to maintain Bathurst Regional LGA's rural identity and cultural heritage; and to maintain and frame vistas of the surrounding rural landscape where appropriate.***

It identifies the Mid-Western Highway in Objective 6: To maintain a gateway into Bathurst from Blayney that complements the natural remnant vegetation in the area and enhances gateways to new subdivisions to transition from the rural and the city areas.

In Particular, G17 states:

> ***rehabilitate the road reserve along the Mid-western Highway from Hen & Chicken Lane to Boundary Road.***

It is within this location that vantage points of the Development Site are evident within the Bathurst Regional Councils gateway into the city.

4.0 Landscape and Visual Assessment Guidelines Review

The following section has been included to outline how this technical report has been designed to meet the criteria for impact assessment of landscape character and visual amenity values. It is done so to provide a fit-for-purpose evaluation of the proposed development; Panorama BESS.

The preparation of this visual impact assessment is informed by the methodologies for assessing impact from the following guidelines, these include:

1. *'Guidelines for Landscape and Visual Impact Assessment, Third Edition'* (LI & IEMA 2013) prepared by The Landscape Institute and the Institute for Environmental Management and Assessment (UK);
2. *'Guidelines for landscape character and visual impact assessment'* (TfNSW August 2020) Environmental impact assessment practice note EIA-N04 Prepared by Transport for NSW; and
3. *'Technical Supplement - Landscape and Visual Impact Assessment; Large-scale Solar Energy Guideline'* (DPE August 2022), prepared by Department of Planning and Environment (Technical Supplement).

The application of the Technical Supplement is designed to focus on the type of impacts associated with a large-scale solar projects. This is particularly evident with the preliminary visual assessment tool which, for the purposes of assessing the BESS, would be deemed as not requiring an assessment. However, this is based upon the visual impacts that are associated with solar arrays and their generally more extensive layouts. The following commentary has been provided to demonstrate how the visual impact assessment has been undertaken and how it aligns with the Technical Supplement and, where applicable, the impact assessment for the BESS.

The common technique present in the three (3) identified methodologies is measuring landscape character impact and the visual impact. These measurements are done so by a combination of sensitivity of the surrounding existing baseline environment and magnitude of change presented by the proposal. Where differences are present is with, *how the resulting judgements about sensitivity and magnitude are combined to inform judgement about the overall significance of effects.* (LI & IEMA 2013)

Understanding these differences are present with the determination of what is meant by "sensitivity" when assessing landscape and visual impact, a summary is provided below:

- As stated within the (TfNSW August 2020) sensitivity is understood as the ability of a *landscape character area or view and its capacity to absorb change of the nature of the proposal. In the case of visual impact this also relates to the* ***types of viewers and number of viewers.***

- Outlined in the Technical Supplement "visual sensitivity" *refers to the quality of the existing view and how sensitive the view is to the proposed change* (DPE August 2022).
- Outlined in Stage 3 of Section 3 Visual Impact Assessment, *viewpoint sensitivity identifies the relative importance of viewpoints and the value that community or visitors may place on landscapes viewed from public use areas, public travel ways and private viewpoints such as dwellings.*

The three (3) steps below outline the process for determining **visual sensitivity**, having regard to the identified methodologies.

4.1 Step 1 Review for Determining Viewpoint Sensitivity

Step 1 – Viewpoint sensitivity of the Technical Supplement states that each viewpoint must classify the sensitivity of each viewpoint into one (1) of four (4) sensitivity ratings (very low, low, moderate, high). These are to be determined by the following:

- examples provided in Table 5 of the Technical Supplement;
- baseline landscape study;
- consultation with the community; and
- individual landholders.

The assumptions of viewpoint sensitivity levels and examples outlined in the guide table place a higher viewpoint sensitivity on dwellings in residential areas and lower the significance of view corridors such as tourist and scenic drives, walking tracks and navigable waterways. Taking into consideration (TfNSW August 2022) view corridors such as roadways, particular scenic drives or significant regional centre access road would lend itself to an increase in the number of viewers. Outlined in (LI & IEMA 2013) visual receptors sensitivity effected at specific vantage points, should be assessed in terms of both their susceptibility to change in views and visual amenity and also the **value attached to particular views**. It states the following that are relevant to the Panorama BESS:

> *The visual receptors most susceptible to change are generally likely to include:*
>
> - *residents at home; and*
> - *travellers on road, rail or other transport routes tend to fall into an intermediate category of moderate susceptibility to change.* ***Where travel involves recognised scenic routes awareness of views is likely to be particularly high.***

As outlined in the planning context for the Bathurst region, community expectations demonstrate the value placed on the rural landscape that surrounds the Bathurst region. It is noted that the Technical Supplement states (Step 2 – Scenic Amenity) that the assessment *must take community values into consideration*. Although not specifically stated as requirement for Step 1 viewpoint sensitivity, landscape values are an important factor when determining viewpoint sensitivity.

For the purpose of this report, (and where relevant to do so) the rating levels and guide examples will be applied as per the table below to all key vantage points. It is important to note that these ratings do not reflect the community values as defined by the strategic planning outlined by the state and local government.

Table 3: Viewpoint Sensitivity Levels and Examples (Table 5 of Technical Supplement)

Viewpoint Type	Very Low Viewpoint Sensitivity	Low Viewpoint Sensitivity	Moderate Viewpoint Sensitivity	High Viewpoint Sensitivity
Residential	No place of residence present	Secondary view from dwellings in rural areas (zoned RU1, RU2, RU3, RU4, and RU6), large lot residential areas (zoned R5) and in environmental or conservation areas (zoned C2, C3 and C4)	Primary view from dwellings in rural areas (zoned RU1, RU2, RU3, RU4 and RU6), large lot residential areas (zoned R5) and in environmental areas (zoned R5) and in environmental or conservation areas (zoned C2, C3 and C4)	Dwellings in residential areas and rural villages (land zoned R1, R2, R3, R4 and RU5) Historic rural homesteads / residence on the national, state or local heritage list.
Transport / infrastructure	Local sealed and unsealed roads Passenger rail lines with daily daylight services State highways and freeways and classified main roads Walking tracks and navigable waterways	Tourist roads and scenic drives Walking tracks and navigable waterways	N/A	N/A
Social / cultural	Private recreation areas and sporting fields (defined as land zoned RE2)	Cemeteries, memorial parks	Tourist and visitor accommodation and places of worship (such as bed and breakfast, motels, hotels) Tourist uses in tourist areas (zoned SP3) Publicly accessible green and open spaces including picnic areas, parks public recreation areas Town centres and central business districts	N/A

4.2 Step 2 Review for Determining Scenic Quality

Step 2 – Scenic quality of the Technical Supplement states the presence or absence of key landscape features known to be associated with community perceptions of low, moderate, or high scenic quality. It is suggested scenic quality is determined by the following:

- classification criteria for frame references outlined in **Table 7** of the Technical Supplement; and
- classification criteria for visual references outlined in **Table 8** of the Technical Supplement.

As stated in the Technical Supplement these tables are to be used as a guide and should consider whether a combination of landscape features influence the overall scenic quality of the setting as well as any community values.

Table 4: Frame of References for Scenic Quality Values (Table 6 of Technical Supplement)

Viewpoint Type	Very Low Viewpoint Sensitivity	Low Viewpoint Sensitivity	Moderate Viewpoint Sensitivity
Landform	Large expanses of flat or gently undulating terrain. Indistinct, dissected, or unbroken landforms that provide little illusion of spatial definition or landmarks with which to orient.	Steep, hilly and undulating ranges that are not visually dominant. Broad shallow valleys. Moderately deep gorges or moderately steep valley walls. Minor rock outcrops.	Isolated peaks, steep rocky ridges, cones, or escarpments with distinctive form and / or colour contrast that becomes focal points. Large areas of distinctive rock outcrops or boulders. Well defined, steep sided valley gorges.
Vegetation	Extensively cleared and cropped areas with very limited variation in colour and texture. Pastoral areas, human created paddocks, pastures or grasslands and associated buildings typical of grazing lands.	Predominantly open forest or woodland combined with some natural openings in patterns that offer some visual relief. Vegetative stands that exhibit a range of size, form, colour, texture and spacing including human influenced vegetation such as vineyards, and orchards.	Strongly defined patterns with combinations of native forest, naturally appearing openings, streamside vegetation and / or scattered exotics. Distinctive stands of vegetation that may create unusual forms, colours, or textures in comparison to surrounding vegetation.
Waterbodies	Absence of natural waterbody. Farm dams, irrigation canals or stormwater infrastructure.	Intermittent streams, lakes, rivers, swamps, and reservoirs.	Visually prominent lakes reservoirs, rivers, streams, wetlands, and swamps. Presence of harbour, inlet, bay or open ocean.
Social / cultural	Places of worship, cemeteries / memorial parks, private open spaces.	Local heritage sites Distinguishable entry ways to a regional city identified in the Transport and Infrastructure SEPP.	Culturally important sites, world heritage areas, national parks / reserves. Commonwealth and state heritage sites
Human presence	Dominating presence of infrastructure, human settlements, highly modified landscapes and higher density populations such as regional cities, industrial areas, agricultural transport or electricity infrastructure.	Dispersed yet evident presence of human settlement such as villages, small towns, isolated pockets of production and industry, lower scale and trafficked transport infrastructure.	Natural / undisturbed landscape. Minimal evidence of human presence and production.

Table 5: Visual Reference of Scenic Quality Values (Table 7 of the Technical Supplement)

Viewpoint Type	Low Scenic quality	Moderate Scenic Quality	High Scenic Quality
Landform			
Vegetation			
Waterbodies			
Social / Cultural			
Human Presence			

The definition provided in the Technical Supplement states that:

> *Scenic quality refers to the relative scenic, cultural, or aesthetic value of the landscape within the viewshed based on the presence or absence of key landscape features known to be associated with community perceptions of low, moderate, or high scenic quality.*

The limitation with this statement outlined in the Technical Supplement is that the scenic quality frame of references described and illustrated in the tables provided assume and prescribe landscape values for a particular community and are not qualified as to how the scenic quality values were determined. It also presumes what "the community" considers low, moderate, or high scenic quality.

Although it does state community values must be taken into consideration, the guidelines do not provide any investigatory process or method in determining what the landscape, scenic quality and / or community values might be for a particular region.

In relation to the proposed BESS these landscape values are clearly identified in the planning context outlined in this report. These values have been taken into consideration when determining the receptor sensitivity and magnitude of change.

4.3 Step 3 Review for Determining Visual Sensitivity

Step 3 – The Technical Supplement states that **visual sensitivity** is determined by combining **viewpoint sensitivity** with the **scenic quality values** described and illustrated in references tables provided. This rating system is to be applied to each assessable viewpoint (referred to as key vantage points in this report) to determine the overall visual sensitivity. Despite providing a simplified rating system it does state that in determining viewpoint sensitivity classifications are not *"determinative"* and must consider *"other inputs"* in arriving to a final rating. In addition, it states when determining scenic quality values, it *"must take community values into consideration".*

In regard to scenic quality values the rating tables provided in the Technical Supplement are a guide only. For the purposes of assessing the BESS the scenic quality values are identified within the planning context as indicated above.

The following table demonstrates how the Technical Supplement determines the viewpoint sensitivity.

Table 6: Viewpoint Sensitivity Matrix (Table 8 of the Technical Supplement)

	High Scenic Quality	Moderate Scenic Quality	Low Scenic Quality
High viewpoint sensitivity	High	High	Moderate
Moderate viewpoint sensitivity	High	Moderate	Moderate
Low viewpoint sensitivity	Moderate	Low	Low
Very low viewpoint sensitivity	Low	Very low	Very low

4.4 Technical Supplement Stage 4 – Visual Impact

As described within the Technical Supplement overall visual impact rating of each viewpoint must be determined for each assessable viewpoint by combining the visual **magnitude** and visual **sensitivity** using the matrix below.

It is important to note that the description of **magnitude** within the Technical Supplement has been developed specifically for large-scale solar energy developments. Although the premise remains the same the descriptions and process (such as measurement tools) are tailored toward the horizontal field of view that is inherent with large-scale solar energy developments. The visual magnitude tool grid has not been applied to this assessment as its not suitable for visual impact of the BESS. For the purpose of this report **7.6 Magnitude of landscape change** methodology has been utilised to determine the overall visual impact on viewpoints and are rated High, Medium, Low and Negligible. The **Table 7** below demonstrates visual impact rates for combining the Technical Supplement visual magnitude and visual sensitivity.

Table 7: Visual Impact Matrix

	High Visual Sensitivity	Moderate Visual Sensitivity	Low Visual Sensitivity	Very Low Visual Sensitivity
Very high magnitude	High	High	Moderate	Moderate
High magnitude	High	Moderate	Moderate	Low
Moderate magnitude	Moderate	Moderate	Low	Low
Low magnitude	Moderate	Low	Low	Very low
Very low magnitude	Low	Low	Very low	Very low

5.0 Landscape Character Assessment

The baseline description outlines the existing visual and landscape conditions of the Project Site (and its surrounds) as it would likely function in the absence of change resulting from the introduction of the proposal.

5.1 Regional Landscape

5.1.1 Landform

The regional centre of Bathurst is located approximately 40km west of the Great Dividing Range adjacent to the Winburndale Nature Reserve and the Sunny Corner State Forest. The Bathurst region consists of two (2) physical components that include the Bathurst Basin and the surrounding tablelands. The basin is a floodplain that is surrounded by gently undulating hills and elevated areas. The surrounding tablelands known as the Central Tablelands is a larger region that includes towns such as Bathurst, Blayney, Cowra, Lithgow, Molong, Mudgee, Oberon and Orange.

Refer to **Figure 4** for regional context surrounding the Project Site.

5.1.2 Major Waterways

The major waterways in Bathurst include the Turon, Macquarie, Fish, Campbell's and Abercrombie Rivers. The rivers generally run in an east-west direction with the exception of Macquarie River which is in a north-south direction adjacent to Bathurst regional centre. There are numerous creek tributaries that flow to these rivers with the majority of these tributaries flowing into the Macquarie River.

Refer to **Figure 4** for major waterways surrounding the Project Site.

5.1.3 Vegetation

The central low-lying floodplains are surrounded by timbered ridges and agricultural pastural lands. Native vegetation has been cleared within the region and has been replaced exotic pastural grasses for agricultural purposes. Remanent vegetation is located within riparian zones, road and highway verges. The vegetation communities include:

- PCT3348 Southern Tableland Granites Ribbon Gum Grassy Forest;
- PCT4039 Hunter Range Creekflat Apple-Red Gum Forest;
- PCT3366 Central Tableland Clay Apple Box Grassy Forest;
- PCT3376 Southern Tableland Grassy Box Woodland;
- PCT3387 Central West Creekflat Grassy Woodland;
- PCT3534 Central West Stony Hills Stringybark Box Forest;
- PCT3734 Central Tableland Dry Slopes Stringybark – Box Forest; and
- PCT4063 Central and Southern Tableland River Oak Forest

BVMP 2019 identifies the significance of this planting community is due to widespread clearing and is listed is Box-Gum Woodland of the White Box Yellow Box Blakely's Red Gum Woodland as a Critically Endangered Ecological Community (EEC). This has led to fragmentation of vegetation communities, in some instances, the native trees have been felled and Derived Native Grasslands ground layer remains.

Refer to **Figure 6** from PCTs within a 3km radius of the Project Site.

5.1.4 Access

The main highways that connect Bathurst with its surrounding region include:

- Great Western Highway (A32);
- Mid-Western Highway (A41); and
- Mitchell Highway (A32)

These three (3) highways traverse through Bathurst in an east to west alignment with numerous collector roads connecting the many agricultural properties and surrounding towns within the greater region.

Refer to **Figure 4** for major highways surrounding the Project Site.

5.2 Local Landscape

5.2.1 Landform

The Project Site is located within low rolling hills with numerous undulations and small creek valleys that are on either side. With a westerly orientation the site is located between two (2) distinct larger hills. These two (2) larger hills reduce visibility to the northeast. These rolling hills reach varying heights of around 800 metres above sea level.

Refer to **Figure 8** for contour map and **Figure 9** for slope analysis surrounding the Project Site.

5.2.2 Waterways

The Project Site is located on the western side of an elevated ridge line adjacent to the Robin Hill. Surrounding creek lines are located to the periphery of the site and include Evans Plains, Spring, Sawpit and Jordan Creek.

Refer to **Figure 6** for surrounding creeks mapping.

5.2.3 Vegetation

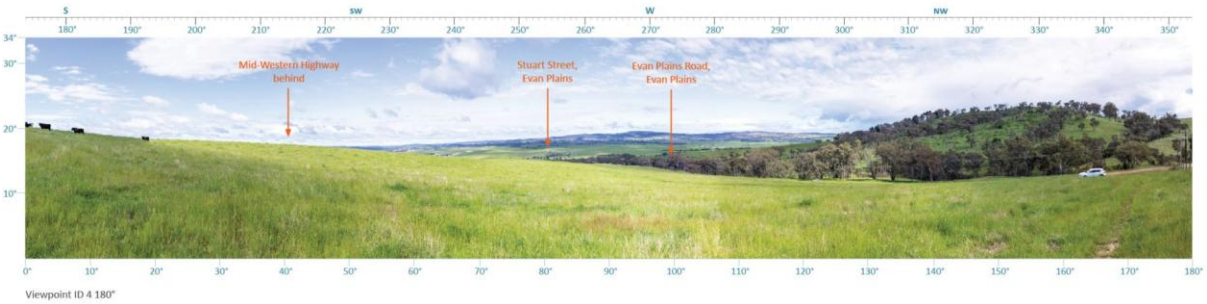
Vegetation on the site is limited with an occasional lone standing eucalyptus trees. Adjacent to the Development Site is a stand of several trees (Central Tableland Clay Apple Box Grassy Forest PCT3366) that can be seen from numerous vantage points within the western precinct of Bathurst; in particular, in the suburb of Evan Plains on Evan Plains Road and Mid-Western Highway. Denser vegetation is located around the lower portion of the site periphery surrounding the entrance. Remnant vegetation is present to the northern perimeter.

5.2.4 Access

Access is via a private driveway that rises on an even grade around the western perimeter of the site. To the northeast it straightens to rise quickly towards the Development Site and existing substation. This access is solely via the Mid-Western Highway which is one of the main gateways into the Bathurst Regional Centre and connects Bathurst with surrounding towns such as Blayney.

LEGEND
Lot Boundary
State Border
Wellington
Cudgegong River
Kandos
A32
B55
1088 m
Castlereagh Hwy
Molong
Gardens of Stone National Park
The Escort Way
Orange
Sunny Corner State Forest
1392 m
Macquarie River
Portland
Newnes State Forest
Canobolas State Forest
Mitchell Hwy
Bathurst
Lithgow
Location of Proposed BESS
Blayney
Coxs River
A41
1372 m
Oberon
Jenolan State Forest
1381 m
Vulcan State Forest
Kanangra-Boyd
Wyangala Reservoir
Abercrombie River
Crookwell River
Lachlan River
Boorowa
Crookwell
Queensland
South Australia
New South Wales
BATHURST
SYDNEY
Victoria
Scale: 1:28,000,000
0
25
50
km
Scale: 1:900,000 at A4
Coordinate System: GCS GDA 1994
Date Drawn: 01-Apr-2025
Project Number: 660.30234
Data Source: Basedata, NSW SS, 2022, Geoscience Australia
Basemap supplied by ESRI and other sources
SLR
REGIONAL CONTEXT OF THE SITE
FIGURE 4
H:\Projects-SLR\660-SrvWOL\660.30234.00000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR66030234_BDARWaiver_G4_RegionalContext_001.mxd

View Orientation from the Development Site



5.2.5 Land use

The Subject Site is located within a predominantly rural setting along the Mid Western Highway, with a mix of agricultural, infrastructure, and rural residential land uses surrounding it.

North

To the north of the Subject Site, the land is primarily rural and used for agricultural purposes, consisting of open paddocks, grazing land, and scattered tree cover. There are also some transmission lines traversing the area, providing electrical infrastructure.

East

To the east, the land is similarly characterised by agricultural use, including grazing pastures. Additionally, Evans Plains Road runs parallel to the site, providing local road access. Further to the east, beyond Evans Plains Road, there are rural residential properties with existing dwellings and associated outbuildings.

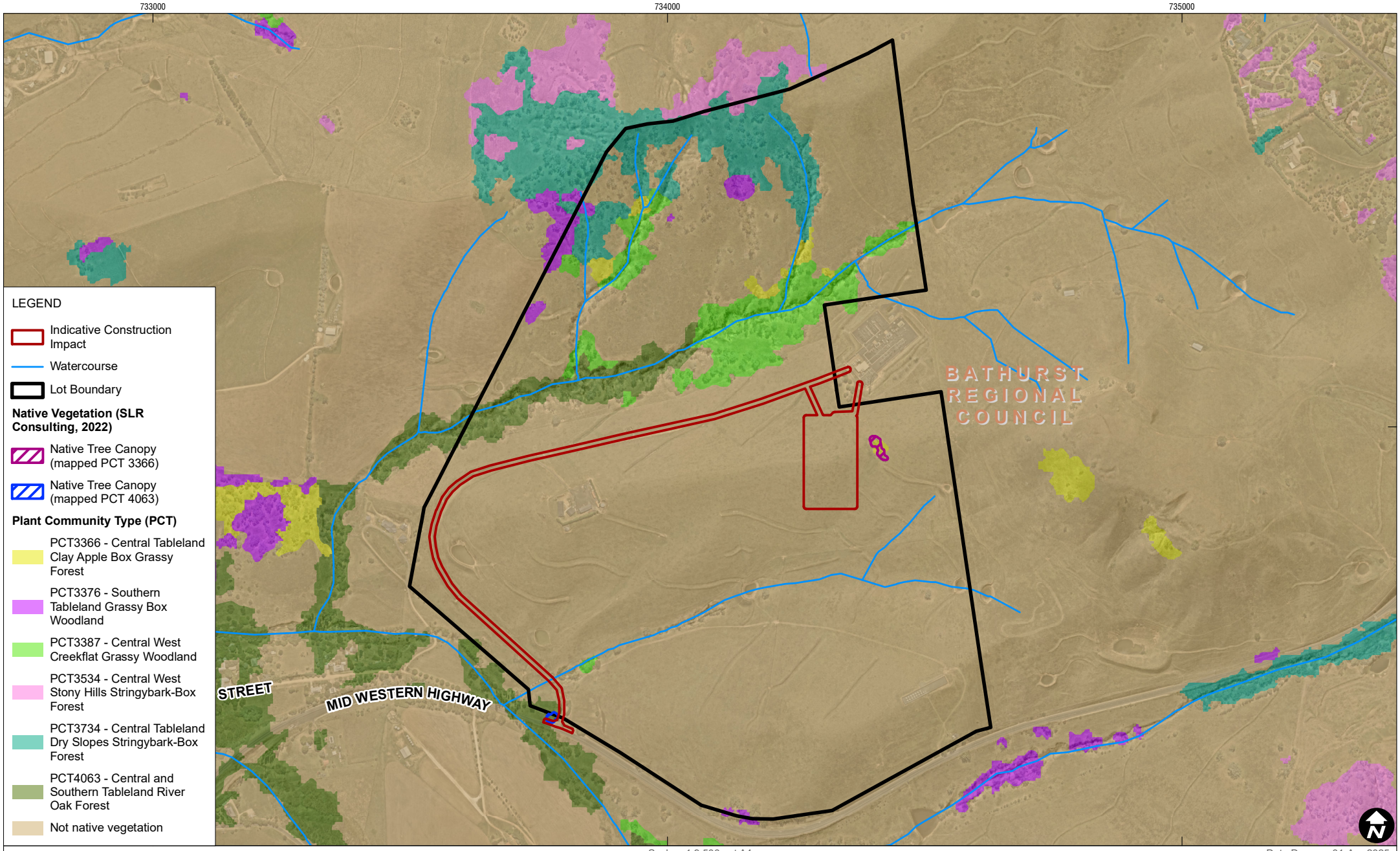
South

Directly south of the site, the landscape continues to be dominated by agricultural land uses, with large open paddocks and minimal built structures. There are also existing sheds, and a future dwelling site identified within the lot boundaries. The Mid Western Highway, a key regional transport corridor, runs along the southern boundary, facilitating connectivity to Bathurst and surrounding areas.

West

To the west of the site, the landscape is characterised by a combination of agricultural land and electrical infrastructure. Existing 132kV and 66kV transmission lines run through this area, linking to an existing substation located nearby. The presence of this infrastructure indicates an established energy transmission corridor in proximity to the site.

Refer to **Figure 10**.



Scale: 1:9,500 at A4
Coordinate System: GDA 1994 MGA Zone 55

Date Drawn: 01-Apr-2025
Project Number: 660.30234.00000

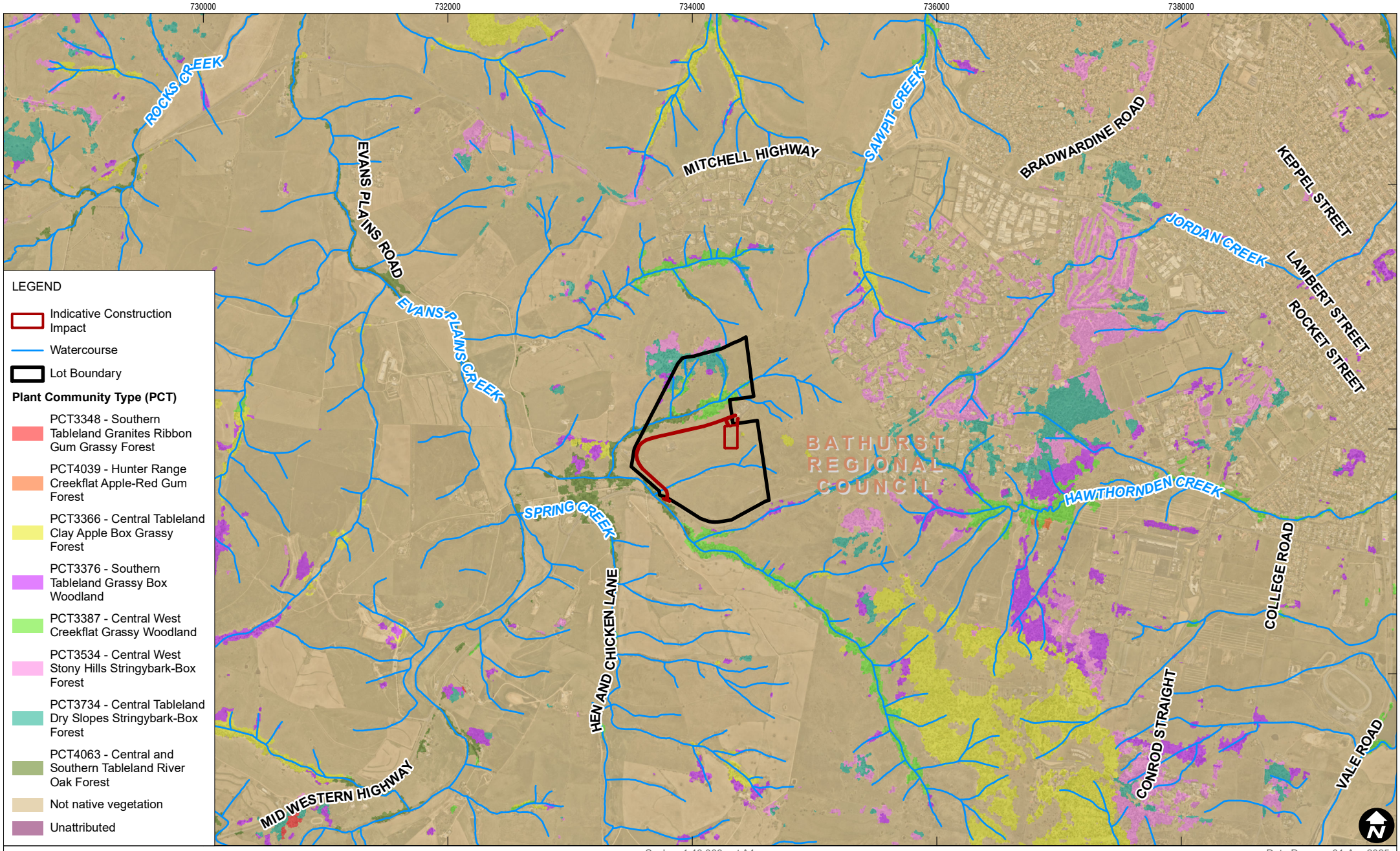
SLR

Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (February, 2025)
Elevation data supplied by DCS Spatial Services (July, 2019)
State Vegetation Type Map (SVTM) © State Government of NSW and Department of Planning and Environment 2022
REV G used in analysis and displayed Proposed Infrastructure (Panorama-BESS-130MW-2hr_RevG)

PLANT COMMUNITY TYPES (PCT) PRESENT ON SITE

FIGURE 5

H:\Projects-SLR\660-SrvWOL\660-WOL\660.30234.00000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR66030234_LVIA_G5_PCTMapping_003.mxd



Scale: 1:40,000 at A4
Coordinate System: GDA 1994 MGA Zone 55

Date Drawn: 01-Apr-2025
Project Number: 660.30234.00000

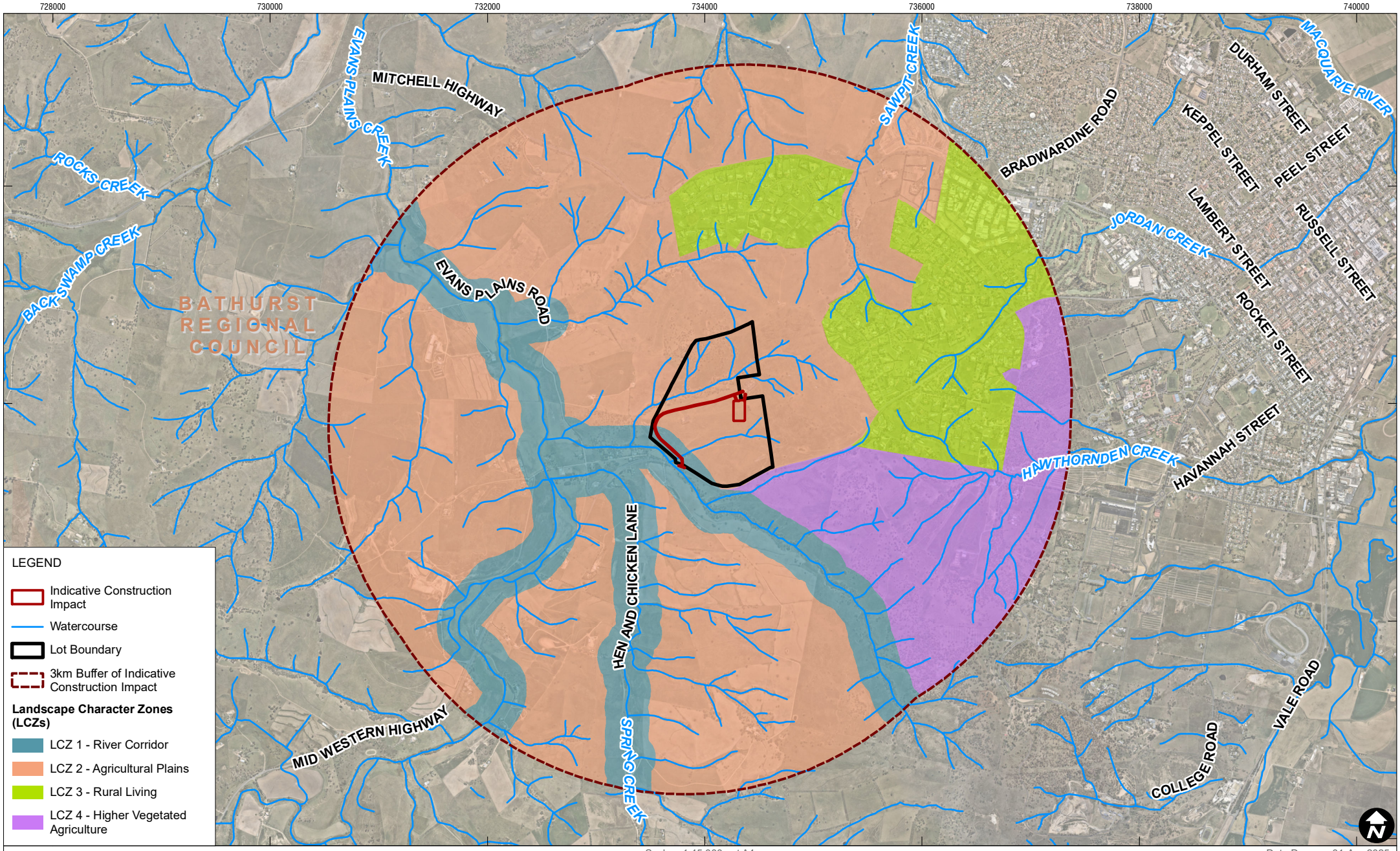
Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (February, 2025)
Elevation data supplied by DCS Spatial Services (July, 2019)
State Vegetation Type Map (SVTM) © State Government of NSW and Department of Planning and Environment 2022
REV G used in analysis and displayed Proposed Infrastructure (Panorama-BESS-130MW-2hr_RevG)

SLR

PLANT COMMUNITY TYPES (PCT) IN THE SURROUNDING REGION

FIGURE 6

H:\Projects-SLR\660-SrvWOL\660-WOL\660.30234.00000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR66030234_LVIA_G6_PCTMapping3km_003.mxd



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Project Number: 660.30234.00000

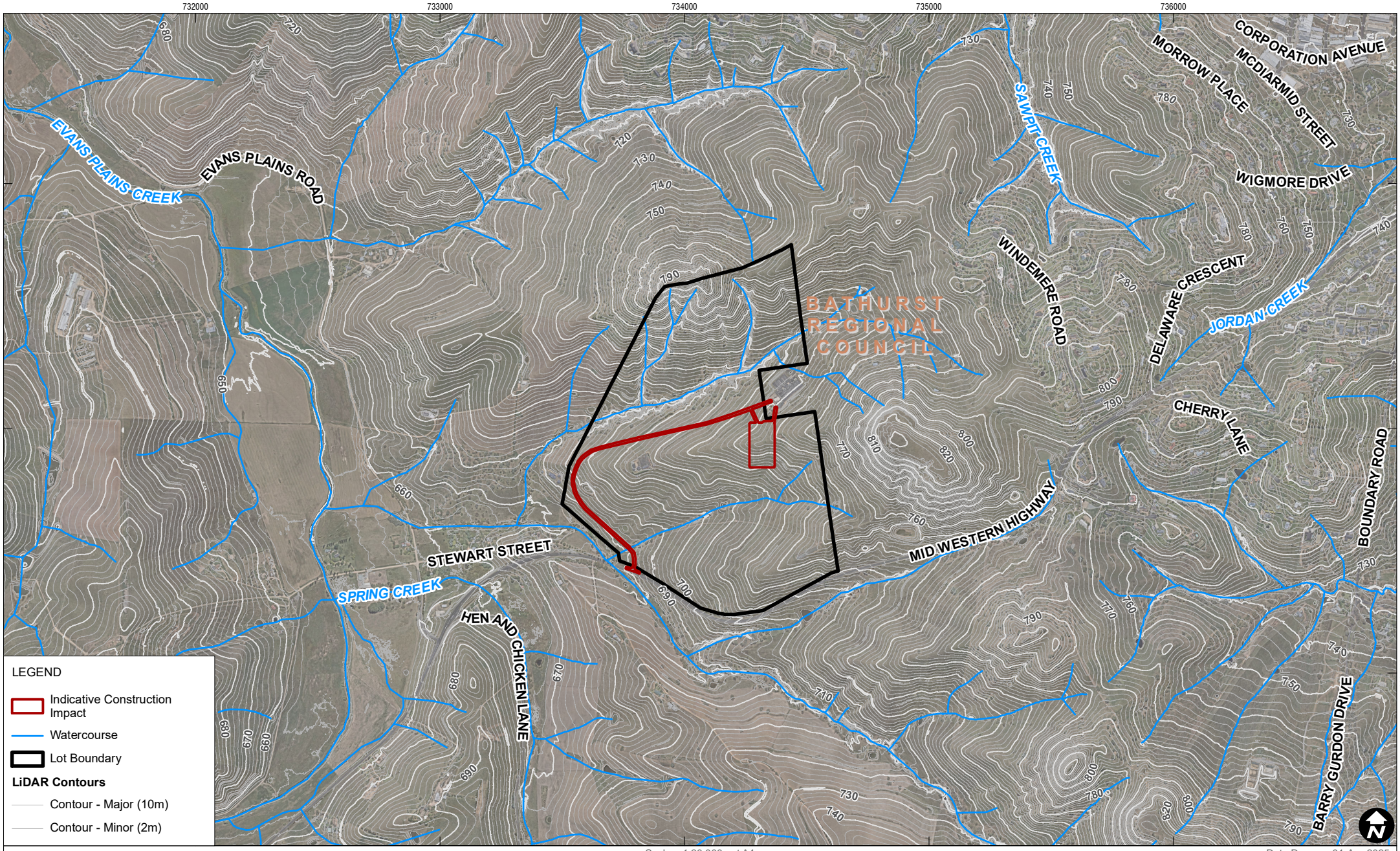
Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (February, 2025)
Elevation data supplied by DCS Spatial Services (July, 2019)

REV G used in analysis and displayed Proposed Infrastructure (Panorama-BESS-130MW-2hr_RevG)

LANDSCAPE CHARACTER ZONES

FIGURE 7

H:\Projects-SLR\660-SrvWOL\660-WOL\660.30234.00000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR66030234_LVIA_G7_LandscapeCharacterZones_003.mxd



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Date Drawn: 01-Apr-2025
Project Number: 660.30234.00000

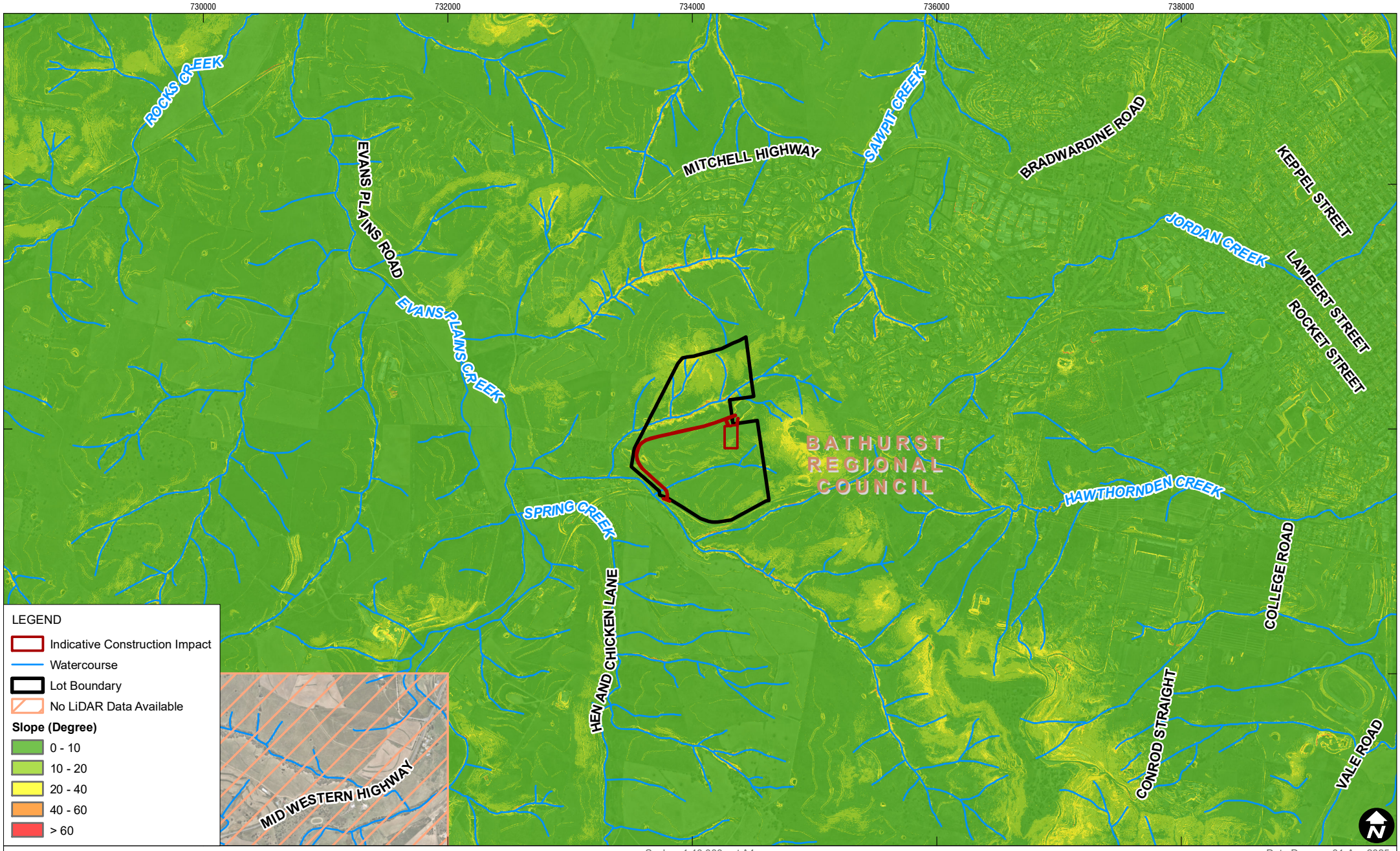
Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (February, 2025)
Elevation data supplied by DCS Spatial Services (July, 2019)

REV G used in analysis and displayed Proposed Infrastructure (Panorama-BESS-130MW-2hr_RevG)

TOPOGRAPHY

FIGURE 8

H:\Projects-SLR\660-SrvWOL\660-WOL\660.30234.00000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR66030234_LVIA_G4_Topography_003.mxd



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Date Drawn: 01-Apr-2025
Project Number: 660.30234.00000

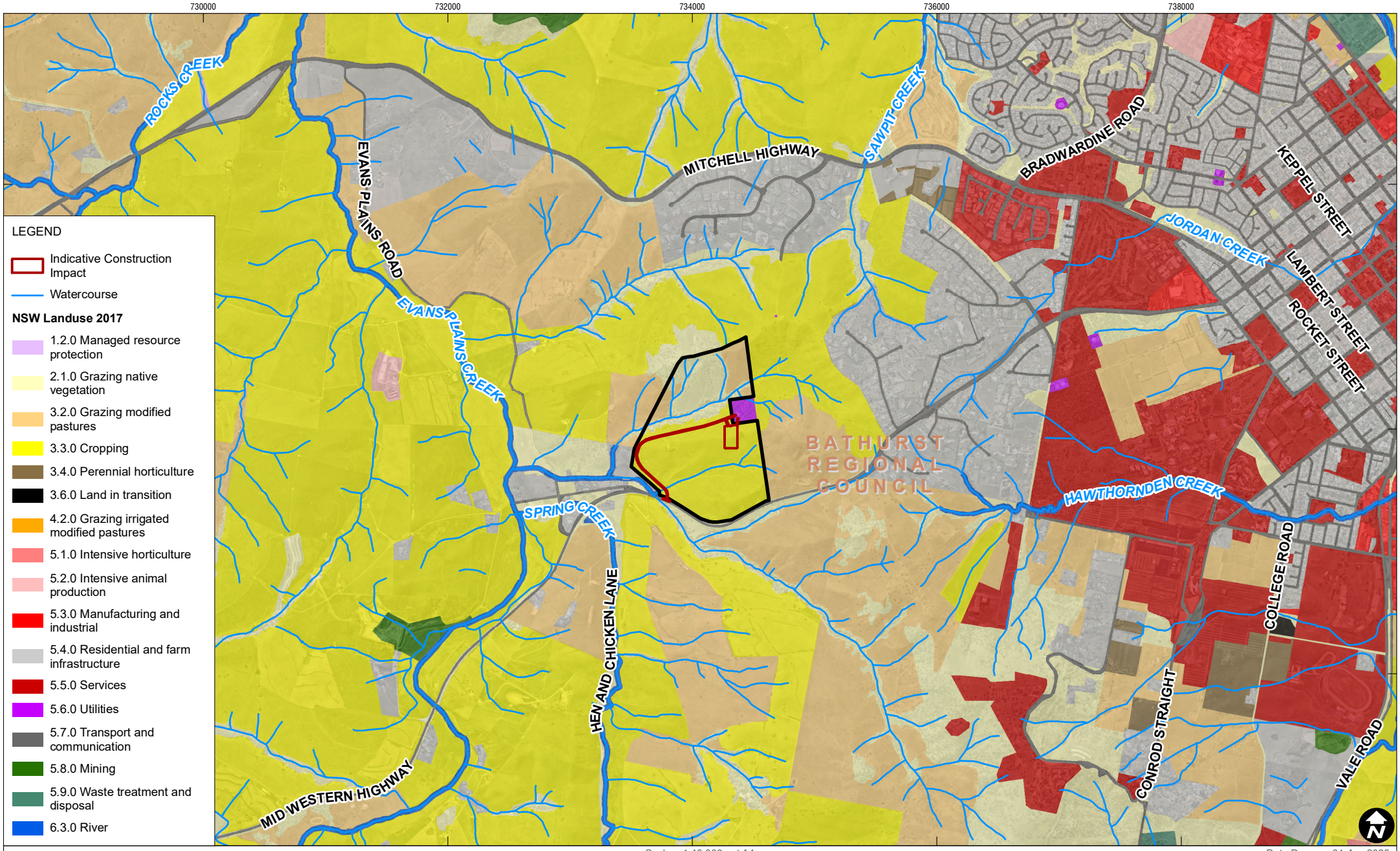
Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (February, 2025)
Elevation data supplied by DCS Spatial Services (July, 2019)

REV G used in analysis and displayed Proposed Infrastructure (Panorama-BESS-130MW-2hr_RevG)

SLOPE ANALYSIS

FIGURE 9

H:\Projects-SLR\660-SrvWOL\660-WOL\660.30234.00000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR66030234_LVIA_G8_Slope_003.mxd



Scale: 1:40,000 at A4
Coordinate System: GDA 1994 MGA Zone 55

Date Drawn: 01-Apr-2025
Project Number: 660.30234.00000

Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (February, 2025)
Elevation data supplied by DCS Spatial Services (July, 2019)
© State Government of NSW and Department of Planning and Environment 2020

REV G used in analysis and displayed Proposed Infrastructure (Panorama-BESS-130MW-2hr_RevG)

LAND USE

FIGURE 10

H:\Projects-SLR\660-SrvWOL\660-WOL\660.30234.00000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR66030234_LVIA_G11_LandUse_003.mxd

6.0 Visual Impact Assessment

The purpose of this LVIA is to evaluate potential impacts of the proposed BESS on the visual environment surrounding the Subject Site. This may include adverse impacts on residences, scenic or significant vistas and road corridors within the public realm.

6.1 Process

The visual impact assessment generally applies the assessment techniques set out in the following:

1 *'Guidelines for Landscape and Visual Impact Assessment, Third Edition'* (LI & IEMA 2013) prepared by The Landscape Institute and the Institute for Environmental Management and Assessment (UK);

2 *'Guidelines for landscape character and visual impact assessment'* (TfNSW August 2020) Environmental impact assessment practice note EIA-N04 Prepared by Transport for NSW; and

3 *'Technical Supplement – Landscape and Visual Impact Assessment; Large-scale Solar Energy Guideline'* (DPE August 2022), prepared by Department of Planning and Environment (Technical Supplement).

The assessment includes the following:

- review of the proposal (bulk, height, scale, and location);
- analysis of the Development Site (visual exposure, visual qualities, and landscape values);
- mapping of theoretical visual catchment, visual receptors, and sensitive receptor groups;
- identification of potential impacts on key receptors including the rating of magnitude for each receptor group;
- rating of impact significance for each receptor group. The significance is evaluated as a product of the sensitivity or value of the receptor, and the magnitude of impacts on the receptor; and
- potential mitigation measures to meet the necessary planning requirements and any community expectations.

The assessment included a desktop analysis, and a detailed site investigation conducted in October 2022. The desktop analysis and site investigation included the following:

- data review;
- aerial photography review;
- onsite image capture at key public vantage points and private receptor locations; and
- GIS modelling of the topography and the proposed development.

6.2 Determining Key Vantage Points

The visual vantage points have been selected by first analysing aerial photography to identify areas that may have impact significance. These include evaluating numerous viewpoints that are located within a 3km radius from the Development Site. Depending on the bulk, height, and scale of the development generally, sensitive receivers beyond 3km are unlikely to result in a high level of impact. Typically distances of vantage points within the

3km radius can vary depending on site conditions such as undulating topography and established vegetation.

A number of proposed vantage points are selected with the prospect of being impacted by the proposed development. A site visit was undertaken on 27 October 2022, and photographs are taken at each point with a general 90 to 180° bearing in the direction of the Development Site. These vantage points were analysed to ascertain the potential evident use and its likelihood of it to be absorbed into the surrounding context. For completeness, panoramic images were taken at the selected key vantage points. These image captures are created with a cylindrical image projection to maintain an accurate relative size of objects. All photos were taken on a Canon E0S 6D Mark II with GPS capability.

Once these vantage points, at key locations, have been determined a visibility model is run to ascertain the likelihood of the proposed infrastructure at the Development Site to be seen from these locations. This is referred to as the Zone of Theoretical Visibility (ZTV); the detail of such is provided below.

6.3 Zone of Theoretical Visibility (ZTV)

The 5m Digital Terrain Model (DTM), 5m Digital Surface Model (DSM) and 5m Canopy and Building Height Model (CHM) was derived from point cloud data supplied by Department of Customer Service, Spatial Services (DCS SS), August 2019.

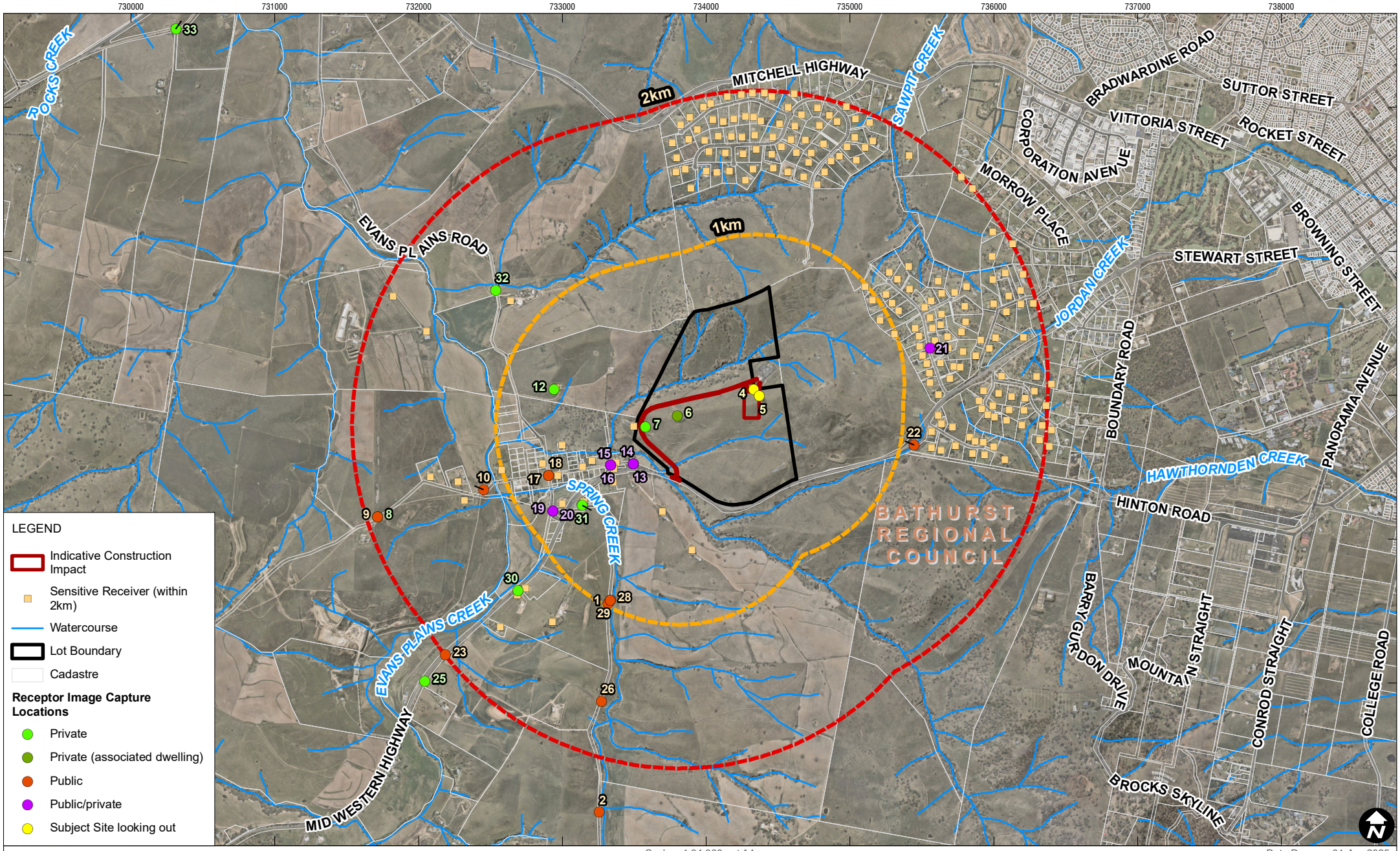
The visibility tool was run using the 5m DSM as the raster input. The 5m DSM includes the existing surrounding surface and assumed RL 741m cut and fill works to occur within the infrastructure footprint. The proposed infrastructure features were used as the observer feature within the visibility tool using the infrastructure heights in the table below (applied to the assumed RL 741m cut and fill works).

Following the initial run of the analysis it was determined that the existing 132kV and 66kV Transmission Lines were acting as a barrier and eliminating positive visibility results in the vicinity of this infrastructure. Upon review of the point cloud data the transmission lines were classed as vegetation and required manual removal. The extent of the transmission lines was digitised up until existing visual barriers (such as vegetation and buildings). The transmission line extent was used to clip the 5m DTM and a revised version of the 5m DSM was created to include the existing surrounding surface, assumed RL 741m cut and fill works and ground surface within the transmission line extent.

Raster Calculator was then used on the visibility output and CHM to ‘clean’ false positives. The final output shows positive visibility results of the observers position on the ground and not an elevated position. Positive visibility results occur within the Indicative Construction Impact boundary, a mask has been applied so these results are not displayed.

Table 8: Height of Proposed Infrastructure Elements

Infrastructure	Height
BESS storage units	2.9 m
Gantry and Poles	8m
Inverters	2.3 m
O&M building	3.5 m
Onsite substation and switchyard	3.5 m with ancillary components not greater than 10m
Switchroom	3.5 m
132 kV transmission line connection	Underground connection to the existing 132kv transmission line
Note: 3.0m H perforated steel perimeter screen for visual mitigation purposes was not included in the viewshed model as it was a later addition. Post-mitigation ratings are included within the impact assessment summary.	



Scale: 1:34,000 at A4
Coordinate System: GDA 1994 MGA Zone 55

Date Drawn: 01-Apr-2025
Project Number: 660.30234.00000

Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (February, 2025)
Elevation data supplied by DCS Spatial Services (July, 2019)

REV G used in analysis and displayed Proposed Infrastructure (Panorama-BESS-130MW-2hr_RevG)

VIEWPOINT LOCATIONS

FIGURE 12

H:\Projects-SLR\660-SrvWOL\660-WOL\660.30234.00000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR66030234_LVIA_G12_SensitiveReceptors_004.mxd

6.3.1 Amendment report submission

The viewshed analysis illustrate results from the Site Layout Plan REV G prepared on 22 June 2023. Since the infrastructure dimensions and the area of earthworks for the latest Site Plan Rev N are similar to the initial development assumptions, it was decided that any differences in results would only be minor and would not provide any meaningful change to inform the study. For comparison, refer to **Appendix D** for Infrastructure Heights.

6.4 Assessment of Visual Impacts for Key Receptors

Visual receptors are people or groups of people that may be affected by the proposal. Described below are a list of potential visual receptors that are often identified based on several key parameters. Depending on the site, proposed use, and future anticipated impacts, not all of these may be selected as receptors.

a) proximity of the receptor – most affected visual receptors are anticipated to be located within a 2 km radius of the Development Site (Greater consideration if proposed development in located in an elevated position);

b) drivers or passengers of vehicles travelling past, through or alongside the Development Site;

c) workers on or near the site that visit or work in nearby commercial or residential buildings;

d) members of the general public accessing adjoining public areas (parks, open spaces, streets and waterways) for recreation or visual purposes; and

e) permanent residents living near the Development Site.

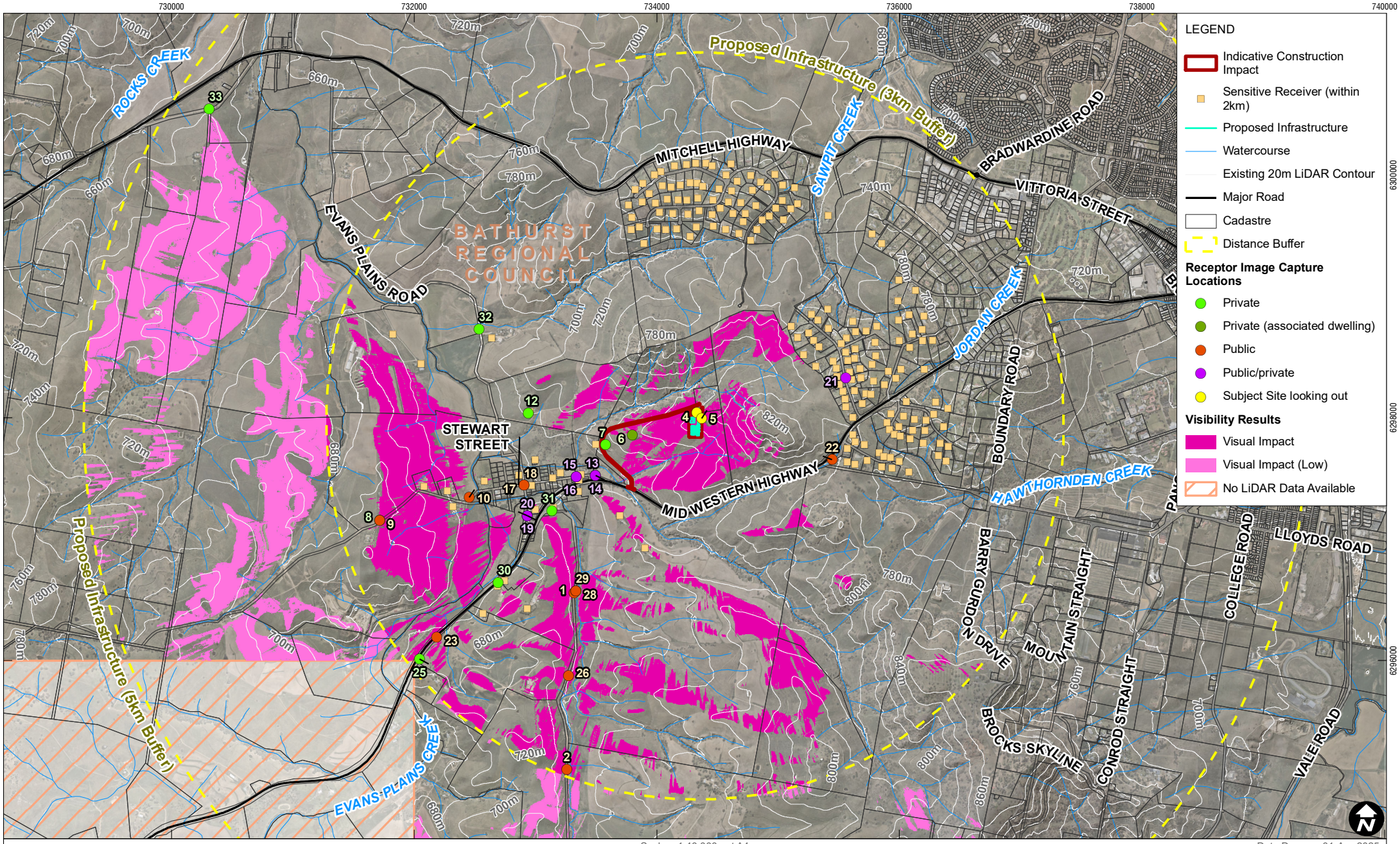
Public receptors (views visible by the general public) are accepted as the most suitable for visual impact and amenity assessments, because they represent the highest number of visitations or views to the nominated site in question. Private receptors (namely from private residences) can be selected if the views are unique, significant or the combined effects on a few residents are considered high.

The five (5) vantage points chosen for this VA report, capture receptors that were located along the main roads surrounding the Development Site. These would include vehicular uses (local residence, work related commuters, tourists, etc). In all locations, public receptor groups are primarily moving through the space. All image captures were obtained at a 1.5m height to present the average human perspective from the selected vantage point.

The key vantage point locations are listed below in **Table 9** and include street address and coordinate locations.

Table 9: Key Public Receptor Viewpoint Locations

Viewpoint	Address	Coordinates
VP1	663 Hen and Chicken Lane, Bathurst NSW	33°27’3.75” S 149°30’35.34” E
VP2	89 Stewart St, Evan Plains NSW	33° 26' 17.322" S 149° 30' 1.764" E
VP3	1022 Mid-Western Highway, Evans Plains NSW	33° 26' 54.774" S 149° 29' 52.488" E
VP4	663 Hen and Chicken Lane, Bathurst NSW	33° 27' 4.356" S 149° 30' 34.782" E
VP5	491 Evans Plains Road, Evans Plains NSW	33° 26' 20.25" S 149° 30' 24.126" E



Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (February, 2025)
Elevation data supplied by DCS Spatial Services (July, 2019)

REV G used in analysis and displayed Proposed Infrastructure (Panorama-BESS-130MW-2hr_RevG)

VISIBILITY RESULTS

FIGURE 12

H:\Projects-SLR\660-SrvWOL\660-WOL\660.30234.00000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR66030234_LVIA_G9_VisibilityResults_003.mxd

6.5 Receptor Sensitivity

The receptor sensitivity is derived from a combination of factors including:

a) receptors interest in the visual environment (high, medium, low or negligible) and their interest in their everyday visual environment.

b) receptors viewing opportunity (prolonged, regular viewing opportunities).

c) number of viewers and their distance / angle of view form the source of the effect, extent of screening / filtering of view.

Whilst the assessment of the visual values and effects is largely measured on a qualitative basis, assessment against scale enables an objective evaluation and comparison of sensitivity of receptors and magnitude of effects.

The receptor sensitivity rating is High, Medium, Low or Negligible and is described below in **Table 10.**

Table 10: Receptor Sensitivity Rating

Receptor Sensitivity	Description
High	• visitors to heritage sites, regionally important locations, scenic routes / gateways, lookouts within 2-3km (or closer) with quality views, important views of the site and surrounding areas where landscape is the specific focus. • high numbers of visitors. • views to landscape that are rare and / or unique and are possibly vulnerable to change. • views from residences within 1km of the site and are representative of high-quality views.
Medium	• travellers / visitors along roads or rail routes that are not scenic routes but offer quality views within 1km of the site. • recreational users / viewers beyond 2-3km from the site with moderate interest in their surrounds. • medium numbers of visitors / residents (suburban and rural residents). • views that are representative of local character or sense of place but are not rare or unique. • views from residences within 3km buffer of the site or are representative of moderate quality views.
Low	• travellers / visitors along roads or rail routes that are not scenic routes but offer reasonable views within 1km of the site. • recreational users not dependent on views or scenic quality of landscape. • view experienced take in broad context with which site is visible but not an important element. • small numbers of visitors with passing interest in their surroundings (those travelling along mid-level roads). • viewers whose interest is not specifically focused on landscape or scenic qualities (local residents, commuters and workers).
Negligible	• very occasional or low level of users with passing interest in their surrounds (those travelling along minor roads or views from the air). • travellers / visitors along roads offering views greater than 1km of the site.

6.6 Magnitude of Landscape Change

The magnitude of change to the landscape character depends on the nature, scale, intensity, extent and duration of the impacts / change due to development proposal. The magnitude of change also depends on the loss, change or addition of any features to the existing landscape and is based on the landscape character type that is most likely to be impacted by the project prior to the addition of any mitigation measures.

The magnitude of change is rated as High, Medium, Low or Negligible and is described below in **Table 11**.

Table 11: Magnitude of Change

Magnitude of Change	Description
High	**Dominant Change** • major change in view at close distances, affecting substantial part of the view continuously visible for a long duration or obstructing a substantial part or important elements of the view. • overwhelming loss or additional features in the view such as the nature of view or landscape character fundamentally changed. • views to key landscape features affected. • visual amenity of local residents or road users substantially diminished. • substantial change to the landscape due to loss of and / or change to elements, features or characteristics of the landscape creating an overall worsening of visual quality of the landscape character.
Medium	**Considerable Change** • clearly perceptible changes in views at intermediate distances resulting in either distinct new element in a significant part of the view or a more widely ranging, less concentrated change across a wider area. • significant loss or addition of features in the view, such that nature of view or character of landscape is altered. • noticeable contrast of any new features in the view such that the nature of the view or landscape character is changed. • noticeable contrast of any new features or changes compared to existing landscape. • views to key landscapes partially obstructed but views remain intact.
Low	**Noticeable Change** • minor memorable change to the landscape or views. • temporary or reversible impact. • landscape dominant element and built form / development well integrated within it. • little permanent change or no fundamental change to local landscape character.
Negligible	**Barely perceptible change** • no memorable or rarely perceptible change to landscape character or key views.

6.7 Impact Significance on the Landscape Character

The impact significance is evaluated according to two (2) key criteria as noted above and is reflected below in **Table 12** effect significance rating. The rating is a means of comparing impacts on different receptors. Professional judgement and experience have been applied to identify the level of significance for each landscape character type which has been assessed on its own merits, such as:

a) the sensitivity of the receptor or existing landscape; and

b) the magnitude of the change or impact that is likely to occur.

The process of assessment and the use of the rating tables reflect typical outcomes for visual impacts.

a) impacts on receptors that are particularly sensitive to change in views and visual amenity are more likely to be significant; and

b) impacts that constitute a substantial change to the visual environment are likely to be more significant.

Table 12: Effect Significance Rating

Receptor Sensitivity	Magnitude of Change in Landscape				
	High (Dominant Change)	Medium (Considerable Change)	Low (Noticeable Change)	Negligible (Barely Perceptible Change)	
High	High	Moderate-High	Moderate	Minor-Moderate	
Medium	Moderate-High	Moderate	Minor-Moderate	Minor	
Low	Moderate	Minor-Moderate	Minor	Minor - Negligible	
Negligible	Minor-Moderate	Minor	Minor - Negligible	Negligible	

6.8 Views and Visibility

The inspection of the Development Site and its contextual surrounds provided a range of viewpoints from which the proposed development could potentially be visible.

Consideration for selecting vantage points were from within the public realm and were chosen based on the ability (wherever possible) to:

a) view the site unencumbered;

b) view the site from varying locations within the local context;

c) view the site for a range of receptor groups from public locations; and

d) demonstrate the proposed development height within the local context.

The location of the five (5) key vantage points were selected in response to onsite analysis and the overall theoretical zone of visibility of the proposed development. All public vantage points that were identified on the field trip have been listed below in **Table 13**.

Table 13: Public Vantage Points Identified on the Field Trip

ID	Location	Coordinates	Elevation (m)
2	663 Hen and Chicken Lane, Evans Plains	- 33°27'29.394" S 149°30'34.968" E	692.6
3	663 Hen and Chicken Lane, Evans Plains	- 33°27'3.75" S 149°30'35.34" E	707.5
9	90 Stewart Street, Evans Plains	- 33°26'23.988" S 149°29'33.372" E	716.7
10&11	89 Stewart Street, Evans Plains	- 33°26'17.322" S 149°30'1.764" E	783.6
17&18	475 Evans Plains Road, Evans Plains	- 33°26'13.656" S 149°30'19.158" E	660.6
22	586 Mid-Western Highway, Robin Hill	- 33°26'4.872" S 149°31'57.282" E	762.4
23	1041 Mid-Western Highway, Evans Plains	- 33° 27' 1" S, 149° 29' 47" E	663.6
24	1022 Mid-Western Highway, Evans Plains	- 33°26'54.774" S 149°29'52.488" E	663.6
26&27	Hen and Chicken Lane, Evans Plains	- 33°27'4.356" S 149°30'34.782" E	682.9
28&29	Hen and Chicken Lane, Evans Plains	- 33°26'41.52" S 149°30'36.498" E	676.3
34	491 Evans Plains Road, Evans Plains	- 33°26'20.25" S 149°30'24.126" E	663.1

As identified in the local government planning documents viewing corridors such as highways, sealed and unsealed roads within the Bathurst Region can be considered as having a scale of scenic quality based upon the volume of visitations. This is reflected by rating scenic quality and / or receptor sensitivity as High for highways, Medium For sealed collector roads and Low for unsealed local roads due to the volume of motorists that frequent these viewing corridors.

6.9 Assessment of Vantage Points

The changes to the visual environment having regard to the height of the proposed dwellings are outlined below and in the **vantage point assessment summary**.

Each vantage point assessment includes:

a) photograph of the existing situation at key vantage point locations;

b) image capture summary of visual impact assessment; and

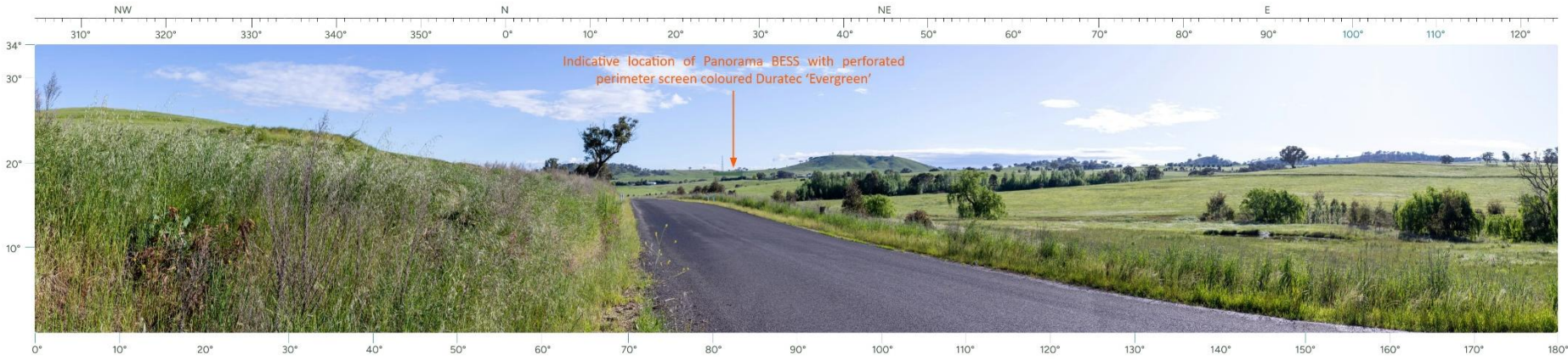
c) identifying the Development Site within the vantage point and indicating its potential extent and scale.

Refer to **Figure 11** to geographically locate these key vantage points in relation to the Development Site and how they relate to the visual impact results.

6.10 Summary of Potential Visual Impact to Landscape Character

6.10.1 Vantage Point 1 (Viewpoint ID 3)

Photo 1: VP1 – Location Description



Viewpoint ID 3 180° [Vantage Point VP1]

Vantage point 1 (33°27'3.75" S 149°30'35.34" E) is located approximately 2.5 kilometres from the Development Site. Viewing is a north-northeast direction at a bearing of 25.4°. This vantage point captures the potential visibility of the BESS within its surrounding rural landscape context of green undulating hills scattered with trees.

Refer to appendix **Viewpoint ID 3** for enlarged image capture

Table 14: Vantage Point VP1 (Viewpoint ID 3) – Summary of Visual Impact Assessment

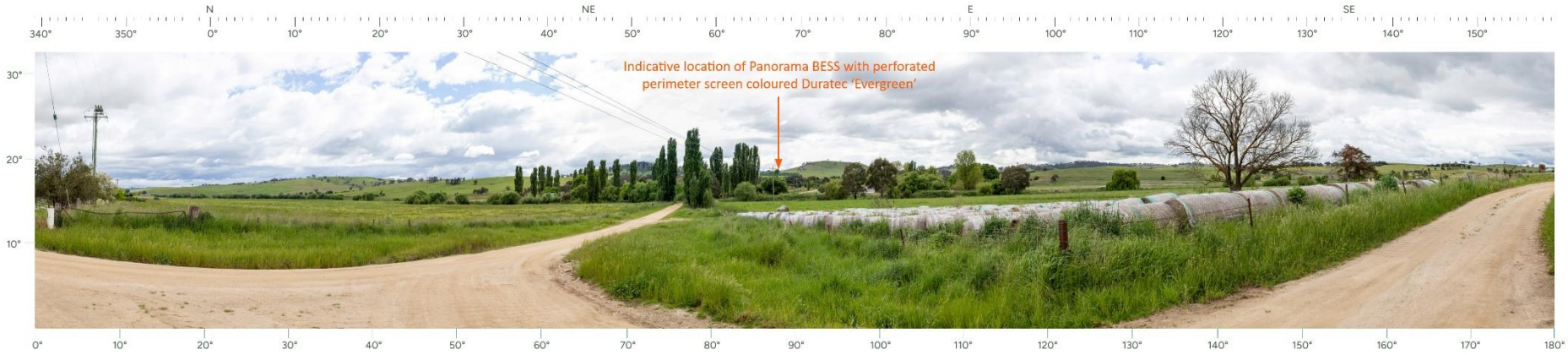
Vantage Point - VP1	Summary of Visual Impact Assessment
Vantage point location	663 Hen and Chicken Lane, Bathurst NSW
Vantage point coordinates	33°27'3.75" S 149°30'35.34" E
Projection	Cylindrical (panorama)
Date of image capture	27 October 2022 7:24am
Camera (make and model)	Canon EOS 6D Mark II
Camera lens	EF 50mm (f/1.8STM)
Image HFoV & VFoV	180° (HVoF) & 34° (VFoV)
Direction of View	25.4° (north-northeast)
Elevation	707.5m
Distance from development	2495m toward proposed battery energy storage system (BESS)
Reduce evident use	High
Foreground elements	Sealed road surrounding by low lying areas with pastoral grasses
Midground elements	Open fields with pastural grasses for grazing cattle
Background elements	Undulating hills with of pockets scattered trees and minimal built form within a rural landscape character
Viewer motion	At speed (50-80km/h)
Usage	Local. Access to rural properties and connection to surrounding towns such as Perthville
Accessibility	High. Access between Mid-Western Highway (A41) & Vale Road
Visual baseline description	Sealed road surrounding undulating low lying fields with scattered trees on grassed hillside
Receptor sensitivity rating	**Medium** *(viewers beyond 2-3km from the site with a moderate interest in their surrounds)*
Magnitude of change rating	**Low** *(landscape dominant element and built form / development well integrated within it)*
Effect significance rating	**Minor - Moderate**
Mitigation measures	**Perforated steel perimeter screen to blend with its surrounding context by colour matching with natural elements.**
Post mitigation effect significant Rating	**Negligible / Very low**

Table 15: Vantage Point VP1 (Viewpoint ID 3) – Summary of Visual Impact (Technical Supplement)

Technical Supplement Ratings	Summary of Visual Impact (Technical Supplement)
Viewpoint sensitivity	**Moderate** *(Table 5 of the Tech. Supplement does not reflect the community values of the Bathurst region)*
Scenic quality	**High** *(Table 6 & 7 of the Tech. Supplement does not reflect the scenic quality values of Bathurst)*
Visual sensitivity	**High** *(Rating moderated by taking community values of the Bathurst region into consideration)*
Visual magnitude	**Low** *(Rating applied as per above)*
Visual impact	**Moderate** *(Perforated steel perimeter screen to blend with its surrounding context by colour matching with natural elements)*

6.10.2 Vantage Point 2 (Viewpoint ID 11)

Photo 2: VP2 – Location Description



Viewpoint ID 11 180° [Vantage point 2]

Vantage point 2 (33° 26' 17.322" S 149° 30' 1.764" E) is located approximately 2.2 kilometres from the Development Site. Viewing is a northeast direction at a bearing of 67.2°. This vantage point captures the potential visibility of the BESS within its surrounding rural landscape context of green undulating hills scattered with trees. The BESS would be located within the backdrop of the naturalistic area that features European deciduous trees within the undulating hills and pastoral fields.

Refer to appendix **Viewpoint ID 11** for enlarged image capture.

Table 16: Vantage Point VP2 (Viewpoint ID 11) – Summary of Visual Impact Assessment

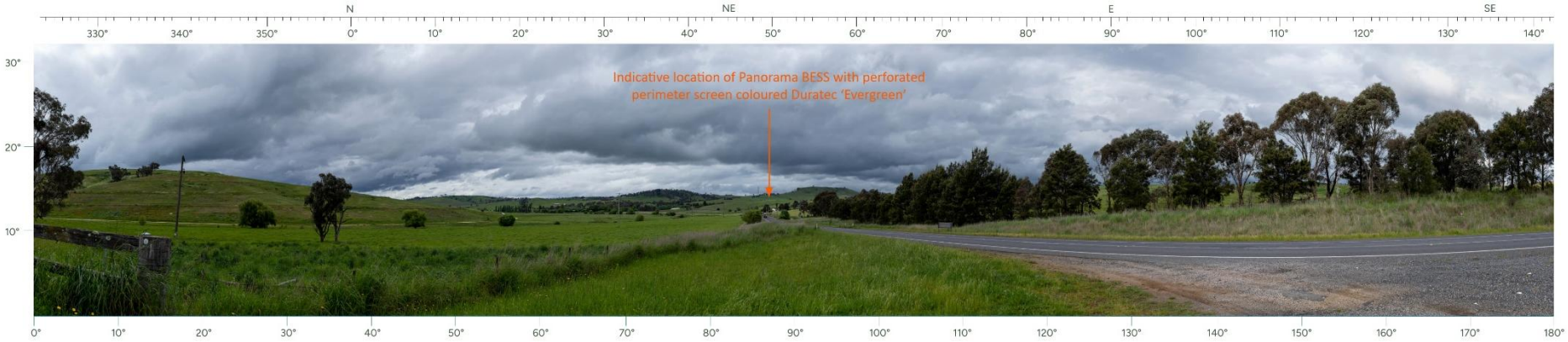
Vantage Point VP2	Summary of Visual Impact Assessment
Vantage point location	89 Stewart Street, Evans Plains NSW
Vantage point coordinates	33° 26' 17.322" S 149° 30' 1.764" E
Projection	Cylindrical (panorama)
Date of image capture	27 October 2022 7:26am
Camera (make and model)	Canon EOS 6D Mark II
Camera lens	EF 50mm (f/1.8STM)
Image HFoV & VFoV	180° (HVoF) & 34° (VFoV)
Direction of View	67.2° (northeast)
Elevation	783.6m
Distance from development	2495m toward proposed battery energy storage system (BESS)
Reduce evident use	High
Foreground elements	Unsealed road surrounding by low lying areas with pastoral grasses and agricultural activity
Midground elements	European trees; popular and other deciduous varieties surrounding rural suburban setting
Background elements	Undulating hills with pockets of scattered trees and minimal built form within a rural landscape character
Viewer motion	At speed (50-80km/h)
Usage	Local. Access to rural properties within the suburb of Evan Plains
Accessibility	Low. Access to adjoining properties
Visual baseline description	Unsealed road surrounding undulating low lying fields with scattered trees on grassed hillside
Receptor sensitivity rating	**Low** (*viewers whose interest is not specifically focused on landscape or scenic qualities* *(local residents, commuters and workers).*
Magnitude of change rating	**Low** *(landscape dominant element and built form / development well integrated within it)*
Impact significance rating	**Minor**
Mitigation measures	**Perforated steel perimeter screen to blend with its surrounding context by colour matching with natural elements.**
Post mitigation effect significant Rating	**Negligible / Very low**

Table 17: Vantage Point VP2 (Viewpoint ID 11) – Summary of Visual Impact (Technical Supplement)

Technical Supplement Ratings	Summary of Visual Impact (Technical Supplement)
Viewpoint sensitivity	**Low** *(Table 5 of the Tech. Supplement does not reflect the community values of the Bathurst region)*
Scenic quality	**High** *(Table 6 & 7 of the Tech. Supplement does not reflect the scenic quality values of Bathurst)*
Visual sensitivity	**Moderate** *(Rating moderated by taking community values of the Bathurst region into consideration)*
Visual magnitude	**Low** *(Rating applied as per above)*
Visual impact	**Low**

6.10.3 Vantage Point 3 (Viewpoint ID 24)

Photo 3: VP3 – Location Description



Viewpoint ID 24 180° [Vantage Point 3]

Vantage point 3 (33° 26' 54.774" S 149° 29' 52.488" E) is located approximately 2.9 kilometres from the Development Site. Viewing is a northeast direction at a bearing of 48.1°. This vantage point captures the potential visibility of the BESS within its surrounding rural landscape character of green undulating hills scattered with trees. The BESS would be located within the backdrop of an open undulating hills and pastoral fields.

Refer to appendix **Viewpoint ID 24** for enlarged image capture.

Table 18: Vantage Point VP3 (Viewpoint ID 24) – Summary of Visual Impact Assessment

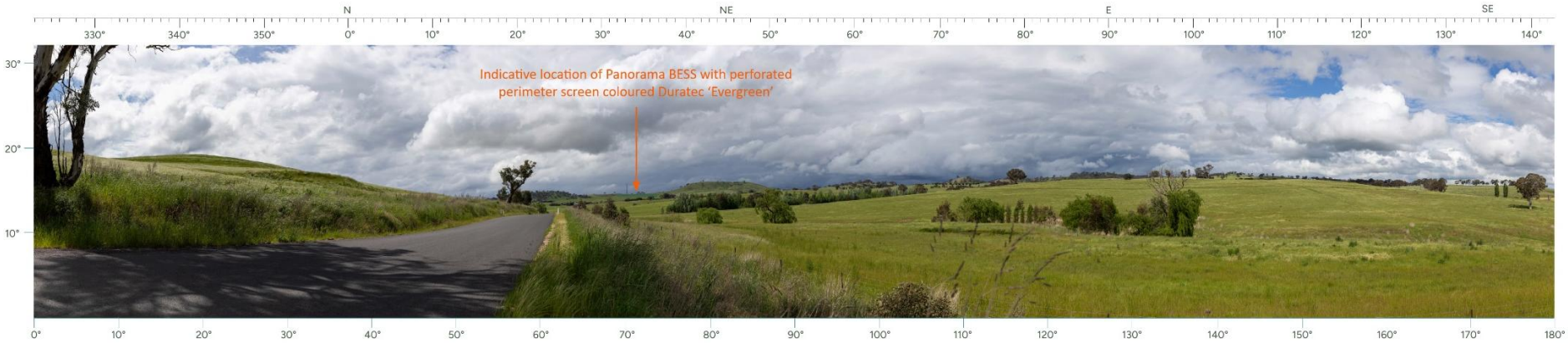
Vantage Point VP3	Summary of Visual Impact Assessment
Vantage point location	1022 Mid-Western Highway, Evans Plains NSW
Vantage point coordinates	33° 26' 54.774" S 149° 29' 52.488" E
Projection	Cylindrical (panorama)
Date of image capture	27 October 2022 1:37pm
Camera (make and model)	Canon EOS 6D Mark II
Camera lens	EF 50mm (f/1.8STM)
Image HFoV & VFoV	180° (HVoF) & 34° (VFoV)
Direction of View	48.1° (northeast)
Elevation	663.6m
Distance from development	2893m toward proposed battery energy storage system (BESS)
Reduce evident use	High
Foreground elements	Sealed highway surrounding by low lying areas with pastoral grasses and agricultural activity
Midground elements	Variety of endemic and exotic trees planted in a linear formation for wind break purposes
Background elements	Undulating hills with pockets of scattered trees and minimal built form within a rural landscape character
Viewer motion	At speed (80-100km/h)
Usage	Regional. Access to surrounding town centres such as Blayney. Main road to numerous properties. Main industry and tourist route. Gateway into Bathurst Regional Centre.
Accessibility	High. Access to surrounding town centres
Visual baseline description	Unsealed road surrounding undulating low lying fields with scattered trees on grassed hillside
Receptor sensitivity rating	**High** *(Visitors to heritage sites, regionally important locations,* ***scenic routes / gateways****, lookouts within 2-3km (or closer) with quality views, important views of the site and surrounding areas where landscape is a specific focus)*
Magnitude of change rating	**Low** *(landscape dominant element and built form / development well integrated within it)*
Impact significance rating	**Moderate**
Mitigation measures	**Perforated steel perimeter screen to blend with its surrounding context by colour matching with natural elements.**
Post mitigation effect significant Rating	**Negligible / Very low**

Table 19: Vantage Point VP3 (Viewpoint ID 24) – Summary of Visual Impact (Technical Supplement)

Technical Supplement Ratings	Summary of Visual Impact (Technical Supplement)
Viewpoint sensitivity	**Moderate** *(Table 5 of the Tech. Supplement does not reflect the community values of the Bathurst region)*
Scenic quality	**High** *(Table 6 & 7 of the Tech. Supplement does not reflect the scenic quality values of Bathurst)*
Visual sensitivity	**High** *(Rating moderated by taking community values of the Bathurst region into consideration)*
Visual magnitude	**Low** *(Rating applied as per above)*
Visual impact	**Moderate** *(Perforated steel perimeter screen to blend with its surrounding context by colour matching with natural elements)*

6.10.4 Vantage Point 4 (Viewpoint ID 27)

Photo 4: VP4 – Location Description



Viewpoint ID 27 180° [Vantage Point 4]

Vantage point 4 (33° 27' 4.356" S 149° 30' 34.782" E) is located approximately 2.5 kilometres from the Development Site. Viewing is a north - northeast direction at a bearing of 33.4°. This vantage point captures the potential visibility of the BESS within its surrounding rural landscape character of green undulating hills scattered with trees.

Refer to appendix **Viewpoint ID 27** for enlarged image capture.

Table 20: Vantage Point VP4 (Viewpoint ID 27) – Summary of Visual Impact Assessment

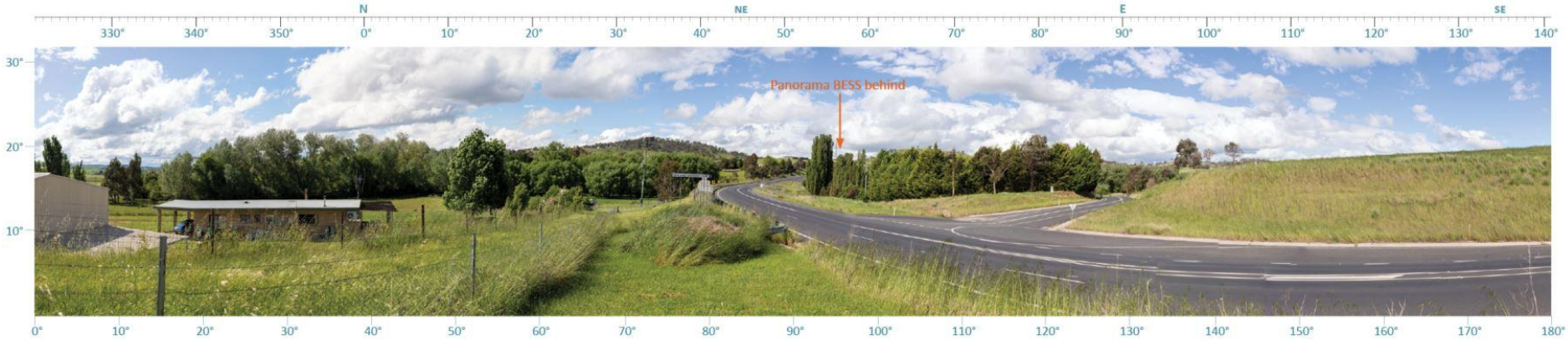
Vantage Point VP4	Summary of Visual Impact Assessment
Vantage point location	663 Hen and Chicken Lane, Evans Plains NSW
Vantage point coordinates	33° 27' 4.356" S 149° 30' 34.782" E
Projection	Cylindrical (panorama)
Date of image capture	27 October 2022 1:54pm
Camera (make and model)	Canon EOS 6D Mark II
Camera lens	EF 50mm (f/1.8STM)
Image HFoV & VFoV	180° (HVoF) & 34° (VFoV)
Direction of View	48.1° (Northeast)
Elevation	682.9m
Distance from development	2464m from proposed battery energy storage system (BESS)
Reduce evident use	High
Foreground elements	Sealed road surrounding by low lying areas with pastoral grasses
Midground elements	Open fields with pastural grasses for grazing cattle
Background elements	Undulating hills will pockets scattered trees and minimal built form with a rural landscape character
Viewer motion	At speed (50-80km/h)
Usage	Local. Access to rural properties and connection to surrounding towns such as Perthville
Accessibility	High. Access between Mid-Western Highway (A41) & Vale Road
Visual baseline description	Sealed road surrounding undulating low lying fields with scattered trees on grassed hillside
Receptor sensitivity rating	**Medium** *(viewers beyond 2-3km from the site with a moderate interest in their surrounds)*
Magnitude of change rating	**Low** *(landscape dominant element and built form / development well integrated within it)*
Effect significance rating	**Minor - Moderate**
Mitigation measures	**Perforated steel perimeter screen to blend with its surrounding context by colour matching with natural elements.**
Post mitigation effect significant Rating	**Negligible / Very low**

Table 21: Vantage Point VP4 (Viewpoint ID 27) – Summary of Visual Impact (Technical Supplement)

Technical Supplement Ratings	Summary of Visual Impact (Technical Supplement)
Viewpoint sensitivity	**Low** *(Table 5 of the Tech. Supplement does not reflect the community values of the Bathurst region)*
Scenic quality	**High** *(Table 6 & 7 of the Tech. Supplement does not reflect the scenic quality values of Bathurst)*
Visual sensitivity	**Moderate** *(Rating moderated by taking community values of the Bathurst region into consideration)*
Visual magnitude	**Low** *(Rating applied as per above)*
Visual impact	**Low**

6.10.5 Vantage Point 5 (Viewpoint ID 34)

Photo 5: VP5 – Location Description



Viewpoint ID 34 180° [Vantage Point 5]

Vantage point 5 (33° 26' 20.25" S 149° 30' 24.126" E) is located approximately 1.6 kilometres from the Development Site. Viewing is a north-northeast direction at a bearing of 56.1°. This vantage point demonstrates the type of vegetated screening that occurs in private properties that reduces the visibility of the Development Site. Removal of vegetation on private properties is a common occurrence. Recommendations is to provide visually attenuate the BESS by integrating it with its surrounding context to avoid it altering the distinct rural landscape setting within the gateways to Bathurst regional centre.

Refer to appendix **Viewpoint ID 34** for enlarged image capture.

Table 22: Vantage Point VP5 (Viewpoint ID 34) – Summary of Visual Impact Assessment

Vantage Point VP5	Summary of Visual Impact Assessment
Vantage point location	491 Evans Plains Road, Evans Plains NSW
Vantage point coordinates	33° 26' 20.25" S 149° 30' 24.126" E
Projection	Cylindrical (panorama)
Date of image capture	27 October 2022 2:52pm
Camera (make and model)	Canon EOS 6D Mark II
Camera lens	EF 50mm (f/1.8STM)
Image HFoV & VFoV	180° (HVoF) & 34° (VFoV)
Direction of View	56.1° (Northeast)
Elevation	663.1m
Distance from development	1604m from proposed battery energy storage system (BESS)
Reduce evident use	High
Foreground elements	Sealed highway surrounding by low lying areas with pastoral grasses and agricultural activity
Midground elements	Variety of endemic and exotic trees planted in a linear formation for wind break purposes
Background elements	Undulating hills will pockets scattered trees and minimal built form with a rural character
Viewer motion	At speed (80-100km/h)
Usage	Regional. Access to surrounding town centres such as Blayney. Main road to numerous properties. Main industry and tourist route. Gateway into Bathurst Regional Centre.
Accessibility	High. Access to surrounding town centres
Visual baseline description	Sealed highway surrounding undulating low lying fields with groups of trees on grassed hillside that create vistas
Receptor sensitivity rating	**High** *(Visitors to heritage sites, regionally important locations,* ***scenic routes / gateways****, lookouts within 2-3km (or closer) with quality views, important views of the site and surrounding areas where landscape is a specific focus)*
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor-Moderate**
Mitigation measures	**Perforated steel perimeter screen to blend with its surrounding context by colour matching with natural elements.**
Post mitigation effect significant Rating	**Negligible / Very low**

Table 23: Vantage Point VP5 (Viewpoint ID 34) – Summary of Visual Impact (Technical Supplement)

Technical Supplement Ratings	Summary of Visual Impact (Technical Supplement)
Viewpoint sensitivity	**Moderate** *(Table 5 of the Tech. Supplement does not reflect the community values of the Bathurst region)*
Scenic quality	**High** *(Table 6 & 7 of the Tech. Supplement does not reflect the scenic quality values of Bathurst)*
Visual sensitivity	**High** *(Rating moderated by taking community values of the Bathurst region into consideration)*
Visual magnitude	**Very low** *(Rating equates to Negligible and applied as per above)*
Visual impact	**Low**

7.0 Summary of Assessment for Public Receptors

The summary of the assessment for the public vantage point locations were objectively assessed for their sensitivity of change and the likelihood for these points to be impacted by the proposed development.

As identified in the local government planning documents viewing corridors such as highways, sealed and unsealed roads within the Bathurst Region can be considered as having a scale of scenic quality based upon the volume of visitations. This is reflected by rating scenic quality and / or receptor sensitivity as High for highways, Medium for sealed collector roads and Low for unsealed local roads due to the volume of motorists that frequent these viewing corridors.

Table 24: Summary of Visual Impact Ratings for Each Public Vantage Point

Vantage Points	Receptor Sensitivity	Magnitude of Change	Effect Significance
VP1	Medium	Low	Minor-Moderate
VP2	Low	Low	Minor
VP3	High	Low	Moderate
VP4	Medium	Low	Minor-Moderate
VP5	High	Negligible	Minor-Moderate

All public receptor key vantage were selected based upon the following:

- visibility results determined in the zone of theoretically indicating visual impact for the proposed development.
- site observations that demonstrated clear unencumbered vantage points of the site within public locations.
- relevance to the state and local planning principles, aims, objectives and strategies where receptor points identified landscape and scenic values that related to the protection of views and vistas.

The summary of the visual impact rating demonstrate that locations ranged from **High** to **Low** receptor sensitivity. This was due to:

- *regionally important locations, scenic routes / gateways… with quality views important views of the site and surrounding areas where landscape is the specific focus.*

The magnitude of change presented results ranging from **Low** (noticeable change) to **Negligible** (barely perceptible change). This was due to:

- *minor memorable change to the landscape or views; and*
- *no memorable or rarely perceptible change to landscape character of key views.*

Overall, these results provided effect significant ratings of **Moderate** to **Minor**. This is mainly due to the higher rating identified for receptor sensitivity and by the scenic and landscape values identified in the state and local planning documents.

The site is located within an elevated position and is considered to be part of the ridgelines and hilltops. Within the Bathurst region these are anticipated to be protected for its scenic value. However, due to the proposed infrastructure components having a compact form and low heights minimises the potential for visual impact within its surrounding landscape character.

8.0 Summary of Assessment for Public Receptor Technical Supplement

The summary of the assessment for the public vantage point locations were objectively assessed as per stages 3 (visual sensitivity) and 4 (visual impact) of the Technical Supplement. Guidelines for visual magnitude rating was not utilised as it cannot be applied to the proposed development due its specific parameters for assessing solar arrays.

Table 25: Summary of Visual Impact Ratings for Each Public Vantage Point as per Technical Supplement Process

Vantage Points	Viewpoint Sensitivity	Scenic Quality	Visual Sensitivity	Visual Magnitude	Visual Impact	Post Mitigation Visual Impact
VP1	Moderate	High	High	Low	**Moderate**	**Negligible / Very Low**
VP2	Low	High	Moderate	Low	**Low**	**Negligible / Very Low**
VP3	Moderate	High	High	Low	**Moderate**	**Negligible / Very Low**
VP4	Low	High	Moderate	Low	**Low**	**Negligible / Very Low**
VP5	Moderate	High	High	Very low	**Low**	**Negligible / Very Low**

9.0 Post-mitigation effect significance results

Post-mitigation visual impact assessments for VP1, VP2, VP3, and VP4 resulted in **negligible** / **very low** significance ratings. This outcome is primarily attributed to the effectiveness of the proposed perforated steel perimeter screen, which substantially reduces visibility of the infrastructure components from key viewpoints. To ensure the screen blends with its surrounding context, it is finished in a recessive colour. Refer to **Appendix C** for further detail on the screening strategy.

10.0 Summary of Assessment for Private Receptors

Details of the nearby private receptors are identified in **Table 26** as having potential visibility of the proposed Development Site. The likelihood of potential impacts varies considerably due to:

- the location / orientation of the private receptor;
- existing tree canopy and screening vegetation;
- site location and orientation; and
- topography on and surrounding the Development Site.

Private receptor locations were captured in proximity to private residence usually within the front vehicle entrance or adjacent the property boundary. Access into private property was limited and only occurred from driveway locations and when permitted by property owners to do so.

The summary of the impact significance rating for private receptors varied from **Moderate** to **Negligible**. The reduced visibility results were due to:

- existing vegetation reducing visibility to the Development Site.
- location of receptor in relation to adjacent topography.
- orientation of the private receptor in relation to the Development Site.

Distance of the receptor to the Development Site did not play a significant role due to the numerous unobstructed views and vista within the undulating terrain. This produced **High** to **Negligible** sensitivity results as there were clear sightlines toward the Development Site.

The magnitude rating was generally **Medium** to **Negligible**. This was due to the scale and height of the proposed built form only presenting minimal evident use with its surrounding landscape context.

Private receptors that had a **Minor**, **Minor – Negligible** and **Negligible** impact significance rating included:

- [ID 7] 16 Stewart Street, Evans Plains
- [ID 12] 447 Evans Plains Road, Evans Plains
- [ID 13 & 14] 19 Stewart Street, Evans Plains
- [ID 15 & 16] 27 Stewart Street, Evans Plains
- [ID 19 & 20] 491 Evans Plains Road, Evans Plains
- [ID 21] 27 Windemere Road, Robin Hill
- [ID 25] 1022 Mid-Western Highway, Evans Plains
- [ID 31] 814 Hen and Chicken Lane, Evans Plains
- [ID 32] 337 Evans Plains Road, Evans Plains
- [ID 33] 82 Marys Lane, Dunkeld

Private receptors that had a **Moderate** impact significance rating included:

- [ID 6] 800 Mid-Western Highway, Evans Plains **this address is a host landowner.*
- [ID 9] 90 Stewart Street, Evans Plains

In all instances, any impact significance rating can be reduced by minimising the evident use of the development by integrating it within its surroundings. To achieve this a perforated steel perimeter screen finished with a recessive colour is proposed. Refer to **Appendix C.**

Table 26: Nearby Private Receptors

ID	Address	Location	Distance from Development	Impact Significance Rating	Post Mitigation Impact Significance Rating
6*	800 Mid-Western Hwy, Evans Plains	33° 25' 59.592"S 149° 30' 53.346"E	632m NE	Moderate	Negligible / Very Low
7	19 Stewart Street, Evans Plains	33° 26' 2.334" S 149° 30' 44.898" E	906m NE	Minor-Negligible	Negligible / Very Low
9	90 Stewart St, Evans Plains	33° 26' 23.988"S 149° 29' 33.372" E	2834m NE	Moderate	Negligible / Very Low
12	447 Evans Plains Rd, Evans Plains	33° 25' 54.336"S 149° 30' 20.016"E	1418m NE	Minor-Negligible	Negligible / Very Low
13 & 14	19 Stewart St, Evans Plains	33° 26' 10.614"S 149° 30' 41.88"E	1069m NE	Minor	Negligible / Very Low
15 & 16	27 Stewart St, Evans Plains	33° 26' 11.124"S 149° 30' 35.76"E	1213m NE	Minor-Negligible	Negligible / Very Low
19 & 20	491 Evans Plains Rd, Evans Plains	33° 26' 21.768"S 149° 30' 20.46"E	1720m NE	Minor-Negligible	Negligible / Very Low
21	27 Windemere Rd, Robin Hill	33° 25' 42.942" S 149° 32' 0.99" E	1180m SW	Negligible	Negligible / Very Low
25	1022 Mid-Western Hwy, Evans Plains	33° 27' 0.882"S 149° 29' 47.136"E	3145m NE	Minor-Negligible	Negligible / Very Low
31	814 Hen and Chicken Ln, Evans Plains	33° 26' 20.328"S 149° 30' 28.338"E	1525m NE	Minor	Negligible / Very Low
32	337 Evans Plains Rd, Evans Plains	33° 25' 32.298"S 149° 30' 3.642"E	1954m SE	Minor-Negligible	Negligible / Very Low
33	82 Marys Lane, Dunkeld	33° 24' 35.082"S 149° 28' 35.94"E	4746m SE	Minor-Negligible	Negligible / Very Low
Refer to appendix for enlarged image captures and impact significant ratings.					

**800 Mid-Western Hwy, Evans Plains is a is a host landowner*

11.0 Visual impact on future anticipated development

Outlined in the letter dated 14 August 2024, Bathurst Regional Council raises the potential for rural residential expansion of the Zone R5 – Large Lot Residential, located north of the Project Site. It states that consideration to the assessment process should acknowledge any potential for visual impact. The following excerpt from the NSW Planning Portal Spatial Viewer indicates the site in question, known as Lot 89/-/DP270167 Hartwood Avenue Robin Hill. Refer to **Figure 13**.

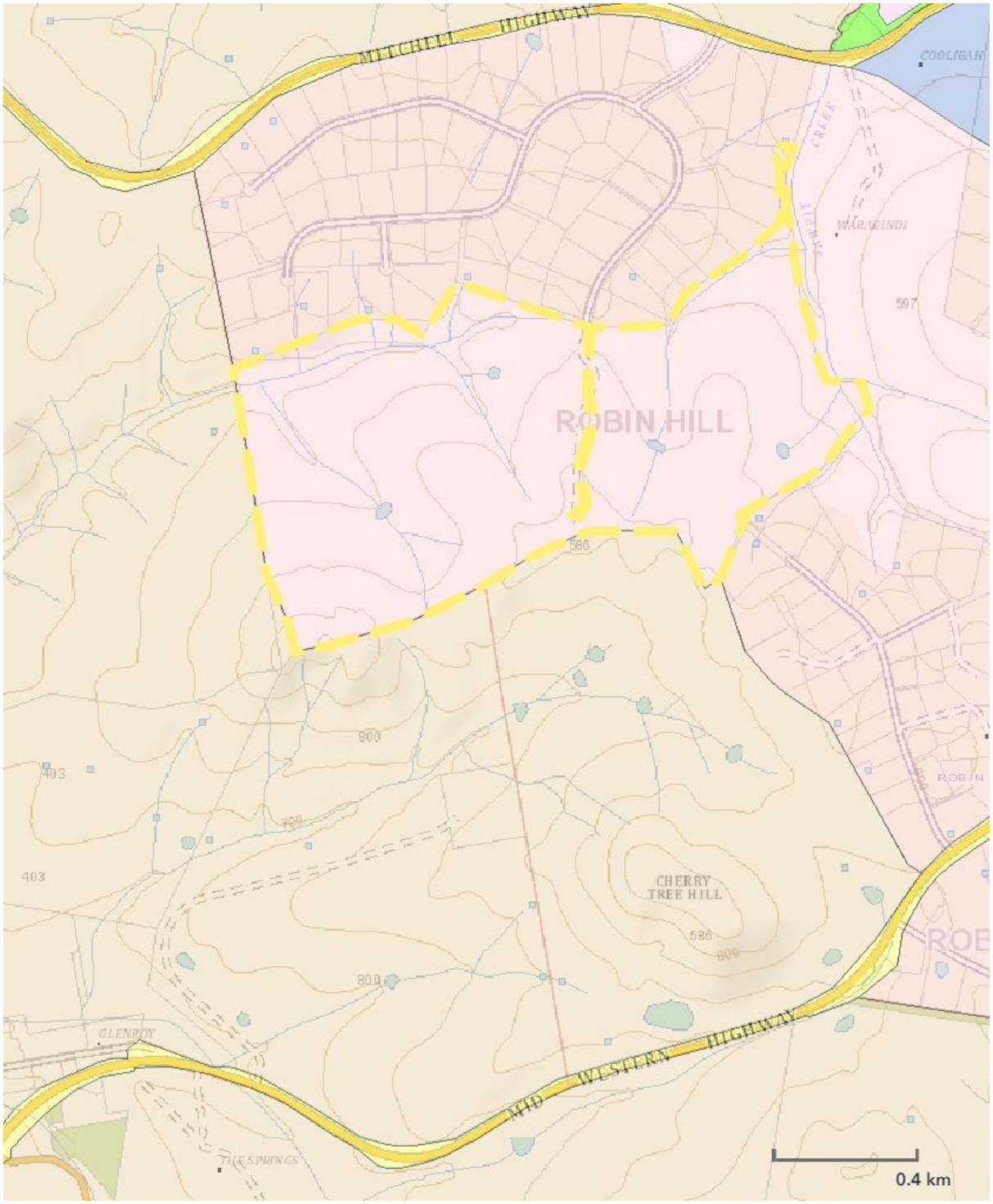


Figure 13 Zone R5 Lot 89/-/DP270167 Hartwood Avenue Robin Hill

11.1 Bathurst Regional Local Environmental Plan 2014

Zone R5 – Large Lot Residential aims to provide residential housing in rural settings while balancing the preservation of the environment, scenic quality, and the promotion of rural lifestyles. LEP 2014 states the following relevant objectives:

Objectives of the zone

- *To provide residential housing in a rural setting while preserving, and minimising impacts on, environmentally sensitive locations and scenic quality.*

Response

The Proposed BESS Facility within Zone R5 aligns with the objectives of the Bathurst Regional Local Environmental Plan 2014 by ensuring that the intrinsic nature of the terrain and site orientation contribute to the visual containment of infrastructure components associated with the Proposed BESS Facility.

The Subject Site exhibits a natural variation in elevation, ranging from approximately 780 metres to 710 metres above sea level, with a prevailing northerly orientation away from the Subject Site. In contrast, the Proposed BESS Facility is located at a lower relative level 741 metres above sea level. This elevation difference results in a natural downward slope away from the infrastructure, reducing its visual prominence within the Subject Site. Furthermore, the southern boundary of Lot 89/-/DP270167 features a high ridgeline up to 790 metres above sea level. This topographical feature effectively contains localised views toward the Proposed BESS Facility. The ridgeline acts as a visual barrier, minimising any potential visual impact on surrounding potential land uses and ensuring that the development remains consistent with the intended rural character of the area.

This assessment is substantiated by the visibility analysis presented in **Figure 14**. The viewshed analysis clearly demonstrates that the terrain elevation north of the Proposed BESS Facility provides visual containment, limiting the extent to which the infrastructure components are visible from external viewpoints. This evidence confirms that the proposed development is responsive to the existing landscape and topography, thereby meeting the objective of Zone R5 by preserving the visual amenity of the locality.

In addition to meeting the objectives, a perforated steel perimeter screen finished with a recessive colour is proposed to mitigate views into the proposed BESS Facility. This will be added to the southern, western and part of the northern periphery of the BESS site. For further details of the proposed design refer to **Appendix C**.

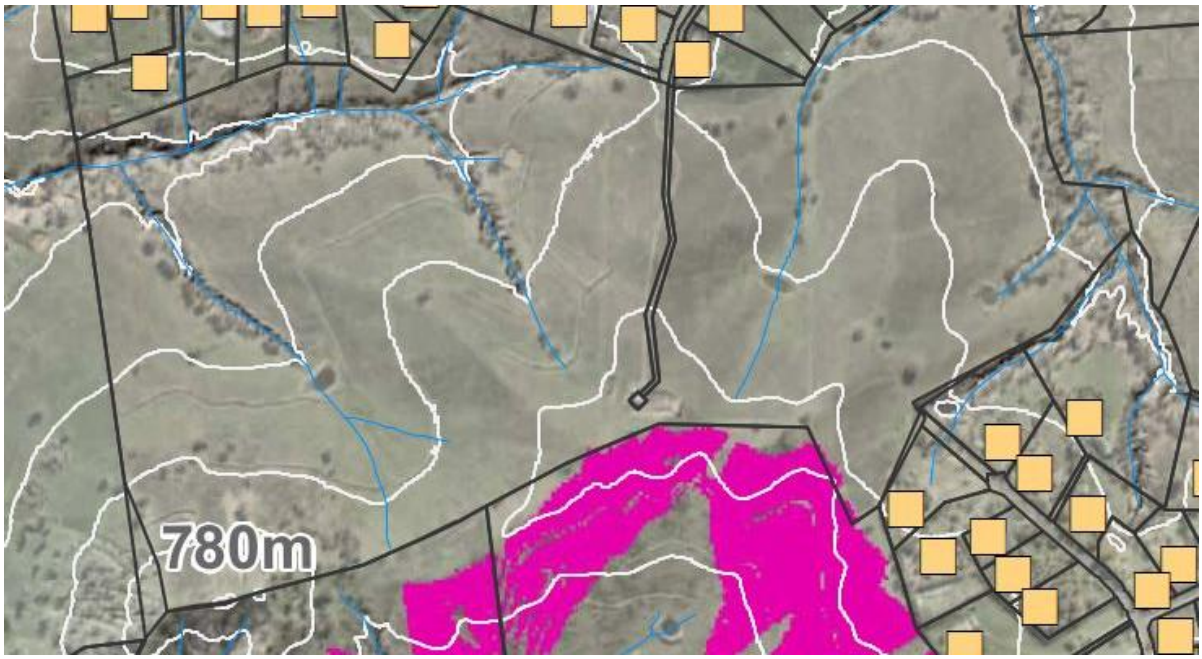


Figure 14 Lot 89/-/DP270167 visibility results excerpt

12.0 Limitations and Assumptions

The following limitations and assumptions were identified in preparing the LVIA. These include:

- modelling was based on the information provided by the client and includes assumptions on the extent of required bulk earthworks.
- locating the assumed Development Site extent of works within key vantage point image data were based on the information available.
- material choice and reflectivity impacts will be mitigated through the visual management plan, which will consider material and external façade treatments to determine its contrasting and reflectivity within its surrounding context.
- it is assumed that all lighting is restricted to emergency lighting only and will be designed and operated in accordance with AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting.
- LiDAR information for a portion of the southwest not available between a 3-5km buffer radius from proposed development; and
- Technical Supplement guides are designed to assess visual impact of Large-scale solar, preliminary assessment and measurement tools designed specifically visual characteristics of arrays and not BESS.
- viewing corridors such as highways, sealed and unsealed roads are scaled for scenic sensitivity based upon its assumed volume of visitations.

To address the limitations identified, a conservative approach to assumptions has been made, and mitigation measure proposed accordingly.

13.0 Mitigation Measures

Mitigation measures can be effectively achieved for the site, through a range of options. The proposed mitigation is to colour all visible infrastructure elements to blend with its surrounding context by colour matching with natural elements. This strategy will effectively mitigate the proposal to the surrounds.

The following table includes examples from the Bathurst Planning context in managing scenic amenity for the region. Consultation with the owners of 800 Mid-Western Highway, Evans Plains NSW has also taken place in relation to potential mitigation measures from this dwelling. This dwelling is on the site of the proposal and already has the benefit of an established landscaped screen. It is noted that 800 Mid-Western Highway is a host landowner.

Table 27: Mitigation Measures

Planning Instrument	Relevant Action	Mitigation Measure	Reducing the Effect Significance
Bathurst Region Rural Strategy 2010	*Avoid locating new development on ridges and hilltops.*	**Reduce the presence of the infrastructure by reducing its visibility within an elevated location. Such as locating behind existing terrain.**	Following the implementation of the prescribed mitigation measures identified the development would blend into its surrounds, the magnitude of change rating would reduce to **Negligible** or **Very low** magnitude of change; this is described as: • *no memorable or rarely perceptible change to landscape character or key views.*
	Require the use of building materials that are naturally textured and coloured and are sympathetic to the natural environment and are not reflective.	**All infrastructure elements visible from private receptor points and public vantage points to blend in with its surrounding context by colour matching with natural elements.**	
Bathurst Vegetation Management Plan 2019	*Plan for urban development to protect the rural landscape and to provide a sense of containment of the built environment.*	**See above and below**	
	Ensure rural landscapes retain the visual characteristics of such a landscape with the advent of any future development.	**Utilise species from the endemic Central Tableland Clay Apple Box Grassy Forest (PCT3366), plant around the existing stand of trees above the site and establishing new stands of trees below the site (Where practical to do so and at distances and spacing to meet APZ fire safety requirements in accordance with Appendix 4 of PBP 2019). This creates vegetative buffering that is in character with its surroundings.**	

13.1 Proposed mitigation strategy

Outlined in the letter dated 14 August 2024, Bathurst Regional Council states the following:

> *" It remains unclear as to the extent to which any of the infrastructure can be colour matched to natural elements…". "The inclusion of "if possible" and " if required" does not provide any particular certainty as the final treatments being implemented and therefore the extent to which this moderate impact may be mitigated remains unresolved."*

To address Council's comments, further design development was undertaken to determine a visual mitigation strategy that effectively screens the infrastructure components and allows them to recede into the background. This process included investigations into the feasibility of both vegetative and structural screening solutions.

Given the site's topography and surrounding conditions, the spatial constraints both within and outside the required Asset Protection Zone (APZ) limited the feasibility of a vegetative screen. An evaluation of the anticipated visual change identified that the most noticeable views would occur from regionally significant viewing corridors at considerable distances.

These key viewing corridors include the Mid-Western Highway (eastbound) and Hen and Chicken Lane (northbound). The visual impact assessment highlights that the Proposed BESS Facility is located in an elevated position, adjacent to mid-distance undulating pastoral hills and ridgelines. This suggests that the facility can be visually integrated into its surrounding context by applying a colour-matched structural screen along the site's periphery. To illustrate this approach, a Landscape Concept Plan (LCP) has been prepared, detailing the proposed screening design.

13.1.1 Landscape Concept Plan

The landscape design for the Proposed BESS Facility incorporates perforated steel screening finished in a recessive colour palette to minimise visual impact and blend with the surrounding environment. The selected Duratec Intensity 'Evergreen' finish ensures the screening integrates with the natural landscape, reducing contrast and reflective light from its western orientation. The perforated panels are positioned to the visually exposed perimeter of the Proposed BESS Facility to provide effective visual screening while maintaining airflow and security. This approach ensures the surrounding hills and ridgelines remain the visual dominant element within the surrounding landscape that is characterised within the Bathurst Region when viewed from key viewing locations.

Refer below to **Figure 15** for the LCP. **Appendix C** includes the complete concept package including sections and material specifications.

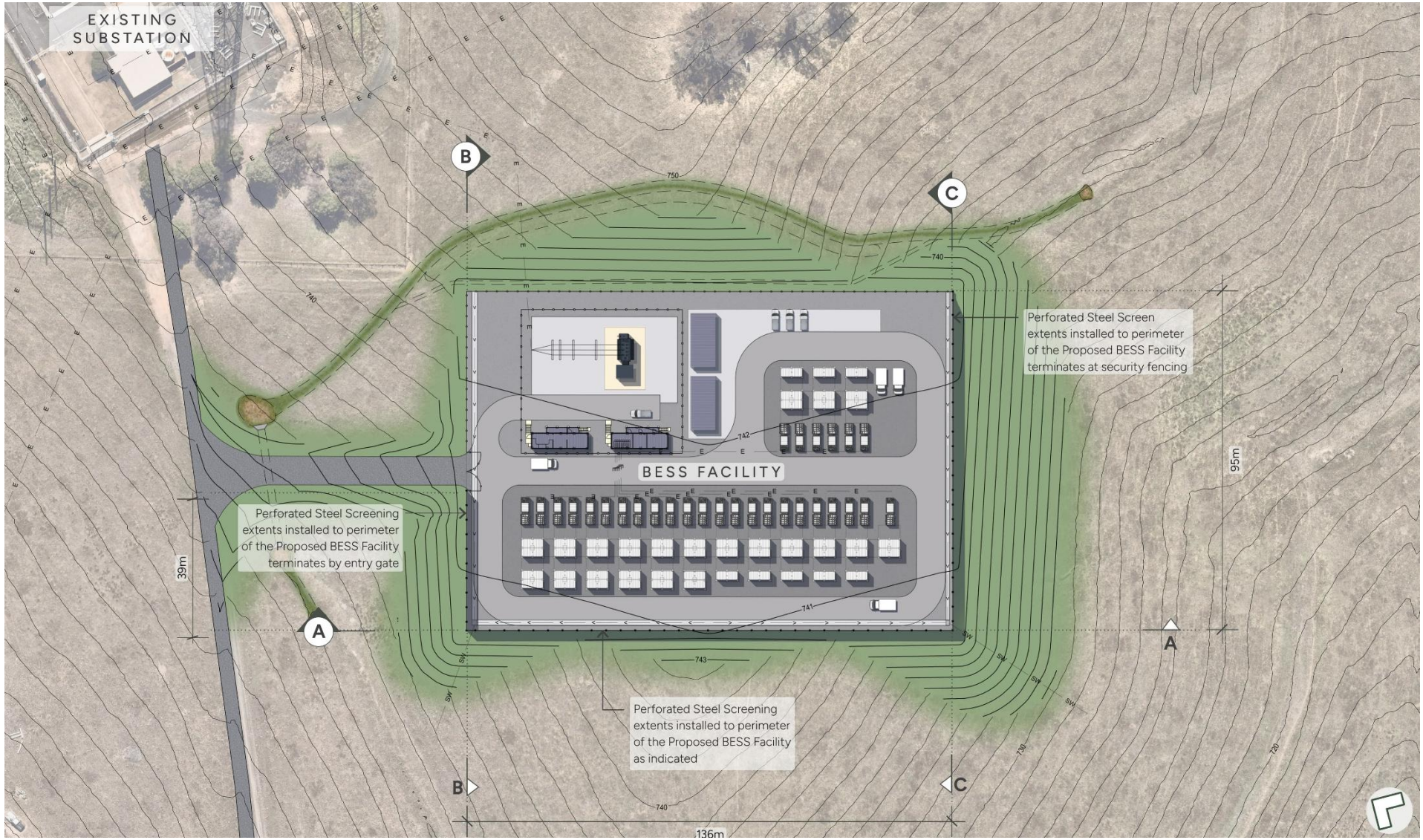


Figure 15 Landscape concept plan

14.0 Conclusion

Panorama BESS located at 800 Mid-Western Highway, Evan Plains and was assessed to evaluate the visual impact of the infrastructural components may have surrounding residences, scenic, or significant vistas and road corridors in the public domain. The assessment provided a planning context that related to the management of landscape and scenic values for the Bathurst region and drew upon the strategies, actions and aims outlined within these state and local planning documents to select relevant mitigation measures. These mitigation measures are informed by the analysis of the existing landscape character and the visual impact assessment of five (5) key public vantage points and several private receptor points.

At these five (5) keys public vantage points, the effect significance was identified to be Moderate to Minor; this was due to:

- higher rates of receptor sensitivity being located within an elevated position; and
- scenic and landscape values identified in the state and local planning documents.

As identified in the local government planning documents viewing corridors such as highways, sealed and unsealed roads within the Bathurst Region can be considered as having a scale of scenic quality based upon the volume of visitations. This is reflected by rating scenic quality and / or receptor sensitivity as High for highways, Medium for sealed collector roads and Low for unsealed local roads due to the volume of motorists that frequent these viewing corridors.

The nearby private receptors produced a range of significance impact ratings, from Moderate to Negligible; this range varied due to:

- existing vegetation reducing visibility;
- the location of receptor in relation to adjacent topography; and
- orientation of the private receptor in relation to the Development Site.

The five (5) key public vantage point locations were also objectively assessed as per stages 3 (visual sensitivity) and 4 (visual impact) of the Technical Supplement. Guidelines for visual magnitude rating was not utilised as it cannot be applied to the proposed development due its specific parameters for assessing solar arrays.

At these five (5) keys public vantage points, the effect significance was identified to be Moderate to Minor this was due to:

- higher rates of receptor sensitivity being located within an elevated position.
- scenic and landscape values identified in the state and local planning documents.

In all instances, any effect significance rating can be reduced by minimising the evident use of the development by integrating it within its surrounding context. In regard to the rating, this would see a reduction to the magnitude of change in the landscape character. Currently, the development is rated for magnitude of change is Low and Negligible with an effect significance of Moderate to Minor with no mitigation measures and is described as:

- minor memorable change to the landscape or views; and / or
- landscape dominant element and built form / development well integrated within it.

As per the Technical Supplement, a visual impact rating is **Moderate** to **Low**. Following the implementation of the prescribed mitigation measures identified, the development would blend into its surrounds, the magnitude of change rating would reduce to Negligible or Very low magnitude; this is described as:

- no memorable or rarely perceptible change to landscape character or key views.

This would reduce the effect significance at key vantage points to **Minor-moderate** to **Minor-negligible** and as described in the Technical Supplement, a visual impact rating of **Low** and **Very low**.

The existing land use adjacent to the site is not only rural in nature but also critical infrastructure. The BESS development is an anticipated development required to meet the changing needs for renewal energy infrastructure that is endorsed at all levels of government.

It is recommended that the proposed development consider the options of mitigation measures to meet the local and planning objectives in protecting and enhancing the rural scenic views and vistas that characterise Bathurst region by visually integrating it so that it blends in with its surrounding context. This is achieved installing a visual screen that blends in with its surrounding context and mitigate views of the Proposed BESS Facility.

14.1 Amendment report

The revised **LVIA** for the Panorama BESS directly responds to the key concerns raised by Bathurst Regional Council, particularly regarding visual impact, strategic context, and the potential future development of surrounding R5 Large Lot Residential-zoned land. The Amendment Report outlines key refinements, including the upgrade to Solbank 3.0 technology, adjustments to the Development Footprint, and the establishment of a clear visual mitigation strategy.

Bathurst Regional Council's 14 August 2024 submission emphasised the importance of considering future residential expansion within the R5 Large Lot Residential zone. The revised LVIA addresses this by preparing an LCP to ensure that the proposed mitigation measures are effective in maintaining visual amenity for sensitive viewing locations. The inclusion of 3.0-metre-high perforated screens is intended to demonstrate the clarity of the visual mitigation strategy, ensuring a structured and transparent approach to minimising the facility's prominence in the landscape.

By incorporating these refinements, the updated LVIA reinforces the project's commitment to minimising visual impact, maintaining the rural and scenic character of the area, and ensuring that the project aligns with Council's planning objectives for R5-zoned land.

15.0 References

15.1 Landscape Character and Visual Analysis

Bathurst Regional Council (DCP 2014), Bathurst Regional Council Development Control Plan 2017, Viewed 01 September 2022 & 01 March 2025.

Bathurst Regional Council (BRRS 2010), Bathurst Region Rural Strategy, Viewed 01 September 2022.

Bathurst Regional Council (LSPS 2020), Vision Bathurst 2040, Bathurst Region Local Strategic Planning Statement, Viewed 01 September 2022.

Department of Planning and Environment (DPE August 2022), Technical Supplement Landscape and Visual Impact Assessment; Large-scale Solar Energy Guideline, Viewed 01 September 2022.

Department of Planning and Environment (DPE December 2016), Wind Energy: Visual Assessment Bulletin; For State significant wind energy development, viewed 09 December 2022.

Department of Planning and Environment (DPE September 2021), The Trees Near Me NSW, Accessed 01 September 2022.

Department of Planning, Industry and Environment (DPIE November 2021), Draft Central West and Orana Regional Plan 2041, Viewed 01 September 2022.

Molino Stewart; Environment and Natural Hazards; Bathurst Vegetation Management Plan;

(Map A1 Date of Issue 31 January 2019)

Molino Stewart; Environment and Natural Hazards; Bathurst Vegetation Management Plan; Significant Vegetation & Natural Landscapes, (Map B1 Date of Issue 27 August 2018)

NSW Government, DP&E, Planning Secretary's Environmental Assessment Requirements; Application Number: SSD-50587460, (Date of Issue 09 December 2022)

NSW Government (2014) Environmental Planning and Assessment (Environmental Impact Statement) Regulation 2014 [online] Available at: https://legislation.nsw.gov.au/view/html/inforce/current/epi-2014-0729 (Accessed: 01 March 2025).

Planning Portal NSW, 2025. Spatial Viewer. Available at: https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address (Accessed 01 March 2025).

SLR November 2022 (SLR R01 v1.2 November 2022), Scoping Report; Panorama Battery Energy Storage System (BESS), 660.30234.00000-R010v1.2.

15.2 Geographic Information System

Bathurst Regional Local Environmental Plan 2014; Land Zoning Map – Sheet LZN_005DA; Map Identification Number 0470_COM_LZN_005DA_02020140321 (Accessed online January 2023 www.bathurst.nsw.gov.au)

LiDAR, (NSW 2011, 2012, 2019) New South Wales Government, https://elevation.fsdf.org.au/

Nearmap (Nearmap 2023) (Updated 25 February 2023). Bathurst NSW 2795, Australia. Retrieved from http://maps.au.nearmap.com/

Appendix A Public Vantage Points

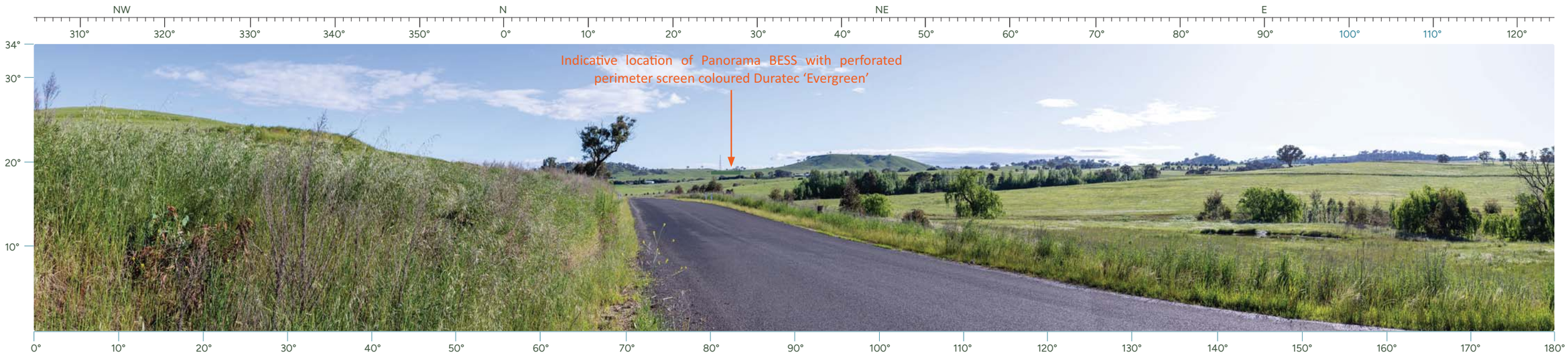
Landscape and Visual Impact Assessment

Panorama Battery Energy Storage System (BESS)

Panorama BESS Subco Pty Ltd

SLR Project No.: 660.30234.00000

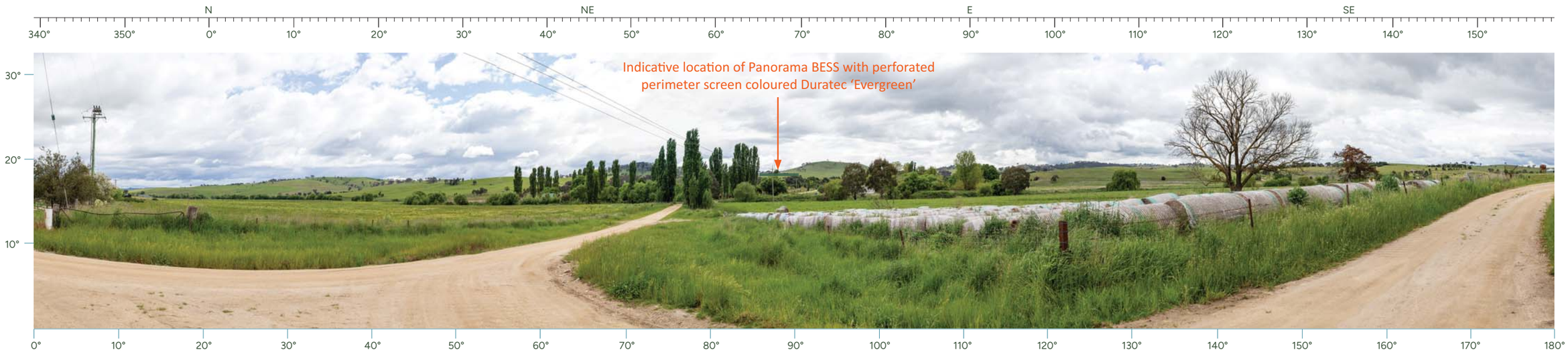
21 April 2025



Viewpoint ID 3 180° [Vantage Point VP1]

Viewpoint ID 3	Description
Viewpoint location	663 Hen and Chicken Lane, Bathurst NSW
Viewpoint coordinates	33°27'3.75" S 149°30'35.34" E
Date of capture	27 October 2022 7:24am
Direction of view	25.4° (north-northeast)
Distance from development	2495m toward proposed battery energy storage system (BESS)
Elevation	707.5m
Viewer motion	At speed (50-80km/h)
Usage	Local. Access to rural properties and connection to surrounding towns such as Perthville.
Receptor sensitivity	**High**
Magnitude of change rating	**Low**
Impact significance rating	**Moderate**
Post mitigation significance rating	**Negligible/ very low**

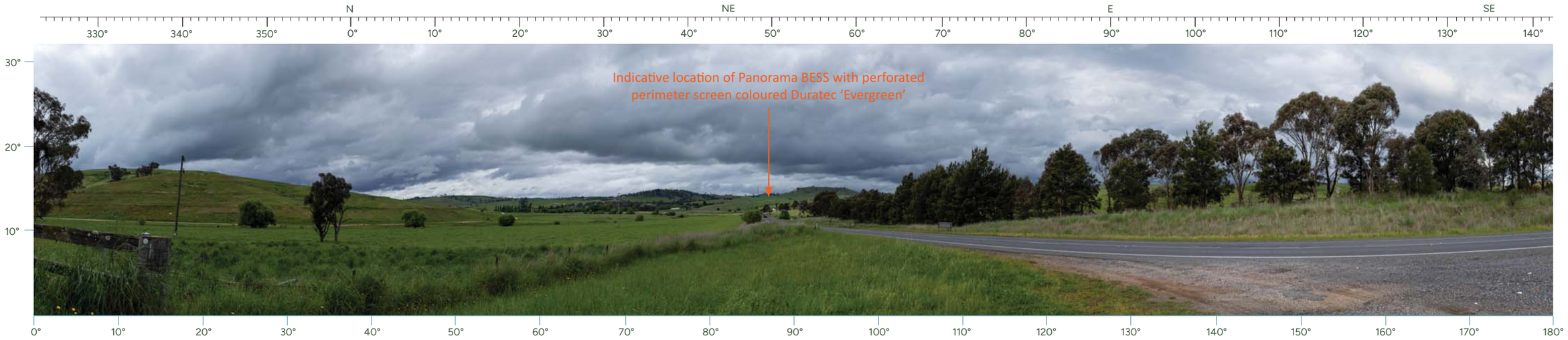
Viewpoint Location Map NTS



Viewpoint ID 11 180° [Vantage point 2]

Viewpoint ID 11	Description
Viewpoint location	89 Stewart Street, Evans Plains NSW
Viewpoint coordinates	33° 26' 17.322" S 149° 30' 1.764" E
Date of capture	27 October 2022 9:26am
Direction of view	67.2° (northeast)
Distance from development	2168m toward proposed battery energy storage system (BESS)
Elevation	783.6m
Viewer motion	At speed (50-80km/h)
Usage	Local. Access to adjoining properties
Receptor sensitivity	**High**
Magnitude of change rating	**Low**
Impact significance rating	**Moderate**
Post mitigation significance rating	**Negligible/ very low**

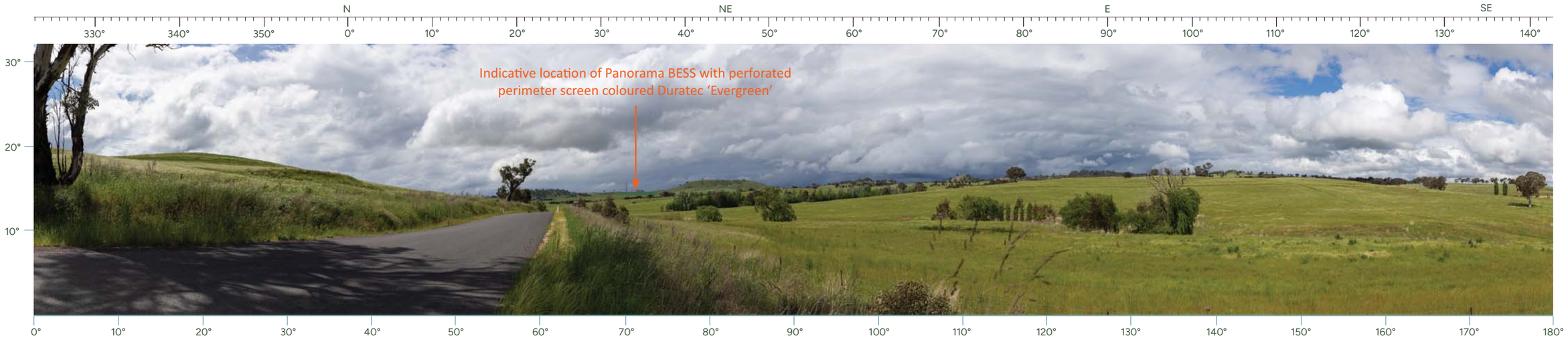
Viewpoint Location Map NTS



Viewpoint ID 24 180° [Vantage Point 3]

Viewpoint ID 24	Description
Viewpoint location	1022 MID-Western Highway, Evans Plains NSW
Viewpoint coordinates	33° 26' 54.774" S 149° 29' 52.488" E
Date of capture	27 October 2022 1:37pm
Direction of view	48.1° (northeast)
Distance from development	2893m toward proposed battery energy storage system (BESS)
Elevation	663.6
Viewer motion	At speed (80-100km/h)
Usage	Regional. Access to surrounding town centres such as Blayney. Main road to numerous properities. Main industry and tourist. Gateway into Bathurst regional centre.
Receptor sensitivity	**High**
Magnitude of change rating	**Low**
Impact significance rating	**Moderate**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS



Viewpoint ID 27 180° [Vantage Point 4]

Viewpoint ID 27	Description
Viewpoint location	663 Hen and Chicken Lane, Evans Plains NSW
Viewpoint coordinates	33° 27' 4.356" S 149° 30' 34.782" E
Date of capture	27 October 2022 1:54pm
Direction of view	33.4° (north-northeast)
Distance from development	2464m toward proposed battery energy storage system (BESS)
Elevation	682.9m
Viewer motion	At speed (50-80km/h)
Usage	Local. Access to rural properties and connection to surrounding towns such as Perthville
Receptor sensitivity	**High**
Magnitude of change rating	**Low**
Impact significance rating	**Moderate**
Post mitigation significane rating	**Negligible/ very low**

Viewpoint Location Map NTS

Appendix B Private and Public Viewpoints

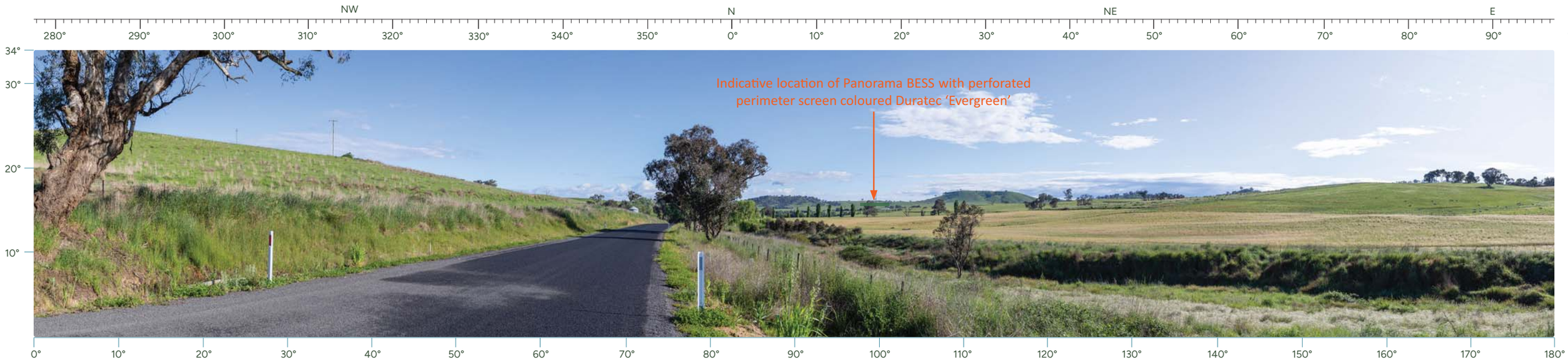
Landscape and Visual Impact Assessment

Panorama Battery Energy Storage System (BESS)

Panorama BESS Subco Pty Ltd

SLR Project No.: 660.30234.00000

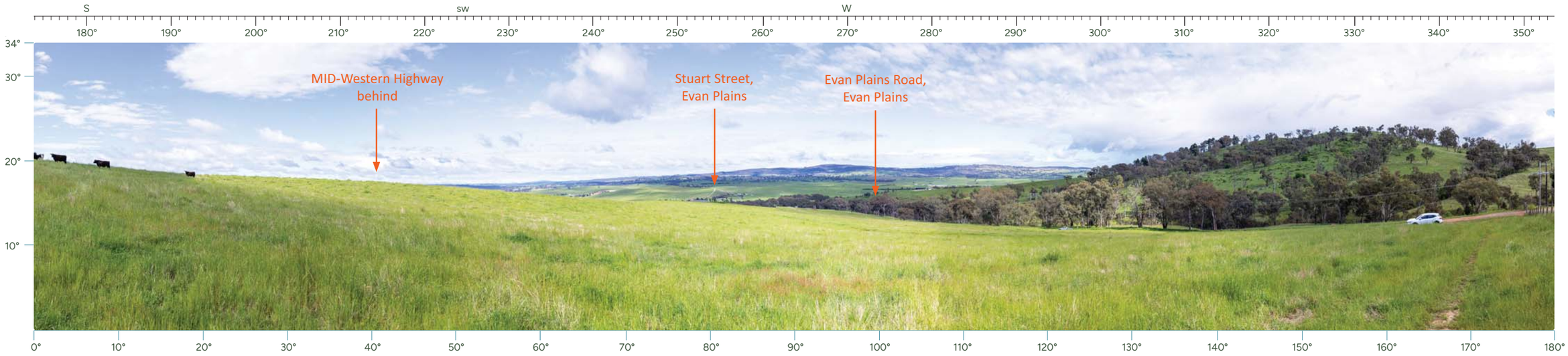
21 April 2025



Viewpoint ID 2 180°

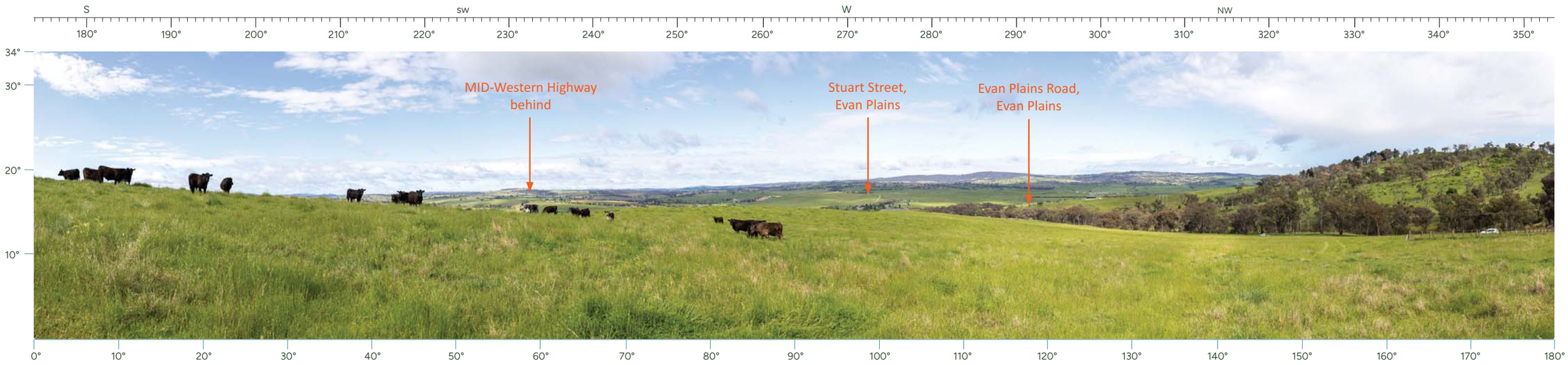
Viewpoint ID 2	Description
Viewpoint location	663 Hen and Chicken Lane, Bathurst NSW
Viewpoint coordinates	33° 27' 29.394" S 149° 30' 34.968" E
Date of capture	27 October 2022 7:14am
Direction of view	19.4° (north)
Distance from development	2871m toward proposed battery energy storage system (BESS)
Elevation	692.6m
Viewer motion	At speed (80-100km/h)
Usage	Low. Access to rural resIDence, agricultural industries and connection to surrounding towns such as Perthville
Receptor sensitivity	**High**
Magnitude of change rating	**Low**
Impact significance rating	**Moderate**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS



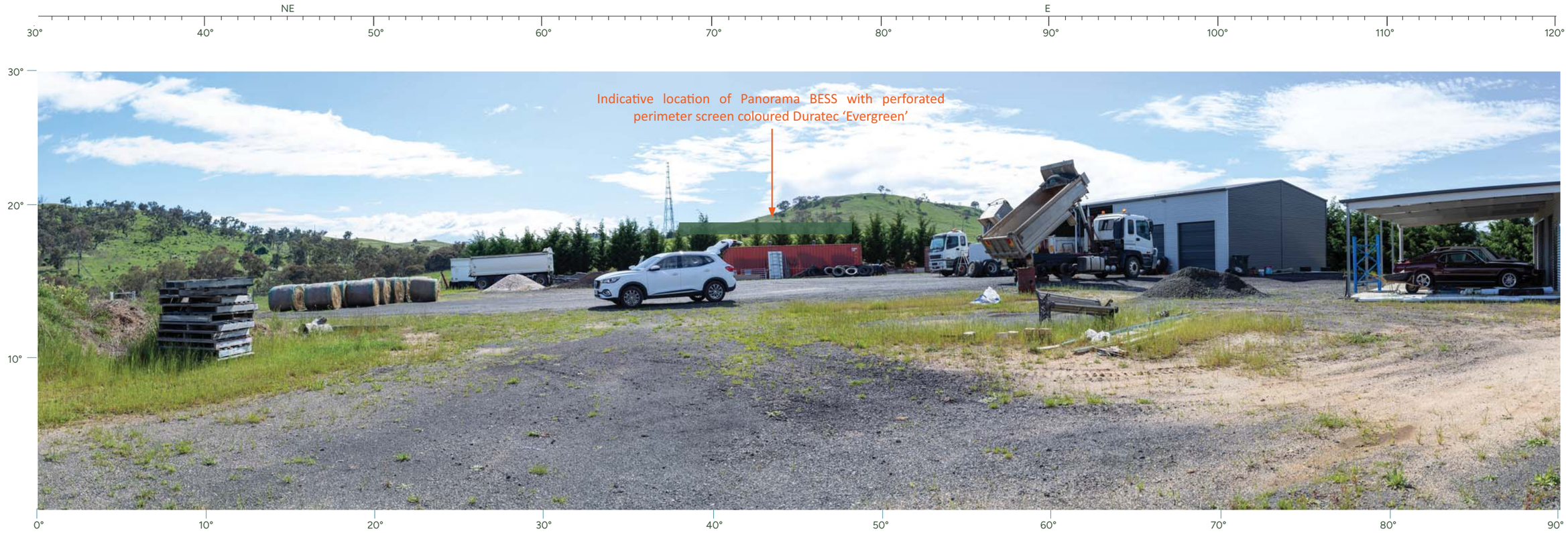
Viewpoint ID 4 180°

Viewpoint ID 4	Description
Viewpoint location	800 MID-Western Highway, Robin Hill (Views out from the subject site)
Viewpoint coordinates	33° 25' 53.22" S 149° 31' 13.71" E
Date of capture	27 October 2022 8:21am
Direction of view	252° (west)
Distance from development	-
Elevation	753.9m
Viewer motion	-
Usage	Proposed battery energy storage system
Receptor sensitivity	-
Magnitude of change rating	-
Impact significance rating	-
Post mitigation significance rating	-



Viewpoint ID 5 180°

Viewpoint ID 5	Description
Viewpoint location	800 MID-Western Highway, Robin Hill NSW (Views out from the subject site)
Viewpoint coordinates	33° 25' 54.654" S 149° 31' 15.306" E
Date of capture	27 October 2022 8:21am
Direction of view	263° (west)
Distance from development	-
Elevation	747.5m
Viewer motion	-
Usage	Proposed battery energy storage system
Receptor sensitivity	-
Magnitude of change rating	-
Impact significance rating	-
Post mitigation significance rating	-



Viewpoint ID 6 90°

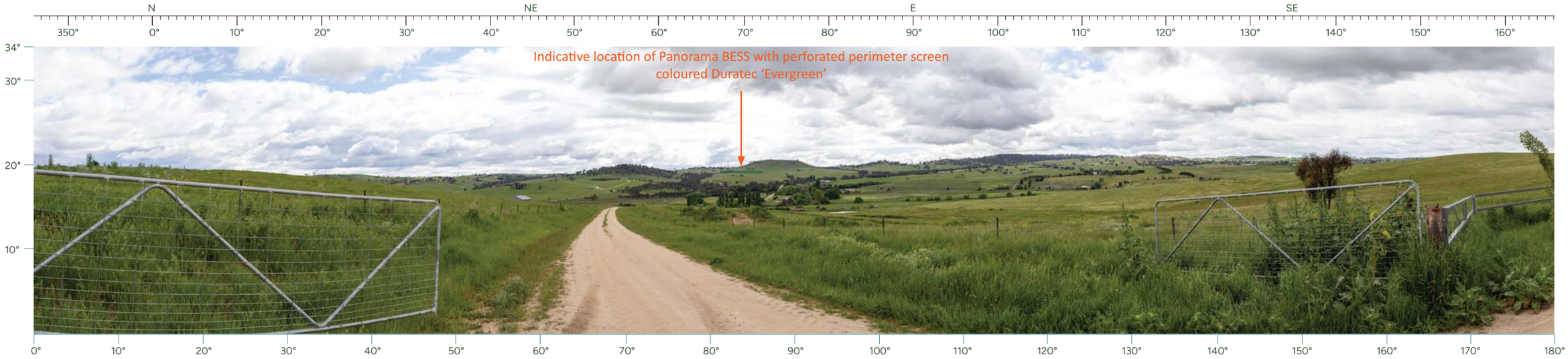
Viewpoint ID 6	Description
Viewpoint location	800 MID-Western Highway, Evans Plains NSW
Viewpoint coordinates	33° 25' 59.592" S 149° 30' 53.346" E
Date of capture	27 October 2022 8:47am
Direction of view	67.6° (northeast)
Distance from development	632.3m toward proposed battery energy storage system (BESS)
Elevation	728.7m
Viewer motion	Stationery
Usage	Adjacent to private property (associated dwelling)
Receptor sensitivity	**High**
Magnitude of change rating	**Medium**
Impact significance rating	**Moderate**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS

Viewpoint ID 7 90°

Viewpoint ID 7	Description
Viewpoint location	16 Stewart Street, Evans Plains NSW (adjacent)
Viewpoint coordinates	33° 26' 2.334" S 149° 30' 44.898" E
Date of capture	27 October 2022 8:52am
Direction of view	67.6° (northeast)
Distance from development	906m toward proposed battery energy storage system (BESS)
Elevation	718.3m
Viewer motion	Private access
Usage	Private access
Receptor sensitivity	**Low**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor-Negligible**
Post mitigation significance rating	**Negligible/ very low**

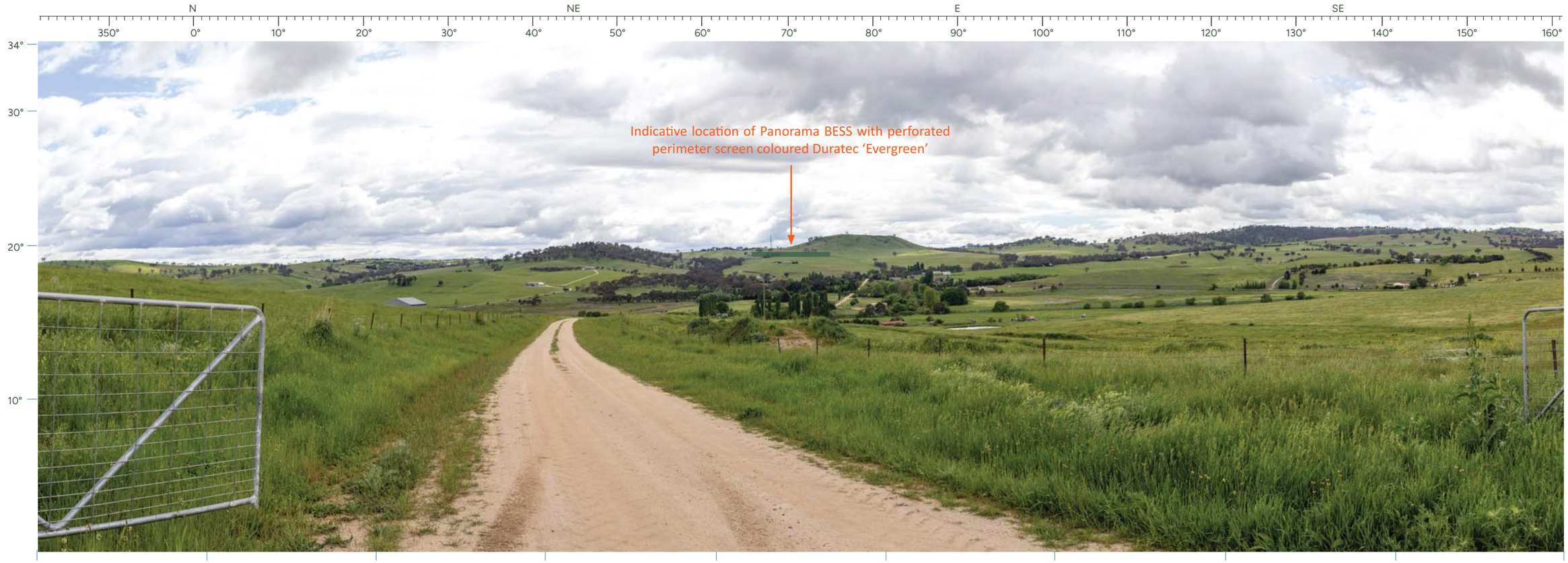
Viewpoint Location Map NTS



Viewpoint ID 8 180°

Viewpoint ID 8	Description
Viewpoint location	90 Stewart Street, Evans Plains NSW
Viewpoint coordinates	33° 26' 23.988" S 149° 29' 33.372" E
Date of capture	27 October 2022 9.16am
Direction of view	69° (northeast)
Distance from development	2834m toward proposed battery energy storage system (BESS)
Elevation	716.7m
Viewer motion	Private access
Usage	Private access
Receptor sensitivity	**High**
Magnitude of change rating	**Low**
Impact significance rating	**Moderate**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS



Viewpoint ID 9 90°

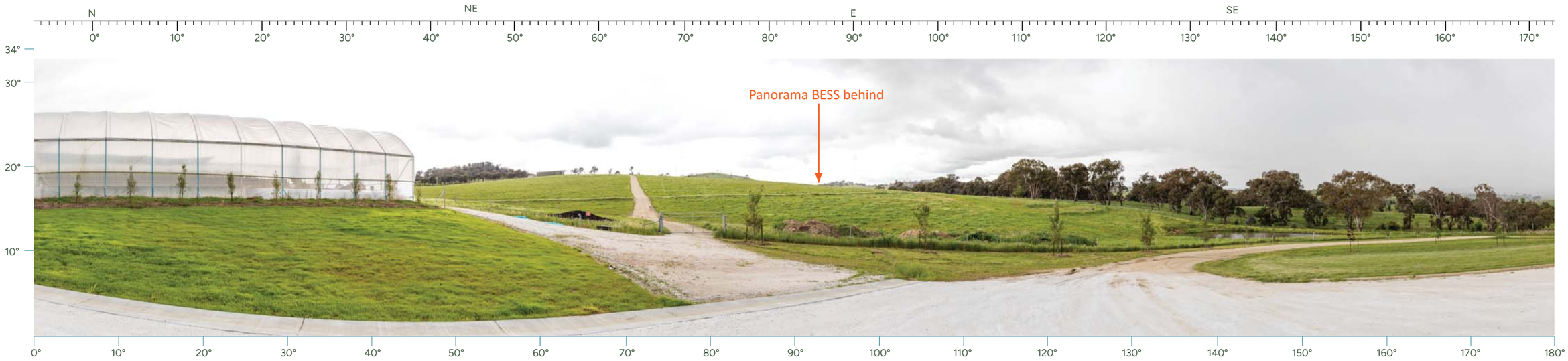
Vantage Point ID 9	Description
Viewpoint location	90 Stewart Street, Evans Plains NSW
Viewpoint coordinates	33° 26' 23.988" S 149° 29' 33.372" E
Date of capture	27 October 2022 9.18am
Direction of view	69° (northeast)
Distance from development	2834m toward proposed battery energy storage system (BESS)
Elevation	716.7m
Viewer motion	Private access
Usage	Private access
Receptor sensitivity	**High**
Magnitude of change rating	**Low**
Impact significance rating	**Moderate**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS

Viewpoint ID 10 90°

Vantage Point ID 10	Description
Viewpoint location	89 Stewart Street, Evans Plains NSW
Viewpoint coordinates	33° 26' 17.322" S 149° 30' 1.764" E
Date of capture	27 October 2022 9:24am
Direction of view	67.2° (northeast)
Distance from development	2168m toward proposed battery energy storage system (BESS)
Elevation	783.6m
Viewer motion	At speed (50-80km/h)
Usage	Local. Access to adjoining properties
Receptor sensitivity	**High**
Magnitude of change rating	**Low**
Impact significance rating	**Moderate**
Post mitigation significance rating	**Negligible/ very low**

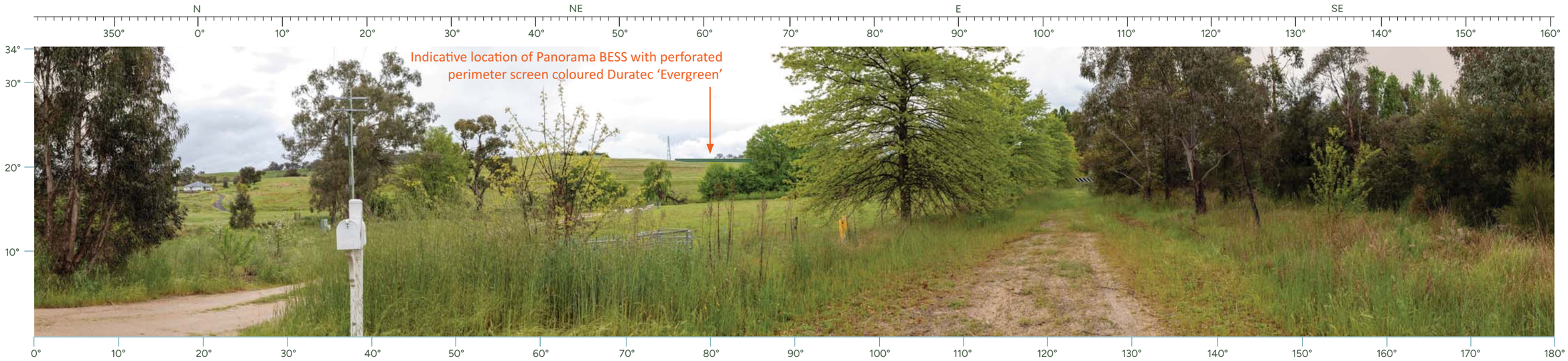
Viewpoint Location Map NTS



Viewpoint ID 12 180°

Viewpoint ID 12	Description
Viewpoint location	447 Evans Plains Road, Evans Plains NSW
Viewpoint coordinates	33° 25′ 54.336″ S 149° 30′ 20.016″ E
Date of capture	27 October 2022 9:38am
Direction of view	86.5° (northeast)
Distance from development	1418m toward proposed battery energy storage system (BESS)
Elevation	637.8m
Viewer motion	Private access
Usage	Private access
Receptor sensitivity	**Low**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor-Negligible**
Post mitigation rating	-

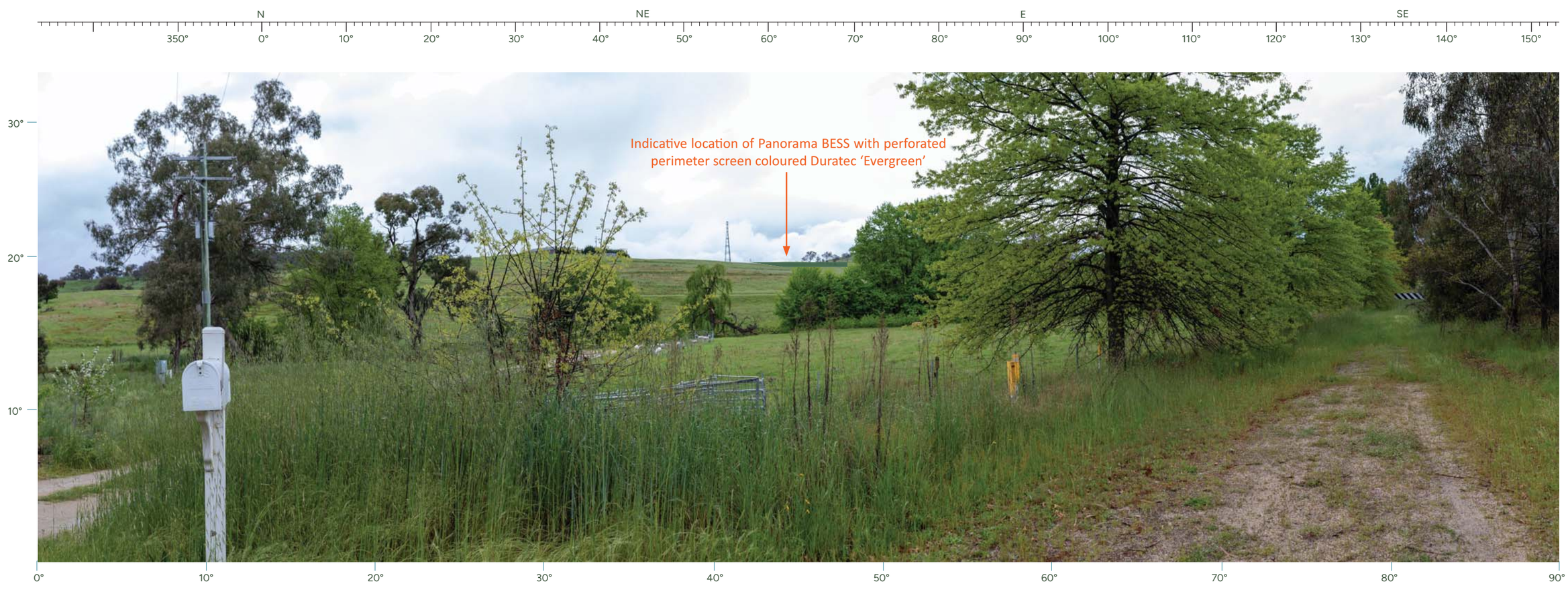
Viewpoint Location Map NTS



Viewpoint ID 13 180°

Viewpoint ID 13	Description
Viewpoint location	16 Stewart Street, Evans Plains NSW
Viewpoint coordinates	33° 26' 10.614" S 149° 30' 41.88" E
Date of capture	27 October 2022 10:02am
Direction of view	56.1° (northeast)
Distance from development	1069m toward proposed battery energy storage system (BESS)
Elevation	677.9m
Viewer motion	At speed (50km/h), stationery
Usage	Local. Access to rural properties
Receptor sensitivity	**Medium**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor**
Post mitigation significance rating	**Negligible/ very low**

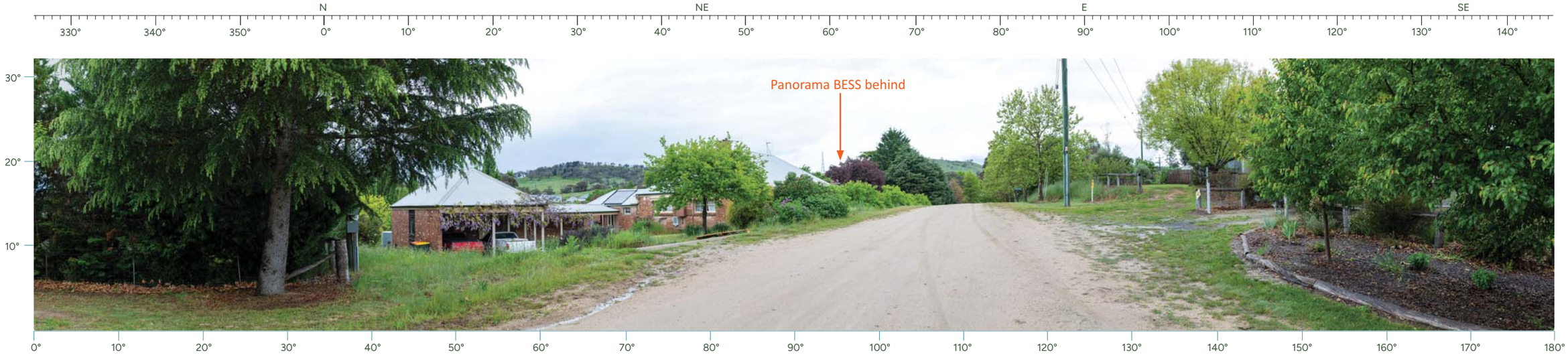
Viewpoint Location Map NTS



Viewpoint ID 14 90°

Viewpoint ID 14	Description
Viewpoint location	16 Stewart Street, Evans Plains NSW
Viewpoint coordinates	33° 26' 10.614" S 149° 30' 41.88" E
Date of capture	27 October 2022 10:03am
Direction of view	56.1° (northeast)
Distance from development	1069m toward proposed battery energy storage system (BESS)
Elevation	677.9m
Viewer motion	At speed (50km/h), stationery
Usage	Local. Access to rural properties
Receptor sensitivity	**Medium**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS



Viewpoint ID 15 180°

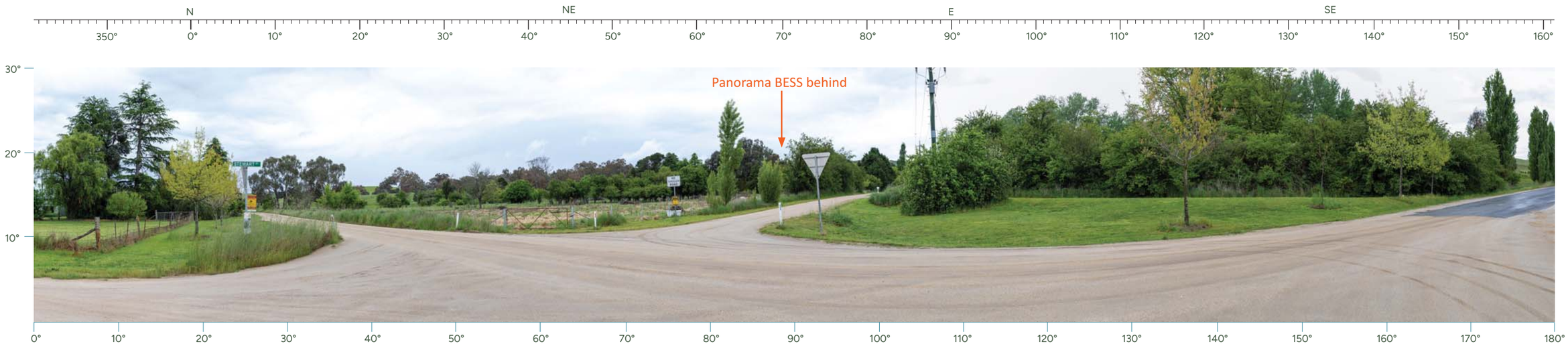
Viewpoint ID 15	Description
Viewpoint location	27 Stewart Street, Evans Plains NSW
Viewpoint coordinates	33° 26' 11.124" S 149° 30' 35.76" E
Date of capture	27 October 2022 10.09am
Direction of view	59.6° (northeast)
Distance from development	1213m toward proposed battery energy storage system (BESS)
Elevation	683.9m
Viewer motion	At speed (50km/h)
Usage	Local. Access to rural properties
Receptor sensitivity	**Low**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor - Negligible**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS

Viewpoint ID 16 90°

Vantage Point ID 16	Description
Viewpoint location	27 Stewart Street, Evans Plains NSW
Viewpoint coordinates	33° 26' 11.124" S 149° 30' 35.76" E
Date of capture	27 October 2022 10.10am
Direction of view	59.6° (northeast)
Distance from development	1213m toward proposed battery energy storage system (BESS)
Elevation	683.9m
Viewer motion	At speed (50km/h)
Usage	Local. Access to rural properties
Receptor sensitivity	**Low**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor - Negligible**
Post mitigation significance rating	**Negligible/ very low**

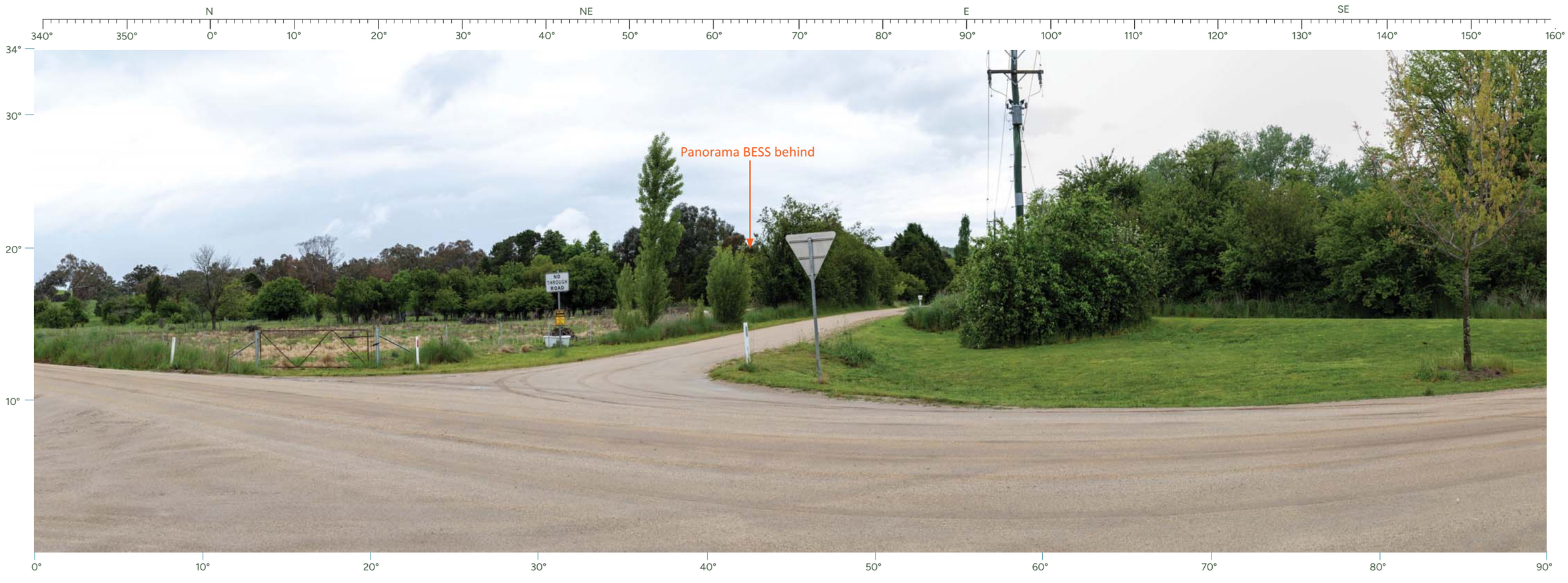
Viewpoint Location Map NTS



Viewpoint ID 17 180°

Viewpoint ID 17	Description
Viewpoint location	475 Evans Plains Road, Evans Plains NSW (Corner of Stewart Street)
Viewpoint coordinates	33° 26' 13.656" S 149° 30' 19.158" E
Date of capture	27 October 2022 10:18am
Direction of view	64.7° (northeast)
Distance from development	1627m toward proposed battery energy storage system (BESS)
Elevation	660.6m
Viewer motion	At speed (50-80km/h)
Usage	Local. Access to rural properties and connection to surrounding towns such as Dunkeld
Receptor sensitivity	**Low**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor - Negligible**
Post mitigation significance rating	**Negligible/ very low**

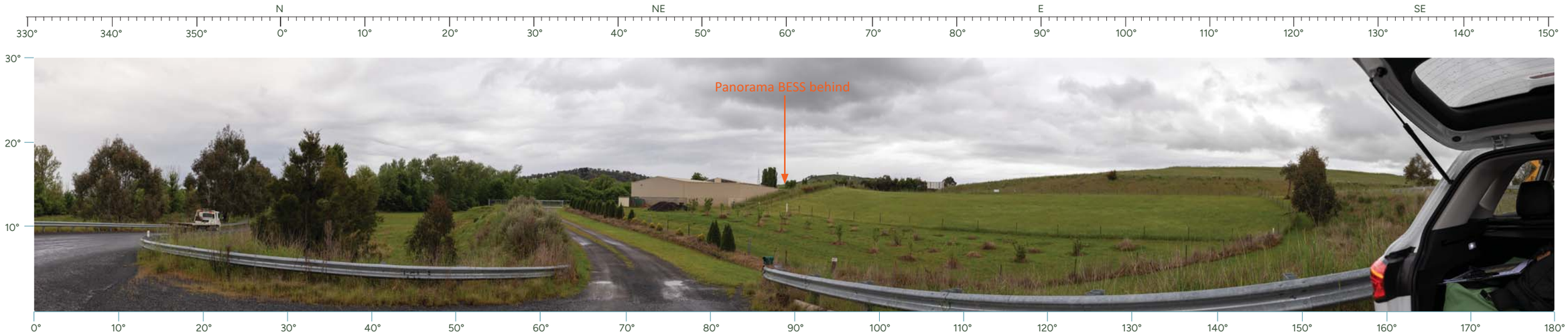
Viewpoint Location Map NTS



Viewpoint ID 18 90°

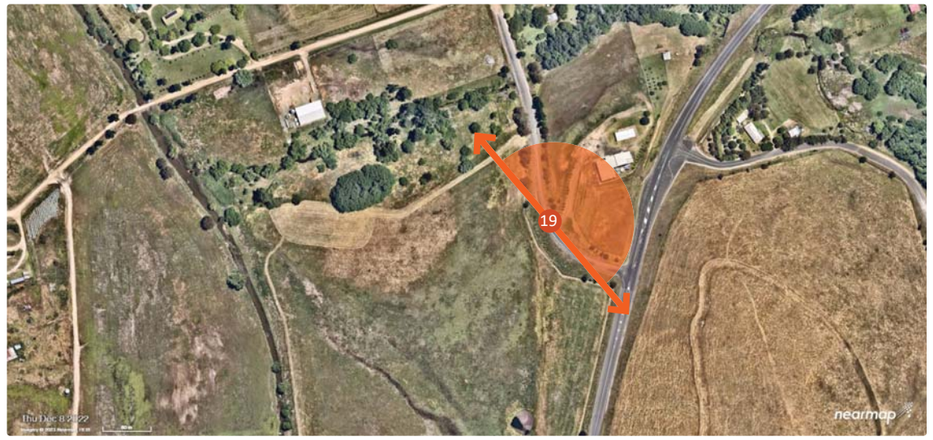
Vantage Point 18 (VP18)	Description
Viewpoint location	475 Evans Plains Road, Evans Plains NSW
Viewpoint coordinates	33° 26' 13.656" S 149° 30' 19.158" E
Date of capture	27 October 2022 10:18am
Direction of view	64.7° (northeast)
Distance from development	1627m toward proposed battery energy storage system
Elevation	660.6m
Viewer motion	At speed (50-80km/h)
Usage	Local. Access to rural properties and connection to surrounding towns such as Dunkeld
Receptor sensitivity	**Low**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor - Negligible**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS

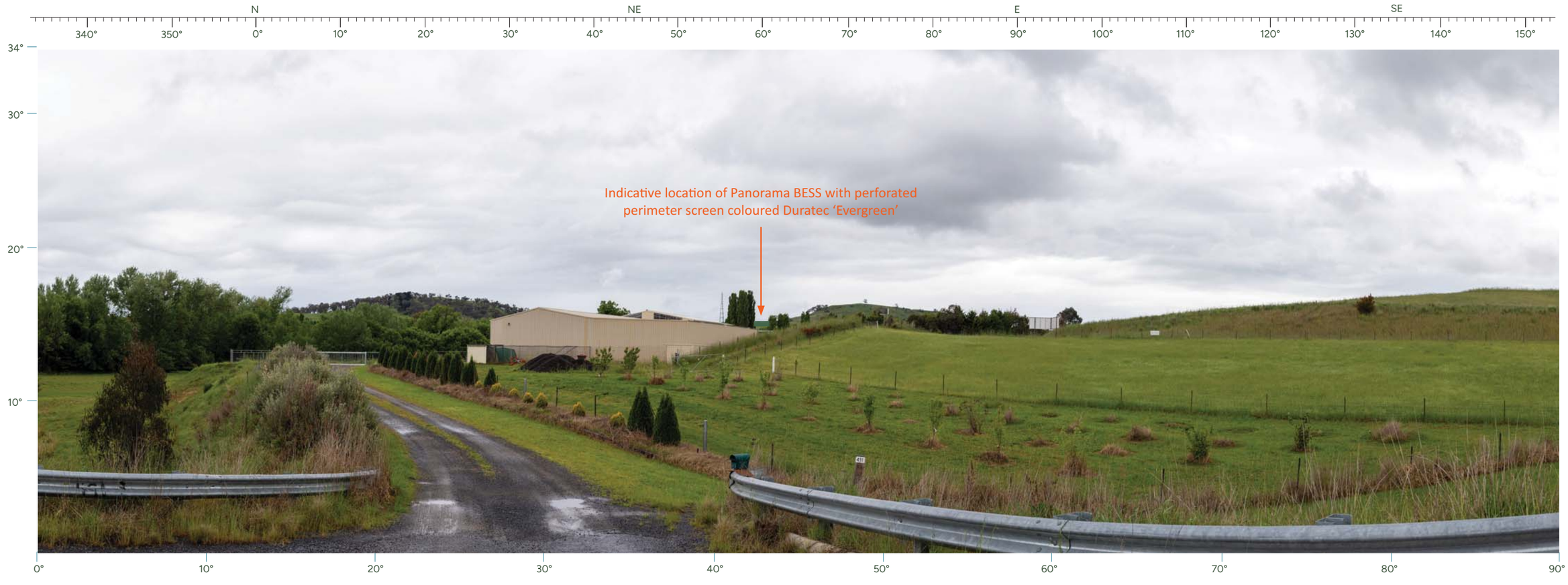


Viewpoint ID 19 180°

Viewpoint ID 19	Description
Viewpoint location	491 Evans Plains Road, Evans Plains NSW
Viewpoint coordinates	33° 26' 21.768" S 149° 30' 20.46" E
Date of capture	27 October 2022 10.29am
Direction of view	56.7° (northeast)
Distance from development	1720m toward proposed battery energy storage system (BESS)
Elevation	673.2m
Viewer motion	At speed (50-80km/h)
Usage	Private property adjacent to local access to rural properties
Receptor sensitivity	**Low**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor - Negligible**
Post mitigation significance rating	**Negligible/ very low**



Viewpoint Location Map NTS



Viewpoint ID 20 90°

Viewpoint ID 20	Description
Viewpoint location	491 Evans Plains Road, Evans Plains NSW
Viewpoint coordinates	33° 26' 21.768" S 149° 30' 20.46" E
Date of capture	27 October 2022 10.30am
Direction of view	56.7° (northeast)
Distance from development	1720m toward proposed battery energy storage system (BESS)
Elevation	673.2m
Viewer motion	At speed (50-80km/h)
Usage	Private property adjacent to local access to rural properties
Receptor sensitivity	**Low**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor - Negligible**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS

Viewpoint ID 21 90°

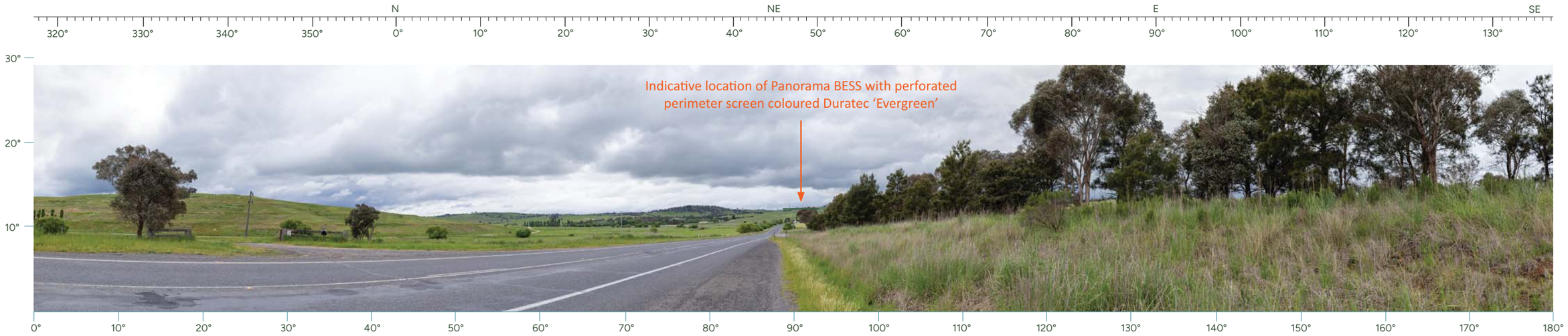
Viewpoint ID 21	Description
Viewpoint location	27 Windemere Road, Robin Hill NSW
Viewpoint coordinates	33° 25' 42.942" S 149° 32' 0.99" E
Date of capture	27 October 2022 1:16pm
Direction of view	257.6° (southwest)
Distance from development	1180m toward proposed battery energy storage system (BESS)
Elevation	798.2m
Viewer motion	At speed (50km/h), walking
Usage	Adjacent private property
Receptor sensitivity	**Negligible**
Magnitude of change rating	**Negligible**
Impact significance rating	**Negligible**
Post mitigation significance rating	-

Viewpoint Location Map NTS

Viewpoint ID 22 90°

Viewpoint ID 22	Description
Viewpoint location	586 MID-Western Highway, Robin Hill NSW
Viewpoint coordinates	33° 26' 4.872" S 149° 31' 57.282" E
Date of capture	27 October 2022 1:27pm
Direction of view	291.9° (southwest)
Distance from development	1119m toward proposed battery energy storage system (BESS)
Elevation	762.4m
Viewer motion	At speed (80-100km/h), walking and standing
Usage	Public rest area
Receptor sensitivity	**Negligible**
Magnitude of change rating	**Negligible**
Impact significance rating	**Negligible**
Post mitigation significance rating	-

Viewpoint Location Map NTS



Viewpoint ID 23 180°

Viewpoint ID 23	Description
Viewpoint location	1041 MID-Western Highway, Evans Plains NSW
Viewpoint coordinates	33° 26' 54.774" S 149° 29' 52.488" E
Date of capture	27 October 2022 10.29am
Direction of view	47.6° (north)
Distance from development	1720m toward battery energy storage system (BESS)
Elevation	663.6m
Viewer motion	At speed (80-100km/h)
Usage	Regional. Access to surrounding town centres such as Blayney. Main road to numerous properties. Main industry and tourist route. Gateway into Bathurst Regional Centre.
Receptor sensitivity	**High**
Magnitude of change rating	**Low**
Impact significance rating	**Moderate**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS

Viewpoint ID 25 90°

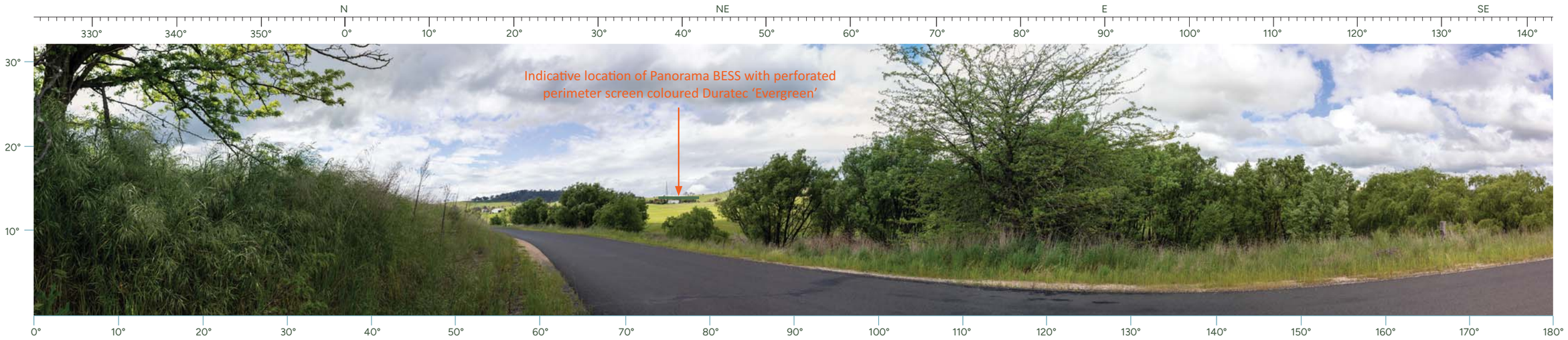
Viewpoint ID 25	Description
Viewpoint location	Hopewood, 1022 MID-Western Highway, Evans Plains NSW
Viewpoint coordinates	33° 27' 0.882" S 149° 29' 47.136" E
Date of capture	27 October 2022 1:44pm
Direction of view	46.9° (northeast)
Distance from development	3145m toward battery energy storage system (BESS)
Elevation	660.8m
Viewer motion	At speed (50-80km/h)
Usage	Private resIDence
Receptor sensitivity	**Low**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor-Negligible**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS

Viewpoint ID 26 90°

Viewpoint ID 26	Description
Viewpoint location	663 Hen and Chicken Lane, Evans Plains NSW
Viewpoint coordinates	33° 27' 4.356" S 149° 30' 34.782" E
Date of capture	27 October 2022 1:52pm
Direction of view	33.4° (north-northeast)
Distance from development	2464m toward battery energy storage system (BESS)
Elevation	682.9m
Viewer motion	At speed (50-80km/h)
Usage	Local. Access to rural properties and connection to surrounding towns such as Perthville
Receptor sensitivity	**High**
Magnitude of change rating	**Low**
Impact significance rating	**Moderate**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS



Viewpoint ID 28 180°

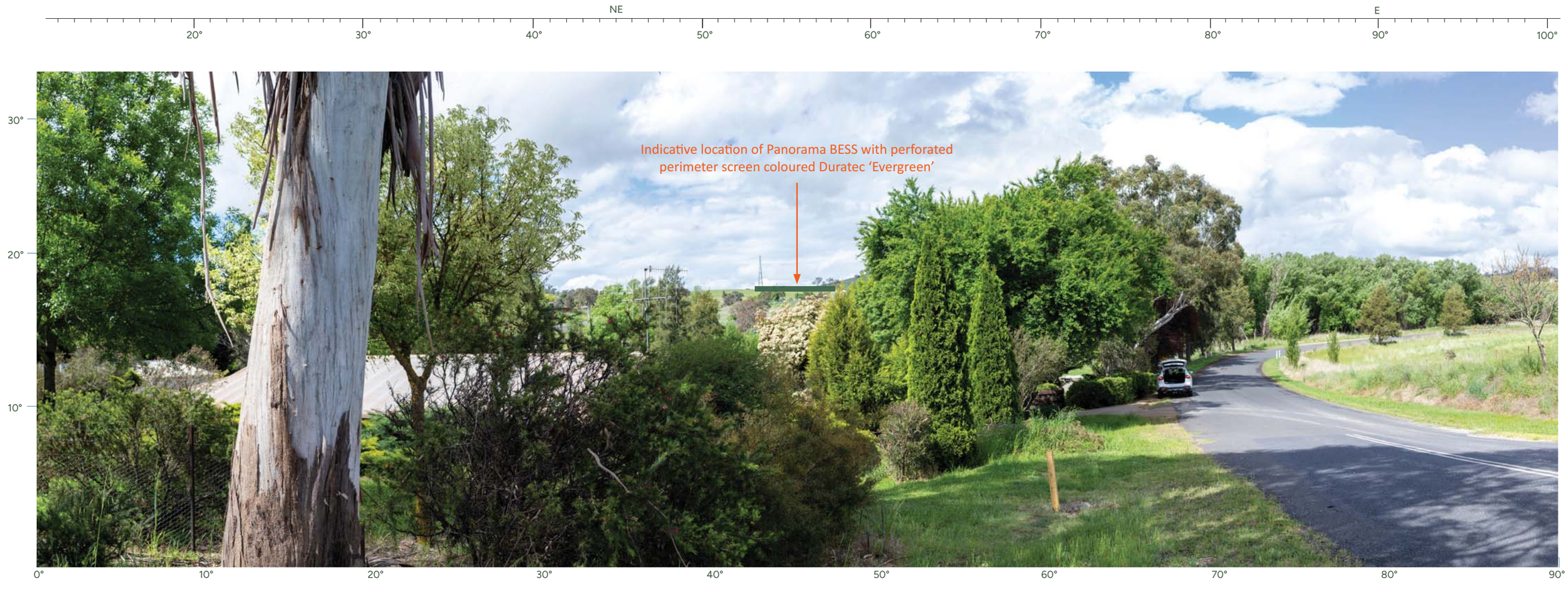
Viewpoint ID 28	Description
Viewpoint location	Hen and Chicken Lane, Evans Plains NSW
Viewpoint coordinates	33° 26' 41.52" S 149° 30' 36.498" E
Date of capture	27 October 2022 2:02pm
Direction of view	33.8° (north-northeast)
Distance from development	1858m toward battery energy storage system (BESS)
Elevation	676.3m
Viewer motion	At speed (50-80km/h)
Usage	Local. Access between MID-Western Highway (A41) and Vale Road
Receptor sensitivity	**High**
Magnitude of change rating	**Low**
Impact significance rating	**Moderate**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS

Viewpoint ID 29 90°

Viewpoint ID 29	Description
Viewpoint location	Hen and Chicken Lane, Evans Plains NSW
Viewpoint coordinates	33° 26' 41.52" S 149° 30' 36.498" E
Date of capture	27 October 2022 2:03pm
Direction of view	33.8° (north-northeast)
Distance from development	1858m toward proposed battery energy storage system (BESS)
Elevation	676.3m
Viewer motion	At speed (50-80km/h)
Usage	Local. Access to rural properties and connection to surrounding towns as as Perthville
Receptor sensitivity	**High**
Magnitude of change rating	**Low**
Impact significance rating	**Moderate**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS



Viewpoint ID 31 90°

Viewpoint ID 31	Description
Viewpoint location	814 Hen and Chicken Lane, Evans Plains NSW
Viewpoint coordinates	33° 26' 20.328" S 149° 30' 28.338" E
Date of capture	27 October 2022 2:16pm
Direction of view	53.6° (northeast)
Distance from development	1525m toward proposed battery energy storage system (BESS)
Elevation	650.9m
Viewer motion	At speed (50-80km/h)
Usage	Private reslDence
Receptor sensitivity	**Medium**
Magnitude of change rating	**Low**
Impact significance rating	**Minor**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS

Viewpoint ID 32 90°

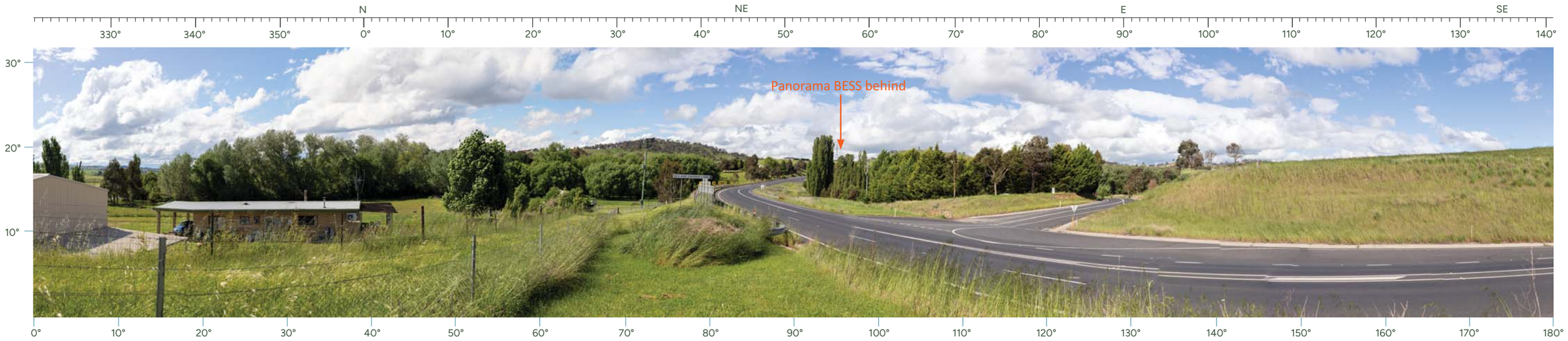
Viewpoint ID 32	Description
Viewpoint location	337 Evans Plains Road, Evans Plains NSW
Viewpoint coordinates	33° 25′ 32.298″ S 149° 30′ 3.642″ E
Date of capture	27 October 2022 2:25pm
Direction of view	107.3° (east-southeast)
Distance from development	1954m toward proposed battery energy storage system (BESS)
Elevation	651.9m
Viewer motion	At speed (50-80km/h)
Usage	Private reslDence
Receptor sensitivity	**Low**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor-Negligible**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS

Viewpoint ID 33 90°

Viewpoint ID 33	Description
Viewpoint location	82 Marys Lane, Dunkeld NSW
Viewpoint coordinates	33° 24' 35.082" S 149° 28' 35.94" E
Date of capture	27 October 2022 2:38pm
Direction of view	119.7° (northeast)
Distance from development	4746m toward proposed battery energy storage system (BESS)
Elevation	664.0m
Viewer motion	At speed (50-80km/h)
Usage	Private reslDence
Receptor sensitivity	**Low**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor-Negligible**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS



Viewpoint ID 34 180° [Vantage Point 5]

Viewpoint ID 34	Description
Viewpoint location	491 Evans Plains Road, Evans Plains NSW (adjacent MID-Western Highway)
Viewpoint coordinates	33° 26' 20.25" S 149° 30' 24.126" E
Date of capture	27 October 2022 2:52pm
Direction of view	56.1° (north-northeast)
Distance from development	1604m toward proposed battery energy storage system (BESS)
Elevation	663.1m
Viewer motion	At speed (80-100km/h)
Usage	Regional. Access to surrounding town centres such as Blayney. Main road to numerous properties. Main industry and tourist route. Gateway into Bathurst Regional Centre.
Receptor sensitivity	**High**
Magnitude of change rating	**Negligible**
Impact significance rating	**Minor-Moderate**
Post mitigation significance rating	**Negligible/ very low**

Viewpoint Location Map NTS

Appendix C Landscape Concept Plan

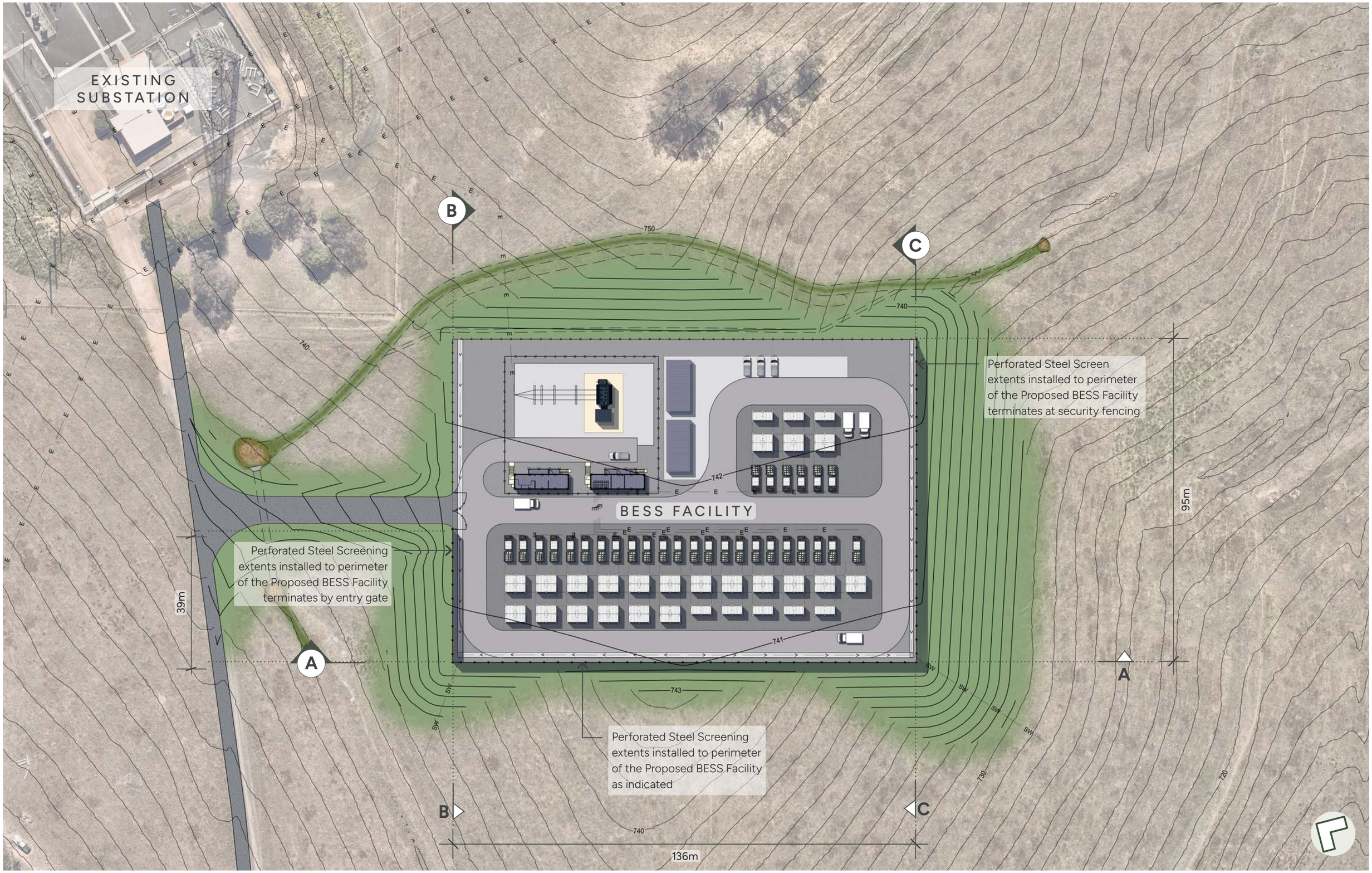
Landscape and Visual Impact Assessment

Panorama Battery Energy Storage System (BESS)

Panorama BESS Subco Pty Ltd

SLR Project No.: 660.30234.00000

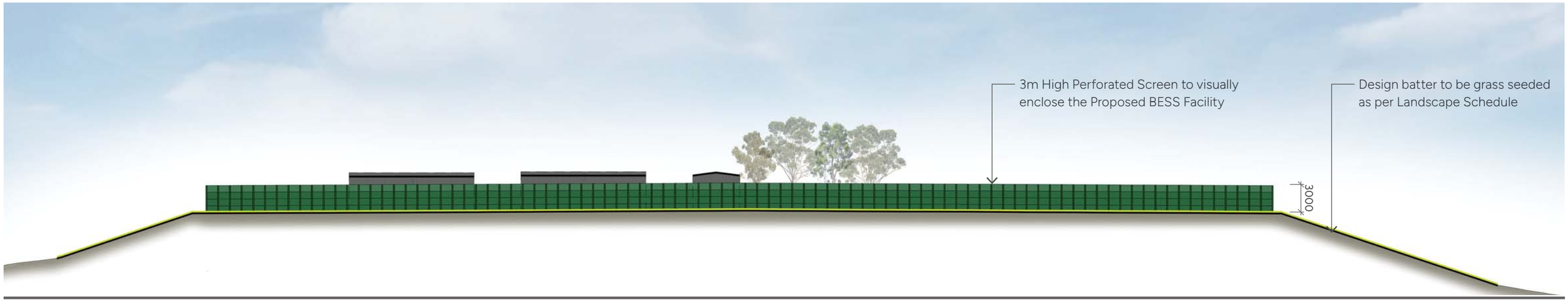
21 April 2025



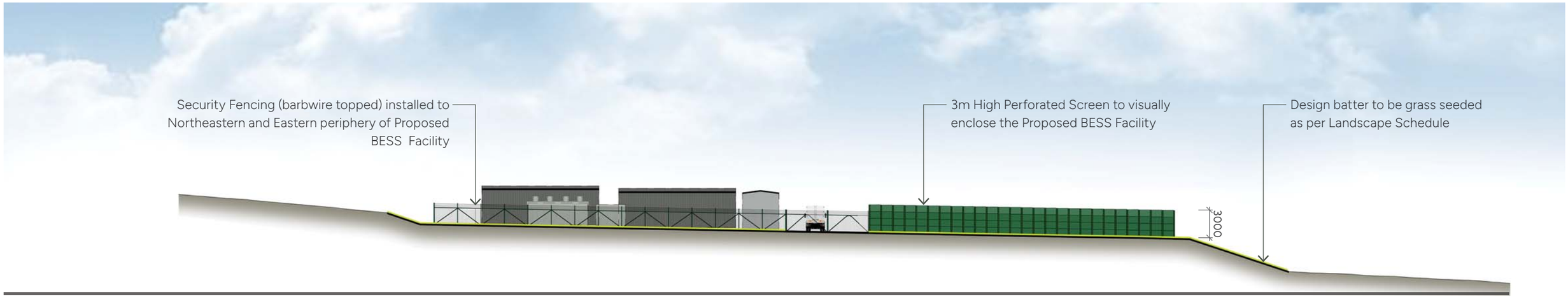
SLR

PANORAMA, BATHURST BESS - LANDSCAPE CONCEPT PLAN

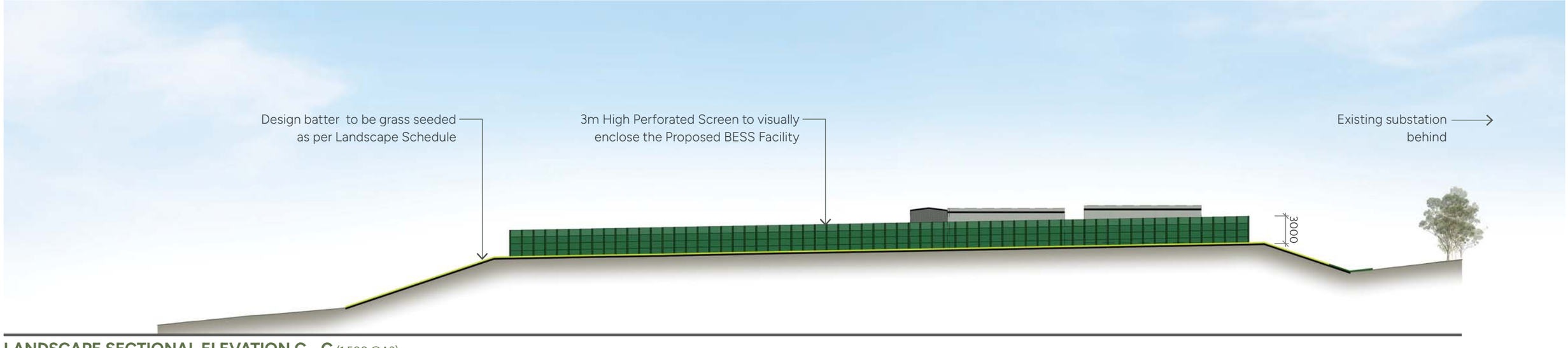
Date 17.03.2025 **Drawing No** 620.041888.00001 - 001 **Issue** 1.1



LANDSCAPE SECTIONAL ELEVATION A - A (1:500 @A3)



LANDSCAPE SECTIONAL ELEVATION B - B (1:500 @A3)

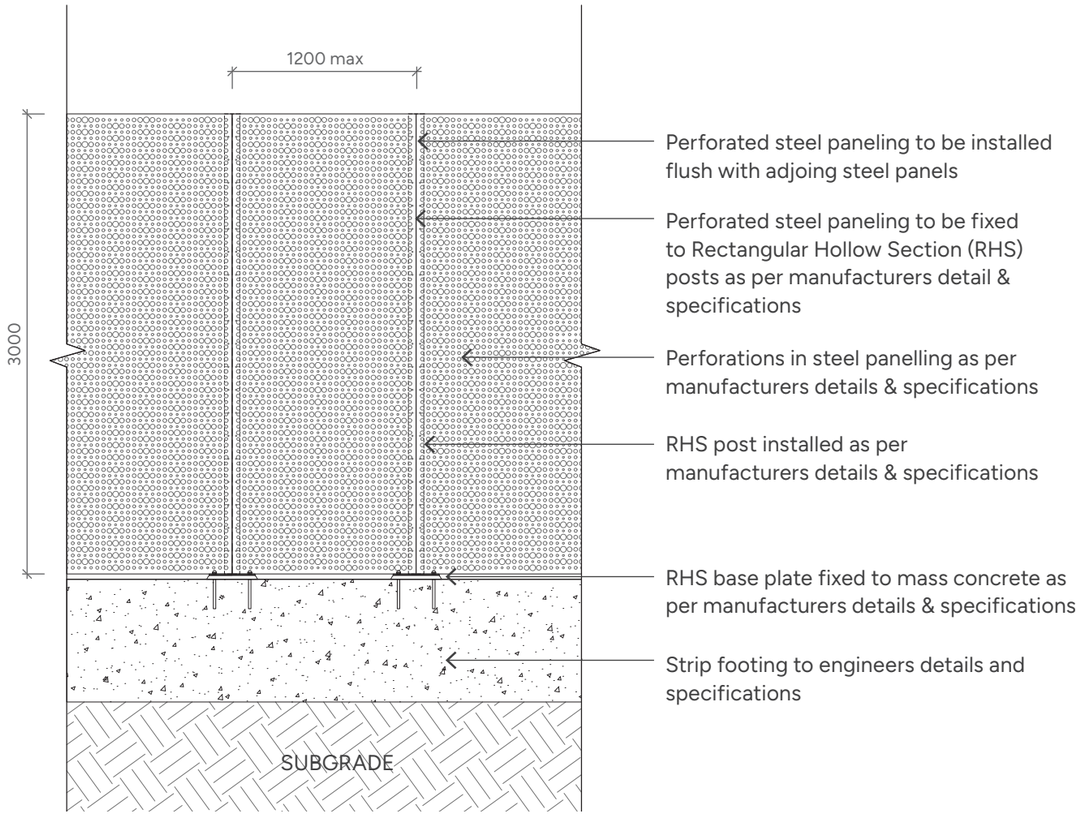


LANDSCAPE SECTIONAL ELEVATION C - C (1:500 @A3)

SLR

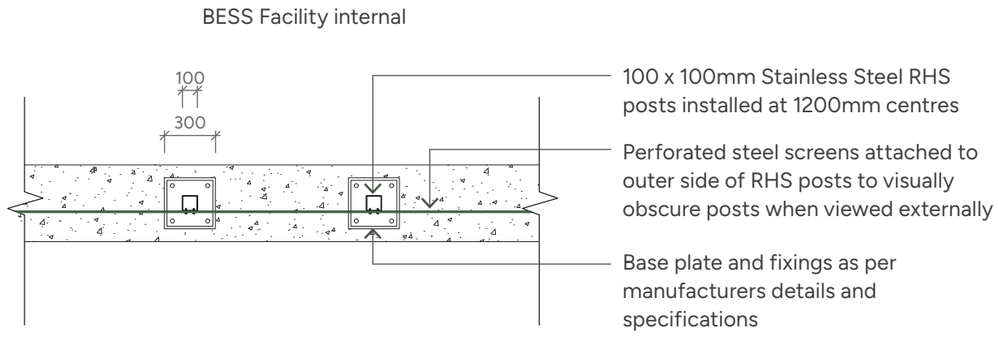
PANORAMA, BATHURST BESS - LANDSCAPE SECTIONAL ELEVATIONS

Date 17.03.2025 **Drawing No** 620.041888.00001 - 002 **Issue** 1.1



TYPICAL PANEL DETAIL (SECTION VIEW):

1:20 @ A3



TYPICAL PANEL DETAIL (PLAN VIEW):

1:20 @ A3

Perforated Screen Finishing Notes:

Finish:

Posts and Panels to be powder coated with Duratec Intensity Bright Range. Colour is to be 'Evergreen'. All screws and fixings are to be hot dip galvanised.

Perforated Screen Notes:

Perforated Screen Panel:

The panels are maximum 3000mm high and 1200mm wide.

Posts:

Posts to be 100mm square Stainless Steel RHS posts.

Base Plate:

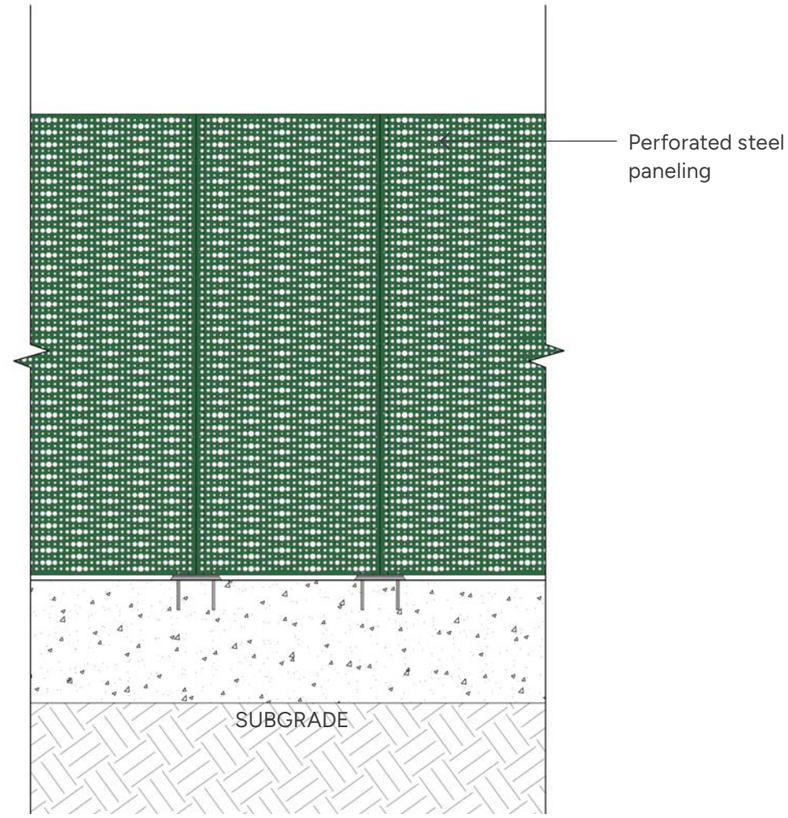
The Base Plate is to be Stainless Steel and installed as per manufacturers specifications.

Fixings:

All screws & fixings to be Hot Dip Galvanised and installed as per manufactuers specifications.

Contractor to provide all neccesary structural certifications (form 12) for all aspects of the perforated screening. Contractor is to provide these prior to the awarding of Practical Completion.

Baseplate and fixings to be installed as per manufacturers details and specifications.



PANEL COLOUR (DURATEC INTENSITY, 'EVERGREEN'):

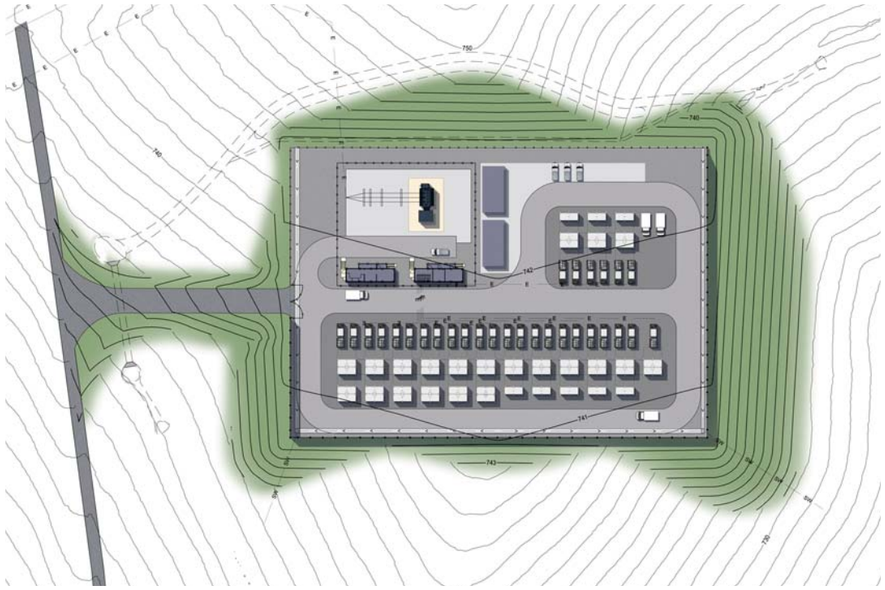
1:20 @ A3

DURATEC INTENSITY BRIGHT RANGE
JUICY LIME
SATIN
90N6486S

DURATEC INTENSITY BRIGHT RANGE
LEAF
SATIN
90N6167S

DURATEC INTENSITY BRIGHT RANGE
EVERGREEN
SATIN
90N6005S

POTENTIAL COLOUR OPTIONS FOR PERFORATED SCREENS



Design Batters to be Grass Seeded per the below schedule (approximately 23000m²)

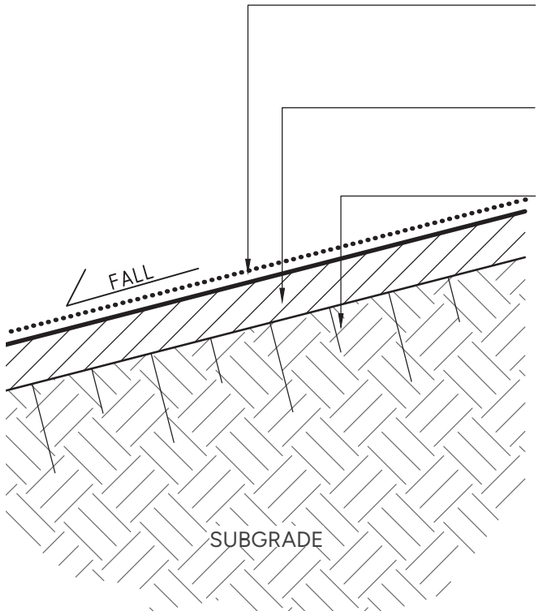
LANDSCAPE GRASS SEEDING PLAN (NTS)

SEED SCHEDULE

SPECIES	COMMON NAME	POT SIZE	RATE kg/HA	
EMBANKMENT STABILISATION				
HYDROSEED GRASSES				
Cymbopogon refractus	Barbed Wire Grass	Hydroseed	14.4kg	
Poa sieberiana	Blue Tussock Grass	Hydroseed	5.6kg	
Themeda triandra	Kangaroo Grass	Hydroseed	5.8kg	
Cynodon dactylon Unhulled	Couch Grass Unhulled	Hydroseed	11.5kg	
Cynodon dactylon Hulled	Couch Grass Hulled	Hydroseed	11.5kg	
Annual Rye 50% (Apr-Aug)	Annual rye grass	Hydroseed	5kg	**COVER CROP**
Millet 50% (Apr-Aug)	Annual Millet	Hydroseed	5kg	**COVER CROP**
Millet 100% (Sep-Mar)	Annual Millet	Hydroseed	10kg	**COVER CROP**

NOTE:

Contractor is required to confirm existing grass species on site and to seek superintendant approval prior to seeding.



Hydromulch and seed mix applied as per manufacturer's specifications.

Ameliorated site topsoil to meet agronomists recommendations.

Cultivated subgrade suitable for application of topsoil and seed. Cultivate parallel to contours.

NOTE:

Hydromulch and seed mixes as per seed schedule.

TYPICAL HYDROSEED PROFILE
(1:4 BATTER SLOPES SEEDING TREATMENT TYPICAL)
1:20 @A3

Typical surface preparation:

1. Remove all weeds before preparing hydromulching surface as per weed treatment specification provided by contractor.
2. Subsoil testing as per above specification to be undertaken by landscape contractor.
3. Ameliorants to be thoroughly mixed with subsoil during ripping and cultivation as per hydromulch manufacturer and soil testing recommendation.
4. Cultivate existing subsurface parallel to contours to form a loose surface to 100mm - 150mm. Do not cultivate where slopes are steeper than 4h:1v.
5. Rip to 300mm where soils are compacted. Do not rip where slopes are steeper than 4h:1v, instead roughen to 50mm depth.
6. Imported topsoil to be spread to 100mm-150mm on roughened surface. Imported topsoil to be tested and ameliorated where required as per amelioration regime before spreading.
7. Ensure soil is screened before spreading to remove roots, rocks, and other matter greater than 50mm.
8. Complete hydromulching within 2 days of completion of soil preparation.

Typical hydromulch and organic fibre matting installation:

1. Moisten topsoil layer before application of hydromulch.
2. First pass (Hydromulch) - Apply hydromulch slurry of water, fibre, binder, ameliorants and seed to manufacturers recommendation and soil testing results.
3. Distribute fertiliser at rates to manufacturers instructions.

Appendix D Viewshed Infrastructure Heights Site Layout

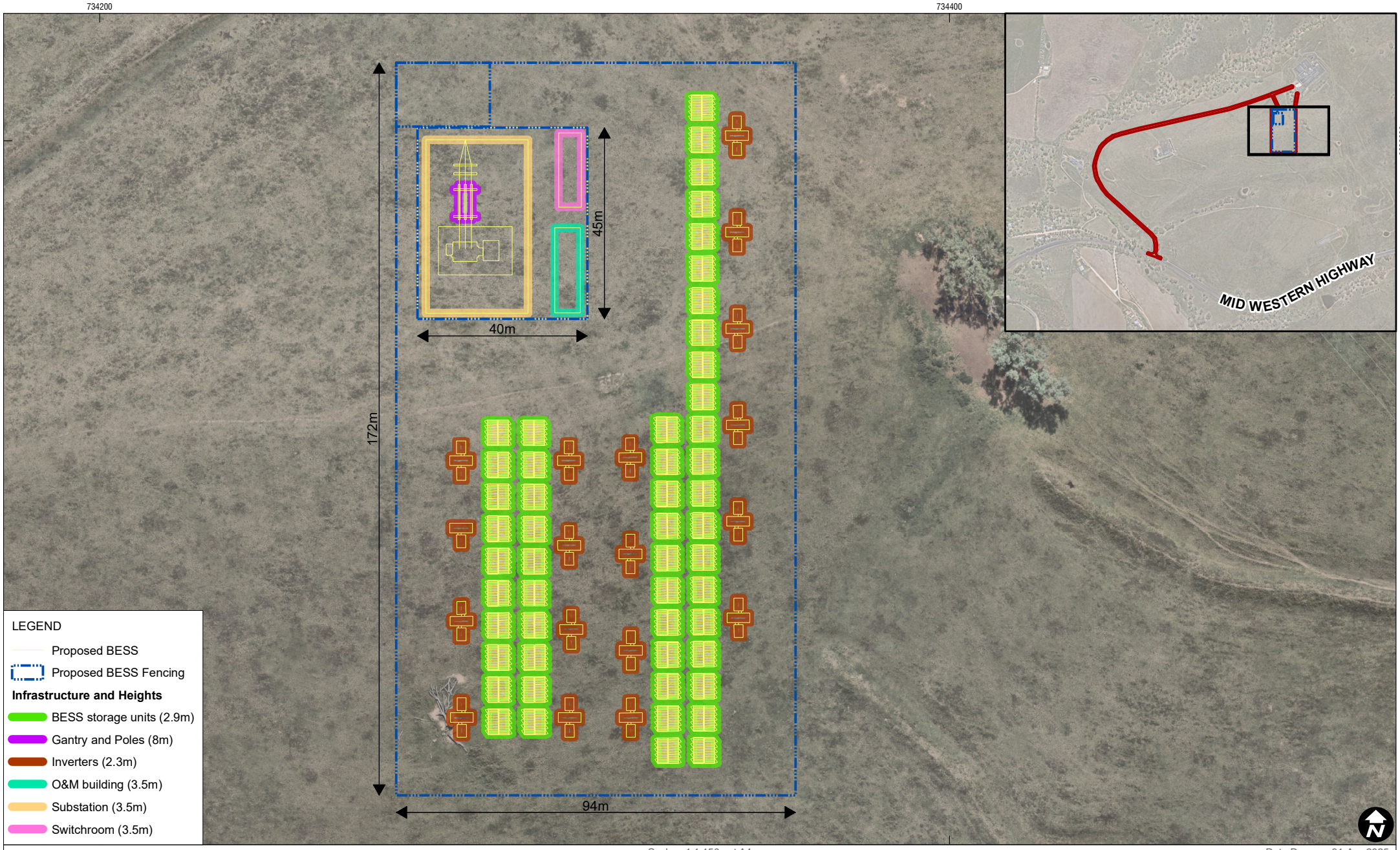
Landscape and Visual Impact Assessment

Panorama Battery Energy Storage System (BESS)

Panorama BESS Subco Pty Ltd

SLR Project No.: 660.30234.00000

21 April 2025



Scale: 1:1,150 at A4
Coordinate System: GDA 1994 MGA Zone 55

Date Drawn: 01-Apr-2025
Project Number: 660.30234.00000

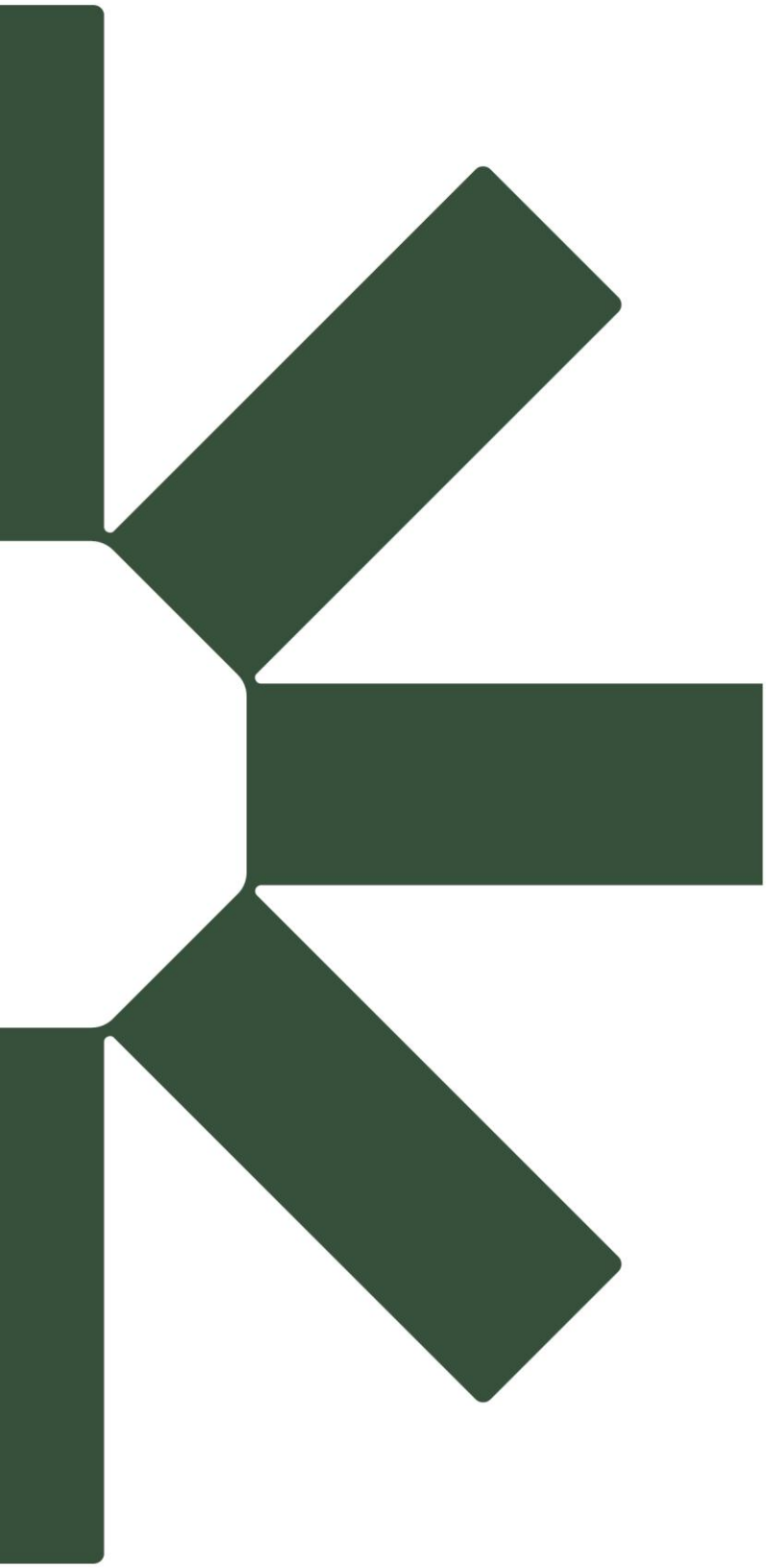
Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (February, 2025)
Elevation data supplied by DCS Spatial Services (July, 2019)

REV G used in analysis and displayed Proposed Infrastructure (Panorama-BESS-130MW-2hr_RevG)

INFRASTRUCTURE HEIGHTS

APPENDIX D

H:\Projects-SLR\660-SrvWOL\660-WOL\660.30234.00000 Bathurst BESS SSD Approvals\06 SLR Data\01 CADGIS\GIS\SLR66030234_LVIA_G10_Infrastructure_003.mxd



Making Sustainability Happen