Amber

Traffic & Transportation Direction

Culcairn Solar Farm

Weeamera Road, Culcairn

Traffic Management Plan

January 2024

Reference: 012 tmp 240118 final

Culcairn Solar Farm

Weeamera Road, Culcairn

Traffic Management Plan

Prepared for: NGH Environmental Pty Ltd

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Table of Contents

1. Introduction 1
1.1 Project Background 1
1.2 Objectives 3
1.3 TMP Staging 3
1.4 Statutory Requirements 3
1.5 Third Party Consultation 8
1.6 Related Documents 8

2. Existing Road Environment 9
2.1 Site Location 9
2.2 Road Network 10
2.3 Traffic Volumes 11
2.4 Restricted Vehicle Access 11
2.5 Public Transport Services 12
2.6 Crash History 12

3. Construction Overview 13
3.1 Project Description 13
3.2 Duration of Construction Works and Schedule 13
3.3 Workforce Transport 15
3.4 Construction Vehicles and Equipment 15
3.5 Traffic Movements 16
3.6 Traffic Impacts and Proposed Off-Site Mitigation Measures 23
3.7 Traffic Impacts – Operations 24

4. Traffic Management Strategy 25
4.1 Driver Protocols 25
4.2 Delivery Logistics 25
4.3 Information and Communications 26
4.4 On-site Mitigation Measures 27
4.5 Heavy Vehicles Requiring Escort Protocols 30
4.6 Public Transport 30
4.7 Shuttle Buses and Car-Pooling 30
4.8 Special Events and Other Works 32
4.9 Hazardous Goods and Dangerous Materials 32
4.10 Other Considerations 32
4.11 Emergencies 33
4.12 Traffic Environment Management 33
4.13 Management of Drainage Infrastructure 34

5. Road Maintenance 35

6. Traffic Management Responsibilities 37
6.1 Neoen Project Manager 37

6.2 EPC Project Manager 37
6.3 EPC Superintendent 37
6.4 Workers and Subcontractors 38

7. Implementation 39
7.1 Hazard Identification, Risk Assessment and Control 39
7.2 Traffic Guidance Scheme 39
7.3 Traffic Control Devices 40

8. Communicating TMP Requirements 42
8.1 Site Inductions 42
8.2 Pre-Start and Toolbox Meetings 42
8.3 Safe Work Method Statements 42

9. Monitoring and Measurement 43
9.1 Site Inspections and Record Keeping 43
9.2 TMP Auditing 43
9.3 Incident Reporting 43
9.4 Complaints Procedure 45
9.5 Management and Monitoring Summary 47

10. Management Review 50
10.1 TMP Review and Improvement 50
10.2 Variations to Standards and Plans 50
10.3 Update of Strategies, Plans or Programs 50
10.4 Notification of Department 51

Drive Code of Conduct
Safe Driving Principles
Primary Driver Code
Chain of Responsibility
Emergency Procedures
Driver Fatigue
Maintenance Requirements
Complaint Resolution and Disciplinary Procedure

Appendices

Appendix A

Driver Code of Conduct, Neoen Driving Policy, Neoen Safe Driving Tips

Appendix B

NHVR Heavy Vehicle Driver Fatigue Requirements Bulletin

Appendix C

Annual Events in the Greater Hume Area

Appendix D

Proposed TGS Plans Walla Walla Solar Farm Access Points

Appendix E

Road Design Plans

Appendix F

Consultation with Third Parties

Appendix G

Site Environment Plans

Appendix H

Section 138 Road Opening Approval

Appendix I

Haulpac Product – Dust Suppression

Appendix J

Proposed TGS – Quarry Access

Appendix K

Council Approval Letter – Weeamera Road Upgrade

Appendix L

UGL Corridor – Temporary Traffic Management Plan

Appendix M

UGL Corridor – DPE Correspondence

1. Introduction

1.1 Project Background

The Culcairn Solar Farm project (the Project) is a proposed solar farm located approximately 4.0 kilometres southwest of Culcairn, New South Wales. The Project will involve the construction and operation of a ground-mounted PV solar tracking array generating approximately 350 MW AC / 402.5 MW DC of renewable energy. The power generated will be exported to the national electricity grid. The development footprint will occupy approximately 1084 hectares (ha) of the 1351 ha Project site. Access to the site will be provided via Weeamera Road, which connects to Benambra Road and Olympic Highway. Staff will be located within the nearby regional towns, and the majority of plant is expected to be delivered from the south along Olympic Highway.

The Development Consent (DC) - Application Number: SSD-10288 – requires the preparation of a Traffic Management Plan (TMP). A Modification Report 1 (SSD-10288 – Mod 1) was prepared and submitted to the Department of Planning and Environment (DPE) October 2023 and was determined on the 22 December 2023 with consolidated Conditions of consent issued. The modification to the Project was for minor alignment revisions and widening of the Project's Development Footprint along Weeamera Road and at two creek crossings. The modification was also for minor amendments to the definitions and wording of Schedule 3 Condition 2 – Transport. All modifications are reflected in this updated Traffic Management Plan.

Amber has been asked to prepare this TMP on behalf of Neoen Australia (project owner) to detail the proposed temporary traffic management measures to be implemented during the construction works for the project and respond to this requirement.

Figure 1 shows the proposed layout of the site in relation to the road network, access locations and existing infrastructure, as amended by Modification 1 of the Development Consent dated 22 December 2023.

Early works are anticipated to start in Q4 2023 and continue through Q1 2024. Main works are currently scheduled to start at the end of Q1/beginning of Q2 in 2024, and the main works construction period will last for 18-21 months. The development will generate around 400 direct full-time equivalent (FTE) jobs during construction, with a maximum of 350 workers on site at any one time.

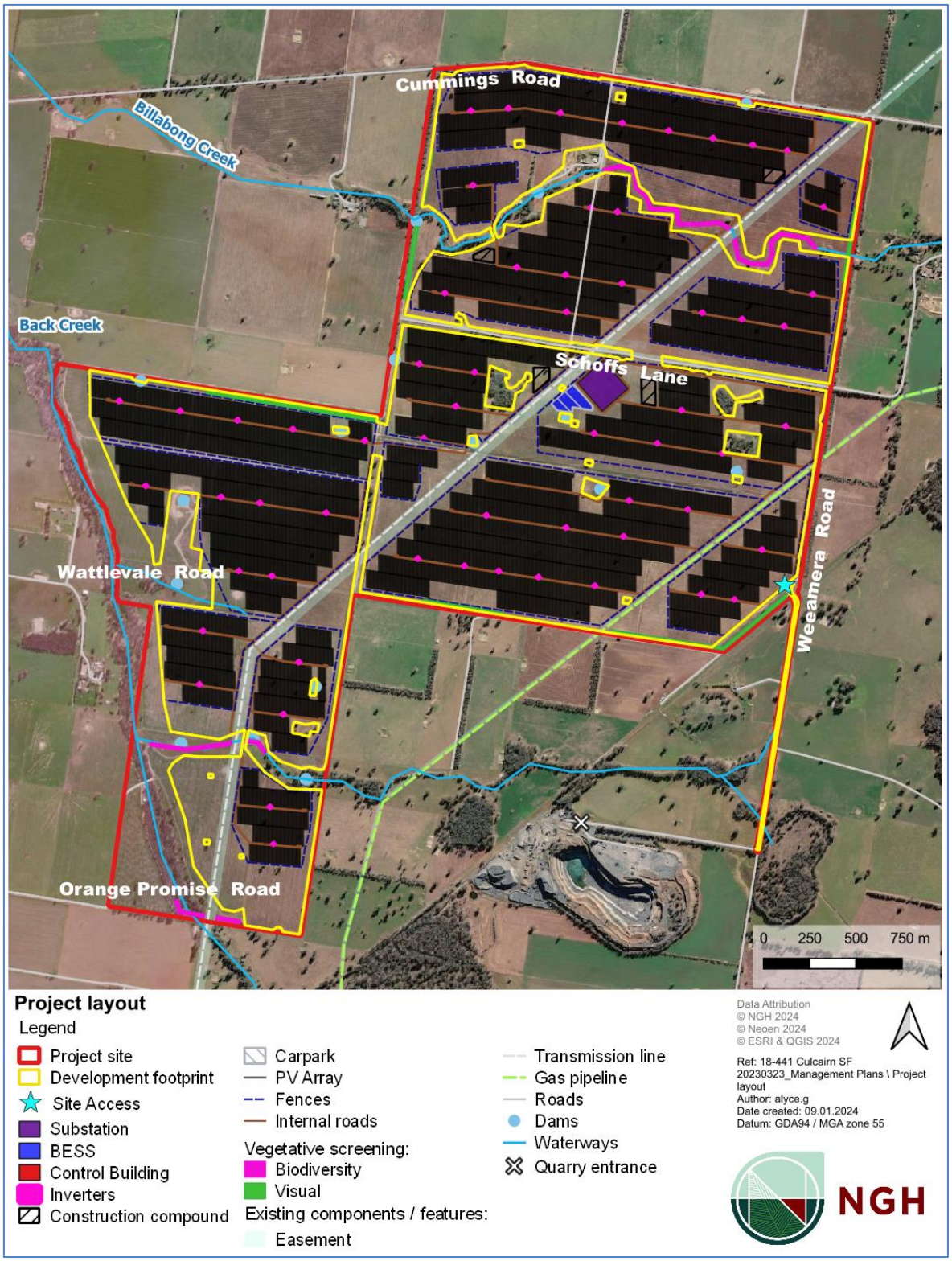
It is anticipated that construction employment numbers will peak in mid-2025 with up to 350 personnel required on site at any one time, with numbers then progressively declining to 20 in November 2025

Employees are expected to primarily be located in Albury and Wagga Wagga, with all specialised plant expected to be delivered from Port Botany or the Port of Melbourne. The construction process is largely confined on-site, with construction activities largely confined to the site itself, except for temporary impacts associated with road upgrade works which will take place prior to construction.

The primary traffic impacts relate to the traffic generation associated with the transport of materials and the workforce to and from the site, with these effects able to be managed with minimal impact to the road network. This TMP applies to the construction phase of the project with separate TMPs to be prepared for the operation and decommissioning of the project.

This TMP has been prepared based on the available construction information at this time.

Figure 1: Approved Project Layout, as amended by Modification 1 of the Development Consent dated 22 December 2023


Cummings Road
Billabong Creek
Back Creek
Schoffs Lane
Wattlevale Road
Weeamera Road
Orange Promise Road
0 250 500 750 m
Project layout
Legend
Project site
Development footprint
Site Access
Substation
BESS
Control Building
Inverters
Construction compound
Carpark
PV Array
Fences
Internal roads
Vegetative screening:
Biodiversity
Visual
Existing components / features:
Easement
Transmission line
Gas pipeline
Roads
Dams
Waterways
Quarry entrance
Data Attribution
© NGH 2024
© Neoen 2024
© ESRI & QGIS 2024
Ref: 18-441 Culcairn SF
20230323_Management Plans \ Project layout
Author: alyce.g
Date created: 09.01.2024
Datum: GDA94 / MGA zone 55
NGH

Source: NGH

1.2 Objectives

The key objective of this TMP is to ensure safe and efficient movement of vehicles to/from the site, whilst minimising disruptions and impacts to the local community and other road users, and maintaining a safe environment for vehicular traffic external to the site. More specifically, the objectives of the TMP are to:

- Provide a safe environment for the travelling public and construction personnel;
- Cater for the needs of all traffic;
- Communicate the purpose of the proposed traffic management measures; and
- Communicate the arrangements for and impacts of any management measures affecting traffic.

To assist in meeting these objectives the TMP provides information on:

- The Scope of Works;
- Site conditions;
- Permissible working times; and
- Procedures and responsibilities.

The appointed Engineering, Procurement and Construction contractor (EPC) shall ensure that the requirements of the document and other relevant information will be monitored and the TMP adjusted to meet changing requirements where necessary. The Applicant must implement and comply with the TMP at all times to the satisfaction of the Responsible Authority and the Planning Secretary.

1.3 TMP Staging

The TMP is to be staged as follows:

- Stage 1a: Construction of the site access point on Weeamara Road and the road upgrades along Weeamara Road up to the unused rail corridor, land preparation;
- Stage 1b: Upgrade of Weeamara Road including the unused rail corridor (not covered in Stage 1a) and commencement of construction of the solar farm;
- Stage 2: Continuation of the construction of the solar farm and the transport of material using heavy vehicles requiring escort as described Condition 2 of Schedule 3 of the Development Consent;
- Stage 3: Operation of the Culcairn Solar Farm;
- Stage 4: Construction, commissioning, and operation of the battery energy storage system (BESS), including substation and switchyard expansion (within the development footprint) if the battery proceeds later; and
- Stage 5: Decommissioning the Culcairn Solar Farm at end of life.

This TMP applies to Stage 1a and 1b.

1.4 Statutory Requirements

This document fulfills the requirements of Environmental Condition 9 of Schedule 3 of the Development Consent (Application Number: SSD-10288), as amended by Modification 1 of the Development Consent dated 22 December 2023, which requires the provision of a Traffic Management Plan and has been prepared with consideration to the other transport conditions outlined within the Development Consent (as amended 22 December 2023). The matters relevant to transport outlined within the Environmental Conditions have been summarised within Table 1 (Schedule 3) and Table 2 (Schedule 4).

Table 1: Development Consent Requirements, as amended 22 December 2023 – Schedule 3

CONDITION	REFERENCE LOCATION
Over-Dimensional and Heavy Vehicle Restrictions	
The Applicant must ensure that the: a) development does not generate more than: ▪ 100 heavy vehicle movements (including water carts) a day during construction, upgrading and decommissioning; ▪ Nine movements of heavy vehicles requiring escort during construction, upgrading and decommissioning; and ▪ Five heavy vehicle movements (including water carts) a day during operations; on the public road network; and b) length of any vehicles (excluding heavy vehicle requiring escort) used for the development does not exceed 26 metres, unless the Planning Secretary agrees otherwise.	**Complies:** Refer Section 3.5.1 for (a) Refer Section 3.4 and 3.5.1 for (b) This TMP only applies to the construction phase of the project (refer Section 1.1), operational impacts will be managed by way of a future TMP.
The Applicant must keep accurate records of the number of heavy vehicles requiring escort and heavy vehicles entering or leaving the site each day for the duration of the project.	**Complies:** Section 4.2
Access Route	
All heavy vehicles and heavy vehicles requiring escort associated with the development (including water carts) must travel to and from the site via Olympic Highway, Benambra Road and Weeamera Road as identified in the figure in Appendix 5.	**Complies:** Section 3.5.3
Site Access	
All vehicles associated with the development must enter and exit the site via the access point off Weeamera Road, as identified in Appendix 1 and Appendix 5.	**Complies:** Section 3.5.2 and 3.5.3
Road Upgrades	
Unless the Planning Secretary agrees otherwise, prior to commencing construction the Applicant must: a) construct the access point on Weeamera Road, as identified in Appendix 1 and Appendix 5, with a Rural Property Access type treatment and to cater for the largest vehicle accessing the site; b) upgrade Weeamera Road between the access to Hurricane Hill Hardrock Quarry and the site access point to a 7 m wide sealed pavement, as identified in Appendix 5; These upgrades must comply with the Austroads Guide to Road Design (as amended by TfNSW supplements) and be carried out to the satisfaction of Council.	**Complies:** Section 3.6, Appendix E for design plans, Appendix H for Section 138 approval.
Road Maintenance	
The Applicant must: a) undertake an independent dilapidation survey to assess the: ▪ existing condition of Benambra Road and Weeamera Road on the transport route prior to construction, upgrading or decommissioning works; and ▪ condition of Benambra Road and Weeamera Road on the transport route, following construction, upgrading or decommissioning works; b) repair Benambra Road and Weeamera Road on the transport route if dilapidation surveys identify that the road has been damaged during construction, upgrading or decommissioning works; in consultation with the relevant roads authority, to the satisfaction of	**Complies:** Section 5

the Planning Secretary. If there is a dispute about the repair of Benambra Road between the applicant and the applicant of the Walla Walla Solar Farm, then either party may refer the matter to the Planning Secretary for resolution. The Planning Secretary's decision on the matter must be final and binding on both parties.	
Operating Conditions	
The Applicant must ensure: a) the internal roads are constructed as all-weather roads; b) there is sufficient parking on site for all vehicles, and no parking occurs on the public road network in the vicinity of the site; c) the capacity of the existing roadside drainage network is not reduced; d) all vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction; and e) vehicles leaving the site are in a clean condition, with loads appropriately covered or contained, to minimise dirt being tracked onto the sealed public road network.	**Complies:** Section 4.4, 4.13
Traffic Management Plan	
Prior to commencing road upgrades, the Applicant must prepare a Traffic Management Plan for the development in consultation with TfNSW and Council and to the satisfaction of the Planning Secretary. This plan must include:	**Complies:**
a) details of the transport route to be used for all development-related traffic;	Section 3.5, shown in Figure 6, Figure 7 and Figure 8
b) details of the road upgrade works required by condition 6 of Schedule 3 of this consent;	Section 3.6
c) details of the measures that would be implemented to minimise traffic impacts during construction, upgrading or decommissioning works, including:	
▪ details of the dilapidation surveys required by condition 7 of Schedule 3 of this consent;	Section 5
▪ temporary traffic controls, including detours and signage;	Section 7.3
▪ notifying the local community about development-related traffic impacts;	Section 4.3
▪ procedures for receiving and addressing complaints from the community about development related traffic;	Section 9.3.3
▪ minimising potential cumulative traffic impacts with other projects in the area, including during construction, upgrading or decommissioning works;	Section 0
▪ minimising potential for conflict with school buses and other road users as far as practicable, including preventing queuing on the public road network (measures also required during operation of the project);	Section 4.6
▪ minimising dirt tracked onto the public road network from development-related traffic;	Section 4.4, 4.12
▪ details of the employee shuttle bus service, including pick-up and drop-off points and associated parking arrangements for construction workers, and measures to encourage employee use of this service;	Section 4.7
▪ encouraging car-pooling or ride sharing by employees;	Section 4.7
▪ scheduling of haulage vehicle movements to minimise convoy length or platoons;	Section 3.5.3

▪ responding to local climate conditions that may affect road safety such as fog, dust, wet weather and flooding;	Section 4.10
▪ responding to, any emergency repair and/or maintenance requirements; and	Section 5
▪ a traffic management system for managing heavy vehicles requiring escort;	Section 4.5
d) a driver's code of conduct that addresses:	Section 4.1, Appendix A
▪ travelling speeds;	Appendix A, Section 2
▪ driver fatigue;	Appendix A, Section 5 Appendix B
▪ procedures to ensure that drivers adhere to the designated transport routes and speed limits; and	Appendix A, Section 2
▪ procedures to ensure that drivers implement safe driving practices;	Appendix A, Section 1
e) a program to ensure drivers working on the development receive suitable training on the code of conduct and any other relevant obligations under the Traffic Management Plan.	Section 8 and 9
Following the Planning Secretary's approval, the Applicant must implement the Traffic Management Plan.	

Table 2: Development Consent Requirements – Schedule 4

	CONDITION	REFERENCE LOCATION
	Revision of Strategies, Plans and Programs	
2.	The Applicant must: a) update the strategies, plans or programs required under this consent to the satisfaction of the Planning Secretary prior to carrying out any upgrading or decommissioning activities on site; and	**Complies:** Refer Section 10.3
	b) review and, if necessary, revise the strategies, plans or programs required under this consent to the satisfaction of the Planning Secretary within 1 month of the: ▪ submission of an incident report under condition 7 of Schedule 4; ▪ submission of an audit report under condition 11 of Schedule 4; or ▪ any modification to the conditions of this consent.	**Complies:** Refer Section 10.3
	Updating and Staging of Strategies, Plans or Programs	
3.	With the approval of the Planning Secretary, the Applicant may submit any strategy, plan or program required by this consent on a progressive basis. To ensure the strategies, plans or programs under the conditions of this consent are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Planning Secretary for approval. With the agreement of the Planning Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all the parties referred to under the relevant condition of this consent.	**Complies:** Refer Section 10.3

Notification of Department		
4.	Prior to commencing the construction, operations, upgrading or decommissioning of the development or the cessation of operations, the Applicant must notify the Department in writing via the Major Projects website portal of the date of commencement, or cessation, of the relevant phase. If any of these phases of the development are to be staged, then the Applicant must notify the Department in writing prior to commencing the relevant stage, and clearly identify the development that would be carried out during the relevant stage.	**Complies:** Refer Section 10.4
Incident Notification		
7	The Planning Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 7.	**Complies:** Refer Section 9.3
Non-Compliance Notification		
8.	The Planning Secretary must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-compliance.	**Complies:** Refer Section 9.3
9.	A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	**Complies:** Refer Section 9.3
10.	A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	**Complies:** Refer Section 9.3
Access to information		
17.	The Applicant must: a) make the following information publicly available on its website as relevant to the stage of the development: ▪ the EIS; ▪ the final layout plans for the development; ▪ current statutory approvals for the development; ▪ approved strategies, plans or programs required under the conditions of this consent; ▪ the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged; ▪ how complaints about the development can be made; ▪ any independent environmental audit, and the Applicant's response to the recommendations in any audit; and ▪ any other matter required by the Planning Secretary; and	**Complies:** Refer Section 4.3
	b) keep this information up to date.	**Complies:** Refer Section 4.3

The development will be carried out generally in accordance with the EIS and any modifications, and the conditions of the consent.

To meet EIS Project Commitments, a Section 138 approval(s) will be secured for all roadworks on or near public roads.

1.5 Third Party Consultation

The TMP has been prepared in conjunction with consultation with Officers from Transport for NSW and suitable representatives from Greater Hume Council.

Greater Hume Council confirmed the nature of traffic data available for the local road network (refer Section 2.3) and available information related to temporary traffic changes on the local road network associated with the Walla Walla Solar Farm. They also confirmed that no road upgrade works were planned in the area by Council. They did not identify any road safety issues in the vicinity of the site.

Greater Hume Council were also consulted about the construction of the access route to site. The feedback is provided in Appendix F. Council have approved design plans provided in Appendix E with a Section 138 Road Opening Permit attached for reference in Appendix H.

Officers from Transport for NSW requested the draft TMP be submitted for review once completed.

The Culcairn Quarry was contacted to provide any feedback on road safety issues and any concerns related to the proposed works (provided withinAppendix F). They raised concerns about the increase in traffic and safety near their access to Weeamera Road. As a result of this feedback speed limit reductions and warning signs are to be implemented near their access during the construction phase of the project as outlined in Section 7.2 and shown in Appendix J.

These third parties have been provided the draft TMP for review in July 2023.

1.6 Related Documents

This TMP forms part of a suite of management reports that have been developed in relation to this project, including:

- Environmental Management Strategy (EMS), Neoen and NGH
- Accommodation and Employment Strategy, NGH
- Soil and Water Management Plan (SWMP), NGH
- Erosion and Sediment Control Plan (ESCP), NGH
- Community Communication Strategy and Benefit Sharing Plan (CCS), Neoen
- Bushfire Management and Emergency Plan (BMEP), NGH

Where applicable, references to these reports are included in this document.

2. Existing Road Environment

2.1 Site Location

The project site is located on the western side of the Weeamera Road, approximately 4.0 kilometres southeast of Culcairn in the Greater Hume Council local government area. Figure 2 shows the location of the site in relation to the surrounding transport network.

Figure 2: Site Location

Source: OpenStreetMap

The site and the surrounding area are zoned RU1 - Primary Production and are primarily occupied by agricultural or vegetated land. It is noted that the Culcairn Quarry is located approximately 1.4 kilometres south of the site and gains access via Weeamera Road.

2.2 Road Network

Weeamera Road is a local road that runs in a north-south alignment between Cummings Road and Benambra Road. Between Benambra Road and the Boral Quarry site access it has a sealed width of 8.0 metres. North of the quarry access the road is unsealed and has a width of 5.5 metres, and accommodates two-way vehicle movement. The extent of the sealed and unsealed sections of Weeamera Road (and Benambra Road) are presented in the figure below.

Benambra Road is also a local road under the care and management of Greater Hume Shire Council. It runs in an east-west alignment between Coach Road and Cummings Road. Between Olympic Highway and Weeamera Road it has a sealed carriageway width of 8.5 metres and accommodates two-way vehicle movement. West of Weeamera Road it has an unsealed surface for approximately 3.3 kilometres before widening to have a sealed surface through to its connection with Cummings Road.

Figure 3: Sealed and Unsealed Roads

Source: OpenStreetMap

Olympic Highway is a State Road under the care and management of TfNSW. It generally runs in a north-south alignment in south-east NSW and provides access between Albury and Cowra, with links to the Hume Highway, Sturt Highway and the Mid-Western Highway. Within the vicinity of the site, it typically accommodates one lane of traffic in each direction and has a sealed width of approximately 9.0 metres.

The **intersection of Olympic Highway with Benambra Road** is priority controlled, with vehicles exiting Benambra Road required to give way to vehicles on Olympic Highway. An Auxiliary Left Turn (AUL) turning treatment is provided for vehicles turning left into Benambra Road, and widening of the southbound carriageway allows southbound vehicles to pass around vehicles waiting to turn right into Benambra Road. An acceleration lane is also provided for vehicles turning left from Benambra Road. The intersection of Weeamera Road and Benambra Road is priority controlled.

All roads within the vicinity of the site have a speed limit of 100km/hr.

2.3 Traffic Volumes

Traffic volume data for Olympic Highway was obtained from the TfNSW traffic volume viewer. The closest available data was located 290 metres north of Calool Lane (approximately five kilometres north of Culcairn), where the 2011 data recorded an average daily traffic count of 2,753 vehicles per day (vpd).

Greater Hume Council have advised that the average daily traffic for Benambra Road and Weeamera Road between Olympic Highway and the quarry site access is 42vpd, with Weeamera Road carrying 15vpd north of the Quarry access.

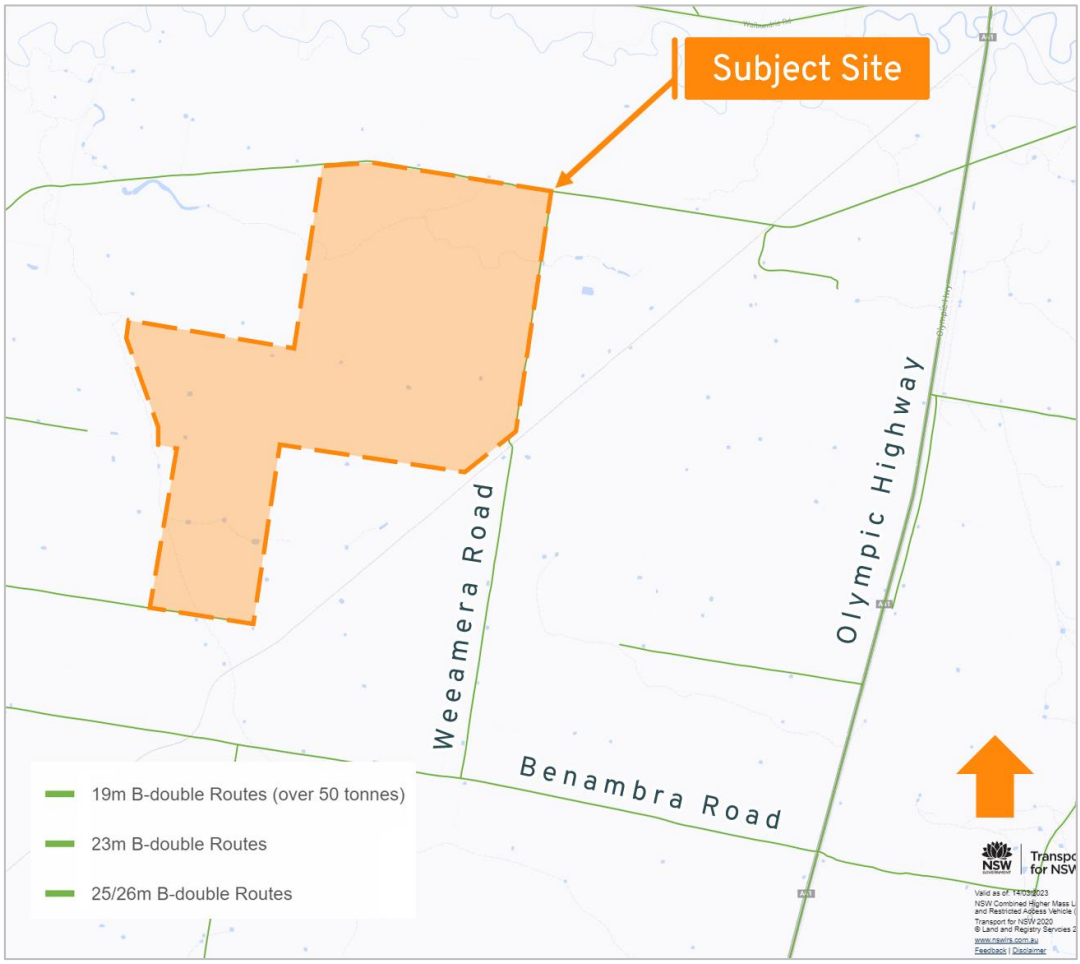
Overall, the survey results indicate the surrounding road network currently accommodates a low to moderate level of traffic.

2.4 Restricted Vehicle Access

The TfNSW Heavy Vehicle Network Access Map for the surrounding area has been reviewed which shows:

- Weeamera Road and Benambra Road are approved B-Double routes along with the Olympic Highway and broader arterial road network, as shown in Figure 4.
- The Olympic Highway is an approved OSOM route whilst Weeamera Road and Benambra Road are not approved, and therefore formal approval will be required for access and use for OSOM vehicles of these roads.

Figure 4: TfNSW Restricted Access Vehicle Map



Source: TfNSW (accessed April 2023)

2.5 Public Transport Services

No public transport or alternative transport modes are provided within the vicinity of the site.

2.6 Crash History

Amber has conducted a review of the TfNSW Centre for Road Safety Crash and Casualty Statistics database for all injury crashes within the following study area:

- any recorded crashes on Benambra Road and Weeamera Road,
- the Olympic Highway approximately 5.0 kilometres north and south of Benambra Road; and
- the respective intersections.

The crash database provides the location and severity of all injury and fatal crashes for the five-year period from 2017 to 2021. The search revealed that no crashes had been recorded in the study area. It is therefore concluded that the road network is currently operating in a relatively safe manner.

3. Construction Overview

3.1 Project Description

As outlined in the EMS, the scope of the works for the project is as follows.

The Project will involve the construction and operation of a ground-mounted PV solar tracking array generating approximately 350 MW AC / 402.5 MW DC of renewable energy. The power generated will be exported to the national electricity grid. The development footprint will occupy approximately 1084 hectares (ha) of the 1351 ha Project site.

Key development and infrastructure components will include:

- *Single axis tracker PV solar panels mounted on steel frames over most of the site (maximum tilt 4.2 metres in height)*
- *Underground and overground electrical conduits and cabling to connect the arrays to the inverters and transformers*
- *Systems of invertor units and voltage step-up throughout the arrays*
- *National Energy Market (NEM) compliant metering arrangements for all energy exported to the grid as well as internal metering to measure battery and solar output*
- *On site substation, connecting to the existing 330 kV TransGrid transmission line*
- *Site office and maintenance building, vehicle parking areas, material laydown area, internal access tracks and perimeter security fencing*
- *Site access track off Weeamera Road*
- *Road crossing and easement electrical crossing through underground and/or overhead lines, of Cummings Road and Schoff's Lane*
- *Vegetative screening at impacted visual receivers and at the intersection of public roads.*

The Project has been approved with the inclusion of a Battery to store energy produced on site with up to 100 MW / 200 MWh capacity. Neoen are currently not proposing to construct or install the battery energy system as part of the Project.

The works are to be undertaken by an appointed Engineering, Procurement and Construction contractor (EPC).

3.2 Duration of Construction Works and Schedule

Early works are anticipated to start in Q4 2023 and continue through Q1 2024. Main works are currently scheduled to start at the end of Q1/beginning of Q2 in 2024, and the main works construction period will last for 18-21 months. The development will generate around 400 direct full-time equivalent (FTE) jobs during construction, with a maximum of 350 workers at any one time.

The project activities and anticipated timeframes are summarised in Table 3.

Table 3: Anticipated Project Activities and Timeframes

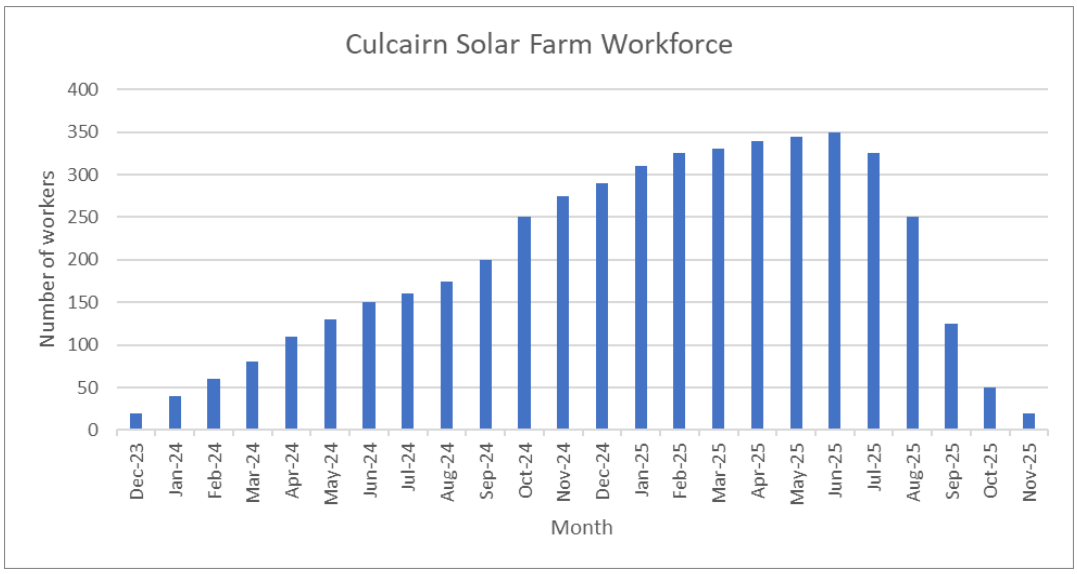
Project Activities e	Timing
Early Works	Nov 2023 - March 2024
Civil Works	March 2024 - Feb 2025

Project Activities e	Timing
Mobilization	March 2024 - April 2024
Access Road Upgrades	April 2024 - May 2024
Trenching	June 2024 - Nov 2024
Pile Installation	July 2024 - Dec 2024
Tracker Installation	Aug 2024 - Feb 2025
Electrical Works	Sep 2024 – June 2025
Module Installation	Sep 2024 - April 2025
Electrical Work and Testing	May 2025 - June 2025
HV Works	Nov 2023 - April 2025
Civil and Electrical	June 2024 - April 2025
Major Equipment Installation	Dec 2024 - Jan 2025
Commissioning	April 2025 - Dec 2025
Completion	Dec 2025 - Feb 2026

In accordance with Condition 6 of Schedule 3, the road upgrades to be completed prior to commencing construction. In accordance with the definition, the only construction activities that can occur prior to the upgrade are *road upgrades or maintenance works to the public road network, building/road dilapidation surveys, installation of fencing, artefact survey and/or salvage, overhead line safety marking and geotechnical drilling and/or surveying.* These conditions are to be complied with until the access road is upgraded.

It is anticipated that construction employment numbers will peak in mid-2025 with up to 350 personnel required on site at any one time, with numbers then progressively declining to 20 in November 2025. The workforce numbers over the construction are estimated to vary over the construction phases as shown in Figure 5.

Figure 5: Culcairn Solar Farm Workforce – Construction



Source: Accommodation and Employment Strategy

Construction activities shall be undertaken during standard daytime construction hours, as follows:

- Monday to Friday: 7am – 6pm
- Saturday: 8am – 1pm

- No work on Sundays or public holidays.

The following construction, upgrading or decommissioning activities may be undertaken outside these hours without the approval of the Planning Secretary:

- The delivery of materials as requested by the NSW Police Force or other authorities for safety reasons; or
- Emergency work to avoid the loss of life, property and/or material harm to the environment.

Any other construction activities outside the approved hours require the approval of the Planning Secretary.

The key construction activities comprise:

- Site establishment and preparation for construction - fencing, ground preparation, construction of the internal track system, upgrade of existing access points/intersections, preliminary civil works and drainage.
- Installation of steel post and framing system for the solar panels.
- Installation of underground cabling (trenching) and installation of inverter stations.
- Installation of PV panels.
- Construction of control room, switch room and storage building.
- Construction of the substation and connections.
- Construction of battery storage units (optional).
- Removal of temporary construction facilities and rehabilitation of disturbed areas.

3.3 Workforce Transport

The *Accommodation Strategy* for the project details the workforce numbers and where the workforce is proposed to be located. The strategy includes a range of large and small towns within a one hour drive of the project suitable to accommodate staff which include:

- Wagga Wagga (NSW)
- Albury (NSW)
- Wodonga (VIC)
- Holbrook (NSW)
- Culcairn (NSW)
- Walla Walla (NSW)
- Henty (NSW)
- Jindera (NSW)

Wagga Wagga, Albury and Wodonga are the largest towns/cities and would be expected to accommodate the majority of staff to the project.

3.4 Construction Vehicles and Equipment

Construction traffic generated by the solar project can broadly be separated into the following categories:

- Light vehicles associated with transporting staff to/from the site;
- 50 seater shuttle bus and/or 12-14 seater mini-buses are proposed to transport some staff between the site and nearby cities and towns;
- Medium and Heavy Rigid Trucks (MRV and HRV as defined within AS 2890.2:2018) will be used to deliver raw materials and smaller plant;
- Truck and Dog vehicles will be used to transport earthwork material to/from the site; and
- 19.0 metre long Articulated Vehicles and 26 metre long B-Doubles will be used to transport larger plant and for waste removal.

Other plant to be used during construction would include:

- cranes
- drum rollers
- dump truck
- road truck
- concrete truck
- excavators
- forklifts
- grader
- compactor
- small pile driving rig
- water truck
- cable trenching and laying equipment

Heavy vehicles requiring escort will be required for the delivery of the largest plant to the site such as the substation transformer and are subject to separate permit applications and regulations.

Condition 2 of the Development Consent requires the length of any vehicles (excluding heavy vehicles requiring escort) used for the development to not exceed 26 metres, unless the Planning Secretary agrees otherwise. Vehicles used during construction, operation and decommissioning will not exceed 26 metres.

3.5 Traffic Movements

3.5.1 Traffic Generation

The construction traffic volumes for the project have been provided by the Applicant and are also provided within the Culcairn Solar Farm Traffic Impact Assessment. During peak construction the site will generate no more than 100 heavy vehicles per day and 150 light vehicles per day.

There will be heavy vehicles required to transport material such as building and construction material on loads that are formally defined as OSOM under the Heavy Vehicle National Law administered by the National Heavy Vehicle Regulator (NHVR). These heavy vehicles will be a mix of the following:

- Exempt from prescribed weight and dimensional requirements per *Multi-State Class 1 Load Carrying Vehicle Dimension Exemption Notice 2023 (No.1) and (No.2)*[1], with these vehicle types travelling unescorted.

[1] https://www.nhvr.gov.au/law-policies/notices-and-permit-based-schemes/national-notices

- Special Purpose Vehicles (SPVs) and Restricted Access Vehicles (RAVs)[2] as defined by NHVR, such as mobile cranes which travel unescorted.

These vehicle types are excluded from the definition of heavy vehicles requiring an escort as they do not require escort.

Neoen (project owner) and NGH anticipate requiring up to three heavy vehicles to site that would require escort during their construction works to transport the largest plant.

Condition 2 of Schedule 3 of the Development Consent requires the development to not generate more than:

- 100 heavy vehicle movements a day during construction, upgrading and decommissioning.
- nine heavy vehicle requiring escort vehicle movements during construction, upgrading and decommissioning.

A vehicle movement is defined as one vehicle entering and leaving the site. The traffic movements generated during construction will comply with the requirements of this condition unless agreement in writing is received from the Planning Secretary.

Stage 1a and 1b of the project will comply with the heavy vehicle requiring escort limits as permitted by the consent as outlined in Condition 2, Schedule 3.

The heavy vehicles requiring escort vehicle movements will be addressed in Stage 2 of the TMP.

The expected vehicles for each project month and project activity are summarised in Table 4.

[2] https://www.nhvr.gov.au/road-access/mass-dimension-and-loading/classes-of-heavy-vehicles/class-1

Table 4: Expected Vehicles by Project Activity over Time

Project Month and Year	Project Activities	Light Vehicles (vehicles per day)	Heavy Vehicles without escort (vehicles per day)	Heavy Vehicles with escort (total)
November 2023	Early Works, HV Works	20	10	0
December 2023	Early Works, HV Works	20	10	0
January 2024	Early Works, HV Works	20	10	0
February 2024	Early Works, HV Works	20	10	0
March 2024	Early Works, Civil Works, Mobilization, HV Works	30	40	0
April 2024	Civil Works, Mobilization, Access Road Upgrades, HV Works	80	60	0
May 2024	Civil Works, Access Road Upgrades, HV Works	60	60	0
June 2024	Civil Works, Trenching, HV Works	50	40	0
July 2024	Civil Works, Trenching, Pile Installation, HV Works, Civil and Electrical	100	60	0
August 2024	Civil Works, Trenching, Pile Installation, Tracker Installation, HV Works, Civil and Electrical	120	80	0
September 2024	Civil Works, Trenching, Pile Installation, Tracker Installation, Electrical Works, Module Installation, HV Works, Civil and Electrical	130	100	0
October 2024	Civil Works, Trenching, Pile Installation, Tracker Installation, Electrical Works, Module Installation, HV Works, Civil and Electrical	130	100	0
November 2024	Civil Works, Trenching, Pile Installation, Tracker Installation, Electrical Works, Module Installation, HV Works, Civil and Electrical	150	100	0
December 2024	Civil Works, Tracker Installation, Electrical Works, Module Installation, HV Works, Civil and Electrical, Major Equipment Installation	150	80	2
January 2025	Civil Works, Tracker Installation, Electrical Works, Module Installation, HV Works, Civil and Electrical, Major Equipment Installation	150	80	1
February 2025	Civil Works, Tracker Installation, Electrical Works, Module Installation, HV Works, Civil and Electrical	100	70	0
March 2025	Electrical Works, Module Installation, HV Works, Civil and Electrical	100	60	0
April 2025	Electrical Works, Module Installation, HV Works, Civil and Electrical, Commissioning	90	60	0
May 2025	Electrical Works, Electrical Work and Testing, Commissioning	90	50	0

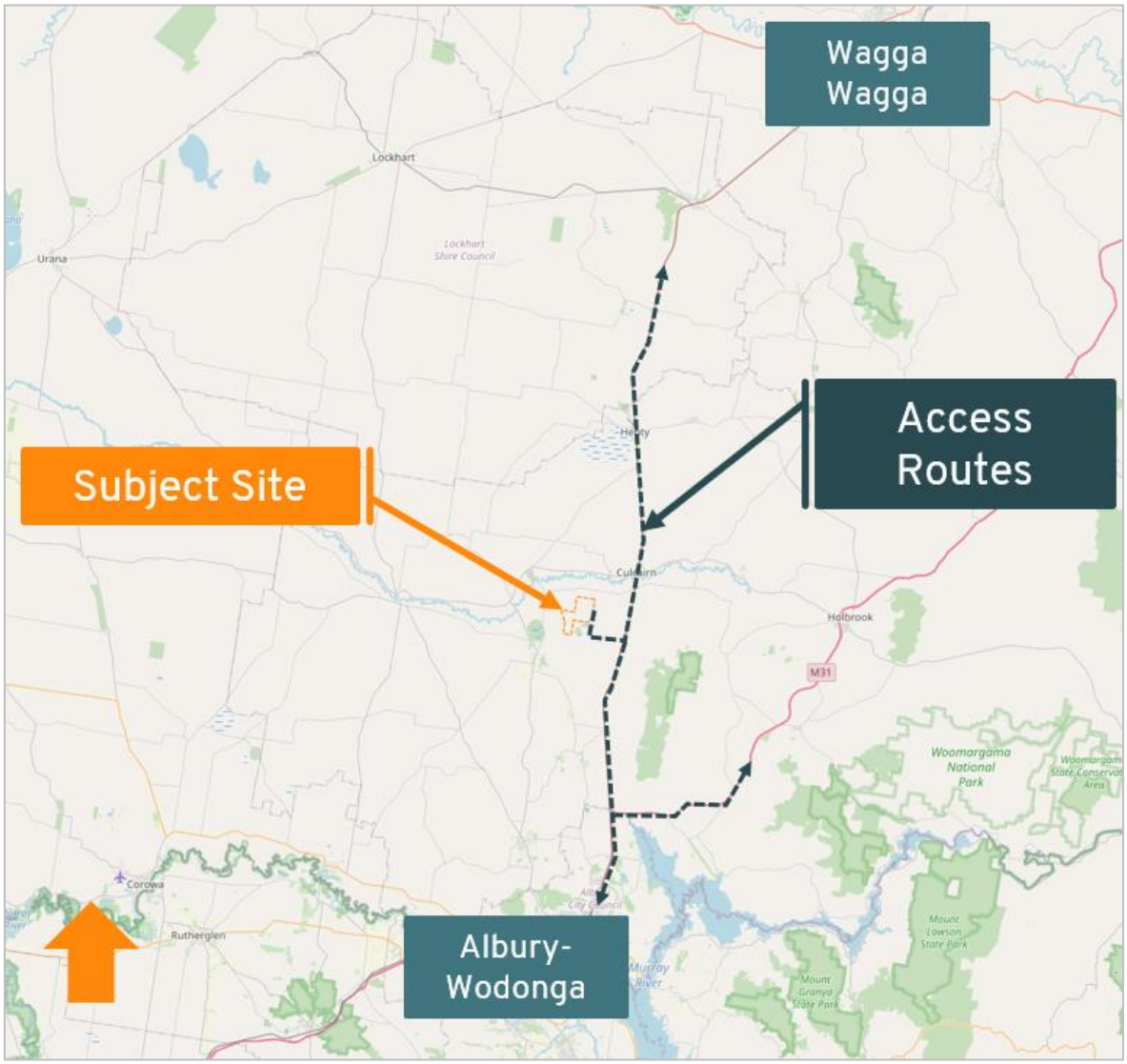
Project Month and Year	Project Activities	Light Vehicles (vehicles per day)	Heavy Vehicles without escort (vehicles per day)	Heavy Vehicles with escort (total)
June 2025	Electrical Works, Electrical Work and Testing, Commissioning	90	50	0
July 2025	Commissioning	60	10	0
August 2025	Commissioning	60	10	0
September 2025	Commissioning	30	5	0
October 2025	Commissioning	30	5	0
November 2025	Commissioning	30	5	0
December 2025	Commissioning, Completion	40	10	0
January 2026	Completion	20	2	0
February 2026	Completion	20	2	0

3.5.2 Light Vehicle Traffic Distribution

The workforce is to primarily be located in Albury and Wagga Wagga, as well as other nearby towns (further details on the anticipated breakdown and location of staff is available in the Accommodation Strategy). Vehicles will enter the site via the access to Weeamera Road from Benambra Road and the Olympic Highway.

The proposed access routes for light vehicles are shown indicatively in Figure 6. Light vehicles will only access the site via the approved routes.

Figure 6: Light Vehicle Access Route



Source: Open Street Maps

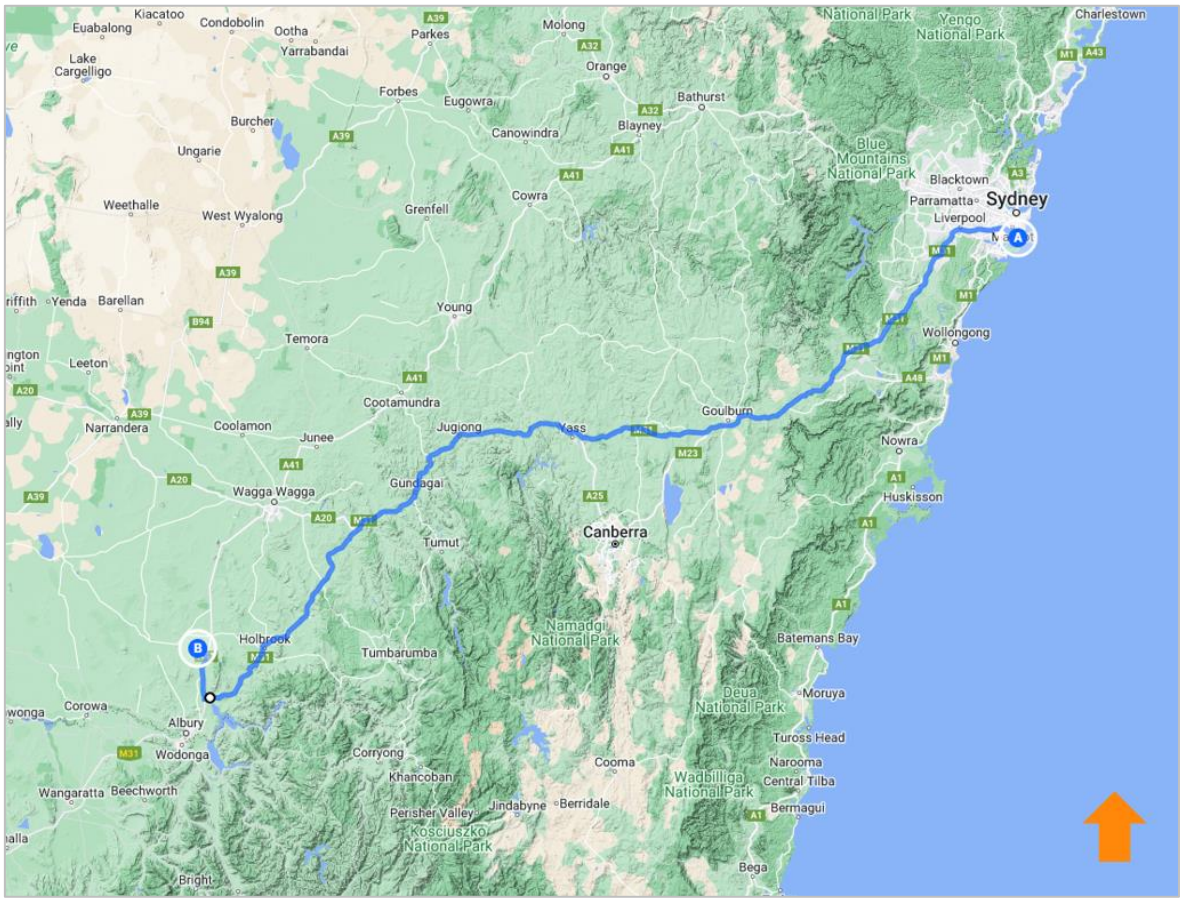
3.5.3 Heavy Vehicle Access Route

Figure 7 shows the proposed access route from Port Botany to the site. The proposed construction traffic access route from Port Botany to the site is as follows:

- Foreshore Road,

- M1, M5, M31
- Olympic Highway,
- Benambra Road, and
- Weeamera Road.

Figure 7: Access Route from Port Botany to Site

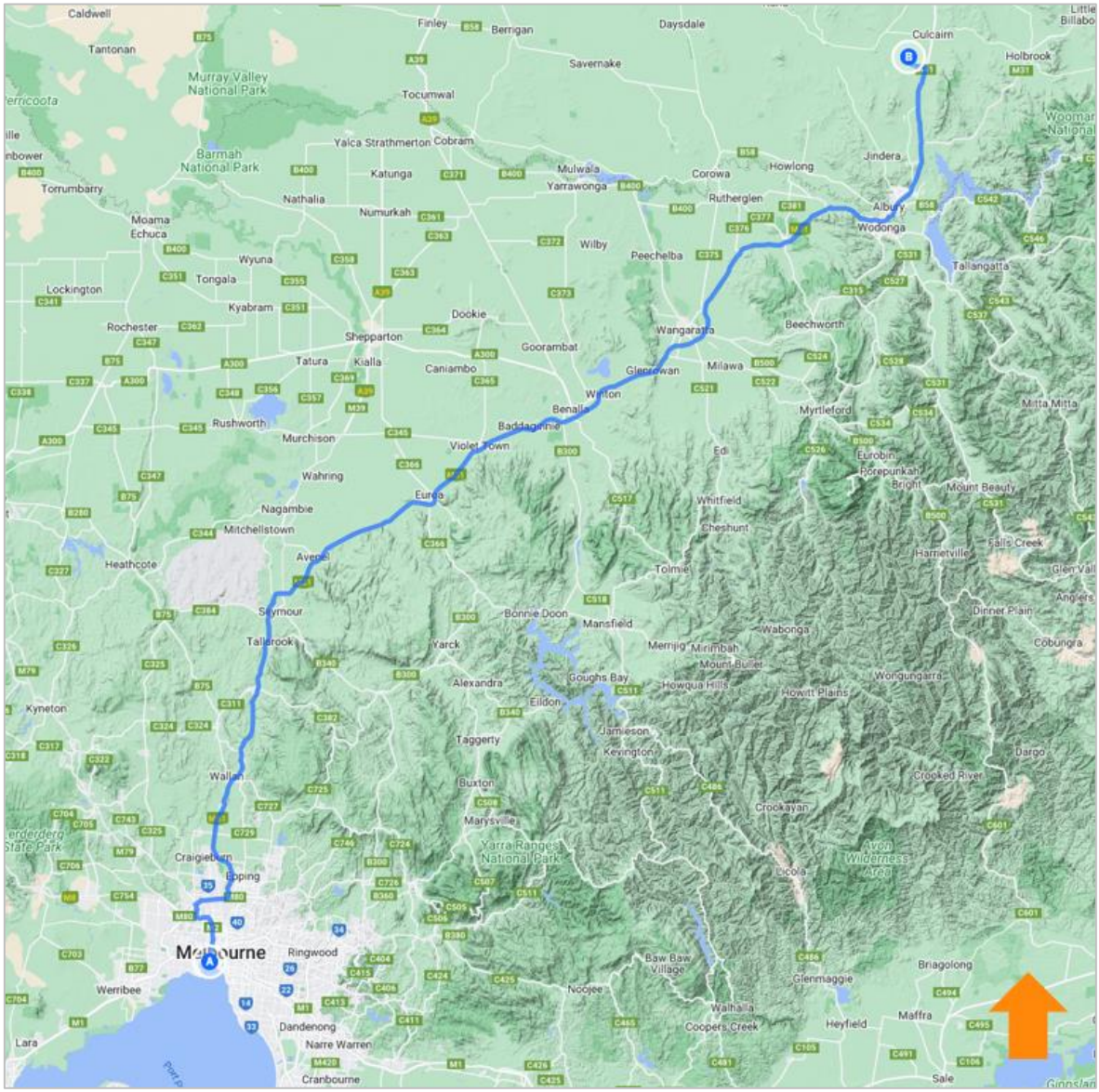


Source: Google Maps
https://www.google.com/maps/d/edit?mid=1wBPNAwefHQtTtVo0TSeBYuJsR2_AW0g&usp=sharing

Figure 8 shows the proposed access route from Port Melbourne to the site. The proposed construction traffic access route from Port Melbourne to the site is as follows:

- Dockland Highway,
- M2, M31.
- Olympic Highway,
- Benambra Road, and
- Weeamera Road.

Figure 8: Access Route from Port Melbourne to Site



Source: Google Maps
https://www.google.com/maps/d/edit?mid=1wBPNAwefHQtTtVo0TSeBYuJsR2_AW0g&usp=sharing

The access routes utilise roads that are designated for B-Double vehicles as outlined within the TfNSW Restricted Access Vehicle Map and VicRoads Gazetted B-Double Network Map. Accordingly, the Arterial/State roads along the access route are able to accommodate the loads and type of vehicle movement to be generated during construction of the solar project.

Condition 4 of Schedule 3 of the Development Consent requires all over-dimensional and heavy vehicles associated with the development must travel to and from the site via the Olympic Highway, Benambra Road and Weeamera Road. Heavy vehicles will only access the site via the approved routes and through the approved access at all times.

Heavy haulage movements are to be scheduled to minimise the potential for convoys/platoons.

3.6 Traffic Impacts and Proposed Off-Site Mitigation Measures

The traffic impacts associated with the construction traffic for the project have previously been assessed within the Traffic Impact Assessment prepared by Amber Organisation (TIA dated 12 November 2019). As a result of this assessment and the anticipated traffic impacts, several off-site mitigation measures by way of infrastructure improvements were proposed as part of the EIS and subsequent Amendment report which are to be implemented prior to construction.

Per Schedule 3, Condition 6 of the Development Consent, the measures are as follows:

- Construct the primary site access point as rural property access type treatment.
- Upgrading Weeamera Road between the access to the Quarry and the site access point to a 7.0 metre wide road with a suitable seal.

The road upgrades are to be implemented by the Applicant prior to the commencement of construction on-site and will comply with the Australian Guide to Road Design (as amended by TfNSW supplements) and be carried out to the satisfaction of Council. Design plans have been prepared for the access route to site, provided in Appendix E. Council have issued a Section 138 Road Opening Permit which is attached is Appendix H.

Council also requested the following to be implemented in relation to the road upgrades:

- *Dust suppression for that area*
- *Reduced speed – warning signs*
- *Manage volume of traffic*
- *Manage road degradation*

The feedback is provided in Appendix F for reference.

As a result of the feedback, a temporary spray seal is to be applied to the new road construction to manage dust and the need for water carts before the final spray seal to supress dust. The dust suppression product to be used is 'HaulPac' which is commonly used on mine sites where it has been shown to be effective. Information on this product is included in Appendix I.

Reduced speed and warning signs are included as part of the road design shown in Appendix E. Warning signs and reduced speeds are also to be provided near the Quarry access as outlined in Section 7.2 and shown in Appendix J,

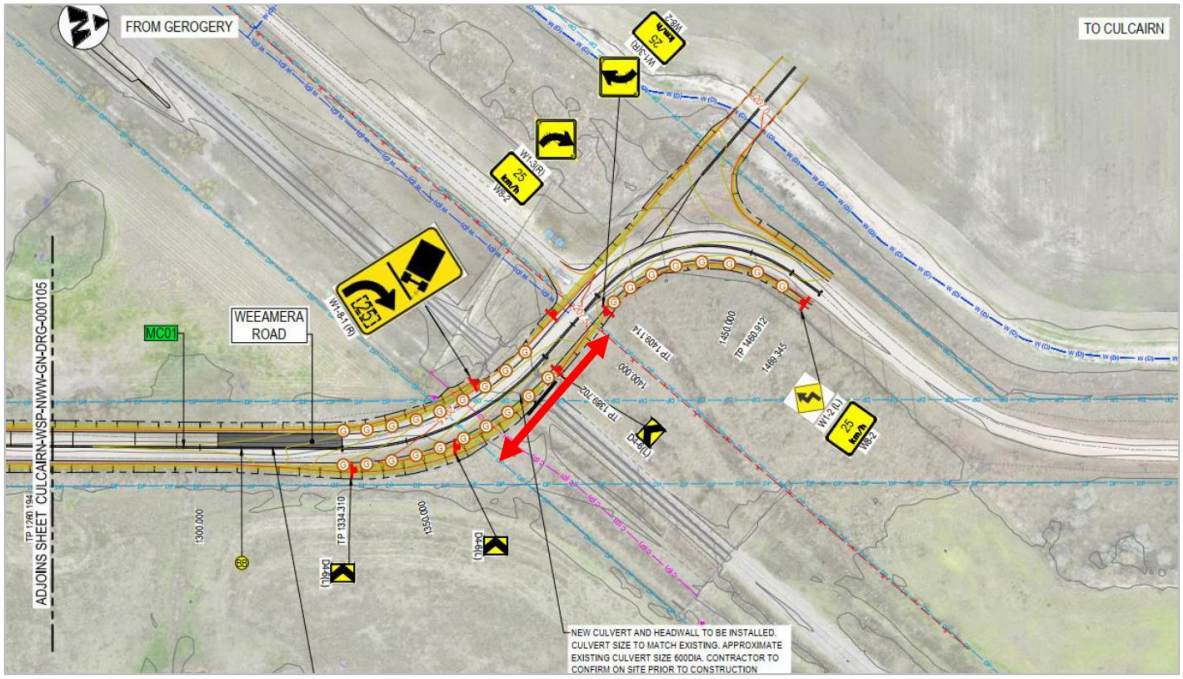
Measures to manage the volume of traffic and road degradation are outlined in Section 4.2 and Section 5.

3.6.1 Works at UGL Rail Easement

The Weeamera road upgrade involve works across a disused UGL rail easement near the site access. The easement is shown by the red arrow in Figure 9.

The upgrade works require a Construction Licence from UGL prior to any works occurring across this easement.

Figure 9: UGL Corridor impacted by Weeamera Road Upgrade



Excerpt of Road Upgrade Plans, WSP

DPE have agree to a 12-week delay to secure the licence and complete the road upgrade within the unused rail easement. Details of the correspondence and this approval is included in Appendix M.

The upgrading of the remainder 1.4 kilometre section of Weeamera Road must be completed prior to the commencement of the construction of the solar farm.

Council was also consulted about a potential delay of the road upgrades across the UGL corridor if the construction licence from UGL is delayed. Council have formally confirmed they are satisfied with a potential delay of the construction at the corridor via a letter which is attached in Appendix K. This involves the potential traffic control until such time as the road upgrades are completed which are shown for reference in Appendix L.

Should the construction across the easement be delayed, additional dust suppression measures will be undertaken as part of Stage 1b of the TMP. This would likely take the form of regular dust suppression watering in consultation with Council.

3.7 Traffic Impacts – Operations

As this TMP only applies to the construction phase of the project, separate TMP/s will be prepared for other stages as discussed in Section 1.3.

4. Traffic Management Strategy

4.1 Driver Protocols

Management of vehicular access to and from the site is essential in order to maintain the safety of the general public as well as the labour force. Exemplar driver protocols are to be implemented and a driver code of conduct established. The Drive Code of Conduct is provided within Appendix A. All vehicle drivers that visit the site are required to read, agree to and sign the Driver's Code of Conduct.

The following measures will be implemented by the EPC Site Manager and Neoen Owner's Engineer:

- Mandatory site induction given to all workers on the site which clearly sets out the TMP requirements including approved routes, speed restrictions, the Driver Code of Conduct, Neoen Driving Policy, and Neoen Safe Driving Tips.
- Specific additional site induction given to all delivery drivers which focuses on approved traffic routes, and other general driving requirements.
- Pre-engagement with delivery companies to ensure information on approved routes are known and understood before commencement of journey.
- Monitoring complaint and safety incident registers (including near miss and hazard observation) are also tracked to address any incidences of non-compliance and improvement opportunities in relation to routes and driving behaviour. Should there be issue identified the following measures be implemented:
    - Additional external signage for unapproved routes (e.g. "No Solar Farm Traffic") and project specific speed limits can also be erected, subject to deemed requirements and approval of the relevant road authority.
    - Seek local police support to show presence and/or installed speed cameras with the signs showing cars' speeds to ensure drivers are fully aware of their speeds and know they are being monitored.

4.2 Delivery Logistics

The EPC Site Manager and Neoen Owner's Engineer will be responsible for managing the heavy vehicle and heavy vehicle requiring escort movements to and from the site. Their responsibilities comprise:

- Ensuring that accurate records are kept of heavy vehicles and heavy vehicles requiring escort to and from the site. These will be reported monthly to the Neoen Project Manager. The records will list the number of heavy vehicles accessing the site each day, including:
    - The amount and type of material / plant transported;
    - The time each truck arrived and departed the site and the vehicle classification; and
    - The direction the vehicle was travelling to/from (i.e. north/east, south/west).
- Ensuring that the maximum number of heavy vehicle movements per day is adhered to;
- Schedule of next day and 2-day forecast of all deliveries, including inventory and timing;
- Expected ship date;
- Number of containers from each supplier;
- Transit time;
- Estimated time of arrival;

- Online access available for up to date reporting of each shipment;
- Minimum daily communication with transport company/s; and
- Ensure construction drivers/staff must be provided a copy of assigned haulage routes.

The Applicant is to ensure that records of the heavy vehicles and heavy vehicles requiring escort are kept for the life of the project.

They will coordinate trucks to arrive at the site at a specific time of day in order to satisfy community and safety concerns, including the use of police escorts when necessary, although unlikely. Haulage of materials and equipment to the site will be scheduled to arrive and depart from the site at different times coinciding with the construction program.

Delivery schedules will be planned and drivers / delivery companies informed of the schedule to ensure delivery are spread such that at no time more than 20 deliveries are made within a 2 hour window.

Expected delivery times would be established with a schedule and evaluated based on when they actually arrive to site. These reports would then be provided to the Neoen Project Manager, and if schedules are not being followed, the scheduling procedure and enforcement guidelines would be evaluated.

Vehicles will be scheduled to avoid conflict with local traffic and any school zones during peak school times. Furthermore, the varying origins of the haulage movements and limited number of deliveries to site each day will limit the potential for haulage vehicles to form convoys or platoons.

4.3 Information and Communications

The EPC Project Manager is required to provide weekly reports to the Neoen Project manager, the Neoen project manager will be the main point of contact for non-emergency ongoing communication with the community, Council, the Quarry, local residents and other key stakeholders. On-site they will be supported by the Neoen Owner's Engineer as well as the Neoen Community Liaison Officer.

For emergency issues the Neoen Owner's Engineer and EPC Project/Site Managers will be the first points of contact to resolve issues. Details and contact information of each of these positions will be provided to Council, Quarry, local residents and other relevant stakeholders.

Neoen will host a start of construction community event, at the start of constriction in order to provide the community the final construction timeline and expected impacts in the region. The Neoen Project Manager will be responsible for sending out electronic newsletters to the community and key stakeholders quarterly and at major construction milestones. Discussion with the Quarry and Council will be ongoing, and lead by the Neoen Project Manager. Recurring meetings would be scheduled (online or in-person), if needed and requested to understand how to better manage cumulative impacts. Immediate neighbours will be contacted directly at major construction milestones or if they should expect any changes, milestones would include:

- commencement of road upgrade,
- completion of road upgrades,
- commencement of heavy vehicles requiring escort to site and timing of heavy vehicles requiring escort requiring escort to site.

The Neoen Project Manager will also have open communication with nearby neighbours to understand and facilitate use of the road for activities such as stock movement, supported by the Neoen Community Liaison Officer. The Neoen Community Liaison Officer's contact details would be provided to the nearby neighbours so that neighbours could request a call or set up in-person meeting directly. The Community Liaison Officer would be available for regular meetings with neighbours during construction, if requested so that the most

up to date information could be provided in-person and any concerns or questions can be addressed quickly. The Community Liaison Officer's contact information would also be shared with the wider community, so that interested community members could reach out via email, phone, or request an in-person meeting.

Prior to construction commencing and during the construction period, a program of consultation shall be initiated to ensure the local residents are fully aware of the construction activities, with particular regard being given to construction traffic accessing the site. This program will include elements of the following as appropriate to the phase of works:

- Neighbour consultation and neighbour meetings;
- Provision of a website providing details of the status of works and contact details for any complaints or enquiries, which will also include the:
  - EIS;
  - the final layout plans;
  - current statutory approvals;
  - approved strategies, plans or programs;
  - the proposed staging plans (if staging is proposed);
  - details on how complaints can be made; and
  - any independent environmental audit and response;
- Provide key contact personnel and contact details, including out of hours contact information to residents, schools, and public activities operating alongside the local route;
- Neighbours of the project will be consulted and notified regarding the timing of major deliveries which require additional traffic control and disrupt access; and
- any other matter required by the Planning Secretary.

The information provided is to be kept up to date.

4.4 On-site Mitigation Measures

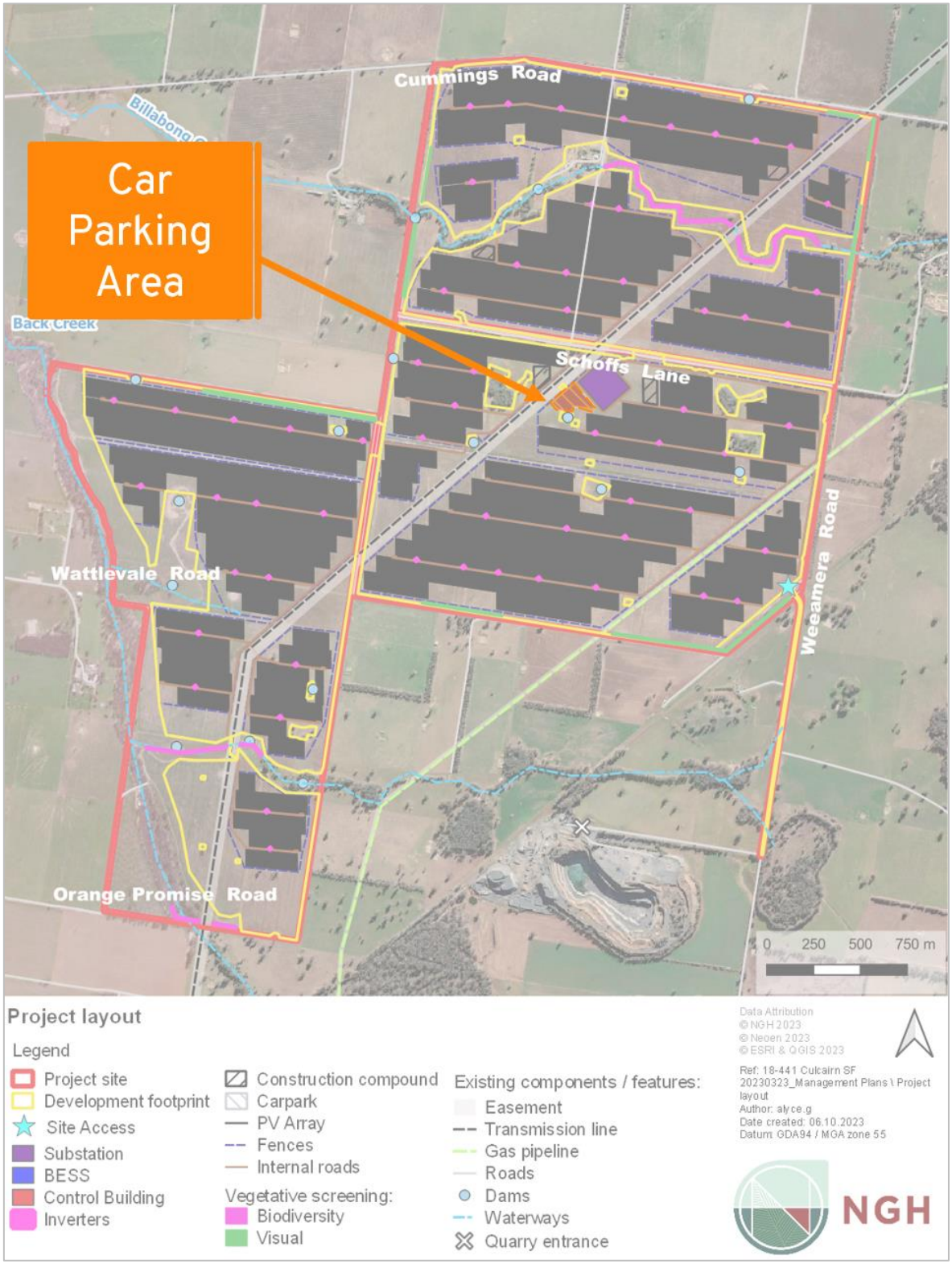
The following on-site traffic management measures will be implemented:

- All vehicles will enter the site through the designated access point and all vehicles will stop at security;
- On-site speed restrictions (40 km/hr maximum limit) will be implemented;
- Transport access control to and from the site using designated roads will be implemented as shown in Figure 1;
- Construction access track routes in proximity to any environmentally sensitive areas will be clearly signed as 'no-go zones' guided by relevant specialists, consistent with Site Environment Plans as outlined in the EMS, and attached for reference in Appendix G;
- Appropriate dust suppression measures will be implemented, comprising:
  - Vehicles will drive at slower speeds when travelling on unsealed roads. This can reduce the amount of dust created and the amount of dirt tracked onto the public road network. Standard mitigation measures, such as a water trucks to dampen the roads and reduce the amount of dust in the air, shall be considered to reduce dust levels.
  - Dust will be monitored visually and via weather reports throughout construction and managed to prevent dust leaving the development site, including dust from stockpiled materials (Refer Soil and Water Management Plan, action SWM27.)

- A proactive erosion and sediment control plan will be implemented for on-site roads, hardstands and laydown areas as outlined in the Erosion and Sediment Control Plan (ESCP);
- All internal roads will be constructed as all-weather roads;
- A maintenance program for on-site access tracks will be implemented to ensure safe access;
- Loading and unloading will occur within the site only and not off-site. No street or roads will be used for material storage at any time;
- Sufficient car parking will be provided on-site to ensure vehicles do not park on the surrounding road network (located within the Storage and Laydown Area shown in Figure 10). The amount of car parking on-site will be amended, if required;
- All car parking and loading areas will be designed to accommodate the associated design vehicle requirements (located within the Storage and Laydown Area shown in Figure 10);
- Construction equipment will be parked in designated laydown areas and work areas, and will not use the parking designated for project staff and visitors.

The 15,000 sqm car parking area is shown in Figure 10 below which will accommodate all of the required on-site parking and loading (for reference, the area for a single car parking space including access aisle is approximately 30 sqm, so the area would have space to accommodate up to 500 vehicles).

Figure 10: Car Parking and Loading Location



Source: NGH

4.5 Heavy Vehicles Requiring Escort Protocols

Management of vehicular access to and from the site is essential in order to maintain the safety of the general public as well as the labour force. Exemplar driver protocols for delivery of larger plant will be implemented including the following:

- The arrangements for the delivery of large loads that required escort to the site should avoid peak periods of traffic on the network and minimise as far as practicable disruption and disturbance to residents;
- Pilots shall be in radio contact with other trucks to ensure passing occurs at safe and convenient locations;
- In the event of a breakdown, accident or road failure, the transporter crew shall do the following:
    - Park the pilot vehicles in locations where they maximise safety, considering overhanging components, and blind bends on approaches;
    - Contact emergency services (including Police) as is appropriate in the case of an accident;
    - Contact the project manager;
    - Contact the Council, or other road controlling authority, as may be appropriate in the case of the incident;
    - Contact the site manager to advise all other project traffic, and local traffic via CB radio as appropriate in the case of the incident; and
    - Follow all instructions from Police and the road controlling authority.
- In the case of an accident, the vehicles involved should not be moved until instructed by Police; and
- Utilisation of only the designated transport routes.

4.6 Public Transport

Delivery of larger plant will occur outside of school bus service times to prevent larger vehicles interacting with school buses being the only public transport in the area near the site.

4.7 Shuttle Buses and Car-Pooling

Shuttle buses will be used to transport staff to and from the site during construction. The exact location of the pick-up and drop-off points is to be confirmed prior to construction commencing as part of the Stage 1b TMP.

The Accommodation and Employment Strategy (AES) has identified that most people will probably be staying in Albury, but exact location is to be confirmed and dependent on availability of accommodation. Number of workers as well as where people are staying will likely change throughout the construction period.

The locations will be chosen in consultation with the relevant local councils by the EPC in Wagga Wagga, Albury and Wodonga, proximate to key accommodation hubs.

The measures to monitor and ensure compliance with the EIS are outlined in the AES with an extract of the relevant measures presented in the Table below.

Table 5: AES Measures – Shuttle Buses

Project aspect	Measures	Responsible Party	Objective	Timing	Implementation Action	Compliance Record
Traffic management	Where booking accommodation from larger suppliers, manage scheduling to allow for shuttle buses to site.	EPC Project Manager EPC HSE Supervisor/ Coordinator	Reduce traffic impacts	Throughout construction: Monthly review of worker accommodation requirements and shift timing	Establish and maintain a register of projected worker accommodation requirements and options to prioritise accommodation sharing and/or clustering. Hire shuttle buses from local providers to transport workers.	Register of worker and accommodation forecasts and location of accommodation for workers.

The maximum workforce on-site during peak construction will be 350 personnel at any one time. To ensure that the maximum number of light vehicles is 150, the light vehicle movements during the morning and evening peak hour will be as follows:

- 20 shuttle bus movements (mix of 50 and 12-seater buses); and
- 130 light vehicle movements

Construction personnel will be encouraged at induction and toolbox meetings to increase the vehicle occupancy of light vehicles by car-pooling to reduce the number of private vehicles travelling to and from the Project.

Approximate pick up times in the morning are expected to be between 5:30am and 6:30am. Approximate drop off times in the afternoon are expected to be between 5:30pm and 6:30pm. The morning and evening pick up and drop off times will not coincide with school bus services.

Should any personnel seek to use their own vehicle, justification would need to be provided, the EPC Project Manager and HSE Supervisor / Coordinator to encourage and promote private motor vehicles are used to support car-pooling. The EPC Project Manager and HSE Supervisor / Coordinator will document staff that use private motor vehicles and their:

- Days of work;
- Start and finish times; and
- Route to work.

Opportunities to car-pool with other staff using private vehicles will be identified and car-pooling will be encouraged by the EPC Project Manager and HSE Supervisor / Coordinator. A summary of the car-pooling opportunities will also be provided to staff at induction and toolbox meetings.

The number of employees using their own vehicles to access the site will be recorded. This recorded data will be made available to the Planning Secretary if requested. The number of personnel using light vehicles to access and leave the site in place of the shuttle bus will be regularly monitored.

4.8 Special Events and Other Works

Council have been consulted on key events in Culcairn and the surrounds and have advised that there are a range of special events that occur every year. The largest that are closest to the subject site are the Henty Machinery Farm Day, occurring in September and the Culcairn Agricultural Show which occurs in October. These events generate a significant level of visitation and activity to the area.

Special events scheduled in the Greater Hume Council area in 2023 are listed in Appendix C. The schedule will be used as a reference for potential events in 2024 and 2025. It is not anticipated that the events will be affected by the proposed works at the specified contract time. The Neoen Project Manager and EPC Project Manager would be responsible for reviewing schedule of events every quarter to understand any possible impact in the region.

The Walla Walla Solar Farm is nearby major solar project that is accessed via the Olympic Highway and Benambra Road. It is understood that the contractor is expected to finish construction by end of Q2 2023. Council have provided the Traffic Guidance Scheme (TGS) arrangements that are proposed to the two Walla Walla site access points off Benambra Road. These plans are attached for reference in Appendix D.

The Applicant will consult with all other surrounding renewable and major projects, including the Walla Walla Solar Farm, to minimise cumulative traffic impacts and to ensure deliveries associated with heavy vehicles requiring escort do not coincide. Notification of construction commencement would be sent out to the surrounding renewable projects and meetings proposed to understand the timeline of construction and any potential overlap. The Neoen Project Manager would be responsible for consulting with neighbouring projects and setting up regular meetings, if required.

4.9 Hazardous Goods and Dangerous Materials

All transport vehicles will be required to operate in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development, Australian Dangerous Goods Code and Australian Standard 4452 Storage and Handling of Toxic Substances including consideration of:

- classification of loads;
- packaging and performance testing;
- use of bulk containers and unit loads;
- marking and placarding;
- vehicle requirements;
- segregation and stowage;
- transfer of bulk dangerous goods;
- documentation;
- safety equipment;
- procedures during transport; and
- operations in emergencies.

The process for the safe transport and use of dangerous goods will be provided to drivers as a part of the training and induction processes as required.

4.10 Other Considerations

- All vehicles will enter and exit the site access locations in a forward direction.

- All permits for working within the road reserve must be received from the relevant authority prior to works commencing.
- Due to the location of the site, there is an inherent risk that adverse conditions may impact on the movement of transportation vehicles and transport of staff. Consideration for driving in the rain, fog, frost, icy conditions, bright sunlight and within/near a bush fire is required, especially during the transportation involving heavy vehicles requiring escort. The following mitigation measures are to be considered when travelling in adverse conditions:
    - Inspection of roads prior to using them to ensure that the road is safe. If there is black ice on the road, depending on the location, signage shall be installed and/or transportation movements will be stopped until it is safe to proceed;
    - Ban or restrict vehicle movements during periods where adverse conditions may impact on the operation of the road and the safety of workers and other road users;
    - Reduce the speed along the transportation route;
    - Provide additional warning for drivers on the road network;
    - Inform staff on how to drive in adverse conditions relevant to the Project location;
    - Ensure that vehicles are fitted with equipment to assist them during adverse conditions (first aid kit, fire extinguisher, chains if required) and that drivers are able to communicate to one another to either warn each other or call for assistance; and
    - Chains will not be permitted to be used on local roads for the commencement of a journey, for emergency use only.
- The EPC Project Manager must keep accurate records of the number of over-dimensional and heavy vehicles entering or leaving the site each day for the duration of the project.

4.11 Emergencies

A Bushfire Management and Emergency Plan (BMEP) has been prepared setting out the actions to be followed by the Applicant in the event of an emergency, covering:

- details and communication
- emergency equipment
- emergency preparedness and response
- training
- raising the emergency alarm
- emergency evacuation procedures
- testing and recording drills
- fire water supply/fire response trailers
- fire surveillance

4.12 Traffic Environment Management

Operational environmental measures are outlined in the Biodiversity Management Plan, with the specification of washdown stations is detailed in Appendix H, the Pest and Weed Management Plan of this report. An excerpt of the measures being undertaken are provided below.

Where incoming and outgoing vehicles, machinery and equipment do not satisfy the cleanliness requirements of the Hygiene Declaration Form, washdown will be required. Washdown areas will be located at the site access point off Weeamera Road. Only vehicles / equipment that meet the cleanliness standards will be allowed onto the Project site.

Additional areas of key pest or weed outbreaks may be identified over the life of the Project. These areas will be clearly marked as a 'Restricted Area' and vehicles / machinery entering or leaving these areas will require additional inspections / washdown.

The general washdown procedure is detailed in Table 6. To prevent the distribution of weeds and pathogens, all dirty water from on-site washdown stations will be managed in accordance with the Soil and Water Management Plan. This water will not be used for dust suppression on site.

Table 6: General Washdown Procedures

Step	Description
Check	Check the exterior and interior of vehicles and machinery for soil, plant material and other debris.
Clean	Remove large clods of soil using a stiff brush or crowbar Wash vehicle, plant and machinery at site entry point before entering site, and before leaving restricted areas.

4.13 Management of Drainage Infrastructure

Before construction, an updated hydrology study will be completed that includes the section of Weeamera Road to be upgraded. The pre-upgrade condition and drainage will be evaluated as the baseline.

After this and the road upgrade, the drainage and any flooding will be visually monitored weekly and reported on monthly by the EPC Site Manager and Neoen Owner's Engineer, with the original condition as baseline to ensure drainage capacity has not reduced.

Should any issues be identified the EPC Site Manager and Neoen Owner's Engineer will undertake necessary works to resolve issues working with the consent of Greater Hume Council.

5. Road Maintenance

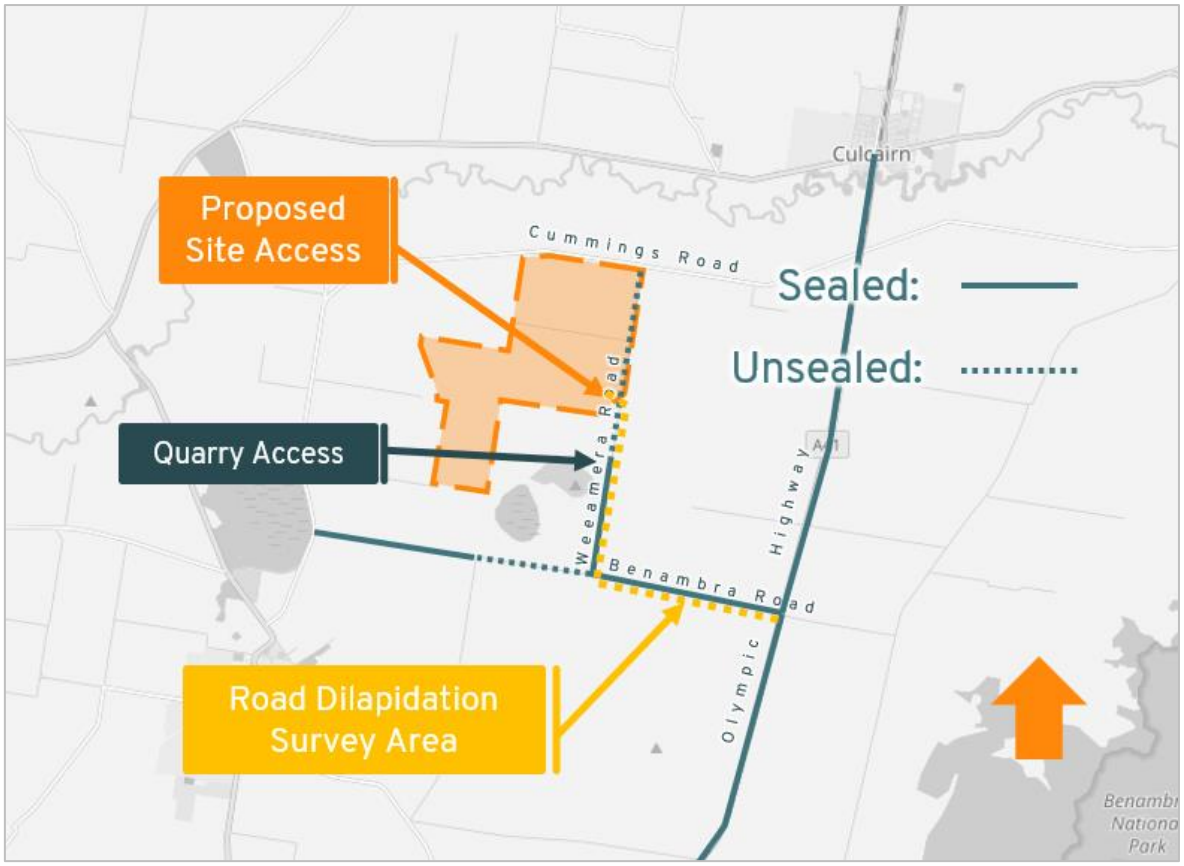
Prior to commencement of construction, upgrading and decommissioning works an independent dilapidation survey shall be undertaken to assess the existing condition along Benambra Road and Weeamera Road on the transport route per Condition 7 of Schedule 3 of the Development Consent. The dilapidation surveys will be undertaken in consultation with relevant road authority and to the satisfaction of the Planning Secretary.

The surveys will be prepared for the following intervals:

- Prior to the commencement of construction;
- Within 3 months following the completion of construction;
- Within one month prior to the commencement of decommissioning;
- Within 3 months following completion of decommissioning; and
- Prior to any road upgrade works.

The dilapidation surveys will be undertaken for the access route to site between the Olympic Highway and the site access as shown in Figure 11.

Figure 11: Road Dilapidation Survey Area



The surveys will involve a visual inspection of any existing damage on the above roads. The inspection would focus on structural and drainage aspects, such as potholes, visible rutting at wheel paths, cracking and surface deformation or depression. Recent maintenance activity, photos and location referencing of existing damage will be converted into a pre-construction dilapidation report.

If the dilapidation surveys identify that the road has been damaged during construction the road must be repaired by the Applicant, in consultation with the relevant roads authority, to the satisfaction of the Planning Secretary.

If there is a dispute about the repair of Benambra Road and Weeamera Road between the applicant and the applicant of the Walla Walla Solar Farm, then either party may refer the matter to the Planning Secretary for resolution. The Planning Secretary's decision on the matter must be final and binding on both parties.

5.1.1 Emergency Repairs

For emergency repairs and issues the Neoen Owner's Engineer and EPC Project/Site Managers will be the first points of contact to resolve issues. Details and contact information of each of these positions will be provided to Council, TfNSW, and other relevant stakeholders.

In the event of emergency road repairs caused by construction traffic, appropriate permits and traffic management shall be adopted to complete the work with TFNSW & Council approval prior to works commencing.

5.1.2 Further Details

In addition to the initial dilapidation survey, during the construction period and in line with TFNSW requirements regular inspections will be undertaken. The EPC will undertake these inspections for the duration of the construction phase. All inspections will be undertaken adopting appropriate safeguards. Any damage will be inspected and be supported by photographic evidence. The EPC Project Manager will then notify the Neoen Project Manager as well as TFNSW & the Local Council contact with a request to undertake repair works, as required.

Neoen and the EPC is responsible for any damage caused to construction vehicles or other vehicles in the event that the safe and usable quality of any public road and associated infrastructure is degraded or compromised as a result of the development, and that TFNSW or Local Council will not accept liability for any such damage.

6. Traffic Management Responsibilities

6.1 Neoen Project Manager

The Neoen Project Manager as the Applicant representative has ultimate responsibility for the project and shall:

- Ensure all traffic control measures for this TMP are implemented and maintained in accordance with this plan and the relevant Acts, Codes, Standards and Guidelines;
- Ensure suitable communication and consultation with the affected stakeholders is maintained;
- Ensure inspections of the Traffic Controls are undertaken in accordance with the TMP, and results recorded. Any variations shall be actioned and documented;
- Arrange and/or undertake any necessary audits and incident investigations; and
- Review feedback from the EPC Project Manager;

6.2 EPC Project Manager

The EPC Project Manager shall:

- Oversee traffic control measures for this TMP are implemented and maintained in accordance with this plan and the relevant Acts, Codes, Standards and Guidelines;
- Undertaken suitable communication and consultation with the affected stakeholders is maintained;
- Oversee inspections of the Traffic Controls are undertaken in accordance with the TMP, and results recorded. Any variations shall be actioned and documented;
- Review feedback from field inspections, worksite personnel and members of the public, and take action to amend the traffic control measures as appropriate following approval from the Responsible Authority;
- Arrange and/or undertake any necessary audits and incident investigations; and
- Provide report on the above to the Neoen Project Manager.

6.3 EPC Superintendent

The EPC Superintendent is responsible for overseeing the day-to-day activities, and is therefore responsible for the practical application of the TMP, and shall:

- Instruct workers on the relevant safety standards, including the correct use of Personal Protective Equipment (PPE);
- Ensure traffic control measures are implemented and maintained in accordance with the TMP;
- Undertake and submit the required inspection and evaluation reports to the Project Site Manager;
- Render assistance to road users and stakeholders when incidents arising out of the works affect the network performance or the safety of road users and workers; and
- Take appropriate action to correct unsafe conditions, including any necessary modifications to the TMP.

6.4 Workers and Subcontractors

Workers and Subcontractors shall:

- Correctly wear high visibility vests, in addition to other protective equipment required (e.g. footwear, eye protection, helmet, sun protection, etc) at all times whilst on the worksite;
- Comply with the requirements of the TMP and ensure no activity is undertaken that will endanger the safety of other workers or the general public; and
- Enter and leave the site by approved routes and in accordance with safe work practice.

7. Implementation

7.1 Hazard Identification, Risk Assessment and Control

In establishing adequate controls for the hazards, a structured approach shall be adopted via the use of the hierarchy of control as outlined below:

- Elimination
- Substitution
- Engineering
- Administration
- Personal Protection Equipment

Traffic management practices require that the EPC Superintendent evaluate all traffic arrangements before they are open to traffic and immediately following the opening to traffic. Adjustments are to be made as required and recorded, including reasons for the changes. The EPC Superintendent is also required to evaluate the traffic arrangements when site conditions change, and new hazards that arise throughout the works will be subject to a risk assessment and incorporated onto the Risk Register.

7.2 Traffic Guidance Scheme

A Traffic Guidance Scheme has been prepared for Weeamera Road which includes a speed limit reduction and warning signs on the approaches to the site access and the access to the Culcairn Quarry. It is shown for reference in Appendix J and is a result of the feedback from the Quarry on the TMP.

This TGSs will be implemented by the appointed construction contractor prior to any construction occurring on-site and removed at the completion of the construction phases of the project.

Other Traffic Guidance Schemes will also be prepared specifically for the major construction activities, as required. The TGS will be designed in accordance with the Australian Standards and the TfNSW Traffic Control at Work Sites Guidelines.

Impacted local community members and developers will be notified of the nature of these traffic changes and their duration two weeks prior to implementation.

7.2.1 Potential Delay at UGL Corridor

If there is a delay in the issue of a construction licence at the UGL corridor, WSP has designed a temporary traffic plan for the section of Weeamera Road across the UGL Rail Corridor, reviewing the following documents to guide the layout:

- *AS 1742.3:2019* – Manual of Uniform Traffic Control Devices Part 3: Traffic Control for Works on Roads.
- *TS 05492* – TfNSW - Traffic control at work sites.

It is proposed to have traffic managed as a one-way movement controlled by Portable Traffic Signals. These are accompanied with advanced warning signs on approach either side of the UGL Rail Corridor. Refer to Appendix L for details regarding the temporary traffic plan, and Appendix Appendix K for council approval on this temporary traffic plan.

Dust suppression measures will be implemented as part of Stage 1b of the TMP. This would likely take the form of regular dust suppression watering in consultation with Council.

7.3 Traffic Control Devices

Traffic control devices shall be erected in accordance with the TGS. Should the use of additional (not shown on the TGS or listing of devices) or reduced number of devices be required due to unforeseen circumstances, they shall be recorded as a variation to the TMP, following prior approval. Work will not commence or continue until all signs, devices and barricades are in place and operational in accordance with the requirements of the TMP.

A vehicle displaying a vehicle mounted warning device shall be used in advance of the signs and traffic control devices to protect workers setting out the signs or traffic cones associated with the taper.

The signs and traffic control devices are to be removed in the reverse order of installation.

The number, type and location of signs, devices and barricades shall be to a standard not less than the requirements of AS 1742.3:2019 (except where specifically detailed in this TMP with reasons for the variations). Devices no longer required shall be promptly and completely removed from road user's lines of sight.

7.3.1 Signs

Prior to the installation, all signs shall be checked for damage and cleanliness and repaired, replaced or cleaned as necessary. Signs and devices shall be erected in accordance with the locations and spacings shown on the drawings such that:

- They are properly displayed and securely mounted;
- They are within the driver's line of sight;
- They cannot be obscured from view;
- They do not obscure other devices from the driver's line of sight;
- They do not become a possible hazard to workers or vehicles; and
- They do not deflect traffic into an undesirable path.

All existing speed limit signs on the carriageway within the work site shall be covered for the duration of the works whilst temporary speed limit signs are in place.

7.3.2 Environmental Considerations

Weather conditions are to be regularly monitored throughout the works by Neoen Owner's Engineer / Site Environmental Advisor, and should traffic control be adversely affected by conditions, appropriate changes to the Traffic Control Devices are to be conducted to maintain safe conditions for workers, road users and pedestrians. Any changes are to be noted and implemented by a Traffic Controller, or a suitably qualified person, and the TMP is to be reviewed as soon as practical.

Adverse weather / environmental conditions would be communicated to staff at pre-start and daily Toolbox meetings.

In the event of heavy fog, sun glare, or other weather conditions that may affect the visibility of road signage, repeater signage is to be placed throughout the Work Zone.

8. Communicating TMP Requirements

Per the EMS, clear lines of communication through all levels and functions (e.g. management, staff and sub-contractors), is key to minimise environmental impacts and achieving continual improvements in environmental performance.

The EPC Project Manager will meet as part of Project meetings to discuss any issues with environmental management onsite, any amendments to plans that may be required or any new/ changes to Project activities.

Fortnightly environmental inspections will be scheduled with the EPC Project Manager and relevant Project staff. The purpose of these inspections will be to communicate ongoing environmental performance and to identify any issues to be addressed.

In addition, the EPC Project Manager will participate in toolbox talks on at least a weekly basis. This forum will provide an opportunity for the environment team members to communicate on environmental performance, to advise on any upcoming sensitive environmental matters for future work areas and receive feedback from onsite personnel.

The methods of communication on-site will include site inductions, pre-start and toolbox meetings, and through Safe Work Method Statements (SWMS).

8.1 Site Inductions

All personnel entering the site are to go through a Site Induction that details the requirements of the TMP, Personal Protective Equipment (PPE), Occupational Health and Safety (OFS), and risk management procedures. All personnel wishing to enter the works zone are to be properly inducted before access is allowed.

The requirements of the TMP will be communicated to all personnel entering the site through the online induction prior to workers and visitors coming to the site, including delivery drivers' online induction.

8.2 Pre-Start and Toolbox Meetings

A prestart meeting is to be conducted at the start of works, on a daily basis, and if unforeseen changes are required. Progress, hazard assessment and any new issues, information or changes are to be discussed. Safe Work Method Statements (SWMS) documentation is to be read and signed during prestart meetings.

8.3 Safe Work Method Statements

A site-specific SWMS is to be produced for the set up and shutdown of control of traffic on-site and is to be read through, discussed, and signed by all personnel working on site.

9. Monitoring and Measurement

9.1 Site Inspections and Record Keeping

The EPC Project Manager will ensure that the TMP is implemented and evaluated for effectiveness. The EPC Superintendent shall inspect and monitor traffic movements around the site in conjunction with the personnel who have erected the control measures. The outcomes of the inspection will be recorded for the information of the EPC Project Manager.

A record of the inspections should be kept indicating:

- When traffic controls were erected;
- When changes to controls occurred and why the changes were undertaken;
- Any significant incidents or observations associated with the traffic controls and their impacts on road users or adjacent properties.

Where significant changes to the work or traffic environment or adverse impacts are observed, the controls should be reviewed as a matter of urgency. Inspection Sheets shall be completed by the person undertaking the inspections and reviewed by the EPC Superintendent. All variations to the TMP/TGS, non-conformances, incidents and accidents shall be recorded. Copies of the completed report shall be forwarded to the EPC Project Manager.

9.2 TMP Auditing

The EPC Superintendent will conduct one compliance audit following setting-up of the traffic management and prior to commencement of the works. The audit will identify any road safety issues that area created or exacerbated by the TMP, associated risks, and make recommendations to address any identified issues.

The audit findings, recommendations and actions taken shall be documented and copies forwarded to the EPC Project Manager.

9.3 Incident Reporting

All workers (employees and contractors) are responsible for ensuring timely and effective initial internal reporting of Incidents that they are involved with or witness.

Neoen are to be informed of any environmental incidents immediately verbally and within 24 hours in writing. Incident reports will include lessons learnt from each environmental incident occurring. Including lessons learnt from each environmental incident and proposed measures to prevent the occurrence of a similar incident. All efforts will be undertaken immediately to avoid and reduce impacts of incidents and suitable controls put in place. Incidents will be closed out as quickly as possible, taking all required action to resolve each environmental incident.

The EPC Contractor must liaise with Neoen prior to notifying any agencies of any incident on site (i.e. EPA). Within 7 days of the date of the incident, the EPC Contractor must provide Neoen and/or any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Where an incident involves an Aboriginal site, relevant authorities such Heritage NSW and Registered Aboriginal Parties will be notified, and their input sought in closing out the incident.

9.3.1 Incident reporting in accordance with the conditions

The EPC Contractor will immediately notify Neoen of an incident which arises through the Infrastructure Approval.

In accordance with Condition 7 of Schedule 4 of the Development Consent, the Planning Secretary must be notified in writing via the Major Projects website immediately after Neoen becomes aware of an incident.

Written notification of an incident must:

- Identify the development and application number
- Provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident)
- Identify how the incident was detected
- Identify when the applicant became aware of the incident
- Identify any actual or potential non-compliance with conditions of consent
- Describe what immediate steps were taken in relation to the incident
- Identify further action(s) that will be taken in relation to the incident
- Identify a project contact for further communication regarding the incident.

Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.

The Incident Report must also include:

- A summary of the incident
- Outcomes of an incident investigation, including identification of the cause of the incident
- Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence
- Details of any communication with other stakeholders regarding the incident.

Non-compliances will be reported in accordance with Section 10.4 of the EMS.

All written requirements of the Planning Secretary or relevant public authority, which may be given at any point in time, to address the cause or impact of an incident must be complied with, within any timeframe specified by the Planning Secretary or relevant public authority.

9.3.2 Incident reporting in accordance with the POEO Act

Neon will notify the EPA of any environmental incidents or pollution incidents on or around the site via the EPA Environment Line (telephone 131 555) in accordance with Part 5.7 of the Protection of the Environment Operations Act 1997 (NSW) (POEO Act). The circumstances where this will take place include:

- If the actual or potential harm to the health or safety of human beings or ecosystems is not trivial.
- If actual or potential loss or property damage (including clean-up costs) associated with an environmental incident exceeds $10,000 (Material Harm).

Pollution incidents posing material harm to the environment shall be notified by Neoen to each 'relevant authority' as defined in Section 148 (8) of the POEO Act. 'Relevant authority' means:

- NSW EPA as the appropriate regulatory authority (ARA) on 131 555 or (02) 9995 5555.
- Safe Work NSW (formerly WorkCover) on 13 10 50.
- Fire and Rescue NSW on 000 or for Mobiles Only 112.

9.3.3 Other Details

For further details on the incident management procedure, please refer to the EMS.

9.4 Complaints Procedure

Per the EMS, external complaints are defined as complaints received from parties outside of the normal lines of communication. This complaint procedures applies to all workers and impacted public or communities.

This complaint procedures applies to all workers and impacted public or communities and is to be compliant with the CCS.

Complaints and enquiries regarding the works will be received through the contact details provided on the Project website, as outlined below:

- Project website: culcairnsolarfarm.com.au
- Telephone number (toll-free): 1800 966 122
- E-mail: contact@culcairnsolarfarm.com.au
- Mail: GPO Box 1950 Canberra, ACT 2601

All complaints received by the EPC contractor must be reported to Neoen and will captured on the Complaints Register and investigated in accordance with the procedure.

The contact details in the above table will be published on the project's public website, alongside an outline of the complaints and investigation process. This information will also be made available in community consultations that occur in the lead up to construction commencement, and at any community consultation that is held during the construction period.

9.4.1 Step 1 Receive and register a complaint

Contact is received from community members and may be received through the following methods: verbally either in person or via telephone or in written form via electronic mail and/or via the website.

It may be an inquiry, a concern or a complaint. If it is an inquiry or a concern we will respond directly to this and simply record this interaction in the stakeholder register.

If it is a complaint then the following procedure is followed:

Upon the receipt of a complaint, a set of standardised information will be collected, recorded and filed to ensure an efficient and standardised process.

The following information will be collected from community members:

- The complainant's name and address

- A unique reference number is to be communicated to the complainant
- Any applicable turbine or monitoring mast reference number
- The complainant's concerns including date, time, prevailing conditions and description of the complaint.

This information must then be recorded in the relevant Project's Complaints Register.

9.4.2 Step 2 Acknowledging complaints

A non-urgent complaint will be acknowledged by the responsible Neoen Project Manager within 3 business days of the complaint being submitted. If it's an urgent complaint then a response will be provided within 24 hours. This acknowledgement will be made via phone or email with any written correspondence dated and kept on file.

The acknowledgement will include:

- A summary of the complaint, with a reference number provided
- The opportunity to clarify issues or a request for further information if required
- The proposed investigation approach
- An estimated timeframe in which the stakeholder can expect to receive a response.

Where a complaint can be easily resolved or is better categorised as a request by a stakeholder for additional information, it may be appropriate for the Neoen Project Manager to immediately respond to the stakeholder.

9.4.3 Step 3: Investigating complaints

The Neoen Project Manager is responsible for ensuring all complaints are investigated and that all reasonable attempts to seek a resolution are made. The investigation may be delegated to an appropriate Neoen staff member. Accurate records of the investigation must be maintained including records of meetings, discussions and activities.

The investigation may involve:

- Site visits, particularly in the instance of reported property damage
- Consultation with Neoen staff or contractors, including senior management when required
- Acquiring monitoring data and evidence (e.g. for noise or dust complaints)
- Contacting external stakeholders.

9.4.4 Step 4: Responding to stakeholder/complainant

Following the investigation, the results, including details of the findings and proposed resolution, will be clearly explained to the complainant. In most circumstances, it will be at this stage that the complainant will determine if the resolution is satisfactory.

9.4.5 Step 5: Closing the complaint

If the process has been concluded appropriately then the Neoen Project Manager will close the complaint and make a file-note to this effect in the Complaints Register. Formal written correspondence must also be issued to the complainant confirming that the complaint has been closed.

If the complainant is not satisfied with the investigation and resolution then the complainant has a right of review. This will be undertaken by the Neoen Project Manager to ensure that the complaint process has been properly followed.

If a complainant is not satisfied with Neoen's investigation and proposed resolution, the complainant will be advised by Neoen that they have the right to contact a number of other bodies such as Greater Hume Shire or the Australian Energy Infrastructure Commissioner or seek legal advice. Neoen will provide complainants with the relevant contact details as follows:

- Greater Hume Shire Council: mail@greaterhume.nsw.gov.au
- Australian Energy Infrastructure Commissioner: aeic@aeic.gov.au
- LegalAid NSW (Riverina Murray - Albury): 02 6020 7200

Complaints and enquiries regarding the works will be received through the contact details provided on the Project website. All other complaints received are reportable incidents and shall be immediately reported to Neoen.

9.4.6 Step 6: Recording and registering the complaint

Upon the closing of a complaint, the following information will be updated in the Complaints Register with the additional following details:

- The process of investigation that was undertaken to resolve the complaint
- What the proposed resolution was
- Whether this was accepted and how it was implemented
- Whether or not the complaint has been resolved to the satisfaction of the complainant
- The reason why the complaint was closed.

9.4.7 Other Details

For further details on the complaints management procedure, please refer to the EMS. For details on the community outreach during construction (to which this TMP applies) please refer to Table 6 of the Community Communication Strategy.

9.5 Management and Monitoring Summary

A summary of the management and minoring measures is provided within Table 7.

Table 7: Management and Monitoring Summary

Aspect	Potential Problems	Performance Criteria	Mitigation and Control Measures	Monitoring Requirements	Responsibility	Timing	Frequency
Heavy vehicle movements	Number of vehicles exceed DC approval	Maximum limit of 100 heavy vehicle movements a day	Heavy vehicle deliveries will be scheduled to comply with this requirement. Delivery contractors to be advised of this prior to arranging any delivery to site.	Count and record number of vehicle movements	EPC and Neoen	Duration of construction	Daily
Heavy / Heavy vehicles requiring escort movements	Heavy vehicle movements occurring during at school peak periods	No Heavy Vehicle / Heavy Vehicle requiring escort movements occurring during school peaks	Heavy vehicle deliveries will be scheduled to avoid school peak periods.	Count and record number of vehicle movements	EPC and Neoen	Duration of construction	Daily
Heavy vehicle movements	Heavy vehicle platooning / convoys	No Heavy Vehicle movements resulting in platoons / convoys greater than 2 vehicles	Heavy vehicle deliveries will be scheduled and staggered to avoid platoons / convoys greater than 2 heavy vehicles.	Count and record number of vehicle movements	EPC and Neoen	Duration of construction	Daily
Heavy Vehicle requiring escort movements	Number of vehicles exceed DC approval	Maximum limit of 9 vehicle movements during construction, operations and decommissioning	Heavy vehicles requiring escort will be scheduled to comply with this requirement	Count and record number of vehicle movements	EPC and Neoen	Duration of construction	Monthly
Heavy Vehicle requiring escort movements	Heavy Vehicle requiring escort movements occurring during events	No Heavy Vehicle requiring escort movements occurring during events	Deliveries scheduled so that they do not coincide with planned special events	Monitor scheduled movements against any special events, and rescheduling if any conflict	EPC and Neoen	Duration of construction	Daily
Light Vehicles	Number of vehicles exceed DC approval	Maximum limit of 150 light vehicle movements a day	Should any personnel seek to use their own vehicle, justification would need to be provided. The number of employees using their own vehicles to access the site will be recorded.	Number of light vehicles to be monitored on daily basis at front gate.	EPC and Neoen	Duration of construction	Daily
Light Vehicles	Number of vehicles exceed DC approval	Maximum limit of 150 light vehicle movements a day	Any staff member using their private vehicle is to provide information on their roster and route of travel to work. Opportunities for car-pooling raised at induction and toolbox meetings.	Register of staff using private vehicle, their roster and route to work. Number of light vehicles to be monitored on daily basis at front gate.	EPC and Neoen	Duration of construction	Daily
Condition of road	Traffic use causes damage to road	Damaged road is left unrepaired	Emergency repair and/or maintenance is required	Check for evidence of damage	EPC and Neoen	Duration of construction	Daily
Weather conditions	Conditions make driving hazardous	Vehicles should not be travelling in unsafe conditions	Consider options to reduce driver risk such as temporarily halting vehicle movements, re-routing, etc.	Check weather forecast and on-site conditions	EPC and Neoen	Duration of construction	Daily
Driver behaviour	Poor driver behaviour leads to incidents, accidents or near misses	No accidents	Encouraging good driver practice and reinforcing those messages during project meetings	Count and record number of incidents, accidents and near misses Ensure that all drivers have received a copy of the Driver Code of Conduct and are following the requirements.	EPC and Neoen	Duration of construction	Daily
Driver behaviour	The approved route not being followed by staff and deliveries	No use of roads other than those on the approved routes by staff and delivery drivers	Checking driver routes and reinforcing the approved routes to staff and delivery drivers during project meetings	Spot check of routes taken at site entry and adjoining local roads and monitoring any feedback from the Community, Council and TfNSW	EPC and Neoen	Duration of construction	Daily
Condition of road	Vehicles have excessive mud or dirt	Dirt transferred from the site onto the external road network to be minimised	Vehicles exiting the site are to be cleaned so that excessive mud and dirt is not transferred to external roads consistent with Biodiversity Management Plan (refer Section 4.12)	Vehicles exiting the site are to be inspected (and cleaned as required)	Vehicle driver	Duration of construction	Daily

Aspect	Potential Problems	Performance Criteria	Mitigation and Control Measures	Monitoring Requirements	Responsibility	Timing	Frequency
Condition of road	Roadside Drainage	Roadside drainage is performing adequately	Visual inspection of roadside drainage infrastructure	Regular visual inspection of roadside drainage, including following wet weather events	EPC and Neoen	Duration of construction	Weekly and after any wet weather events

10. Management Review

10.1 TMP Review and Improvement

As this project is of a long-term nature, a review of the effectiveness of the TMP will be undertaken by the EPC Project Manager and Neoen Project Manager. Any updates to the TMP that are required to improve the effectiveness of the TMP as identified in the weekly effectiveness reviews will be undertaken by the EPC Project Manager and Neoen Project Manager in accordance with Section 10.3.

10.2 Variations to Standards and Plans

There are no departures from the requirements of AS 1742.3:2019 or TfNSW Traffic Control at Work Sites Guidelines.

On-site variations, if required, will only be made following approval by the EPC Project Manager and Neoen Project Manager. In emergency situations, on-site variations shall be made and recorded and the EPC Project Manager notified as soon as practicable.

Any updates to the TMP that are required as a result of updates to AS 1742.3:2019 or TfNSW Traffic Control at Work Sites Guidelines will be undertaken by the EPC Project Manager in accordance with Section 10.3.

10.3 Update of Strategies, Plans or Programs

In accordance with Condition 2, Schedule 4, the Applicant will:

- Update the strategies, plans or programs required under the Development Consent to the satisfaction of the Planning Secretary prior to carrying out any upgrading or decommissioning activities on site.
- Review and, if necessary, revise the strategies, plans or programs required under the DC to the satisfaction of the Planning Secretary within 1 month of the:
  - submission of an incident report under condition 7 of Schedule 4;
  - submission of an audit report under condition 9 of Schedule 4; or
  - any modification to the conditions of this consent.

As stated in Condition 3, Schedule 4, with the approval of the Planning Secretary, the Applicant may submit any strategy, plan or program required by this consent on a progressive basis. To ensure the strategies, plans or programs under the conditions of this consent are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Planning Secretary for approval. With the agreement of the Planning Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all the parties referred to under the relevant condition of this consent.

The Applicant will ensure that all development being carried out on site is covered by suitable strategies, plans or programs at all times.

If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program will clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.

The Applicant will seek the approval of the Planning Secretary when submitting any strategy, plan or program required by this consent on a progressive basis. This includes for this TMP which is to be updated

for the stages as outlined in Section 1.3 which allows for consultation with TfNSW on the heavy vehicles requiring escort.

To ensure the strategies, plans or programs under the conditions of this consent are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Planning Secretary for approval.

The Applicant will obtain the agreement of the Planning Secretary, when preparing any revised strategy, plan or program without undertaking consultation with all the parties referred to under the relevant condition of this consent.

The Applicant notes that while any strategy, plan or program may be submitted on a progressive basis, the Applicant will ensure that all development being carried out on site is covered by suitable strategies, plans or programs at all times.

The Applicant also notes that if the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program will clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.

As This TMP applies to the construction phase of the project only, separate TMPs are to be prepared for the operation and decommissioning of the project in accordance with the requirements outlined above.

10.4 Notification of Department

Prior to commencing the construction, operations, upgrading or decommissioning of the development or the cessation of operations, the Applicant will notify the Department in writing via the Major Projects website portal of the date of commencement, or cessation, of the relevant phase.

If any of these phases of the development are to be staged, then the Applicant will notify the Department in writing prior to commencing the relevant stage, and clearly identify the development that would be carried out during the relevant stage.

Appendix A

Driver Code of Conduct,
Neoen Driving Policy,
Neoen Safe Driving Tips

Drive Code of Conduct

This code of conduct applies to all vehicle drivers that visit the site. They are required to read, agree to and sign the Driver's Code of Conduct. All drivers will also be provided with Neoen's Driver Policy and during induction shown the Neoen Safe Driving Tips (also attached to this code).

This code of conduct will be communicated to all site workers during the site induction process. Workers will be reminded of the requirements of the code of conduct weekly in toolbox meetings.

The Driver Code of Conduct is to be enforced by the Applicant, and records of the code are to be stored and maintained by the Applicant. The Applicant will share the code of conduct with all logistic companies, and suppliers prior to all deliveries to site.

Safe Driving Principles

The operators of all vehicles associated with the site shall respect all other road users. All on-site staff will receive a site induction, which will include:

- Details regarding the TMP and this code of conduct;
- Confirmation of random Blood Alcohol Concentration (BAC) testing at the gate to ensure BAC of 0.00;
- Details of speed limit signs;
- Information on fatigue management;
- Reinforcement that they must drive to conditions;
- Details of vehicle inspections including maintenance records and risk assessments; and
- Details of inspections, and audits.

Regular toolbox meetings will be held to maintain awareness of required controls. Details of the traffic and access training and induction will focus on:

- Objectives of the TMP;
- Performance goals, which include no injuries on-site.
- Access routes that are to be adopted as outlined within the TMP ;
- Mitigation measures required to be implemented;
- Traffic and access monitoring and reporting requirements; and
- Incident investigation and response protocols.

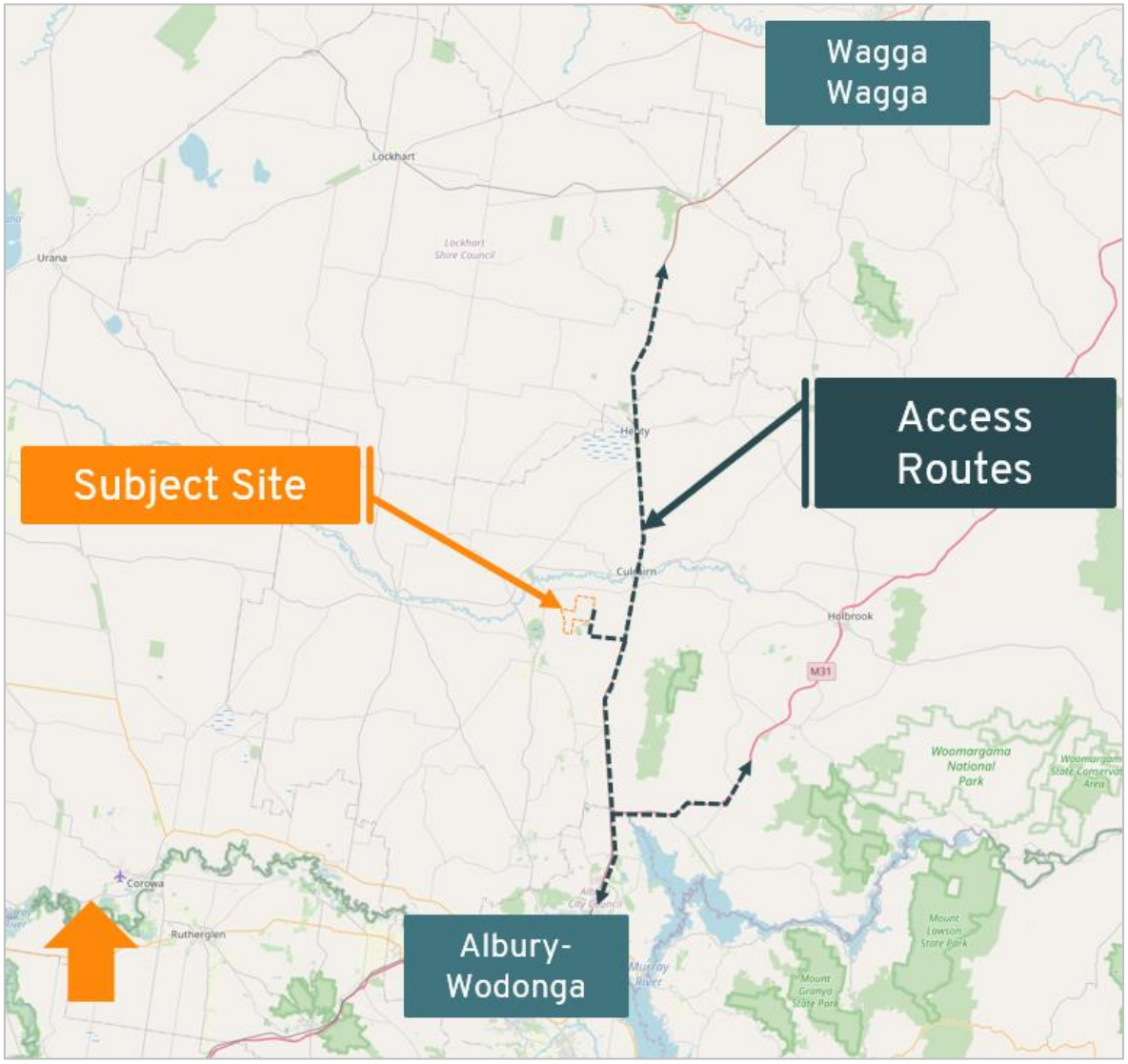
Training is to be provided prior to start-up of any traffic and access related management tasks and updated if task, equipment or procedures are expected to, or have changed.

Primary Driver Code

The following requirements shall be adhered to at all times:

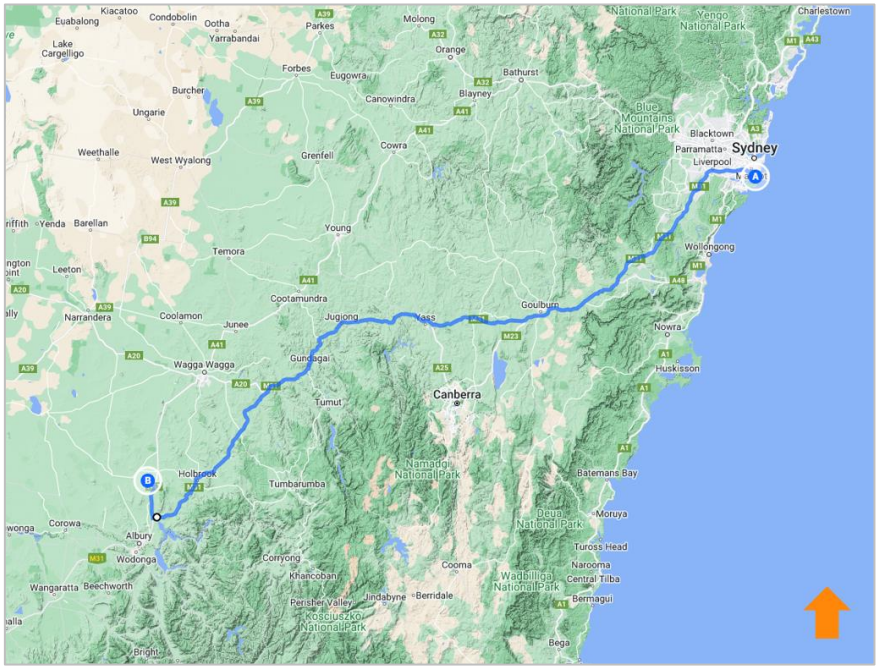
- Obey all laws and regulations.
- Do not drive whilst under the influence of alcohol, drugs, nor any medication which may affect ability to drive.
- Be medically fit to drive and must inform site coordinators if they have any medical condition which may affect their ability to drive.
- Drive in a considerate manner and respect the rights of others to use and share the road space.
- Report all vehicle defects to their employer. Serious defects (e.g. e.g. brakes, steering) must be corrected immediately, or an alternative vehicle supplied.
- Any vehicle incident resulting in injury or significant damage to property must be reported to the police.
- Report any near misses.
- Always adhere to the site working hours.
- Securely fasten and cover load with the appropriate use of ratchets straps, tarpaulins or covers (loose material), chains and load binders, for example. Relevant vehicular load limits are not to be exceeded and all loads are to be suitably balanced. The maximum rear overhang shall not exceed limits under by relevant road rules for respective vehicle types.
- Keep their vehicle clean and in good mechanical condition to reduce the environmental impact.
- Extra care should be taken when driving at dawn or dusk, being particularly watchful for wildlife and/or livestock.
- Vehicles must give way to pedestrians, cranes, forklifts, mobile plant, emergency vehicles and livestock.
- Drivers must adhere to the required access routes outlined within the TMP (Section 3.5.2 and 3.5.3 of the TMP), copied below for reference.

Figure 12: Light Vehicle Access Route



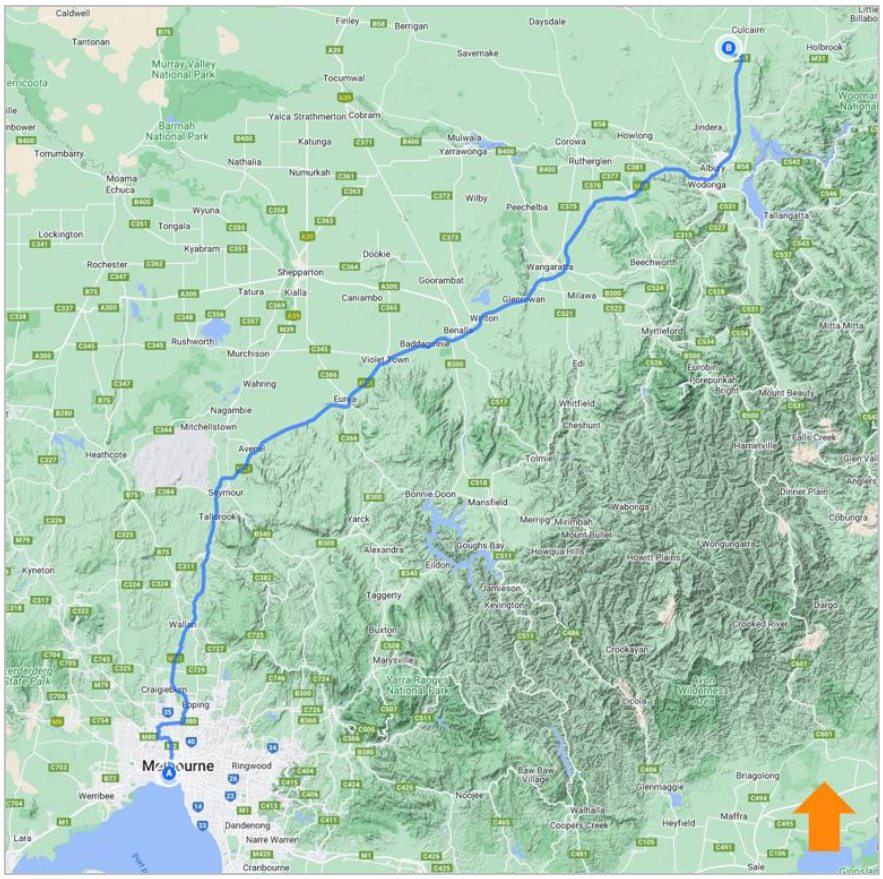
Source: Open Street Maps

Figure 13: Heavy Vehicle Access Route from Port Botany to Site



Source: Google Maps
https://www.google.com/maps/d/edit?mid=1wBPNAwefHQtTtVo0TSeBYuJsR2_AW0g&usp=sharing

Figure 14: Heavy Vehicle Access Route from Port Melbourne to Site



Source: Google Maps
https://www.google.com/maps/d/edit?mid=1wBPNAwefHQtTtVo0TSeBYuJsR2_AW0g&usp=sharing

The following provides the required safety procedures for specific incidences that all drivers are required to adhere to:

- Drivers travelling to or from the site must do so safely, in full compliance with the law, including in respect of speed limits, following distances, forward sight when overtaking, being able to stop within the length of road visible (or half the length on roads without centrelines), and not driving carelessly or dangerously;
- Timing of deliveries are to be coordinated by the Applicant in order to prevent heavy vehicles travelling through school zones during peak times;
- When aware of any emergency vehicles, approaching from in front or behind, drivers must pull over well in advance to provide unimpeded movement;
- Drivers must reduce their speed and or stop in accordance with the law when passing a school bus which is slowing down, stopped, or accelerating in relation to picking up or setting down children;
- Drivers must reduce their speed when:
  - Passing children walking, cycling or waiting on the side of the road;
  - Passing an oncoming school bus;
  - Passing someone riding or leading a horse along the road;
  - Approaching an area where a stock shift is known to be occurring.
- Truck drivers must not use engine brakes in built up areas, except where the load being carried and the grade of the road make use of such braking absolutely necessary for safe driving;
- Truck drivers travelling on school bus routes at the same time as an oncoming school bus to pull over in a safe location before the school bus reaches and passes them;
- Truck drivers are to let traffic behind them pass at regular locations including those opportunities that occur at intersections, wide driveways, sections of road with adequate forward sight distance, gravel pits etc; and
- Dedicated rest stops are to be established and utilised by drivers to reduce driver fatigue.

Chain of Responsibility

Corporate entities, directors, partners, and managers are accountable for the actions of individuals under their supervision, even if not directly involved in driving or operating a heavy vehicle under the Heavy Vehicle National Law (HVNL). This is referred to as the "chain of responsibility" (COR).

All entities on the CoR will be made aware of the Driver Code of Conduct, along with the responsibilities associated with safe loading practices and fatigue management.

Emergency Procedures

In the event of a breakdown, accident or road failure, the transporter crew shall do the following:

- Park the truck in locations where they maximise safety, considering overhanging components, and blind bends on approaches;
- Contact emergency services (including Police) as is appropriate in the case of an accident;
- Contact the project manager;
- Contact the Council or other road controlling authority as may be appropriate in the case of the incident;

- Contact the site manager to advise all other project traffic, and local traffic via CB radio as appropriate in the case of the incident; and
- Follow all instructions from Police and the road controlling authority.

In the case of an accident, the vehicles involved should not be moved until instructed by Police.

Driver Fatigue

Journey Management Plans

If a worker travels more than 100 kilometres because of construction activities in a single trip, then a Journey Management Plan will be required. The worker that the Journey Management Plan is for will be required to have breaks at least every two hours and contact a nominated person and once they have reached their destination contact the nominated person to let them know they have reached their destination.

The Applicant will identify areas where there is a higher risk of workers becoming fatigued (such as long shifts or physically onerous tasks) and implement control measures to mitigate the risk. This includes ensuring sufficient breaks and rotating staff shifts.

Heavy Vehicle Fatigue Management

In addition to the measure outlines above, there are regulations that apply to heavy vehicles that come from the HVNL which is maintained and improved by the National Transport Commission (NTC) and administered and enforced by the National Heavy Vehicle Regulator (NHVR). The HVNL applies in all states and territories except Western Australia and the Northern Territory and commenced in 2014.

One of the five regulations is the Heavy Vehicle (Fatigue Management) National Regulation, which recognises that fatigue is a key risk and one of the biggest causes of crashes for heavy vehicle drivers.

The fatigue management regulations have four key requirements that apply not just to drivers and all other parties in the Chain of Responsibility (CoR):

- Drivers must not drive a fatigue regulated heavy vehicle on a road while impaired by fatigue. Other parties in the CoR must ensure they prevent a driver from doing this.
- Drivers must work within set limits and have minimum rest requirements. Other parties must not ask or allow drivers to exceed these limits.
- Drivers (or in some cases a driver's record keeper) must make an accurate and complete record of their work and rest time in either a National Driver Work Diary or, if driving within an area with a radius of 100km of the driver's base, alternative work records.
- Drivers must provide their work and rest records to their record keeper within set time frames. A record keeper must retain these records for three years.

Failure to comply with these requirements can result in enforcement action from the NHVR.

A copy of NHVR's Heavy vehicle driver fatigue requirements bulletin is attached in Appendix B. This document outlines the relevant requirements and includes links to further information related to work diaries, CoR, accreditation, trip plans, and safety management systems. This information is to be used and followed when applicable.

Maintenance Requirements

The operators of all vehicles associated with the site shall maintain a high level of maintenance. The following requirements shall be adhered to at all times:

- Ensure their vehicle complies with relevant State legislation in relation to roadworthiness and modifications;
- Undergo regular vehicle checks and maintenance; and
- Ensure their vehicles have correctly fitted mufflers to minimise noise disturbance.

Complaint Resolution and Disciplinary Procedure

All traffic related complaints will be managed in accordance with Section 9.3.3 of this TMP. All complaints will be collated via the following means and be responded within two business days:

Failure to comply with these complaint management procedures for safe transport may result in disciplinary action. Any subsequent breaches identified by the system shall result in disciplinary action.

NEOEN DRIVING POLICY

AT A GLANCE:

Avoid traveling alone, allow for a co-driver in your car

Refer to car convoy requirements as per country traffic plan

Make sure your car is equipped with safety gear: signalization device at the minimum

Take ample water with you

Make sure you have an operational/charged cellphone in case of emergency

General Considerations

- Ensure you read Travel ISOS or ad hoc security advisor risk analysis for your destination and route
- Ensure your destination, departure, estimated time of arrival, and place of stay when applicable, are communicated to your manager and/or at least one colleague (in possession of your telephone contact) ahead of a trip
- Postpone your trip if adverse weather conditions are forecast, such as fog, snow, hail or roads flooding
- Driving on icy road is forbidden for non-local personnel and in case of unpaved roads a 4W drive car is a must
- Never put business before personal safety and security
- When in doubt, always opt for safety and security and Neoen will cover overnight expenses or additional drivers whenever required (with prior manager authorization)
- In case of accident or infraction, please contact the car insurance company first and inform your manager (or his/her manager if not available) as soon as practicably possible, who will inform HR Director and HSES Manager
- Drivers must personally pay any driving and parking fines

Driving Requirements

- Do not drive without a valid driving license, always abide by local laws, stick to speed limits and adapt speed to weather and road conditions
- Driver and ALL passengers must use seatbelts
- Never use headphones or earbuds hand-kit or check your smartphone while driving
- Never drive after absorbing alcohol, drugs, drowsiness-inducing medicine or jetlag (driving after absorbing alcohol or drugs may trigger disciplinary sanctions, including dismissal)
- In case of infraction, always obey to the authorities and do not try to negotiate. If faced with corrupt police, always pay the fine, if due. Remember that Neoen prohibits any act of corruption.

Driving Time

- Driving by night is forbidden, unless approved by your manager
- ~~Take breaks~~ every 2 hours at least
- Do not drive more than 6 hours per day (unless specifically previously authorized by your manager)
- If necessary, share the drive with a colleague or hire a driver (with manager's authorization)
- Plan your trip to have a minimum of 11 consecutive hours without driving or working

Vehicle

- Do not use your personal vehicle for a business trip unless approved by your manager
- Ensure that the vehicle you are using is in proper condition and has received adequate ~~maintenance~~ as required by the manufacturer's schedule. When renting, prefer with renowned providers; use appropriate insurance package (3rd party liability and vehicle damage at the very minimum)
- For Australia, select taller SUV vehicles when driving in locations prone to kangaroo strikes. And do not take deductible reduction option when hiring (local insurance covers).
- Unless expressly agreed otherwise by senior management, the use of a company vehicle or rental car is strictly for professional purposes
- Unless expressly agreed by senior management, only insured Neoen employees are allowed to drive company vehicles or rental cars for business trip

Employee name: Employee signature

Date:

"I have read and accept the company driving policy"

Safe Driving Tips – General Information Only

January 2020

Disclaimer

- *Every attempt has been made to provide this general information accurately and in an easy-to-understand format in order to provide tips and hints on what may contribute to better safety out on the roads.*
- *The content of this document is for information purposes only. Information contained herein is not intended as, nor does it constitute, legal or professional advice, nor is it an endorsement of any source cited or information provided.*
- *Driving is never risk free, but you should aim to drive 'low risk'. A low risk driver has good observation, speed management and road positioning skills. Further hints and tips for informational use only are included in this document.*
- *This document contains general information only for Australia. Always ensure you comply with the conditions of your valid licence and the relevant laws, regulations and road rules of the particular country, state or territory you are driving in.*

Road Safety – Introduction

- Australia's roads are busier than ever and careful driving is key to protecting yourself and other drivers, riders and other road users;
- Speeding, drink driving, fatigue and failing to wear a seat belt all continue to put drivers at risk;
- The NRMA also found that 13,500 accidents happen around traffic lights a year. In addition, poor merging skills, tail-gating, in-car distractions such as mobile phones and entertainment systems, and even driver frustration levels are key contributors to crashes.

Information via: www.nrma.com.au

OHS Act – Employee Duties (Work Related Driving)

- Applied to work related driving, under Section 25 of the Occupational Health and Safety Act 2004 (OHS Act) the employee duties would include:
  - holding a current, valid drivers license;
  - abiding by all road rules (e.g. conditions of the licence, speed limits, etc.);
  - refraining from driving if impaired by tiredness or medication;
  - reporting any incidents - all work related accidents and injuries must be reported at Neoen;
  - carrying out any routine vehicle checks required by the employer.
- Employees have to comply with the relevant road safety laws as well. For a driver, this would include a responsibility to drive within speed limits, to comply with drug and alcohol laws and to use seatbelts.
- Both employers and employees have duties to each other and to others who might be affected by the work they undertake. In the case of work related driving, this includes other road users, passengers and people at locations where the driver stops to carry out work.

Information via: https://www.worksafe.vic.gov.au/resources/guide-safe-work-related-driving-handbook-workplaces

Road Safety – Basic Precautions

- Even if you are renting a car, check the vehicle's condition especially of the tires, lights, breaks prior to driving;
- Adjust the top of your head restraint to eye level or higher. Set your mirrors, seat, belt and steering wheel correctly;
- **Driver fatigue kills** – **plan your journeys** ahead, take regular **breaks at least 15 minutes every 2 hours**;
- **Eliminate distractions.** You should not make or receive phone calls while driving. If you must - in case of urgent matters - ensure to set up hands-free before starting your journey and you can make / accept short calls safely;
- **Never text / e-mail and drive.** If you need to send a message, stop somewhere safe to send it when it is safe;
- **Slow down on the roads,** observe the speed limit and always drive to conditions / visibility (fog, smoke, etc);
- **Do not drink alcohol and drive and/or drive under the influence of drugs**;
- **Always wear your seatbelt** even when visiting our sites / projects (unless otherwise directed by safety crew);
- **Be aware of stopping distances** and leave enough of a gap between you and the vehicle in front;
- **Remember to use headlights** even in clear weather and **especially in wet or poor weather / low light**.
- When approaching a roundabout, give way to traffic already on the roundabout and indicate left when leaving;
- Watch out for pedestrians at all times and give way to them before making a turn at an intersection;

Information via and more included at: www.nrma.com.au/keeping-safe-secure/road-safety

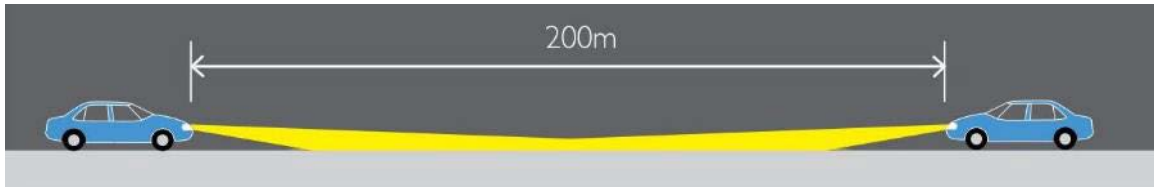
Road Safety – Animals on Country Roads

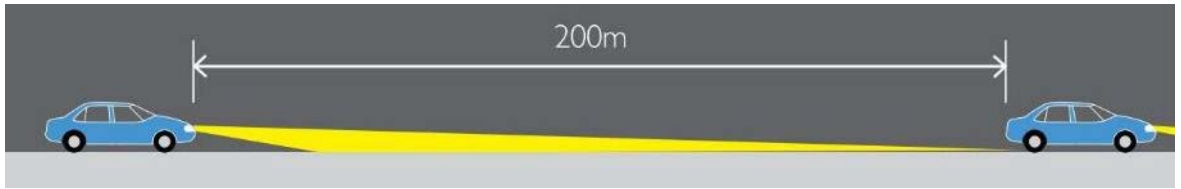
- One in every 41 casualty crashes on country roads involves a vehicle hitting an animal. Kangaroos, wombats and stray stock can move fast and be extremely unpredictable;
- When animals stray onto the road it's hard to know what they'll do next. Slowing down and being prepared, **especially near sunrise and sunset**, could save a collision or even save your life;
- **Be aware** – animals are more active near waterholes and creeks, and also harder to see at sunrise and sunset when they can be more active;
- **Reduce your speed** – slow down when you see animal warning signs;
- **Stay alert** – animals are unpredictable, so expect the unexpected;
- **Brake safely** – always apply your brakes in a controlled manner;
- **Never swerve** – it is generally considered safer to hit an animal than swerve and lose control of your vehicle;
- **Report injured wildlife** – call WIRES on 1300 094 737 (National Number);

Image and information via: https://roadsafety.transport.nsw.gov.au/

Road Safety – Lights (Basic Information)

- Headlights:
  - In many daytime situations driving with your vehicle's **headlights on can improve** the likelihood of being seen by others.
  - Your headlights **must be on** when:
    - Driving between sunset and sunrise;
    - At any other time when there is not enough daylight to see a person wearing dark clothing at a distance of 100m.
- Fog lights:
  - Front and rear fog lights **must only be used in fog or rain**, or when conditions such as smoke and dust limit your vision.
  - It is a legal requirement that once conditions improve and you can see more clearly, the fog lights are switched off.
- High beam:
  - To see further ahead use your headlights on high beam on any road even if there are street lights.
  - You **must dip your headlights** to low beam:
    - When a vehicle coming toward you is within 200 metres (two soccer fields in length);
    - When driving 200 metres or less behind another vehicle.





For more information please visit: https://www.rms.nsw.gov.au/roads/safety-rules/road-rules/lights-and-horns.html and https://www.motorama.com.au/blog/motoring-tips/high-beam-etiquette/

Road Safety – 9 Tips for Driving After Dark

- **Dim Your Instrument Panel and Dash Lights** - cars come with dashboard dimmer switches for a reason - dimming improves visibility at night;
- **Retina Spotting** - even high beams fail to illuminate much beyond your stopping distance at higher speeds. Catching your headlights reflected in the eyes of an animal can give you more time to slow down / stop;
- **Don't Stare at Oncoming Lights**;
- **Give Your Windshield a Wipe** - with newspaper, never touch the inside surfaces of your windshield, side windows, or mirrors with your hands;
- **Clean and Adjust Your Exterior Mirrors**;
- **Rear-view Mirror** - switch the inside rear-view mirror to the Night / Auto Dim setting - this darkens the mirror to prevent glare when someone is behind you;
- **Keep Your Eyes Healthy;**
- **Don't Wear the Wrong Glasses**;
- **Aim Your Headlights** – ensure badly aimed lights are not blinding oncoming traffic. Very relevant for utes that carry weight at he back or when towing trailer.

More details here: https://www.popularmechanics.com/cars/how-to/g106/10-safety-tips-for-driving-after-dark/

BERTRAND DEMEE/GETTY IMAGES

NACIVET/GETTY IMAGES

Road Safety – Overtaking (Basics Only)

- Overtaking other vehicles can be dangerous. The difficulty is judging the space required to complete it safely;
- Both single lane and multi-lane overtaking involves risk and requires extreme care. **If you have any doubts, don't overtake and wait until it is safer. Never risk a dangerous overtake just to arrive in time!**
- You must **not** overtake:
  - unless you have a clear view of approaching traffic and you can successfully overtake safely (do not commence overtaking when approaching a crest, curve or any limited vision situation);
  - a vehicle coming to a stop or a vehicle that has stopped at a pedestrian crossing, intersection or railway crossing;
  - across an unbroken (continuous) line, unless the line closest to you is broken;
  - where a road narrows.
- **KEEP LEFT** - on roads with a speed limit of more than 80 km/h, or where there is a KEEP LEFT UNLESS OVERTAKING sign, you must not drive in the right lane unless: overtaking, turning right, legally making a U-turn, there is a *left lane must turn left* sign or left lane traffic arrow, avoiding an obstruction, marked lanes are congested, the right lane is a special purpose lane allowing the lane use, the left lane has a slow vehicle making a left turn.
- For more information be sure to visit: https://www.rms.nsw.gov.au/roads/safety-rules/road-rules/overtaking.html and https://mylicence.sa.gov.au/road-rules/the-drivers-handbook/overtaking

Road Safety – Other Useful Guides

- **Basic driving techniques** (via RMS NSW) covering:
  - Driving posture;
  - Braking technique;
  - Steering technique;
  - Electronic driver assist systems;
- **Driving distractions and crash risk** (via RMS NSW) covering:
  - Source of distractions that lead to crashes;
  - Passengers and crash risk;
  - Reducing distractions means reducing crash risk;
- **Low risk driving** (via RMS NSW) covering:
  - Speed management;
  - Road positioning;
  - Crash avoidance space;
- **What to do after a crash** (via RMS NSW) covering:
  - What to do;
  - Crashes involving dangerous loads;
  - First aid;
- **10 road rules you have probably never heard of (via NRMA)**

Images via carsguide.com.au

Thank you for listening & staying safe

NEOEN

AUSTRALIA ARGENTINA EL SALVADOR FINLAND FRANCE JAMAICA JORDAN MÉXICO MOÇAMBIQUE PORTUGAL USA ZAMBIA

Appendix B

NHVR Heavy Vehicle Driver Fatigue Requirements Bulletin

Heavy vehicle driver fatigue requirements

Compliance and Enforcement bulletin 7

This bulletin provides practical advice to help heavy vehicle drivers and other parties to comply with the requirements of the Heavy Vehicle National Law (HVNL) as they relate to heavy vehicle driver fatigue.

What are my obligations under the HVNL?

Amendments to the HVNL in 2018 will introduce 'safety duties' that must be met by all parties in the Chain of Responsibility (CoR). This requirement means that all parties have a duty to ensure the safety of their transport activities, so far as is reasonably practicable.

Responsible parties in the chain include: employers, prime contractors, operators, schedulers, consignors, consignees, packers, loading managers, loaders, and unloaders.

In addition, the executive officers of each party in the chain must exercise 'due diligence' to ensure the safety of their business's transport activities. The law will require executive officers to:

- keep up-to-date with the safe conduct of transport activities in their business
- fully understand the hazards and risks associated with their transport activities and how these are being managed
- provide appropriate resources–including people, systems and equipment–to manage their safety hazards and risks effectively.

In terms of heavy vehicle driver fatigue, the safety duties provision of the HVNL places a requirement on responsible parties to prevent a driver from driving any heavy vehicle whilst fatigued, not just fatigue-regulated heavy vehicles.

These safety duties extend to identifying any fatigue risks to prevent or reduce potential harm or loss, to yourself and others.

What are the HVNL fatigue requirements?

Driver fatigue is a leading contributor to heavy vehicle crashes in Australia, with some studies showing fatigue involved in one eighth of Australian heavy vehicle crashes.

To assist drivers and operators of heavy vehicles to avoid driver fatigue, the HVNL sets four key requirements.

Four key HVNL requirements to avoid driver fatigue

Requirement	Description
1. Don't drive a heavy vehicle while fatigued	Drivers must not drive a fatigue-regulated heavy vehicle on a road while impaired by fatigue. Other parties in the CoR must ensure they prevent a driver from doing this.
2. Work within set limits	Drivers must work within set limits and have minimum rest requirements. Other parties must not ask or allow drivers to exceed these limits.
3. Keep work and rest records	Drivers (or in some cases a driver's record keeper) must make an accurate and complete record of their work and rest time in either a National Driver Work Diary or, if driving within an area with a radius of 100 km of the driver's base, alternative work records.
4. Provide records to record keeper	Drivers must provide their work and rest records to their record keeper within set time frames. A record keeper must retain these records for three years.

Understanding the HVNL fatigue requirements

1. Don't drive a heavy vehicle while fatigued

Under the HVNL, the safety duty for all heavy vehicle drivers is to not drive a fatigue-related heavy vehicle on a road while impaired by fatigue. A driver is impaired by fatigue when their ability to drive a heavy vehicle safely is affected by fatigue.

The HVNL defines fatigue as including (but not limited to) the following feelings and behaviours:

- feeling sleepy
- feeling physically or mentally tired, weary or drowsy
- feeling exhausted or lacking energy
- behaving in a way consistent with the above.

If a heavy vehicle driver is driving and experiences any of these symptoms, they must stop work immediately (as soon as it is safe to do so). The driver must not work again until they are no longer affected by fatigue.

Tip: Getting plenty of good quality rest and/or sleep are the most effective ways to prevent and recover from fatigue.

A driver can be impaired by fatigue at any time, even when they comply with work and rest hour limits. Regardless of how many hours they may have worked or rested, they must never drive if they are impaired by fatigue.

2. Work within set limits

The scientific evidence shows that fatigue increases the longer a person is awake and or the less sleep they have. To assist heavy vehicle drivers get enough time to sleep and to not work too long, the HVNL requires all heavy vehicle drivers to comply with set work and rest limits.

What is work and rest?

While driving is the most common type of work, it is important to note that any other task relating to the operation of a fatigue-regulated heavy vehicle is regarded as work, including for example:

- instructing/supervising another person driving a fatigue-regulated heavy vehicle
- loading or unloading a fatigue-regulated heavy vehicle
- inspecting, repairing or servicing a fatigue-regulated heavy vehicle
- inspecting or attending to a load (adjusting/securing load) of a fatigue-regulated heavy vehicle (a load includes passengers)
- cleaning and refuelling a fatigue-regulated heavy vehicle
- completing paperwork in relation to a fatigue-regulated heavy vehicle (organising loads/work)
- recording information or completing a document that is required under the HVNL
- helping another person or supervising any of the above
- occupying the driver seat of a fatigue-regulated heavy vehicle while its engine is running
  Note: Exemptions may apply.

These tasks have been limited because they extend the time a person is awake, increasing the risk of being fatigued.

Rest in relation to the operation of a fatigue-regulated heavy vehicle is not doing any of the above.

What work and rest options are available?

The HVNL provides heavy vehicle drivers and operators with various work and rest hours options, each with their own work and rest limits. There are four options available:

1. Standard hours
2. Basic Fatigue Management (BFM) hours
3. Advanced Fatigue Management (AFM) hours
4. Exemption hours.

Note: The following link to the NHVR website provides the work and rest requirements for each of the work and rest hours options.
www.nhvr.gov.au/safety-accreditation-compliance/fatigue-management/work-and-rest-requirements

BFM and AFM provide increased levels of flexibility by managing fatigue risks through the National Heavy Vehicle Accreditation Scheme (NHVAS). Heavy vehicle drivers can only work under these hours if they have been inducted into an accredited operators system.

Exemptions enable operators and drivers to apply for work and rest hours not possible under any of the other work and rest options. Strict constraints apply.

3. Keep work and rest records

When does a driver need to carry a Work Diary?

A driver of a fatigue-regulated heavy vehicle is required to carry a Work Diary when they are, or if they have in the last 28 days, been:

- driving outside a radius of 100km from their driver base (100+km work)
- working under BFM or AFM
- working under an exemption.

At the request of an Authorised Officer, drivers must produce their Work Diary records for the previous 28 days. An Authorised Officer is a police officer, state or territory road agency officer or an NHVR officer.

Note: Some specific state and territory exemptions exist.

Completing a Work Diary (100+km work)

Drivers of a fatigue-regulated vehicle undertaking or planning to undertake a 100+km journey in a day must complete their Work Diary (including all work and rest) for that day. Detailed instructions on how to complete your Work Diary, including examples, are located at the beginning of your Work Diary.

Counting time

There are detailed instructions on pages 21–25 of the Work Diary explaining how to count time. It is important to remember when counting time that:

- each 24-hour period starts at the end of a major rest break relevant to the work/rest hours arrangement under which the driver is working (e.g. standard hours solo (at least) seven hours continuous rest).
- each 24-hour period ends exactly 24 hours after commencement.
- it is possible that you could have more than one 24-hour period running at the same time. This can occur when there are two major rest breaks within a 24-hour period.

Tip: A major rest break does not reset your 24-hour period; it commences another 24-hour period.

Recording work/rest in non-participating jurisdictions

If you are the driver of a fatigue-regulated heavy vehicle travelling into WA or NT for a period of seven days or less, you are required to comply with both the HVNL fatigue requirements and any relevant local laws. To demonstrate your compliance, you should complete your Work Diary as you would if you were working in a participating jurisdiction.

For periods of work longer than seven days carried out in a non-participating jurisdiction, the driver will need to comply with the local heavy vehicle driver fatigue, work rest and record keeping requirements. When driving a fatigue-regulated heavy vehicle and returning from a non-participating jurisdiction to a participating jurisdiction, the driver must complete their Work Diary from the beginning of the last major rest break taken prior to re-entering the participating jurisdiction.

Further information can be found on page 9 of the Work Diary instructions.

4. Provide records to record keeper within set time frames

Record keepers must keep a record of specific information for drivers of fatigue regulated heavy vehicles. A record keeper may be the:

- employer, if the driver is employed
- accredited operator, if the driver is working under BFM or AFM accreditation
- driver (as a self-employed or owner driver).

Drivers must provide their record keeper with their relevant work and rest hours totals and any other relevant vehicle information the record keeper may not reasonably have access to (registration numbers, dates the driver worked, etc.).

The record keeper determines the record location and notifies the driver. The record location is usually the driver's base.

All records must be:

- kept for three years after they are created
- kept at a location accessible to an Authorised Officer for audit or investigation purposes
- in a format that is readable and reasonably assumed it will be readable in at least three years from the date of its creation.

When do HVNL fatigue requirements apply?

The heavy vehicle driver fatigue requirements found in chapter 6 of the HVNL apply to drivers and other parties operating a fatigue-regulated heavy vehicle.

A fatigue-regulated heavy vehicle is defined as a:

- motor vehicle with a Gross Vehicle Mass (GVM) of more than 12t
- combination with a GVM of more than 12t
- fatigue-regulated bus (GVM greater than 4.5t and built or fitted to carry more than 12 adults including the driver).

Some vehicles have been specifically excluded from this definition, these include motor vehicles that are:

- built to operate primarily as a machine or implement off-road and are not capable of carrying goods or passengers by road

or

- motorhomes.

For example, a truck with a GVM of 8.7t towing a trailer with a GVM of 3.4t (8.7t + 3.4t = 12.1t) would be classed as a fatigue-regulated heavy vehicle.

Tip: The manufacturer specifies the GVM and it can be located on the vehicle identification plate, registration label or papers.

What can I do to manage fatigue?

The implementation of a safety management system (SMS) that addresses the risks associated with fatigue will assist in satisfying the requirements of the HVNL as they relate to heavy vehicle driver fatigue.

While this bulletin is not intended to provide an exhaustive list, here are some examples of systems that can be established as part of an effective SMS:

- Reviewing driving or work schedules and work records of relevant drivers
- Regularly assessing fitness for duty of relevant drivers
- Reviewing contractual arrangements and documentation relating to the consignment and delivery of goods
- Reviewing loading and unloading times and delays at loading and unloading places
- Developing and adhering to trip plans
- Implementing formalised processes to engage and consult with other parties in the chain.

What actions can Authorised Officer's take?

Authorised Officers have powers relating to heavy vehicle driver fatigue requirements, including inspecting heavy vehicle driver's work and rest records.

Enforcement action for any breach of fatigue, work/rest hours or Work Diary requirements will depend on the nature and severity of the breach. Options available to Authorised Officers include (but are not limited to) formal warnings, infringement notices and court imposed penalties.

Drivers of fatigue-regulated heavy vehicles that are deemed to be driving while impaired by fatigue may face penalties and be prevented from working, even if they are complying with work and rest requirements.

Drivers of fatigue-regulated heavy vehicles may be directed to immediately stop work and not work again for a stated period if:

- the driver is impaired by fatigue
- the driver has committed a severe or critical work/rest hours breach
- the driver is unable to produce a Work Diary without a reasonable excuse
- the Work Diary produced cannot be relied on as an accurate record of the time the driver recently spent working or resting.

Where can I get more information?

Heavy vehicle driver fatigue or Work Diary requirements

This bulletin summarises the key obligations set out in the HVNL and is not exhaustive. Visit our website for more information about heavy vehicle driver fatigue or Work Diary requirements or contact us on 1300 MYNHVR (1300 696 487). www.nhvr.gov.au/safety-accreditation-compliance/fatigue-management

Chain of Responsibility (CoR)

More information is available on the NHVR website at: www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility

NHVAS

More information is available on the NHVR website at: www.nhvr.gov.au/safety-accreditation-compliance/national-heavy-vehicle-accreditation-scheme

Fatigue management exemptions

More information is available on the NHVR website at: www.nhvr.gov.au/safety-accreditation-compliance/fatigue-management/fatigue-management-exemptions

Safety Management Systems (SMS)

More information is available on the NHVR website at: www.nhvr.gov.au/safety-accreditation-compliance/safety-management-systems

For more information

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Appendix C

Annual Events in the Greater Hume Area

Annual Events

The following are the key recurring annual events in Greater Hume area, from the Greater Hume What's On webpage: https://www.visitgreaterhume.com.au/Featured-Content/Whats-On/Annual-Events

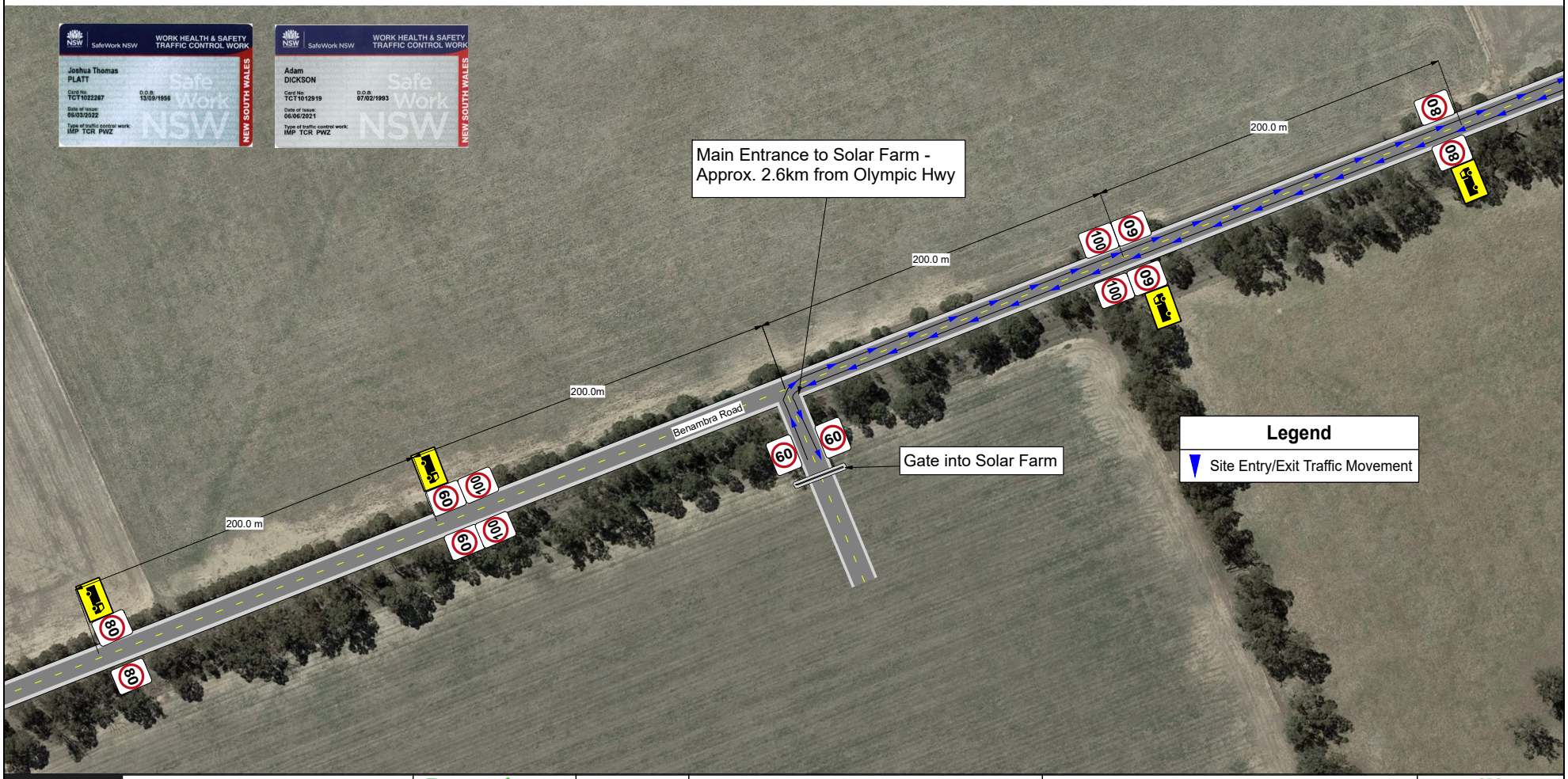
Table C1: Greater Hume Annual Events

Month	Event	Contact Details
January	Australia Day	Greater Hume Council T: 02 6036 0100
February	Henty Agricultural Show	Henty Show Society E: hentyshow@gmail.com
March	Holbrook Agricultural Show	Holbrook Show Society T: 0427 832 803
	Holbrook Lions Club Triathlon	Holbrook Triathlon E: holbrooktriathlon@gmail.com
	Morgan Country Car Club Swap Meet	Morgan Country Car Club E: morgancountrycarclub@outlook.com
	St John's Primary School Fair	St John's Primary School T: 02 6026 3220
April	Henty Art, Photography and Quilting Exhibition	Kerrie T: 0427 939 121
	Commander Holbrook Cup Race Meeting, Holbrook	Holbrook and District Race Club T: 02 6036 3642
	Wymah Family Fun Day and Fun Run	Maree T: 02 6020 2005
	Holbrook Easter Fly-in	Holbrook Ultralight Club T: 0488 579 256
	Jindera Community Garage Sale	Leeny T: 0419 605 566
May	Brocklesby Bush Dash	Sharon T: 0457 833 555
	Jindera Fun Run	Greg T: 0419 996 961
	Holbrook Sheep and Wool Fair	Holbrook Show Society T: 0427 832 803
June	Walla Walla Show N Shine and Swap Meet	Walla Walla Motoring Club E: wallamotoringclub@outlook.com
September	Henty Machinery Field Days	Henty Machinery Field Days Committee T: 02 6929 3305
	Holbrook Town Garage Sale	-
	Hume Football and Netball League Finals	Hume Football League E: humefl@bigpond.com
October	Holbrook Art & Gardens	Milt T: 0413 002 624

	Culcairn Agricultural Show	Steven T: 02 6029 8683
	Jindera Country Fete	St Mary MacKillop College T: 02 6045 9422
	Walbundrie Agricultural Show	Sandra T: 0408 151 107
	Burrumbuttock Flower, Craft, Cooking and Photography Show	Burrumbuttock Show Committee T: 0439 281 959
November	Garage Sale Trail	www.garagesaletrail.com.au

Appendix D

Proposed TGS Plans
Walla Walla Solar Farm Access Points



GAME TRAFFIC & CONTRACTING

Date: 13/2/2023

Client: Gransolar Construction

Job Location: Benambra Rd - Main Entrance

Drawn by: Josh Platt

Checked by: Adam Dickson

TGS No: G23-0316

Version: 001

Notes: Enter TGS specific notes here.

As per AGTTM08-19

A Traffic Management Implementer must hold the RIIWHS302E or equivalent qualifications in order to implement a TMP or TGS

A Traffic Controller must hold the RIIWHS205E or equivalent qualifications in order to control traffic with a Stop/Slow bat

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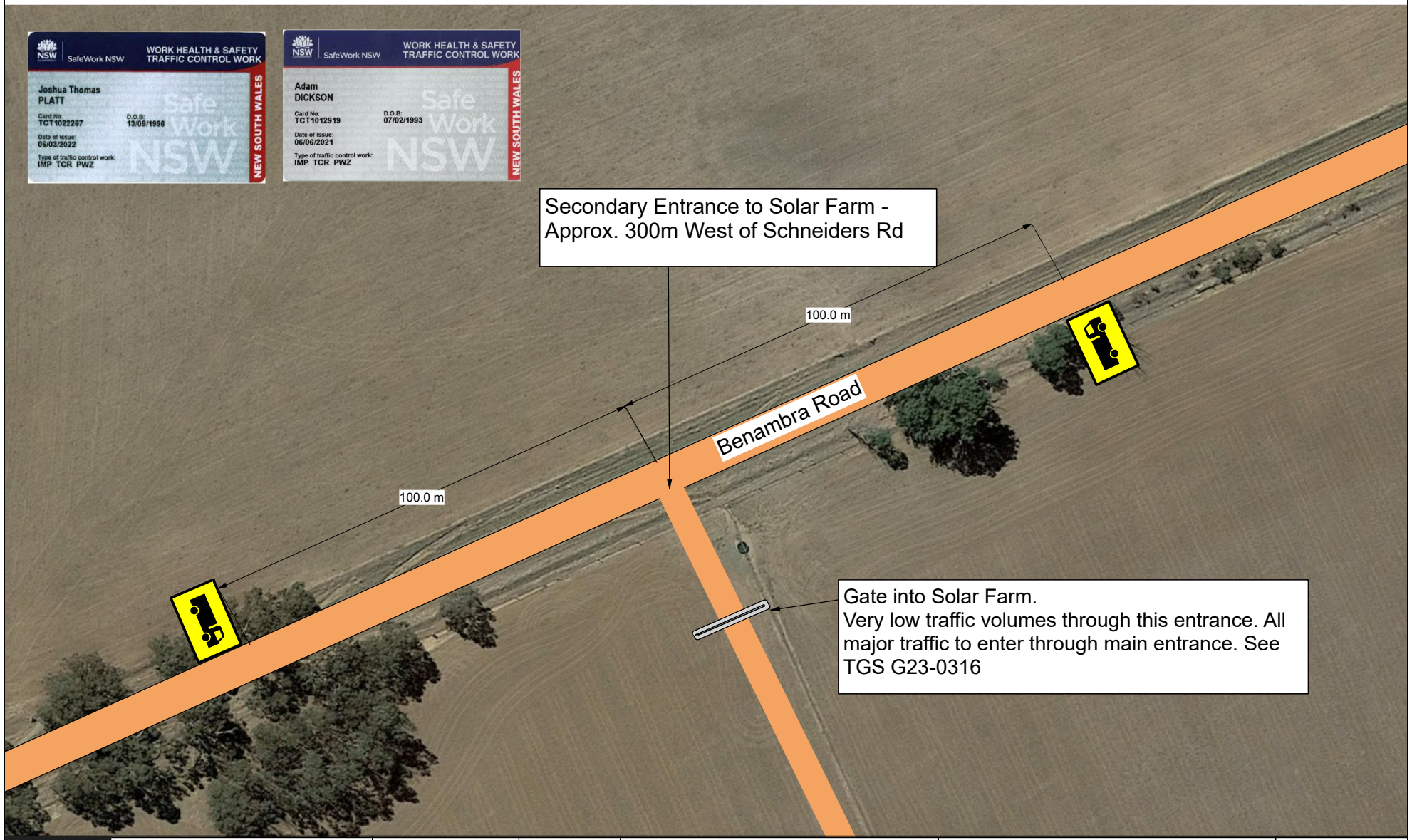


GAME TRAFFIC & CONTRACTING

Date: 13/2/2023

Client: Gransolar Construction

Job Location: Benambra Rd - Second Entrance

Drawn by: Josh Platt

Checked by: Adam Dickson

TGS No: G23-0317

Version: 001

Notes: Low Traffic Volumes through secondary gate.

As per AGTTM08-19

A Traffic Management Implementer must hold the RIIWHS302E or equivalent qualifications in order to implement a TMP or TGS

A Traffic Controller must hold the RIIWHS205E or equivalent qualifications in order to control traffic with a Stop/Slow bat

GPS

-35.73735131054299, 146.94128036499023

N

Appendix E

Road Design Plans

Memo

To:	Neoen
From:	WSP Australia
Subject:	**Culcairn Solar Farm Access Road – 100% Design Issue**
Our ref:	204179-WSP-RD-MEM-000001 RevC.docx
Date:	**13 October 2023**

Project and Design Description

WSP Australia have been engaged to provide the engineering design for the upgrade of Weeamera Road to facilitate the development application approval of the Culcairn Solar Farm.

The purpose of this memo is to outline the technical specifications relevant to the road design at the 100% design issue phase.

General Design Criteria

Refer Table 1 for the general design criteria related to the project.

Table 1 General Design Criteria

Description	Value	Specification
Design Speed	100km/h - default rural speed limit (no sign posting) 25km/h Advisory zone on approach to and through the s-bends	No posted speed signs have been provided as per the NSW Governments regulation for rural roads. - AS1742.4_2020 Section 2.2.1 Part a "Default speed limits" Advisory speed signs have been provided on the approach to and through the s-bends in accordance with – AS 1742.2
Road Cross Section	7.0m Sealed Formation; 3.5m wide Lanes; 1.2m wide shoulder accommodating guard rail; 1:4 earthworks batters 7.0m Sealed Formation; 3.5m wide Lanes; 1.0m wide shoulder; 1:4 earthworks batters ~1m Shoulder widening on curves	Greater Hume Shire Council - Standard Road Design Typical Cross Section

Level 27, 680 George Street
Sydney NSW 2000
GPO Box 5394
Sydney NSW 2001

Tel: +61 2 9272 5100
Fax: +61 2 9272 5101
www.wsp.com

WSP acknowledges that every project we work on takes place on First Peoples lands.
We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

Description	Value	Specification
Average Annual Daily Traffic (AADT)	<150 v.p.d.	
Clear Zone	5m	Greater Hume Shire Council nominated clear zone.
Design Vehicle	12.5m Rigid Truck	
Checking Vehicle	16 axle 4.2mW Transport Configuration	Client provided drawing "Transport Attachment 1.ODLS 16 Axel Radius-Model (002).pdf"

Design Vehicle

The horizontal geometry has been assessed using Autodesk Vehicle Tracking and the application of similar, conservative design vehicles to determine the necessary pavement widening to accommodate the through movement of a 16 axle 4.2mW Transport Configuration. The design can accommodate all the Austroads design vehicles, along with being assessed for an Articulated heavy load mover with a 4.88m wide load bed. One (1.0) metre of pavement widening has been provided on the inside of the 64m radius curve to accommodate the vehicle envelope.

An assessment can be undertaken on the 16 axle 4.2mW Transport Configuration if provided in necessary file formats for either Autodesk Vehicle Tracking or Transoft AutoTurn.

Road Cross Section

The cross section adopted for the design of Weeamera Road is in accordance with the Greater Hume Shire Council Standard Road Design Typical Cross Section. This cross section has in total a 9m wide formation including two 3.5m sealed lanes and two 1m wide unsealed shoulders. The batters' slopes are 1 in 4 for both cut and fill.

Guard rail is required to protect trees and drainage culverts within the clear zone between station 0 and 1060 on both sides of the road. The shoulder has been widened to 1.2m to accommodate the working width of available guard rail systems. Appropriate terminals will be required to meet the 100km/h unposted design speed. It should be noted that clear runout areas cannot be provided in all locations due to the disturbance footprint.

Note to accommodate design vehicle there is approximately 1m shoulder widening around the 64m radius curve.

Horizontal and Vertical Geometry

The horizontal and vertical geometry has generally been designed to match with the existing roadway, with a slight adjustment to the two curves resulting from the maximum angle across the railway line. Table 2 outlines the conformity of the horizontal geometry of the roadway across the rail line, with the necessary advisory speed signage.

Table 2 Horizontal Geometry Assessment

Geometric Element	Description of Value	<30km/h	40km/h	50km/h
	Design Speed	30km/h (15km/h advisory)	40km/h (posted 40km/h)	50km/h (posted 40km/h)
R = 64	Superelevation		3%	3%
	Rate of Rotation		3.5%/second (<80km/h)	3.5%/second (<80km/h)

	Side Friction Demand		**0.17**	**0.28**
	Car Desirable max.		0.3	0.3
	Truck Desirable max.		0.21	**0.21**
L = 19.41	Start Crossfall		-3%	-3%
	End Crossfall		3%	3%
	Rotation Length		19.063m	**23.829m**
R = 35	Superelevation	3%	3%	
	Rate of Rotation	3.5%/second (<80km/h)	3.5%/second (<80km/h)	
	Side Friction Demand	**0.17**	**0.33**	
	Car Desirable max.	0.3	**0.3** (0.33 abs. max.)	
	Truck Desirable max.	0.21	**0.21**	

An advisory speed of 25km/h has been adopted for the 64m radius curve and the 35m radius curve as no formal speed zone reduction can be implemented on this rural zone 100km/h unposted road.

Pavement marking rumble strips have been proposed on approach to the s-bends northbound. These are in accordance with TfNSW Delineation Guideline Part 5 section 5.6.

Drainage Culverts

The following existing drainage culverts will need to be replaced:

- Approximate Station 140 Under Weeamera Road – New twin box culverts and headwalls to be installed. Culvert size to match existing. Approximate existing culvert size 1.5m wide x 0.3m high. Contractor to confirm on site prior to construction.
- Approximate Station 500 Under property access – New culvert and headwall to be installed. Culvert size to match existing. Approximate existing culvert size 300dia. Contractor to confirm on site prior to construction.
- Approximate Station 570 Under Weeamera Road – New culvert and headwall to be installed. Culvert size to match existing. Approximate existing culvert size 375dia. Contractor to confirm on site prior to construction.
- Approximate Station 910 Under property access – New culvert and headwall to be installed. Culvert size to match existing. Approximate existing culvert size 300dia. Contractor to confirm on site prior to construction.
- Approximate Station 1380 Under rail embankment – New culvert and headwall to be installed. Culvert size to match existing. Approximate existing culvert size 600dia. Contractor to confirm on site prior to construction.

Pavement Options

Three pavement options have been developed based on the DCP's and subgrade CBR testing noted from the Access Road Geotechnical Report MEL2023-0083AE Rev1. The following notes supplement the three options provided:

- Earthworks and subgrade preparations to be in accordance with TfNSW QA Specification R44.
- Lime stabilisation treatment could be adopted for the lower subbase, allowing the existing material to be retained.
- Large aggregate PMB crumb rubber seal has been adopted due to the short duration/ heady haul needs.
- Compaction standard for the DGB20 is higher than normal for the upper base course due to the likely high early loading and to help resist rutting.

Option 1 – All imported material	Option 2 – Imported/ In-situ Material	Option 3 – Maximum Reuse Existing Material
16/10 Double/Double (S45R) Sprayed Seal (TfNSW Spec R107)	16/10 Double/Double (S45R) Sprayed Seal (TfNSW Spec R107)	16/10 Double/Double (S45R) Sprayed Seal (TfNSW Spec R107)
AMC0 Prime (TfNSW Spec R106)	AMC0 Prime (TfNSW Spec R106)	AMC0 Prime (TfNSW Spec R106)
110mm DGB20 Class 1 (Traffic Category A) Base Course (102% modified compaction) (TfNSW spec R71/3051)	110mm DGB20 Class 1 (Traffic Category A) Base Course (102% modified compaction) (TfNSW spec R71/3051)	110mm DGB20 Class 1 (Traffic Category A) Base Course (102% modified compaction) (TfNSW spec R71/3051)
110mm DGB20 Class 1 (Traffic Category A) Base Course (100% modified compaction) (TfNSW spec R71/3051)	110mm DGB20 Class 1 (Traffic Category A) Base Course (100% modified compaction) (TfNSW spec R71/3051)	110mm DGB20 Class 1 (Traffic Category A) Base Course (100% modified compaction) (TfNSW spec R71/3051)
150mm DGS20 upper subbase (100% modified compaction) (TfNSW spec R71/3051)	125mm DGS20 upper subbase (100% modified compaction) (TfNSW spec R71/3051)	100mm DGS20 upper subbase (100% modified compaction) (TfNSW spec R71/3051)
150mm Selected Material Zone lower subbase (102% standard compaction) (TfNSW spec R44/3071)	200 mm (min) insitu lime stabilised existing material (estimate 4-6% lime TBC by testing) (TfNSW spec R75)	300 mm insitu lime stabilised existing material (estimate 4-6% lime TBC by testing) (TfNSW spec R75)
Subgrade CBR 4% (TfNSW spec R44)	Subgrade CBR 4% (TfNSW spec R44)	Subgrade CBR 4% (TfNSW spec R44)
Total 520 mm depth	**Total 545 mm depth (200 mm is recycled existing material but subject to further testing)**	**Total 620 mm depth (300 mm is recycled existing material but subject to further testing)**

Rail Crossing

An assessment has been undertaken of the road design to demonstrate that it does not preclude the future installation of a rail level crossing at this location. The road design and associated signage is not intended to incorporate a rail crossing at this stage.

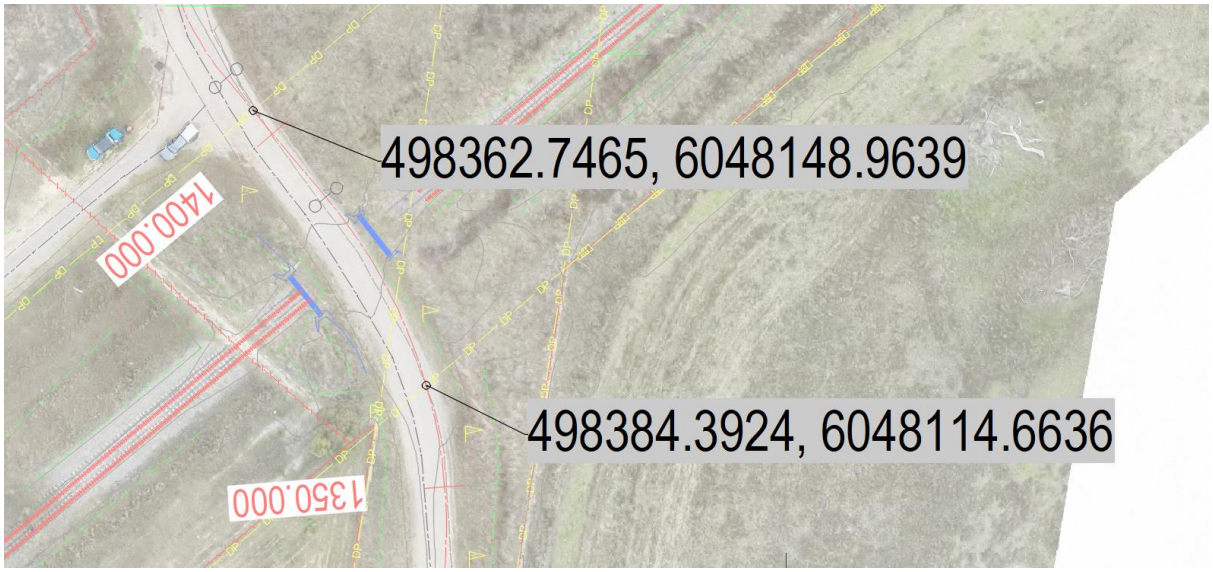
The two main parameters that have been assessed are:

- The maximum angle on approach to the rail crossing does not exceed 70 degrees (Austroads Guide to Road Design Part 4, Section 10.2.2). The northbound approach is designed to be 82 degrees, tangential to the approach curve and the southbound approach is 90 degrees on the nearest tangent.
- The level of the road alignment at the existing railway line is to match the existing elevation.

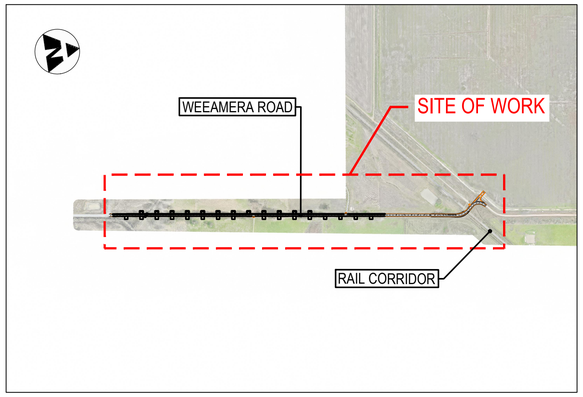
Due to the inclusion of horizontal curves on either side of the crossing, the roadway is in superelevation or superelevation transitions as it crosses the rail line and is unable to be coplanar. This will need to be re-assessed and updated at the time of future installation to ensure it is in accordance with Austroads Guide to Road Design Part 4, section 10.4.

The coordinates of the rail crossing are included in Figure 1 below and are taken at the point the centreline alignment crosses into the rail boundary on either side.

Figure 1 Railway Crossing Coordinates



CULCAIRN SOLAR FARM ACCESS ROAD UPGRADE
ROAD WORKS
100% DETAILED DESIGN



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DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL
CULCAIRN SOLAR FARM
PROJECTWIDE
GENERAL
COVER SHEET

DRAWING SET No: | PART: | SHEET: 1 OF 1 | A1
STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

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CULCAIRN-WSP-NWW-GN-DRG-000002	GENERAL	DRAWING INDEX
CULCAIRN-WSP-NWW-GN-DRG-000011	GENERAL	KEY PLAN
CULCAIRN-WSP-NWW-GN-DRG-000021	GENERAL	PAVEMENT PROFILES
CULCAIRN-WSP-NWW-GN-DRG-000051	GENERAL	TYPICAL CROSS SECTION
CULCAIRN-WSP-NWW-GN-DRG-000101	ROADWORKS	GENERAL ARRANGEMENT PLAN - SHEET 1
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CULCAIRN-WSP-NWW-GN-DRG-000106	ROADWORKS	GENERAL ARRANGEMENT PLAN - SHEET 6
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CULCAIRN-WSP-NWW-GN-DRG-000312	ROADWORKS	CROSS SECTIONS - MC01 - SHEET 12
CULCAIRN-WSP-NWW-GN-DRG-000313	ROADWORKS	CROSS SECTIONS - MC01 - SHEET 13
CULCAIRN-WSP-NWW-GN-DRG-000314	ROADWORKS	CROSS SECTIONS - MC01 - SHEET 14
CULCAIRN-WSP-NWW-GN-DRG-000315	ROADWORKS	CROSS SECTIONS - MC01 - SHEET 15
CULCAIRN-WSP-NWW-GN-DRG-000401	ROADWORKS	LONGITUDINAL SECTION - MC01 - SHEET 1
CULCAIRN-WSP-NWW-GN-DRG-000402	ROADWORKS	LONGITUDINAL SECTION - MC01 - SHEET 2
CULCAIRN-WSP-NWW-GN-DRG-000403	ROADWORKS	LONGITUDINAL SECTION - MC01 - SHEET 3
CULCAIRN-WSP-NWW-GN-DRG-000404	ROADWORKS	LONGITUDINAL SECTION - MC01 - SHEET 4
CULCAIRN-WSP-NWW-GN-DRG-000405	ROADWORKS	LONGITUDINAL SECTION - MC01 - SHEET 5
CULCAIRN-WSP-NWW-GN-DRG-000406	ROADWORKS	LONGITUDINAL SECTION - MC01 - SHEET 6

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FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000002.dwg

PLOT DATE & TIME: 13/10/2023 3:34:26 PM

REFERENCES:

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B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: -

DESIGN LOT CODE:

CLIENT: NEOEN

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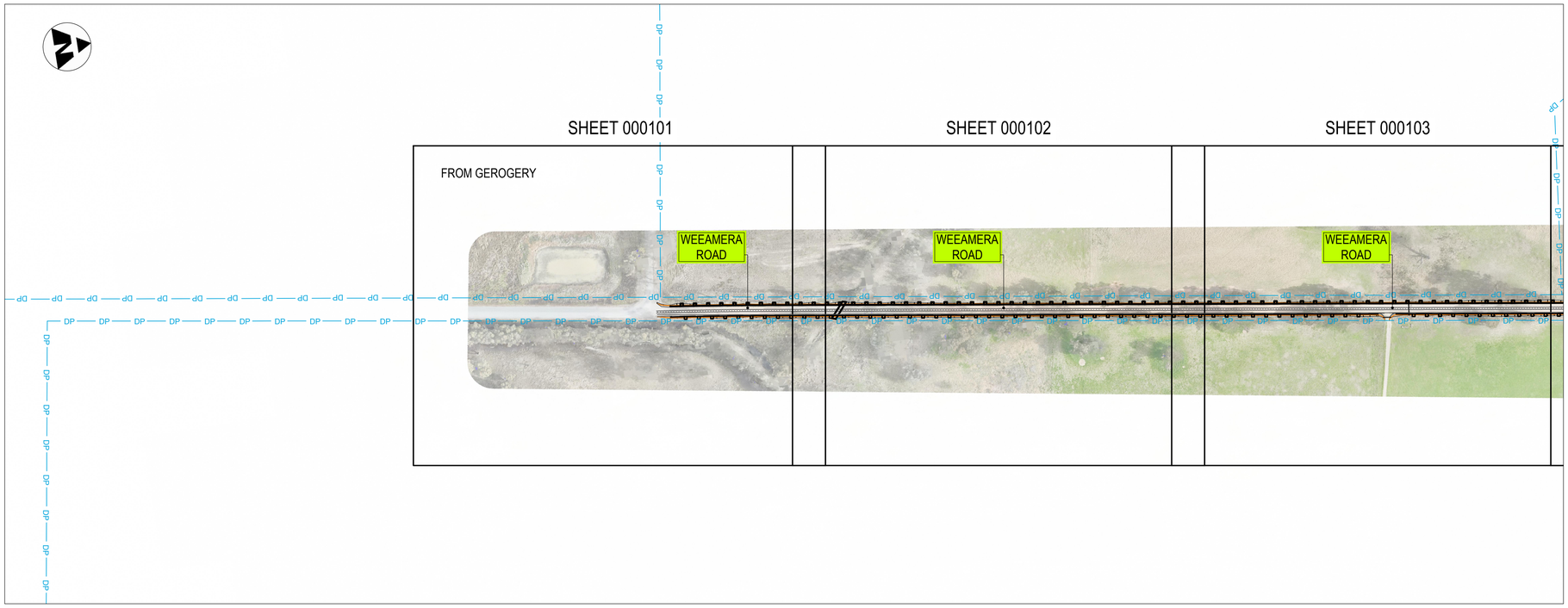
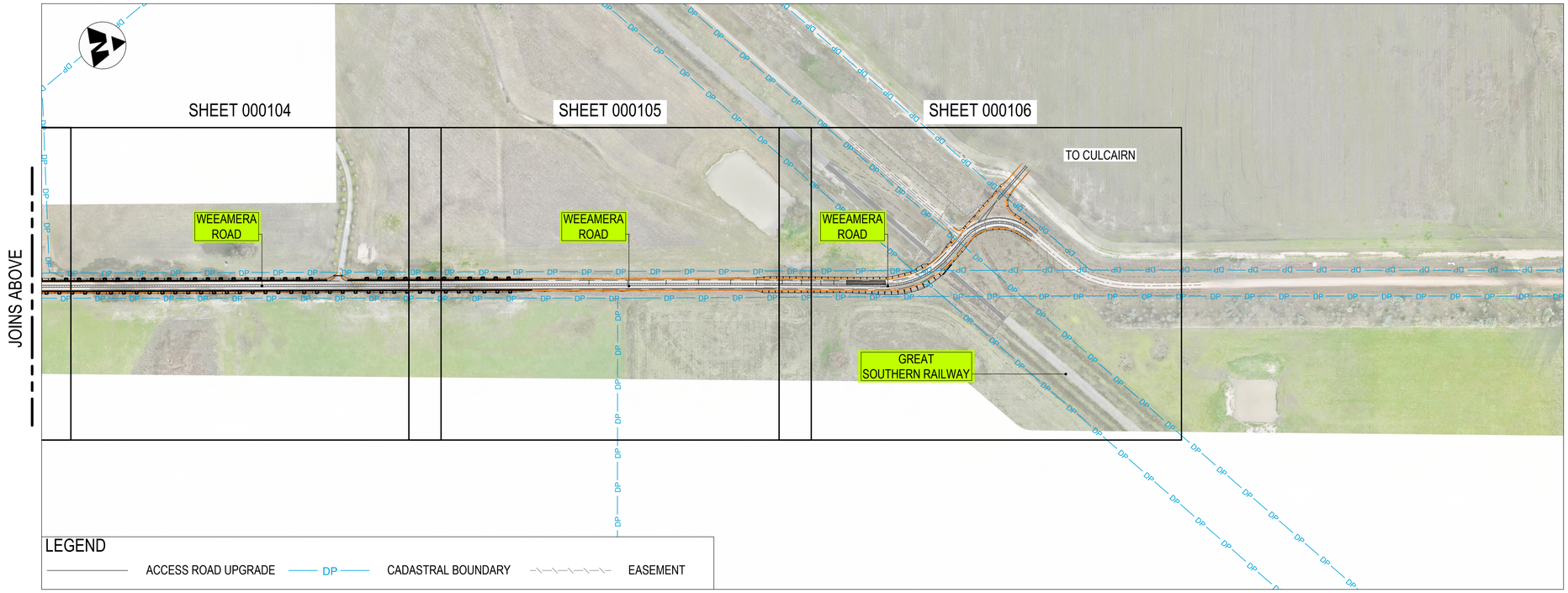
DESIGNED CHRISTOPHER MUNDY 13.10.23
DRG CHECK CLAUDIO BIDART 13.10.23
DESIGN CHECK STEVEN ELLIS 13.10.23
PROJ/DES MNGR CHRIS YAU 13.10.23
APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL
CULCAIRN SOLAR FARM
PROJECTWIDE
GENERAL
DRAWING INDEX

DRAWING SET No: | PART: | SHEET: 1 OF 1 | A1
STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000002	B	1		





LEGEND

ACCESS ROAD UPGRADE — DP — CADASTRAL BOUNDARY — EASEMENT

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REFERENCES:

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REV	DESCRIPTION	DESIGNER INITIAL/DATE	VERIFIED INITIAL/DATE	APPROVED INITIAL/DATE
C	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
B	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23
A	ISSUED FOR DRAFT INFORMATION	C.M 04.08.23	S.E 04.08.23	C.Y 04.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:2000

0 50m
SCALE 1:2000 @A1

DESIGN LOT CODE:

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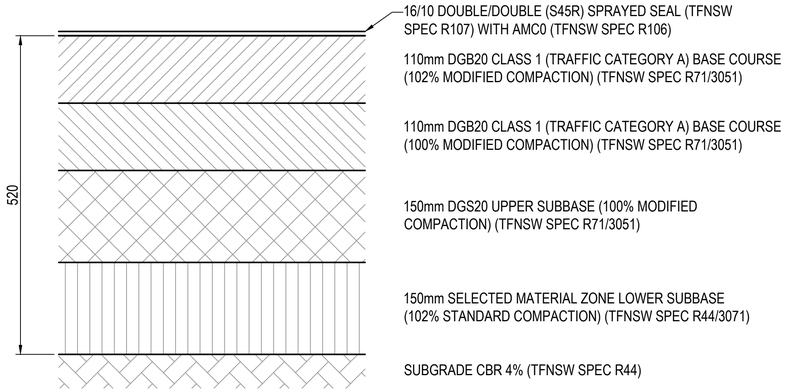
DRG CHECK	CLAUDIO BIDART	13.10.23
DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL
CULCAIRN SOLAR FARM
PROJECTWIDE
GENERAL
KEY PLAN

DRAWING SET No:	PART:	SHEET: 1 OF 1	A1
STATUS: 100% DETAILED DESIGN	BRIDGE No:		©
DRG No. CULCAIRN-WSP-NWW-GN-DRG-000011	REV C	VER 1	EDMS No. / AMD No.

FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000011.dwg

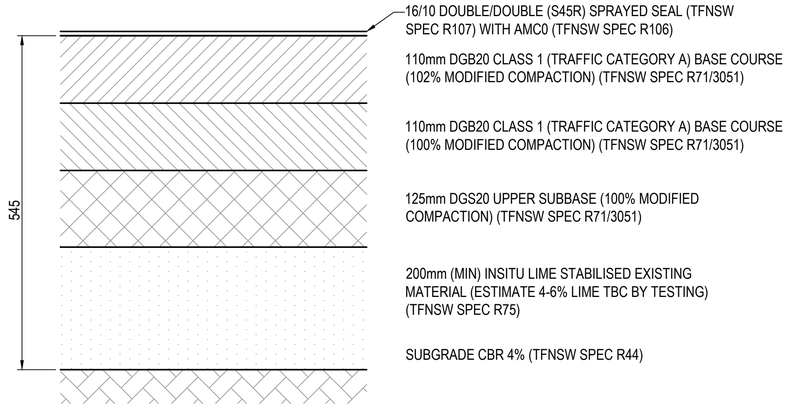
PLOT DATE & TIME: 13/10/2023 3:52:01 PM



OPTION 1 - ALL IMPORTED MATERIAL

SCALE 1:5

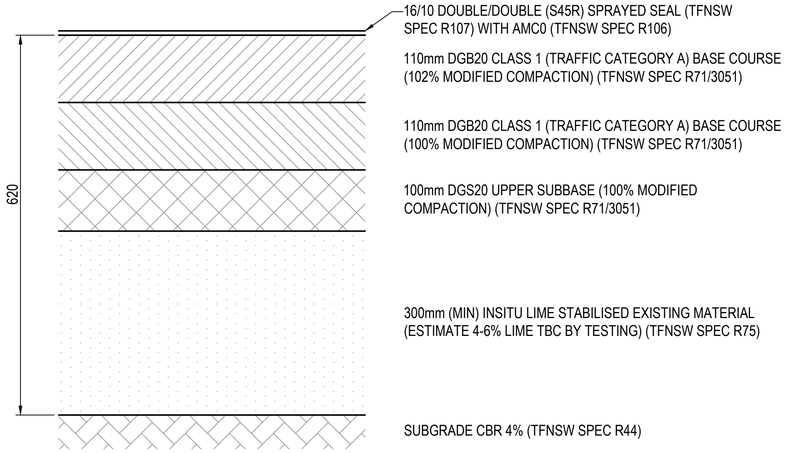
*TOTAL DEPTH = 520mm



OPTION 2 - ALL IMPORTED/INSITU MATERIAL

SCALE 1:5

*TOTAL DEPTH = 545mm (200mm IS RECYCLED EXISTING MATERIAL BUT SUBJECT TO FURTHER TESTING)



OPTION 3 - MAXIMUM REUSE EXISTING MATERIAL

SCALE 1:5

*TOTAL DEPTH = 620mm (300mm IS RECYCLED EXISTING MATERIAL BUT SUBJECT TO FURTHER TESTING)

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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:5

0 0.1 0.2m

SCALE 1:5 @A1

DESIGN LOT CODE:

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DRG CHECK	CLAUDIO BIDART	13.10.23
DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM

PROJECTWIDE

GENERAL

PAVEMENT PROFILES

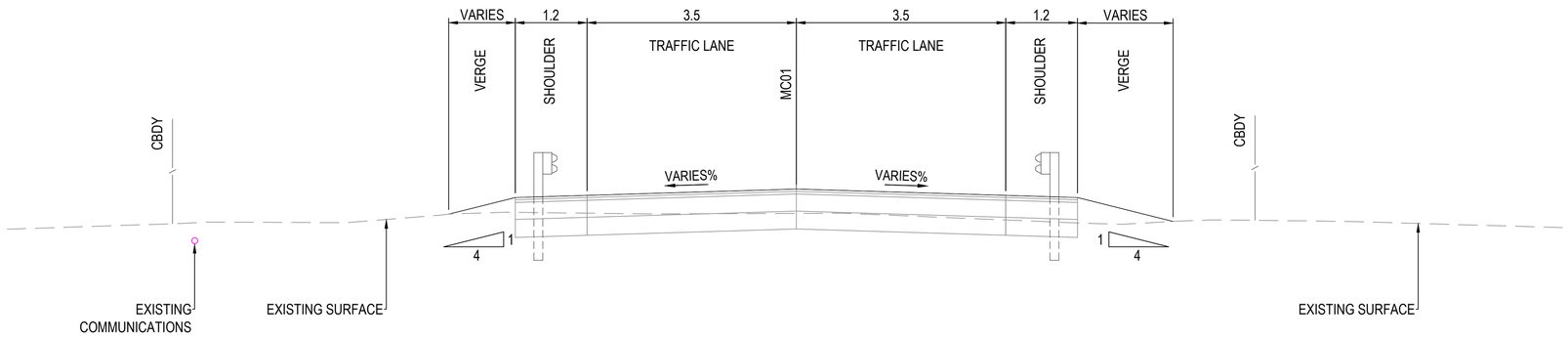
DRAWING SET No: | PART: | SHEET: 1 OF 1 | A1

STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

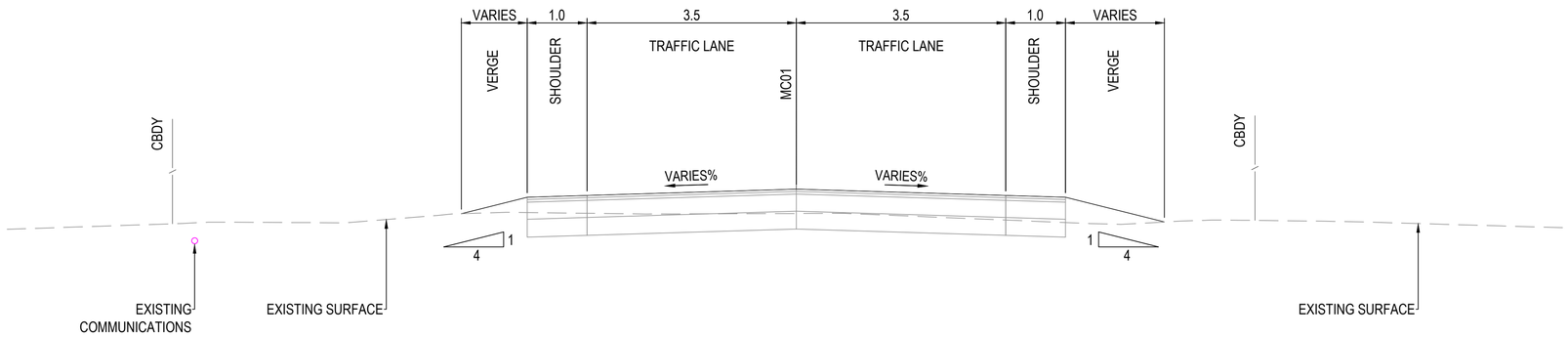
DRG No. CULCAIRN-WSP-NWW-GN-DRG-000021 | REV B | VER 1 | EDMS No. | AMD No.

FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000021.dwg

PLOT DATE & TIME: 13/10/2023 3:35:26 PM



TYPICAL SECTION 01
WEEAMERA ROAD (MC01) CH 100
SCALE 1:50



TYPICAL SECTION 01
WEEAMERA ROAD (MC01) CH 1200
SCALE 1:50

LEGEND

- DESIGN SURFACE
- EXISTING SURFACE
- GUARD RAIL
- CADASTRAL BOUNDARY

NOTES

1. ALL DIMENSIONS ARE SHOWN IN METRES UNLESS NOTED OTHERWISE.

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FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000051.dwg

PLOT DATE & TIME: 13/10/2023 3:55:27 PM

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B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:50

0 1 2m
SCALE 1:50 @A1

DESIGN LOT CODE:

CLIENT:

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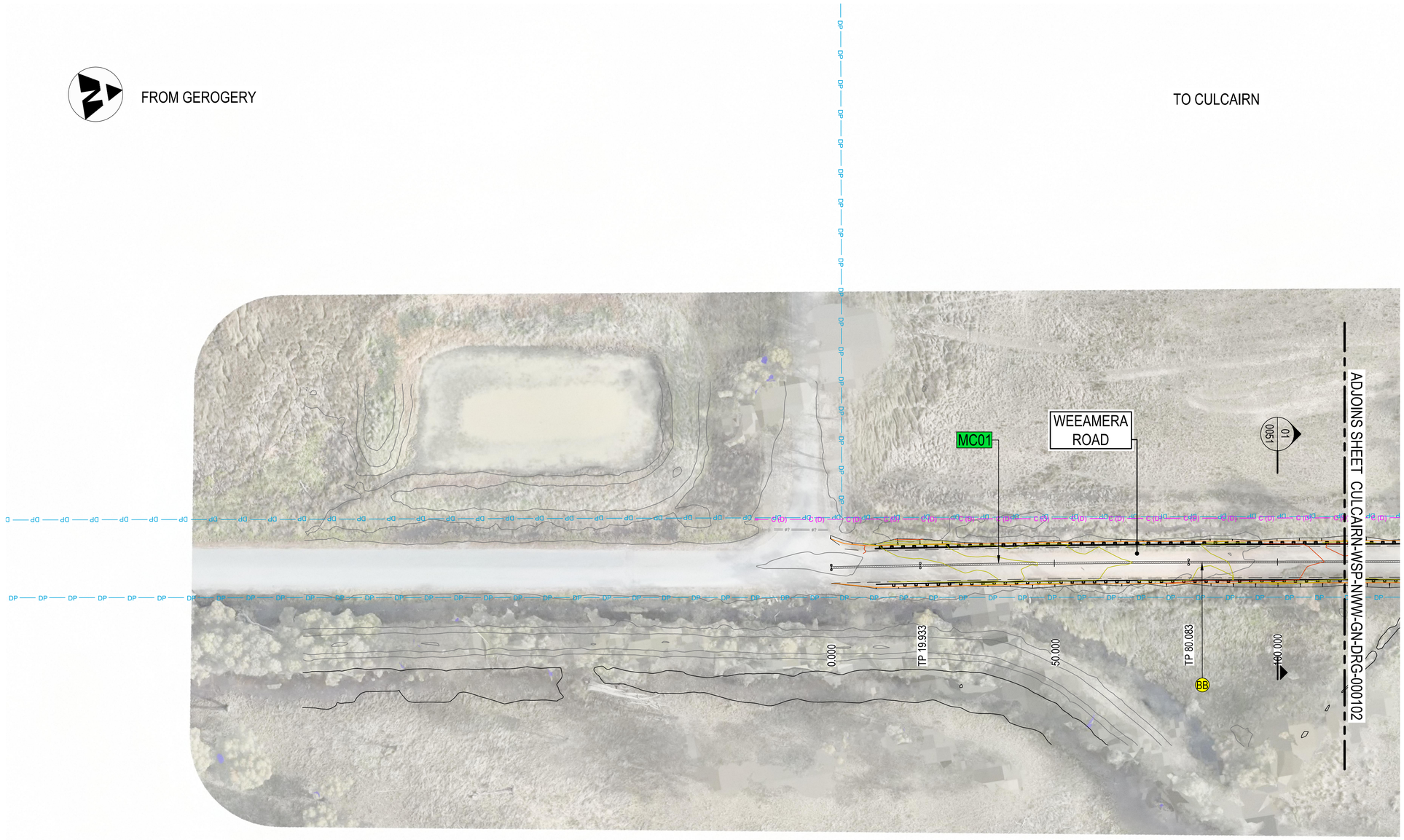
DRG CHECK CLAUDIO BIDART 13.10.23
DESIGN CHECK STEVEN ELLIS 13.10.23
PROJ/DES MNGR CHRIS YAU 13.10.23
APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL
CULCAIRN SOLAR FARM
PROJECTWIDE
GENERAL
TYPICAL CROSS SECTIONS

DRAWING SET No: | PART: | SHEET: 1 OF 1 | A1
STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000051	B	1		



LEGEND - GENERAL

- CONTROL LINE
- EXISTING CADASTRAL BOUNDARY
- EXISTING SURVEY
- EXISTING CONTOUR - MAJOR
- EXISTING CONTOUR - MINOR
- PROPOSED CONTOUR - MAJOR
- PROPOSED CONTOUR - MINOR
- PROPOSED GUARD RAIL
- MC01 CONTROL ALIGNMENT LABEL
- PROPOSED GUIDE POST (6m SPACING)
- PROPOSED SIGN POST
- PROPOSED SIGN
- PROPOSED LINEMARKING TAG

LEGEND - UTILITIES

- EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL - OVERHEAD
- EXISTING GAS MAIN
- EXISTING WATER MAIN

THE UTILITIES/SERVICES SHOWN IN THESE PLANS HAVE BEEN COMPILED FROM MULTIPLE SOURCES OF INFORMATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO UNDERTAKE THEIR OWN SITE INVESTIGATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES. THESE DRAWINGS ARE NEVER TO BE USED FOR THE PURPOSE OF LOCATING SERVICES. WSP SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE CAUSED USING THE UTILITIES/SERVICES INFORMATION SHOWN ON THESE DRAWINGS.

NOTES

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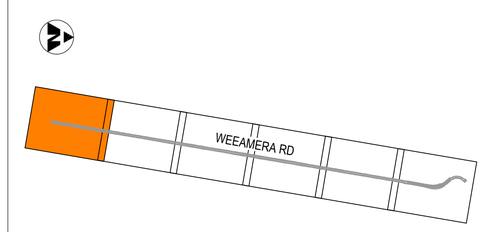
KEYPLAN



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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 10 20m
SCALE 1:500 @A1

DESIGN LOT CODE:

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DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL
CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS
GENERAL ARRANGEMENT
PLAN

DRAWING SET No:	PART:	SHEET: 1 OF 6	A1
STATUS: 100% DETAILED DESIGN	BRIDGE No:		©
DRG No. CULCAIRN-WSP-NWW-GN-DRG-000101	REV B	VER 1	EDMS No. / AMD No.

FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000101.dwg
PLOT DATE & TIME: 13/10/2023 3:52:08 PM

FROM GEROGERY

TO CULCAIRN

LEGEND - GENERAL

- CONTROL LINE
- EXISTING CADASTRAL BOUNDARY
- EXISTING SURVEY
- EXISTING CONTOUR - MAJOR
- EXISTING CONTOUR - MINOR
- PROPOSED CONTOUR - MAJOR
- PROPOSED CONTOUR - MINOR
- PROPOSED GUARD RAIL
- MC01 CONTROL ALIGNMENT LABEL
- PROPOSED GUIDE POST (6m SPACING)
- PROPOSED SIGN POST
- PROPOSED SIGN
- PROPOSED LINEMARKING TAG

LEGEND - UTILITIES

- EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL - OVERHEAD
- EXISTING GAS MAIN
- EXISTING WATER MAIN

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NOTES

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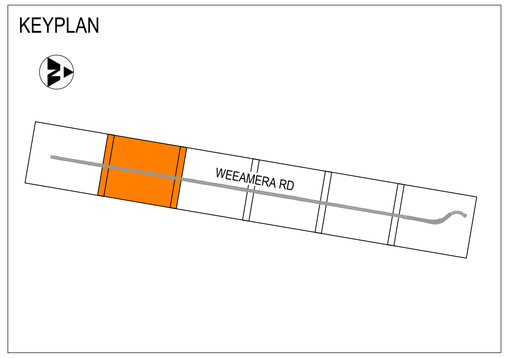
KEYPLAN



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FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000102.dwg

PLOT DATE & TIME: 13/10/2023 3:52:15 PM

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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 10 20m

SCALE 1:500 @A1

DESIGN LOT CODE:

CLIENT: NEOEN

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DESIGN CHECK STEVEN ELLIS 13.10.23
PROJ/DES MNGR CHRIS YAU 13.10.23
APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

GENERAL ARRANGEMENT

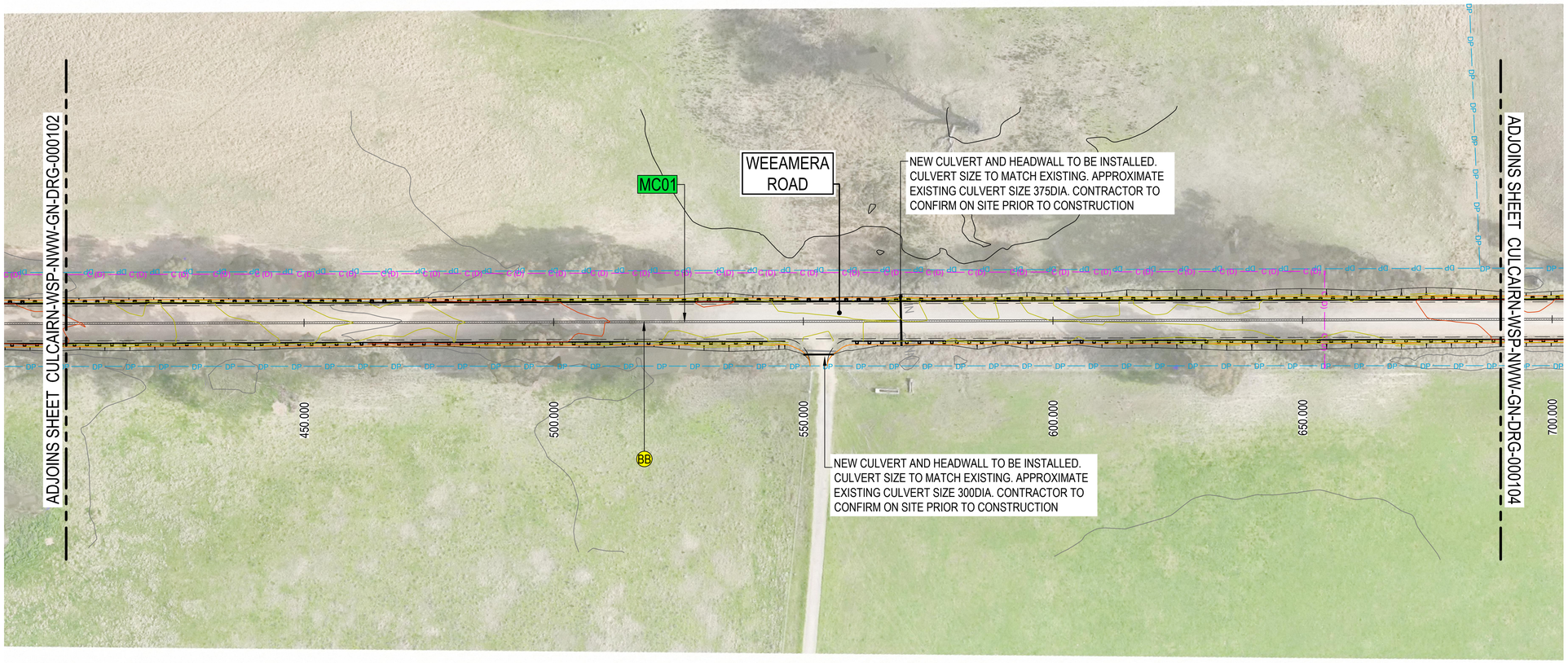
PLAN

DRAWING SET No:	PART:	SHEET: 2 OF 6	A1
STATUS: 100% DETAILED DESIGN	BRIDGE No:		©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000102	B	1		

FROM GEROGERY

TO CULCAIRN



LEGEND - GENERAL

- CONTROL LINE
- EXISTING CADASTRAL BOUNDARY
- EXISTING SURVEY
- EXISTING CONTOUR - MAJOR
- EXISTING CONTOUR - MINOR
- PROPOSED CONTOUR - MAJOR
- PROPOSED CONTOUR - MINOR
- PROPOSED GUARD RAIL
- MC01 — CONTROL ALIGNMENT LABEL
- PROPOSED GUIDE POST (6m SPACING)
- PROPOSED SIGN POST
- W1-2 (L) — PROPOSED SIGN
- BB — PROPOSED LINEMARKING TAG

LEGEND - UTILITIES

- C (D) — EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL - OVERHEAD
- G (D) — EXISTING GAS MAIN
- W (D) — EXISTING WATER MAIN

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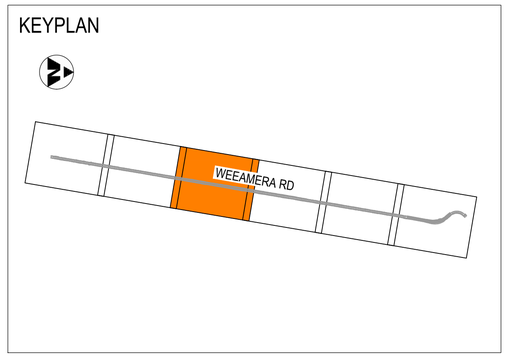
KEYPLAN



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FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000103.dwg

PLOT DATE & TIME: 13/10/2023 3:52:21 PM

REFERENCES:

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REV	DESCRIPTION	DESIGNER INITIAL/DATE	VERIFIED INITIAL/DATE	APPROVED INITIAL/DATE
B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 10 20m

SCALE 1:500 @A1

DESIGN LOT CODE:

CLIENT: NEOEN

PREPARED FOR:

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DRAWN	ED SMAILES	13.10.23
DESIGNED	CHRISTOPHER MUNDY	13.10.23
DRG CHECK	CLAUDIO BIDART	13.10.23
DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

GENERAL ARRANGEMENT

PLAN

DRAWING SET No:	PART:	SHEET: 3 OF 6	A1
STATUS: 100% DETAILED DESIGN	BRIDGE No:		©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000103	B	1		

LEGEND - GENERAL

- CONTROL LINE (10.000)
- EXISTING CADASTRAL BOUNDARY
- EXISTING SURVEY
- EXISTING CONTOUR - MAJOR
- EXISTING CONTOUR - MINOR
- PROPOSED CONTOUR - MAJOR
- PROPOSED CONTOUR - MINOR
- PROPOSED GUARD RAIL
- MC01 — CONTROL ALIGNMENT LABEL
- PROPOSED GUIDE POST (6m SPACING)
- PROPOSED SIGN POST
- W1-2 (L) — PROPOSED SIGN
- BB — PROPOSED LINEMARKING TAG

LEGEND - UTILITIES

- C (D) — EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL - OVERHEAD
- G (D) — EXISTING GAS MAIN
- W (D) — EXISTING WATER MAIN

THE UTILITIES/SERVICES SHOWN IN THESE PLANS HAVE BEEN COMPILED FROM MULTIPLE SOURCES OF INFORMATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO UNDERTAKE THEIR OWN SITE INVESTIGATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES. THESE DRAWINGS ARE NEVER TO BE USED FOR THE PURPOSE OF LOCATING SERVICES. WSP SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE CAUSED USING THE UTILITIES/SERVICES INFORMATION SHOWN ON THESE DRAWINGS.

NOTES

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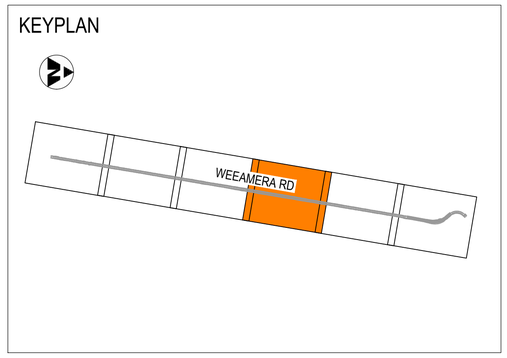
KEYPLAN



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REV	DESCRIPTION	DESIGNER INITIAL/DATE	VERIFIED INITIAL/DATE	APPROVED INITIAL/DATE
B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 10 20m
SCALE 1:500 @A1

DESIGN LOT CODE:

CLIENT: NEOEN

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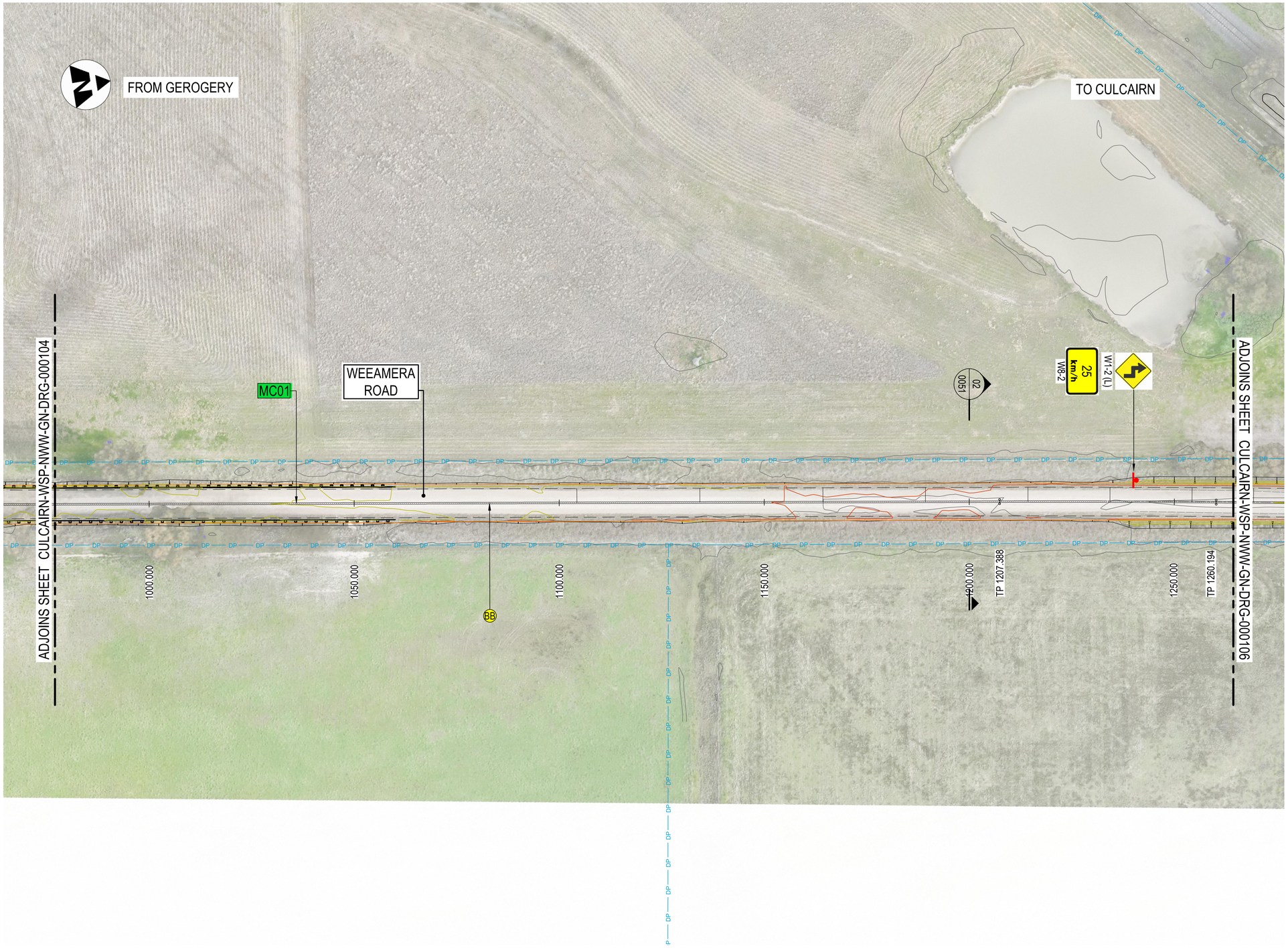
DESIGNED	CHRISTOPHER MUNDY	13.10.23
DRG CHECK	CLAUDIO BIDART	13.10.23
DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL
CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS
GENERAL ARRANGEMENT
PLAN

DRAWING SET No:	PART:	SHEET: 4 OF 6	A1
STATUS: 100% DETAILED DESIGN	BRIDGE No:		©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000104	B	1		

FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000104.dwg
PLOT DATE & TIME: 13/10/2023 3:52:28 PM



LEGEND - GENERAL

- CONTROL LINE
- EXISTING CADASTRAL BOUNDARY
- EXISTING SURVEY
- EXISTING CONTOUR - MAJOR
- EXISTING CONTOUR - MINOR
- PROPOSED CONTOUR - MAJOR
- PROPOSED CONTOUR - MINOR
- PROPOSED GUARD RAIL
- MC01 — CONTROL ALIGNMENT LABEL
- PROPOSED GUIDE POST (6m SPACING)
- PROPOSED SIGN POST
- PROPOSED SIGN
- PROPOSED LINEMARKING TAG

LEGEND - UTILITIES

- EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL - OVERHEAD
- EXISTING GAS MAIN
- EXISTING WATER MAIN

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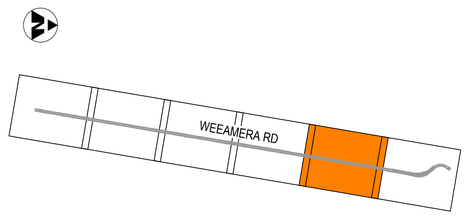
KEYPLAN



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FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000105.dwg

PLOT DATE & TIME: 13/10/2023 3:52:35 PM

REFERENCES:

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REV	DESCRIPTION	DESIGNER INITIAL/DATE	VERIFIED INITIAL/DATE	APPROVED INITIAL/DATE
B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 10 20m
SCALE 1:500 @A1

DESIGN LOT CODE:

CLIENT: NEOEN

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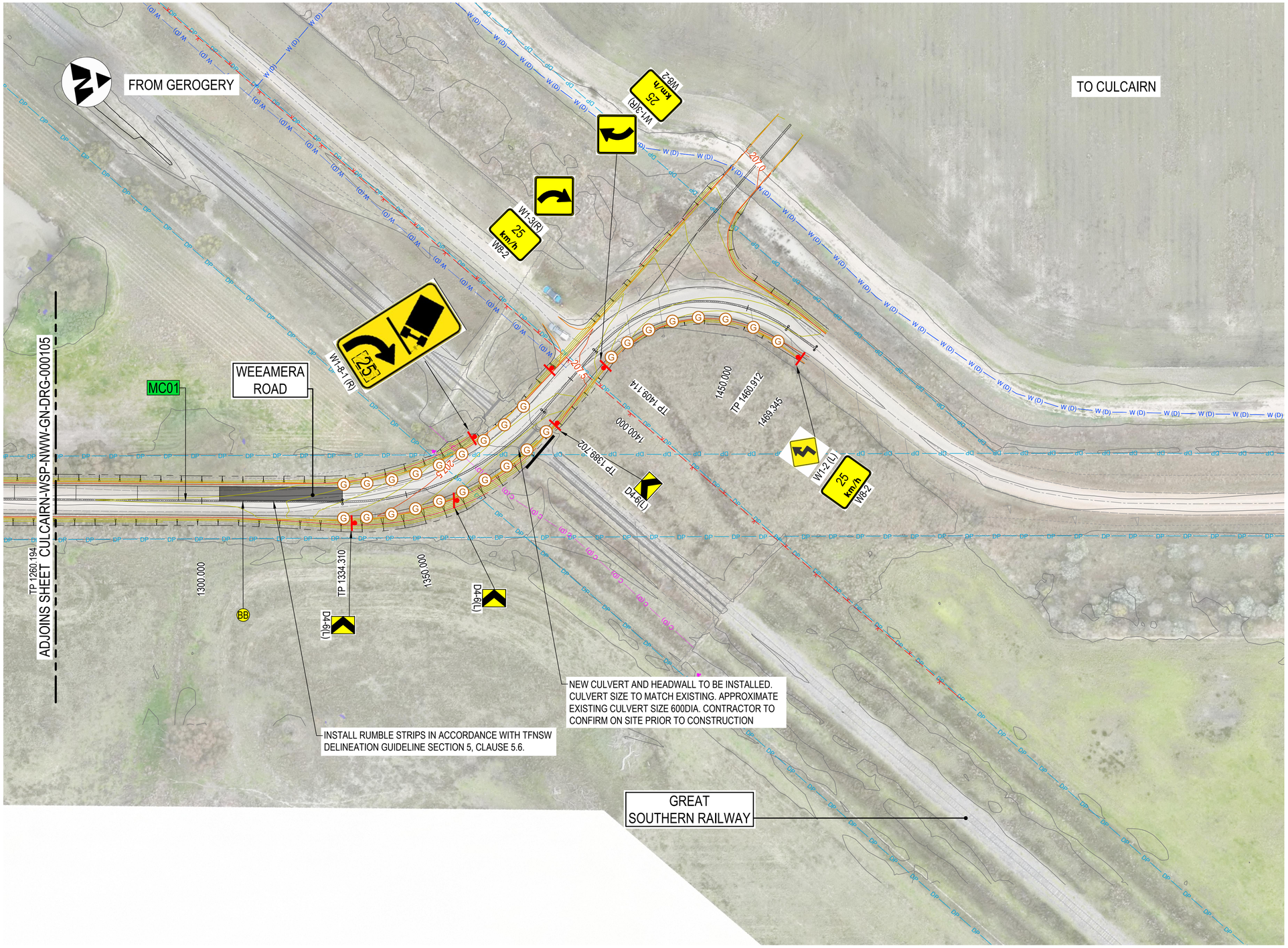
DRAWN	ED SMAILES	13.10.23
DESIGNED	CHRISTOPHER MUNDY	13.10.23
DRG CHECK	CLAUDIO BIDART	13.10.23
DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL
CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS
GENERAL ARRANGEMENT
PLAN

DRAWING SET No:	PART:	SHEET: 5 OF 6	A1
STATUS: 100% DETAILED DESIGN	BRIDGE No:		©
DRG No. CULCAIRN-WSP-NWW-GN-DRG-000105	REV B	VER 1	EDMS No. / AMD No.



LEGEND - GENERAL

- CONTROL LINE
- EXISTING CADASTRAL BOUNDARY
- EXISTING SURVEY
- EXISTING CONTOUR - MAJOR
- EXISTING CONTOUR - MINOR
- PROPOSED CONTOUR - MAJOR
- PROPOSED CONTOUR - MINOR
- PROPOSED GUARD RAIL
- MC01 — CONTROL ALIGNMENT LABEL
- PROPOSED GUIDE POST (6m SPACING)
- PROPOSED SIGN POST
- PROPOSED SIGN
- PROPOSED LINEMARKING TAG

LEGEND - UTILITIES

- EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL - OVERHEAD
- EXISTING GAS MAIN
- EXISTING WATER MAIN

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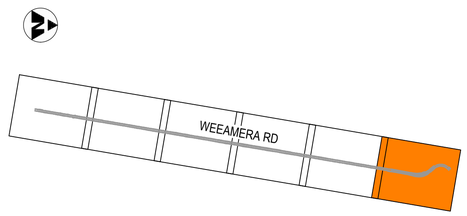
KEYPLAN



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FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000106.dwg

PLOT DATE & TIME: 13/10/2023 3:52:42 PM

REFERENCES:

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REV	DESCRIPTION	DESIGNER INITIAL/DATE	VERIFIED INITIAL/DATE	APPROVED INITIAL/DATE
D	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
C	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23
B	ISSUED FOR DRAFT INFORMATION	C.M 04.08.23	S.E 04.08.23	C.Y 04.08.23
A	ISSUED FOR DRAFT INFORMATION	M.L 19.07.23	S.E 19.07.23	C.Y 19.07.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 10 20m
SCALE 1:500 @A1

DESIGN LOT CODE:

CLIENT: NEOEN

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DRAWN	ED SMAILES	13.10.23
DESIGNED	CHRISTOPHER MUNDY	13.10.23
DRG CHECK	CLAUDIO BIDART	13.10.23
DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

GENERAL ARRANGEMENT

PLAN

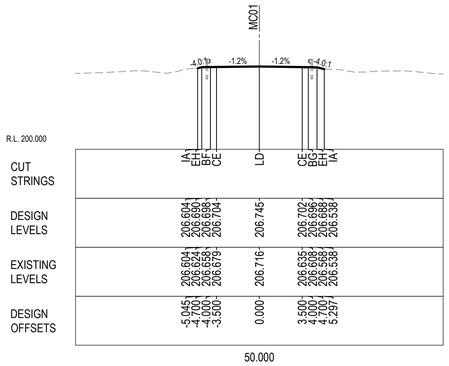
DRAWING SET No:	PART:	SHEET: 6 OF 6	A1
STATUS: 100% DETAILED DESIGN	BRIDGE No:		©

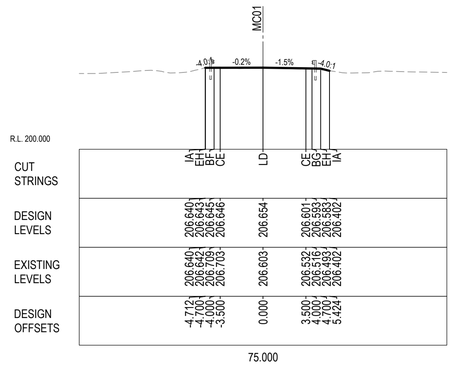
DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000106	D	1		

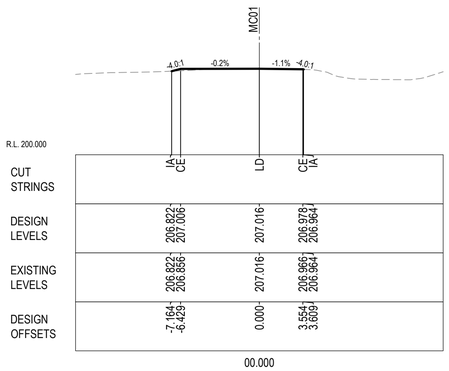
LEGEND

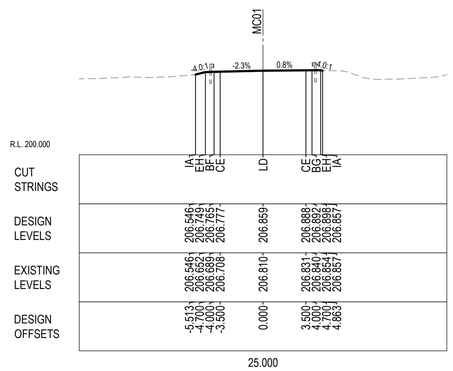
DESIGN SURFACE

EXISTING SURFACE









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B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

CLIENT:

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APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: PART: SHEET: 1 OF 15 A1

STATUS: 100% DETAILED DESIGN BRIDGE No: ©

DRG No. CULCAIRN-WSP-NWW-GN-DRG-000301 REV B VER 1 EDMS No. AMD No.

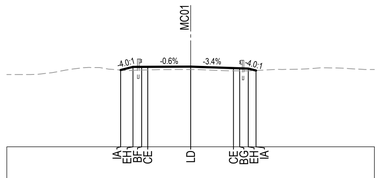
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000301.dwg

PLOT DATE & TIME: 13/10/2023 3:36:12 PM

LEGEND

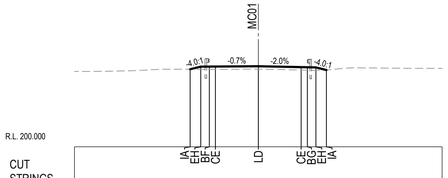
DESIGN SURFACE

EXISTING SURFACE



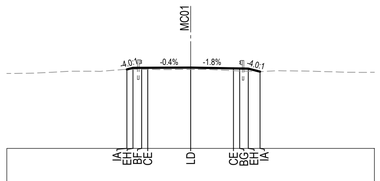
CUT STRINGS	IA	EH	BF	CE	LD	CE	BG	EH	IA										
DESIGN LEVELS	206.267	206.518	206.522	206.525	206.545	206.428	206.411	206.387	206.227										
EXISTING LEVELS	206.267	206.238	206.212	206.262	206.313	206.202	206.202	206.201	206.227										
DESIGN OFFSETS	-5.706	-4.700	-4.000	-3.500	0.000	3.500	4.000	4.700	5.342										

150.000



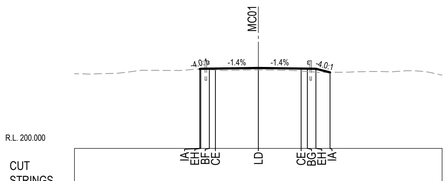
CUT STRINGS	IA	EH	BF	CE	LD	CE	BG	EH	IA										
DESIGN LEVELS	206.328	206.543	206.547	206.551	206.574	206.505	206.495	206.487	206.266										
EXISTING LEVELS	206.328	206.323	206.323	206.323	206.343	206.265	206.252	206.246	206.266										
DESIGN OFFSETS	-5.558	-4.700	-4.000	-3.500	0.000	3.500	4.000	4.700	5.561										

175.000



CUT STRINGS	IA	EH	BF	CE	LD	CE	BG	EH	IA										
DESIGN LEVELS	206.446	206.572	206.575	206.577	206.589	206.527	206.518	206.506	206.263										
EXISTING LEVELS	206.446	206.462	206.455	206.449	206.443	206.343	206.322	206.293	206.264										
DESIGN OFFSETS	-5.205	-4.700	-4.000	-3.500	0.000	3.500	4.000	4.700	5.669										

100.000



CUT STRINGS	IA	EH	BF	CE	LD	CE	BG	EH	IA										
DESIGN LEVELS	206.474	206.494	206.503	206.510	206.558	206.509	206.502	206.492	206.204										
EXISTING LEVELS	206.474	206.474	206.430	206.394	206.399	206.307	206.279	206.215	206.204										
DESIGN OFFSETS	-4.777	-4.700	-4.000	-3.500	0.000	3.500	4.000	4.700	5.854										

125.000

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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

CLIENT:

NEOEN

PREPARED FOR:

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DRG CHECK CLAUDIO BIDART 13.10.23
DESIGN CHECK STEVEN ELLIS 13.10.23
PROJ/DES MNGR CHRIS YAU 13.10.23
APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: | PART: | SHEET: 2 OF 15 | A1

STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

DRG No. CULCAIRN-WSP-NWW-GN-DRG-000302 | REV B | VER 1 | EDMS No. | AMD No.

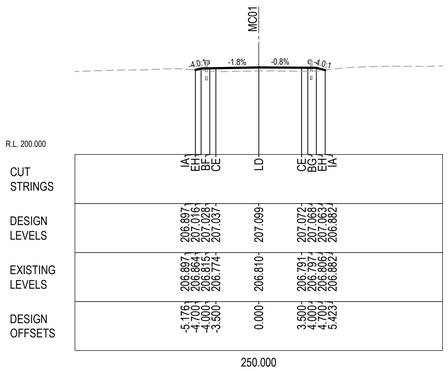
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000302.dwg

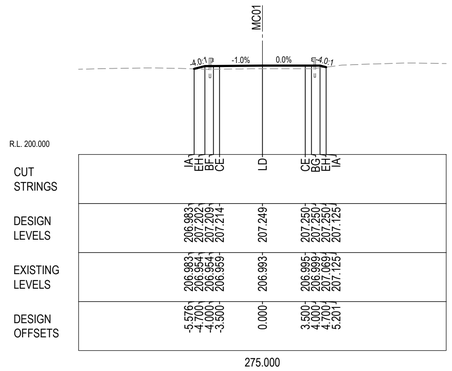
PLOT DATE & TIME: 13/10/2023 3:36:13 PM

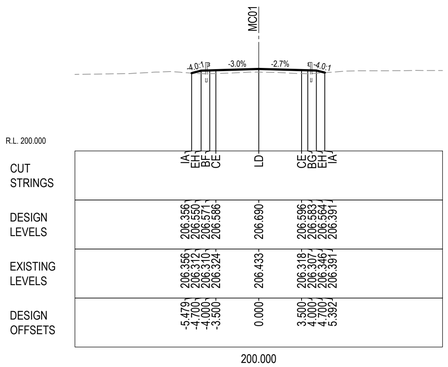
LEGEND

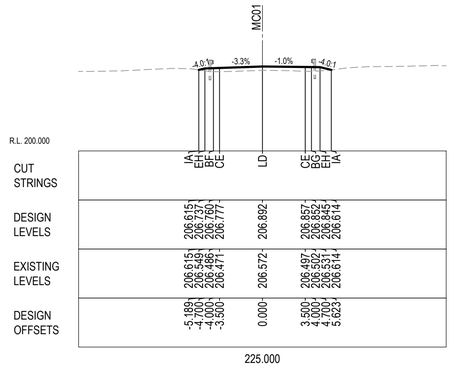
DESIGN SURFACE

EXISTING SURFACE









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NOT FOR CONSTRUCTION

FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000303.dwg

PLOT DATE & TIME: 13/10/2023 3:36:14 PM

REFERENCES:

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B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

CLIENT:

NEOEN

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DRG CHECK CLAUDIO BIDART 13.10.23
DESIGN CHECK STEVEN ELLIS 13.10.23
PROJ/DES MNGR CHRIS YAU 13.10.23
APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: PART: SHEET: 3 OF 15 A1

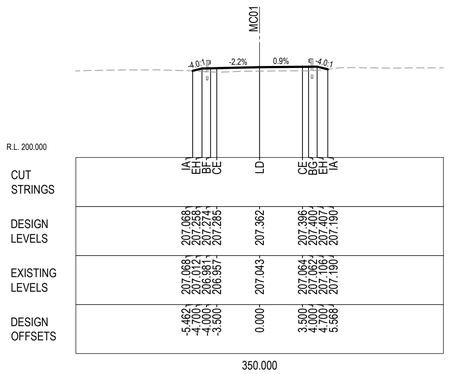
STATUS: 100% DETAILED DESIGN BRIDGE No: ©

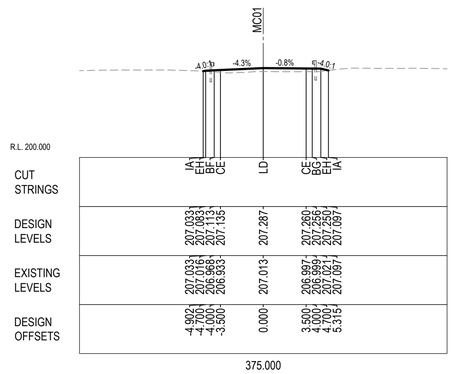
DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000303	B	1		

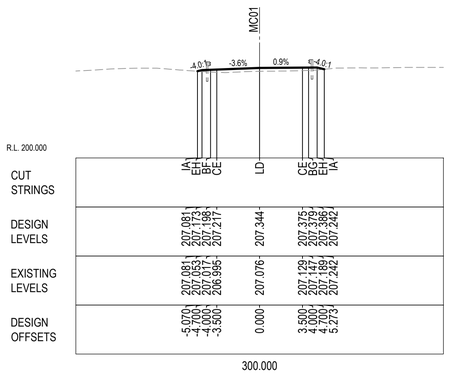
LEGEND

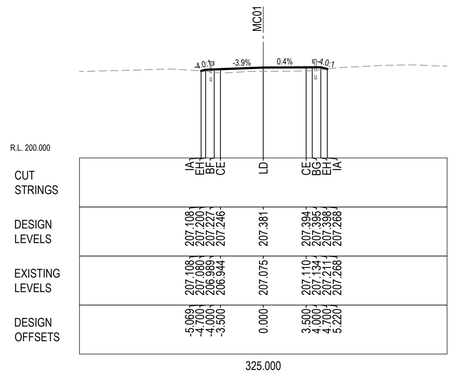
DESIGN SURFACE

EXISTING SURFACE









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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

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APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: PART: SHEET: 4 OF 15 A1

STATUS: 100% DETAILED DESIGN BRIDGE No: ©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000304	B	1		

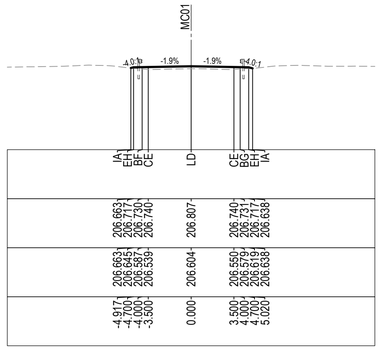
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000304.dwg

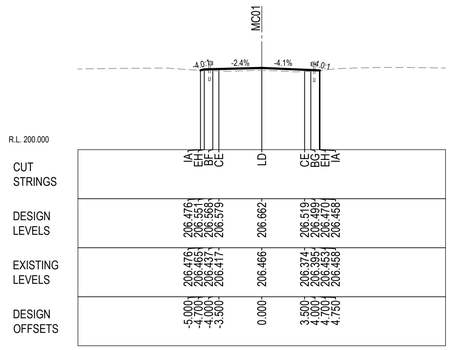
PLOT DATE & TIME: 13/10/2023 3:36:16 PM

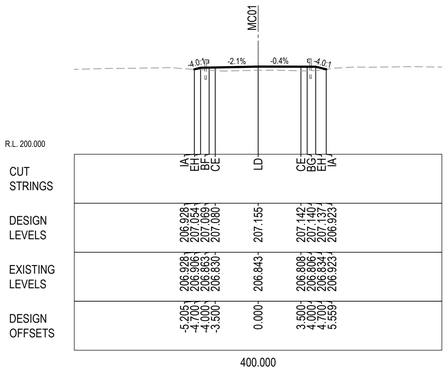
LEGEND

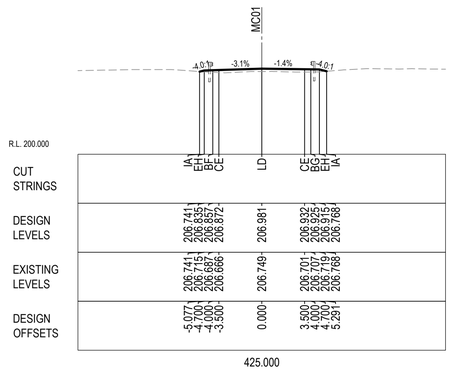
DESIGN SURFACE

EXISTING SURFACE









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FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000305.dwg

PLOT DATE & TIME: 13/10/2023 3:36:17 PM

REFERENCES:

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REV	DESCRIPTION	DESIGNER INITIAL/DATE	VERIFIED INITIAL/DATE	APPROVED INITIAL/DATE
B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

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DESIGN CHECK STEVEN ELLIS 13.10.23
PROJ/DES MNGR CHRIS YAU 13.10.23
APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: PART: SHEET: 5 OF 15 A1

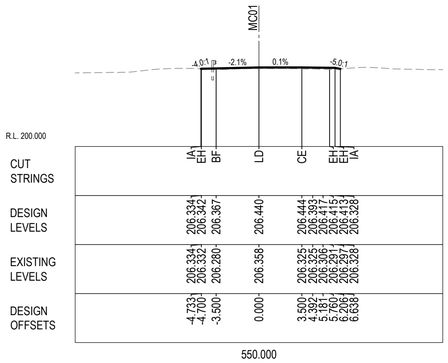
STATUS: 100% DETAILED DESIGN BRIDGE No: ©

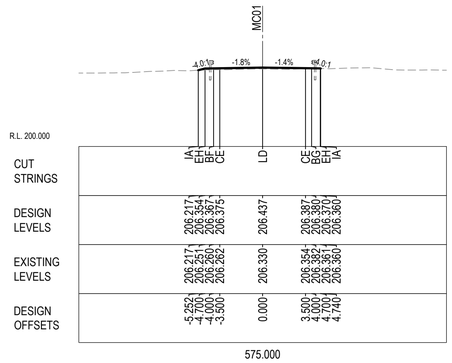
DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000305	B	1		

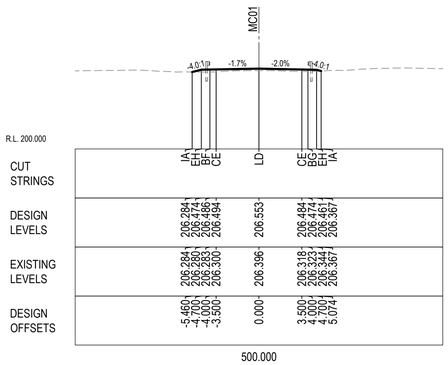
LEGEND

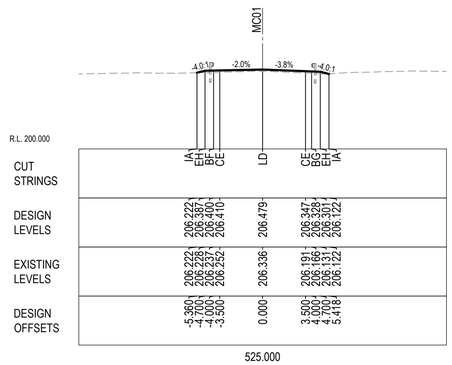
DESIGN SURFACE

EXISTING SURFACE









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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

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APPROVED CHRIS YAU 13.10.23

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CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: PART: SHEET: 6 OF 15 A1

STATUS: 100% DETAILED DESIGN BRIDGE No: ©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000306	B	1		

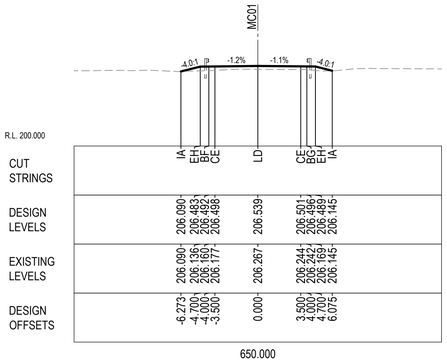
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000306.dwg

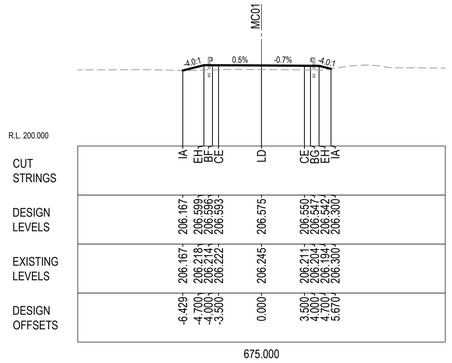
PLOT DATE & TIME: 13/10/2023 3:36:18 PM

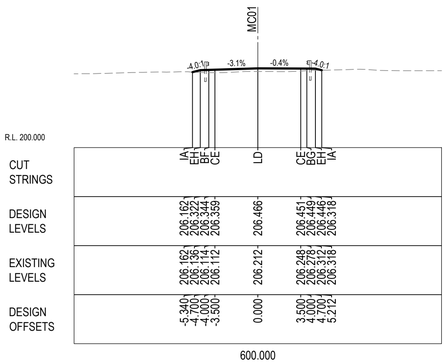
LEGEND

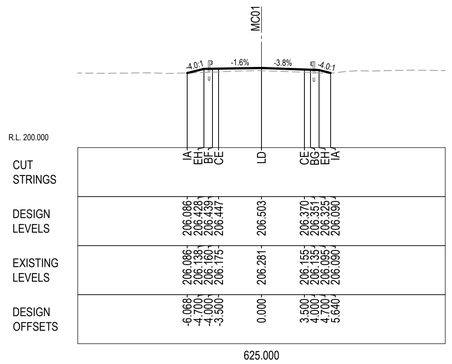
DESIGN SURFACE

EXISTING SURFACE









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B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

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APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: PART: SHEET: 7 OF 15 A1

STATUS: 100% DETAILED DESIGN BRIDGE No: ©

DRG No. CULCAIRN-WSP-NWW-GN-DRG-000307 REV B VER 1 EDMS No. AMD No.

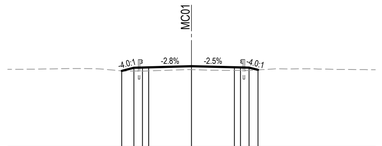
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000307.dwg

PLOT DATE & TIME: 13/10/2023 3:36:19 PM

LEGEND

DESIGN SURFACE

EXISTING SURFACE



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CUT STRINGS									
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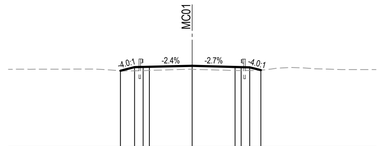
EXISTING LEVELS	206.306	206.291	206.295	206.300	206.407	206.342	206.340	206.343	206.382
DESIGN OFFSETS	-5.691	-4.700	-4.000	-3.500	0.000	3.500	4.000	4.700	5.427

750.000



	IA	EH	BF	CE	LD	CE	BG	EH	IA
CUT STRINGS									
DESIGN LEVELS	206.318	206.607	206.623	206.635	206.718	206.624	206.610	206.592	206.364
EXISTING LEVELS	206.318	206.308	206.323	206.339	206.430	206.336	206.336	206.336	206.364
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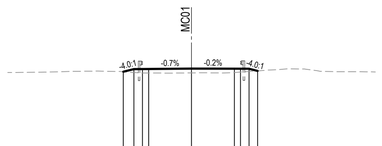

	IA	EH	BF	CE	LD	CE	BG	EH	IA
CUT STRINGS									
DESIGN LEVELS	206.359	206.577	206.597	206.586	206.611	206.605	206.604	206.603	206.428
EXISTING LEVELS	206.359	206.297	206.297	206.254	206.265	206.296	206.332	206.381	206.428
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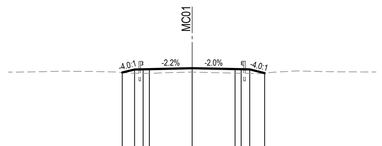

	IA	EH	BF	CE	LD	CE	BG	EH	IA
CUT STRINGS									
DESIGN LEVELS	206.294	206.545	206.560	206.571	206.647	206.578	206.567	206.551	206.249
EXISTING LEVELS	206.294	206.233	206.221	206.227	206.321	206.243	206.230	206.214	206.249
DESIGN OFFSETS	-5.703	-4.700	-4.000	-3.500	0.000	3.500	4.000	4.700	5.910

725.000

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FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000308.dwg

PLOT DATE & TIME: 13/10/2023 3:36:20 PM

REFERENCES:

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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

CLIENT:

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Tel: +61 2 9272 5100 Fax: +61 2 9272 5101
wsp.com

DRAWN	ED SMAILES	13.10.23
DESIGNED	CHRISTOPHER MUNDY	13.10.23
DRG CHECK	CLAUDIO BIDART	13.10.23
DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: | PART: | SHEET: 8 OF 15 | A1

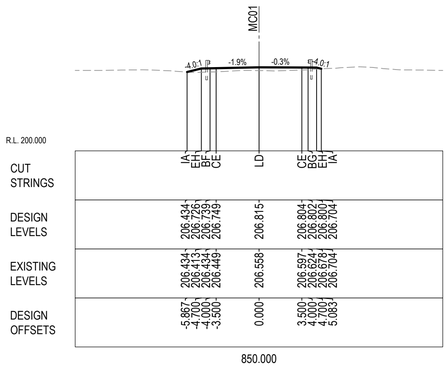
STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

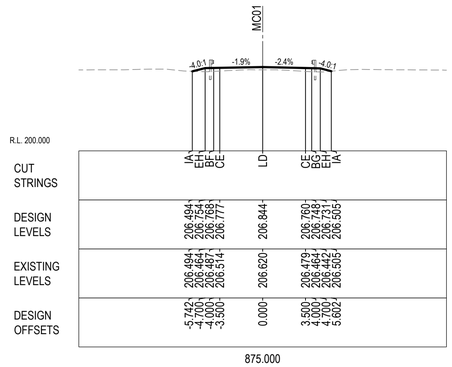
DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000308	B	1		

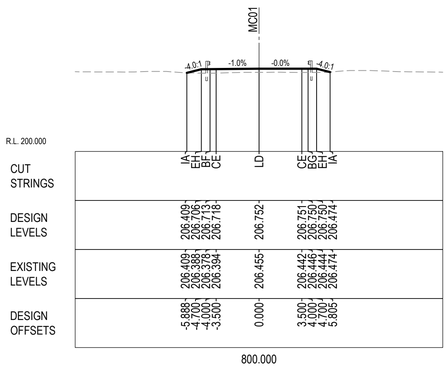
LEGEND

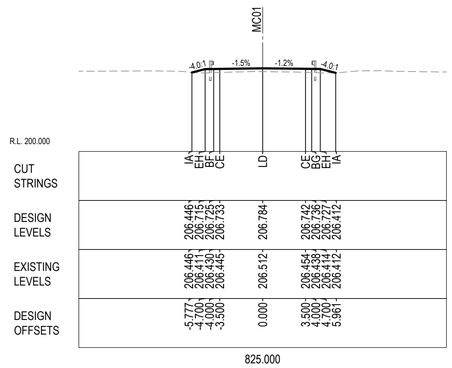
DESIGN SURFACE

EXISTING SURFACE









DRAWING COLOUR CODED - PRINT ALL COPIES IN COLOUR

NOT FOR CONSTRUCTION

FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000309.dwg

PLOT DATE & TIME: 13/10/2023 3:36:21 PM

REFERENCES:

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REV	DESCRIPTION	DESIGNER INITIAL/DATE	VERIFIED INITIAL/DATE	APPROVED INITIAL/DATE
B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

CLIENT:

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DRAWN ED SMAILES 13.10.23
DESIGNED CHRISTOPHER MUNDY 13.10.23
DRG CHECK CLAUDIO BIDART 13.10.23
DESIGN CHECK STEVEN ELLIS 13.10.23
PROJ/DES MNGR CHRIS YAU 13.10.23
APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: PART: SHEET: 9 OF 15 A1

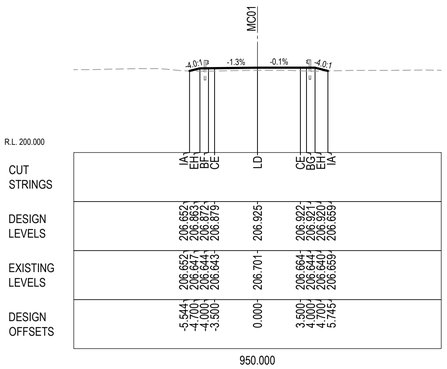
STATUS: 100% DETAILED DESIGN BRIDGE No: ©

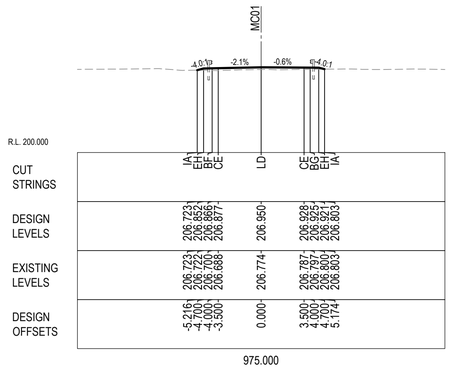
DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000309	B	1		

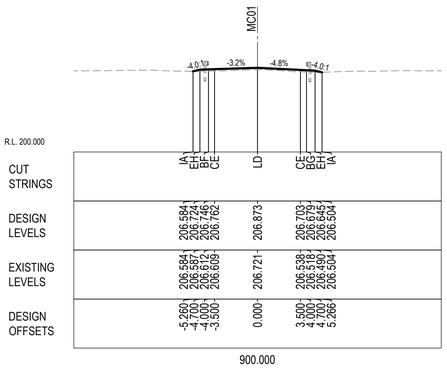
LEGEND

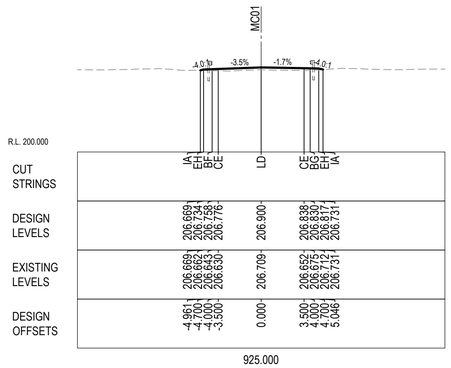
DESIGN SURFACE

EXISTING SURFACE









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FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000310.dwg

PLOT DATE & TIME: 13/10/2023 3:36:22 PM

REFERENCES:

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REV	DESCRIPTION	DESIGNER INITIAL/DATE	VERIFIED INITIAL/DATE	APPROVED INITIAL/DATE
B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

CLIENT:

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DRAWN _ _ _ _ _ ED SMAILES _ _ _ _ _ _ _ _ 13.10.23
DESIGNED _ _ _ _ CHRISTOPHER MUNDY _ _ 13.10.23
DRG CHECK _ _ _ CLAUDIO BIDART _ _ _ _ _ 13.10.23
DESIGN CHECK _ STEVEN ELLIS _ _ _ _ _ _ 13.10.23
PROJ/DES MNGR CHRIS YAU _ _ _ _ _ _ _ _ 13.10.23
APPROVED _ _ _ CHRIS YAU _ _ _ _ _ _ _ _ 13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: | PART: | SHEET: 10 OF 15 | A1

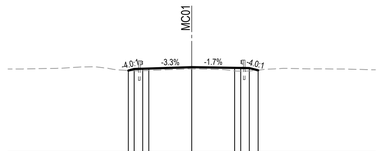
STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000310	B	1		

LEGEND

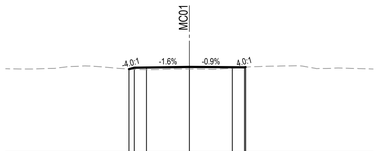
DESIGN SURFACE

EXISTING SURFACE



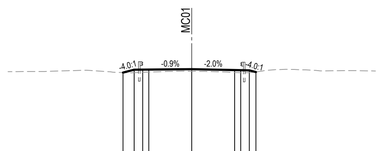
	IA	EH	BF	CE	LD	CE	BG	EH	IA
CUT STRINGS									
DESIGN LEVELS	206.741	206.860	206.883	206.900	207.015	206.956	206.947	206.935	206.756
EXISTING LEVELS	206.741	206.712	206.710	206.744	206.867	206.709	206.695	206.711	206.756
DESIGN OFFSETS	-5.175	-4.700	-4.000	-3.500	0.000	3.500	4.000	4.700	5.417

1050.000



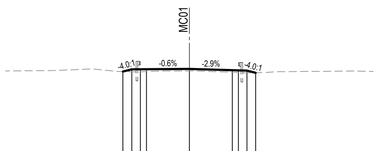
	IA	EH	CE	LD	CE	EH	IA
CUT STRINGS							
DESIGN LEVELS	206.856	206.965	206.980	207.035	207.005	206.996	207.018
EXISTING LEVELS	206.856	206.840	206.808	206.865	206.924	207.011	207.018
DESIGN OFFSETS	-4.936	-4.500	-3.500	0.000	3.500	4.500	4.937

1075.000



	IA	EH	BF	CE	LD	CE	BG	EH	IA
CUT STRINGS									
DESIGN LEVELS	206.703	206.931	206.937	206.942	206.973	206.905	206.895	206.881	206.747
EXISTING LEVELS	206.703	206.692	206.724	206.742	206.807	206.710	206.688	206.701	206.747
DESIGN OFFSETS	-5.613	-4.700	-4.000	-3.500	0.000	3.500	4.000	4.700	5.236

1000.000



	IA	EH	BF	CE	LD	CE	BG	EH	IA
CUT STRINGS									
DESIGN LEVELS	206.783	206.966	206.970	206.973	206.995	206.892	206.872	206.857	206.681
EXISTING LEVELS	206.783	206.789	206.763	206.780	206.833	206.723	206.703	206.673	206.681
DESIGN OFFSETS	-5.432	-4.700	-4.000	-3.500	0.000	3.500	4.400	4.700	5.405

1025.000

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B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

CLIENT:

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DESIGNED	CHRISTOPHER MUNDY	13.10.23
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DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: | PART: | SHEET: 11 OF 15 | A1

STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000311	B	1		

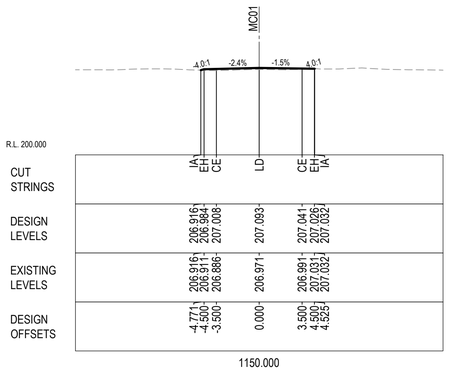
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000311.dwg

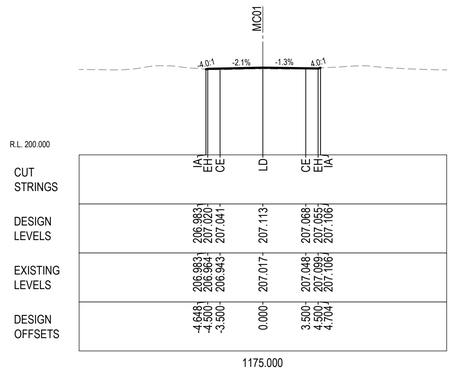
PLOT DATE & TIME: 13/10/2023 3:36:24 PM

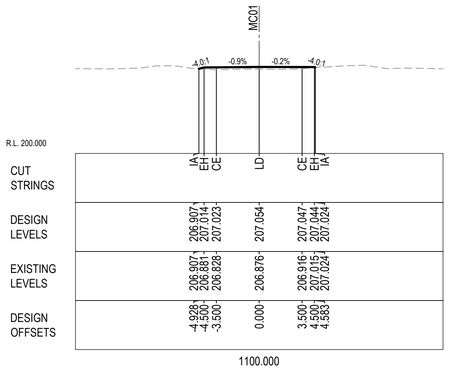
LEGEND

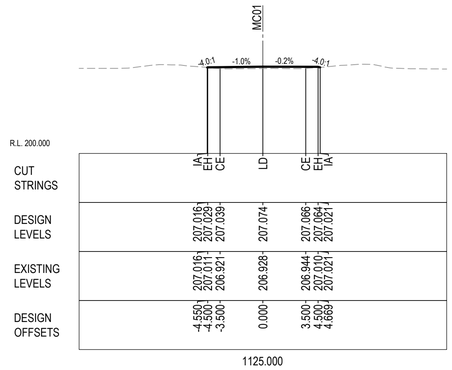
DESIGN SURFACE

EXISTING SURFACE









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REFERENCES:

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REV	DESCRIPTION	DESIGNER INITIAL/DATE	VERIFIED INITIAL/DATE	APPROVED INITIAL/DATE
B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

CLIENT:

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DESIGN CHECK STEVEN ELLIS 13.10.23
PROJ/DES MNGR CHRIS YAU 13.10.23
APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: | PART: | SHEET: 12 OF 15 | A1

STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

DRG No. CULCAIRN-WSP-NWW-GN-DRG-000312 | REV B | VER 1 | EDMS No. | AMD No.

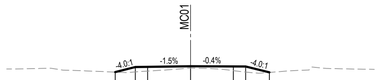
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000312.dwg

PLOT DATE & TIME: 13/10/2023 3:36:25 PM

LEGEND

DESIGN SURFACE

EXISTING SURFACE



R.L. 200.000

	IA	EH	CE	LD	CE	EH	IA
CUT STRINGS							
DESIGN LEVELS	206.691	207.103	207.118	207.171	207.157	207.153	206.668
EXISTING LEVELS	206.691	206.711	206.775	207.020	206.812	206.695	206.668
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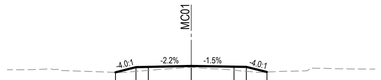
1250.000



R.L. 200.000

	IA	EH	CE	LD	CE	EH	IA
CUT STRINGS							
DESIGN LEVELS	206.676	207.094	207.115	207.191	207.137	207.121	206.702
EXISTING LEVELS	206.676	206.750	206.833	207.077	206.846	206.755	206.702
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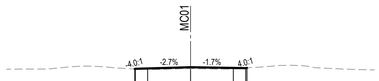
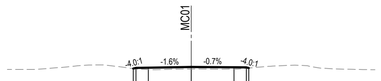
1275.000



R.L. 200.000

	IA	EH	CE	LD	CE	EH	IA
CUT STRINGS							
DESIGN LEVELS	206.999	207.010	207.037	207.132	207.073	207.056	207.083
EXISTING LEVELS	206.999	206.997	206.968	207.022	206.995	207.073	207.083
DESIGN OFFSETS	-4.547	-4.500	-3.500	0.000	3.500	4.500	4.608

1200.000



R.L. 200.000

	IA	EH	CE	LD	CE	EH	IA
CUT STRINGS							
DESIGN LEVELS	207.022	207.078	207.094	207.152	207.128	207.121	207.069
EXISTING LEVELS	207.022	206.994	206.948	206.988	206.986	207.093	207.069
DESIGN OFFSETS	-4.722	-4.500	-3.500	0.000	3.500	4.500	4.707

1225.000

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REFERENCES:

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B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

CLIENT:

NEOEN

PREPARED FOR:

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DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: | PART: | SHEET: 13 OF 15 | A1

STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000313	B	1		

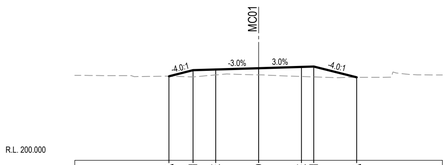
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000313.dwg

PLOT DATE & TIME: 13/10/2023 3:36:26 PM

LEGEND

DESIGN SURFACE

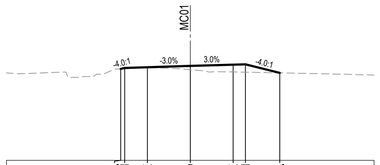
EXISTING SURFACE



R.L. 200.000

	IA	EH	CE	LD	CE	EH	IA
CUT STRINGS							
DESIGN LEVELS	206.657	207.348	207.404	207.509	207.614	207.644	206.768
EXISTING LEVELS	206.657	206.805	206.963	206.972	206.841	206.806	206.768
DESIGN OFFSETS	-7.314	-5.350	-3.500	0.000	3.500	4.500	8.002

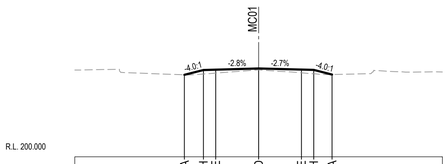
1350.000



R.L. 200.000

	IA	EH	CE	LD	CE	EH	IA
CUT STRINGS							
DESIGN LEVELS	207.454	207.536	207.591	207.696	207.801	207.831	207.131
EXISTING LEVELS	207.454	207.468	207.564	207.386	207.212	207.190	207.131
DESIGN OFFSETS	-5.677	-5.350	-3.500	0.000	3.500	4.500	7.302

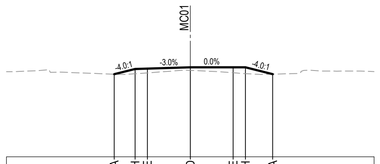
1375.000



R.L. 200.000

	IA	EH	CE	LD	CE	EH	IA
CUT STRINGS							
DESIGN LEVELS	206.696	207.085	207.113	207.211	207.118	207.091	206.717
EXISTING LEVELS	206.696	206.758	206.831	207.093	206.858	206.777	206.717
DESIGN OFFSETS	-6.055	-4.500	-3.500	0.000	3.500	4.500	5.995

1300.000



R.L. 200.000

	IA	EH	CE	LD	CE	EH	IA
CUT STRINGS							
DESIGN LEVELS	206.741	207.169	207.199	207.304	207.305	207.306	206.748
EXISTING LEVELS	206.741	206.780	206.846	207.053	206.860	206.789	206.748
DESIGN OFFSETS	-6.212	-4.500	-3.500	0.000	3.500	4.500	6.730

1325.000

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B	ISSUED FOR 100% DETAILED DESIGN	C.M 13.10.23	S.E 13.10.23	C.Y 13.10.23
A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

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DESIGNED CHRISTOPHER MUNDY 13.10.23
DRG CHECK CLAUDIO BIDART 13.10.23
DESIGN CHECK STEVEN ELLIS 13.10.23
PROJ/DES MNGR CHRIS YAU 13.10.23
APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: | PART: | SHEET: 14 OF 15 | A1

STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000314	B	1		

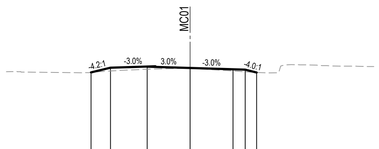
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000314.dwg

PLOT DATE & TIME: 13/10/2023 3:36:27 PM

LEGEND

DESIGN SURFACE

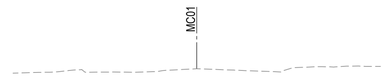
EXISTING SURFACE



R.L. 200.000

	IA	CE	CE	LD	CE	EH	IA
CUT STRINGS							
DESIGN LEVELS	206.785	207.165	207.247	207.142	207.037	207.007	206.774
EXISTING LEVELS	206.788	206.897	207.037	207.127	206.899	206.834	206.774
DESIGN OFFSETS	-8.082	-6.501	-3.500	0.000	3.500	4.500	5.430

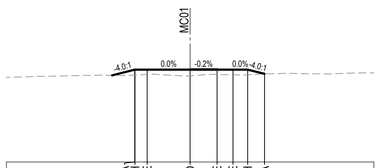
1450.000



R.L. 200.000

CUT STRINGS	
DESIGN LEVELS	
EXISTING LEVELS	
DESIGN OFFSETS	

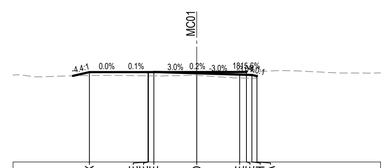
1469.345



R.L. 200.000

	IA	EH	CE	LD	CE	CE	EH	IA
CUT STRINGS								
DESIGN LEVELS	207.540	207.544	207.544	207.544	207.559	207.544	207.544	207.200
EXISTING LEVELS	207.098	207.099	207.144	207.028	207.147	207.119	207.113	207.200
DESIGN OFFSETS	-4.519	-4.500	-3.500	0.000	2.197	3.500	4.700	6.078

1400.000



R.L. 200.000

	MX	CE	CE	CE	LD	CE	CE	EH	IA
CUT STRINGS									
DESIGN LEVELS	207.339	207.337	207.351	207.351	207.246	207.141	207.352	207.111	207.009
EXISTING LEVELS	207.068	207.036	207.036	207.031	207.070	206.861	206.850	206.840	207.010
DESIGN OFFSETS	-8.767	-3.979	-3.945	-3.500	0.000	3.500	4.052	4.500	4.908

1425.000

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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:250

0 5 10m

SCALE 1:250 @A1

DESIGN LOT CODE:

CLIENT:

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DESIGNED	CHRISTOPHER MUNDY	13.10.23
DRG CHECK	CLAUDIO BIDART	13.10.23
DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

CROSS SECTIONS - MC01

DRAWING SET No: | PART: | SHEET: 15 OF 15 | A1

STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000315	B	1		

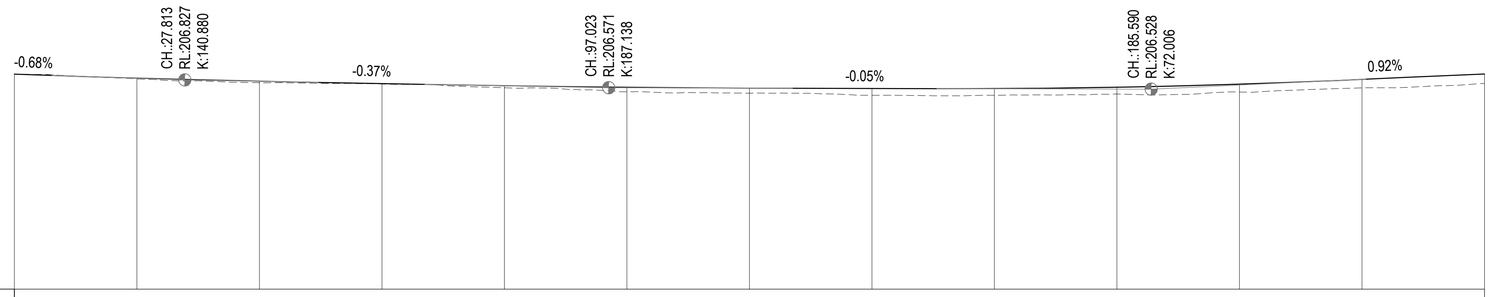
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000315.dwg

PLOT DATE & TIME: 13/10/2023 3:36:28 PM

LEGEND

DESIGN SURFACE

EXISTING SURFACE



DATUM R.L. 200.000

SUPERELEVATION	LEFT										
	RIGHT										
VERTICAL ALIGNMENT	G: -0.7% L: 6.083	R: 14088.0 K: 140.9 L: 43.460	G: -0.4% L: 17.480	R: 18713.8 K: 187.1 L: 60.000	G: -0.0% L: 23.567	R: 7200.6 K: 72.0 L: 70.000	G: 0.8% L: 6.502	R: 11055.4 K: 110.6 L: 180.000			
HORIZONTAL ALIGNMENT	L: 19.933 B: 007° 47' 05"	L: 60.150 R: 3150.000	L: 1127.305 B: 008° 52' 43"								
DESIGN LEVELS	207.016	206.859	206.745	206.654	206.589	206.558	206.545	206.574	206.690	206.892	207.023
EXISTING LEVELS	207.016	206.810	206.716	206.603	206.443	206.399	206.313	206.343	206.433	206.572	206.714
CHAINAGE	0.000	25.000	50.000	75.000	100.000	125.000	150.000	175.000	200.000	225.000	240.000

LONGITUDINAL SECTION - MC01

SCALE: H 1:500 V 1:100

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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 1 2 4m SCALE 1:100 @A1

0 10 20m SCALE 1:500 @A1

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DESIGN CHECK	STEVEN ELLIS	13.10.23
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APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

LONGITUDINAL SECTION - MC01

DRAWING SET No:	PART:	SHEET: 1 OF 6	A1
STATUS: 100% DETAILED DESIGN	BRIDGE No:		©
DRG No. CULCAIRN-WSP-NWW-GN-DRG-000401	REV B	VER 1	EDMS No. / AMD No.

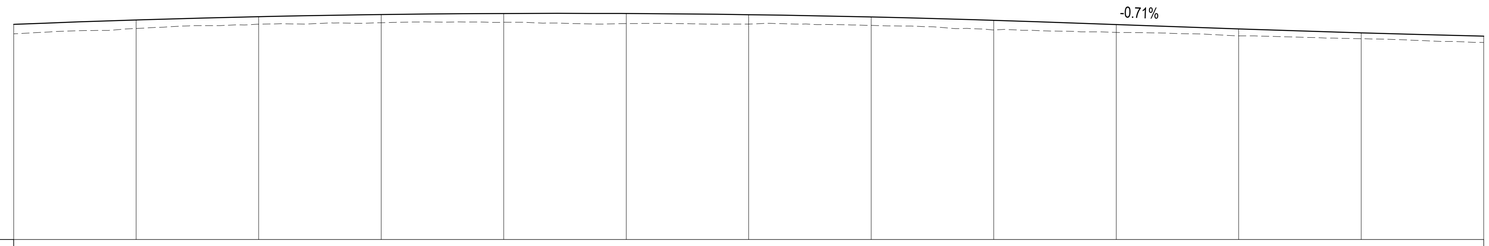
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000401.dwg

PLOT DATE & TIME: 13/10/2023 3:36:29 PM

LEGEND

DESIGN SURFACE

EXISTING SURFACE



DATUM R.L. 200.000

SUPERELEVATION: LEFT, RIGHT

VERTICAL ALIGNMENT: R: 11055.4 K: 110.6 L: 180.000 | G: -0.7% L: 33.278 | R: 17648.1 K: 176.5 L: 150.000

HORIZONTAL ALIGNMENT: L: 1127.305 B: 008° 52' 43"

DESIGN LEVELS	207.023	207.099	207.249	207.344	207.381	207.362	207.287	207.155	206.981	206.807	206.662	206.638
EXISTING LEVELS	206.714	206.810	206.993	207.076	207.075	207.043	207.013	206.843	206.749	206.604	206.466	206.431
CHAINAGE	240.000	250.000	275.000	300.000	325.000	350.000	375.000	400.000	425.000	450.000	475.000	480.000

LONGITUDINAL SECTION - MC01

SCALE: H 1:500 V 1:100

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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 1 2 4m SCALE 1:100 @A1

0 10 20m SCALE 1:500 @A1

DESIGN LOT CODE:

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GREATER HUME SHIRE COUNCIL
CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS
LONGITUDINAL SECTION - MC01

DRAWING SET No: | PART: | SHEET: 2 OF 6 | A1

STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

DRG No. CULCAIRN-WSP-NWW-GN-DRG-000402 | REV B | VER 1 | EDMS No. | AMD No.

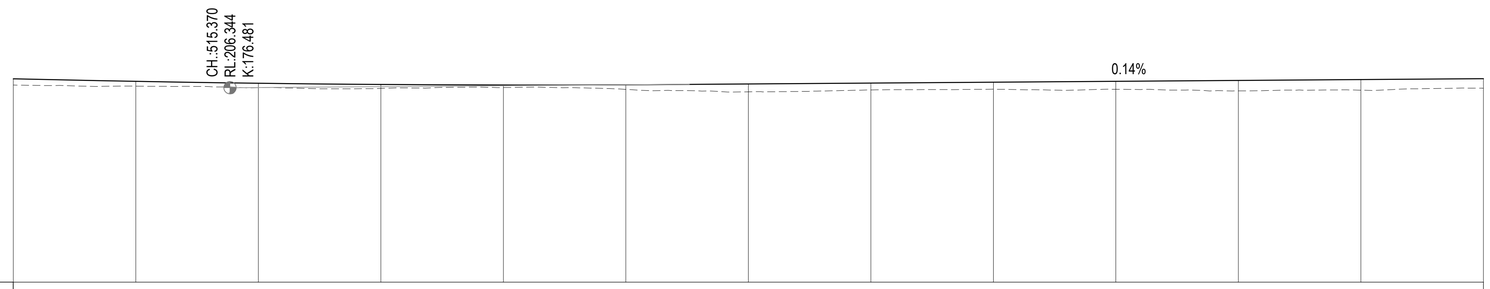
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000402.dwg

PLOT DATE & TIME: 13/10/2023 3:36:30 PM

LEGEND

DESIGN SURFACE

EXISTING SURFACE



DATUM R.L. 200.000

SUPERELEVATION	LEFT											
	RIGHT											
VERTICAL ALIGNMENT		R: 17648.1 K: 176.5 L: 150.000					G: 0.1% L: 143.556					
HORIZONTAL ALIGNMENT		L: 1127.305 B: 008° 52' 43"										
DESIGN LEVELS	206.638	206.553	206.479	206.440	206.437	206.466	206.503	206.539	206.575	206.611	206.640	
EXISTING LEVELS	206.431	206.396	206.336	206.358	206.330	206.212	206.281	206.267	206.245	206.265	206.329	
CHAINAGE	480.000	500.000	525.000	550.000	575.000	600.000	625.000	650.000	675.000	700.000	720.000	

LONGITUDINAL SECTION - MC01

SCALE: H 1:500 V 1:100

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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 1 2 4m SCALE 1:100 @A1

0 10 20m SCALE 1:500 @A1

DESIGN LOT CODE:

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APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL
CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS
LONGITUDINAL SECTION - MC01

DRAWING SET No: | PART: | SHEET: 3 OF 6 | A1
STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000403	B	1		

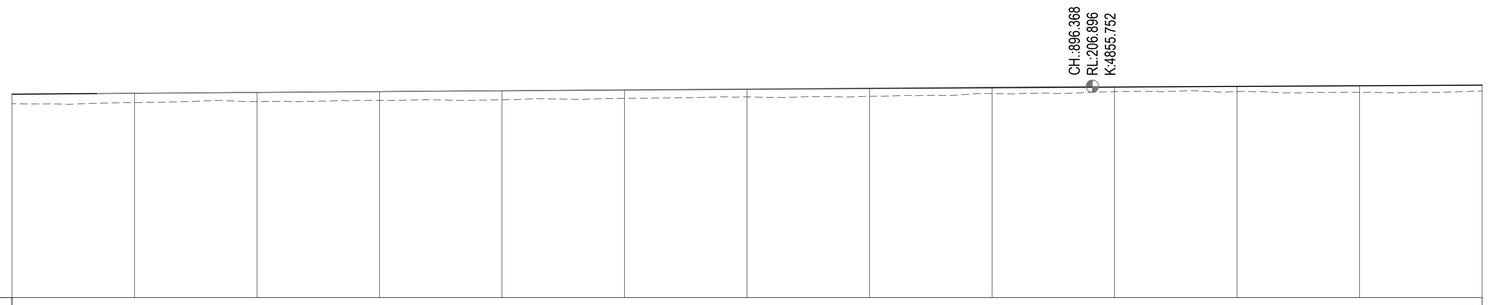
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000403.dwg

PLOT DATE & TIME: 13/10/2023 3:36:31 PM

LEGEND

DESIGN SURFACE

EXISTING SURFACE



DATUM R.L. 200.000

SUPERELEVATION: LEFT / RIGHT

VERTICAL ALIGNMENT: G: 0.1% L: 143.556 | R: 485575.2 K: 4855.8 L: 324.885

HORIZONTAL ALIGNMENT: L: 1127.305 B: 008° 52' 43"

DESIGN LEVELS	206.640	206.647	206.683	206.718	206.752	206.784	206.815	206.844	206.873	206.900	206.925	206.935
EXISTING LEVELS	206.329	206.321	206.407	206.430	206.455	206.512	206.558	206.620	206.721	206.709	206.701	206.744
CHAINAGE	720.000	725.000	750.000	775.000	800.000	825.000	850.000	875.000	900.000	925.000	950.000	960.000

LONGITUDINAL SECTION - MC01

SCALE: H 1:500 V 1:100

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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 1 2 4m SCALE 1:100 @A1

0 10 20m SCALE 1:500 @A1

DESIGN LOT CODE:

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DESIGNED CHRISTOPHER MUNDY 13.10.23
DRG CHECK CLAUDIO BIDART 13.10.23
DESIGN CHECK STEVEN ELLIS 13.10.23
PROJ/DES MNGR CHRIS YAU 13.10.23
APPROVED CHRIS YAU 13.10.23

GREATER HUME SHIRE COUNCIL
CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS
LONGITUDINAL SECTION - MC01

DRAWING SET No: | PART: | SHEET: 4 OF 6 | A1

STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©

DRG No. CULCAIRN-WSP-NWW-GN-DRG-000404 | REV B | VER 1 | EDMS No. | AMD No.

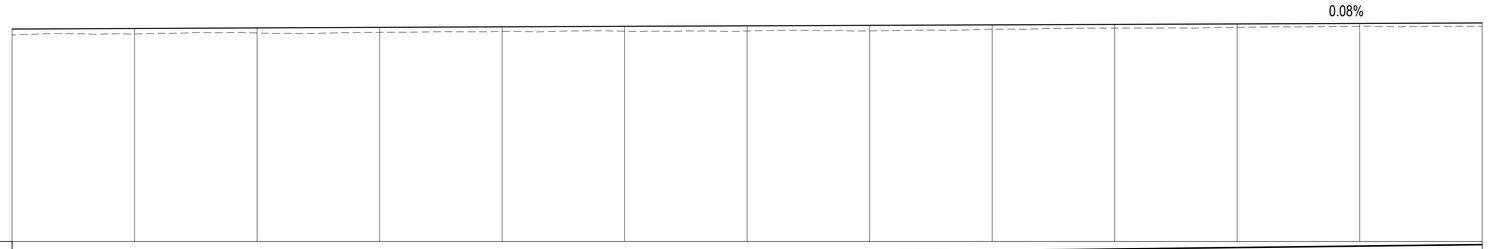
FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000404.dwg

PLOT DATE & TIME: 13/10/2023 3:36:32 PM

LEGEND

DESIGN SURFACE

EXISTING SURFACE



DATUM R.L. 200.000

SUPERELEVATION

LEFT

RIGHT

VERTICAL ALIGNMENT

R: 485575.2
K: 4855.8
L: 324.885

G: 0.1%
L: 238.016

HORIZONTAL ALIGNMENT

L: 1127.305
B: 008° 52' 43"

DESIGN LEVELS	206.935	206.950	206.973	206.995	207.015	207.035	207.054	207.074	207.093	207.113	207.132
EXISTING LEVELS	206.744	206.774	206.807	206.833	206.867	206.865	206.876	206.928	206.971	207.017	207.022
CHAINAGE	960.000	975.000	1000.000	1025.000	1050.000	1075.000	1100.000	1125.000	1150.000	1175.000	1200.000

LONGITUDINAL SECTION - MC01

SCALE: H 1:500 V 1:100

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A	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 1 2 4m SCALE 1:100 @A1

0 10 20m SCALE 1:500 @A1

DESIGN LOT CODE:

CLIENT: NEOEN

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ROADWORKS
LONGITUDINAL SECTION - MC01

DRAWING SET No: PART: SHEET: 5 OF 6 A1
STATUS: 100% DETAILED DESIGN BRIDGE No: ©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000405	B	1		

FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000405.dwg

PLOT DATE & TIME: 13/10/2023 3:36:33 PM

LEGEND

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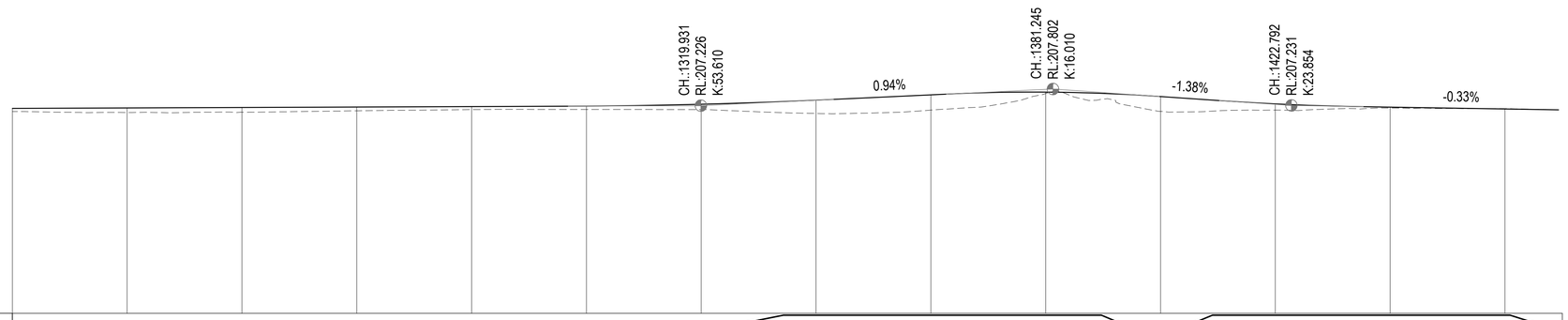
EXISTING SURFACE



DATUM R.L. 200.000

SUPERELEVATION	LEFT	ENC: -3.0%	LC: -3.0%	BFS: -3.0%	EFS: -3.0%	LC: -3.0%	BNC: -3.0%						
	RIGHT	ENC: -3.0%	LC: +0.0%	BFS: +3.0%	EFS: +3.0%	LC: +0.0%	BNC: -3.0%						
VERTICAL ALIGNMENT		G: 0.1% L: 238.016	R: 5361.0 K: 53.6 L: 46.206	G: 0.9% L: 19.675	R: 1601.0 K: 16.0 L: 37.072	G: -1.4% L: 10.486	R: 2385.4 K: 23.9 L: 25.050	G: -0.3% L: 34.028					
HORIZONTAL ALIGNMENT		L: 1127.305 B: 008° 52' 43"	L: 52.806 R: 5000.000	L: 74.116 B: 009° 29' 02"	L: 55.392 R: 64.000	L: 19.412 B: 319° 53' 39"	L: 51.798 R: 35.000	L: 8.433 B: 044° 41' 19"					
DESIGN LEVELS	207.132	207.152	207.171	207.191	207.211	207.304	207.509	207.696	207.544	207.246	207.142		
EXISTING LEVELS	207.022	206.988	207.020	207.077	207.093	207.053	206.972	207.387	207.028	207.070	207.127		
CHAINAGE	1200.000	1225.000	1250.000	1275.000	1300.000	1325.000	1350.000	1375.000	1400.000	1425.000	1450.000	1470.000	

LONGITUDINAL SECTION - MC01

SCALE: H 1:500 V 1:100

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FILE NAME: CULCAIRN-WSP-NWW-GN-DRG-000406.dwg

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C	ISSUED FOR 75% DETAILED DESIGN	C.M 18.08.23	S.E 18.08.23	C.Y 18.08.23
B	ISSUED FOR DRAFT INFORMATION	C.M 04.08.23	S.E 04.08.23	C.Y 04.08.23
A	ISSUED FOR DRAFT INFORMATION	M.L 19.07.23	S.E 19.07.23	C.Y 19.07.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 1 2 4m SCALE 1:100 @A1

0 10 20m SCALE 1:500 @A1

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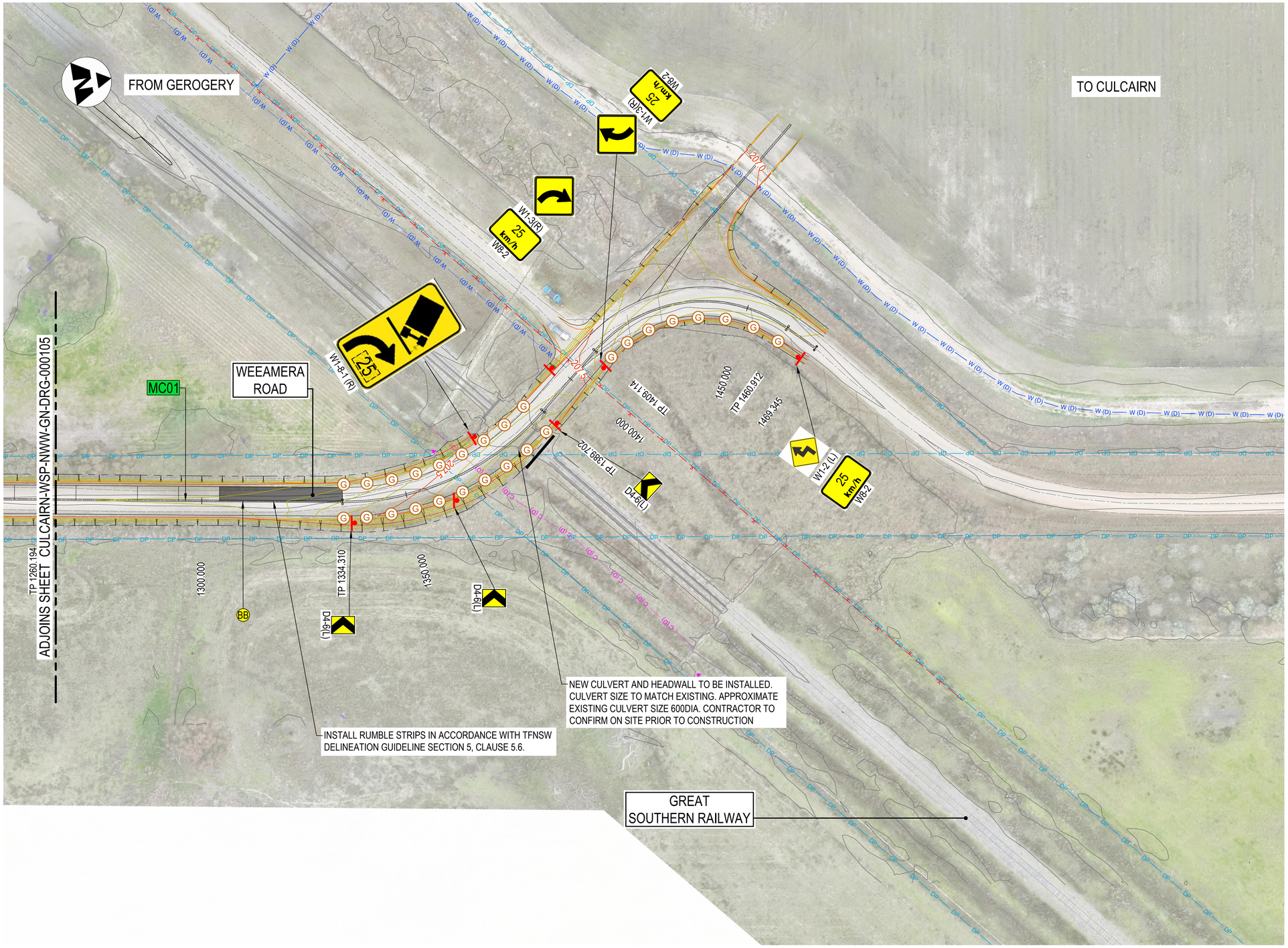
ROADWORKS
LONGITUDINAL SECTION - MC01

DRAWING SET No: | PART: | SHEET: 6 OF 6 | A1
STATUS: 100% DETAILED DESIGN | BRIDGE No: | ©
DRG No. CULCAIRN-WSP-NWW-GN-DRG-000406 | REV D | VER 1 | EDMS No. | AMD No.



LEGEND - GENERAL

- CONTROL LINE
- EXISTING CADASTRAL BOUNDARY
- EXISTING SURVEY
- EXISTING CONTOUR - MAJOR
- EXISTING CONTOUR - MINOR
- PROPOSED CONTOUR - MAJOR
- PROPOSED CONTOUR - MINOR
- PROPOSED GUARD RAIL
- MC01 — CONTROL ALIGNMENT LABEL
- PROPOSED GUIDE POST (6m SPACING)
- PROPOSED SIGN POST
- PROPOSED SIGN
- PROPOSED LINEMARKING TAG

LEGEND - UTILITIES

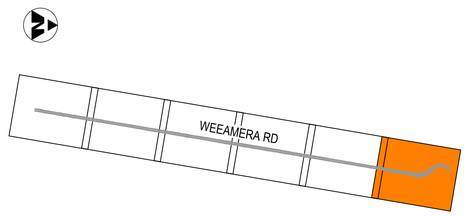
- EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL - OVERHEAD
- EXISTING GAS MAIN
- EXISTING WATER MAIN

THE UTILITIES/SERVICES SHOWN IN THESE PLANS HAVE BEEN COMPILED FROM MULTIPLE SOURCES OF INFORMATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO UNDERTAKE THEIR OWN SITE INVESTIGATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES. THESE DRAWINGS ARE NEVER TO BE USED FOR THE PURPOSE OF LOCATING SERVICES. WSP SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE CAUSED USING THE UTILITIES/SERVICES INFORMATION SHOWN ON THESE DRAWINGS.

NOTES

1. REDUCED LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).
2. COORDINATE SYSTEM GDA2020, MGA ZONE 55.
3. ALL DIMENSIONS IN METRES UNLESS SPECIFIED OTHERWISE.
4. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH PROJECT SPECIFIC TECHNICAL SPECIFICATIONS.
5. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE PROJECT TECHNICAL SPECIFICATION, RELEVANT CODES OF PRACTICE REFERRED TO THERE-IN AND THE REQUIREMENTS OF STATUTORY AUTHORITIES WHERE APPLICABLE.

KEYPLAN



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A	ISSUED FOR DRAFT INFORMATION	M.L 19.07.23	S.E 19.07.23	C.Y 19.07.23

COORDINATE SYSTEM: GDA 2020 GDA2020

HEIGHT DATUM: A.H.D

SCALE: 1:500

0 10 20m
SCALE 1:500 @A1

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DESIGN CHECK	STEVEN ELLIS	13.10.23
PROJ/DES MNGR	CHRIS YAU	13.10.23
APPROVED	CHRIS YAU	13.10.23

GREATER HUME SHIRE COUNCIL

CULCAIRN SOLAR FARM
WEEAMERA ACCESS ROAD UPGRADE
ROADWORKS

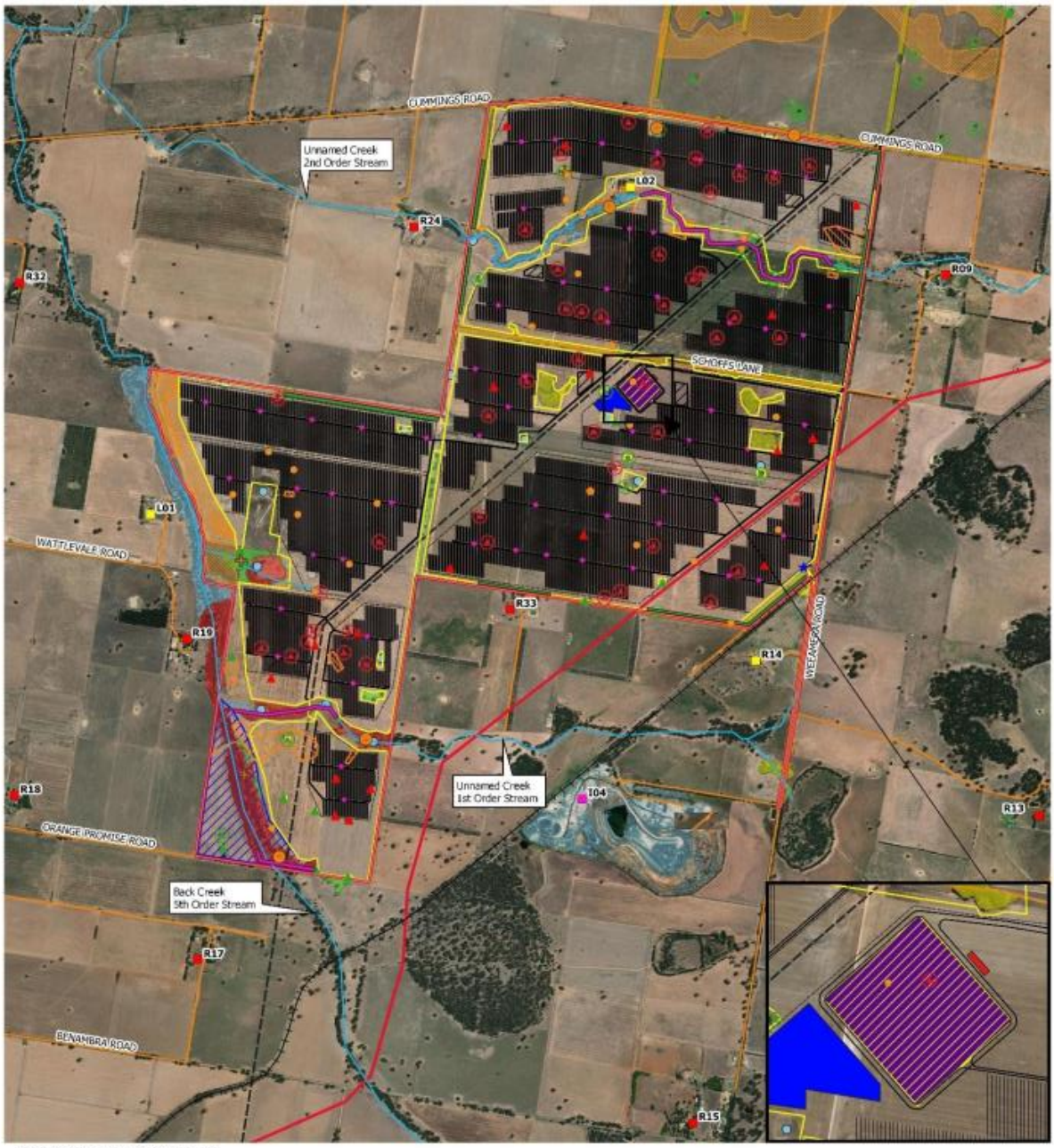
GENERAL ARRANGEMENT

PLAN

DRAWING SET No:	PART:	SHEET: 6 OF 6	A1
STATUS: 100% DETAILED DESIGN	BRIDGE No:		©

DRG No.	REV	VER	EDMS No.	AMD No.
CULCAIRN-WSP-NWW-GN-DRG-000106	D	1		

APPENDIX 1:
GENERAL LAYOUT OF DEVELOPMENT



18-441 Culcairn Solar Farm
Culcairn Solar Farm Constraints Layout

Legend

Project Components
- Project Site
- Development Footprint
- Substation
- BESS
- Control Building
- Inverters
- Construction Compound

Subdivision
- Agricultural (32 ha)
- Substation (4 ha)
- Proposed Access

- Internal Access Network
- Fences
- PV Array

Existing Components/Features
- Existing Transmission Line
- Gas Pipeline
- Public Roads
- Waterways
- Railway
- Dams

Proposed Vegetative Screening
- Visual Screening
- Biodiversity/Supplimentary Screening

Sensitive Receivers
- Associated Landowner
- Non-associated Landowner
- Industry

Archaeological Site Type
- Cultural Tree
- Modified Tree
- Isolated Find
- Cultural Object
- Artefact Scatter
- Potential Archaeological Deposits

Paddock Trees
- Hollow Bearing Retain
- Non-hollow Bearing Retain
- Hollow Bearing Remove
- Non-hollow Bearing Remove

Plant Community Types (PCT)
- PCT5: River Red Gum herbaceous-grassy very tall open forest woodland
- PCT74: Yellow Box - River Red Gum tall grassy riverine woodland
- PCT76: Western Grey Box tall grassy woodland
- PCT277: Blakely's Red Gum - Yellow Box Grassy Woodland

0 0.5 1 km

Data Attribution
© NGH 2020
© Nearmap 2020
© Esri 2020

Ref: 200907 Culcairn SF \ Culcairn Solar Farm Constraints Layout
Author: Sarah H
Date created: 16.12.2020
Datum: GDA94 / MGA zone 55

NGH

Appendix F

Consultation with Third Parties

Alexis Good

From: Nicholas Fox
Sent: Thursday, 21 September 2023 2:00 PM
To: Greg Blackie
Cc: Ellis, Steven; Yau, Chris; Alexis Good
Subject: RE: Culcairn Solar Farm Weeamera Road Upgrade - Section 138 Permit

Hi Greg,

Please see preliminary responses to your comments on the 75% design of the Weeamera road upgrade from Steven copied (WSP) in preparation for our meeting tomorrow:

1. Existing Culvert at start of job to be removed and replaced with new Box Culvert or RRJ RCP's and headwalls due to the unknown design capacity of the existing box culverts
    - The 75% design had considered only the need for extensions of the existing culvert.
    - The current survey data has picked up point details of the invert and obvert of the headwall. The culvert appear to be twin box culverts each approximately 1.5m wide and 0.4m high.
    - Replacement with new box culverts or RRJ RCP's of the same size and capacity is believed to be acceptable. The road levels are not being raised so no additional weir issues are present and the change to impervious ground in the catchment is negligible.

2. Guard Rail to installed in all locations a clear zone of 5m is not attainable to any obstruction, culvert headwalls, or slopes greater than 1 in 4
    - There are Trees greater than 100mm diameter within the 5m proposed clear zone on both sides of the road from the start of the upgrade section up to chainage 1050. The distance between trees or tree lined section is thus that continuous barrier would be required.
    - The headwall at chainage 150 would be inside the 5m clear zone and would require protection.
    - Barrier would be proposed on both sides of the road from chainage 0 at the intersection to the quarry road and approximate chainage 1050 along Weeamera Road. Note this will widen the formation in this area as a min of 1m behind the barrier is required. Further assessments are needed to confirm the new formation.
    - A Roadside Risk Assessment as per Austroads Part 6 should be undertaken to assess the risks and needs for barriers in this area.

3. Road Design of 100kph not 60 kph as shown
    - The current 75% design Report & Drawings indicates that Weeamera Road within the upgraded section could have the following speed criteria.
        - 100km/h (the default unposted rural road speed limit) from the start of the upgrade at the quarry access road intersection (Chainage 0) to approximate chainage 640. There would be a 60km/h ahead sign located at approximate chainage 240 to advise of a speed reduction on the approach to the s-bends at the rail crossing.
        - 60km/h speed zone from approximate chainage 640 to 1140
        - 40km/h speed zone from approximate chainage 1140 to 60m north of the Weeamera Road tie in location.
    - The speed reduction from 100km/h down to 60km/h and then down to 40km/h is in accordance with AS1742.4_2020 Manual of Uniform Traffic Control Devices Part 4: Speed Controls Section 2.2 "Types of Speed Zones"
    - There are additional speed advisory and truck tipping warning signs through the s-bends.
    - The design speed achieved for the s-bends geometry is 40km/h for the 64m radius curve, and 30km/h for the 35m radius curve (posted with a 25km/h advisory sign) . No geometry can be implemented that would facilitate a future rail level crossing and follow the existing Weeamera Road alignment.

4. Following the end of the major construction additional signage and rumble strips be installed prior to rail crossing in an additional safety measure
    - Do rumble strips need to be installed at this stage or only if an active Rail Level Crossing were to be installed in the future. Note that the design does not facilitate a constructed rail level crossing it is intended to not preclude one in the future.

5. All driveways accesses in the works area are to be sealed back to the property line with appropriate drainage culverts installed (including headwalls)
    - Driveways access will be provided and sealed within the allowed project construction boundary for the project.

6. Road can reduced in width to 7m seal/9m formation as per Council standard design
    - The proposed road formation width 7.9m. This width if fully sealed and provides 2 x 3.1m lanes and 2 x 0.85m shoulders. This cross section was proposed to minimise the formation width to ensure the design is contained within the proposed disturbance footprint.
    - The proposed cross section is compliant to Austroads Guide to Road Design Part 3 Extended Design Domain A.2.2 Table A 2: Minimum EDD widths for two-lane, two-way rural roads (m).

7. Design Vehicle to be B- Double (19m)
    - Clarification of the proposed Check vehicle - 19m Semi or 26m B-Double
    - As outlined in the Design Report Memo. The horizontal geometry has been assessed using Autodesk Vehicle Tracking and the application of similar, conservative design vehicles to determine the necessary pavement widening to accommodate the through movement of a 16 axle 4.2mW Transport Configuration. The design can accommodate all the Austroads design vehicles, along with being assessed for an Articulated heavy load mover with a 4.88m wide load bed. One (1.0) metre of pavement widening has been provided on the inside of the 64m radius curve to accommodate the vehicle envelope. This includes a 26m B-Double.

We look forward to the discussion tomorrow,

Regards,

Nicholas

De : Greg Blackie <GBlackie@greaterhume.nsw.gov.au>
Envoyé : mardi 19 septembre 2023 15:13
À : Nicholas Fox <Nicholas.fox@neoen.com>
Objet : RE: Culcairn Solar Farm Weeamera Road Upgrade - Section 138 Permit

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Nicholas

I am available at 2.30pm this Friday to discuss any issues

Regards

Greg

From: Nicholas Fox <Nicholas.fox@neoen.com>
Sent: Tuesday, 19 September 2023 3:11 PM
To: Greg Blackie <GBlackie@greaterhume.nsw.gov.au>
Cc: Alexis Good <alexis.good@neoen.com>; Emily Walker <emily.walker@neoen.com>; Colin Kane

<CKane@greaterhume.nsw.gov.au>
Subject: RE: Culcairn Solar Farm Weeamera Road Upgrade - Section 138 Permit

Hi Greg,

Thanks very much for your email, we have passed on your feedback on the 75% design of the road upgrade to WSP who had a few follow-up questions as they are working on the Issued for Construction drawings of the road and the UGL crossing – could you send your availabilities for a 30min call this coming Friday 22/09 or Monday 25/09?

Regards,

Nicholas

De : Greg Blackie <GBlackie@greaterhume.nsw.gov.au>
Envoyé : vendredi 15 septembre 2023 16:58
À : Nicholas Fox <Nicholas.fox@neoen.com>
Cc : Alexis Good <alexis.good@neoen.com>; Emily Walker <emily.walker@neoen.com>; Colin Kane <CKane@greaterhume.nsw.gov.au>
Objet : RE: Culcairn Solar Farm Weeamera Road Upgrade - Section 138 Permit

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Nick

As discussed, I am happy to consider a delay on the construction of Weeamera Road for 6 months from commencement of the project onsite (maximum) if the road can be treated appropriately so that it does not fail under the construction traffic and dust is managed so to not impact surrounding properties.

As the road is not fully constructed appropriate additional traffic safety management is required to be in place (ie reduced speed, additional signage etc), and an approved traffic management plan provided to Council for approval

The discussion about a partial upgrade to the 9m limit of the disturbance impact, will not be accepted by Council, as the road will need to be constructed fully at one time.

Council acknowledges that some work will be required initially so the construction traffic can be accommodated however Council wish the majority of the roadworks be completed at one time.

In regards to the 75% design, Council makes the following comments

1. Existing Culvert at start of job to be removed and replaced with new Box Culvert or RRJ RCP's and headwalls due to the unknown design capacity of the existing box culverts
2. Guard Rail to installed in all locations a clear zone of 5m is not attainable to any obstruction, culvert headwalls, or slopes greater than 1 in 4
3. Road Design of 100kph not 60 kph as shown
4. Following the end of the major construction additional signage and rumble strips be installed prior to rail crossing in an additional safety measure
5. All driveways accesses in the works area are to be sealed back to the property line with appropriate drainage culverts installed (including headwalls)
6. Road can reduced in width to 7m seal/9m formation as per Council standard design
7. Design Vehicle to be B- Double (19m)

If you have any questions don't hesitate to make contact

Regards

Greg

From: Nicholas Fox <Nicholas.fox@neoen.com>
Sent: Wednesday, 13 September 2023 10:18 AM
To: Greg Blackie <GBlackie@greaterhume.nsw.gov.au>
Cc: Alexis Good <alexis.good@neoen.com>; Emily Walker <emily.walker@neoen.com>; Colin Kane <CKane@greaterhume.nsw.gov.au>
Subject: Culcairn Solar Farm Weeamera Road Upgrade - Section 138 Permit

Hi Greg,

Thanks very much for your time on Friday, we are currently investigating with the EPC contractors whether the ~ 3 months timeline flexibility you offered around the upgrade of Weeamera road after construction start brings any upside to the program.

We are also looking at options to reduce the dust generated during this time – please see feedback from our head of construction Australia Laszlo Csanyi below:

- *We can easily implement **a temporary spray seal** for this road that will greatly mitigate (if not completely eliminate) the need for water carts before the final spray seal. We have used this product just recently at the Goyder wind farm in SA and the results were very good. Depending a few factors, a solution like this could last months and there is no reason why we could not reapply the solution with relatively low disturbance on construction traffic. We used the HaulPac product (commonly used on mine sites) which could be applied here during the initial period to alleviate council's concerns around dust.*
- *Neoen could reach out to Downer contact (see in the presentation) to quote the job for Culcairn and maybe they have some more documents you could use to convince council;*
- *This application can be re-applied so perhaps council would be open to 3-6 months (ideally 6 I reckon)*
- *Doing the full road upgrade once construction really ramped up is an issue in itself as well so getting it done in the first 3 to 6 months is not a bad idea – could give us the time we need to get the DA amendments etc.*
- *If the road upgrade works can be delayed, we need to understand from EPC's if they could carry these out in a way which does not completely impact deliveries to site. There will be higher costs (traffic management and doing each side of the road first) but could be an option*

<u>We have a couple more questions below:</u>

- If you can be convinced of the temporary spray solution suggested by Laszlo above and attached, would it be possible to increase the flexibility to upgrade the road to the full sealed pavement 3-6 months after construction start?
- From the design prepared by WSP (which is AustRoads and DA compliant) and shared with you end of August, would it be possible to upgrade the (sealed) road from the centre in the very early stages of construction, remaining within the 9m disturbance footprint pending the securing of our DA modification? Please remember the timing for the Weeamera road upgrade impacts the whole construction schedule of the project, and we are constrained by the timeline to secure the DA modification which is quite uncertain at this stage.
- What are the next steps regarding the Section 138 Road Opening Permit ? Please don't hesitate to send any comments on the 75% design of the road shared by Alexis end of August, and for which you will find the design package again under the link below:

https://we.tl/t-8aIZeYSLhC

Regards,

Nicholas

Nicholas Fox
Senior Project Manager

NEOEN

570 George Street, 2000 Sydney
M. +61 499 713 610

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Mike Willson

From: Tom Dwyer
Sent: Wednesday, 12 July 2023 1:50 PM
To: Culcairn Quarry
Cc: Mike Willson
Subject: RE: TMP Development - Culcairn Solar Farm

Hi Ian

Thanks for sending this information through and appreciate where you are coming from.

I've sent onto the broader project team and we'll be in touch with any updates.

Feel free to be in touch with any questions or comments.

Kind regards
Tom

Tom Dwyer
BEng (CivInfra) (Hons) GradDipUrbPlanEnv MIEAust NER RPEV
Associate

Ph: +61 481 959 464

From: Culcairn Quarry <Culcairn.Quarry@boral.com.au>
Sent: Tuesday, July 11, 2023 2:25 PM
To: Tom Dwyer <tdwyer@amberorg.com.au>
Cc: Mike Willson <mike@amberorg.com.au>
Subject: Re: TMP Development - Culcairn Solar Farm

Hi Tom,

Certainly a huge increase in traffic with the Quarry also at 150 loads per day + light vehicle movements.

We would need a significant speed reduction either side of our entrance and any other traffic calming measures you deem warranted.

Regards Ian
Culcairn Quarry
(02) 6029 8600
Ian Forrest (Manager) 0408 609206

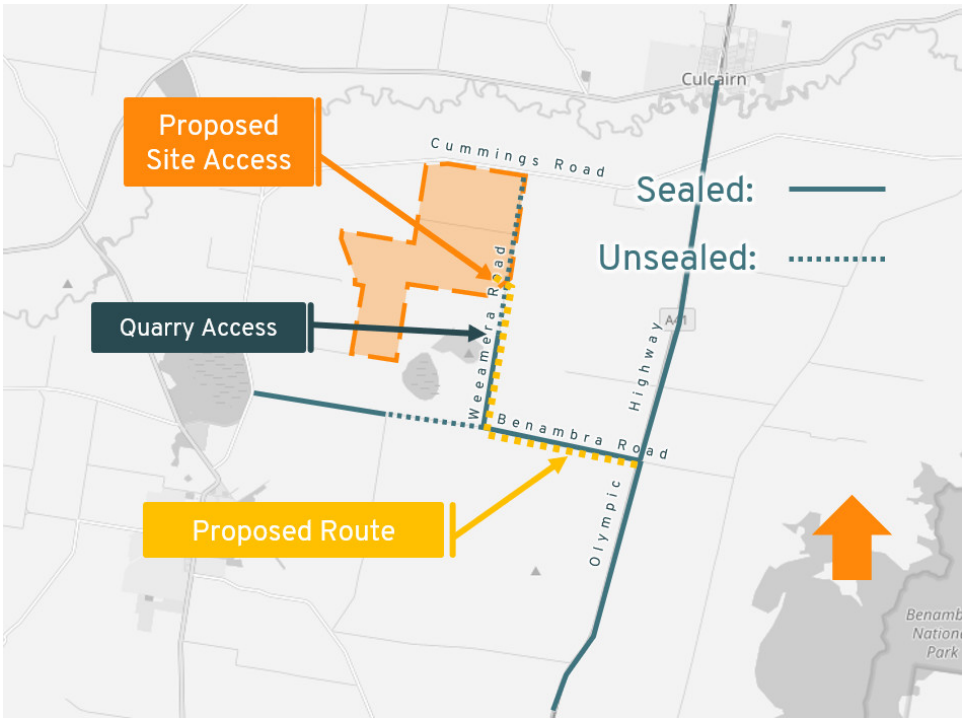
From: Tom Dwyer <tdwyer@amberorg.com.au>
Sent: Tuesday, 11 July 2023 1:38 PM
To: Culcairn Quarry <culcairn.quarry@boral.com.au>

Cc: Mike Willson <mike@amberorg.com.au>
Subject: RE: TMP Development - Culcairn Solar Farm

Hi Ian

Nice talking to you just then and appreciate the time.

As discussed over the phone the proposed vehicle access route to the site will be along Benambra Road to Weeamera Road past the quarry access to the proposed site access point on the north side of the rail corridor. The route is shown diagrammatically in the figures below.



In terms of traffic activity during construction there was a traffic impact assessment report prepared which estimated a peak demand of up to 50 heavy vehicles (ranging between Medium sized trucks, articulated vehicle and b-doubles) and 150 light vehicles, which represents a total of 100 heavy vehicle movements (entry and exit) and 300 light vehicle movements (entry and exit).

As I mentioned a condition of the approval is the upgrade of Weeamera Road between the proposed site access and the quarry access to a 7m wide sealed pavement.

More detailed information is available at this website Culcairn Solar Farm | Planning Portal - Department of Planning and Environment (nsw.gov.au) but I'd be happy to discuss the transport aspects with you.

Please feel free to send over any comments you have on the proposed traffic management arrangements.

Kind regards
Tom

Tom Dwyer
BEng (CivInfra) (Hons) GradDipUrbPlanEnv MIEAust NER RPEV
Associate

Ph: +61 481 959 464

From: Tom Dwyer
Sent: Wednesday, July 5, 2023 12:32 PM
To: culcairn.quarry@boral.com.au
Subject: TMP Development - Culcairn Solar Farm

Hi there

Thanks for the time on the phone and as I mentioned Amber are assisting on the development of a TMP for the Culcairn Solar Farm which is proposed to operate to the north of the Quarry site. Information is available online about the project here: Culcairn Solar Farm - Clean Energy For NSW and Culcairn Solar Farm | Planning Portal - Department of Planning and Environment (nsw.gov.au).

We are hoping to hear your perspective on any issues that should be considered for the management of transport fort the construction phases of the project.

Feel free to give me a call at any time that suits.

Kind regards
Tom

Tom Dwyer
BEng (CivInfra) (Hons) GradDipUrbPlanEnv MIEAust NER RPEV
Associate

Ph: +61 481 959 464

Tom Dwyer

From: Michael Oliver <MOliver@greaterhume.nsw.gov.au>
Sent: Friday, 21 April 2023 4:37 PM
To: Tom Dwyer
Cc: Mike Willson; Greg Blackie; Ken Thompson; Bede Hutchinson; Joe Mullany
Subject: RE: Traffic Management Information - Culcairn Solar Farm
Attachments: Road_Occupancy_Manual.pdf; Gransolar - Benambra Rd - Second Entrance G23-0317.pdf; Gransolar - Benambra Rd - Main Entrance G23-0316.pdf

Hi Tom,

Please see contact details below for TfNSW as requested earlier today.

You have a good weekend also!

Kind regards,

Michael Oliver
Manager Traffic & Infrastructure
Greater Hume Council
39 Young St
PO Box 99
Holbrook NSW 2644
T 02 6036 0100 **M** 0429 089 680
E moliver@greaterhume.nsw.gov.au

Greater Hume Council

www.greaterhume.nsw.gov.au

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From: Tom Dwyer [mailto:tdwyer@amberorg.com.au]
Sent: Friday, 21 April 2023 3:26 PM
To: Michael Oliver
Cc: Mike Willson
Subject: Traffic Management Information - Culcairn Solar Farm

Hi Michael

Thanks for your time on the phone about the Culcairn Solar Farm project. As I mentioned we're assisting on the development of the Traffic Management Plan for the project.

The information you provided was very useful but as mentioned if you have a contact at TfNSW that would be greatly appreciated.

Have a great weekend!

Cheers
Tom

Tom Dwyer
BEng (CivInfra) (Hons) GradDipUrbPlanEnv MIEAust NER RPEV
Associate

Ph: +61 481 959 464

Hi Michael,

Thanks for the below advise.
Since they'll be up for a longer period, please ensure they are appropriately installed (appropriate post (not star pickets), offset as per Australian standards, etc…).
Note that a Road Occupancy License (ROL) would be required in some instances. I've attached some info on ROL's.
In this instance, an ROL isn't required.

Regards,

Joe Mullany
Contract Manager
Maintenance & Delivery | Network & Assets
Regional and Outer Metropolitan

M 0427 422 537 | E joe.p.mullany@transport.nsw.gov.au
193 Morgan Street Wagga Wagga NSW 2650

OFFICIAL

From: Michael Oliver <MOliver@greaterhume.nsw.gov.au>
Sent: Monday, 3 April 2023 12:57 PM
To: Joe Mullany <joe.p.mullany@transport.nsw.gov.au>
Cc: KenThompson@greaterhume.nsw.gov.au; Alexander Marks <AMarks@greaterhume.nsw.gov.au>; Amanda Williams <AWilliams@greaterhume.nsw.gov.au>
Subject: FW: Traffic Guidance Schemes (x4) - Walla Walla Solar Farm

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Good afternoon Joe,

I have gained your email contact details from Councils Manager Works, Ken Thompson.

Please see attached FYI.

As mentioned the signage (on Olympic Hwy - Benambra Rd Intersection) is only temporary during installation of the new Walla Walla Solar Farm Project but will be in place over a longer period of time than normal.

If you have any queries please do not hesitate to discuss with me.

Thanks Joe.

Kind regards,

Michael Oliver
Manager Traffic & Infrastructure
Greater Hume Council
39 Young St
PO Box 99
Holbrook NSW 2644
T 02 6036 0100 **M** 0429 089 680
E moliver@greaterhume.nsw.gov.au

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From: Ken Thompson
Sent: Monday, 3 April 2023 12:23 PM
To: Michael Oliver
Cc: Greg Blackie
Subject: RE: Traffic Guidance Schemes (x4) - Walla Walla Solar Farm

Hi Michael,

This should not be a problem we would need to send it to our contract manager for the RMCC mainly as advise.
His contact is joe.p.mullany@transport.nsw.gov.au

Ken Thompson
Manager Works
Greater Hume Council
39 Young St
PO Box 99
Holbrook NSW 2644
T 02 6044 8909 **M** 0429 120 083

Greater Hume Council

www.greaterhume.nsw.gov.au

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From: Michael Oliver
Sent: Monday, 3 April 2023 12:15 PM
To: Ken Thompson <KenThompson@greaterhume.nsw.gov.au>
Cc: Greg Blackie <GBlackie@greaterhume.nsw.gov.au>
Subject: FW: Traffic Guidance Schemes (x4) - Walla Walla Solar Farm

Hi Ken,

Just need to check it will be ok for the two signs installed on the Olympic Hwy to be fixed for a longer period than normal? Other signs are on Council local roads.

Will discuss with you further.

Kind regards,

Michael Oliver
Manager Traffic & Infrastructure
Greater Hume Council
39 Young St
PO Box 99
Holbrook NSW 2644
T 02 6036 0100 **M** 0429 089 680
E moliver@greaterhume.nsw.gov.au

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From: Bede Hutchinson [mailto:bede@hutchinsoncivil.com.au]
Sent: Friday, 31 March 2023 11:41 AM
To: Michael Oliver
Cc: Kevin Walsh; Andrew Taylor; Greg Blackie; Sergio Sánchez Artime
Subject: Fwd: Traffic Guidance Schemes (x4) - Walla Walla Solar Farm

Gday Michael,

Further to below emails:
Hutchinson civil have been tasked to install the required temporary signage for GRS per approved TGS

There is some uncertainty surrounding proposed signage erection techniques.

Due to lengthy period of construction, I propose to install signage on galvanised poles with concrete footings- same as regular road signage- rather than to install in a temporary manner which can be subject to wind and

other effects. This will ensure signage remains installed as intended for the entire duration, minimising the need for regular signage and tgs inspections.

Can you please confirm Council is satisfied with this proposal?

Thanks

Sent from my iPhone

Begin forwarded message:

From: Andrew Taylor <ataylor@gransolar.com>
Date: 31 March 2023 at 9:29:04 am AEDT
To: Bede Hutchinson <bede@hutchinsoncivil.com.au>
Subject: Fwd: Re : Traffic Guidance Schemes (x4) - Walla Walla Solar Farm

Get Outlook for Android

From: Michael Oliver <MOliver@greaterhume.nsw.gov.au>
Sent: Thursday, February 23, 2023 2:11:58 PM
To: Andrew Taylor <ataylor@gransolar.com>
Cc: Sergio Sánchez Artime <ssanchez@gransolar.com>; David Tullis <dtullis@gransolar.com>; Greg Blackie <GBlackie@greaterhume.nsw.gov.au>; Ken Thompson <KenThompson@greaterhume.nsw.gov.au>; Craig Hall <CHall@greaterhume.nsw.gov.au>; Marc Haynes <MHaynes@greaterhume.nsw.gov.au>; Jason McBain <JMcBain@greaterhume.nsw.gov.au>; Andrew Walls <AWalls@greaterhume.nsw.gov.au>; Amanda Williams <AWilliams@greaterhume.nsw.gov.au>
Subject: FW: Re : Traffic Guidance Schemes (x4) - Walla Walla Solar Farm

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Hi Andrew,

In reply I can advise that Council approves the attached TGS (x4) for future construction of the Walla Walla Solar Farm.

If you have any further queries please do not hesitate to contact me.

Have a good afternoon.

Kind regards,

Michael Oliver
Manager Traffic & Infrastructure
Greater Hume Council
39 Young St

PO Box 99
Holbrook NSW 2644
T 02 6036 0100 **M** 0429 089 680
E moliver@greaterhume.nsw.gov.au

www.greaterhume.nsw.gov.au

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From: Greg Blackie
Sent: Wednesday, 22 February 2023 2:31 PM
To: Michael Oliver
Subject: FW: Re : Traffic Guidance Schemes - Walla Walla Solar Farm

Micheal

Can you assess these and advise if acceptable

Thanks

Greg

From: Andrew Taylor [mailto:ataylor@gransolar.com]
Sent: Wednesday, 15 February 2023 3:36 PM
To: Greg Blackie <GBlackie@greaterhume.nsw.gov.au>
Cc: Sergio Sánchez Artime <ssanchez@gransolar.com>; David Tullis <dtullis@gransolar.com>
Subject: Re : Traffic Guidance Schemes - Walla Walla Solar Farm

Good Afternoon Greg,

As discussed previously, please find attached for review and comment, the proposed Traffic Guidance Schemes that are to be implemented for the duration of the project. Please contact directly with any enquiries regarding the proposed TGSs,

Regards,

Andrew Taylor
HSE Manager – Walla Walla Solar Farm

Head office:

307 Queen Street, Level 4

Brisbane QLD 4000, Australia

ataylor@gransolar.com

+61 (0) 418 529 639

gransolar.com

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From:	Nicholas Fox
To:	Greg Blackie
Cc:	Colin Kane; Alexis Good
Subject:	RE: Weeamera Road Upgrade - 100% Design Issue
Date:	Thursday, 2 November 2023 11:43:55 AM
Attachments:	image002.png image003.png 2023-11-02_Council_Draft Letter re. UGL Licence.docx

Hi Greg,

Thanks very much for confirming the 100% design. Could you confirm our understanding that the Section 138 Road permit can be granted before the end of November, by the time we sign our EPC contract? Do you need further inputs from Neoen to deliver this permit?

On the additional flexibility regarding the upgrade of the access road, we are still confident we can secure the UGL Construction Licence before road upgrade works in the railway corridor but want to prepare for a worst-case scenario. We have prepared the attached letter and would like to send you the details you requested around dust mitigation and traffic management plan. Could you confirm whether you have precise requirements regarding these two mitigation measures?

Finally, there seems to be at least one telecommunications fibre (perhaps more to be shown by DBYD) intersecting Weeamera road within the 1.4km section we will upgrade. We would like to hire a cable locating contractor to find evidence of the precise location and depth of these fibres – could you specify what inputs you need from them to validate the works onsite?

Many thanks for your continuous support,

Regards,

Nicholas

De : Greg Blackie <GBlackie@greaterhume.nsw.gov.au>
Envoyé : mercredi 1 novembre 2023 16:42
À : Nicholas Fox <Nicholas.fox@neoen.com>
Cc : Colin Kane <CKane@greaterhume.nsw.gov.au>; Alexis Good <alexis.good@neoen.com>
Objet : RE: Weeamera Road Upgrade - 100% Design Issue

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Nick

I have reviewed the 100% design and advise that it is acceptable to Council.

Regarding your request for flexibility in the upgrade works on Weeamera Road, if any section of road is not completed upon the commencement of construction of the project, details on dust mitigation and traffic management must be submitted to Council for approval, to mitigate any impact of the uncompleted works to resident and Council satisfaction.

Regards

Greg

Greg Blackie
Director Engineering
Greater Hume Council
39 Young St

PO Box 99
Holbrook NSW 2644
T 02 6036 0100 **M** 0419 249 357

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From: Nicholas Fox <Nicholas.fox@neoen.com>
Sent: Tuesday, 24 October 2023 5:11 PM
To: Greg Blackie <GBlackie@greaterhume.nsw.gov.au>
Cc: Colin Kane <CKane@greaterhume.nsw.gov.au>; Alexis Good <alexis.good@neoen.com>
Subject: RE: Weeamera Road Upgrade - 100% Design Issue

Hi Greg,

Hope you have been well.

We are aiming to submit our Construction Licence application with UGL in the coming days regarding the unused railway crossing at the end of Weeamera road and would need confirmation you are satisfied with the 100% design (which incorporates all comments and requests you shared previously) from WSP attached – could you send this confirmation before the end of week?

Thanks very much for your help,

Kind regards,

Nicholas

De : Nicholas Fox
Envoyé : lundi 16 octobre 2023 10:09
À : Greg Blackie <GBlackie@greaterhume.nsw.gov.au>
Cc : Colin Kane <CKane@greaterhume.nsw.gov.au>; Alexis Good <alexis.good@neoen.com>
Objet : TR: Weeamera Road Upgrade - 100% Design Issue

Hi Greg,

Hope you had a good weekend.

Please find the WSP 100% design of the Weeamera road attached for your final review – the files are quite heavy so could you confirm good receipt? This design incorporates all comments and requests from council.

We are asking our prospective EPCs to review this design before October 27th and would very much appreciate if you could confirm the design by the same date. We can then proceed to apply for the Section 138 Road Opening permit based on this design.

Regards,

Nicholas

De : Yau, Chris <Chris.Yau@wsp.com>
Envoyé : vendredi 13 octobre 2023 16:43
À : Nicholas Fox <Nicholas.fox@neoen.com>; Alexis Good <alexis.good@neoen.com>; Hide, Natalie <Natalie.Hide@wsp.com>; Mundy, Christopher <Christopher.Mundy@wsp.com>; Ellis, Steven <Steven.Ellis@wsp.com>
Cc : Thrower, Ryan <Ryan.Thrower@wsp.com>; Reeve, Brent <Brent.Reeve@wsp.com>; Smailes, Edward <Edward.Smailes@wsp.com>
Objet : RE: Weeamera Road Upgrade - 100% Design Issue

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Hi Nicholas, Alexis,

Thanks to @Ellis, Steven and @Mundy, Christopher and our incredible Drafting Team, we have managed to complete the 100% detailed design for Package 1.

Please find attached the 100% detailed design submission for the Weeamera Road Upgrade (ie. Package 1). Deliverables include:

- The Design Memo – 204179-WSP-RD-MEM-000001 RevC.pdf
- The Design Drawing Set – CULCAIRN-WSP-NWW-GN-DRG-999999-COMBINED.pdf

Please note that the combined file size for both PDFs is 24MB(!). I will send a separate email to ensure you have received this email and the attachment. If it fails to reach you, then I will arrange with @Hide, Natalie for a file transfer.

@Hide, Natalie, here's the WSP link to the files:
U:\ProjectsAU\204xxx\204179_Culcairn_Solar_Farm\4_WIP\BIM\CAD\01-Doc-control\Data_Outgoing\20231013 - 100%_Design Issue

Kind regards,
Chris

Chris Yau
Senior Principal Project Manager

T: +61283548831

Chris.Yau@wsp.com

WSP Australia Pty Limited
Level 27, 680 George Street
Sydney, 2000
Australia

wsp.com/en-au

WSP acknowledges that every project we work on takes place on First Peoples lands. We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

From: Ellis, Steven <Steven.Ellis@wsp.com>
Sent: Tuesday, October 10, 2023 2:47 PM
To: Nicholas Fox <Nicholas.fox@neoen.com>; Alexis Good <alexis.good@neoen.com>
Cc: Yau, Chris <Chris.Yau@wsp.com>; Hide, Natalie <Natalie.Hide@wsp.com>; Mundy, Christopher <Christopher.Mundy@wsp.com>
Subject: Weeamera Road Upgrade - 100% Design Issue

Hi Nicholas & Alexis

Thanks for the catch up earlier this afternoon.

As discussed I'd like to clarify what we will deliver this Friday for the 100% Design Issue.

- Updated 100% Design Drawing Set.
    - Cover Sheet
    - Index Page
    - Key Plan

    - Pavement Profiles
    - Typical Cross Section
    - General Arrangement Plans
    - Cross Sections
    - Longitudinal Sections
- Updated 100% Design Memo (including UGL Rail Crossing details)
- Updated UGL Rail Crossing Plan & Associated Cross Sections

We will hold off producing the detailed setout information such as Alignment Control Plans, Setout Tables & Schedules until the IFC delivery phase. (note this is our standard practice to only produce this highly detailed information once only when the design is 100% confirmed)

If you have the opportunity to discuss the requirement of setout data with the EPC's we could look to provide the information at the IFC phase directly in the 3D design models rather than in drawing and table formats.

Regards

Steven Ellis
Technical Executive

T: +61 2 9927 6547

Steven.Ellis@wsp.com

WSP Australia Pty Limited
Level 27, 680 George Street
Sydney, 2000
Australia

wsp.com/en-au

WSP acknowledges that every project we work on takes place on First Peoples lands. We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

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-LAEmHhHzdJzBlTWfa4Hgs7pbKl

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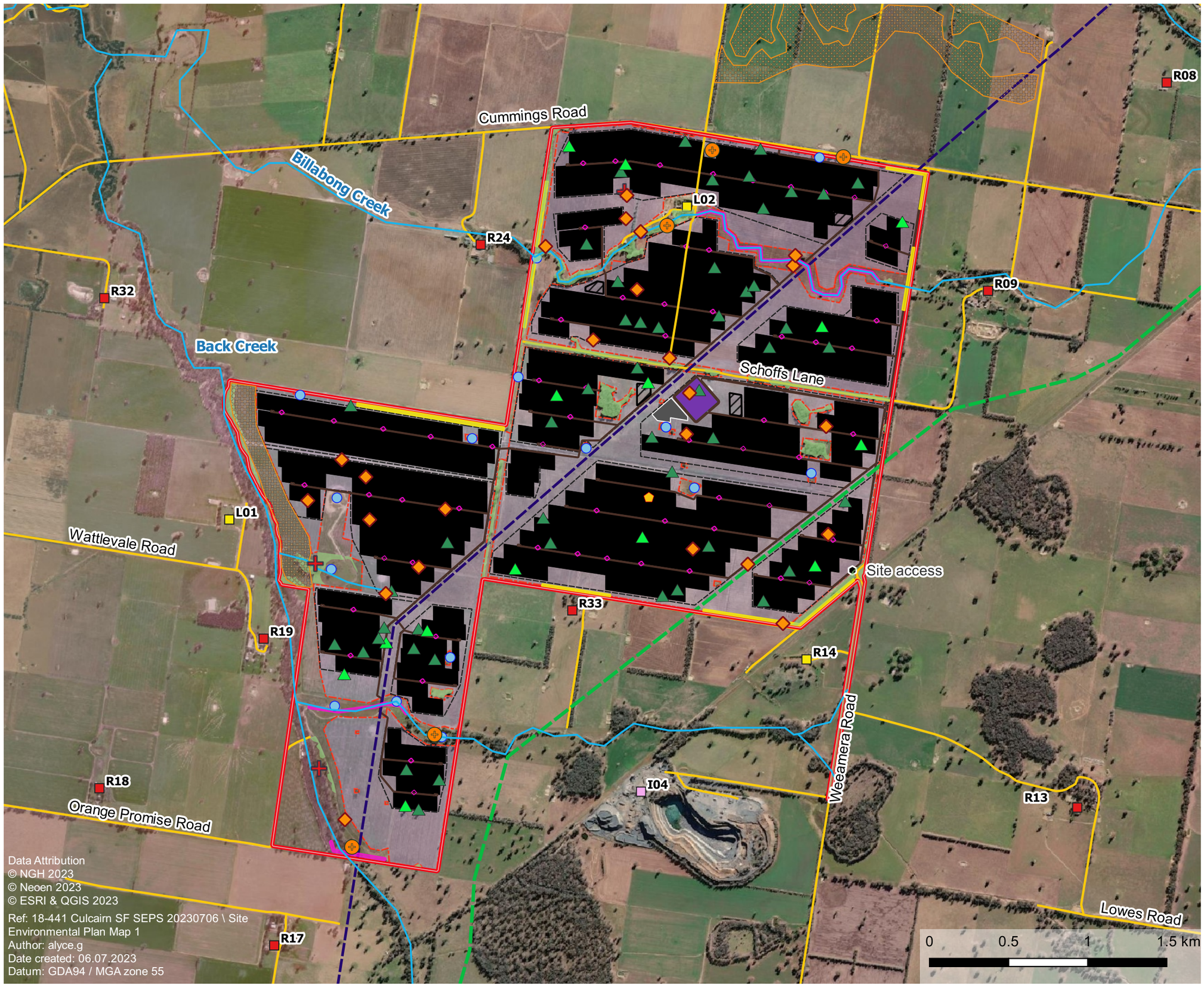
Appendix G

Site Environment Plans

Culcairn Solar Farm
Site Environmental Plans
Map 1 of 5



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© ESRI & QGIS 2023

Ref: 18-441 Culcairn SF SEPS 20230706 \ Site Environmental Plan Map 1
Author: alyce.g
Date created: 06.07.2023
Datum: GDA94 / MGA zone 55

Legend

Project features:
- Project site
- Development footprint
- Clearing boundary
- Site access
- Panel arrays
- Battery
- Control building
- Substation
- Inverters
- Compounds
- Fences
- Internal roads

Sensitive receivers:
- Associated
- Non associated
- Industry

Biodiversity:
- Threatened Ecological Communities (TECs)

Hollow bearing trees:
- Retain
- Remove

Vegetative screening
- Visual screening
- Biodiversity supplementary screening

Heritage:
- Isolated Finds
- Cultural object
- Potential Archaeological Deposits (PADs)

Scarred Trees:
- Cultural Tree
- Modified Tree

Hydrological features:
- Dams
- Waterways

Infrastructure:
- Transmission line
- Gas pipeline
- Roads

Ref: 18-441 Culcairn SF SEPS 20230706 \ Site Environmental Plan Map 2
Author: alyce.g
Date created: 06.07.2023
Datum: GDA94 / MGA zone 55

Culcairn Solar Farm
Site Environmental Plans
Map 2 of 5

Legend

Project features:
- Project site
- Development footprint
- Clearing boundary
- Panel arrays
- Battery
- Control building
- Substation
- Inverters
- Compounds
- Fences
- Internal roads

Sensitive receivers:
- Associated

Biodiversity:
- Threatened Ecological Communities (TECs)

Hollow bearing trees:
- Retain
- Remove

Vegetative screening
- Visual screening
- Biodiversity supplementary screening

Heritage:
- Isolated Finds

Scarred Trees:
- Cultural Tree
- Modified Tree

Hydrological features:
- Dams
- Waterways

Infrastructure:
- Transmission line
- Gas pipeline
- Roads

NGH

Ref: 18-441 Culcairn SF SEPS 20230706 \ Site Environmental Plan Map 3
Author: alyce.g
Date created: 06.07.2023
Datum: GDA94 / MGA zone 55

Culcairn Solar Farm
Site Environmental Plans
Map 3 of 5

Legend

Project features:
- Project site
- Development footprint
- Clearing boundary
- Site access
- Panel arrays
- Battery
- Control building
- Substation
- Inverters
- Compounds
- Fences
- Internal roads

Sensitive receivers:
- Non associated

Biodiversity:
- Threatened Ecological Communities (TECs)

Hollow bearing trees:
- Retain
- Remove

Vegetative screening
- Visual screening

Heritage:
- Isolated Finds
- Cultural object

Hydrological features:
- Dams

Infrastructure:
- Transmission line
- Gas pipeline
- Roads

NGH

Ref: 18-441 Culcairn SF SEPS 20230706 \ Site Environmental Plan Map 4
Author: alyce.g
Date created: 06.07.2023
Datum: GDA94 / MGA zone 55

Culcairn Solar Farm
Site Environmental Plans
Map 4 of 5

Legend

Project features:
- Project site
- Development footprint
- Clearing boundary
- Panel arrays
- Inverters
- Fences
- Internal roads

Sensitive receivers:
- Associated
- Non associated

Biodiversity:
- Threatened Ecological Communities (TECs)

Hollow bearing trees:
- Retain
- Remove

Vegetative screening
- Visual screening

Heritage:
- Isolated Finds
- Potential Archaeological Deposits (PADs)

Scarred Trees:
- Modified Tree

Hydrological features:
- Dams
- Waterways

Infrastructure:
- Transmission line
- Roads

NGH

Ref: 18-441 Culcairn SF SEPS 20230706 \ Site Environmental Plan Map 5
Author: alyce.g
Date created: 06.07.2023
Datum: GDA94 / MGA zone 55

Culcairn Solar Farm
Site Environmental Plans
Map 5 of 5

Legend

Project features:
- Project site
- Development footprint
- Clearing boundary
- Panel arrays
- Inverters
- Fences
- Internal roads

Sensitive receivers:
- Non associated

Biodiversity:
- Threatened Ecological Communities (TECs)

Hollow bearing trees:
- Retain
- Remove

Vegetative screening
- Biodiversity supplementary screening

Heritage:
- Isolated Finds
- Potential Archaeological Deposits (PADs)

Scarred Trees:
- Cultural Tree
- Modified Tree

Hydrological features:
- Dams
- Waterways

Infrastructure:
- Transmission line
- Gas pipeline
- Roads

NGH

Culcairn Solar Farm
No-go zones
Map 2 of 3

Legend

- Project site
- Development footprint
- No go zones
- Waterways
- Roads

0 250 500 750 m

Data Attribution
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Ref: 18-441 Culcairn SF SEPS 20230706 \ No go zones Map 2
Author: alyce.g
Date created: 07.07.2023
Datum: GDA94 / MGA zone 55

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Culcairn Solar Farm
No-go zones
Map 3 of 3

Legend

- Project site
- Development footprint
- No go zones
- Waterways
- Roads

0 250 500 750 m

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Ref: 18-441 Culcairn SF SEPS 20230706 \ No go zones Map 3
Author: alyce.g
Date created: 07.07.2023
Datum: GDA94 / MGA zone 55

NGH

Appendix H

Section 138 Road Opening Approval

Greater Hume Council

All correspondence
PO Box 99 Holbrook NSW 2644

P 02 6036 0100 or 1300 653 538
E mail@greaterhume.nsw.gov.au
greaterhume.nsw.gov.au

ABN 44 970 341 154

Culcairn Solar Farm Pty Ltd (ACN 667 751 313)
as trustee for the Culcairn Solar Farm Trust
Level 21, 570 George St
SYDNEY NSW 2000
Nicholas.fox@neoen.com

Dear Nicholas,

Approval of 100% Design Submission and Section 138 Road Opening Approval – Weeamera Road Culcairn Upgrade

I refer to your email dated 6 November 2023 requesting Council approval of the submitted 100% design of Weeamera Road Culcairn upgrade, and issuing of a Section 138 Road Opening approval for the associated works.

In reply, I advise that Council approves the 100% Design - Weeamera Road Culcairn upgrade as submitted and hereby issues Culcairn Solar Farm Section 138 Road Opening Approval for the associated works.

If you have any further queries please do not hesitate to contact me on 02 6036 0100

Yours faithfully,

Digitally signed 9 November 2023

Greg Blackie
Director Engineering
GREATER HUME SHIRE COUNCIL
REF: GB:AW

Appendix I

Haulpac Product – Dust Suppression

HaulPac Trial

Goyder Renewables Zone

December 2022

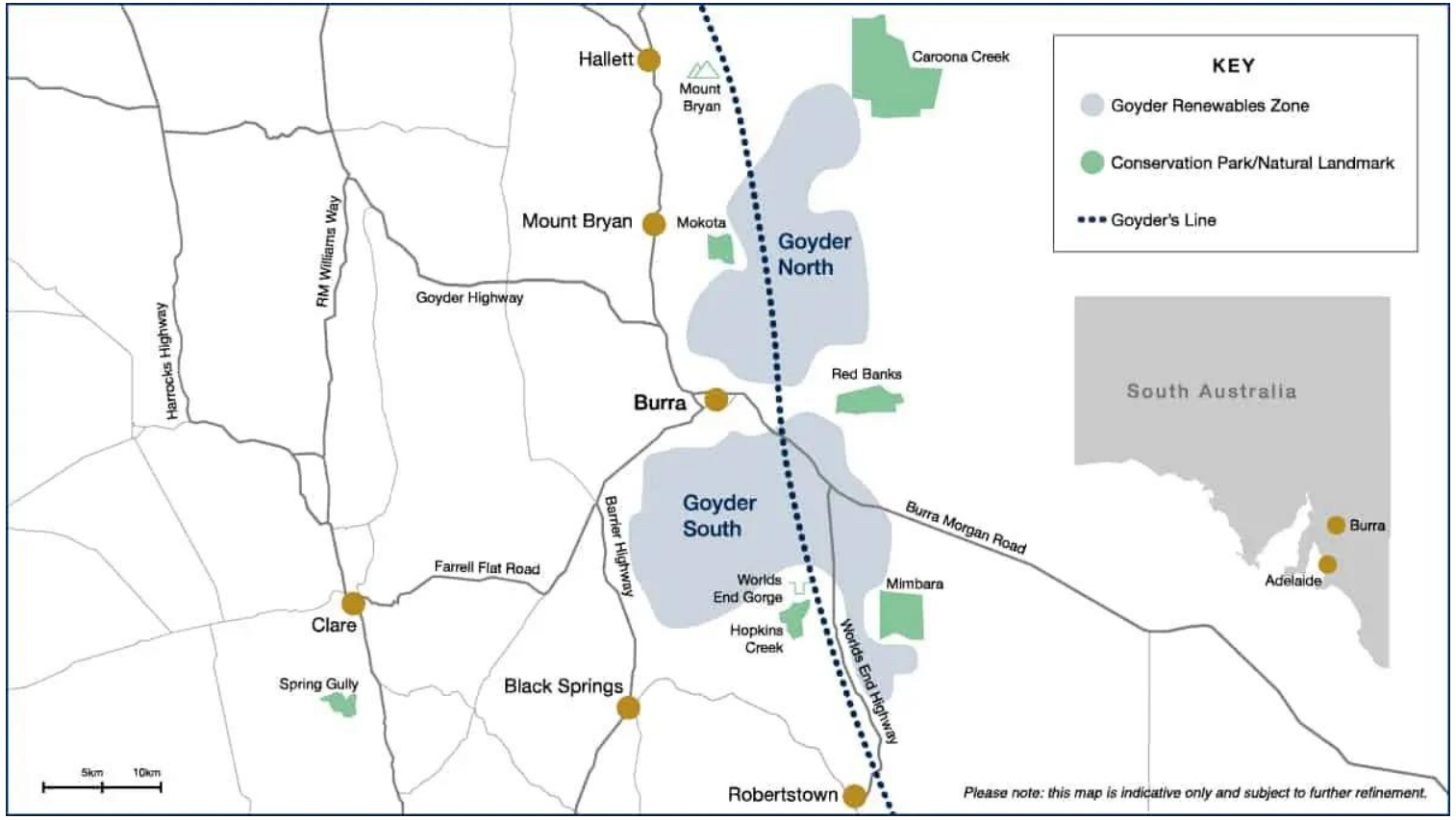
Downer

Relationships creating success

Scope of Work

Goyder South Wind Farm – Construction began construction in 2022 with a network of over 100km of current and new unsealed roads which need to be maintained by the contractor.

Issues:
- Needing resilient unsealed roads
- Dust & dust control
- Water management
- Continued maintenance
- inclined roads leading to turbine locations



HaulPac – Unsealed Road Management

Downer developed HaulPac as not only a product, but also a process for the management of unsealed roads in mine sites, windfarms and other commercial work site where there is a high demand on the unsealed network to be resilient to high use by heavy vehicles, weather, water management and dust management.

The HaulPac application process is one that can be completed by contractors using minimal equipment inc. grader, drum roller and water cart. The process is not outside the scope or skills of the crew and only takes approx. 25% longer to complete.

HaulPac – Section 1 (500m x 8m)

This section of road had previously been built with 40mm minus material and has had a lot of wet weather that had washed away a lot of the fines giving a bony surface. The road was ripped to approx. 75mm. The HaulPac mixed in well across the majority of the area with a couple of areas that may need rework in the future.

The capping layer had good coverage and the surface layer looked good the following morning.

HaulPac – Section 2 (500m x 8m)

This section of road had previously been built with 40mm minus material. The material here was in better condition as it had less traffic when wet and had a good mix of fines and rock.

The road was ripped to approx. 75mm. The HaulPac mixed in well across the site and once rolled, gave a smooth running surface.

The capping layer had good coverage and the surface layer looked good at the end of the day.

HaulPac – Learnings

Grader operator Luke has a good grasp on the HaulPac process and could see where he could make improvements in the mixing process from day one to day two.

If re-sheeting is to occur prior to treatment of HaulPac, it is recommended to use a 20mm minus material to give a stronger bind.

Building and capping road by lunch allowed the road surface to cure prior to end of day traffic.

Treating the access gate area to prevent rocks and fines being brought on to the treated surface causing damage to the surface and dust.

HaulPac – Site Treatment

As was observed at the trial site, dust is greatly reduced and there is no need to run a water cart over the surface.

Taking into account the amount of water that will be needed, the cost of the water and environmental and safety issues related to dust, the use of HaulPac, even though more expensive at the construction faze of the project, will provide benefits through out the full term of the project.

Downer can assist with the cost comparison between using HaulPac to using water carts for dust management if required.

The HaulPac treated surface has bound well and shows that it will be resilient to damage from weather and traffic movements.

HaulPac – Going Forward

- Downer will review the pricing of the delivered HaulPac to site with volume discounts available.
- Downer will provide onsite support with storage and application HaulPac
- 60,000L Storage solution available for hire during the project
- Recommend a tow behind broom to sweep treated roads to remove lose material and migratory dust before maintenance spraying

Thank you

Downer
Relationships creating success

Aaron Jemeljanovs

Account Manager – East Coast

Bituminous Products

0400 756 639

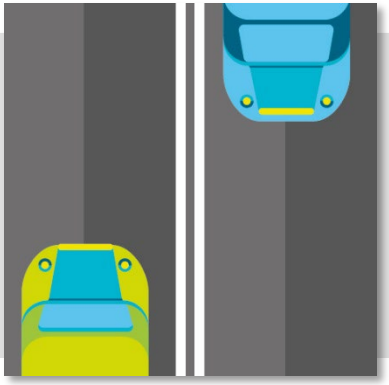
HaulPac

Your Unsealed Road Solution
Goyder Renewables Zone 2022

Downer
Relationships creating success

HaulPac – Process

Stage 1



Unsealed Road Binding

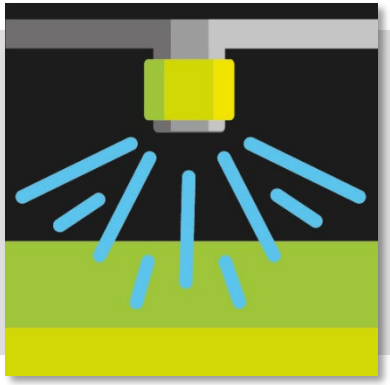
HaulPac is applied with a watercart to the pre-ripped road surface and then mixed, shaped and compacted whilst making sure the OMC is correct. This will bind the road leaving a smooth surface.

Stage 2

Surface Capping Spray

A capping layer recommended immediately after stage 1 to serve as protective seal to prevent moisture penetration. The treatment also presents a black surface, providing a clear demarcation of road surface

Stage 3



Surface Maintenance Spray

Surface maintenance is a light spray of diluted **HaulPac**, applied as required to seal cracks in the surface and capture foreign dust particles.

Continued application of the maintenance spray is critical to ensure quality and life of unsealed road assets

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HaulPac - Equipment Required

HaulPac is able to applied to your unsealed road network using experienced staff and equipment that many councils or contractors already have. The equipment that is required is a grader with rippers, bitumen sprayer with a spray bar and a 15t + smooth-drum vibratory compactor. A pneumatic tired roller is optional as it will give a smoother running surface.

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Stage 1 : Rip the Road

Apply new material if re-sheeting or Rip the road to a depth of 50-75mm. Make sure to have multiple passes to ensure all the surface is ripped with out tracking.

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Stage 1 : Apply HaulPac and Water

Apply the **HaulPac** with a sprayer via the spray bar at the litre rate per square meter as advise by your Downer representative. Water can be added to the specified amount of **HaulPac** to get the right OMC. Mixing the specified amount of **HaulPac** with water assists in the **HaulPac** being able to be spread through the road material.

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Stage 1 : Blade Mix and Shape

The grader now blade mixes the **HaulPac** back and forth until the surface road material has a uniform black colour. The road material is then shaped in preparation for rolling.

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Stage 1 : Rolling

Once the road is shaped, begin to roll the road with a smooth-drum vibratory compactor (15t +) to bind the treated road. Do not use **Pneumatic Rollers** If the OMC is to high as this will cause wheel tracking and the surface will not be smooth.

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Stage 2 : Capping Spray

Now that the has been ripped, **HaulPac** blade mixed in, the road is shaped and compacted, it is time to apply the capping spray at a rate of 0.2lt of **HaulPac** per m² to the surface of the road. The capping spray is mixed with water to assist with spraying at a rate of 1 part **HaulPac** to 3 parts water. The capping spray will seal any cracks that may have formed during rolling and will give the surface a waterproof seal.

Downer recommends a further 2 maintenance sprays at 2 & 4 weeks of 0.02lt **HaulPac** per m² mixed with water 1:3 to build up the surface prior to commencing the general maintenance sprays.

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Stage 3 : Surface Maintenance Spray

Continued application of the maintenance spray is critical to ensure quality and life of the unsealed road assets treated with **HaulPac**.

The surface maintenance spray is a light spray of diluted **HaulPac**, 0.01lt per m², applied as little as required to seal cracks in the surface and capture foreign dust particles. The unsealed road will not need to be graded and any potholes can be repaired with road base mixed with **HaulPac** placed into the hole.

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Understanding Spray Rates

Build Spray M²
1.5L HaulPac:1.5L Water
1:1 Ratio

Capping Spray M²
0.2L HaulPac:0.6L Water
1:3 Ratio

Maintenance Spray M²
0.1L HaulPac:0.4L Water
1:4 Ratio

Remember: All Volumes rates are for HaulPac NEAT per m^2 and only the amount of water that is added is variable.

For example: Grader driver believes that he would require about 5lt m² of water would get the OMC right for blade mixing and Downer has specified 1lt m² of HaulPac be applied. Water Cart/Spray Truck would be filled with of 1lt of HaulPac and 4lt of water to get the required 5lt m². Or HaulPac can be added 1:1 in the water cart and use a second watercart to add additional water to get to OMC.

Please note volumes used above are as an example only and volumes used at each site will need to be assess case by case.

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HaulPac - Your Unsealed Road Solution

Steve Pittonet
Manager-Pre-Contracts and Development

Mobile: +61 418 360 493
Email: Steve.Pittonet@Downergroup.com
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Aaron Jemeljanovs
Account Manager – East Coast

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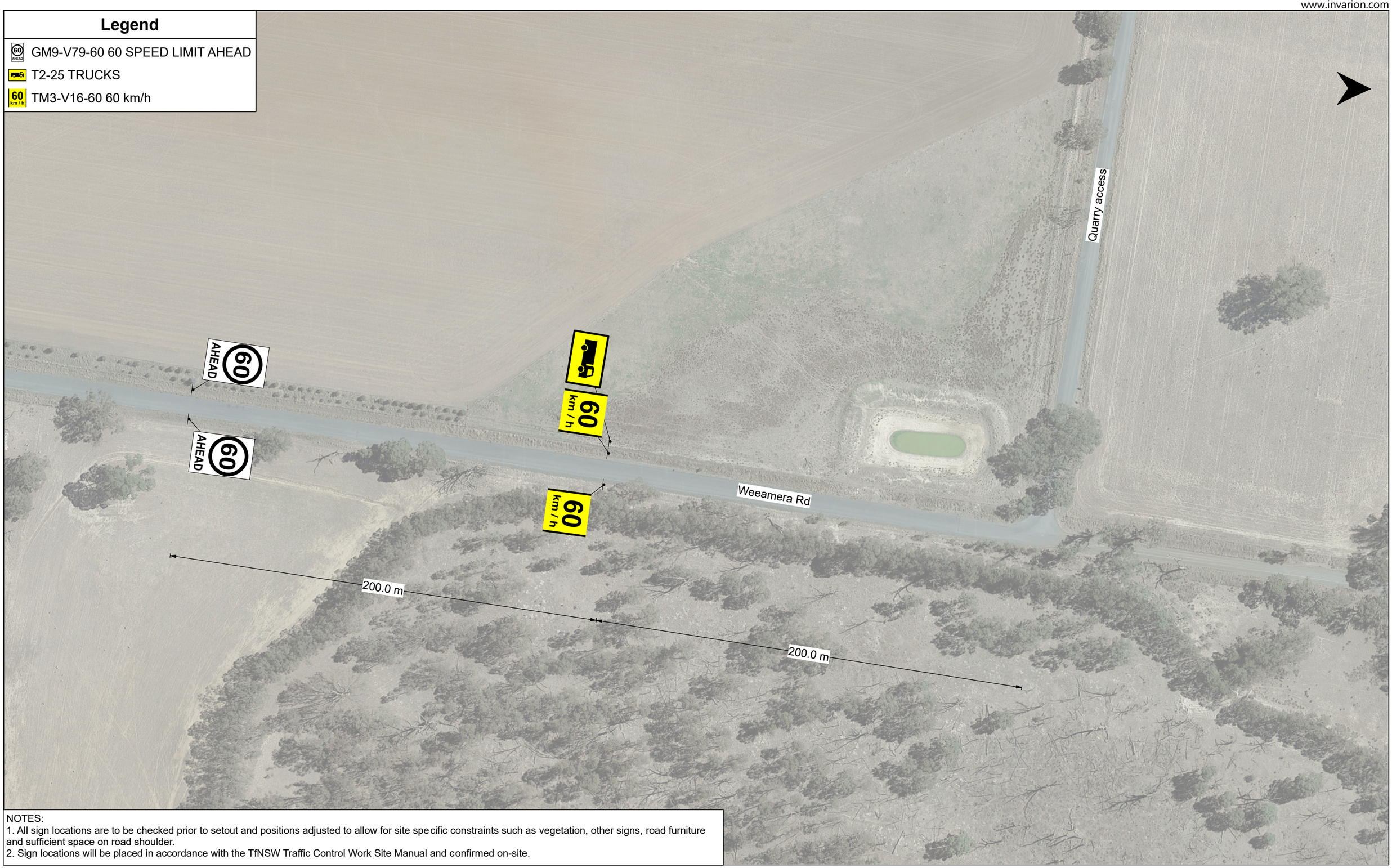
Appendix J

Proposed TGS – Quarry Access



NOTES:
1. All sign locations are to be checked prior to setout and positions adjusted to allow for site specific constraints such as vegetation, other signs, road furniture and sufficient space on road shoulder.
2. Sign locations will be placed in accordance with the TfNSW Traffic Control Work Site Manual and confirmed on-site.

Quarry Access - Prior to Construction of Weeamera Road

Lot 2 Weeamera Rd, Culcairn

Traffic Guidance Scheme

CLIENT: Neoen
SCALE: NTS

DRAWN: Rico Kobelt
DATE: 13/07/2023
REVISED: 10/11/2023
DWG No: 012 TGS01E

REVISION:
E - For approval

Amber

Appendix K

Council Approval Letter – Weeamera Road Upgrade

Greater Hume Council

All correspondence
PO Box 99 Holbrook NSW 2644

P 02 6036 0100 or 1300 653 538
E mail@greaterhume.nsw.gov.au
greaterhume.nsw.gov.au

ABN 44 970 341 154

Alexis Good, Project Manager
Neoen Australia Pty Ltd
Level 21, 570 George Street
NSW 2000 SYDNEY

Subject: Flexibility granted under the Culcairn DA to allow construction works to proceed pending the securing of the UGL Construction License associated with the upgrade of the 40-meter section of the Weeamera council road intersecting the unused UGL railway corridor.

Dear Alexis,
This letter pertains to Schedule 3 Condition 6 (Road Upgrades) of the Culcairn Solar Farm (the "Project") Development Consent, and the associated upgrading of the Weeamera council road as a pre-condition to commencing construction of the Project:

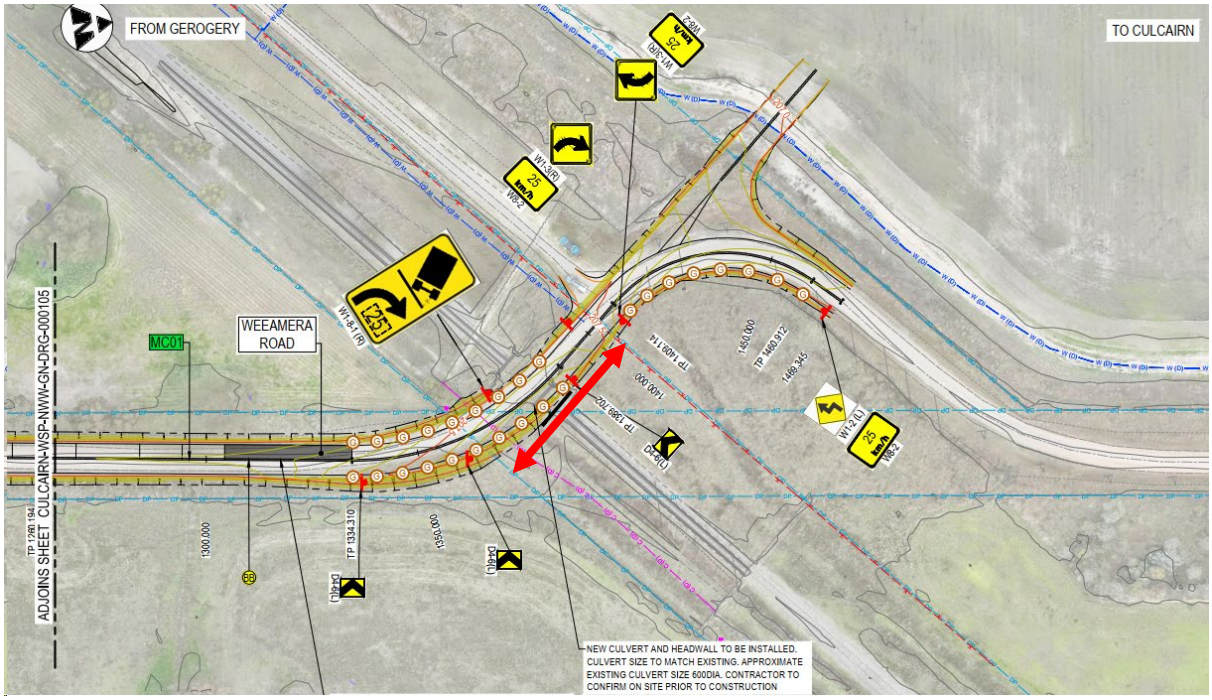
Road Upgrades

6. Unless the Planning Secretary agrees otherwise, prior to commencing construction the Applicant must:
   (a) construct the access point on Weeamera Road, as identified in Appendix 1 and Appendix 5, with a Rural Property Access type treatment and to cater for the largest vehicle accessing the site;
   (b) upgrade Weeamera Road between the access to Hurricane Hill Hardrock Quarry and the site access point to a 7 m wide sealed pavement, as identified in Appendix 5;

   These upgrades must comply with the *Austroads Guide to Road Design* (as amended by TfNSW supplements) and be carried out to the satisfaction of Council.

The Greater Hume council ("**Council**") notes that in line with this DA condition, Neoen Australia Pty Ltd ("**Neoen**") intends to upgrade the entire 1.4km section of Weeamera council road before commencement of works onsite, including the 40-metre section intersecting the unused UGL railway corridor just before site entrance, before commencement of works. However, should the Construction License allowing upgrade works to proceed within the unused UGL railway corridor be delayed, Council takes note of the submitted dust mitigation and temporary traffic control measures, and confirms that works will be able to commence onsite pending the securing of this Construction Licence from UGL and associated road upgrade works within the unused railway corridor.

The 40-meter section of the unused UGL railway corridor is represented with the red arrow in the figure below:



Council consent to Neoen providing a copy of this letter to any relevant authority for the purposes of obtaining approvals required for the Culcairn Solar Farm project.

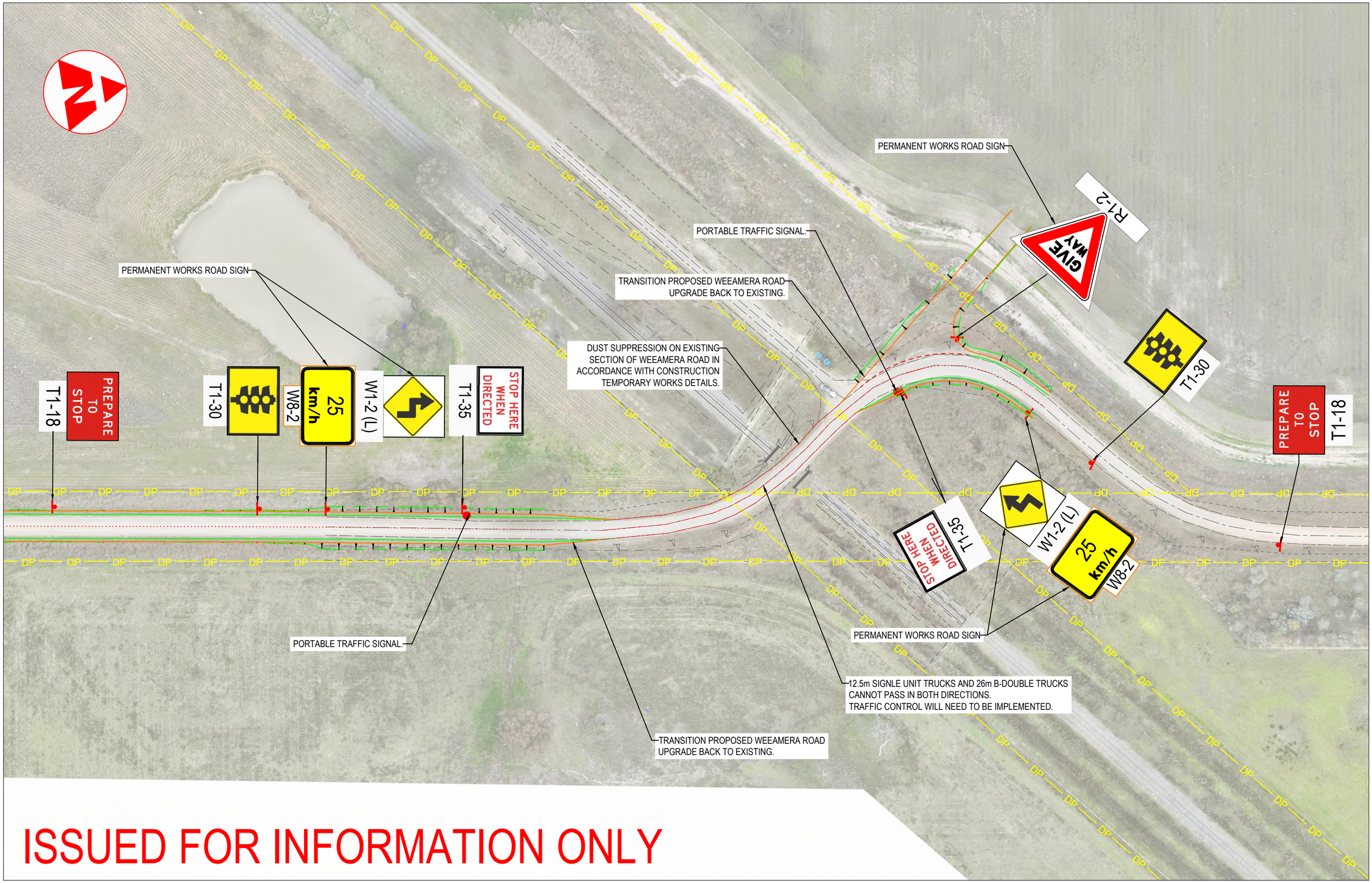
Yours Faithfully,

Colin Kane
Director Environment & Planning
Greater Hume Council

16 November 2023

Appendix L

UGL Corridor – Temporary Traffic Management Plan



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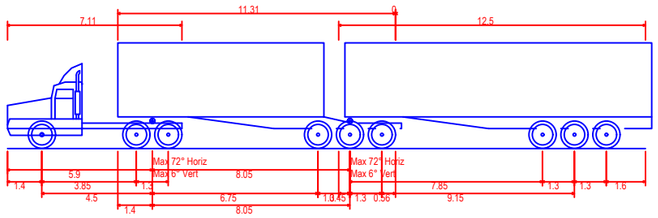
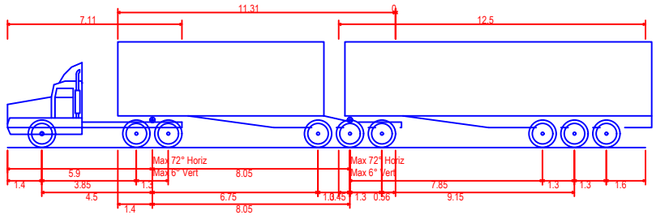
WEEAMERA ROAD TEMPORARY TRAFFIC MANAGEMENT PLAN



B-Double (26.0m)

Overall Length	26.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m

ISSUED FOR INFORMATION ONLY

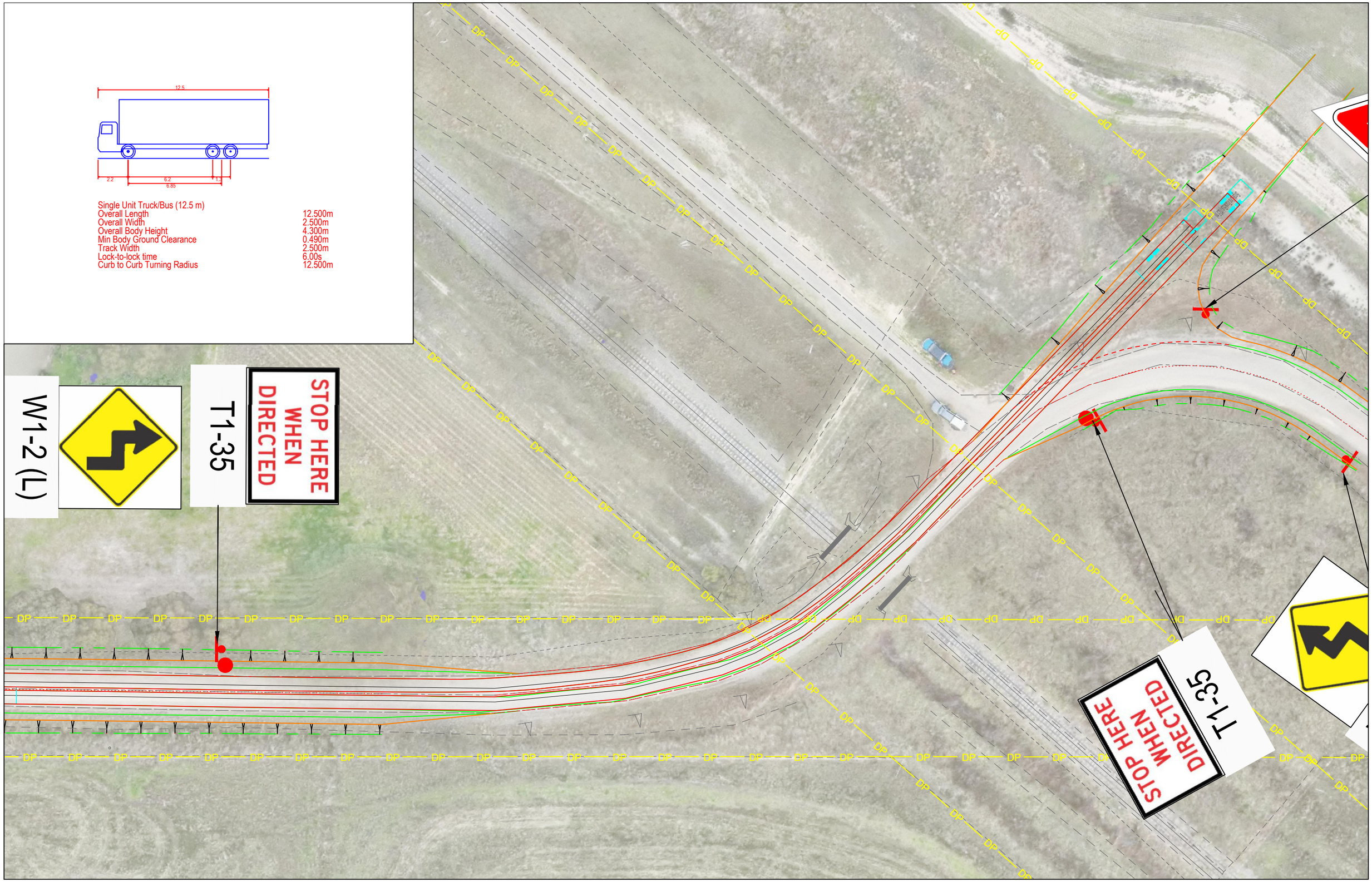


B-Double (26.0m)	
Overall Length	26.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m

ISSUED FOR INFORMATION ONLY

Single Unit Truck/Bus (12.5 m)

Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.490m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



ISSUED FOR INFORMATION ONLY

Appendix M

UGL Corridor – DPE Correspondence

Iwan Davies

Director, Energy Assessments

NSW Department of Planning & Environment (**DPE**)

17 November 2023

Subject: Flexibility granted under the Culcairn DA to allow construction works to proceed pending the securing of the UGL Construction License associated with the upgrade of the 40-meter section of the Weeamera council road intersecting the unused UGL railway corridor.

Dear Iwan,

I am writing in relation to Schedule 3 Condition 6 (Road Upgrades) of the Culcairn Solar Farm Development Consent (SSD 10288 – granted on 25 March 2021), and the associated upgrading of the Weeamera Council road as a pre-condition to commencing construction of the Project:

Road Upgrades

6. Unless the Planning Secretary agrees otherwise, prior to commencing construction the Applicant must:
   (a) construct the access point on Weeamera Road, as identified in Appendix 1 and Appendix 5, with a Rural Property Access type treatment and to cater for the largest vehicle accessing the site;
   (b) upgrade Weeamera Road between the access to Hurricane Hill Hardrock Quarry and the site access point to a 7 m wide sealed pavement, as identified in Appendix 5;

   These upgrades must comply with the *Austroads Guide to Road Design* (as amended by TfNSW supplements) and be carried out to the satisfaction of Council.

In line with this Condition of Consent, Neoen intends to upgrade the entire 1.4km section of Weeamera council road before commencement of works onsite, including the 40-meter section intersecting the unused UGL railway corridor just before site entrance, before commencement of works.

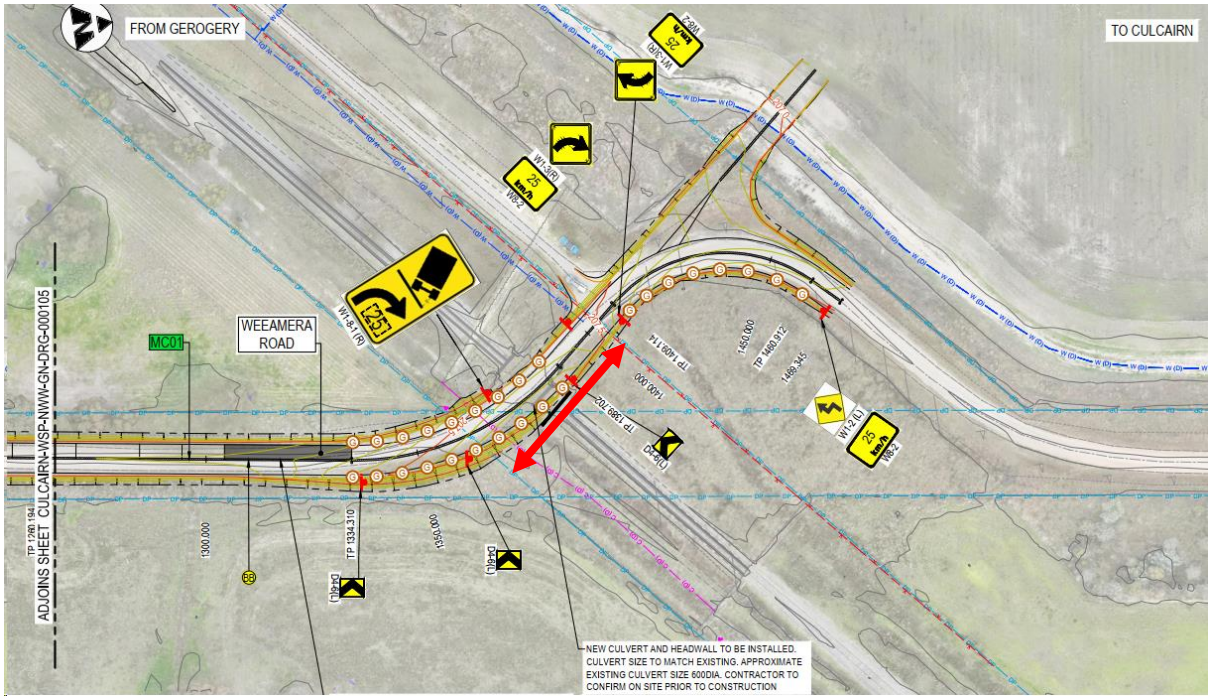
However, should the Construction License allowing upgrade works to proceed within the unused UGL railway corridor be delayed, Neoen would look to:

1. upgrade the portions of Weeamera Road <u>outside</u> of the UGL corridor and implement dust mitigation measures and temporary traffic control measures within the UGL corridor while it remains unsealed; and then
2. commence construction works on-site.

Once the Construction Licence is granted by UGL, the remaining 40-meter section of Weeamera Road would then be upgraded to the specified design standards.

Consultation has been undertaken with Greater Hume Shire Council, who have provided written consent to this approach (please refer to the letter signed by Council attached) and approved the appropriate dust mitigation and temporary traffic control measures set forth in the Traffic Management Plan.

The 40-meter section of the unused UGL railway corridor is represented with the red arrow in the figure below:



As per Schedule 3 Condition 6 of the Conditions of Consent, the upgrade of Weeamera Road is required prior to commencement of construction on-site.

Neoen requests that the Department of Planning & Environment confirms in writing that construction works can commence on-site pending the upgrade of the portion of Weeamera Road which intersects the unused railway corridor, in the event that receipt of the Construction License from UGL is delayed, noting that this same request has already been approved by Greater Hume Shire Council.

Please do let me know if you would like to discuss this further. We look forward to your response.

Kind regards,

Alexis Good
Project Manager – NSW Development
Neoen Australia

Greater Hume Council

All correspondence
PO Box 99 Holbrook NSW 2644

P 02 6036 0100 or 1300 653 538
E mail@greaterhume.nsw.gov.au
greaterhume.nsw.gov.au

ABN 44 970 341 154

Alexis Good, Project Manager
Neoen Australia Pty Ltd
Level 21, 570 George Street
NSW 2000 SYDNEY

Subject: Flexibility granted under the Culcairn DA to allow construction works to proceed pending the securing of the UGL Construction License associated with the upgrade of the 40-meter section of the Weeamera council road intersecting the unused UGL railway corridor.

Dear Alexis,
This letter pertains to Schedule 3 Condition 6 (Road Upgrades) of the Culcairn Solar Farm (the "Project") Development Consent, and the associated upgrading of the Weeamera council road as a pre-condition to commencing construction of the Project:

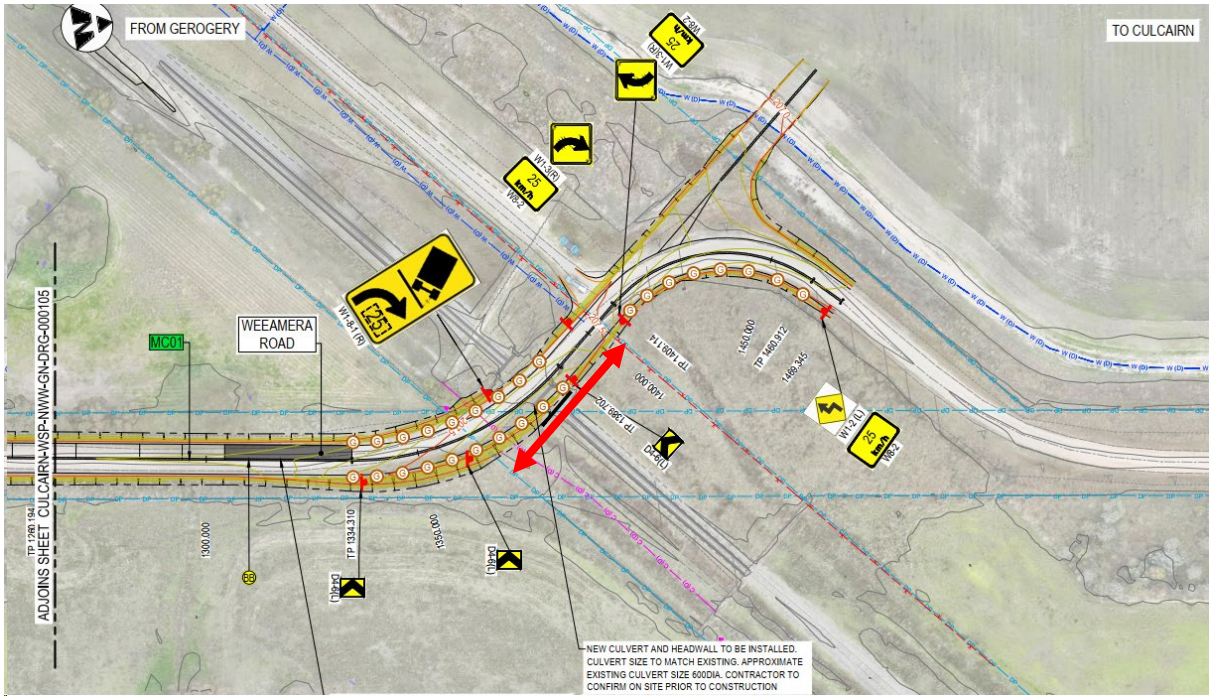
Road Upgrades

6. Unless the Planning Secretary agrees otherwise, prior to commencing construction the Applicant must:
   (a) construct the access point on Weeamera Road, as identified in Appendix 1 and Appendix 5, with a Rural Property Access type treatment and to cater for the largest vehicle accessing the site;
   (b) upgrade Weeamera Road between the access to Hurricane Hill Hardrock Quarry and the site access point to a 7 m wide sealed pavement, as identified in Appendix 5;

   These upgrades must comply with the *Austroads Guide to Road Design* (as amended by TfNSW supplements) and be carried out to the satisfaction of Council.

The Greater Hume council ("**Council**") notes that in line with this DA condition, Neoen Australia Pty Ltd ("**Neoen**") intends to upgrade the entire 1.4km section of Weeamera council road before commencement of works onsite, including the 40-metre section intersecting the unused UGL railway corridor just before site entrance, before commencement of works. However, should the Construction License allowing upgrade works to proceed within the unused UGL railway corridor be delayed, Council takes note of the submitted dust mitigation and temporary traffic control measures, and confirms that works will be able to commence onsite pending the securing of this Construction Licence from UGL and associated road upgrade works within the unused railway corridor.

The 40-meter section of the unused UGL railway corridor is represented with the red arrow in the figure below:



Council consent to Neoen providing a copy of this letter to any relevant authority for the purposes of obtaining approvals required for the Culcairn Solar Farm project.

Yours Faithfully,

Colin Kane
Director Environment & Planning
Greater Hume Council

16 November 2023

Department of Planning and Environment

Our ref: SSD-10288-PA-17

Alexis Good
Project Manager
Neoen Australia Pty Ltd
Level 6/16 Marcus Clarke Street
Canberra, ACT, 2601

30/11/23

Subject: Culcairn Solar Farm - Weeamera Road Upgrade Works Across Unused Railway Easement

Dear Ms. Good

I refer to your correspondence of 17 November 2023, seeking the Secretary's agreement to potentially delay the required upgrading of a 40m section of Weeamera Road within an unused rail line easement (illustrated in the figure included in your correspondence).

It is understood that Neoen intends to upgrade the entire 1.4km section of Weeamera Road prior to commencing construction of the solar farm as required by Schedule 3, Condition 6 of the development consent. However, if the required Construction Licence is not issued by the manager of the unused rail easement (UGL) in a timely manner, the upgrading of a 40m section of Weeamera Road may be delayed. This has the potential to delay the commencement of construction of the solar farm and completion of the final project.

I note that you have also consulted with Greater Hume Council regarding the potential delay to upgrading this 40m section of road. Council has agreed to a delay subject to appropriate dust and temporary traffic controls being implemented.

The Department has carefully considered the situation and understands that Neoen is working with UGL to secure the access licence. If the licence is not issued prior to the commencement of construction of the solar farm, as nominee of the Planning Secretary, I agree that an additional 12 weeks will be allowed to secure the licence and complete the road upgrade within the unused rail easement. The upgrading of the remainder 1.4km section of Weeamera Road must be completed prior to the commencement of the construction of the solar farm.

If you wish to discuss the matter further, please contact Keren Halliday on 02 8289 6444.

Yours sincerely

Iwan Davies
Director
Energy Assessments

As nominee of the Planning Secretary