traffic + transport

Traffic Management Plan

State Significant Development 9097

Quorn Park Solar Farm

for

Enel Green Power Australia

Document Control

Project No: 0385

Project: Quorn Park Solar Farm

Client: Enel Green Power Australia

File Reference: P0385r1v11 Quorn Park Solar Farm Traffic Management Plan

Revision History

Revision	Date	Details	Approved by
v1	1/05/2023	Draft 1	A. Reisch
v2	13/06/2023	Draft 2	A. Reisch
v3	20/06/2023	Final Draft 1	A. Reisch
v4	24/07/2023	Final Draft 2	A. Reisch
v5	15/08/2023	Final Draft 3	A. Reisch
v6	10/10/2023	Final Draft 4	A. Reisch
v7	11/10/2023	Final 1	A. Reisch
v8	15/05/2024	Final 2	Enel
v9	17/05/2024	Final 3	Enel
v10	01/07/2024	Final 4	Enel
v11	11/07/2024	Final 5	Enel

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1 Introduction

1.1 Overview

In 2020, the Minister for Planning & Public Spaces provided project approval of State Significant Development 9097 (**SSD 9097**) for the Quorn Park Solar Farm (the **Project**) located at 950 Back Trundle Road, Parkes (the **Site**). The Project will provide an 80 MWAC electricity generation facility comprised of solar photovoltaic modules, steel racking and piled supports, electrical transformers and inverters, electrical cabling, telecommunications equipment, an electrical control room, a site substation and perimeter fencing.

The electricity generated by the Solar Farm will be exported into the electricity network via a connection to an Essential Energy 132 KV switching station on the southern side of the Back Trundle Road, then connecting via an overhead line to the existing 132kV line located to the west of the Site.

The Project also provides an energy storage system which would include batteries housed in electrical enclosures.

Full details of the Project are provided in the SSD 9097 documentation.

1.2 Traffic Management Plan

Enel Green Power Australia (**Enel**) has commissioned arc traffic + transport to prepare a Traffic Management Plan (**TMP**) to assess the access, traffic and parking characteristics of the Project through its construction, operation and decommissioning stages.

The TMP sits under the framework of the project Environmental Management Strategy (EMS). The EMS provides the strategic framework for environmental management of the development, including in relation to matters associated with traffic and transport.

Key responsibilities for Enel and the Principal Contractor in delivering the EMS and TMP are set out in Section 5.8.

The purpose of the TMP is to establish the framework for the management of traffic and transport conditions through each of these stages, and to ensure that traffic related Project commitments and policy requirements are addressed in a systematic manner.

It is proposed to stage the approval of this TMP to enable initial road upgrades to occur prior to further information being provided with respect to oversize and overmass movements (OSOM). The updated TMP will also be used to support applications for licencing under the National Heavy Vehicle Regulator (NHVR) process.

The TMP has also been prepared to specifically address the Conditions of Consent (the **Conditions**) provided in the SSD 9097 Approval (the **SSD Approval**), and specifically **Condition 7** of Schedule 3 of the SSD Approval. Table 1 provides a summary of each of the requirements of Condition 7, as well as reference to the section of the TMP where each is addressed in further detail. Enel commit to ensuring that the development will be carried out in accordance with the EIS cand conditions of the consent.

In addition, Table 2 provides a summary of other traffic and transport related Conditions, including **Conditions 2** – **Condition 6** inclusive and **Condition 14** of Schedule 3 of the SSD Approval, and again a reference to the section of the TMP where each is addressed in further detail.

Enel commit to ensuring that all reasonable and feasible measures will be implemented to prevent and minimise any harm to the environment.

In the event of any upgrading or decommissioning activities, Enel commits to reviewing and updating this TMP prior to works occurring.

In the event of an audit of the project (as per condition 9 of Schedule 4), an incident (as per condition 7 of Schedule 4) or any modification of the project, Enel commits to reviewing and updating this TMP to the satisfaction of the Secretary within 1 month.

In other scenario, the updated TMP will be prepared in conjunction with TfNSW and Council.

Table 1: Condition 7 TMP Reference

Condition	Condition Requirement	TMP Reference
7	*Prior to commencing the road upgrades identified in condition 5 of Schedule 3, the Applicant must prepare a Traffic Management Plan for the development in consultation with TfNSW and Council, and to the satisfaction of the Secretary in writing. This plan must include:*	This TMP
7a	*details of the transport route to be used for all development-related traffic;*	Section 2.4 Section 4.6
7b	*details of the road upgrade works required by condition 5 of Schedule 3 to this consent;*	Section 2.5
7c	*a protocol for undertaking independent dilapidation surveys to assess the:* • *existing condition of McGrath Lane and Back Trundle Road prior to construction, upgrading or decommissioning activities; and* • *condition of McGrath Lane and Back Trundle Road following construction, upgrading or decommissioning activities;*	Section 5.7 Section 5.7
7d	*a protocol for the repair of McGrath Lane and Back Trundle Road if dilapidation surveys identify these roads to be damaged during construction, upgrading or decommissioning works;*	Section 5.7
7e	*details of the temporary on-site construction car park;*	Section 5.2.1
7f	*details of the measures that would be implemented to minimise traffic impacts during construction, upgrading or decommissioning activities, including:* • *temporary traffic controls, including detours and signage;* • *notifying the local community about development-related traffic impacts;* • *procedures for receiving and addressing complaints from the community about development-related traffic;* • *minimising potential cumulative traffic impacts with other projects in the area, including the Goonumbla Solar Farm and the Parkes Solar Farm during construction, upgrading or decommissioning works;* • *minimising potential for conflict with school buses, other road users and rail services as far as practicable (measures also required during operation of the project), including preventing queuing on the public road network;* • *minimising dirt tracked onto the public road network from development-related traffic;* • *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;* • *scheduling of haulage vehicle movements to minimise convoy length or platoons;* • *responding to local climate conditions that may affect road safety such as fog, dust and wet weather;* • *responding to any emergency repair or maintenance requirements; and* • *a traffic management system for managing over-dimensional vehicles;*	Section 5.4 Section 5.9.1 Section 5.11 Section 3.3 Section 5.6 Section 5.5.4 Section 2.6.3 Section 5.2.3 Section 5.5 Section 5.7.5 Section 4.6

Table 1: Condition 7 TMP Reference (continued)

Condition	Condition Requirement	TMP Reference
7g	*a driver's code of conduct that addresses:* • *travelling speeds;* • *driver fatigue;* • *procedures to ensure that drivers adhere to the designated transport routes; and* • *procedures to ensure that drivers implement safe driving practices;*	Section 5.10
7h	*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; and*	Section 5.8.2
7i	*a flood response plan detailing procedures and options for safe access to and from the site in the event of flooding.*	Section 5.5.2
	Following the Secretary's approval, the Applicant must implement the Traffic Management Plan.	Enel commits to implementing this TMP

Table 2: Additional Conditions TMP Reference

Condition	Requirement	TMP Reference
2	*The Applicant must ensure that the:*	
2a	*development does not generate more than:* • *63 heavy vehicle movements a day during construction, upgrading and decommissioning;* • *3 over-dimensional vehicle movements during construction, upgrading and decommissioning;* • *4 heavy vehicle movements a day during operations;* *on the public road network;*	Section 2.7
2b	*length of any vehicles (excluding over-dimensional vehicles) used for the development does not exceed 19 metres,*	Section 4.4
2c	*development does not generate more than 30 vehicle movements an hour at the intersection of Henry Parkes Way and McGrath Lane unless the Secretary agrees otherwise.*	Section 2.7.2
3	*The Applicant 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.*	Section 5.8.5
4	*All vehicles associated with the development must travel to and from the site via Henry Parkes Way, McGrath Lane, Back Trundle Road and the approved site access points on Back Trundle Road, as identified in the figure in Appendix 1 and Appendix 3.* *Note: The Applicant is required to obtain relevant permits under the Heavy Vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network.*	Section 2.4 Section 4.6 Section 5.10
5	*Unless the Secretary agrees otherwise, prior to commencing construction, the Applicant must implement the road upgrades identified in Appendix 3. These upgrades must comply with the Austroads Guide to Road Design (as amended by TfNSW supplements) and be carried out to the satisfaction of the relevant roads authority.*	Section 2.5
6	*The Applicant must ensure:*	
6a	*the internal roads are constructed as all-weather roads;*	Section 2.6.2
6b	*there is sufficient parking on site for all vehicles, and no parking occurs on the public road network in the vicinity of the site;*	Section 5.2.1
6c	*the capacity of the existing roadside drainage network is not reduced;*	Section 5.5.5
6d	*all vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction;*	Section 5.2.2
6e	*development-related vehicles leaving the site are in a clean condition to minimise dirt being tracked onto the sealed public road network.*	Section 5.5.4
14	*Unless the Secretary agrees otherwise, the Applicant may only undertake road upgrades, construction, upgrading or decommissioning activities between:* *(a) 7 am to 6 pm Monday to Friday;* *(b) 8 am to 1 pm Saturdays; and* *(c) at no time on Sundays and NSW public holidays.* *The following construction, upgrading or decommissioning activities may be undertaken outside these hours without the approval of the Secretary:* • *activities that are inaudible at non-associated receivers;* • *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.*	Section 4.2.3

Table 3: TIA recommendations

	Recommendation	TMP Reference
Delivery Trucks	*To be conservative the estimated traffic generation has been based on the assumption that the largest delivery vehicle will be a 19 m Semi-trailer. If B-double trucks are used this will reduce the estimated heavy vehicle trips generated. For the purposed of road and intersection geometric assessments it has been assumed that B-doubles are used as a worst case scenario.*	Section 2.7.1
Construction	*The total estimated traffic trips generated during construction is approximately 13,060 vehicle trips.* *The peak daily trips are estimated to be 185 vehicles per day (60 light vehicles and 125 heavy vehicles).* *The peak hour traffic will at the beginning and end of the work day as crew arrive/leave the site generating an estimated peak of 30 vehicles per hour*	Section 2.7.2
Operation:	*The estimated traffic generated during operation is up to 4 vehicle trips per day. There will also be isolated infrequent times of substantial maintenance that will generate some additional trips.*	Section 2.8
Impact:	*Henry Parkes Way and the main highways to be used to connect to Henry Parkes Way are pre-approved General Mass Limit GML and Concessional Mass limit CML roads and hence are expected to be able to cater for the construction and operation traffic from the development.* *If B-Doubles are utilised permits for the use of McGrath Lane and the portion of Back Trundle Road will need to be gained through the National Heavy Vehicle Accreditation Scheme (NHVAS).* *Regular inspections and maintenance (if required) will be necessary to ensure the condition of McGrath Lane and Back Trundle Road are maintained.*	No b-double usage proposed Section 5.7.4
Access Design	*The site access will be designed to cater for the largest vehicle accessing the site.*	Appendix D
Turn Warrants	*The development triggers the warrant for a Basic Right Turn treatment (BAR) and a Basic Left Turn treatment (BAL) at the intersection of McGrath Lane with Henry Parkes Way. It is proposed to upgrade the existing intersection to meet the Austroads standards for a BAR/BAL intersection.*	Appendix D
Sight Distances	*A site inspection was carried out to check the existing sight distances at the key intersections in the vicinity of the site. The site inspection revealed that the sight distance at the intersections of Henry Parkes Way/McGrath Lane and McGrath Lane/Back Trundle Road are in excess of the required SISD of 351 m.* *The sight distance at the farm access point is expected to exceed the SISD of 351 m but will need to be confirmed once the final access point in selected.*	Appendix D
Road Upgrades	*It is recommended that the intersection of Henry Parkes Way/McGrath Lane be upgraded to comply with a BAR/BAL intersection treatment.* *We expect that Parkes Shire Council will require pre and post construction dilapidation surveys to be carried out for McGrath Lane and Back Trundle Road*	Appendix D Section 5.7
TMP:	*A detailed Traffic Management Plan (TMP) should be prepared by the final EPC contractor in consultation with Parkes Shire Council, RMS and any other relevant stakeholders to confirm the final traffic mitigation and control mechanisms to be adopted during the construction phase.*	This document

1.3 Reference Documents

1.3.1 SSD 9097 Documents

This TMP references the key documents submitted with SSD 9097, as well as subsequent Requests for Information (**RFI**s); these documents include:

- Quorn Park Solar Farm Environmental Impact Statement 2019, prepared by Premise Australia (**SSD EIS**);
- Quorn Park Solar Farm Traffic Impact Assessment 2018, prepared by Geolyse (**SSD TIA**);
- Quorn Park Solar Farm Additional Information Report March 2020, prepared by Premise (**March 2020 RFI**);
- Quorn Park Solar Farm Additional Information Report May 2020, prepared by Premise (**May 2020 RFI**); and
- Quorn Park Solar Farm Submissions Report 2020, prepared by Premise (**SSD Submissions Report**).

1.3.2 Sub-Regional Projects

As noted in Condition 7f, a number of sub-regional projects have been approved within the Parkes Shire in recent years. However, based on our review of all available information, both the Goonumbla Solar Farm and the Parkes Solar Farm have now been constructed and are operational. Both the Project and these constructed solar farms are expected to generate very minor traffic during their operational stages, and each have an estimated operational period of 30 to 35 years.

Therefore, during the Project's construction stage, these constructed solar farms are not expected to have any significant impact on the operation of the road network providing access to the Site, as they will generate only minor traffic volumes during their operational phase.

Conversely, research of potential sub-regional projects based on the Department of Planning, Housing & Infrastructure (**DPHI**) Major Projects website (https://www.planningportal.nsw.gov.au/major-projects) indicates that additional traffic may be generated during the construction stage of the following projects:

- The Parkes Bypass, which is currently be constructed by Transport for NSW (**TfNSW**);
- Parkes Special Activation Precinct (**Parkes SAP**); and
- Ridgey Creek Battery Energy Storage System (**Ridgey Creek BESS**).

There are also a range of community activities that are planned to occur in the community that are likely to generate traffic and therefore potentially may be impacted by the construction of the project. These are listed in Appendix G. This list will be reviewed and updated monthly by the Enel HSE Advisor.

In providing an assessment of these projects, arc traffic + transport has referenced the following documents:

- Parkes Bypass Traffic and Transport Assessment 2018, Roads & Maritime Services (**Parkes Bypass TTA**);

- Parkes Special Activation Precinct: Infrastructure and Transport Evaluation Report 2019, (**Parkes SAP Report**); and
- Ridgey Creek Battery Energy Storage System Scoping Report 2022, prepared by Envoca Environmental Consulting (**RC Scoping Report**).

arc traffic + transport has also reviewed traffic data provided by numerous TfNSW Count Stations in the sub-region to determine general background growth in key roads such as Henry Parkes Way.

1.3.3 Transport Guidelines

This TMP references the following general access, traffic and parking guidelines:

- Guide to Traffic Generating Developments 2002, Roads & Traffic Authority (**RTA Guide**);
- Australian Standard 2890.1: Parking Facilities - Off-Street Car Parking (**AS 2890.1**);
- Australian Standard 2890.2: Parking Facilities - Off-Street Commercial Vehicle Facilities (**AS 2890.2**);
- Austroads Guide to Road Design Part 3: Geometric Design (**GRD Part 3**).
- Austroads Guide to Road Design Part 4: Intersections and Crossings General (**GRD Part 4**);
- Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (**GRD Part 4A**);
- Australian Standard 1742 Manual of Uniform Traffic Control Devices Part 3: Traffic Control for Works on Roads (**AS 1742.3**);
- TfNSW Traffic Control at Work Sites Manual 2022 (**TCW Manual**); and
- Austroads Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments.

1.4 Consultation

1.4.1 Draft Traffic Management Plan

Prior to commencing the TMP assessment, arc traffic + transport submitted a briefing note to both Parkes Shire Council (**Council**) and TfNSW. Subsequently, a **Draft TMP** dated 20 June 2023 was prepared and submitted to Council and TfNSW through the DPHI Planning Portal for comment.

1.4.2 Council Response

Further to their review, correspondence was received from Council dated 18 July 2023 endorsing the Draft TMP without revision, stating in part the following:

> *The Traffic Management Plan has been assessed to be satisfactory in responses to SSD 9097 Schedule 3, Condition 7 - Traffic Management Plan.*
>
> *Council supports the approval of this Traffic Management Plan and recommends that the Secretary approve the Traffic Management Plan as is*.

The Council correspondence is provided in Appendix A.

1.4.3 TfNSW Response

Conversely, correspondence was received from TfNSW dated 18 July 2023 in regard to the Draft TMP; Council confirmed that and moreover requests (only from TfNSW) for the provision of additional information.

Further to the receipt of the TfNSW correspondence, arc traffic + transport prepared an additional Technical Note dated 2 August 2023 (**TN 1**) which provided a detailed response to the issues raised by TfNSW, specifically in regard to:

- The ability of the road network to accommodate Oversize/Overmass (**OSOM**) vehicles;
- The provision of shuttle buses to staff, and moreover the potential to breach the traffic movement limits as detailed in the SSD Approval; and
- The design of road upgrades as required under the SSD Approval.

In subsequent discussions, TfNSW again raised the issue of OSOM vehicle movements, with the primary concern relating to whether the largest OSOM vehicle required during the construction period will meet the criteria of a Class 1 OSOM vehicle, which – with the exception of 2 minor roads, being McGrath Lane and Back Trundle Road – are all TfNSW/National Heavy Vehicle Regulator (**NHVR**) approved OSOM route.

As a result of engagement of a Principal Contractor, more detail is now known about the likely number of movements that are above 19 metres in length. The need for additional larger movements is due to the size of construction plant proposed to be used in the construction of the solar farm.

Further comments were received from TfNSW on the 12 February 2024 identifying three issues associated with the TMP. One of these is the need to clarify the number and size of OSOM movements, as discussed above. The second is the need to provide an updated strategic intersection upgrade design for Henry Parkes Way and McGrath Lane. This is provided in Appendix D. This plan has been discussed with Parkes Shire Council who have indicated no objections subject to the inclusion of an additional swept path for right turn movements out of McGrath Plan. The plan has been updated to reflect this. Appendix C has also been updated to reflect the latest comments from TfNSW and the responses.

This TMP is now proposed to be staged to enable initial road upgrades to occur, with further information about OSOM movements to be dealt with in a future version of the TMP.

1.5 Purpose of this report

This updated TMP seeks approval to increase the number of over-dimensional heavy vehicles accessing the site during construction, upgrade and decommissioning.

This objective is not consistent with the current conditions of consent, specifically condition 2 of schedule 3, which, among other things, limits the project to three (3) over-dimensional vehicle movements during construction, upgrading and decommissioning, unless otherwise agreed with the planning secretary.

Enel now propose to increase over-dimensional vehicles movements to 90 across the construction, upgrade and decommissioning periods. No change is proposed to the daily limit of 63 heavy vehicle

movements during construction, upgrading and decommissioning and no change to the four (4) heavy vehicle movements a day during operations (as per condition 2).

As there is to be no change to the approved daily limits for heavy vehicles, there is no expected change to the peak hour volumes assessed in the original approval. As these additional 93 movements are over-dimensional, swept path analysis of key access route intersections has been completed to confirm that the vehicles can be accommodated. These are provided in Appendix D.

As a result of the updates, the conclusions around the suitability and capacity of the traffic network remain unchanged.

Of the 90 over-dimensional movements, 45 will occur at the beginning of construction and the remaining 45 will occur at the end of construction. Of these 90 movements, approximately 21 will require an escort whilst on the class 1 OSOM route, due to exceeding the class 1 exemptions for over-dimensional vehicles. All 90 movements will require escort prior to leaving the class 1 OSOM route.

Of the 90 over-dimensional movements, three (3) are associated with the transport of permanent plant and infrastructure to the site, including the transformer and control room and these are already addressed by the current approval. Of these three (3) movements, two (2) will satisfy the Class 1 exemption. The third movement (transformer) will not satisfy the class 1 exemption due to the width of the plant.

More detail on the size of specific over-dimensional movements is provided in Section 4.6.4.

This will be further updated in a future stage of the TMP.

It is incumbent on the Principal [construction] Contractor to gain approvals for any OSOM vehicle movements from TfNSW/NHVR prior to those movements occurring, i.e. to fully comply with Condition 4. This applies to any movements where the class 1 exemption is not met for the full route from port, and to all 90 oversize movements for the portion of the route from the intersection of McGrath Lane and Henry Parkes Way to the site access (i.e., along McGrath Lane and Back Trundle Road).

Use of OSOM vehicles larger than a Class 1 OSOM without the appropriate permit approval represents a breach of Condition 4, and as such simply will not be tolerated by Enel or the Principal Contractor.

This updated TMP has been supplied to DPHI and TfNSW for comment.

All correspondence sent to/received from TfNSW is provided in Appendix A. A copy of TN1 is provided in Appendix B (provided as a separate document) and each of the issues raised by TfNSW have been specifically reviewed, with the tables in Appendix C providing a reference to where each issue is assessed in more detail in the TMP.

The most recent round of comments received from DPHI are addressed in this version of the TMP, and the specific comments provided by DPHI and the response are provided as Appendix H.

1.6 Staging

In light of the changes outlined in Section 1.5, it is proposed to stage the TMP, as per condition 3 of schedule 4 of the consent.

This TMP shall apply to stage 1a and 1b. The TMP will be updated prior to other stages commencing.

The proposed staging is as follows:

- Stage 1a - Road upgrades or maintenance works to the public road network outlined in Appendix 1 of the development consent, building/road dilapidation surveys, installation of fencing, artefact survey and/or salvage, overhead line safety marking and geotechnical drilling and/or surveying;
- Stage 1b – commencement of construction of the solar farm;
- Stage 1c: continuation of the construction of the solar farm and the transport of heavy vehicles requiring escort during construction as described in Condition 2(a) of Schedule 3 of the development consent. The TMP for this stage will need to include details of consultation with Council and TfNSW;
- Stage 3: Operation of the Quorn Park Solar Farm; and
- Stage 4: Decommissioning the Quorn Park Solar Farm at end of life.

2 The SSD Approval

2.1 Location

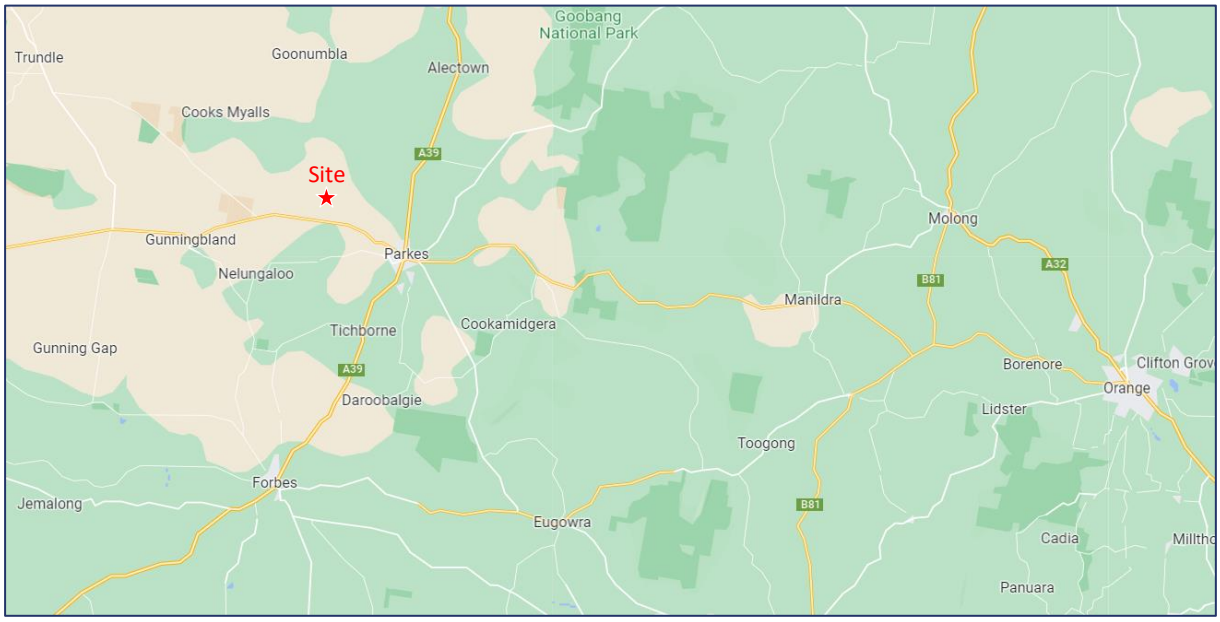
The Site is located at Lot 508 DP 750152, with a street address of 950 Back Trundle Road, Parkes; it lies approximately 10km west of the Parkes Town Centre, and has an area of approximately 470 hectares. A smaller site is located south of Back Trundle Road (west of McGrath Lane) which will provide a Transmission Corridor to the existing Essential Energy 132 KV line.

The Site is shown in its local context in Figure 1 and sub-regional context in Figure 2.

Figure 1: Site Location Local Context

Source: Nearmap

Figure 2: Site Location Sub-Regional Context



Source: Google

2.2 The SSD Approval

The Project will provide an 80 MWAC electricity generation facility comprised of solar photovoltaic modules, steel racking and piled supports, electrical transformers and inverters, electrical cabling, telecommunications equipment, an electrical control room, a site substation and perimeter fencing.

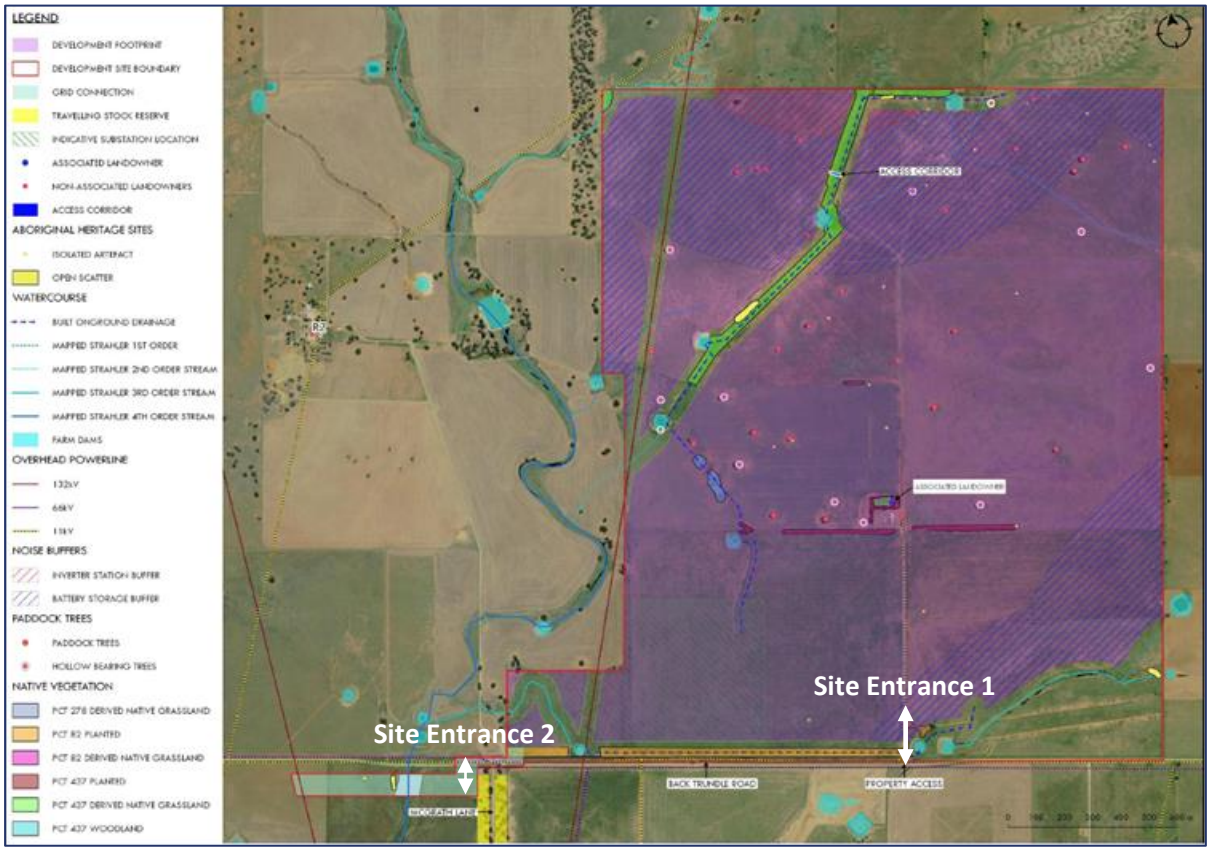
The electricity generated by the Solar Farm will be exported into the electricity network via a connection to an Essential Energy 132 KV switching station on the southern side of the Back Trundle Road, then connecting via an overhead line to the existing 132kV line located to the west of the Site.

The Project also provides an energy storage system which would include batteries housed in electrical enclosures.

Full details of the Project are provided in the SSD 9097 documentation.

The Solar Farm Site Plan is shown in Figure 3.

Figure 3: Solar Farm Site Plan



Source: SSD Approval Appendix 1

2.3 Project Operating Hours

Condition 14 indicates the approved times during which works/activities can occur on the Site through all stages, stating the following:

> *Unless the Secretary agrees otherwise, the Applicant may only undertake road upgrades, construction, upgrading or decommissioning activities between:*
>
> *(a) 7 am to 6 pm Monday to Friday;*
> *(b) 8 am to 1 pm Saturdays; and*
> *(c) at no time on Sundays and NSW public holidays*.

It is noted that Condition 14 also notes some exceptions to these times, which are discussed further in Section 4.2.

2.4 Access

2.4.1 Site Access

With reference to Figure 3, vehicle access to the Site will be provided via two Site entrances to Back Trundle Road; **Site Entrance 1** is located at the existing Site entry north of Back Trundle Road (east of McGrath Lane) and provides primary Site access, and **Site Entrance 2** is located south of Back Trundle Road (west of McGrath Lane) providing access to the Transmission Corridor

In accordance with Appendix 3 of the SSD Approval, these entrances will be designed to provide compliance with the Figure 7.4 of GRD Part 4 as *rural property access specifically designed for articulated vehicles.* Sheet C005 and C006 of Appendix 3 show the design of these Site entrances, including the limit of disturbance parameters, road base construction requirements, swept paths and a gate openings (see Appendix D and Appendix F).

2.4.2 Road Network Access

In accordance with Condition 4, all vehicle access – including light vehicles, trucks and OSOM vehicles - between the Site and the regional road network will be via a designated route comprising Henry Parkes Way, McGrath Lane and Back Trundle Road. No vehicle trips will be generated to Back Trundle Road east of the Site or west of the Transmission Corridor site. This will be enforced through a suite of actions including:

- clear instructions through site inductions and toolbox talks;
- inclusion in the driver code of conduct
- weekly monitoring throughout the construction phase; and
- Disciplinary action for any person who breaches these requirements.

This designated route is shown in Figure 4, noting that this same route will be designated in the TMP's Vehicle Movement Plan (**VMP** - see also Section 4.3).

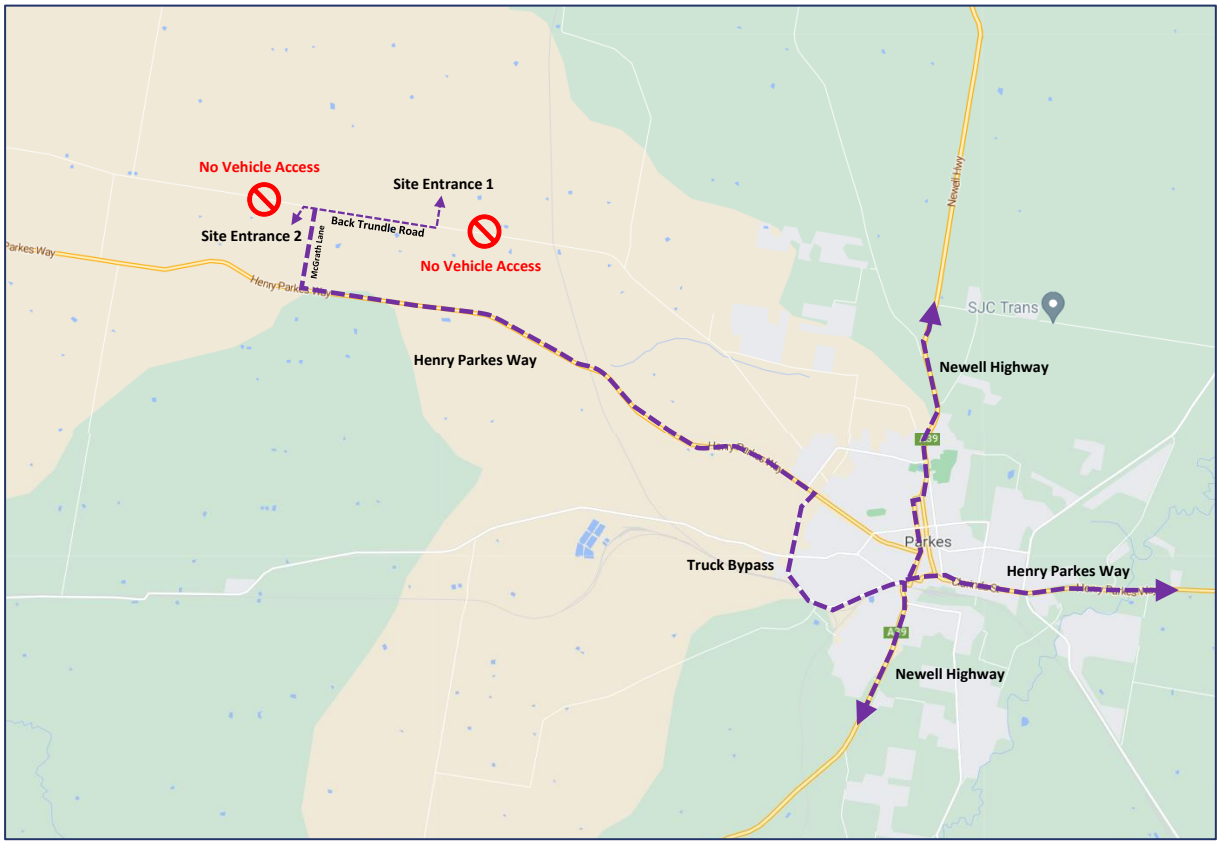
With reference to Figure 4, the majority of trucks generated through the construction stage are anticipated to travel to/from the east as a function of the majority of equipment and materials being delivered from eastern ports/regional centres.

As detailed in Section 11.3 of the SSD EIS, trucks travelling from Port Botany will generally travel via Henry Parkes Way east of Parkes or, as for trips from Port Kembla, via Henry Parkes Way and then Newell Highway south of Parkes. Trucks travelling to/from Port of Newcastle will travel via Henry Parkes Way and Newell Highway north of Parkes.

Through Parkes itself, the largest truck generated during the construction stage (other than an over-dimensional vehicle) will be a 19.0m articulated vehicle (**AV**); these are classified as General Access Vehicles (**GAV**s) and have access to the entire road network under most conditions.

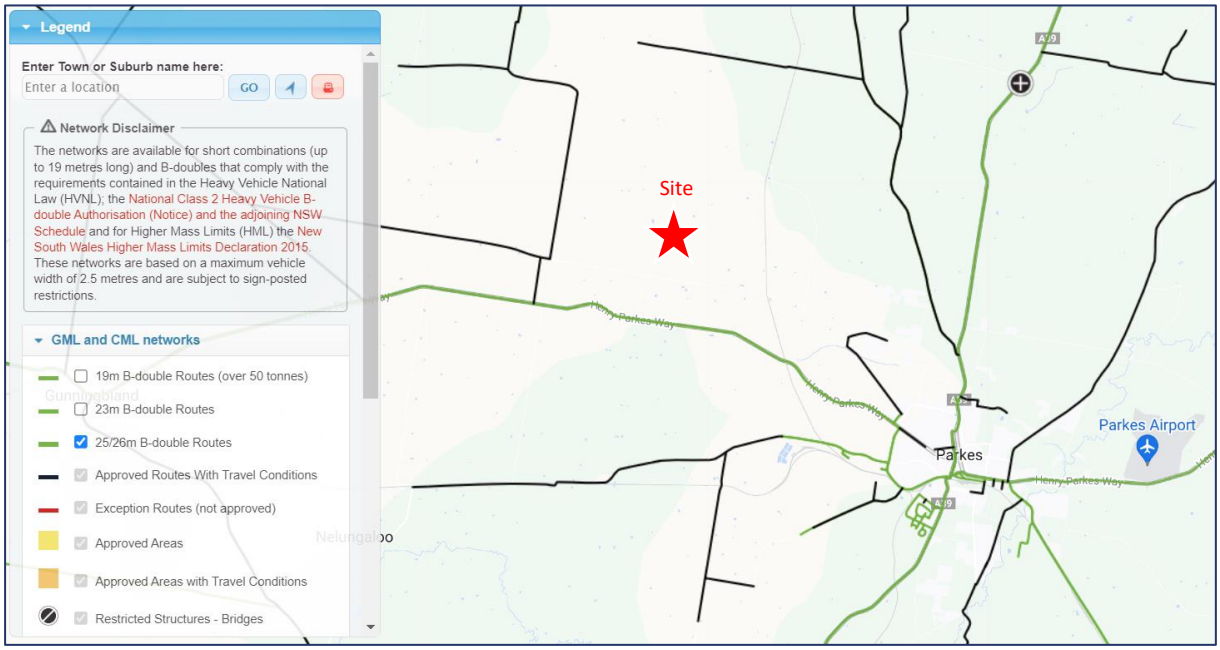
Notwithstanding, all trucks will also be using what are also TfNSW/NHVR approved Restricted Access Vehicle (**RAV**) routes and Class 1 OSOM routes. These approved RAV and OSOM routes are shown in the figures below.

Figure 4: Designated Vehicle Routes



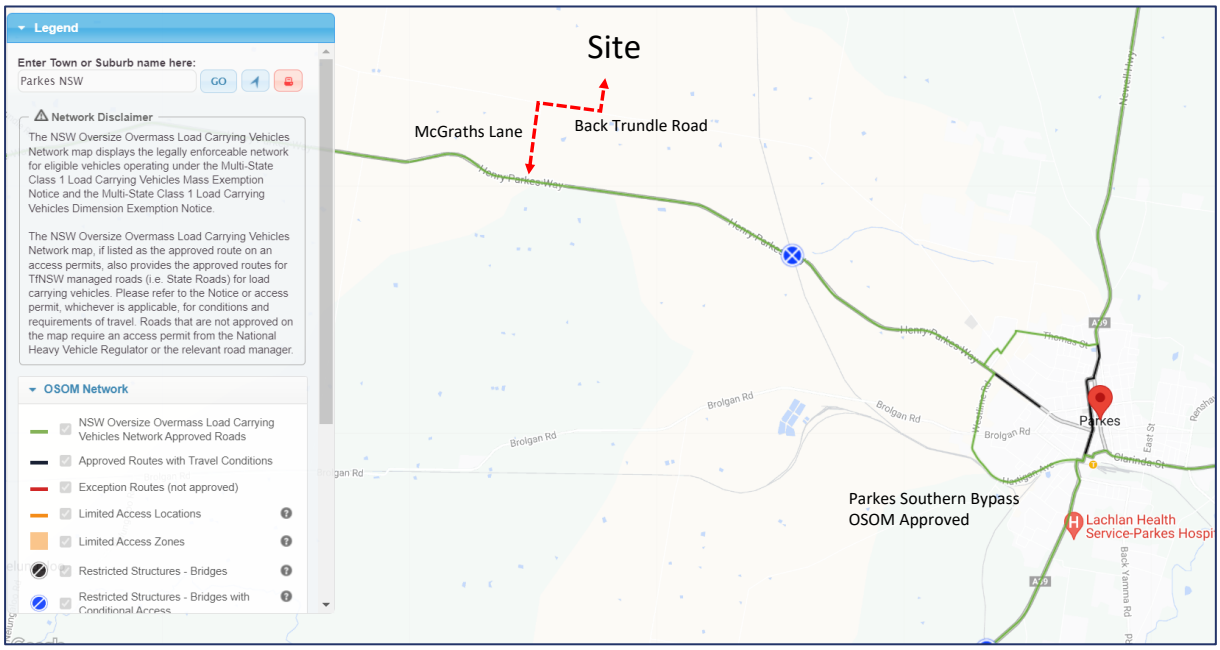
Source: Google

Figure 5: TfNSW Approved Restricted Access Vehicle Routes



Source: TfNSW

Figure 6: TfNSW Approved Oversize/Overmass Vehicle Routes



Source: TfNSW

With reference to

Figure 6, the designation of these Class 1 OSOM routes by TfNSW/NHVR means that they have been assessed as being appropriate for the use of Class 1 OSOM vehicles further to consideration of issues such as:

- The geometric design of roads and intersections;
- The weight-bearing capacity of roads, bridges, culverts etc; and
- Clearance to roadside objects, including overhead obstructions.

Approved Class 1 OSOM routes are available from Parkes through to Port of Newcastle and Botany Bay (where plant/equipment requiring OSOM vehicle transport will originate); this means that the only roads between the regional road network (i.e. Henry Parkes Way) and the Site that are not currently approved OSOM vehicle roads are McGrath Lane and a short section of Back Trundle Road.

More details in regard to the OSOM vehicle access via these roads, and the use of OSOM vehicles more generally, is provided in Section 4.6 and further information will be provided in a future stage of the TMP.

2.5 Road Network Upgrades

Prior to the commencement of the construction stage, sections of Back Trundle Road and McGrath Lane will be upgraded, as will the intersections of Henry Parkes Way & McGrath Lane, and Back Trundle Road & McGrath Lane, so as to appropriately provide for the safe and efficient movement of large vehicles throughout the life of the Project.

The applicant commits to completing the approved road upgrades and also commits to ensuring that these upgrades will comply with all relevant guidelines and standards etc. and be carried out to satisfaction of relevant road authority.

In this regard, the table in Appendix 3 of the SSD Approval provides a summary of the road upgrades required and is reproduced below.

Table 4: Road Network Upgrade Requirements

Road	Location[1]	Upgrade Requirements
McGrath Lane and Henry Parkes Way	Intersection	Basic Right Turn and Basic Left Turn (BAR/BAL) treatment to cater for the largest vehicle accessing the site (excluding over-dimensional vehicles)
McGrath Lane	100 m from Henry Parkes Way 100m from Back Trundle Road	Widening of pavement and bitumen seal McGrath Lane to a width of 9 m road formation (8 m sealed with 0.5 m unsealed shoulder on either side) for at least a distance of 100m from Henry Parkes Way Widening and bitumen seal McGrath Lane to a width of 9 m road formation (8 m sealed with 0.5 m unsealed shoulder on either side) for at least a distance of 100m from Back Trundle Road
Back Trundle Road and McGrath Lane Intersection	Intersection	Construction of Rural Sealed Intersection to cater for the largest vehicle accessing the site (excluding over-dimensional vehicles)[2]
Back Trundle Road	100 m from McGrath Lane	Widening and bitumen seal Back Trundle Road to a width of 9 m road formation (8 m sealed with 0.5 m unsealed shoulder on either side) for at least a distance of 100m to the east from McGrath Lane.
Back Trundle Road	Site Access Point	Rural Property Access Type[2]

Source: SSD Approval

As noted above, all of the road works identified in Table 4 will be completed prior to construction commencing at the Site. Enel has commenced the Works Authorisation Deed (**WAD**) process with TfNSW for the approval and then construction of the works at the intersection of Henry Parkes Way & McGrath Lane. The upgrade of McGrath Lane, Back Trundle Road and the new Site driveways will be undertaken further to a Section 138 agreement with Council in full compliance with the SSD Approval requirements and in accordance with Council engineering guidelines. At the time of writing, this section 138 application has been submitted to Council and is pending a decision.

The approved intersection and road upgrade plans are also shown in Appendix 3 of the SSD Approval. The current concept (Henry Parkes Way/McGrath Lane) and detailed design plans (all works on non classified roads) as consistent with Appendix 3 of the SSD approval are provided in Appendix D.

2.6 Additional Transport Infrastructure

2.6.1 Staff Parking

As detailed in Section 1.1 of the SSD TIA, construction staff vehicles will be accommodated on-site, within an informal gravel parking area to be located in the main construction compound.

Referring to Section 5.2 of the SSD TIA, it is expected that a maximum of 30 staff vehicles will require parking during peak stages of the construction stage. The staff car park will be designed and constructed to accommodate at least 30 light vehicles and in accordance with AS2890.

No staff (or any vehicle) parking will occur off-site.

Staff will be encouraged at induction and toolbox meetings to maximise the occupancy of light vehicles as a means of ensuring the maximum of 30 vehicles is not exceeded.

The Principal Contractors HSE Advisor will inspect parking areas on site, and public roadside areas near the site, daily, after the beginning of the morning shift, to ensure that parking does not exceed the approved amount and that no parking is occurring off site.

2.6.2 Internal Roads

In accordance with Condition 6, all internal roads will be constructed as *all-weather* roads, and provide profiles (i.e. widths) appropriate to the number and type of vehicle they provide access for. The final design of the internal road network will be determined further to discussions with the Principal Contractor (see Section 5.8) prior to any construction works commencing.

2.6.3 Staff Bus Pick Up/Drop Off Locations

A high percentage of construction staff will use shuttle bus services to/from the Site each day from local accommodations centres, most likely in Parkes itself, but potentially extending to other sub-regional centres such as Forbes or Orange.

Shuttle buses will pick up staff from the accommodation and drop them off to these same locations at the end of the day.

See also Section 2.7.2.

Shuttle buses will also be made available for staff during the future decommissioning stage of the Project (see also Section 7).

Shuttle buses will remain on the project site during the day and will not return to town.

Parking will be provided on site for shuttle buses. Buses will park at an accommodation location in town as agreed with the operator. This will be agreed as part of the accommodation contract.

2.6.4 Use of Shuttle Buses

Staff will be expected to use shuttle buses as the default and the use of personal vehicles will need to be justified to and agreed by the Principal Contractor HSE Advisor. The number of staff using personal vehicles will be recorded and made available to the Planning Secretary as required.

The requirement to use shuttle buses will be including in the online site induction and at daily toolbox talks. If the record of staff using light vehicles exceeds 15, the Principal Contractor Logistics Manager will be directed to withdraw authorisation from staff for the use of light vehicles to reduce the number below 15.

All other staff not expressly permitted to use personal light vehicles will be expected to travel by shuttle bus. The Principal Contractor Logistics Manager will be responsible for ensuring that the correct staff travel by shuttle bus.

The Principal Contractor HSE Advisor is responsible for completing daily monitoring of the number of vehicles (light vehicles, shuttle buses, trucks etc) at the site front gate. The front gate will also be

monitored by a security guard who is responsible to manually update a vehicle movement register and share with the Principal Contractor at the end of each day.

A weekly construction coordination meeting is to occur between Enel and the Principal Contractor to review traffic management and coordinate the number of vehicles accessing the site.

Any exceedance of peak hourly or daily vehicle limits represents a non-compliance. Refer Section 5.12.

2.7 Construction Traffic

2.7.1 Construction Truck Trip Generation

The trip generation of the Site during the construction stage is detailed in Table 5.1 of the SSD TIA, and is reproduced below.

Table 5: Construction Traffic Generation

Type of Vehicle	Total Vehicle Trips	Peak Daily Trips
Heavy Vehicles	Approximately 4,000 total HV trips	Peak of 125 daily HV trips
Light Vehicles	Approximately 9,060 total LV trips	Peak of 60 daily LV trips
Total	Approximately 13,060 total trips	Peak of 185 daily HV trips

Source: SSD TIA

The Principal Contractor will ensure strict compliance with the vehicle movement limits specified in Condition 2a (see also Section 5.8.5) including ensuring peak hour movement limits are not exceeded.

Notwithstanding the proposed changes to over-dimensional vehicle numbers, no change to daily or peak hour numbers are expected or proposed. The additional over-dimensional vehicles are solely associated with the delivery of larger construction plant that was not foreseen when the original TIA was completed. Since the engagement of a Principal Contractor, additional detail is now available about proposed construction techniques and types of equipment required. Standard heavy vehicles (i.e., non-over-dimensional) will not exceed the maximum length limit in condition 2(b) of 19 metres.

2.7.2 Construction Staff Trip Generation

With reference to Table 5, up to 60 light vehicle trips per day throughout the construction stage. This calculation takes into account the use of shuttle buses by the majority of construction staff from nearby accommodation centres, as detailed in Section 5.1.1 of the SSD TIA.

Despite this estimate of light vehicle trips, based on our experience in the assessment of large infrastructure projects such as the Project, it is expected that construction staff utilising private vehicles will have an average occupancy of at least 2 staff per vehicle, rather than a scenario where all non-shuttle travelling staff drive separately. As such, our assessment suggests that the generation of light vehicle trips for construction staff will likely not exceed 10 to 20 vehicles per hour prior to and after each workday. Enel commits to ensuring that the limit of 30 vehicles per hour is not exceeded. The Principal

Contractor HSE Advisor will survey car numbers at least once per week during the AM or PM peak to ensure that limits are not exceeded.

At two people per car, and up to 20 vehicles per hour, it is expected that around 40 staff will travel by light vehicle, with the remaining 60 travelling by coaster bus. This will require up to three coaster buses in the morning and the same in the evening.

The Principal Contractor HSE Advisor will be responsible for coordinating shuttle buses, including frequency of operation, pick up and drop off points and maximising their use by staff, through such measures as inclusion in the site induction and discussion at toolbox talks.

2.7.3 Total Daily Construction Trip Generation

Further to sections above, and with reference again to Table 5, the peak trip generation of the Site during the construction stage will not exceed 185 vehicle trips per day, which aligns with the requirements outlined in Condition 2a.

2.7.4 Peak Hour Construction Trip Generation

With reference to sections of the SSD TIA discussing upgrade warrants for key intersections (as previously summarised in Table 4) the determination of peak hour trips to/from the Site references the estimate of light vehicle trips (construction staff) arriving and departing at the end of each work day, i.e. up to 30 vehicle trips per hour.

Although pinpointing the exact arrival time of trucks throughout the day proves challenging, the expectation is that a higher number of truck trips will be generated through the middle of the day, and that there will be fewer in the earlier and later periods of the work day.

Moreover, and as stipulated in Condition 14, trucks will not be permitted to travel to the Site prior to or after the workday, and as such the potential for any trips other than staff trips to occur in the peak hours is minimal.

In turn, compliance to Condition 2c will be achieved throughout the construction stage, noting again that peak period and daily vehicle trips will be strictly monitored by the Principal Contractor to ensure compliance with the SSD Approval (see also Section 5.8.5).

2.7.5 Construction Trip Distribution

As discussed in Section 2.4.2, all construction vehicles will be required to use the designated travel route via Back Trundle Road and McGrath Lane to Henry Parkes Way. From there, vehicles will distribute to sub-regional and regional routes, including Henry Parkes Way to the east of Parkes, and Newell Highway both north and south of Parkes.

2.8 Operation Traffic

The operational trip generation of the Site is anticipated to be very minimal, as reinforced in Section 5.1.2 of the SSD TIA, which states the following:

The likely traffic generation post construction is estimated as:

- *Assuming daily routine maintenance is carried out by one or two personnel the daily traffic generation for this would be four vehicle trips per day onto the local road network. All other movements are expected to be carried out internally onsite.*
- *Intermittent maintenance to replace and service parts in irregular time intervals. This is not expected to occur frequently and will have negligible impacts on the road network.*
- *Limited visitors to site such as office based staff and small courier deliveries*.

Therefore, it is unlikely that the Site's operational stage will generate any more than 10 vehicle trips per day, a number that will have no impact on the operation of the road network (see also Section 5.12).

2.9 Decommissioning Traffic

As discussed in Section 1.3.2, the Project is anticipated to have a life expectancy of approximately 30 to 35 years, after which the Solar Farm will be decommissioned in accordance with the SSD Approval.

Given this timeframe, it is difficult to determine the specific traffic characteristics of the decommissioning stage. Nevertheless, it is expected that the traffic generation of the Site during the decommissioning stage will be notably less than the traffic generated during the construction stage given the nature of decommissioning (and demolition) activities.

Importantly, and in accordance with the SSD Approval, the TMP will undergo future revisions to incorporate the traffic characteristics specific to the decommissioning stage; these changes will be undertaken in consultation with all relevant authorities (see also Section 7).

3 Road Network Operations

3.1 Existing Traffic Volumes

Table 2.3 of the Parkes Bypass TTA provides a summary of traffic volumes in key roads across Parkes based on surveys undertaken in 2016 and is reproduced below.

Table 6: 2016 Road Network Traffic Volumes

Survey site			Average weekday traffic volume (Veh/Day)			Average weekly traffic volume (Veh/Day)		
Site	Road	Location	All vehicles	Heavy vehicles	Heavy vehicle %	All vehicles	Heavy vehicles	Heavy vehicle %
TC 01	Newell Highway	North of Grey Dove Lane	5,042	982	19%	4,792	918	19%
TC 02	Westlime Road	South of Coronation Avenue	943	194	21%	846	160	19%
TC 03	Hartigan Avenue	South of Billy Mac Place	1,182	205	17%	1,032	175	17%
TC 04	Brolgan Road	West of Friendship Place	1,369	115	8%	1,289	97	8%
TC 05	Condobolin Road	Between Westlime Road and Flinders Street	1,684	182	11%	1,559	155	10%
TC 06	Thomas Street	East of Reedsdale Road	497	78	16%	459	71	16%
TC 07	Newell Highway	Between Maguire Road and Nock Road	4,020	818	20%	3,892	753	19%
TC 08	Bogan Road	Between Deep Lead Road and Reedsdale Road	1,294	261	20%	1,117	213	19%
TC 09	Bogan Street	Outside Property 60	10,132	926	9%	9,364	848	9%
TC 10	Bleechmore Road	Between Maguire Road and Nock Road	173	11	7%	164	10	6%

Source: Parkes Bypass TTA

With specific regard to the Project, traffic volumes in Henry Parkes Way at McGrath Lane would be marginally lower than in Condobolin Road (within the urban environment), and are estimated at no more than 1,400 vehicles per day. Based on TfNSW Count Station data in the sub-region (see also 3.2), peak hour volumes generally represent approximately 8% of total daily volumes; this suggests a peak hour trip generation of around 110 vehicles per hour in Henry Parkes Way at McGrath Lane.

This traffic volume estimate aligns with the traffic data reported in the traffic assessment of the Goonumbla Solar Farm, which was sourced from TfNSW traffic counts carried in 2020.

3.2 Average Annual Traffic Growth

With reference to the historical data available from the Count Stations in Newell Highway north and south of Parkes, traffic volumes have displayed a consistent pattern over the past 8 years, even when considering traffic changes during the Covid's period. This trend mirrors the traffic volumes observed in key highways throughout the sub-region, indicating minimal average growth.

As such, there is no expectation that existing traffic volumes in key roads providing access for the Site will increase in the short term from the construction stage to the operational and decommissioning stages unless there are significant new factors influencing trip generation (see also Section 3.3 below).

3.3 Sub-Regional Projects

3.3.1 Goonumbla Solar Farm and Parkes Solar Farm

As discussed in Section 1.3.2, the SSD Approval references both the Goonumbla Solar Farm and Parkes Solar Farm as projects with the potential to generate additional (construction) traffic volumes during the construction stage of the Project.

Importantly, both the Goonumbla Solar Farm and Parkes Solar Farm have been constructed and are currently operational. Similar to the Project, both of these solar farms will generate minimal traffic during their operational stage, and are expected to remain operational for a span of approximately 30 to 35 years. As such, neither of these solar farms is likely to contribute any significant amount of traffic to the road network that provides access to the Site during the pivotal construction stage.

3.3.2 Parkes Bypass

The Parkes Bypass is currently under construction by TfNSW. The estimated traffic generation of the construction works is summarised in Table 3.6 of the Parkes Bypass TTA, which is reproduced below.

Table 7: Parkes Bypass Construction Traffic

Vehicle types and association	Use	Vehicle daily numbers		Typical movement pattern
		Average	Maximum	
Rigid trucks 12.5 metres 30 tonnes general mass limit (GML)	Earthworks (cut and fill) Aggregate delivery Road base delivery Sand delivery Asphalt delivery Cement delivery Fly ash delivery Precast concrete delivery	95	130	Spaced throughout the day
Semi-trailers 19 metres 42 tonnes GML	Steel Prefabricated units Oversized units	Occasional: potentially up to 50 over the course of the construction program.		
Incidental deliveries	Various	2	5	
Light vehicles				
Workforce	N/A	100	300	Typically, at the start and end of the end of the working day between 6.00 am and 7.00 am, and 6.00 pm and 7.00 pm
Incidental deliveries	Various	2	5	Spaced throughout the day

Source: Parkes Bypass TTA

With reference to Table 7, while the traffic generated by the Parkes Bypass construction is relatively substantial, the likelihood of a significant number of these trips being directed to Henry Parkes Way near the Site is minimal. Consequently, there is little potential for the construction of the Parkes Bypass to impact the intersection of Henry Parkes Way & McGrath Lane, or to suggest the necessity for a higher-level treatment at the intersection than that conditioned in the SSD Approval.

In the Parkes Town Centre, as well as along the roads being constructed/upgraded, intermittent diversions will at times be in effect. However, it is important to note that the peak hour trip generation during the Project's construction stage for the Parkes Bypass translates to an average of only 1 additional vehicle movement every 2 minutes.

Finally, it is important to note that strict adherence to all traffic controls and directions associated with the construction of the Parkes Bypass, as well as any other traffic regulations within the road network, is a key requirement stipulated in the Drivers Code of Conduct (see also Section 5.9).

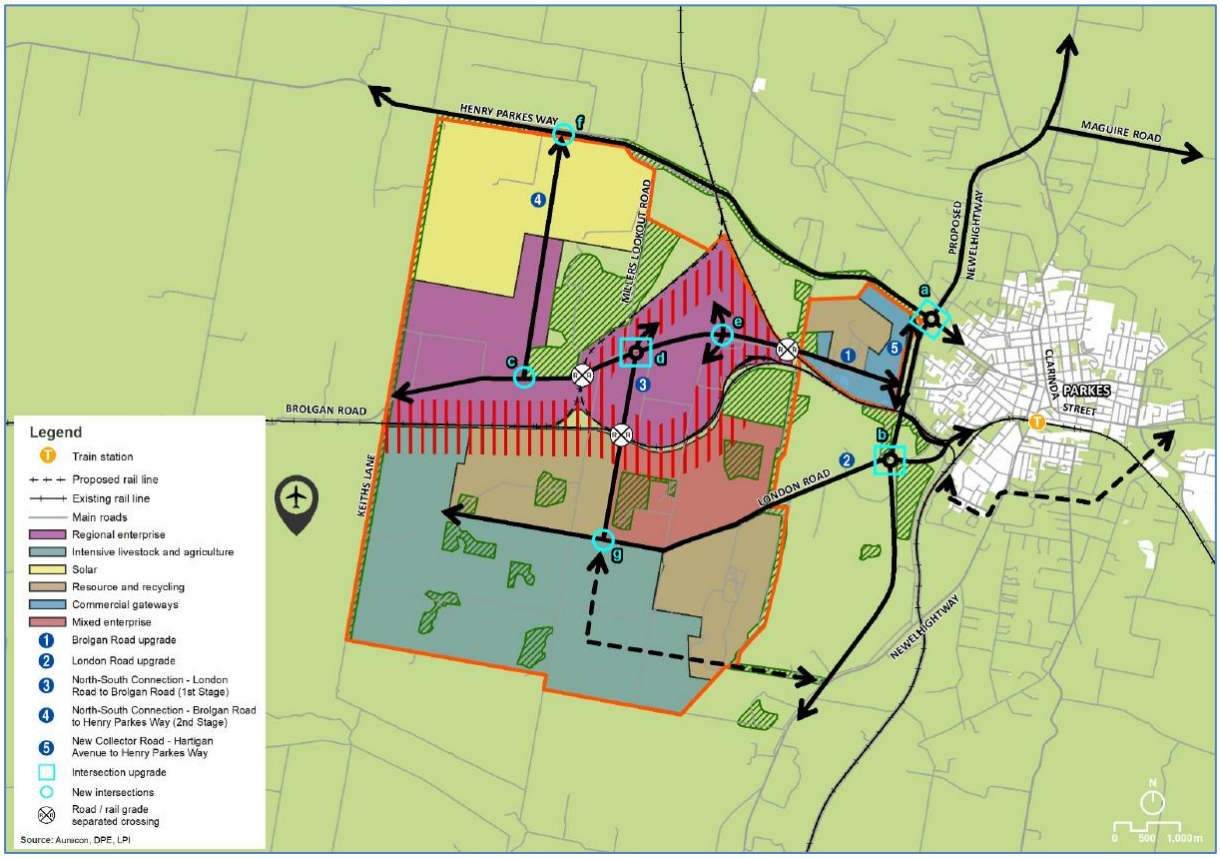
3.3.3 Parkes Special Activation Precinct

The Parkes SPA is essentially designed to become an inland port, transferring export ready goods to every major city and freight centre in Australia. In turn, it will provide for the development of new agricultural, freight and logistics, manufacturing, energy and resource recovery and transport business is a single central location.

The Parkes SPA Master Plan was published by the NSW Government in June 2020, and identifies the vision and principles, land use provisions (by sub-precinct) and performance criteria for key factors such as environmental and infrastructure demands. It is estimated that upon completion, the Parkes SPA could create up to 3,000 jobs across a range of industries.

The Parkes SPA Master Plan is shown below, including the internal and external transport infrastructure anticipated to be required upon the completion of the Parkes SPA.

Figure 7: Parkes Special Activation Precinct Master Plan



Source: Parkes SPA Structure Plan

At this time, work is underway across parts of the Parkes SPA, including the opening of new businesses. However, the broader development of the Parkes SPA is anticipated to take many years, and all available information indicates that the transport infrastructure needed to support the Parkes SPA has yet to be fully defined, noting that arc traffic + transport has been unable to source any documentation containing detailed traffic analysis for the Parkes SPA.

Rather, the Parkes SPA Structure Plan notes that future detailed traffic analysis will be required as sub-precincts within the Parkes SPA are developed. In this regard, Section 5.7 of the Parkes SPA Structure Plan states the following in regard to *Proposed Transport Network*:

> *The diagrams in this section* [including Figure 7 above] *highlight elements of the proposed transport network for the Precinct.*
>
> *Future transport planning and modelling will be used to inform the detailed design of infrastructure inside and outside the Precinct (e.g. road networks south of the Precinct and of Parkes), and anticipate future changes to transport modes, freight transport trends, and other transport planning objectives.*

In addition, Section 6.1 of the Parkes SPA Structure Plan outlines the following concerning *Infrastructure and services*:

> *Roads and services are critical to investment attraction. Innovation in service provision is considered an additional necessary condition at Parkes.*
>
> *Action has already occurred with Inland Rail connectors to the Sydney-Perth line under construction, new services being laid along Brolgan Road to the core freight and logistics (Regional Enterprise Sub-precinct area comprising SCT and Pacific National)…*
>
> *Careful consideration of the timing of additional services installation and road construction forming Package 2, over the next five years and beyond is required. Considerations include:*
>
> - *An interim program of service extension and road upgrades until large investment e.g. Energy from Waste or an abattoir is operational.*
>
> *This would involve construction of the 'Ring Road' – Brolgan Road- Cooper Road -London Road, potentially without some of the large cost items involving grade separation of rail and road, with safer level crossings (for example boom gates and lights) installed for an initial period.*

Similarly, Section 3.4 of the Parkes SPA Delivery Plan states:

> *The corporation will ensure all future infrastructure is planned, designed and constructed in accordance with relevant legislation, standards and guidelines from federal, state, and local authorities and service providers*.

Further to above, there is little potential for the Parkes SPA to generate any significant traffic volumes to the road network – and particularly Henry Parkes Way west of Parkes – during the construction stage.

3.4 Construction Traffic Impacts

Further to the road network upgrades detailed in Appendix 3 of the SSD Approval (as discussed in Section 2.5), the traffic generated by the Project during the construction stage is expected to have a negligible impact on the operation of the local and sub-regional road network.

The traffic generated by the Project remains very moderate, with peak hour trip generation immediately prior to and following each work day, i.e. outside of busier commuter peak periods. In addition, there is no available information to suggest that either annual growth or other sub-regional projects will generate additional traffic volumes that might impact the road network during the construction stage.

Finally, it is again important to note that the construction stage is anticipated to last for approximately 9 months, after which the Site's trip generation during its operational stage will be negligible (see also Section 3.5).

3.5 Operational Traffic Impacts

Once the Solar Farm is operational, it will generate minimal daily traffic. Scheduled maintenance works are expected to be undertaken each month, but given the small number of staff required for such work, the Site's average trip generation during these maintenance periods is expected to be no more than 8 vehicle trips per day.

All trips generated by the Site during the operational stage will be required to use the same designated access route as used during the construction stage.

As such, the minimal traffic generation of the Site during the operational stage will have no impact on the operation of the road network, a conclusion that aligns with that of DPHI in the SSD Assessment Report.

3.6 Decommissioning Traffic Impacts

3.6.1 Decommissioning Tasks

Regarding the general tasks to be undertaken during the decommissioning, Section 9.5.3.3 of the SSD EIS indicates that the works will include:

- Disconnection of the solar farm from the grid;
- Removal of PV modules, mounting posts, mounting frames and trackers;
- Removal of all buildings and equipment;
- Removal of any underground cabling shallower than 800 mm;
- Removal of fencing (unless requested otherwise by the landholder); and
- Site rehabilitation to render the site fit for resumption of agricultural use.

Many of these tasks are anticipated to require the use of similar vehicles to those used during the construction stage phase.

Similarly, deconstruction machinery may be better equipped for dismantling certain on-site infrastructure, potentially leading to a reduction in decommissioning staff numbers compared to the construction stage.

3.6.2 Decommissioning Traffic Impacts

While it is therefore difficult to provide a reliable estimate of trip generation during the decommissioning stage, based on the available information it is expected that there will be fewer vehicle trips than during the construction stage. This aligns with the conclusion drawn from numerous traffic assessment of other solar farm projects across NSW and Australia.

Even if considering a worst-case scenario where decommissioning traffic volumes resemble those of the construction stage, the operation of the road network will only be impacted if background traffic volumes had substantially increased.

In this regard, it is important to reiterate the relevance of the TfNSW Count Station data provided in Section 3.2, which indicates the absence of any significant long-term growth in traffic volumes along key roads within the sub-region.

As discussed in Section 3.2, it is estimated that traffic volumes in Henry Parkes Way through the McGrath Lane intersection are approximately 110vph. Even if this volume were to increase by 50% over 30 years – equivalent to a 1.7% annual growth rate – the intersection of Henry Parkes Way McGrath Lane would continue to operate at a Level of Service “A” even if assuming decommissioning stage traffic volumes match construction stage traffic volumes.

In addition, the turn treatment warrants detailed in Austroads GRD Part 4 still indicate only the need for BAR and BAL treatments.

In summary, while a detailed assessed of decommissioning stage traffic will be undertaken to support future TMP revisions, all available information indicates that the road network would continue to operate with significant spare capacity and experience minimal delays during the decommissioning stage.

4 Construction Traffic General Characteristics

4.1 Overview

The following sections provide details of the overall characteristics of construction traffic during the construction phase. This information is provided to establish the extent of construction traffic management principles and protocols that will subsequently be incorporated into the formal Construction Traffic Management Plan (**CTMP**), which is further detailed in Section 5.

4.2 General Construction Characteristics

4.2.1 Construction Schedule

With reference to the SSD EIS, the construction stage is projected to span around 9 months.

4.2.2 Construction Staff

With reference to the SSD EIS, there is a possibility of up to 100 construction staff being on-site at any given time during peak construction periods.

4.2.3 Construction Hours

Construction hours, including the delivery of materials to/from the Site are limited to:

- 7:00am to 6:00pm Monday to Friday; and
- 8:00am to 1:00pm on Saturdays;

No work is permitted on Sundays or public holidays.

However, the following works can occur outside of these hours:

- The activities are inaudible at non-associated receivers;
- The delivery of materials is requested outside of these hours by the NSW Police Force or other authorities for safety reasons; or
- Emergency work is required to avoid the loss of life, property and/or material harm to the environment.

4.2.4 Out of Hours Work Permits

While not anticipated at this time, if significant construction works (other than the exceptions in Section 4.2.3) need to take place outside the conditioned work hours, an application for an Outside of Hours Work Permit (**OHW Permit**) will be submitted to the relevant authorities - Council and/or TfNSW, depending on the location of the works. Concurrently, nearby residents will be notified about the proposed activities.

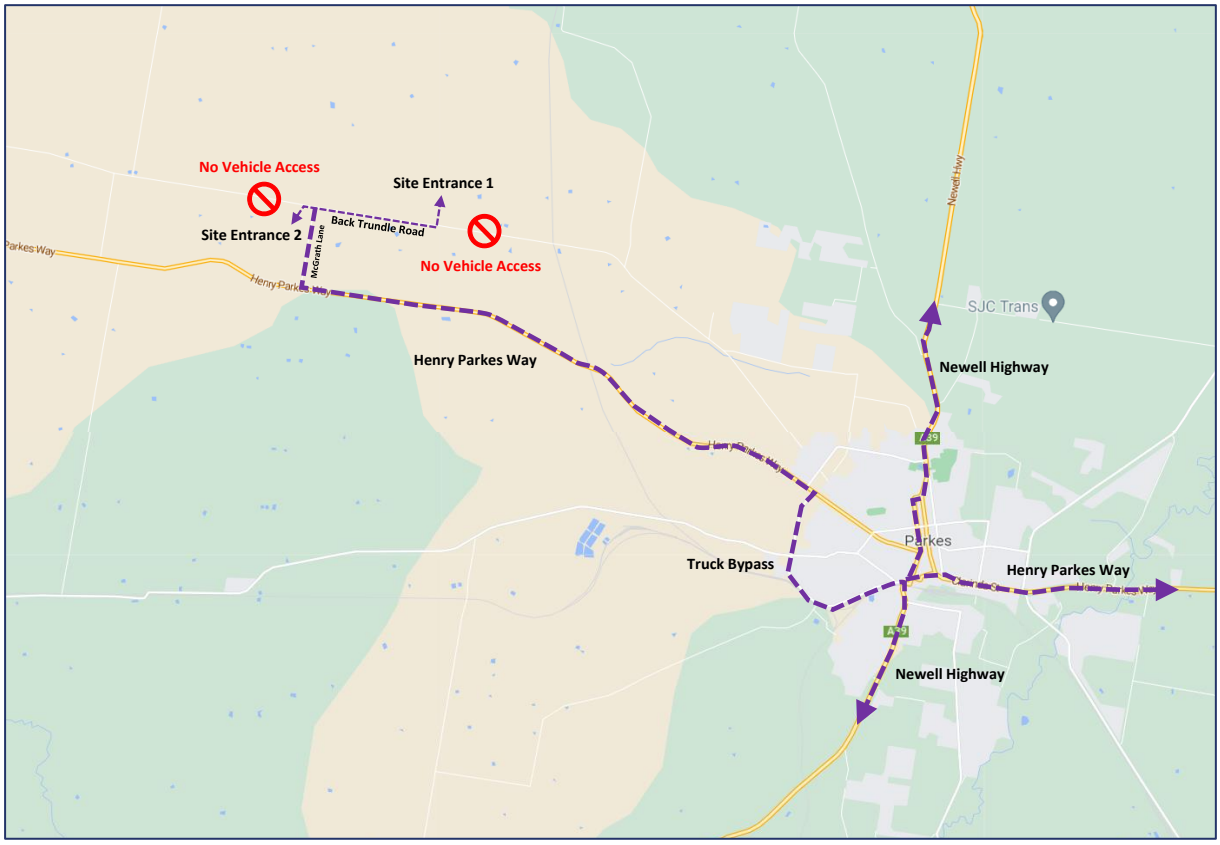
Any out of hours works will only commence after obtaining approval for the OHW Permit (refer also to Section 4.4).

4.3 Road Network Access

As discussed in Section 2.4.2, all access to and from the Site will be via the designated route including Henry Parkes Way, McGrath Lane and Back Trundle Road to/from the Site's entrances.

A VMP has been prepared in accordance with Section 5.2.2 of the TCW Manual which identifies the specific routes that all construction vehicles are required to use; the VMP is shown in Figure 8.

Figure 8: Vehicle Movement Plan - Designated Construction Vehicle Routes



Source: Google

4.4 Construction Trucks

4.4.1 Truck Movement Hours

As discussed in Section 4.2.3, truck movements to/from the Site will be restricted to the same timeframes as general construction activities. In the event of any out of hours truck movements, the same process of applying for an OHW Permit and notifying relevant parties (as described in Section 4.2.4) will be applicable.

4.4.2 Truck Types

The type of trucks required during the construction stage will include Medium Rigid Vehicles (**MRV**s), Heavy Rigid Vehicles (**HRV**s) and Articulated Vehicles (**AV**s); the majority of which are all GAVs and as such do not require special approvals or the like to use the road network. There will be approximately

93 over-dimensional movements, some of which will require specific NHVR licenses to travel to Parkes. All over-dimensional vehicles will require a license to leave the OSOM route to travel along McGrath Lane and Back Trundle Road to the site entrance. This is discussed further in Section 4.6.

4.5 Construction Staff Vehicles

As detailed in Section 2.7.2, around 40% of construction staff are expected to use private light vehicles (approximately 20 vehicles at two persons per vehicle), with the majority using the proposed shuttle bus services connecting the Site with nearby accommodation centres. This will require approximately 3-4 x 22 seat coaster buses.

As discussed in Section 2.6.1, on-site parking facilities will be made available for all staff members and for buses.

4.6 Oversize/Overmass Vehicle Road Network Access

4.6.1 Overview

As noted in Section 1.6, approval is sought to increase the number of over-dimensional vehicle movements from three (3), as per the consent, to 90. The increase in movements is solely associated with the transport of large construction equipment to the site. The use of this larger construction equipment provides for the more efficient construction of the solar farm, enabling a potentially reduced construction time frame.

If a proposed over-dimensional movement meets the Class 1 exemption, the movement may occur without specific licence or escort whilst it remains on an approved OSOM route – refer Section 4.6.2. If the movement does not satisfy the class 1 exemption, the Heavy Vehicle National Law (**HVNL**) requires that an application be prepared for an Oversize/Overmass Permit (**OSOM Permit**) through the NHVR. OSOM Permits may be issued with conditional restrictions that limit the time and days that these vehicles are allowed to access the Site, or with other requirements such as the use of escort vehicles or specific routes. As the OSOM route does not extend to the project site access (refer Section 4.6.2), all over-dimensional vehicles will require licence and escort once they leave Henry Parkes Way (ie, while travelling on McGrath Lane and Back Trundle Road).

The Principal Contractor will be responsible for ensuring full compliance with the requirements of the OSOM Permit, including the preparation of the OSOM Permit application. Importantly though, while an OSOM Permit will regardless be required, it is again noted that – with the exception of Back Trundle Road and McGraths Lane – a Class 1 OSOM approved route is available between the Site and all key plant/equipment origins. Further details in this regard are provided in sections below.

4.6.2 Oversize/Overmass Approved Routes

TfNSW's *Oversize Overmass Load Carrying Vehicles Network* map (**OSOM Map**) shows:

…the legally enforceable network for eligible vehicles operating under the Multi-State Class 1 Load Carrying Vehicles Mass Exemption Notice and the Multi-State Class 1 Load Carrying Vehicles Dimension Exemption Notice.

The NSW Oversize Overmass Load Carrying Vehicles Network map, if listed as the approved route on an access permits, also provides the approved routes for TfNSW managed roads (i.e. State Roads) for load carrying vehicles. Please refer to the Notice or access permit, whichever is applicable, for conditions and requirements of travel. Roads that are not approved on the map require an access permit from the National Heavy Vehicle Regulator or the relevant road manager.

The OSOM Map shows all routes across NSW that have been approved for use by Class 1 OSOM vehicles; these routes are only approved further to detailed assessment of each by the NHVR or TfNSW, and specifically further to consideration of issues such as road and intersection geometry; the loading bearing of bridges and culverts; horizontal and vertical obstructions; and general traffic conditions. Moreover, as approved Class 1 OSOM routes, additional assessment of a proposed OSOM route (for vehicles up to and including Class 1 vehicles) is not required as long as the OSOM vehicle complies with the relevant Class 1 vehicle specifications.

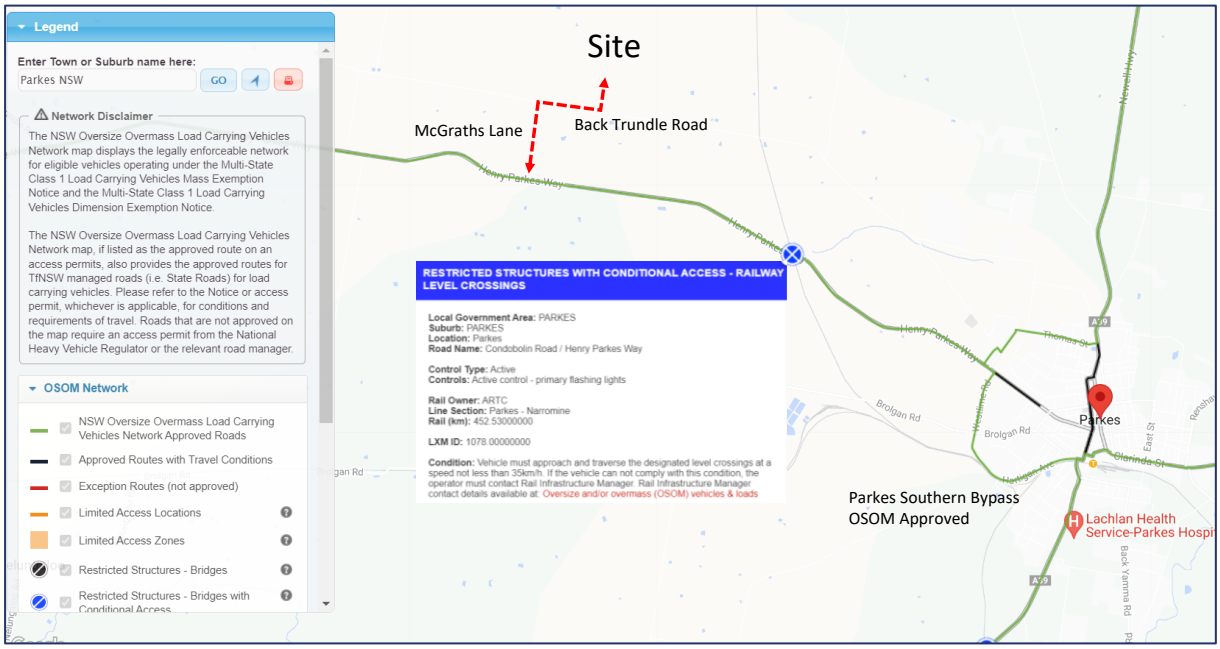
With reference to the OSOM Map, Class 1 OSOM vehicle approved routes are available between the Site and all key plant/equipment origins, including:

- To and through Parkes from the north, south and east;
- Port Botany;
- Port Kembla;
- Port of Newcastle; and
- Major regional and sub-regional centres.

Based on discussions with TfNSW, the approved OSOM routes from Port Kembla have some movement restrictions in the immediate vicinity of Port Kembla which may rule it out as an origin for larger pieces of equipment/plant; however, these could still be transport from either Port Botany or Port of Newcastle.

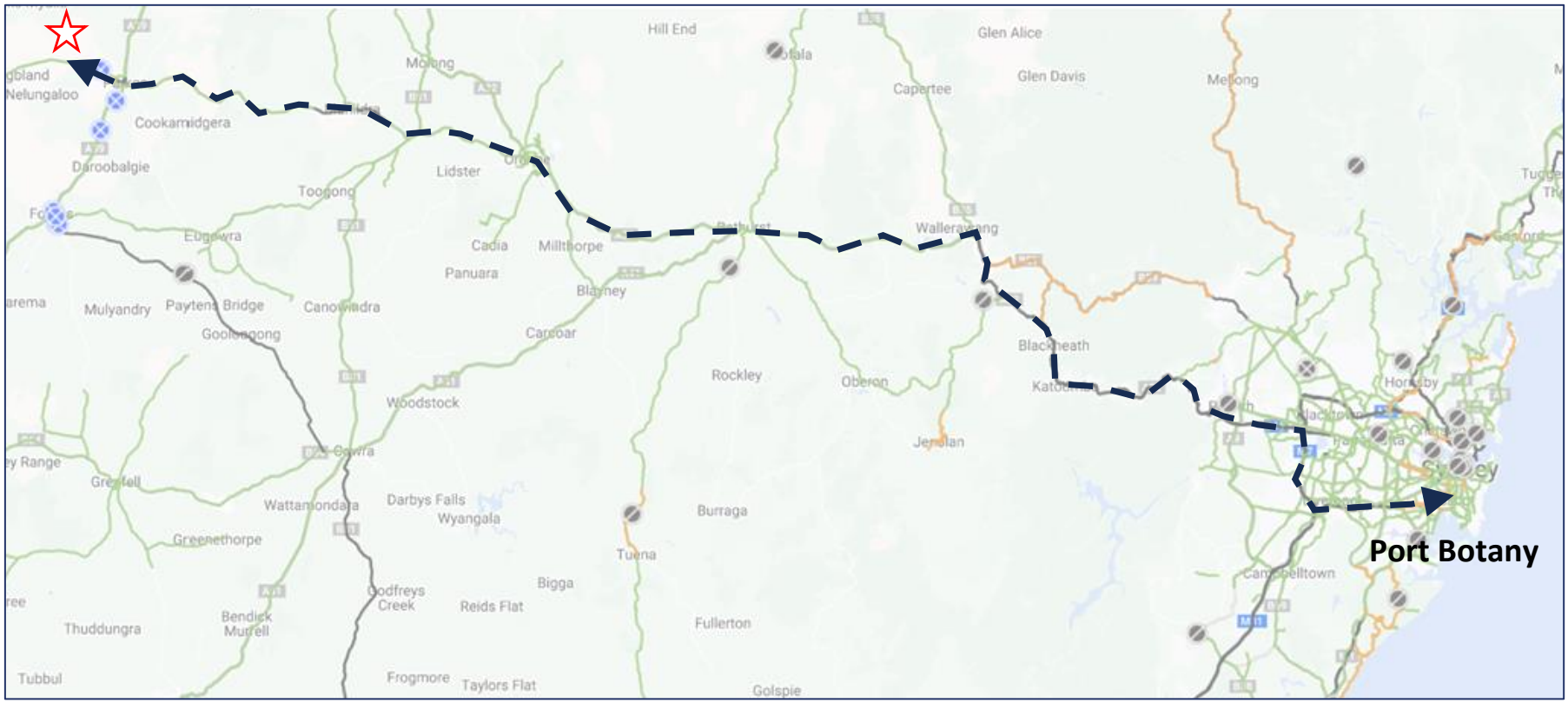
The available routes near Parkes and from ports are shown in the figures below.

Figure 9: Oversize/Overmass Approved Routes Parkes and Site



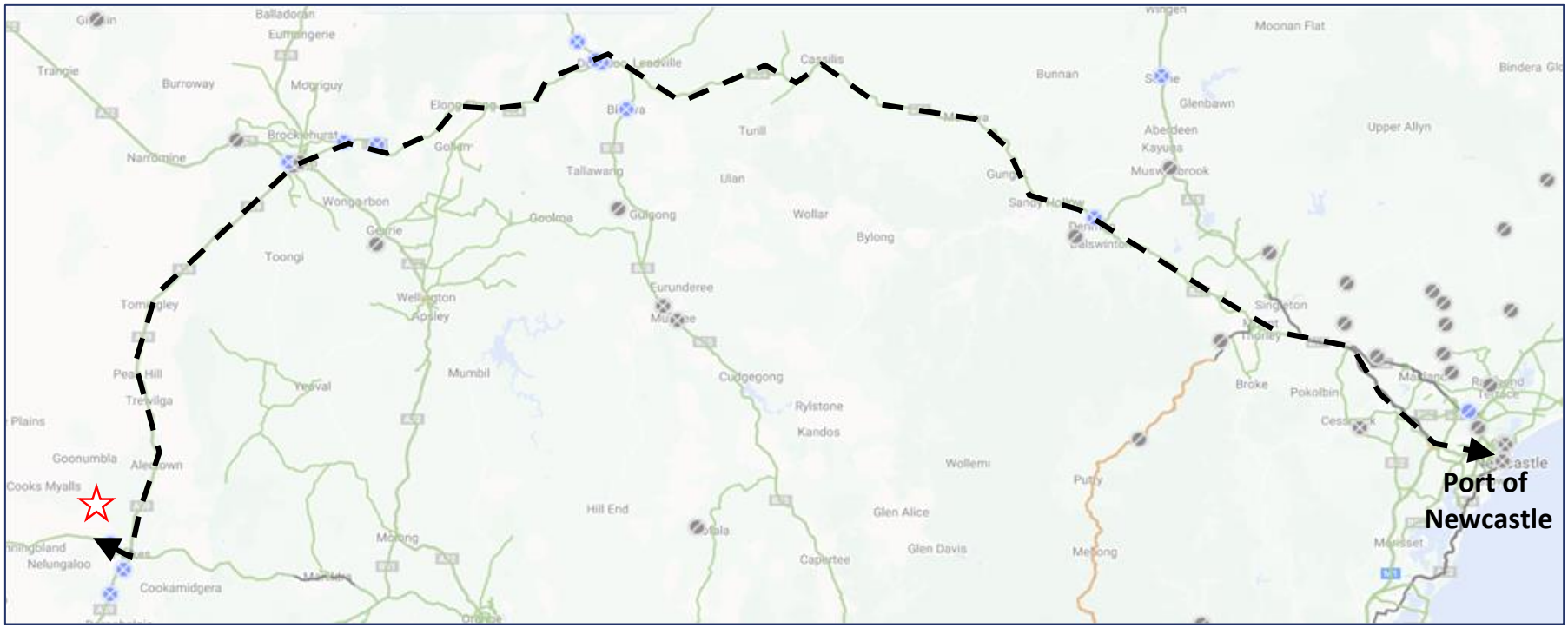
Source: TfNSW

Figure 10: Oversize/Overmass Approved Route Port Botany



Source: TfNSW

Figure 11: Oversize/Overmass Approved Route Port of Newcastle



Source: TfNSW

Some of these routes have additional restrictions; as shown in Figure 9 for example, the OSOM vehicle must be able to travel through the level crossing in Henry Parkes Way east of McGrath Lane at a speed of not less than 35km/h, which is a similar restriction to other level crossings, particularly along the route from Port of Newcastle to the Site. Other restrictions along these OSOM route generally relate to the approved hours for the movement of OSOM vehicles.

As discussed with TfNSW, it is the case that roads works may be occurring along some of these approved OSOM routes; any restrictions to or conditional access requirements relating to roads works – for example on the Parkes Bypass – will necessarily be determined as part of the OSOM Permit process, and again the use of any OSOM will require full approval prior to travelling to/from the Site.

4.6.3 Back Trundle Road and McGrath Lane

As shown in **Figure 9**, the only roads therefore that are not currently approved for OSOM vehicles are Back Trundle Road and McGrath Lane. As such, as part of an OSOM Permit application, additional assessment will be required of these roads to ensure that they are capable of accommodating OSOM vehicles.

While the OSOM Permit assessment will be undertaken by suitably qualified persons, it is noted that there are few obstructions or other factors which would appear to be an issue with approving an OSOM Permit for these roads, with wide carriageways and intersections and few adjacent trees, as shown in the figures below.

Figure 12: Back Trundle OSOM Vehicle Conditions

Source: Google

Figure 13: McGrath Lane OSOM Vehicle Conditions

Source: Google

Figure 14: Henry Parkes Way & McGraths Lane OSOM Vehicle Conditions

Source: Google

4.6.4 OSOM Vehicle Summary

The Principal Contractor has advised that there will be a need for up to 90 over-dimensional movements during the construction, upgrade and decommissioning phases to accommodate the transport of large equipment to site, including large construction equipment, and large pieces of permanent infrastructure, such as the substation, transformer and operations building. This TMP seeks the Secretary's approval for this increase in over-dimensional vehicles.

Preliminary details of proposed over-dimensional movements are summarised in Table **8** however these will be updated and finalised in a future stage of the TMP.

Table 8: Over-dimensional vehicles during construction phase

Total Length	Width	Total Weight (truck and plant)	Height	Pilot Y/N	Type	Number
22m	3m	51-56 tonne	4.6m	Yes	Grader, 22-25t excavator	14
22m	3.2m	38-51 tonne	4.3-4.6m	Yes	Grader, tractor, dump truck	7
22m	3.5m	51 tonne	4.3m	Yes	31t cable trailers	2
22m	4.5m	51 tonne	4.3m	Yes	31t cable trailers	5
26m	3.5m	76-100 tonne	4.6m	Yes	36t excavator, trencher	2
26m	3.6m	76 tonne	4.6m	Yes	36t scraper	4
35m*	5.5	91 tonne	5.1m	Yes	Switchroom building	1
25.5m*	3.5	60 tonne	4.6	Yes	Transformer	1
					Total at the commencement of construction	36
					Contingency (25%)	9
					Total at the end of construction inc 20% contingency	45
					Overall total	**90**

* Approved under current consent

It is noted that Class 1 OSOM vehicle access is available along OSOM vehicle routes approved by the NHVR/TfNSW between the intersection of Henry Parkes Way & McGrath Lane from every key regional centre and Port Botany and Port of Newcastle.

However, of the 90 over-dimensional movements, approximately 21 movements will require license and escort from the port to the site. The remainder are expected to satisfy the OSOM class 1 exemption and therefore will require license only when the leave the OSOM route. Vehicles over 19 metres in length will be managed by picking up an escort prior to leaving the OSOM route. This will be subject to NHVR licensing.

Arriving vehicles will be in constant communication with the escort vehicle company and the escort vehicle will be waiting on the road for the heavy vehicle to arrive and will join the traffic without the need for the heavy vehicle to park.

In the event the escort vehicle is not available at the time the heavy vehicle arrives, a number of locations have been identified for heavy vehicles to stand and wait to meet their escort prior to proceeding to site.

For vehicles arriving from the north, vehicles can stand at a number of parking areas along the Newell Highway/Bogan Street on the eastern side of the road, between Church and Court Streets and between Court and Dalton Streets – marked in blue on Figure **15**. There is around 60 metres of parking length available in these two locations.

For vehicles arriving from the south and east, vehicles can stand on the Newell Highway/Bogan Street at the northern end of the block between Cecile and Dalton Streets – marked in blue on Figure **15**. There is approximately 50 metres of available parking in this location.

There is also approximately 50 metres of unrestricted parking on the southern side of Dalton Street in the event the above parking options are unavailable - marked in blue on Figure **15**.

There is also over 100 metres of available parking at the intersection of Henry Parkes Way and Ross Road, on the western side of town – marked in blue on Figure 16.

Figure 15: Heavy vehicle parking areas to wait for escort 1

Figure 16: Heavy vehicle parking areas to wait for escort 2

Swept path analysis of the upgraded Henry Parkes Way/McGrath Lane and McGrath Lane/Back Trundle Road intersections has been completed, together with the site access – refer Appendix D. It is confirmed that these intersections can accommodate the proposed vehicle sizes under escort.

As such, further to the use of OSOM vehicles up to/including Class 1 OSOM vehicles, the only roads that are anticipated to require any further level of detailed assessment as part of the OSOM Permit process are Back Trundle Road and McGrath Lane. These portions of the route will need to be completed under licence and escort.

5 Construction Traffic Management Plan

5.1 Delivery logistics

The principal contractor will appoint a specialist, dedicated logistics manager. The Principal Contractor Logistics Manager will be responsible for monitoring the following information:

- Daily record of heavy vehicles accessing the site – to be collected by the site security guard who is stationed at the front gate;
- Ensuring maximum vehicle numbers per day are adhered to;
- Ensuring the number of over-dimensional vehicles entering and leaving the site is adhered to, noting the terms of condition 2 of schedule 3 of the consent (to be updated for subsequent stages);
- Maintaining a record of the number of over-dimensional vehicles entering and leaving the site for the duration of the project, noting the terms of condition 3 of schedule 3 of the consent;
- Forward schedule of deliveries at least two days in advance;
- Shipping dates;
- Transit times;
- Estimated arrival times;
- Online shipping information for each shipment applicable to the project;
- Daily reports sent to site.

The Principal Contractor Logistics Manager will also be responsible for:

- Maintaining daily communication with the transport companies;
- Coordinating with the Principal Contractor Project Manager around the timing of incoming materials;
- Coordinating with the Principal Contractor HSE Advisor to be aware of inclement weather with the potential to disrupt delivery schedules;
- Review and monitoring as per Section 5.5.7.

As agreed with TfNSW, the Principal Contractor will also commit to providing a weekly schedule detailing all truck movements; this information will be shared via email with CNC.South@transport.nsw.gov.au and development.western@transport.nsw.gov.au. These details will also be included into revisions of the TMP throughout the construction stage. The Principal Contractor Logistics Manager will also check the Live Traffic website daily to ensure they are aware of any roadwork sites that may impact vehicles travelling to or from the site. Where necessary, the Principal Contractor Logistics Manager will contact

the on-site representative or the Customer and Network Operations Coordinator via the above email addresses.

In addition, and as also agreed with TfNSW, the Principal Contractor will commit to periodic (once per week) surveys of staff vehicle movements to ensure that staff trips remain within the limits detailed in the SSD Approval. These surveys are anticipated to include a combination of staff surveys at tool talks and the like, as well as surveys of the number and occupancy of staff shuttle buses. This information will also be provided to TfNSW throughout the construction stage. Staff will be encouraged through inductions and toolbox talks to maximise occupancy of light vehicles attending site to minimise light vehicle usage.

5.2 On-Site Management

5.2.1 Staff Parking

As discussed in Section 2.6.1, all staff parking will be contained within the site; no staff (or any other) parking will be permitted off-site.

The parking area will be located in the main construction compound area and will provide sufficient parking for up to 30 light vehicles and 4 coaster buses.

5.2.2 Deliveries and Materials Handling

All deliveries and materials handling will be confined on-site at all times; no off-site deliveries or materials handling will be permitted.

Set down areas will be clearly designated and, when feasible, separated from work areas, internal roads and car parks. These designated set down zones will provide for multiple trucks to be on-site at the same time. Additionally, these areas will be designed to ensure that the largest vehicle accessing the Site can manoeuvre within it safely, and that all vehicles enter and depart the Site in a forward direction.

5.2.3 Truck Convoys

Further to the above, deliveries will be proactively managed by a specifically employed Principal Contractor Logistics Manager to minimise the potential for truck convoys forming along the designated access route (as well as the broader regional road network), and to minimise any queuing at local intersections or at the Site.

The Principal Contractor Logistics Manager will be responsible for coordinating the arrival and departure of all heavy vehicle deliveries to the site, at specific times of day to ensure all regulatory requirements and community expectations are met. Where necessary, this involves the coordination of police escorts. The delivery of project materials will be coordinated to arrive and depart from the site at different times to coincide with the construction program.

Delivery schedules will be arranged a day in advance and will be checked daily to ensure that no more than 5 heavy vehicle deliveries are made in a 2 hour window. If more than 3 heavy vehicle deliveries

are expected in a 3 hour window, the Principal Contractor Logistics Manager will notify TfNSW to enable coordination with other projects to avoid convoys forming.

Management strategies in this regard will include:

- To the extent possible, scheduling of all deliveries so that they can be spread (to the extent practicable) across the work day (and over the broader construction stage) rather than being concentrated over short periods;
- For trucks delivering materials from the port, these truck will be required to commence their journey to the Site immediately after being loaded. This means that movements are spread out (within the vicinity of the Site and broader regional road network), thereby mitigating the formation of convoys.
- Given the distance between the ports and the Site, it is also anticipated that trucks will be spaced farther apart due to the varying traffic conditions prevailing across the broader regional road network.

5.2.4 Emergency Vehicle Access

Continuous access for emergency vehicles to and from the Site will be ensured; the Principal Contractor will develop emergency protocols for the construction stage.

5.2.5 On-Site Traffic Control Plan

After determining the placement of internal access roads, set down areas and car parking within the Site, the Principal Contractor will develop a Site-specific Traffic Control Plan (**Site TCP**). The Site TCP will be in effect throughout the construction stage and will outline the following details:

- A Traffic Flow Diagram showing all routes to/from the Site entrances and through the Site;
- On-site speed limits;
- Priority provisions, with larger vehicles to be provided with priority over smaller vehicles at all internal intersections at all times;
- Car park locations;
- Delivery set down locations and materials handling protocols;
- Shaker grid and wash down facility locations;
- Additional requirements such as the use of flashing hazard lights and reversing alarms, designated radio channels for on-site and off-site communication and adherence to the Drivers Code of Conduct (see also Section 5.9).

A copy of the Site TCP will be provided to all construction staff and site visitors (contractors, delivery, truck drivers etc) as part of the Site induction process, and any changes to the Site TCP will be communicated to all staff.

5.3 Off-Site Work Area Traffic Management

Currently, it is anticipated that the need for Work Areas within the road reserve will include the following locations:

- At and in the vicinity of the intersection of Henry Parkes Way & McGrath Lane;
- At and in the vicinity of the intersection of Back Trundle Road & McGrath Lane; and
- At and in the vicinity of the intersections of Back Trundle Road and the Site entrances.

With reference to Section 138 of the Roads Act, any works within a public road must obtain the consent from the relevant road authority. In this instance, the required consents are from Council and TfNSW (for works in Henry Parkes Way) and Council (for works in Back Trundle Road and McGrath Lane).

Council have approved works in Back Trundle Road and McGrath Lane – refer Appendix F.

To initiate road works, the Principal Contractor will prepare an application for a Road Occupancy Licence (**ROL**); this application will include all relevant details about the staging of road works and will be submitted for approval prior to the commencement of any road works (see also Section 5.4).

5.4 Traffic Guidance Scheme

5.4.1 General Traffic Guidance Scheme Requirements

Further to Section 5.3, a submission for a ROL will likely require a detailed Traffic Guidance Scheme (**TGS**), previously referred to as a Traffic Control Plan. The TGS have been prepared by individuals accredited to *Prepare a Work Zone Traffic Management Plan* in accordance with the TCW Manual and AS1742.3.

For any TGS involving signage, traffic control or other potential changes to road operations, it is essential to engage in consultation with and approval from TfNSW and/or Council prior to implementing the associated construction works.

5.4.2 Henry Parkes Way & McGrath Lane Works Traffic Guidance Scheme

A TGS is required to support the safe and efficient upgrade of the Henry Parkes Way & McGrath Lane intersection, per the requirements of Appendix 3 of the SSD Approval. The TGS encompasses provisions for:

- Maintaining vehicle access along both Henry Parkes Way and McGrath Lane throughout the upgrade area;
- Implementing a decrease in the speed limit on Henry Parkes Way within the Work Area as per the TGS;
- Implementation of controlled Stop-Go operations (supervised by appropriately authorised Traffic Controllers, as outlined in Section 5.3.5) when two traffic lanes (for two-way flows) are unavailable during specific upgrade stages. Given the low through volumes in Henry Parkes Way, this measure is unlikely to have any significant impact on through traffic movements; and

- Installation of appropriate warning and guidance signages (per the TWC Manual, and likely including T1-5, T1-18 and T1-34 signage as a minimum) at all approaches to and around the Work Area.

The TGS is provided in Appendix I.

Any other works requiring the use of local roads will also require a detailed TGS. In cases where it is deemed necessary, all TGS will be reviewed and updated to respond to any changes in current traffic conditions as the upgrade works progress.

5.4.3 Back Trundle Road and McGrath Lane Works Traffic Guidance Scheme

In Back Trundle Road and McGrath Lane, changes to the alignment of the road at the intersection of McGrath Lane are required together with the development of two site accesses and upgrade works along McGrath Lane. McGrath Lane will be closed for the duration of the upgrade works.

The TGS for this portion of the works is provided in Appendix I.

5.4.4 Authorised Traffic Controllers

Authorised Traffic Controllers will be stationed on-site throughout the proposed works as required by the TGS provided in Appendix I. Responsibilities of the Traffic Controllers will include:

- Overseeing all movements of construction vehicle entering and exiting the Work Area;
- Supervising the loading and unloading of construction materials the Work Area, and
- Managing vehicle, pedestrian and cyclist traffic.

5.5 Responding to Local Climate Conditions

5.5.1 SSD EIS Hazards and Risks Assessment

Section 14 of the EIS SSD provides an assessment of the potential hazards and risks associated with the Project, and details numerous impact mitigation measures built into the Project's design, construction and operational stages.

In addition, Section 14.6.4.1 of the SSD EIS outlines the development of an Emergency Response Plan (**ERP**) that will be in place throughout the life of the Project. While the ERP's broader structure in the SSD EIS primarily concentrates on fire emergencies, it will also encompasses guidelines for addressing flooding and other potential climate-related events similar to those outlined for fire events.

Additional information pertaining to this matter is provided in the following sections.

5.5.2 Flooding

With reference to Section 13.1.1 of the SSD EIS, the Site features a predominantly flat topography, characterised by a gradual slope in the direction of the southwest for drainage purposes. The same section confirms that the Site is not identified as *flood prone land*, nor does it have any known history of flooding or inundation events.

Similarly, there is no history of flooding in Back Trundle Road and McGrath Road. However, it should be noted that their unsealed carriageways (if not upgraded) might render them unsuitable for vehicle movements during significant rain events. Nevertheless, following the proposed upgrades, the probability of flooding causing impassable conditions in these roads (or in Henry Parkes Way) is considerably reduced.

Notwithstanding, the Principal Contractor HSE Advisor will be responsible for conducting at least weekly inspections of Back Trundle Road, McGraths Lane and internal roads to verify their suitability for accommodating construction traffic. Additionally, the Principal Contractor HSE Advisor will monitor weather conditions, particularly during instances of severe or dangerous weather that could jeopardise these roads or ongoing construction activities.

In cases of extreme conditions posing a risk to driver and public safety, the option of temporarily suspending vehicle movements to and from the Site will be explored to ensure a precautionary approach (see also Section 5.8).

5.5.3 Bushfire

While Section 14.3 of the SSD EIS notes that the Site is not mapped as *bushfire prone land*, there is nonetheless an acknowledgement of the *duty of care* placed on land managers to prevent fire events per the Rural Fires Act 1997.

While there is very limited potential for the local road network to be impacted by bushfire, the Principal Contractor HSE Advisor will ensure that all staff (including truck drivers) strictly adhere to any bushfire warnings and action strategies implemented by the Rural Fire Service or other emergency agencies. This may include restricted access to the Site in the event of a bushfire emergency.

5.5.4 Dirt and Dust

With reference to Section 15.1 of the SSD EIS, there is the potential for adverse air quality impacts to arise during the construction stage as a result of dust emissions from works involving the transportation of materials on internal roads. The Enel HSE Advisor will inspect the roads in the vicinity of the project site twice daily to determine whether any dirt is being tracked off the site by project vehicles.

To address this, appropriate mitigation measures will be implemented during the construction stage, which will include:

- The sealing of Back Trundle Road and McGrath Lane, as discussed in Section 2.5;
- Restricting vehicle movements and ground disturbance to the smallest feasible area that ensures safety;
- Ensuring that vehicles leaving the Site are clean to minimise dirt tracking onto the public road network, further aided by wash down facilities and shaker grids at the [internal] approach to both Site entrances;
- Applying strategic watering for dust suppression through strategic as required; and
- Temporarily ceasing works during excessively dry and windy conditions, if required.

5.5.5 Road side drainage

All works occurring on site and in relation to road upgrades will be managed to ensure that the capacity of roadside drainage is not reduced. This will be managed through the design of road upgrades, subject to approval by Parkes Shire Council (PSC) as the roads authority.

The Principal Contractor HSE Advisor will inspect road side drainage at least once per week, and after any rain events, to confirm no impacts to capacity.

If any issues are noted, the Principal Contractor Project Manager will coordinate with Parkes Shire Council to address the issue.

Local road upgrades have been approved by PSC via Roads Act approval 1916445 dated 27 May 2024 – refer Appendix F.

5.5.6 On-Site Emergencies

Whether the result of severe weather conditions or an ulcerated on-site incident, the ERP will include provisions to ensure that emergency vehicle access to the Site is available at all times.

5.5.7 Traffic Network Monitoring

At all times during the construction stage, to ensure that all drivers are aware of general road network conditions the Principal Contractors Logistics Manager will monitor the Live Traffic website (https://www.livetraffic.com/) to identify any roadwork sites (or – for example – crash locations) that may impact construction traffic, and appropriately notify staff and truck drivers of any diversions or other temporary conditions that may affect their journey.

The Enel HSE Advisor will inspect the route between the western edge of Parkes and the project site twice daily during the AM and PM peak hours to ensure that any instances of queuing on local or classified roads caused by project traffic is identified and rectification steps implemented. This may require updates to this CTMP.

If queuing is identified, the measures in Section 5.2.3 to be implemented.

5.6 School Bus Awareness

While the vast majority of construction trips will occur before and after school bus operating hours, it is noted that the designated vehicle routes include some sections of road used by school buses.

Based on our discussions with local bus companies, and a review of available routes and timetables from Western Road Liners and Forbes Bus Lines, these school bus routes include:

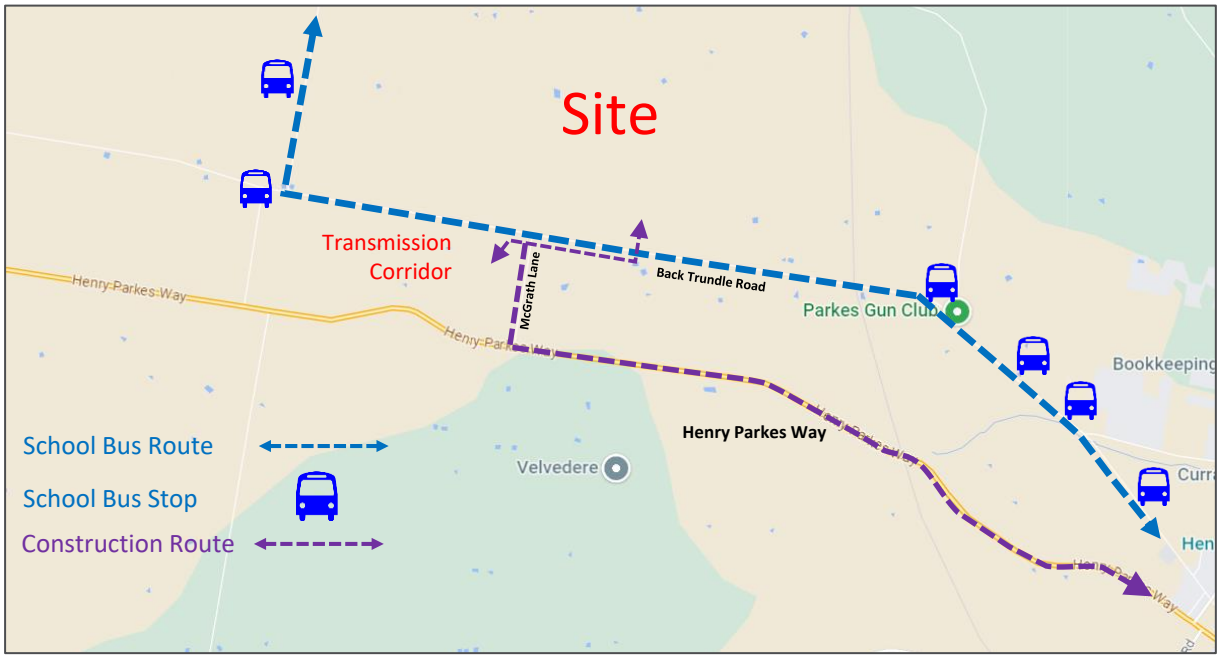
- S450 Parkes School to/from Back Trundle Road (along part of the Back Trundle Road construction route);
- S469 Middle Trundle Road (along the Henry Parkes Way construction route);
- S467 Bogan Gate (along the Henry Parkes Way construction route);
- S474 Nelungaloo (along the Henry Parkes Way construction route); and

- Parkes Town Centre services.

In relation to Route S450 operated by Forbes Bus Lines, school buses travel along Back Trundle Road adjacent to the Site; however, there are no school bus stops in the immediate vicinity of the Site. Moreover, construction vehicles will not use sections of Back Trundle Road where there are school bus stops, as shown in Figure 17.

The Principal Contractor Logistics Manager will schedule heavy vehicle deliveries so that they do not occur during school bus hours.

Figure 17: School Bus Route S450 Bus Stops



Source: Forbes Bus Lines

Notwithstanding, school bus stop locations can change over time due to shifts in student locations, and in some instances these bus stops can be poorly defined or lack school bus stop signage.

As such, the Principal Contractor will contact local bus operators at the commencement of each school term through the construction stage to determine if any new bus stop locations are to be provided along the designated construction vehicle routes. If this is the case, these locations will be specifically identified on the VMP.

In addition, the NSW Road Rules impose a speed limit of 40km/h when passing a school bus, whether the school bus is stationary or in motion. This restriction will be specifically detailed in the Drivers Code of Conduct, as discussed in Section 5.9.

5.7 Road Dilapidation Protocols

5.7.1 Road Dilapidation Surveys

Road dilapidation surveys involve a careful inspection of existing road conditions prior to the commencement of any project that might lead to an increase in the volume of traffic the road is expected to handle.

A suitably qualified and independent inspector will conduct an inspection that encompasses various factors, including drainage, potholes and road surface cracks and formation. Further to the initial inspection, they will compile a comprehensive report that includes detailed descriptions and accompanying photographs of the existing conditions.

At various stages during the construction stage, additional surveys will be undertaken to ensure that any impacts arising from the increased traffic due resulting from the Project are appropriately addressed. The ultimate objective is to ensure that all key roads are returned to a condition equal to or better than their state prior to the commencement of the Project.

Triggers for these additional independent surveys include but are not limited to:

- Significant rainfall events (>20mm of rain in a 24 hour period);
- In the event of any flooding of the project site and/or surrounding roads.

In addition to the above, the project Principal Contractor Site HSE advisor will complete weekly inspections of the Henry Parkes Way intersection, the full length of McGrath Lane and the portion of Back Trundle Road between the project site access and McGrath Lane. The HSE advisor will also complete twice daily inspections of the abovementioned roads following rainfall events that result in more than 5mm of rain in a 24 hour period.

If the roads are considered unsafe as a result of these weekly or wet weather inspections, the HSE Advisor will coordinate with the Principal Contractor Construction Manager to reschedule or postpone any deliveries until such time as road conditions are deemed safe.

5.7.2 Survey Locations

Based on the potential for Project related vehicles to impact the condition of local roads, the surveys will be undertaken at the following locations:

- Back Trundle Road, from east of the Site to west of the Transmission Corridor;
- The intersection of Back Trundle Road & McGrath Lane;
- McGrath Lane from Back Trundle Road to Henry Lawson Drive; and
- The intersection of Henry Parkes Way & McGrath Lane.

5.7.3 Survey Schedule

At a minimum, the surveys will be undertaken at the following times during the construction stage:

- Prior to road upgrades (per Appendix C of the SSD Approval);
- Following the road upgrades, but prior to the commencement of construction works;
- Within 2 months of construction commencing;
- Within 1 month prior to the completion of construction; and
- Within 1 month after the completion of construction.

5.7.4 Periodic Inspections

In addition to the formal road dilapidation surveys, the Principal Contractor will be responsible for overseeing weekly visual inspections of the abovementioned roads and intersections so as to address any road defect issues in a timely manner. It will also be part of the Drivers Code of Conduct for all drivers to immediately inform the Principal Contractor of any road defects that pose a safety or other risks.

5.7.5 Road Repairs

The project HSE Advisor will inspect McGrath Lane and the section of Back Trundle Road between McGrath Lane and the property entrance, at least once per week to ensure that any damage is identified.

If the need for repairs to McGrath Lane or the section of Back Trundle Road between McGrath Lane and the property entrance are identified, the Principal Contractor Project Director or Project Manager will consult with the Council to define the extent of the necessary actions and identify the most efficient and sustainable methods for restoring these road sections. The principal contractor will complete the necessary works to the satisfaction of Council and the planning secretary. In cases of urgent repairs, construction vehicle operations will be suspended until the remedial measures are executed.

5.8 Responsibilities

5.8.1 Roles and responsibilities

Enel, as the project proponent, has the overarching role of responsibility in ensuring the delivery of the project and ensuring all requirements and commitments are met. Enel shall ensure specific responsibilities are communicated to all personnel (construction staff, contractors, delivery drivers/staff, heavy vehicle drivers etc), via appropriate environmental management training (part of the initial safety and environment induction).

Enel has engaged a Principal Contractor who will be responsible for the design and construction of the project, under Enel's oversight. The Principal Contractor will engage subcontractors to assist in the delivery of the project.

Section 4.8 of the EMS provides key responsibilities for Enel and Principal Contractor staff

The roles and responsibilities within Enel are outlined in the below.

Table 9: Proponent's Environmental management team

Role	Responsibility
Enel's Project Manager	• Engaging with all relevant stakeholders and authorities to determine Project environmental requirements; and acquiring Project environmental approvals including relevant licensing and permits • Fulfilling Enel's obligations under the Conditions of Approval for the Project works • Providing the contractor visibility and transparency to Project environmental requirements and commitments, to enable outcomes • Advising or enabling environmental requirements and considerations in a timely manner • Initiating and participating in Project meetings, workshops, and consultations to facilitate outcomes throughout the Project

	• Setting up and managing a Project complaint handling and resolution process, as detailed by the Project CoAs • Making Project approvals and environmental documents publicly accessible, as detailed by the Project CoAs • Regularly monitoring environmental performance and maintaining visibility on work sites for environmental compliance • Advising DPHI and Stakeholders on Project environmental performance • Duty to Notify and timely reporting of environmental incidents and non-compliances to the DPHI , and as otherwise required • Ensuring all Project activities are carried out in an environmentally responsible way, without environmental harm, and in compliance with the Project CoAs • Engaging a contract Superintendent that is familiar with the Projects environmental requirements and that in the event of contractual ambiguity or discrepancy an informed interpretation will be made • Advising DPHI and Stakeholders of key timeframes and dates associated with the works. • Validating the capabilities, proficiencies and performance of parties engaged for the works.

The roles and responsibilities during the construction phase of the Principal Contractor are outlined in Table 10.

Table 10: Principal Contractor team roles and responsibilities

Role	Responsibility	Authority	Accountability
Principal Contractor Project Director	Ensure appropriate resources are available to comply with all relevant regulatory and project requirements.	Direct that works be stopped immediately where there is an actual or potential risk of environmental harm	Reports to the Project Owner
Principal Contractor Project Manager	• Overall responsibility to execute the engineering, procurement and construction works • Ensure works comply with all relevant regulatory and project requirements • Liaise with Project Owner and regulatory authorities	Direct that works be stopped immediately where there is an actual or potential risk of environmental harm	Reports to the Principal Contractor Project Director

	• Exercise a duty of care to the environment • Ensure that all personnel understand, accept, and fully carry out their obligations for environmental protection and that they are adequately trained, instructed and resourced to fulfil their obligations • Seek relevant approvals for any required works or changes to site conditions outside the limits of the applicable project approvals/permits/plans • Assist with environmental compliance audits and incident investigations as required.		
Principal Contractor Construction Manager	• Plan and organise works to reduce the risk of adverse environmental impacts • Ensure works comply with all relevant regulatory and project requirements • Exercise a duty of care to the environment • Notify the Project Manager of any required works or changes to site conditions outside the limits of the applicable project approvals/permits/plans to seek the necessary approvals • Assist with the independent environmental audits and any environmental incident investigations as required.	Can direct construction teams and personnel to take reasonable measures to prevent or minimise any material harm to the environment	Reports to the Principal Contractor Project Manager
Principal Contractor Site HSE Advisor	• Overall person responsible for managing the environmental aspects of the project	Can direct construction teams and personnel to take reasonable measures to prevent or minimise any material	Reports to the Principal Contractor Construction Manager

	• Coordinate environmental monitoring, reviews and audits as required • Ensure works comply with all relevant regulatory and project requirements • Implement Principal Contractor's HSE programs • Ensure all personnel have completed a site induction prior to starting work • Exercise a duty of care to the environment • Ensure the EMS, CEMP and associated documents are available to all personnel • Carry out environmental inspections and initiate actions to ensure compliance with stated requirements • Participate in the independent environmental audit • Report on environmental performance at the site • Undertake environmental incident investigations and implement improvement measures.	harm to the environment.	
Principal Contractor Logistics Manager	• Daily record of heavy vehicles accessing the site; • Ensuring maximum vehicle numbers per day are adhered to; • Ensuring the number of over-dimensional vehicles entering and leaving the site is adhered to, noting the terms of condition 2 of schedule 3 of the consent (to be updated for subsequent stages);	Can direct construction teams and personnel to take reasonable measures to prevent or minimise any material harm to the environment.	Reports to the Principal Contractor Construction Manager

	• Maintaining a record of the number of over-dimensional vehicles entering and leaving the site for the duration of the project, noting the terms of condition 3 of schedule 3 of the consent; • Forward schedule of deliveries at least two days in advance; • Shipping dates; • Transit times; • Estimated arrival times; • Online shipping information for each shipment applicable to the project; • Daily reports sent to site. • Maintaining daily communication with the transport companies; • Coordinating with the Principal Contractor Project Manager around the timing of incoming materials; • Coordinating with the Principal Contractor HSE Advisor to be aware of inclement weather with the potential to disrupt delivery schedules; • Review and monitoring as per Section 5.5.7.		

Table 11: Principal contractor operational environmental management team

Role	Responsibility	Authority	Accountability
Operation and Maintenance (O&M) Service Operations Manager (Off-Site)	• Ensure appropriate resources are available to comply with all relevant regulatory and project requirements.	Direct that works be stopped immediately where there is an actual or potential risk of environmental harm	Reports to the Project Owner

O&M Site Service Manager (On-Site)	• Plan and organise operations to reduce the risk of adverse environmental impacts • Ensure operations comply with all relevant regulatory and project requirements • Exercise a duty of care to the environment • Notify the Service Operations Manager of any required operations or changes to site conditions outside the limits of the applicable project approvals/permits/plans to seek the necessary approvals • Assist with environmental audits and environmental incident investigations as required	Can direct construction teams and personnel to take reasonable measures to prevent or minimise any material harm to the environment	Reports to the O&M Service Operations Manager
O&M Service HSE Advisor (Off-Site)	• Provides environmental advice and support to the Site Service Manager • Assist with environmental monitoring, reviews and audits as required • Monitors environmental performance at the site • Assist with environmental incident investigations.	Can direct operations teams and personnel to take reasonable measures to prevent or minimise any material harm to the environment	Reports to the O&M Service Operations Manager
O&M Site Service Team	• Participate in environmental reviews and audits as required for relevant service areas • Ensure servicing comply with all relevant regulatory and project requirements • Provide environmental documentation and records for relevant service areas • Implement and comply with the applicable environmental management measures	·Identify and treat environmental risks before commencing works each day and prevent any material harm to the environment	Reports to the O&M Site Service Manager

	• Report on environmental performance at the site for relevant service areas • Report any environmental incidents (potential and/or actual) in a timely manner.		

5.8.2 Site Induction

All staff (including construction staff, contractors, delivery, truck drivers etc) will be properly inducted prior to commencing work on-site. The induction will detail the Site's construction safety protocols, including:

- Site access, amenities and general procedures;
- Requirements with respect to PPE and Workplace Health and Safety;
- Risk management procedures;
- Designated vehicle routes;
- Truck movements and on-site parking;
- Emergency response protocols;
- The content of the CTMP; and
- The Driver Code of Conduct.

The induction will occur online prior to any person visiting the site including delivery drivers.

The commitment to follow all protocols will also be emphasise through regular "toolbox talks" and similar communication sessions, ensuring that all staff members have access to the complete CTMP.

Safe Work Method Statements documentation is to be rear and signed by all staff during prestart meetings by the Principal Contractor.

In addressing the Driver Code of Conduct during the site induction, the use of GPS tracking for project vehicles will be clearly discussed to ensure staff are aware of and understand its purpose. It will be explained that, for those project related vehicles (typically heavy vehicles) fitted with GPS tracking, a weekly check by the Principal Contractor Logistics Manager will occur of the GPS data to confirm that designated routes are being used and that no parking of project vehicles is occurring on public roads (other than during the period where road upgrades are occurring). If vehicles are found to be using non-designated/non-approved routes or parking on the public road (other than during road upgrades), the drivers in question will be subject to disciplinary action.

5.8.3 Truck Movements

The Principal Contractor is required to take all steps necessary to ensure the safety of trucks and their movements, avoiding any situations where truck drivers operate under unsafe conditions. This objective will be achieved through the implementation of the following:

- Ensuring all trucks are well maintained and equipped to enhance driver, operator and passenger safety to the utmost extent possible;
- Verifying that all truck drivers have a valid Verification of Competency for the specific class of vehicle they are driving;
- Identifying training requirements for truck drivers and arranging appropriate training or re-training. This is anticipated to include truck driver competency assessments during all inductions and conducting regular toolbox talks on topics such as safety protocols, fatigue management, approved truck routes and driver responsibilities; and
- Promoting safe driving practices by not covering or re-imbursing staff for speeding or other infringement notices, endorsing the legal use of mobile phones only while driving, and providing training sessions on travel planning and efficient truck driving habits.

All project traffic will be directed on the use of approved access routes and routes will be monitored weekly to ensure compliance through the use of GPS tracking (where fitted) and by weekly checks along the route during peak periods by the Principal Contractor Logistics Manager. This will be reflected in the driver code of conduct. Infringements of the driver code of conduct will result in disciplinary action being taken against the driver.

5.8.4 Communications Strategy

The Principal Contractor will implement a Communications Strategy that will assist in managing traffic impacts, through ensuring the community has a clear understanding of the proposed construction staging of the project.

This will include the following:

- The installation of Variable Message Sign (VMS) boards that provide advance notice of works and/or any traffic control measures, whether they are on or off-site (subject to appropriate approvals);
- Delivery of written notices to residents in the vicinity who might potentially be impacted by the construction works at least one (1) week before the works are scheduled to occur;
- Updates on the project website about the status of the construction of the project will be provided monthly;
- Complaints and incident notification contact details for Enel and the Principal Contractor during and outside of construction hours;
- Press releases in the local paper;
- Communicating directly (by phone and email) with other project developers/contractors, Council, TfNSW and local community groups about the expected timing and duration of OSOM vehicle movements with the aim of avoiding any overlap at least 1 week before the scheduled movement;
- and

- Provision of contact information for Principal Contractor (or their representative), enabling them to address enquiries from key stakeholders and local residents.

Relevant contact details for the appointed contractor(s) for the Site will also be provided on the Project website.

5.8.5 CTMP Monitoring and Review

The HSE Advisor for the Principal Contractor will monitor the effectiveness of the CTMP through the entire construction stage. This will include a weekly review of the CTMP by reference to the outcome of incident reports, any complaints received, daily monitoring of the site. In the event any deficiencies in the CTMP are identified, the CTMP will be updated and recirculated to relevant parties.

The CTMP will be subjected to ongoing review to further enhance the safety and efficiency of the construction works. The Principal Contractor HSE Advisor will document all reviews, and the review process will include the following:

- Tracking light vehicle movements during peak construction periods to compare them against the light vehicle movements permitted for under the SSD Approval.
- Tracking truck movements during all periods of the construction stage to compare them against the truck movements permitted for under the SSD Approval. This will involve maintaining a written log of all truck movements to and from the Site throughout the construction stage;
- Identifying any shortfalls in the existing CTMP and developing an updated action plan to address issues that arise during the construction stage. For example, this could involve addressing scenarios where peak period or daily traffic volumes approach or potentially breach the movement limits permitted for under the SSD Approval;
- Ensuring that any TGS (where required) are consistently updated by accredited personnel to align with construction requirements and the intentions of the CTMP; and
- Undertaking regular checks to confirm that all loads leaving the Site are appropriately covered and do not track materials onto adjacent roads. This also includes ensuring the appropriate maintenance of the shaker grids and wash down facilities.

5.9 Proponents responsibilities

5.9.1 Project website

Enel have established a project website: https://www.enelgreenpower.com/our-projects/in-development/quorn-park-hybrid-project.

The project website will be used as a means of communicating with the general public about the project. The following information will be provided on the project website as a minimum:

- 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 (other than the Fire Strategy Study and Emergency Plan);
- 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;
- a complaints register;
- compliance reports;
- any independent environmental audit, and the Applicant's response to the recommendations in any audit;
- any other matter required by the Planning Secretary.
- Contact details for the Principal Contractor;
- Community notifications about the timing and duration of any heavy vehicles under escort travelling to or from the site, any full or partial road closures and any speed reductions.
- Community notifications about any changes to traffic conditions.

The Enel Project Manager will review the website weekly and ensure that all relevant information is kept up to date. Any changes will be made within 1 week of the date of the change.

5.10 Drivers Code of Conduct

Throughout the construction stage, the Principal Contractor will rigorously enforce a Drivers Code of Conduct. The primary goals of the Drivers Code of Conduct are:

- To minimise the impact of truck and contractor vehicle movements on the on-site work environment and local road network;
- To minimise conflict with other on and off-site road users;
- To minimise truck traffic noise by ensuring that vehicles have correctly been fitted with mufflers to minimise noise disturbance, and use only the approved construction vehicle routes during approved construction hours so as to minimise noise impacts in residential and urban areas; and
- To ensure all staff attending the site use the designated vehicle routes – refer Section 4.3.

The Drivers Code of Conduct will further stipulate that while operating any construction related truck or contractor vehicle, drivers must:

- Demonstrate safe driving and road safety activities;
- Not be affected by alcohol, drugs or fatigue;
- Abide by traffic and road legislation;
- Abide by on and off-site speed limits at all times; and
- Follow Site signage and instructions at all times.

The Drivers Code of Conduct is provided as a separate document in Appendix E.

Regular monitoring of vehicle routes will occur to ensure compliance with the terms of the driver code of conduct including the use of approved routes only and prohibition on any off-site parking.

5.11 Complaints Management

5.11.1 Contact Details

Contact details for the Project will be available on the Project website and displayed at the entrances to the Site. Additionally, an on-line complaints contact form will be available on the Project website for convenience and efficient communication.

5.11.2 Complaints Management

Complaints will be managed as per Section 8.3 of the project EMS.

External complaints are defined as complaints received from parties outside of the normal lines of communication.

Complaints and enquiries regarding the works will be received through the contact details provided on the Project website, as outlined in Table 8-1. All complaints received are reportable incidents and shall be immediately reported to the Principal Contractor during the construction phase, and Enel during the Operation phase.

Table 12: Complaint lodging contact details (for all phases of the Project)

Contact method	Details
Project website	https://www.enelgreenpower.com/our-projects/in-development/quorn-park-hybrid-project
Contact	Giulia Scataglini, Community Engagement and Sustainability Officer Enel Green Power Australia
Telephone number (toll free)	0419 668 522
E-mail	quornparkhybrid@enel.com
Mail	Level 23, One International Towers 100 Barangaroo Ave Sydney NSW 2000

Handling of complaints received will be as per the steps outlined in Table 13.

Table 13: Complaint management

Step		Responsibility	Timeframe
1	Receive and register a complaint	Any person on site – refer to Enel HSE Advisor	Immediately

2	Acknowledging complaints:	Enel HSE Advisor	non-urgent complaints - within 5 days of receipt urgent complaint - within 48 hours of receipt
3	Investigating complaints	Enel HSE Advisor	Within 30 days of complaint being received
4	Responding to stakeholder/complainant	Enel HSE Advisor	Within 45 days of complaint being received
5	Closing the complaint	Enel HSE Advisor	Within 60 days of complaint being received
6	Recording and registering the complaint	Enel HSE Advisor	Within 60 days of complaint being received

The Complaints Register will be made available for reference on the Project website and details made available at the request of DPHI.

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 Enel Project Manager to ensure that the complaint process has been properly followed.

If a complainant is not satisfied with the investigation and proposed resolution, the complainant will be advised that they have the right to contact a number of other bodies such as Parkes Shire Council or the Australian Energy Infrastructure Commissioner or seek legal advice. Enel will provide complainants with the relevant contact details, as seen in Table 14.

Table 14: Alternative complaint contacts

Alternative contact	Email/number
Parkes Shire Council	council@parkes.nsw.gov.au 02 6861 2333
Australian Energy Infrastructure Commissioner	aeic@aeic.gov.au
LegalAid NSW (Orange)	02 6362 3983

5.11.3 Dispute Resolution

Dispute resolution will be managed by Enel's Project Manager in accordance with Section 8.4 of the project EMS.

5.12 Incidents, non-compliances and notifications

An incident is defined as an unplanned event impacting, or potentially impacting the environment with consequences.

Non-compliance refers to a failure to adhere to the requirements of a condition of consent. From an environmental perspective, this could include:

- A serious breach of EMS requirements.
- Carrying out an unsafe work practice that has the potential to cause harm to the environment (i.e. near misses).
- Activities that have caused actual harm to the environment not permitted by the Project or covered in the environmental assessment documentation.
- Deficiencies or concerns raised by client representatives and/or by state and local authorities or agencies.

Should an incident or non-compliance occur, the Principal Contractor Construction Manager and Site HSE Advisor will ensure that work ceases in that area and that the site is not disturbed until the appropriate level of investigation is conducted to ensure that any potential evidence is preserved.

During all phases of the Project, all staff (employees and contractors) are responsible for ensuring timely and effective initial internal reporting of Incidents that they are involved with or witness.

Enel 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 Principal Contractor must liaise with Enel prior to notifying any agencies of any incident on site (i.e. EPA). Within 7 days of the date of the incident, the Principal Contractor must provide Enel 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.

In accordance with Condition 10 of Schedule 4 of the Development Consent, the Department will be notified in writing via the Major Projects website immediately after Enel 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.

In accordance with Condition 11 of Schedule 4 of the Development Consent, DPHI will be notified via the Major Projects website portal within 7 days after Enel becomes aware of any non-compliance with the conditions of this consent. The notification must identify the development and the application number for it, set out the condition of approval 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 done, or will be, undertaken to address the non- compliance. A non-compliance which has been notified as an incident will not be notified as a non-compliance.

6 Operational Traffic Management Plan

6.1 Operational Traffic Generation

Once the Solar Farm becomes operational, its daily traffic generation will be exceedingly minimal. Monthly scheduled maintenance works are expected to take place involving only a small number of staff, with the Site's average daily trip generation during these maintenance periods expected to be no more than 8 vehicle trips per day.

All light vehicle and truck trips generated through the operational stage will be required to use the same designated access route as used during the construction stage.

6.2 Operational Traffic Impacts

As discussed, the traffic generation of the Solar Farm once operational is minimal, and will have no impact on the operation of the road network. This aligns with the conclusions presented by DPHI in the Assessment Report, as discussed in Section 2.8.

6.3 Operational Staff Parking

On-site parking for operational staff will be provided in accordance with the SSD Approval, ensuring adequate capacity to accommodate the maximum number of operation staff present on-site at any one time.

6.4 Traffic Management Plan Update

Prior to the Site becoming operational, the TMP will be revised to align with the Project's operational characteristics.

7 Decommissioning Traffic Management Plan

7.1 Decommissioning Overview

The Project is anticipated to have a lifespan of approximately 30 to 35 years, and as such providing an exact estimate of conditions during the decommissioning stage is difficult. However, in line with Section 9.5.3.2 of the SSD EIS, a *Decommissioning Management Plan* (**DMP**) will be prepared at least 1 year prior to the commencement of decommissioning activities.

Importantly, the DMP will include revisions to the TMP by a suitably qualified consultant, essentially duplicating the same process used for the CTMP component, including:

- Number (quantities) and types of trucks and light vehicles;
- Designated routes for trucks and light vehicles;
- Decommissioning work hours and broader schedule;
- Potential road network upgrades to accommodate decommissioning related traffic; and
- General measures and strategies, including effective Site management controls and any necessary updates to the Drivers Code of Conduct, if needed.

7.2 Decommissioning Traffic Generation

In relation to the overall activities to be undertaken during the decommissioning phase, Section 9.5.3.3 of the SSD EIS indicates that the works will include:

- Disconnection of the solar farm from the grid;
- Removal of PV modules, mounting posts, mounting frames and trackers;
- Removal of all buildings and equipment;
- Removal of any underground cabling shallower than 800 mm;
- Removal of fencing (unless requested otherwise by the landholder); and
- Site rehabilitation to render the site fit for resumption of agricultural use.

Many of these tasks are expected to require the use of similar vehicles as those used during the construction phase. Similarly, specialised deconstruction machinery may be better equipped for the dismantling of certain on-site infrastructure, potentially resulting in lower staff numbers compared to the construction stage.

Further to these considerations, all available information indicates that the Site will generate few vehicle trips during the decommissioning stage compared to the construction stage. This conclusion aligns with findings from numerous traffic assessment conducted for other solar farm projects across NSW and Australia.

7.3 Decommissioning Traffic Impacts

As discussed in Section 2.9, even if the traffic generated during the decommissioning stage were the equivalent of that generated during the construction stage, all available information indicates that the

road network will continue to operate with few delays and significant spare capacity. Notwithstanding, a detailed assessed of decommissioning traffic will be included in future revisions to the TMP prior to the decommissioning stage commencing.

7.4 Staff Parking

Throughout the decommissioning stage, designated on-site parking will be provided for decommissioning staff to entirely meet demand; no decommissioning staff or truck parking will be permitted off-site.

See also Section 5.1.1. The same mechanisms identified in Section 5.1.1 to manage construction staff parking will be adopted during decommissioning.

8 Conclusions

The key objectives of this TMP are to maximise the safety of all road users; minimise disruptions to the local road network; and to adhere to all relevant regulatory requirements, and in particular the traffic-related conditions as stipulated in SSD Approval. Through a combination of strategic planning, detailed route assessments, and proactive mitigation measures, arc traffic + transport has determined that all potential impacts on traffic flow, local communities, and the environment will be effectively managed through every Project Stage.

Construction Stage

- All roads linking the Site to the regional road network operate with relatively low traffic volumes, and as such with few delays.
- All road and intersection upgrades detailed in the SSD Approval will be completed prior to any on-site construction works commencing.
- Designated access routes will minimise the potential traffic and noise impacts from truck movements, and confine vehicle movements to appropriately designed/upgraded roads.
- The Principal Contractor HSE Advisor and Logistics Manager will strictly enforce daily and peak hour truck and staff vehicle movements by daily monitoring of vehicle numbers.
- All shuttle bus drop-off locations will at accommodation locations.
- On-site parking will be provided to accommodate all staff and truck parking demand. This will be monitored daily by the Principal Contractor HSE Advisor to ensure that number of vehicles using it daily does not exceed the design size and as a means of confirming daily vehicle numbers attending site.
- Adherence to the Drivers Code of Conduct will be mandatory for all construction vehicle drivers. A failure to adhere to the code will result in disciplinary action.
- The Principal Contractor will establish and implement local climate, road dilapidation, communication and monitoring protocols for application throughout the entire the construction stage.
- The Principal Contractor will be responsible for ensuring that all OSOM Permits, ROLs and the like are formally approved before any OSOM vehicle movements or road upgrades are undertaken. This TMP will be updated before OSOM movements occur in relation to the project.

Operational Stage

- Once operational, the Site's trip generation will be minimal.
- The designated access routes identified for the construction stage will also be adopted for all operational vehicle movements.

- Parking will continue to be provided on-site to entirely meet all staff and truck parking demand.
- The TMP will be revised prior to the Site's operational stage commencing to align with its operational traffic characteristics.

Decommissioning Stage

- While exact decommissioning traffic characteristics remain uncertain, a worst-case scenario will see the Site generating a similar level of traffic as during the constriction stage.
- Prior to the decommissioning stage commencing, the TMP will be updated in a similar manner to the CTMP, outlining access, traffic and parking specifics for the decommissioning stage.
- The revised TMP is expected to mirror many of the CTMP characteristics, including designated vehicle routes, traffic volume limits, shuttle bus usage, on-site parking, traffic management protocols, and a Drivers Code of Conduct.

This TMP will continue to serve as a guiding document for all involved parties, providing a comprehensive roadmap for successful traffic management. Should circumstances change or require adaptations, regular monitoring and communication will allow for prompt adjustments and improvements, maintaining the effectiveness of the traffic management strategies (in this TMP) throughout the duration of the Project.

In conclusion, the measures outlined in this TMP will enable the Project to fulfill its objectives while promoting safety; minimising disruptions; and demonstrating responsible transportation practices.

Appendix A: Correspondence

Correspondence with Parkes Shire Council and Transport for NSW

From: Anton Reisch <antonreisch@optusnet.com.au>
Sent: Thursday, April 27, 2023 1:18 PM
To: Jaymes Rath <Jaymes.Rath@parkes.nsw.gov.au>
Subject: Quorn Park Solar Farm

Hi Jaymes, and thanks so much again for the assist!

Further to our recent discussion, I have been trying to find information of school bus routes in the vicinity of the Site – do you have any information in this regard? I have checked the Western Road Liners sites and available TfNSW information but other than the route through Parkes itself can't find anything on broader services. If you could let me know when you have a chance that would be much appreciated!

Kind regards,

anton

anton reisch. director
m. +61 427 995 160
a. 19 canoon road, south turramurra, NSW 2074
e. antonreisch@optusnet.com.au
w. www.arctt.com.au

Confidentiality Note: The information contained in this email (including attachments) is strictly confidential and for the use of the intended recipients only.
If you have received this email in error, please notify arc traffic + transport immediately and delete all copies of this email and attachments.
Thank you.

From: Jaymes Rath <Jaymes.Rath@parkes.nsw.gov.au>
Sent: Tuesday, May 2, 2023 2:17 PM
To: Anton Reisch <antonreisch@optusnet.com.au>
Subject: RE: Quorn Park Solar Farm

Sorry Anton, Council does not have up to date access. You would have to contact the local bus companies.

Jaymes Rath
Executive Manager Technical Services

Parkes Shire Council | Wiradjuri Country
2 Cecile Street (PO Box 337), Parkes NSW 2870
P 02 6861 2333
jaymes.rath@parkes.nsw.gov.au
www.parkes.nsw.gov.au

Ok no worries Jaymes, thanks for letting me know – should have draft to you in the next couple of days!

Kind regards,

anton

anton reisch. director
m. +61 427 995 160
a. 19 canoon road, south turramurra, NSW 2074
e. antonreisch@optusnet.com.au
w. www.arctt.com.au

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Thank you.

RE: Quorn Park Solar Farm Final Draft Traffic Management Plan

AR

Anton Reisch <antonreisch@optusnet.com.au>
To 'Jaymes Rath'; 'andrew.mcintyre@transport.nsw.gov.au'
Cc 'Xuereb Lauren (EXT GHD)'

Reply | Reply All | Forward

Wed 21/06/2023 12:18 PM

P0385r1v3 Quorn Park Solar Farm Traffic Management Plan.pdf
2 MB

Afternoon Jaymes and Andrew,

Further to our discussions (some time ago now!) a Final Draft Traffic Management Plan for the Quorn Park Solar Farm has been completed and uploaded to the planning portal – it may be with you already.

Regardless I have attached for convenience; ideally we will be able to get any comments you might have in regard to the TMP in case there is anything that we haven't addressed and then incorporate your comments and a response where required into the final TMP.

As always, if you have any questions or would like to discuss further, please don't hesitate to get in touch.

Kind regards,

anton

arc traffic + transport

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Thank you.

PARKES SHIRE COUNCIL
Delivering progress and value to our community

INTERNAL MEMORANDUM

To: Brent Tucker, **Town Planner**
From: Jaymes Rath, **Executive Manager Technical Services**
Date: 18/07/2023
Subject: Quorn Park Solar Farm - Traffic Management Plan

Hi Brent,

As requested, a review of the Traffic Management Plan has been undertaken for the Quorn Park Solar Farm SSD 9097.

The Traffic Management Plan has been assessed to be satisfactory in responses to SSD 9097 Schedule 3, Condition 7 - Traffic Management Plan.

Council supports the approval of this Traffic Management Plan and recommends that the Secretary approve the Traffic Management Plan as is.

Yours Faithfully,

Jaymes Rath
Executive Manager Technical Services

Transport for NSW

18 July 2023

TfNSW reference: WST18/00028/07 | SF2018/064198
Your reference: SSD-9097

Anton Reisch
Arc Traffic & Transport
By Email: antonreisch@optusnet.com.au

Review of Traffic Management Plan for Quorn Park Solar Farm

Dear Anton,

Reference is made to the Traffic Management Plan (TMP) submitted for Transport for NSW (TfNSW) consideration in accordance with consent Condition 2, Schedule 3- Environmental Conditions 2,3,4,5,6 and 7 of Notice of Determination for SSD-9097 issued 16 July 2020.

TfNSW has reviewed the TMP prepared by Arc Traffic & Transport dated 20 June 2023, the EIS prepared by Premise dated October 2019 dated 20 June 2023 (and associated amendments).

TfNSW are **not satisfied** that the TMP prepared by Arc Traffic and Transport dated 20 June 2023 satisfies the relevant conditions of the development consent (specified above) and require the TMP to be revised to address the following comments (below).

The revised/updated TMP is required to be referred to TfNSW in accordance with Condition 7 of the Notice of Determination upon completion of the revisions/updates to the TMP to address the matters identified below.

- Generally- The TMP is required to be revised to clarify what stages of the construction process the TMP is addressing. It is noted that there is an emphasis within the draft TMP on the road works component of the construction phase with minimal details regarding OSOM routes, the OSOM dimensions of the laden loads, compliance with the TIA, heavy vehicles routes, shuttle bus/carpooling commitments and compliance with the specific conditions within Schedule 3- Transport of the development consent have been addressed.
- Specify how compliance is achieved with Condition 2(a) of the development consent *"(a) generally in accordance with the EIS"* in this regard how the TMP achieves compliance with the TIA (which forms part of the EIS) and any recommendations within the TIA that were required to be provided as a part of the TMP.
- The concept design is required to be provided for the intersection of the Henry Parkes Way/McGrath Lane for the BAR/BAL intersection upgrade works, is required to be provided as a part of the TMP, to allow for design review and to ensure compliance with the conditions of the development consent (as per the requirements of condition 7(b)). The concept design currently provided as a part of the TMP is unclear, does not provide dimensions or swept paths for the design vehicles.
- The Traffic Management Plan identifies the development of a TGS for Temporary Traffic Management during the road upgrades. The TGS is required to be developed as a part of the TMP as per the requirements of condition 7(f) of the development consent. The TGS is required to be developed by a qualified person holding the 'Prepare Work Zone Traffic Management Plan' (PWZTMP) accreditation.

- Section 2.1.3.8 of the EIS states that monthly employment is expected to peak at approx. 100 onsite workers involved in construction of the solar farm. Section 3.6.2 of the Traffic Management Plan indicates there is potential for up to 130 construction staff to be onsite at once. Further information is required as to how this increase will affect traffic generation and vehicle movement limits shown in the TIA (60 light vehicle trips) and condition 2(c) of the consent. What are the implications in terms of distribution and points of origin?
- To adequately address Condition 7(f) and to comply with the vehicle movements proposed in the TIA and condition 2(c)of the consent, details need to provided for the employee shuttle bus service. The TMP needs to be updated with the following information:
  - Provide enforceable measures/strategies/protocols to ensure full compliance with the TIA, maximum light vehicles for peak (as per TIA) (60 light vehicle trips) during the AM/PM peaks and condition 2C (max 30 vehicle movements an hour at the intersection of Henry Parkes Way and McGrath Lane). As a part of addressing this specify who is responsible for enforcement, how the measures will be enforced, what methods will be provided to monitor compliance, procedure for breaches in compliance and specify procedure for reviews of the implemented protocols, procedures, strategies.
  - Identify pick-up and drop-off points and associated parking arrangements for workers, and measures to encourage shuttle bus usage.
  - Identify if the shuttle buses will be located at the project area during the day or return to another location outside of the AM/PM peak hours.
  - Identify how the shuttle buses will be monitored for compliance, chain of responsibility and protocols for breaches in compliance with the LV numbers.
- Section 6.1.3 of the Traffic Management Plan suggests scheduling of heavy vehicle deliveries will be implemented to minimise convoys or queuing. Details of how this will be measures should be included in the TMP.
- The Traffic Management Plan is to be amended to include a requirement for the operator to check the Live Traffic website to identify any roadwork sites that may impact their journey and contact on-site representative or the Customer & Network Operations Coordinator for the South (cnc.south@transport.nsw.gov.au) prior to OSOM movement and development.west@transport.nsw.gov.au .
- The Traffic Management Plan is required to be amended to include a commitment to providing a weekly movement / delivery schedule via email to be sent to CNC.South@transport.nsw.gov.au and development.western@transport.nsw.gov.au
- Safety around school buses is important and should be appropriately addressed. Section 6.5 states that school buses operate along the proposed construction route (Back Trundle Road and Henry Parkes Way). The Traffic Management Plan should be updated to clarify if construction traffic peaks and school bus schedules overlap.
- The drivers code of conduct (Appendix B) suggests the designated route must be used at all times, other than contractors in the local area. Clarification is required if a different route is proposed other than the route shown in condition 4 of the consent?
- Appendix A of the TMP appears to be blank, this needs to be updated.
- Swept path analysis is required demonstrating the largest design vehicle entering and leaving the development, and moving in each direction through intersections along the proposed OSOM transport route/s. The route analysis is to include at a minimum the following:

- Identify any level crossings, rail and TfNSW projects that will have implications in relation to the delivery of the Transformers and substations (largest OSOMs) along the OSOM route, for example the Parkes Bypass Project and measures in place to ensure minimal impacts/disruptions to these projects.
- The design vehicle templates used with the swept path analysis software are also requested in order for TfNSW to review the performance within the software (e.g. Autodesk Vehicle Tracking or Transoft AutoTURN).
- Highlighting each at-risk road structures that the haulage route crosses including bridges traffic signals, signage, major culverts, and minor culverts that may not meet the desirable cover to cater for proposed axle loads.
- Identify and provide the following measurements parameters of the OSOM components / materials to be moved:
  - Identify all the types of OSOM vehicles proposed to be used for the project and whether they require police escort or pilot vehicles.
  - Provide bridge assessments for all bridges along the OSOM route(s).
  - Overall combination length, width, height and mass of the laden loads,
  - Maximum component length, widths and heights (clearance to overhead obstructions such as structures, utilities and vegetation)
  - Identify all the types of OSOM vehicles proposed to be used for the project.
  - Wheelbase dimensions
  - Maximum trailer articulation angle(s)
  - Minimum overhang heights above the road surface
  - Axle loads and axle group loads in terms of both tonnes and Equivalent Standard Axles (refer to Austroads Guide to Pavement Technology).

It should be noted that NHVR permits do not cover the civil works required along any proposed OSOM route. Any works required along the OSOM route must be considered within the scope of works for the SSD to ensure that the development is constructable.

The Planning Secretary should be satisfied that the above matter has been adequately addressed prior to approving the TMP.

If you have any questions, please contact the undersigned on 1300 019 680 or email development.west@transport.nsw.gov.au.

Yours faithfully,

Alexandra Power
Team Leader Development Services (West)
Community and Place
Regional and Outer Metropolitan

Correspondence, Enel Green Power to TfNSW September 2023

Quorn Park Solar Farm TMP - TfNSW Comments

KD Keohane David <david.keohane@enel.com>
To Alexandra.Power@transport.nsw.gov.au
Cc Anton Reisch; Moya Mauricio 2; Lee June

Reply | Reply All | Forward

Fri 22/09/2023 3:37 PM

INTERNAL

Hi Alexandra,

Further to your recent conversation with Anton on 21 September, we are proposing the below updates in order to address your comments:

TfNSW Comments	EGPA Response	Proposed TMP updated section	TfNSW Response
OSOM vehicle - concerned that our transformer truck is going to be larger than the Class 1 vehicle that the approved OSOM routes provides for.	All vehicles and deliveries to site will comply with our Conditions of Approval regarding Over-Dimensional and Heavy Vehicle Restrictions. At this stage, we don't envisage requiring deliveries that won't comply with Class 1 OSOM criteria. If anything Over-Dimensional will be required, approval will be sought from the National Heavy Vehicle Regulator and the TMP updated accordingly in consultation with TfNSW.	TMP to be updated in Section 2.4 and 4.3 to include a statement such as: This TMP covers all vehicle types not exceeding Class 1 OSOM. Anything exceeding this criteria or that requires National Heavy Vehicle Regulator consent, the TMP shall be updated in consultation with TfNSW.	
Commitment to monitor all vehicle movements, so once a week at a tool talk or the like see how workers travelled to the Site, and/or take a tally of workers on each shuttle bus. Bottom line a tangible confirmation that we aren't exceeding conditioned trip volumes.	In accordance with the Conditions of Approval, The Applicant 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.	TMP Section 5.7.4 TMP to be updated to include a once a week monitoring of all vehicles to site by way of tool box talk survey or similar.	
	We also will undertake once a week monitor of all vehicles to site by way of tool box talk survey or similar.		
Send TfNSW the intersection upgrade plans; they want the more detailed plans rather than the small scale plans in the Approval	EGPA are at present tendering with local Contractors for the upgrade works, therefore detailed plans are not available. As required by Part 4.4.2 of the EP&A Act, the Proponent is required to obtain consent under section 138 of the Roads Act 1993 from the relevant road authority prior to commencing the road upgrades. Plans will be provided as part of the consent application.	N/a	

Can you please confirm the above approach is acceptable. If so, we will update the TMP as per the above, and then return to you for a final check and TfNSW signoff. If you wish to discuss any of the above please give me a call.

Regards,

David Keohane
Planning and Approvals Specialist

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Transport for NSW

1 July 2024

TfNSW reference: WST24/000155/004 | SF2024/080568
Your reference: SSD-9097

David Walker
General Manager – Central NSW
Premise
By Email: David.Walker@premise.com.au

Staging of Traffic Management Plan for Quorn Park Solar Farm

Dear David,

Reference is made to the Traffic Management Plan (TMP) submitted for Transport for NSW (TfNSW) consideration in accordance with consent Condition 7 of Schedule 3 of the Notice of Determination for SSD-9097 issued 16 July 2020.

TfNSW reviewed the TMP prepared by ARC Traffic and Transport dated 17 May 2024 (version 9) and provided a response letter dated 14 June 2024 which recommended a staging of the TMP. TfNSW is satisfied that the current TMP (version 9) addresses the requirements for the matters pertaining to Stage 1, for the necessary roadworks associated with the development in accordance with Condition 5 of Schedule 3 of the Notice of Determination.

TfNSW requires an updated TMP for Stage 2 which pertains to the OSOM movements and route. The updated TMP will need to address the matters detailed in the TfNSW letter dated 14 June 2024. TfNSW will need to be consulted for Stage 2 of the TMP and the Planning Secretary will be required to approve the TMP prior to any OSOM movements or other works in Stage 2 occur.

Note any road upgrades identified in Stage 2 will require environmental consent and to be constructed prior to any OSOM movements required within Stage 2 occur.

If you have any questions, please contact Ruvimbo Timba on 1300 019 680 or email development.renewables@transport.nsw.gov.au

Yours faithfully,

Alexandra Power
Team Leader Development Services Renewables
Community and Place
Regional and Outer Metropolitan

Cc. Energy Assessments, Department of Planning, Housing and Infrastructure

Appendix B: Technical Note 1 Response to TfNSW RFI

Provided as a separate document.

2/08/2023

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Transport for NSW West
PO Box 334
Parkes NSW 2870

Att: Alexandra Power

Quorn Park Solar Farm Traffic Management Plan

Response to Transport for NSW Request for Information

Dear Alexandra,

Thank you for providing a response to the Draft Traffic Management Plan (Draft TMP) prepared by arc traffic + transport in regard to the construction, operation and decommissioning of the Quorn Park Solar Farm (the Solar Farm).

Further to receiving the Transport for NSW (TfNSW) request for additional information dated 18 July 2023 in regard to the Draft TMP, arc traffic + transport has examined each of the issues raised by TfNSW, and provided revisions to the final TMP. The revised TMP provides a response to each of these issues, and reference to the section of the TMP where each is discussed in more detail; this table is provided as an attachment of this Response.

From the outset though, it is important to note that many of the issues raised by TfNSW relate to stages during the construction period where details of some works/transport tasks have yet to be finalised. In this regard we note the following in particular:

Over-Size/Over-Mass Vehicles

Until a contractor is appointed and the materials/plant required is finalised, it is not possible to determine the characteristics of any over-size/over-mass (OSOM) vehicles that might be required to travel to/from the Solar Farm; as such, we are unable to provide a detailed response to the TfNSW requests for additional information in regard to OSOM vehicles.

Notwithstanding, and as detailed in Section 5.4.2 of the Draft TMP, any proposed use of OSOM vehicles would require an approval of an OSOM Permit by the NHVR. The OSOM Permit application requires the provision of all the details requested by TfNSW to be included in the TMP; once the OSOM Permit application is prepared (again, if required at some stage during construction), and the OSOM Permit approved, these details will be included in a revised TMP.

Shuttle Buses

TfNSW has also requested additional information in regard to the use of shuttle buses, including details of the location of set down locations and how the use of shuttle buses can be guaranteed.

As discussed in Section 3.5.3 of the Draft TMP, the location of accommodation centres for construction staff is not know at this time, but the use of shuttle buses remains a firm commitment, and moreover an essential transport service in order to provide compliance with the SSD Approval.

Once accommodation location have been determined, then the Principal Contractor will engage the services of a shuttle bus operator, and the routes for shuttle buses will be based on the most efficient routes to pick-up and drop-off construction staff each day.

As discussed in Section 6.7 of the Draft TMP, monitoring protocols - including monitoring the trip generation of the Solar Farm during the construction period - will be in place and overseen by the Principal Contractor. Any breaches of vehicle trip limits as detailed in the SSD Approval will be disclosed to the Department of Planning & Environment (DPE) along with any measures proposed to ensure ongoing compliance with the vehicle trip limits detailed in the SSD Approval.

As discussed in Section 6.7.4 of the Draft TMAP, any and all revisions to the TMP - for example measures to ensure compliant vehicle trip numbers - will be documented in revisions to the TMP through the entire construction period.

As stated, the table attached to this Response provides a summary response to each of the issues raised by TfNSW and the section of the TMP where each is discussed in more detail. If arc traffic + transport can assist TfNSW with any further information in regard to the TMP, please do not hesitate to contact the undersigned.

Yours sincerely,

Anton Reisch

director. arc traffic + transport

Transport for NSW Comment	Summary Response	TMP Reference
Reference is made to the Traffic Management Plan (TMP) submitted for Transport for NSW (TfNSW) consideration in accordance with consent Condition 2, Schedule 3-Environmental Conditions 2,3,4,5,6 and 7 of Notice of Determination for SSD-9097 issued 16 July 2020. *TfNSW has reviewed the TMP prepared by Arc Traffic & Transport dated 20 June 2023, the EIS prepared by Premise dated October 2019 dated 20 June 2023 (and associated amendments).* *TfNSW are **not satisfied** that the TMP prepared by Arc Traffic and Transport dated 20 June 2023 satisfies the relevant conditions of the development consent (specified above) and require the TMP to be revised to address the following comments (below).* *The revised/updated TMP is required to be referred to TfNSW in accordance with Condition 7 of the Notice of Determination upon completion of the revisions/updates to the TMP to address the matters identified below.*		
Generally - The TMP is required to be revised to clarify what stages of the construction process the TMP is addressing. It is noted that there is an emphasis within the draft TMP on the road works component of the construction phase with minimal details regarding OSOM routes, the OSOM dimensions of the laden loads, compliance with the TIA, heavy vehicles routes, shuttle bus/carpooling commitments and compliance with the specific conditions within Schedule 3-Transport of the development consent have been addressed.	As discussed in Section 3.6 of the Draft TMP, the assessment of traffic impacts provided in the SSD TIA and in the TMP is based on the peak construction period, i.e. when the Site would generate the highest number of vehicle trips.	Section 3.6
	As discussed in Section 5.4.2 of the Draft TMP, any proposed use of OSOM vehicles would require an approval of an OSOM Permit by the NHVR. The application process for an OSOM Permit includes specific consideration of vehicle sizes and routes etc, and again would need to be approved by the NHVR prior to the use of any OSOM vehicles. It is not possible to provide details in regard to these OSOM vehicles as part of the TMP as these details will only be determined during the construction period if the use of OSOM vehicles is required.	Section 5.4.2
	The TMP demonstrates that the construction period transport operations will be in full compliance with the TIA and moreover the Conditions detailed in the SSD Approval. The Draft TMP provides detailed analysis of heavy vehicle routes (Section 3.4);shuttle bus operations (Section 3.5.3); and protocols to ensure that the traffic generation of the Site during the peak construction period does not exceed that provided for in the SSD Approval (Section 3.6).	Section 3.4 Section 3.5.3 Section 3.6

Transport for NSW Comment	Summary Response	TMP Reference
Specify how compliance is achieved with Condition 2(a) of the development consent "(a) generally in accordance with the EIS" in this regard how the TMP achieves compliance with the TIA (which forms part of the EIS) and any recommendations within the TIA that were required to be provided as a part of the TMP.	The Draft TMP demonstrates that the construction period transport operations will be in full compliance with the TIA and moreover the Conditions detailed in the SSD Approval. All recommendations provided in the TIA have been agreed by Enel and incorporated in the TMP and broader solar farm works.	This TMP
The concept design is required to be provided for the intersection of the Henry Parkes Way/McGrath Lane for the BAR/BAL intersection upgrade works, is required to be provided as a part of the TMP, to allow for design review and to ensure compliance with the conditions of the development consent (as per the requirements of condition 7(b)). The concept design currently provided as a part of the TMP is unclear, does not provide dimensions or swept paths for the design vehicles.	Detailed designs of the key intersections were provided in the SSD TIA and then detailed in Appendix 3 of the SSD Approval, including the proposed design vehicles, upgraded intersection geometry and swept path figures. The TMP does not provide for any revisions to these approved and detailed upgrades as endorsed by DPE in the SSD Approval.	Section 3.4.3 Appendix C
The Traffic Management Plan identifies the development of a TGS for Temporary Traffic Management during the road upgrades. The TGS is required to be developed as a part of the TMP as per the requirements of condition 7(f) of the development consent. The TGS is required to be developed by a qualified person holding the 'Prepare Work Zone Traffic Management Plan' (PWZTMP) accreditation.	As discussed in Section 6.3 of the Draft TMP, it is anticipated that a Traffic Guidance Scheme (TGS) will be required to ensure that any road network upgrade works are undertaken safely and efficiently. The contractor for the upgrade works has not been appointed at this time, but as part of the Road Occupancy Licence (ROL) process (detailed in Section 6.3 of the Draft TMP) all necessary approvals, including any TGS requirements, would necessarily require approval from TfNSW and/or Council prior to commencing.	Section 6.3

Transport for NSW Comment	Summary Response	TMP Reference
Section 2.1.3.8 of the EIS states that monthly employment is expected to peak at approx. 100 onsite workers involved in construction of the solar farm. Section 3.6.2 of the Traffic Management Plan indicates there is potential for up to 130 construction staff to be onsite at once. Further information is required as to how this increase will affect traffic generation and vehicle movement limits shown in the TIA (60 light vehicle trips) and condition 2(c) of the consent. What are the implications in terms of distribution and points of origin?	It is acknowledged that Section 2.1.3.8 of the SSD EIS states that *Employment is expected to peak at approximately 100 on-site workers involved directly in project construction.* However, the SSD TIA is based on a higher number of on-site workers that includes 100 general construction staff and up to 30 contract staff being on-site at any one time. This means that the traffic assessment provided in the SSD TIA appropriately accounts for peak trip generation and in turn the required road network upgrades of the absolute peak construction activity peak.	Section 3.6
	As discussed with Council, TfNSW and DPE during the preparation of the SSD TIA, and as inherently approved by DPE further to the SSD Approval, the traffic analysis provided in the SSD TIA focuses on the intersections and roads providing Site access between Henry Parkes Way and Back Trundle Road as - simply - the trip generation of the Site even during the construction peak would have no significant impact on the broader road network. All construction trips (light vehicles and trucks) will be required to use this route in the immediate vicinity of the Site, after which they would utilise the sub-regional and regional road network which provides significant spare capacity. Once in the sub-regional road network, trips are expected to distribute to staff accommodate locations or (for example) supplier locations, which further reduces potential traffic impacts.	Section 3.6
	Finally, a more detailed analysis road network operations is provided in Section 8 of the Draft TMP in regard to a future Decommissioning period; this analysis adopts the same peak trip generation as will be generated during the construction period as a worst case, and confirms that - even further to 30 years of background traffic growth - the road network will continue to operate at an appropriate Level of Service.	Section 8

Transport for NSW Comment	Summary Response	TMP Reference
To adequately address Condition 7(f) and to comply with the vehicle movements proposed in the TIA and condition 2(c)of the consent, details need to provided [sic] *for the employee shuttle bus service. The TMP needs to be updated with the following information:*		
Provide enforceable measures/strategies/protocols to ensure full compliance with the TIA, maximum light vehicles for peak (as per TIA) (60 light vehicle trips) during the AM/PM peaks and condition 2C (max 30 vehicle movements an hour at the intersection of Henry Parkes Way and McGrath Lane). As a part of addressing this specify who is responsible for enforcement, how the measures will be enforced, what methods will be provided to monitor compliance, procedure for breaches in compliance and specify procedure for reviews of the implemented protocols, procedures, strategies.	As discussed in Section 3.5.3 of the Draft TMP, the location of accommodation centres is not know at this time, but the use of shuttle buses remains a firm commitment, and moreover an essential transport service in order to provide compliance with the SSD Approval.	Section 3.5.3
	As discussed in Section 6.7 of the Draft TMP, monitoring protocols, including the trip generation of the Site during the construction period, will be in place and overseen by the Principal Contractor. Any breaches of vehicle trip limits as detailed in the SSD Approval will be disclosed to DPE along with any measures proposed to ensure ongoing compliance with the vehicle trip limits detailed in the SSD Approval. As discussed in Section 6.7.4 of the Draft TMAP, any and all revisions to the TMP - for example measures to ensure compliant vehicle trip numbers - will be documented in the TMP.	Section 6.7 Section 6.7.4
Identify pick-up and drop-off points and associated parking arrangements for workers, and measures to encourage shuttle bus usage.	As discussed in Section 3.5.3, the location of shuttle bus set down locations will be determined further to the identification of construction staff accommodation locations.	Section 3.5.3
Identify if the shuttle buses will be located at the project area during the day or return to another location outside of the AM/PM peak hours.	A decision in regard to whether shuttle buses remain on-site or return to another location outside of the construction staff pick-up and drop-off peaks will be made by the Principal Contractor further to contractual discussions with the nominated shuttle bus operator. From a traffic perspective, the addition of a small number of additional shuttle bus trips if the shuttle bus does not remain on-site for the work day would have no impact on the operation of the road network, nor result in non-compliance with the vehicle trip limits specified in the SSD Approval	Section 3.5.3
Identify how the shuttle buses will be monitored for compliance, chain of responsibility and protocols for breaches in compliance with the LV numbers.	As discussed above, Section 6.7 of the Draft TMP, monitoring protocols, including the trip generation of the Site during the construction period, will be in place and overseen by the Principal Contractor	Section 6.7

Transport for NSW Comment	Summary Response	TMP Reference
Section 6.1.3 of the Traffic Management Plan suggests scheduling of heavy vehicle deliveries will be implemented to minimise convoys or queuing. Details of how this will be measures should be included in the TMP.	As detailed in Section 6.7.2 of the Draft TMP, the possibility exists that truck trips associated with local suppliers/contractors could be scheduled so as to limit truck peaks. However, the majority of truck trips will be generated to ports on the east coast and as such scheduling is not possible. Notwithstanding, by having these trucks depart the port once loaded, and the distance between the ports and the Site, means that the potential for truck convoys to eventuate is very minimal.	Section 6.7.2
The Traffic Management Plan is to be amended to include a requirement for the operator to check the Live Traffic website to identify any roadwork sites that may impact their journey and contact on-site representative or the Customer & Network Operations Coordinator for the South (cnc.south@transport.nsw.gov.au) prior to OSOM movement and development.west@transport.nsw.gov.au .	This requirement has now been included in the TMP.	Section 6.4
The Traffic Management Plan is required to be amended to include a commitment to providing a weekly movement / delivery schedule via email to be sent to CNC.South@transport.nsw.gov.au and development.western@transport.nsw.gov.au	As detailed in Section 6.7.4 of the Draft TMP, the monitoring protocols include the preparation of a daily vehicle log for all entering and departing vehicles. The log results can be provided to TfNSW on a weekly basis as requested by TfNSW.	Section 6.7.4
Safety around school buses is important and should be appropriately addressed. Section 6.5 states that school buses operate along the proposed construction route (Back Trundle Road and Henry Parkes Way). The Traffic Management Plan should be updated to clarify if construction traffic peaks and school bus schedules overlap.	As detailed in Section 6.5 of the Draft TMP, arc traffic + transport held discussions with Council and local bus companies in regard to school bus routes in the vicinity of the Site. One route was identified and discussed in Section 6.5 of the Draft TMP, as well as the fact that construction peaks will not coincide with the movement of the single school bus in the AM and PM school peak past the Site in Back Trundle Road, noting further that - with reference to Figure 8 of the Draft TMP - no bus stops are located in Back Trundle Road or McGrath Lane in the vicinity of the Site.	Section 6.5
The drivers code of conduct (Appendix B) suggests the designated route must be used at all times, other than contractors in the local area. Clarification is required if a different route is proposed other than the route shown in condition 4 of the consent?	As discussed in Section 6.7.2 of the Draft TMP, the potential exists that some local contractors may use alternative routes in the broader road network, for example travelling to/from local industrial areas in south Parkes, or from the west. These contractors would still be required to use the designated route via Henry Parkes Way, McGrath Lane and Back Trundle Road to access the Site, but may use route other than the primary truck route as shown in Figure 7 of the Draft TMP.	Section 6.7.2 Figure 7

Transport for NSW Comment	Summary Response	TMP Reference
Appendix A of the TMP appears to be blank, this needs to be updated.	Appendix A has now been updated further to the reciept of the correspondence from Council and TfNSW.	Appendix A
Swept path analysis is required demonstrating the largest design vehicle entering and leaving the development, and moving in each direction through intersections along the proposed OSOM transport route/s. The route analysis is to include at a minimum the following:		
Identify any level crossings, rail and TfNSW projects that will have implications in relation to the delivery of the Transformers and substations (largest OSOMs) along the OSOM route, for example the Parkes Bypass Project and measures in place to ensure minimal impacts/disruptions to these projects.	This information will be prepared as part of the OSOM Permit process for approval by the NHVR, and OSOM vehicles would only be permitted further to an approval of the OSOM Permit by the NHVR.	Section 5.4
The design vehicle templates used with the swept path analysis software are also requested in order for TfNSW to review the performance within the software (e.g. Autodesk Vehicle Tracking or Transoft AutoTURN).	This information will be prepared as part of the OSOM Permit process for approval by the NHVR, and OSOM vehicles would only be permitted further to an approval of the OSOM Permit by the NHVR.	Section 5.4
Highlighting each at-risk road structures that the haulage route crosses including bridges traffic signals, signage, major culverts, and minor culverts that may not meet the desirable cover to cater for proposed axle loads.	This information will be prepared as part of the OSOM Permit process for approval by the NHVR, and OSOM vehicles would only be permitted further to an approval of the OSOM Permit by the NHVR.	Section 5.4

Transport for NSW Comment	Summary Response	TMP Reference
Identify and provide the following measurements parameters of the OSOM components / materials to be moved:		
– *Identify all the types of OSOM vehicles proposed to be used for the project and whether they require police escort or pilot vehicles* – *Provide bridge assessments for all bridges along the OSOM route(s). Overall combination length, width, height and mass of the laden loads, Maximum component length, widths and heights (clearance to overhead obstructions such as structures, utilities and vegetation)* – *Identify all the types of OSOM vehicles proposed to be used for the project. Wheelbase dimensions* – *Maximum trailer articulation angle(s)* – *Minimum overhang heights above the road surface* – *Axle loads and axle group loads in terms of both tonnes and Equivalent Standard Axles (refer to Austroads Guide to Pavement Technology).*	This information will be prepared as part of the OSOM Permit process for approval by the NHVR, and OSOM vehicles would only be permitted further to an approval of the OSOM Permit by the NHVR.	Section 5.4
It should be noted that NHVR permits do not cover the civil works required along any proposed OSOM route. Any works required along the OSOM route must be considered within the scope of works for the SSD to ensure that the development is constructable.	Noted.	

Appendix C: TMP References for TfNSW RFI

Transport for NSW Issue	TMP Reference
Reference is made to the Traffic Management Plan (TMP) submitted for Transport for NSW (TfNSW) consideration in accordance with consent Condition 2, Schedule 3- Environmental Conditions 2,3,4,5,6 and 7 of Notice of Determination for SSD-9097 issued 16 July 2020. TfNSW has reviewed the TMP prepared by Arc Traffic & Transport dated 20 June 2023, the EIS prepared by Premise dated October 2019 dated 20 June 2023 (and associated amendments). *TfNSW are **not satisfied** that the TMP prepared by Arc Traffic and Transport dated 20 June 2023 satisfies the relevant conditions of the development consent (specified above) and require the TMP to be revised to address the following comments (below).* *The revised/updated TMP is required to be referred to TfNSW in accordance with Condition 7 of the Notice of Determination upon completion of the revisions/updates to the TMP to address the matters identified below.*	
Generally - The TMP is required to be revised to clarify what stages of the construction process the TMP is addressing. It is noted that there is an emphasis within the draft TMP on the road works component of the construction phase with minimal details regarding OSOM routes, the OSOM dimensions of the laden loads, compliance with the TIA, heavy vehicles routes, shuttle bus/carpooling commitments and compliance with the specific conditions within Schedule 3-Transport of the development consent have been addressed.	Section 4.6
Specify how compliance is achieved with Condition 2(a) of the development consent "(a) generally in accordance with the EIS" in this regard how the TMP achieves compliance with the TIA (which forms part of the EIS) and any recommendations within the TIA that were required to be provided as a part of the TMP.	Section 5.8
The concept design is required to be provided for the intersection of the Henry Parkes Way/McGrath Lane for the BAR/BAL intersection upgrade works, is required to be provided as a part of the TMP, to allow for design review and to ensure compliance with the conditions of the development consent (as per the requirements of condition 7(b)). The concept design currently provided as a part of the TMP is unclear, does not provide dimensions or swept paths for the design vehicles.	Section 2.5
The Traffic Management Plan identifies the development of a TGS for Temporary Traffic Management during the road upgrades. The TGS is required to be developed as a part of the TMP as per the requirements of condition 7(f) of the development consent. The TGS is required to be developed by a qualified person holding the 'Prepare Work Zone Traffic Management Plan' (PWZTMP) accreditation.	Section 5.4
Section 2.1.3.8 of the EIS states that monthly employment is expected to peak at approx. 100 onsite workers involved in construction of the solar farm. Section 3.6.2 of the Traffic Management Plan indicates there is potential for up to 130 construction staff to be onsite at once. Further information is required as to how this increase will affect traffic generation and vehicle movement limits shown in the TIA (60 light vehicle trips) and condition 2(c) of the consent. What are the implications in terms of distribution and points of origin?	Section 2.7

Transport for NSW Comment	TMP Reference
To adequately address Condition 7(f) and to comply with the vehicle movements proposed in the TIA and condition 2(c)of the consent, details need to be provided for the employee shuttle bus service. The TMP needs to be updated with the following information:	
Provide enforceable measures/strategies/protocols to ensure full compliance with the TIA, maximum light vehicles for peak (as per TIA) (60 light vehicle trips) during the AM/PM peaks and condition 2C (max 30 vehicle movements an hour at the intersection of Henry Parkes Way and McGrath Lane). As a part of addressing this specify who is responsible for enforcement, how the measures will be enforced, what methods will be provided to monitor compliance, procedure for breaches in compliance and specify procedure for reviews of the implemented protocols, procedures, strategies.	Section 2.7 Section 5.8.5
Identify pick-up and drop-off points and associated parking arrangements for workers, and measures to encourage shuttle bus usage.	Section 2.6.3
Identify if the shuttle buses will be located at the project area during the day or return to another location outside of the AM/PM peak hours.	Section 2.6.3
Identify how the shuttle buses will be monitored for compliance, chain of responsibility and protocols for breaches in compliance with the LV numbers.	Section 2.6.3 Section 5.8.5
Section 6.1.3 of the Traffic Management Plan suggests scheduling of heavy vehicle deliveries will be implemented to minimise convoys or queuing. Details of how this will be measures should be included in the TMP.	Section 5.2.3
The Traffic Management Plan is to be amended to include a requirement for the operator to check the Live Traffic website to identify any roadwork sites that may impact their journey and contact on-site representative or the Customer & Network Operations Coordinator for the South (cnc.south@transport.nsw.gov.au) prior to OSOM movement and development.west@transport.nsw.gov.a.	Section 4.6
The Traffic Management Plan is required to be amended to include a commitment to providing a weekly movement / delivery schedule via email to be sent to CNC.South@transport.nsw.gov.au and development.western@transport.nsw.gov.au	Section 5.8.5
Safety around school buses is important and should be appropriately addressed. Section 6.5 states that school buses operate along the proposed construction route (Back Trundle Road and Henry Parkes Way). The Traffic Management Plan should be updated to clarify if construction traffic peaks and school bus schedules overlap.	Section 5.6
The drivers code of conduct (Appendix B) suggests the designated route must be used at all times, other than contractors in the local area. Clarification is required if a different route is proposed other than the route shown in condition 4 of the consent?	Appendix E

Transport for NSW Comment	TMP Reference
Appendix A of the TMP appears to be blank, this needs to be updated.	Noted
Swept path analysis is required demonstrating the largest design vehicle entering and leaving the development, and moving in each direction through intersections along the proposed OSOM transport route/s. The route analysis is to include at a minimum the following:	Section 2.5 Appendix E
Identify any level crossings, rail and TfNSW projects that will have implications in relation to the delivery of the Transformers and substations (largest OSOMs) along the OSOM route, for example the Parkes Bypass Project and measures in place to ensure minimal impacts/disruptions to these projects.	Section 4.6
The design vehicle templates used with the swept path analysis software are also requested in order for TfNSW to review the performance within the software (e.g. Autodesk Vehicle Tracking or Transoft AutoTURN).	Section 2.5 Appendix D
Highlighting each at-risk road structures that the haulage route crosses including bridges traffic signals, signage, major culverts, and minor culverts that may not meet the desirable cover to cater for proposed axle loads.	Section 4.6
Identify and provide the following measurements parameters of the OSOM components / materials to be moved:	
• *Identify all the types of OSOM vehicles proposed to be used for the project and whether they require police escort or pilot vehicles* • *Provide bridge assessments for all bridges along the OSOM route(s).* • *Overall combination length, width, height and mass of the laden loads,* *Maximum component length, widths and heights (clearance to overhead obstructions such as structures, utilities and vegetation)* • *Identify all the types of OSOM vehicles proposed to be used for the project.* *Wheelbase dimensions* • *Maximum trailer articulation angle(s)* • *Minimum overhang heights above the road surface*	Section 4.6

• *Axle loads and axle group loads in terms of both tonnes and Equivalent Standard Axles (refer to Austroads Guide to Pavement Technology).*	
It should be noted that NHVR permits do not cover the civil works required along any proposed OSOM route. Any works required along the OSOM route must be considered within the scope of works for the SSD to ensure that the development is constructable.	Noted
Transport have queried whether under the scenario presented in the letter, the traffic impacts are still consistent with the original Traffic Impact Assessment and that the AM and PM peaks have not increased.	*During the assessment of the EIS, an additional information response was submitted to the Department on the 30 March 2020. This response confirmed at Section 4 that over-dimensional vehicles were assessed within the overall daily vehicle numbers during construction.* *We can confirm that this approach remains unchanged.* *That is, we confirm that the overall traffic numbers, and associated traffic impacts, remain unchanged and that there will be no change to the AM and PM peak volumes.* *As stated in our earlier letter, the reason behind the increase in heavy vehicles requiring escort is to accommodate larger construction equipment. The use of larger construction equipment enables the project to be built more efficiently, more quickly and with less impact to the locality.*
heights of the design vehicles	*Table 8*
one of the vehicles (130 tonne) may encounter issues with the weight limits on some relevant parts of the route.	*A thorough route assessment for the 130 tonne transformer is currently being*

	completed and this will be supplied to TfNSW under separate cover. *We note that there is no change to the consent sought or required in this regard as the original approval always provided for the transport of this larger equipment to the site. This will continue to be managed through the appropriate National Heavy Vehicle Regulator (NHVR) licence process by the construction contractor and their logistics company. If needed, full details of this will be provided in the project Traffic Management Plan, to be supplied prior to road upgrades commencing.*
Regarding the width of the BAL dimension for F is required to be 3m and not 2m.	*The concept intersection design has been updated to reflect these dimensions and the plans supplied to the TfNSW Renewables Energy team with a request for WAD initiation. This has been supplied to TfNSW and is also provided in Appendix D.*
The length of the BAR dimension A is required to be 46m.	*As above*
However, as the design forms part of the development consent it will be a question for DPHI as to whether a secretary agreement or mod is required or if the environmental footprint is sufficient to cover the increased scope required for the BAR.	*The concept design in the development consent does not feature any dimensions. The design provided is consistent with the concept design in the consent and therefore there is no approval implication or variation/modification required.* *We can confirm that the environmental assessment completed in relation to the EIS was comprehensive and considered all of the area proposed to be impacted by the approved concept design within the consent and the concept design provided for WAD initiation.*

Confirmation is required that the traffic volumes for the AM/PM peak will be consistent with the original TIA assessment considering the secretary request to increase the heavy vehicles and OSOM.	*No change to AM/PM peak traffic volumes is confirmed.*

Appendix D: Road Network Upgrade Plans including swept path analysis

QUORN PARK SOLAR FARM
INTERSECTION AND ACCESS POINT UPGRADES, PARKES, NSW
ENEL GREEN POWER AUSTRALIA
CIVIL DESIGN

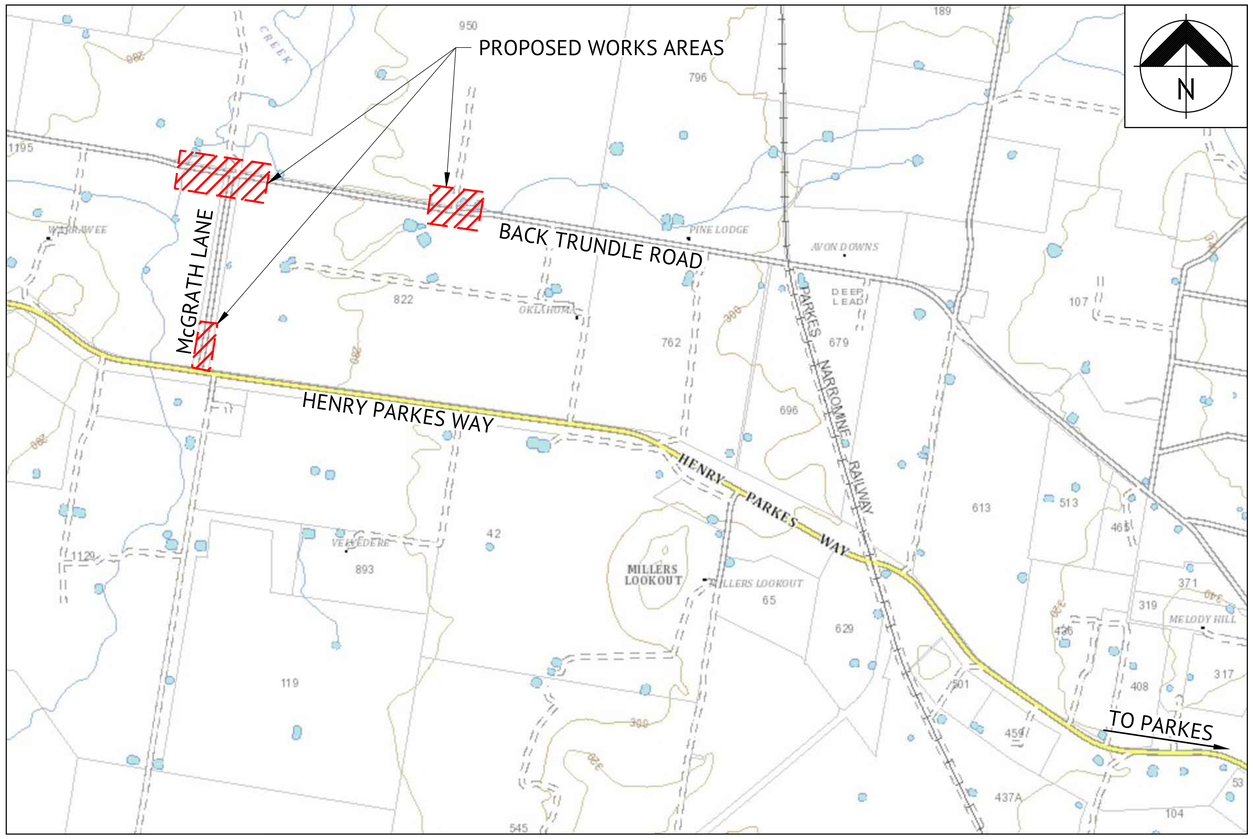

IMAGE SOURCE: MAPS.SIX.NSW.GOV.AU (2024)

LOCALITY PLAN

NTS

DRAWING SCHEDULE	
DRAWING NO.	DRAWING TITLE
C001	COVER SHEET, LOCALITY PLAN AND DRAWING LIST
C002	SITE LAYOUT PLAN
C011	TYPICAL NOTES AND DETAILS
	McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
C101	ENGINEERING PLAN - SHEET 1
C102	ENGINEERING PLAN - SHEET 2
C103	ENGINEERING PLAN - SHEET 3
C121	TYPICAL CROSS SECTIONS
C131	ROAD LONGITUDINAL SECTIONS
C141	ROAD CROSS SECTIONS - McGRATH LANE - SHEET 1
C142	ROAD CROSS SECTIONS - McGRATH LANE - SHEET 2
C143	ROAD CROSS SECTIONS - McGRATH LANE - SHEET 3
C144	ROAD CROSS SECTIONS - BACK TRUNDLE ROAD - SHEET 1
C145	ROAD CROSS SECTIONS - BACK TRUNDLE ROAD - SHEET 2
C151	PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 1
C152	PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 2
C153	PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 3
C191	VEHICLE TRACKING - 19m PRIME MOVER AND SEMI TRAILER
C192	VEHICLE TRACKING - OVERSIZE 8x8 WITH 2x8 - SHEET 1
C193	VEHICLE TRACKING - OVERSIZE 8x8 WITH 2x8 - SHEET 2
	McGRATH LANE EXTENSION FROM HENRY PARKES WAY
C201	ENGINEERING PLAN
C221	TYPICAL CROSS SECTIONS
C231	ROAD LONGITUDINAL SECTION
C241	ROAD CROSS SECTIONS - SHEET 1
C242	ROAD CROSS SECTIONS - SHEET 2
C243	ROAD CROSS SECTIONS - SHEET 3
C251	PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN
	QUORN PARK PROPERTY ACCESS
C301	ENGINEERING PLAN
C321	TYPICAL CROSS SECTIONS
C331	ROAD LONGITUDINAL SECTIONS
C341	ROAD CROSS SECTIONS - BLACK TRUNDLE ROAD
C342	ROAD CROSS SECTIONS - PROPERTY ACCESS
C351	PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN
C371	DRAINAGE LONGITUDINAL SECTIONS
C391	VEHICLE TRACKING - 19m PRIME MOVER AND SEMI TRAILER
C392	VEHICLE TRACKING - OVERSIZE 8x8 WITH 2x8

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08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

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DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER
SCALE
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK SOLAR FARM, PARKES NSW
SHEET TITLE COVER SHEET, LOCALITY PLAN AND DRAWING LIST

JOB CODE 223076_02
SHEET NUMBER C001
REV 4

IMAGE SOURCES:
NEARMAP 2024
SIXMAPS 2024

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CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 80 160 240m
SCALE 1:4000 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK SOLAR FARM, PARKES NSW
SHEET TITLE SITE LAYOUT PLAN

JOB CODE 223076_02
SHEET NUMBER C002
REV 4

GENERAL CONSTRUCTION NOTES:

1. PARKES SHIRE COUNCIL ARE TO BE NOTIFIED 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORKS.

2. ALL SERVICES SHOWN ON THIS PLAN HAVE BEEN PREPARED FROM A COMBINATION OF FIELD SURVEY & EXISTING RECORDS PROVIDED BY SERVICE AUTHORITIES HOWEVER ALL RELEVANT AUTHORITIES MUST BE CONTACTED & SERVICE LOCATIONS CHECKED PRIOR TO WORK COMMENCING. THE CONTRACTOR IS TO ADEQUATELY INFORM THEMSELVES AS TO THE DEPTH AND LOCATION OF ALL EXISTING & PROPOSED SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION.

3. ANY WORK TO EXISTING SERVICES THAT REQUIRE RELOCATION BY AUTHORITIES SHALL BE CARRIED OUT BY THE RELEVANT AUTHORITY BUT WITHIN THE TERMS OF THE CONTRACT AND SHALL BE CO-ORDINATED BY THE CONTRACTOR.

4. TRAFFIC & PEDESTRIAN CONTROL MEASURES ARE TO BE IN PLACE DURING ALL CONSTRUCTION WORKS. TRAFFIC CONTROL PLANS ARE TO BE PREPARED BY A CERTIFIED & APPROVED PERSON IN ACCORDANCE WITH AS1742.3-2009 & THE RMS "TRAFFIC CONTROL AT WORK SITES" - 2010.

5. THE CONTRACTOR SHALL REINSTATE ANY GRASSED AREAS OR TABLE DRAINS AFFECTED DURING CONSTRUCTION.

6. ALL CONSTRUCTION WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATION FOR THE WORKS IN ACCORDANCE WITH THE REQUIREMENTS OF PARKES SHIRE COUNCIL.

7. EROSION AND SEDIMENT CONTROL TO BE COMPLETED IN ACCORDANCE WITH ESC.

8. TOPSOIL TO BE EXCAVATED TO EXPOSE SUBGRADE & STOCKPILED. THE SUBGRADE (OR PROPOSED FILL AREAS) SHALL BE STRIPPED OF ALL SOFT, ORGANIC OR MOISTURE AFFECTED MATERIALS AND SHALL BE ROLLED AND COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 98% RELATIVE TO STANDARD COMPACTION AT A MOISTURE RATIO OF 60-90% OF THE OPTIMUM MOISTURE CONTENT.

9. THE PAVEMENT BASE, SUB BASE & SELECT MATERIALS SHOULD BE COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 102% RELATIVE TO STANDARD COMPACTION AT A MOISTURE RATIO OF 60-90% OF THE OPTIMUM MOISTURE CONTENT. THE SUBGRADE AND GENERAL FILL SHOULD BE COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 98% RELATIVE TO STANDARD COMPACTION AT A MOISTURE RATIO OF 60-90% OF THE OPTIMUM MOISTURE CONTENT.

10. CONSTRUCTION WORK SHALL ONLY BE CARRIED OUT WITHIN THE FOLLOWING TIMES:-
    *MONDAY TO FRIDAY 7.00 am TO 6.00 pm
    *SATURDAY 7.00 am TO 1.00 pm
    (IF INAUDIBLE ON RESIDENTIAL PREMISES)
    *OTHER WISE 8.00 am TO 1.00 pm
    THE ABOVE RESTRICTIONS MAY BE SUBJECT TO REVIEW AND VARIATION BY PARKES SHIRE COUNCIL UPON AN ASSESSMENT OF THE LEVEL OF ANNOYANCE, IF ANY, THAT MAY ARISE.

11. DURING SUNDAY AND PUBLIC HOLIDAYS, NO CONSTRUCTION WORK PERMITTED

12. ALL LEVELS ARE IN AUSTRALIAN HEIGHT DATUM.

13. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCY SHALL BE REFERRED TO THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.

14. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS. UNLESS NOTED OTHERWISE, ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE.

15. PARKES SHIRE COUNCIL'S REPRESENTATIVE TO BE NOTIFIED OF ANY WATER IN THE EXCAVATIONS.

16. THE RECTIFICATION OF ALL MATTERS ARISING FROM INSUFFICIENT INFORMATION BEING SHOWN ON THE APPROVED ENGINEERING PLANS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATION FOR THE WORKS AND TO THE REQUIREMENTS OF PARKES SHIRE COUNCIL'S ENGINEER.

17. WRITTEN CONSENT SHALL BE SUBMITTED TO PARKES SHIRE COUNCIL FROM THE OWNERS OF ANY ADJOINING PROPERTY PRIOR TO ANY PHYSICAL INTERFERENCE WITH THAT PROPERTY AS A RESULT OF THE REQUIRED CONSTRUCTION.

18. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY BREACHES OF THE CLEAN WATERS ACT 1970.

NOTES FOR COUNCIL:

ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH, BUT NOT LIMITED TO, THE VARIOUS PARKES SHIRE COUNCIL'S AUS-SPEC#1 CONSTRUCTION SPECIFICATIONS OUTLINED BELOW:

C101	GENERAL
C201	CONTROL OF TRAFFIC
C211	CONTROL OF EROSION & SEDIMENTATION
C212	CLEARING & GRUBBING
C213	EARTHWORKS
C220	STORMWATER DRAINAGE
C221	PIPED DRAINAGE
C222	PRECAST BOX CULVERTS
C223	DRAINAGE STRUCTURES
C230	SUBSURFACE DRAINAGE GENERAL
C231	SUBSURFACE & FOUNDATION DRAINS
C232	PAVEMENT DRAINS
C241	STABILISATION
C242	FLEXIBLE PAVEMENTS
C244	SPRAYED BITUMINOUS SURFACING
C261	PAVEMENT MARKINGS
C262	SIGNPOSTING
C263	GUIDEPOSTS

BUS STOP NOTE:

LIAISON SHALL BE CARRIED OUT BETWEEN THE PROPERTY OWNERS AND THE SCHOOL BUS COMPANY TO DETERMINE A TEMPORARY LOCATION FOR THE PICK UP AND DROP OFF OF THE SCHOOL STUDENTS THAT IS SATISFACTORY TO BOTH

PRELIMINARY - NOT FOR CONSTRUCTION

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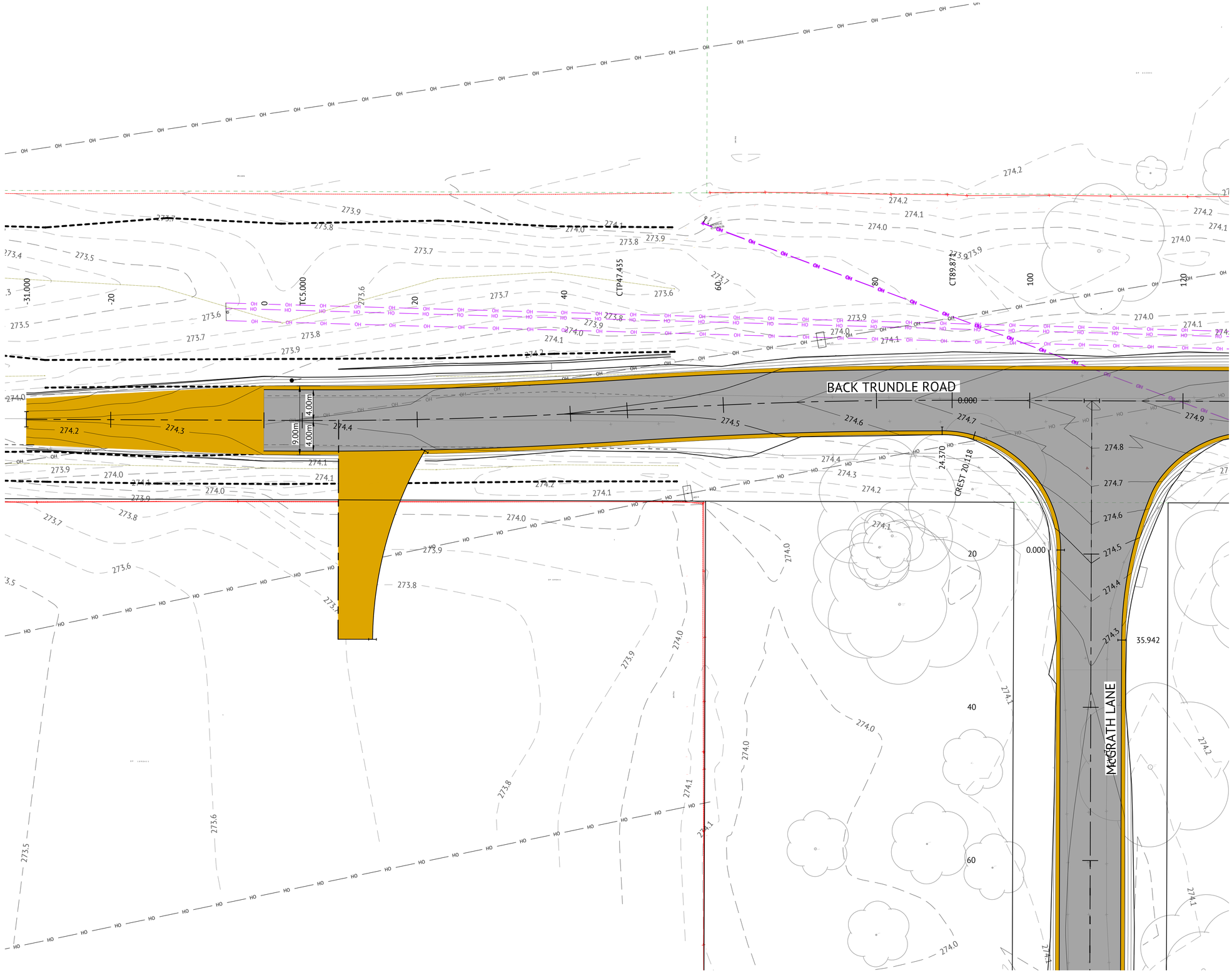
DESIGNED: R. DURHAM
CHECKED: S. HOYNES
PROJECT MANAGER: D. WALKER
SCALE: NTS
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: QUORN PARK SOLAR FARM, PARKES NSW
SHEET TITLE: TYPICAL NOTES AND DETAILS

JOB CODE: 223076_02
SHEET NUMBER: C011
REV: 4



LEGEND - PROPOSED

- 2 COAT BITUMEN SEAL PAVEMENT
- GRAVEL PAVEMENT

LEGEND - EXISTING

- 12.0 — MAJOR CONTOURS (0.20m)
- MINOR CONTOURS (0.10m)
- ROAD
- FENCE
- OH — ELECTRICAL OVERHEAD
- PP — POWER POLE
- TREE
- SIGN

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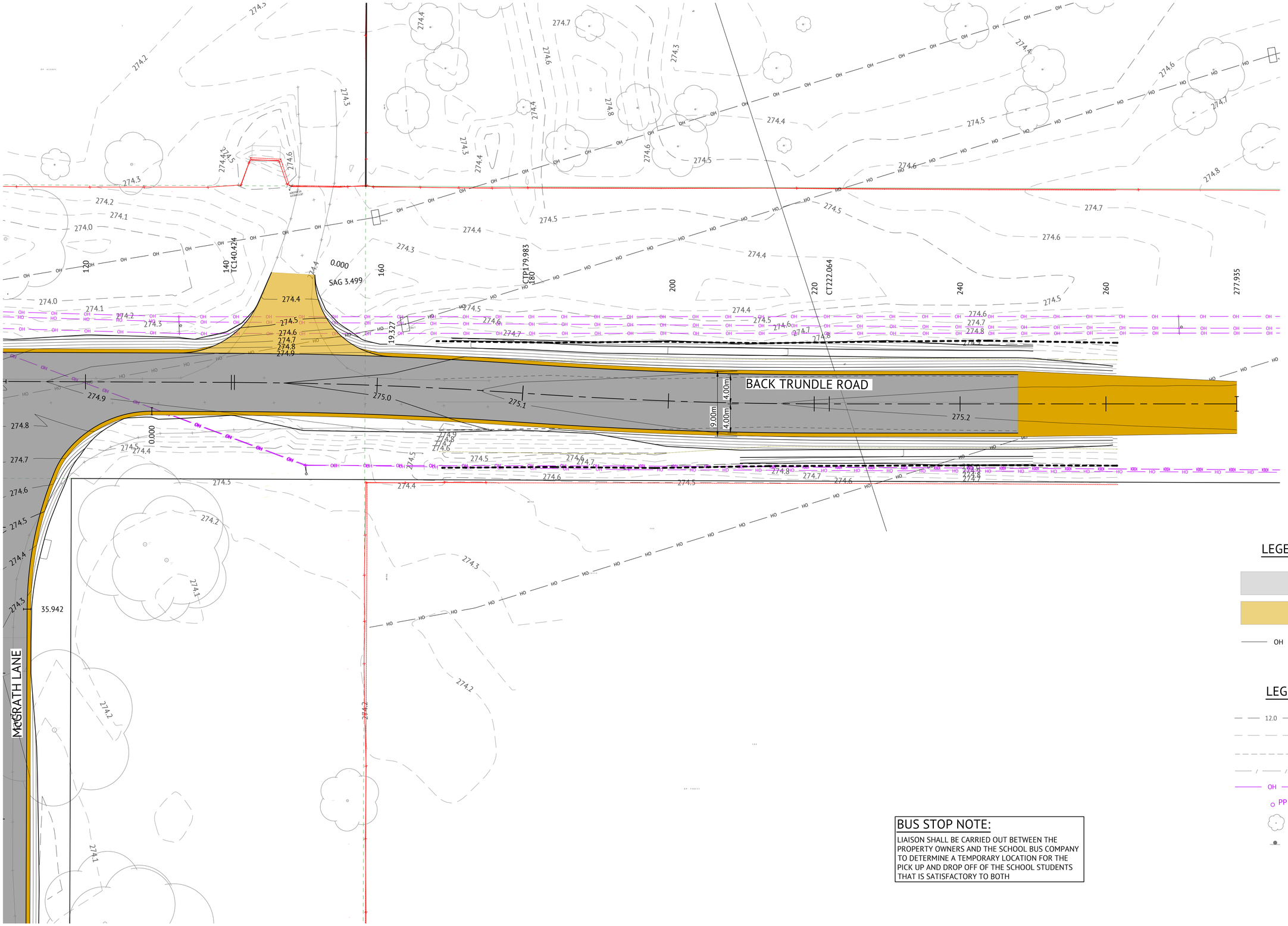
SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: ENGINEERING PLAN - SHEET 1

JOB CODE: 223076_02
SHEET NUMBER: C101
REV: 4



LEGEND - PROPOSED

- 2 COAT BITUMEN SEAL PAVEMENT
- GRAVEL PAVEMENT
- OH — ELECTRICAL

LEGEND - EXISTING

- 12.0 — MAJOR CONTOURS (0.20m)
- MINOR CONTOURS (0.10m)
- ROAD
- FENCE
- OH — ELECTRICAL OVERHEAD
- PP — POWER POLE
- TREE
- SIGN

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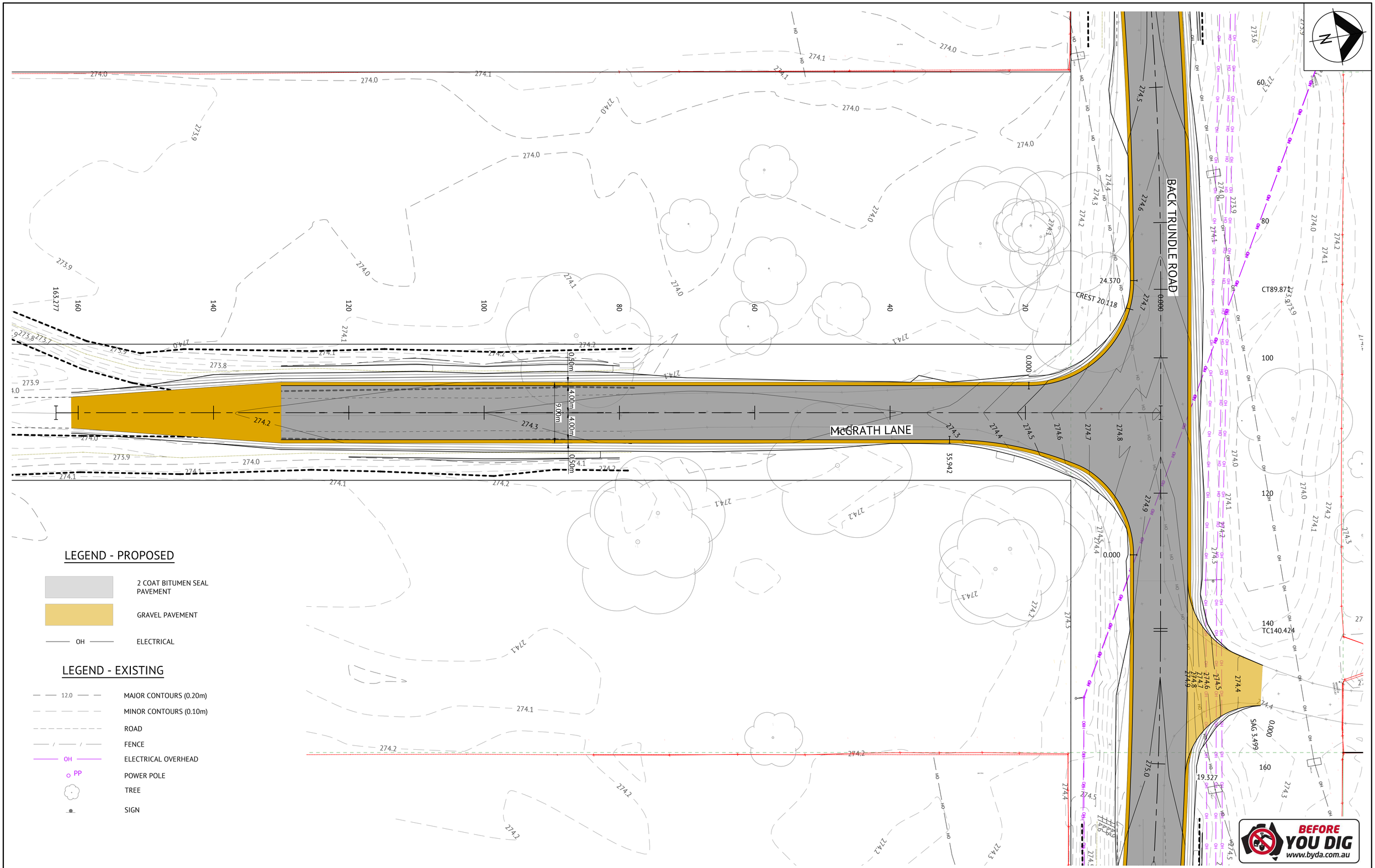
SCALE: 0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: ENGINEERING PLAN - SHEET 2

JOB CODE: 223076_02
SHEET NUMBER: C102
REV: 4



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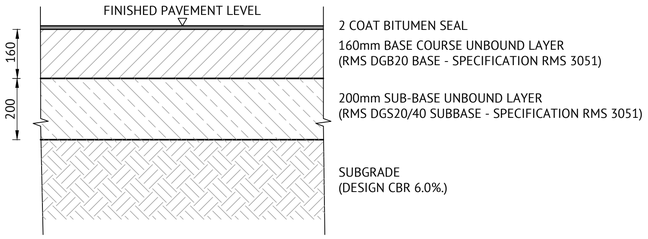
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ENGINEERING PLAN - SHEET 3

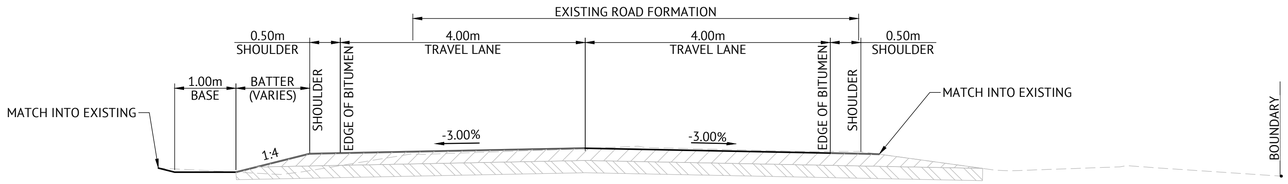
JOB CODE 223076_02
SHEET NUMBER C103
REV 4



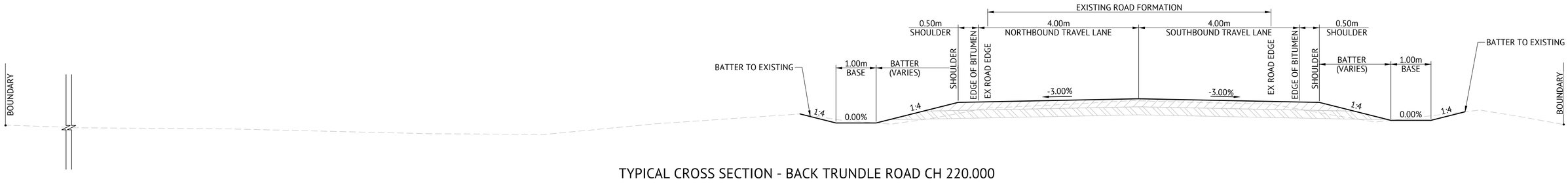
PAVEMENT DETAIL
NTS

NOTES:

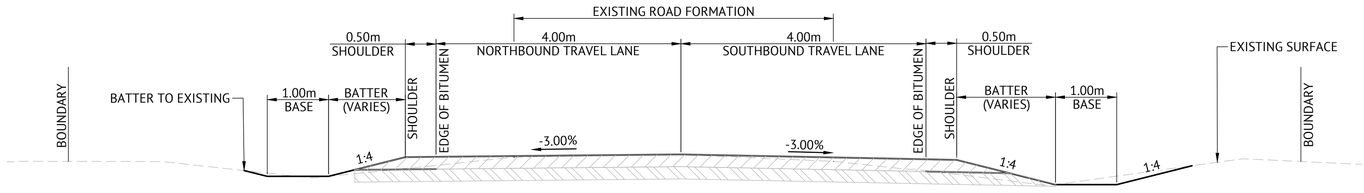
PAVEMENT DESIGN IN ACCORDANCE WITH THE MACQUARIE GEOTECH REPORT G23907-1 DATED 29 APRIL 2024.



TYPICAL CROSS SECTION - BACK TRUNDLE ROAD CH 40.000
SCALE 1:50



TYPICAL CROSS SECTION - BACK TRUNDLE ROAD CH 220.000
SCALE 1:50



TYPICAL CROSS SECTION - McGRATH LANE NORTH CH 90
SCALE 1:50

PRELIMINARY - NOT FOR CONSTRUCTION

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DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 1 2 3m
SCALE 1:50 (A1)
ORIGINAL SHEET SIZE A1

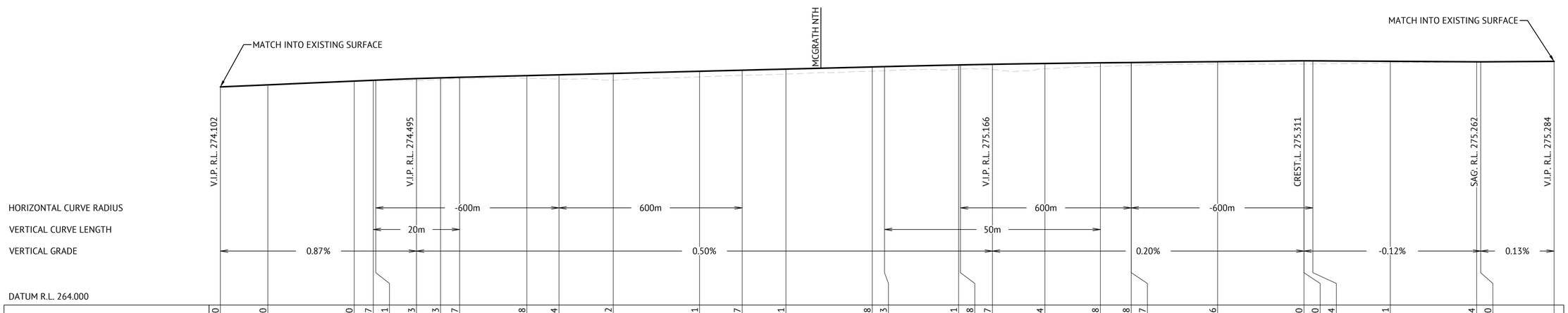
CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: TYPICAL CROSS SECTIONS

JOB CODE 223076_02
SHEET NUMBER C121
REV 4

CUT/FILL	0.204	0.078	0.082	0.120	0.087	0.085	0.085	0.079	0.142	0.189	0.195	0.130	0.110	0.087	0.062	0.048	0.006	0.000					
FINISHED SURFACE LEVEL	274.966	274.566	274.518	274.394	274.373	274.380	274.381	274.420	274.462	274.474	274.474	274.466	274.434	274.394	274.311	274.228	274.145	274.131					
NATURAL SURFACE LEVEL	274.762	274.488	274.436	274.274	274.286	274.295	274.296	274.341	274.320	274.285	274.279	274.336	274.324	274.308	274.249	274.181	274.139	274.131					
CHAINAGE	0.000	20.000	22.407	31.407	36.913	40.000	40.407	48.429	60.000	69.429	70.979	80.000	90.429	100.000	120.000	140.000	160.000	163.277					

LONGITUDINAL SECTION - MCGRATH NTH

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



CUT/FILL	0.000	0.000	-0.020	-0.007	-0.001	0.093	0.073	0.067	0.128	0.194	0.312	0.261	0.237	0.231	0.198	0.193	0.201	0.198	0.237	0.244	0.168	0.138	0.137	0.106	0.150	0.150	0.144	0.081	0.004	0.000					
FINISHED SURFACE LEVEL	274.102	274.197	274.370	274.408	274.413	274.486	274.521	274.545	274.624	274.661	274.724	274.825	274.875	274.925	275.026	275.040	275.118	275.119	275.147	275.186	275.216	275.230	275.230	275.270	275.310	275.311	275.308	275.287	275.263	275.262	275.284				
NATURAL SURFACE LEVEL	274.102	274.197	274.390	274.415	274.414	274.393	274.448	274.479	274.495	274.467	274.413	274.564	274.638	274.695	274.828	274.847	274.917	274.921	274.910	274.941	275.048	275.093	275.093	275.164	275.161	275.161	275.164	275.206	275.260	275.262					
CHAINAGE	-31.000	-20.000	0.000	4.420	5.000	14.420	20.000	24.420	40.000	47.435	60.000	80.000	89.871	100.000	120.000	122.858	140.000	140.424	147.838	160.000	172.838	179.983	180.000	200.000	220.000	220.002	222.064	240.000	260.000	260.935	277.935				

LONGITUDINAL SECTION - BACK TRUNDLE WEST

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

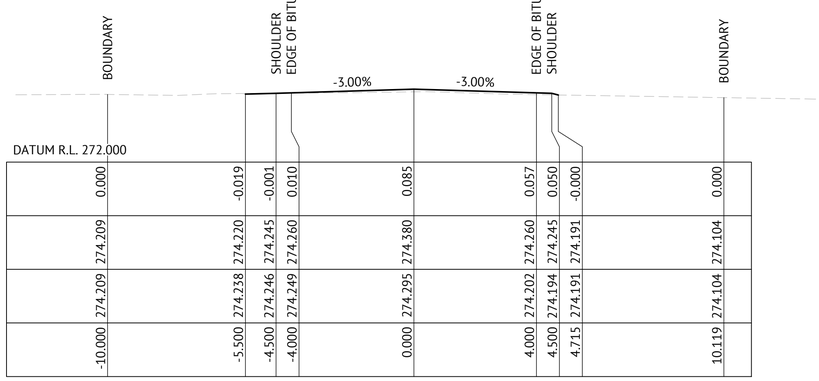
Premise
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

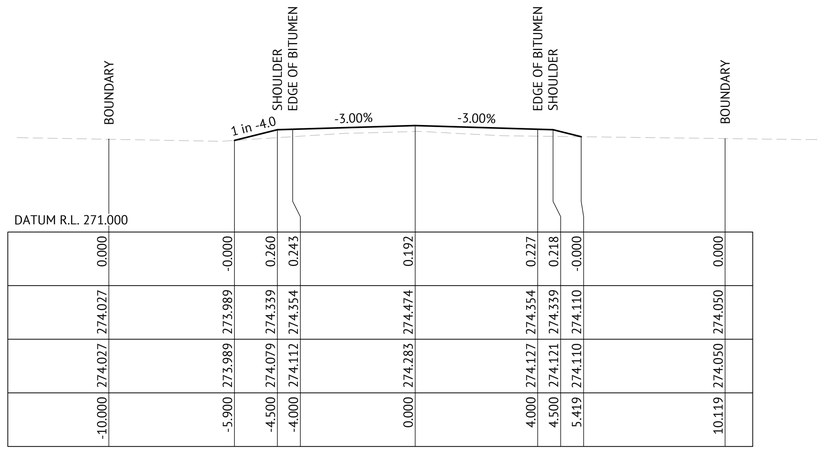
SCALE
HORIZONTAL 1:500 (A1)
0 10 20 30m
VERTICAL 1:100 (A1)
0 2 4 6m
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ROAD LONGITUDINAL SECTIONS

JOB CODE 223076_02
SHEET NUMBER C131
REV 4



CH 40.000



CH 70.000

CH 30.000

CH 60.000

CH 20.000

CH 50.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

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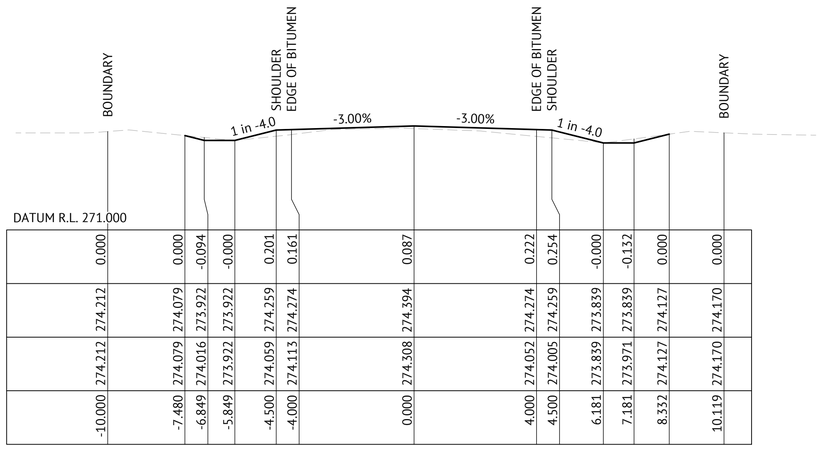
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE 0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ROAD CROSS SECTIONS - McGRATH LANE - SHEET 1

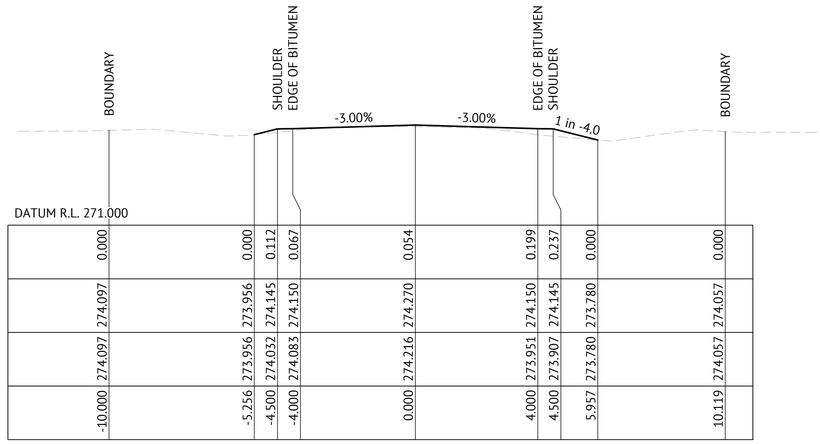
JOB CODE 223076_02
SHEET NUMBER C141
REV 4



DATUM R.L. 271.000

0.000		0.000	-0.094	-0.000	0.201	0.161		0.087		0.222	0.254	-0.000	-0.132	0.000	0.000
274.212		274.079	273.922	273.922	274.259	274.274		274.394		274.274	274.259	273.839	273.839	274.127	274.170
274.212		274.079	274.016	273.922	274.059	274.113		274.308		274.052	274.005	273.839	273.971	274.127	274.170
-10.000		-7.480	-6.849	-5.849	-4.500	-4.000		0.000		4.000	4.500	6.181	7.181	8.332	10.119

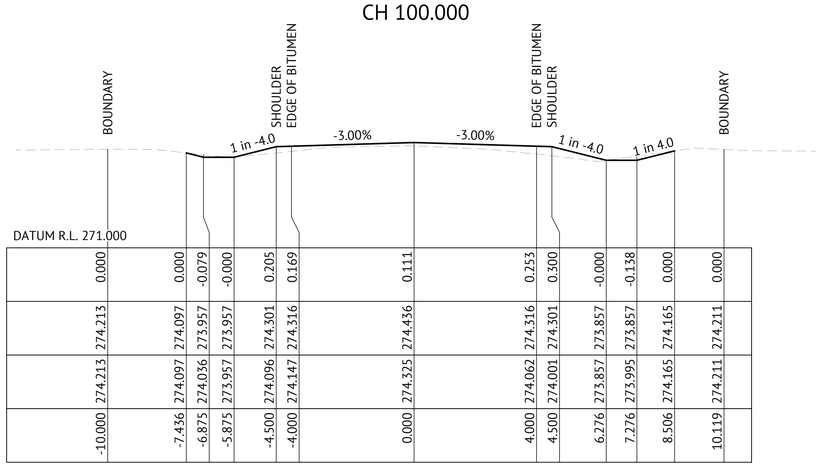
CH 100.000



DATUM R.L. 271.000

0.000		0.000	0.112	0.067		0.054		0.199	0.237	0.000		0.000		
274.097		274.097	273.956	274.145	274.150	274.270		274.150	274.145	273.780		274.057		
274.097		274.097	273.956	274.032	274.083	274.216		273.951	273.907	273.780		274.057		
-10.000		-5.256	-4.500	-4.000		0.000		4.000	4.500	5.957		10.119		

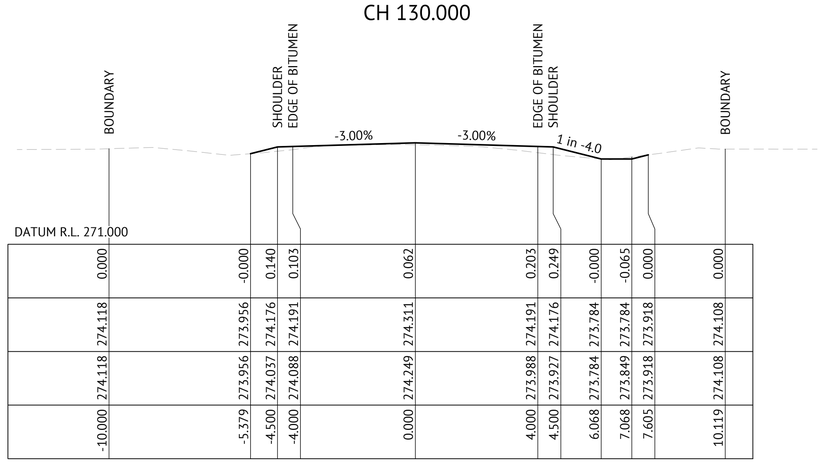
CH 130.000



DATUM R.L. 271.000

0.000		0.000	-0.079	-0.000	0.205	0.169		0.111		0.253	0.300	-0.000	-0.138	0.000	0.000
274.213		274.097	273.957	273.957	274.301	274.316		274.436		274.316	274.301	273.857	273.857	274.165	274.211
274.213		274.097	274.036	273.957	274.096	274.147		274.325		274.062	274.001	273.857	273.995	274.165	274.211
-10.000		-7.436	-6.875	-5.875	-4.500	-4.000		0.000		4.000	4.500	6.276	7.276	8.506	10.119

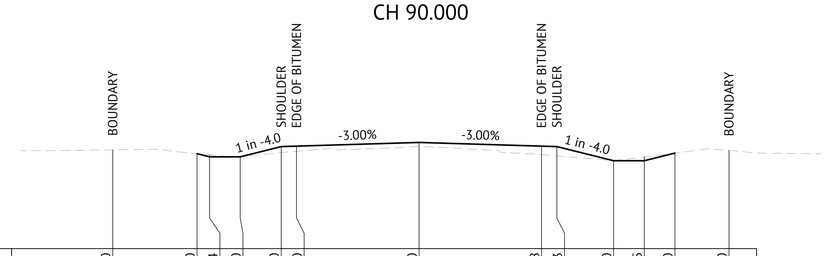
CH 90.000



DATUM R.L. 271.000

0.000		-0.000	0.140	0.103		0.062		0.203	0.249	-0.000	-0.065	0.000	0.000	
274.118		273.956	274.176	274.191		274.311		274.191	274.176	273.784	273.784	273.918	274.108	
274.118		273.956	274.037	274.088		274.249		273.988	273.927	273.784	273.849	273.918	274.108	
-10.000		-5.379	-4.500	-4.000		0.000		4.000	4.500	6.068	7.068	7.605	10.119	

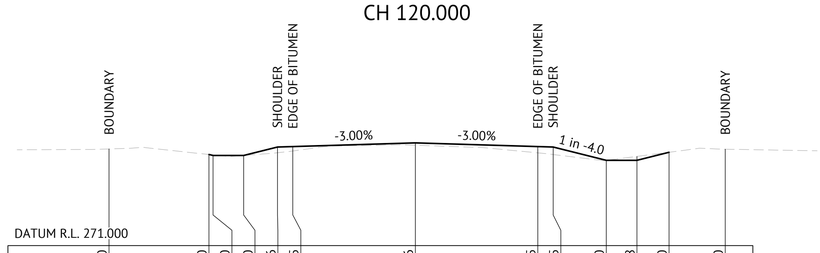
CH 120.000



DATUM R.L. 271.000

CUT/FILL	0.000		0.000	-0.064	-0.000	0.200	0.170	0.130		0.278	0.303	-0.000	-0.125	0.000	0.000
FINISHED SURFACE LEVEL	274.223		274.099	273.996	273.996	274.331	274.346	274.466		274.346	274.331	273.867	273.867	274.118	274.203
NATURAL SURFACE LEVEL	274.223		274.099	274.060	273.996	274.131	274.176	274.336		274.068	274.027	273.867	273.992	274.118	274.203
OFFSET	-10.000		-7.249	-6.838	-5.838	-4.500	-4.000	0.000		4.000	4.500	6.353	7.353	8.354	10.119

CH 80.000



DATUM R.L. 271.000

0.000		0.000	-0.020	-0.000	0.186	0.145		0.076		0.205	0.245	-0.000	-0.128	0.000	0.000
274.155		273.975	273.942	273.942	274.218	274.233		274.353		274.233	274.218	273.784	273.784	274.046	274.147
274.155		273.975	273.962	273.942	274.032	274.088		274.277		274.028	273.973	273.784	273.912	274.046	274.147
-10.000		-6.737	-6.603	-5.603	-4.500	-4.000		0.000		4.000	4.500	6.234	7.234	8.283	10.119

CH 110.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
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06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

Premise
ORANGE OFFICE
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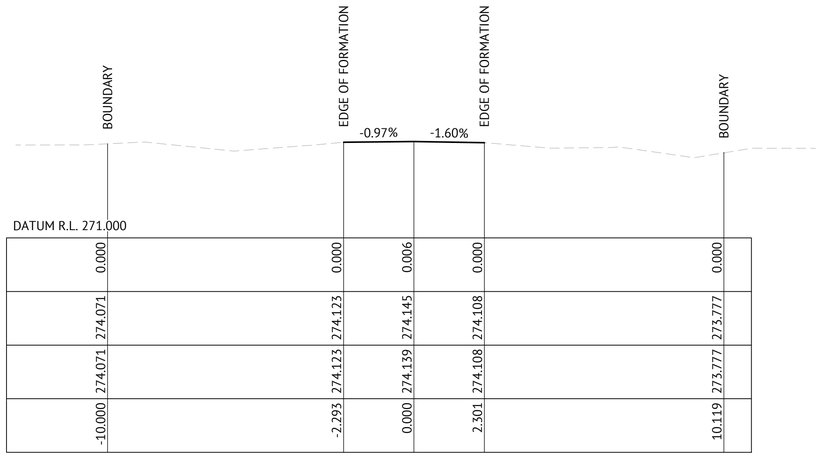
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

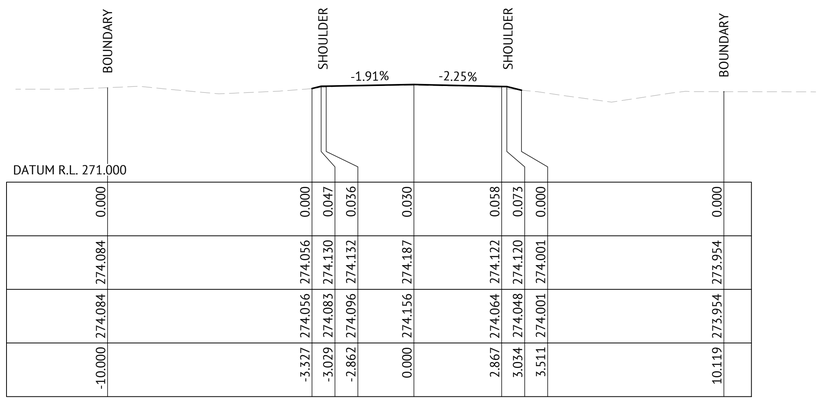
SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ROAD CROSS SECTIONS - McGRATH LANE - SHEET 2

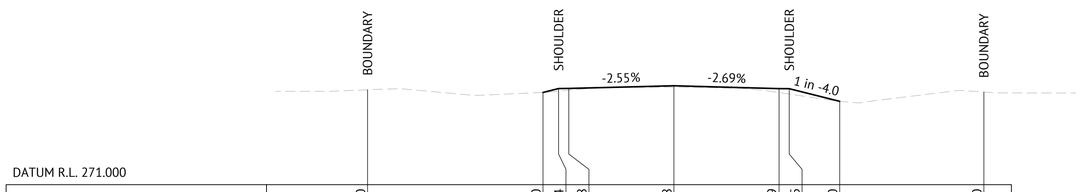
JOB CODE 223076_02
SHEET NUMBER C142
REV 4



CH 160.000



CH 150.000



CH 140.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

Premise
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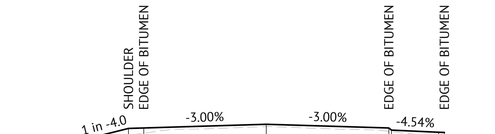
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

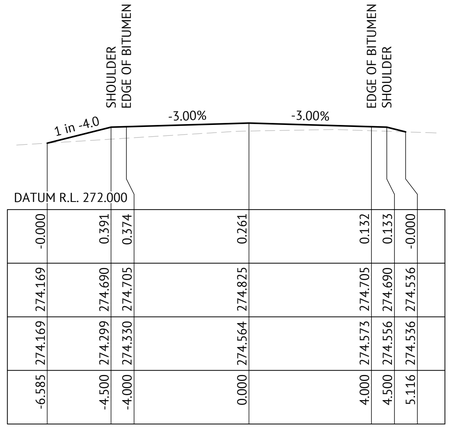
CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ROAD CROSS SECTIONS - McGRATH LANE - SHEET 3

JOB CODE 223076_02
SHEET NUMBER C143
REV 4



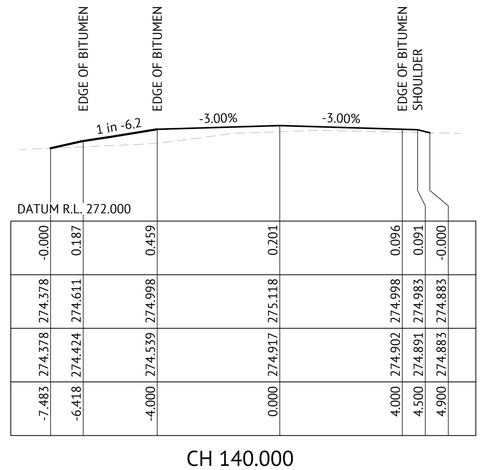
	0.000	-0.049	-0.000	0.229	0.172		0.073		0.111	0.050	0.147	0.160
	274.088	274.027	274.027	274.386	274.401		274.521		274.401	274.332	274.262	274.255
	274.088	274.076	274.027	274.158	274.229		274.448		274.291	274.281	274.115	274.096	274.813
-7.182	-6.938	-5.938	-4.500	-4.000		0.000		4.000	4.086	5.625	5.813

CH 20.000



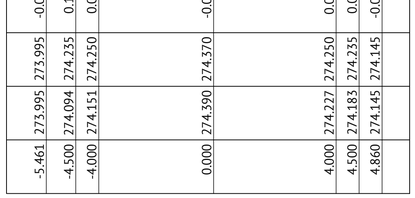
-0.000	0.391	0.374			0.261			0.132	0.133	-0.000
274.169	274.690	274.705			274.825			274.705	274.690	274.536
274.169	274.299	274.330			274.564			274.573	274.556	274.536
-6.585	-4.500	-4.000		0.000			4.000	4.500	5.116	

CH 80.000



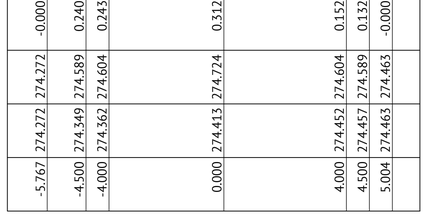
-0.000	0.187			0.459			0.201			0.096	0.091	-0.000
274.378	274.611			274.998			275.118			274.998	274.983	274.883
274.378	274.424			274.539			274.917			274.902	274.891	274.883
-7.483	-6.418		-4.000			0.000			4.000	4.500	4.900

CH 140.000



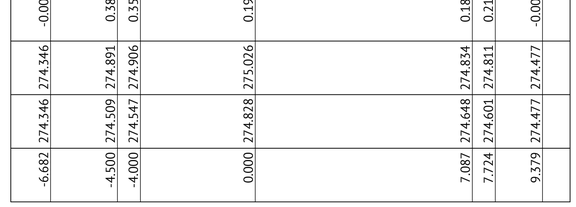
-0.000	0.141	0.099			-0.020			0.024	0.052	-0.000
273.995	274.235	274.250			274.370			274.250	274.235	274.145
273.995	274.094	274.151			274.390			274.227	274.183	274.145
-5.461	-4.500	-4.000		0.000			4.000	4.500	4.860	

CH 0.000



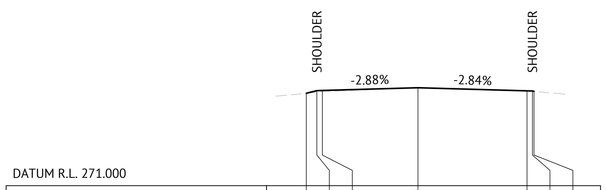
-0.000	0.240	0.243			0.312			0.152	0.132	-0.000
274.272	274.589	274.604			274.724			274.604	274.589	274.463
274.272	274.349	274.362			274.413			274.452	274.457	274.463
-5.767	-4.500	-4.000		0.000			4.000	4.500	5.004	

CH 60.000



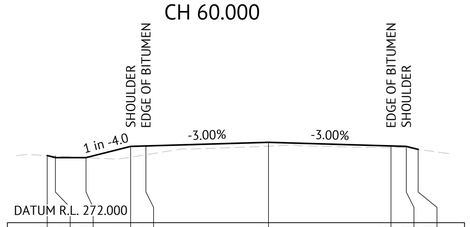
-0.000	0.382	0.359			0.198			0.186	0.210	-0.000
274.346	274.891	274.906			275.026			274.834	274.811	274.477
274.346	274.509	274.547			274.828			274.648	274.601	274.477
-6.682	-4.500	-4.000		0.000			7.087	7.724	9.379	

CH 120.000



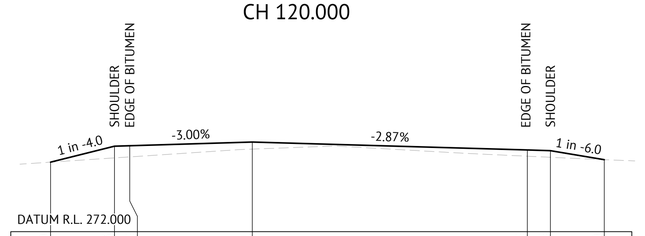
CUT/FILL	0.000	0.051	0.038	0.000			-0.003	0.008	0.000	
FINISHED SURFACE LEVEL	274.016	274.102	274.107	274.197			274.096	274.090	274.078	
NATURAL SURFACE LEVEL	274.016	274.051	274.069	274.197			274.099	274.082	274.078	
OFFSET	-3.644	-3.300	-3.123	0.000			3.560	3.737	3.788	

CH -20.000



0.000	-0.053	-0.000	0.353	0.286			0.128			0.054	0.044	-0.000
274.191	274.124	274.124	274.489	274.504			274.624			274.504	274.489	274.392
274.191	274.177	274.124	274.135	274.217			274.495			274.449	274.445	274.392
-7.223	-6.957	-5.957	-4.500	-4.000		0.000			4.000	4.500	4.887

CH 40.000



-0.000	0.383	0.365			0.231			0.205	0.215	0.000
274.269	274.790	274.805			274.925			274.668	274.644	274.350
274.269	274.408	274.441			274.695			274.463	274.428	274.350
-6.585	-4.500	-4.000		0.000			8.980	9.732	11.491

CH 100.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
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08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

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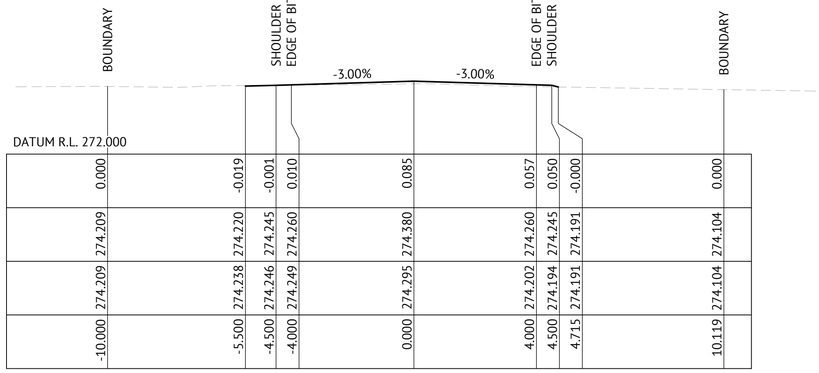
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

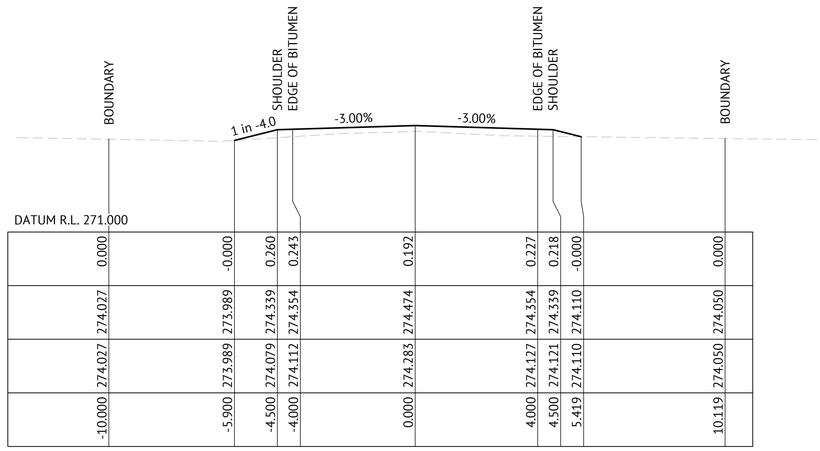
SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ROAD CROSS SECTIONS - BACK TRUNDLE ROAD - SHEET 1

JOB CODE 223076_02
SHEET NUMBER C144
REV 4



CH 40.000



CH 70.000

CH 30.000

CH 60.000

CH 20.000

CH 50.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

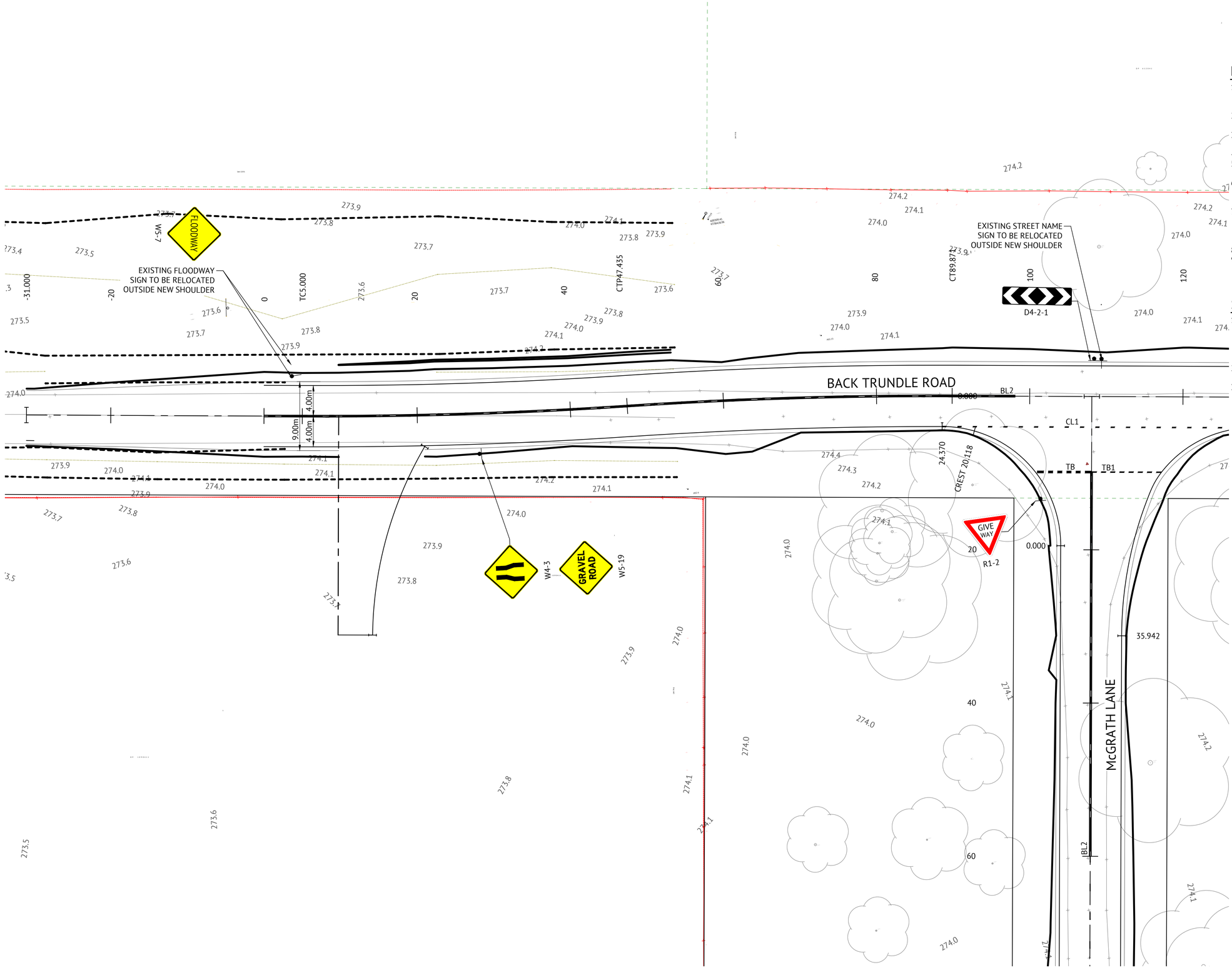
Premise
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE 0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ROAD CROSS SECTIONS - BACK TRUNDLE ROAD - SHEET 2

JOB CODE 223076_02
SHEET NUMBER C145
REV 4



LINEMARKING NOTES

1. PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE SPECIFIC REQUIREMENTS OF TfNSW SPECIFICATIONS.
2. ALL INTERNAL LINE MARKING TO CONSIST OF LINES 100mm WIDE WITH 2 COATS OF PAINT TO MANUFACTURERS SPECIFICATIONS.
3. EXTENT OF LINEMARKING SHALL BE VERIFIED ON SITE PRIOR TO INSTALLATION.
4. ALL PAINTED MARKINGS SHALL BE APPROVED REFLECTORISED U.N.O.
5. ANY EXISTING LINE MARKINGS DAMAGED BY THE PROPOSED WORKS ARE TO BE REINSTATED.
6. EXISTING CONFLICTING LINE MARKINGS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 4 IN THE TfNSW QA SPECIFICATION R145 PAVEMENT MARKING.
7. RETRO-REFLECTIVE RAISED PAVEMENT MARKERS (RRPM's) SHALL BE PLACED 25mm TO 50mm FROM THE PAINTED LINEMARKING AND ORIENTATED SO THAT FULL REFLECTIVE EFFECT IS ACHIEVED BY AIMING THE REFLECTIVE FACE IN THE DIRECTION OF APPROACHING TRAFFIC.
8. GENERALLY THE NORMAL SPACING BETWEEN RRPM's IS TO BE 12.0m U.N.O.
9. ANY EXISTING LINEMARKING NOT SHOWN ON THIS PLAN WHICH CONFLICTS OR IS INCOMPATIBLE WITH THE PROPOSED LINEMARKING SHALL BE REMOVED BY THE CONTRACTOR.

SIGNAGE NOTES

1. LOCATION OF SIGNS SHOWN ON THIS PLAN ARE INDICATIVE ONLY. CARE AND CONSIDERATION IS TO BE GIVEN TO ON SITE CONDITIONS TO AVOID ANY VISUAL OBSTRUCTION OF THE SIGN ALONG THE INTENDED COURSE OF APPROACHING TRAFFIC. EXACT LOCATION OF ALL SIGNS SHALL BE CONFIRMED ON SITE PRIOR TO INSTALLATION.
2. SIGNS SHOULD BE ORIENTATED AT APPROXIMATELY RIGHT ANGLES TO, AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE.
3. SIGNAGE SHALL BE IN ACCORDANCE WITH:
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   - AS1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
   - AS1743 ROAD SIGNS SPECIFICATION
   - AS4049.1 PAVEMENT MARKING MATERIALS

LEGEND - PROPOSED

SIGN

REQUIRED SIGNS

W2-3 — R1-2
W4-3 — D4-2-1
W5-19 — W5-7

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PRELIMINARY - NOT FOR CONSTRUCTION

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03/05/2023	1	ISSUED FOR APPROVAL		

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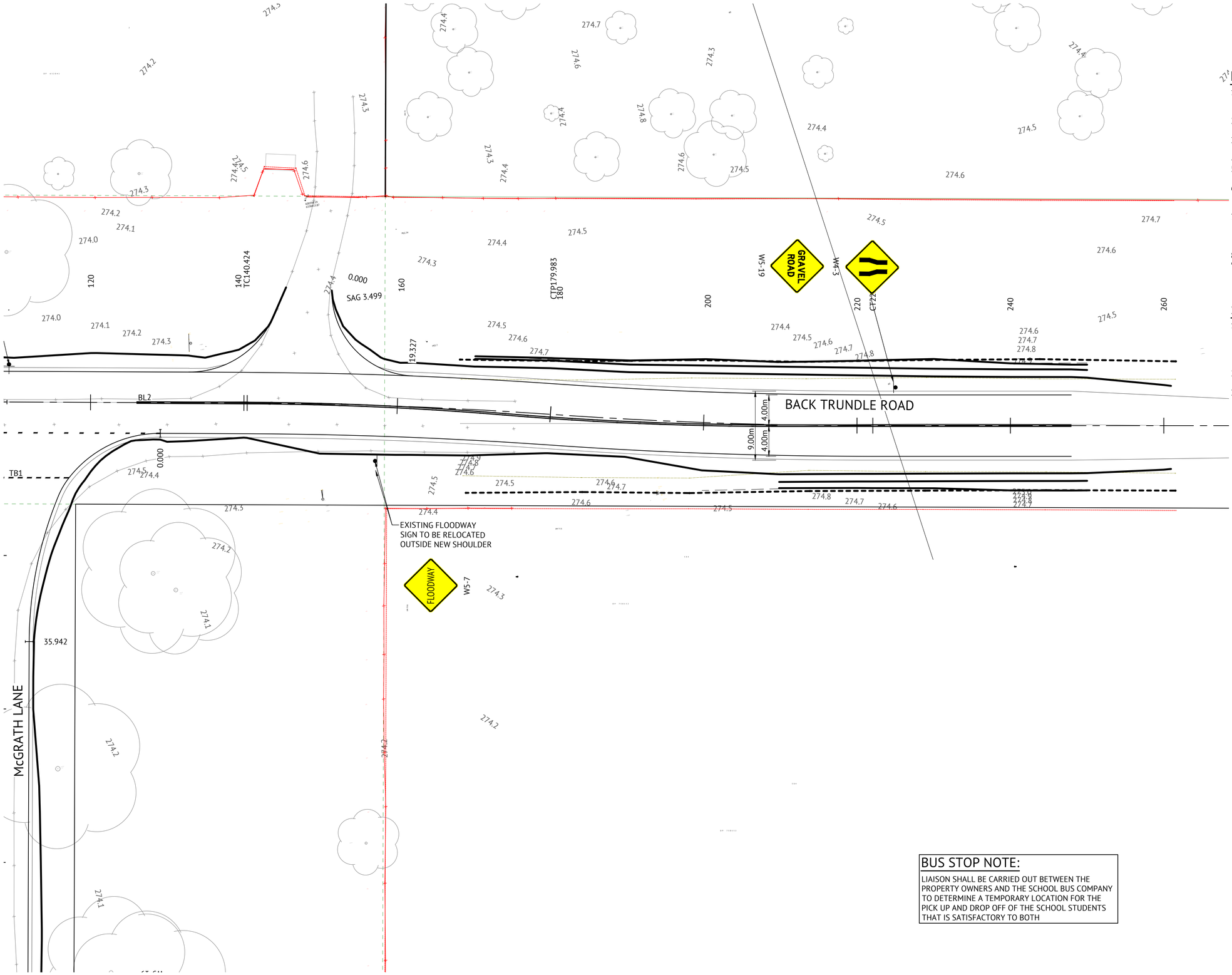
WEB: www.premise.com.au

DESIGNED: R. DURHAM
CHECKED: S. HOYNES
PROJECT MANAGER: D. WALKER

SCALE: 0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 1

JOB CODE: 223076_02
SHEET NUMBER: C151
REV: 4



LINEMARKING NOTES

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   - AS1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
   - AS1743 ROAD SIGNS SPECIFICATION
   - AS4049.1 PAVEMENT MARKING MATERIALS

LEGEND - PROPOSED

SIGN

REQUIRED SIGNS

W2-3 — R1-2

W4-3 — D4-2-1

W5-19 — W5-7

BUS STOP NOTE:

LIAISON SHALL BE CARRIED OUT BETWEEN THE PROPERTY OWNERS AND THE SCHOOL BUS COMPANY TO DETERMINE A TEMPORARY LOCATION FOR THE PICK UP AND DROP OFF OF THE SCHOOL STUDENTS THAT IS SATISFACTORY TO BOTH

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DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE 0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 2

JOB CODE 223076_02
SHEET NUMBER C152
REV 4

LINEMARKING NOTES

1. PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE SPECIFIC REQUIREMENTS OF TfNSW SPECIFICATIONS.
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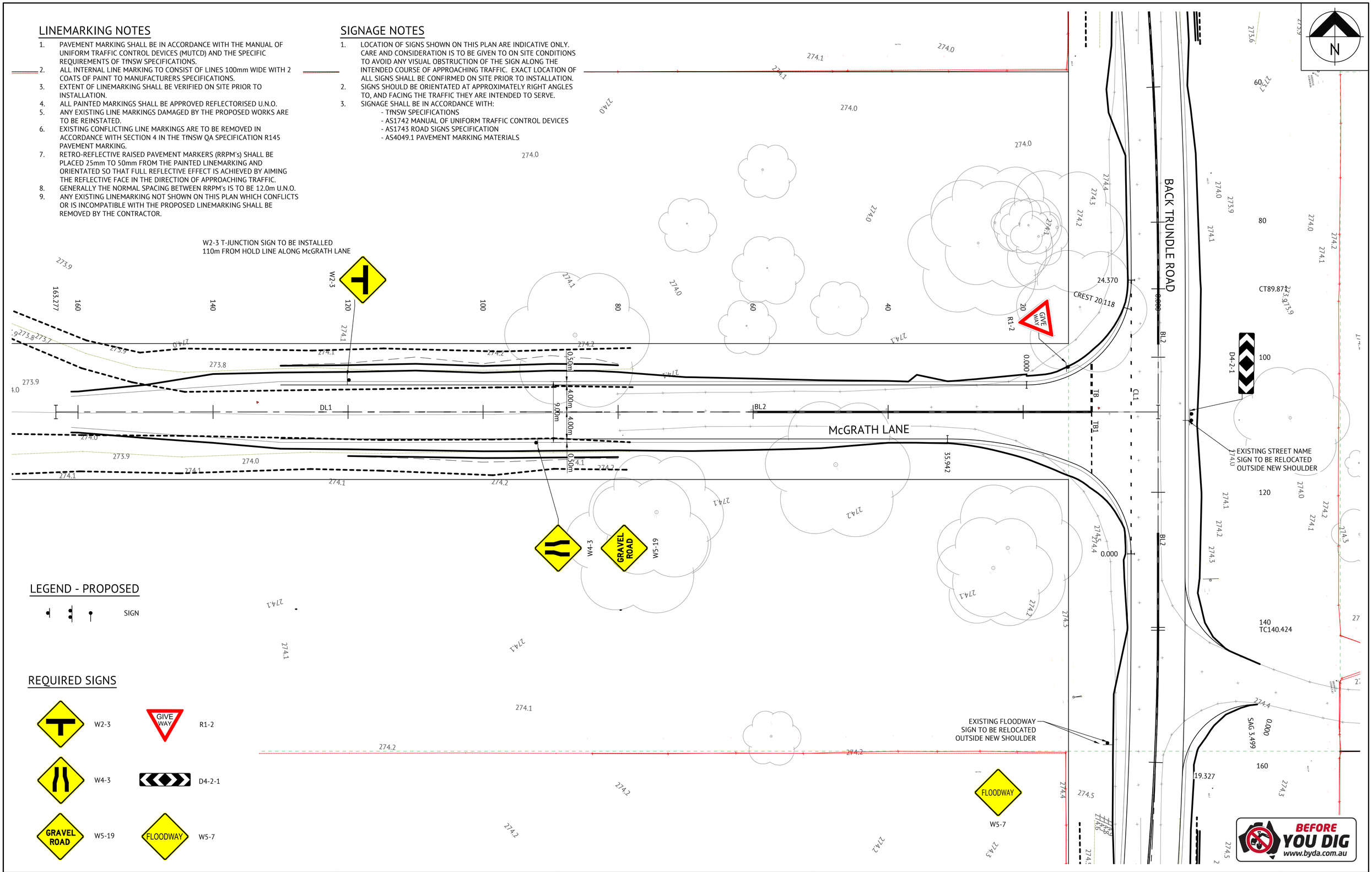
   - TfNSW SPECIFICATIONS
   - AS1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
   - AS1743 ROAD SIGNS SPECIFICATION
   - AS4049.1 PAVEMENT MARKING MATERIALS



LEGEND - PROPOSED

SIGN

REQUIRED SIGNS

W2-3 — R1-2

W4-3 — D4-2-1

W5-19 — W5-7

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PRELIMINARY - NOT FOR CONSTRUCTION

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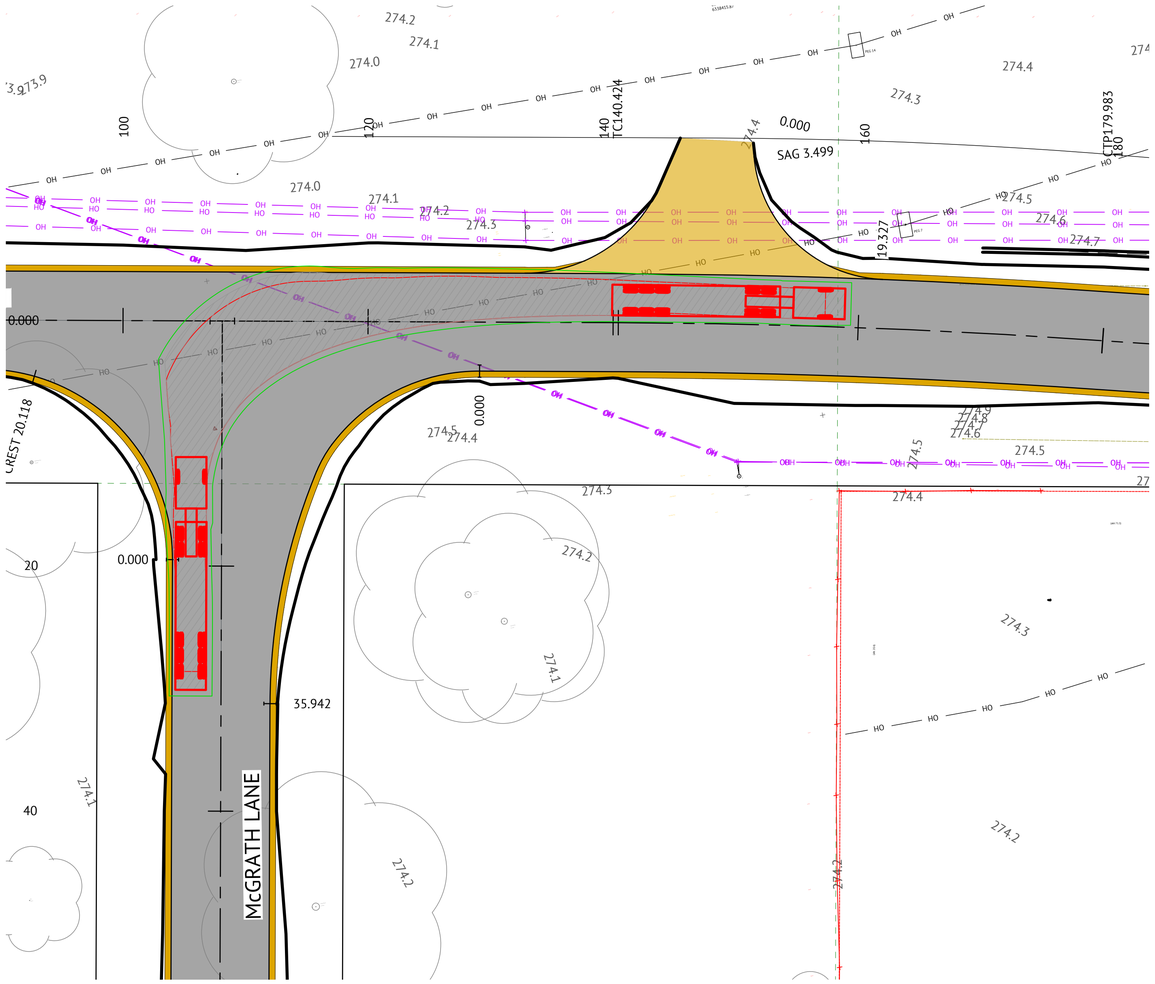
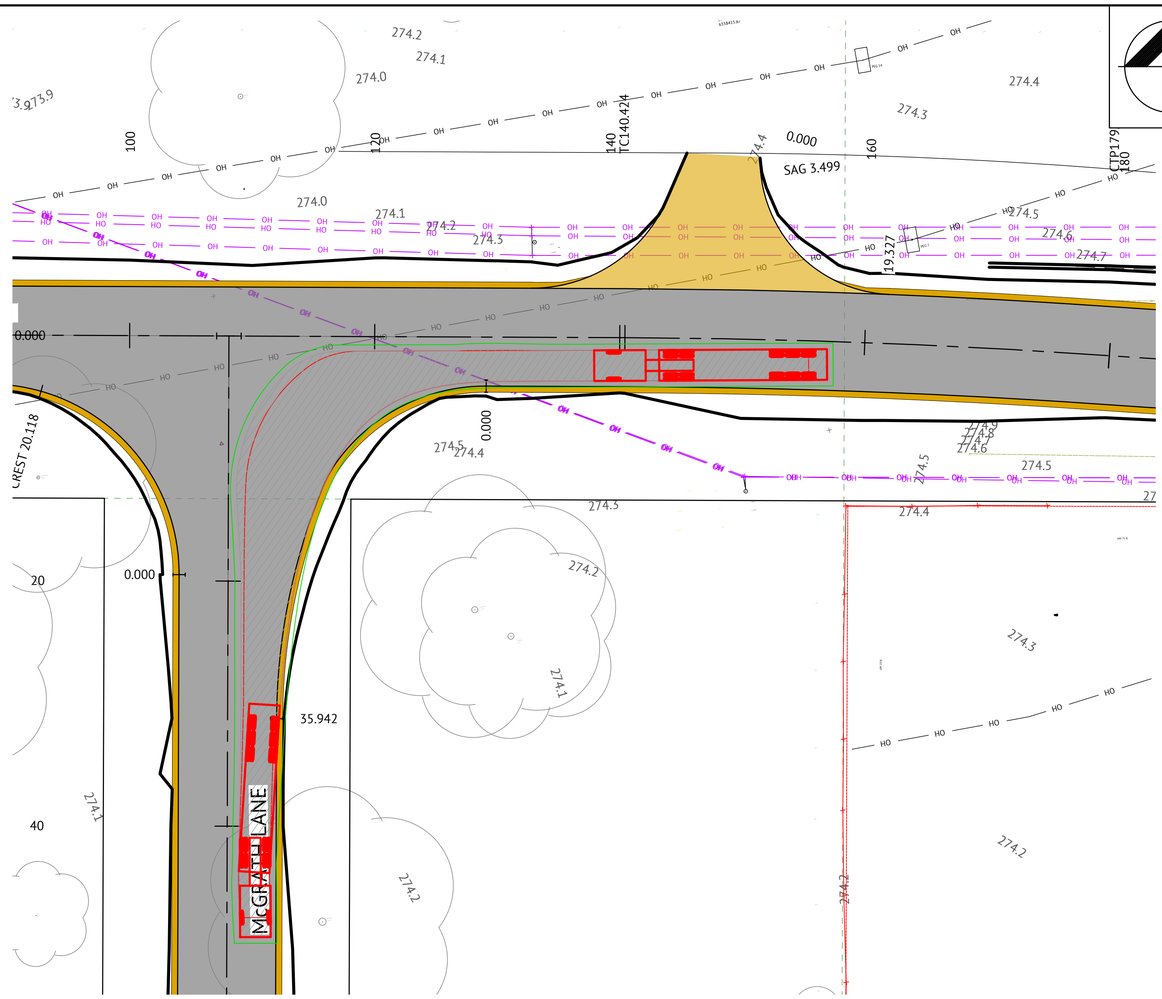
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

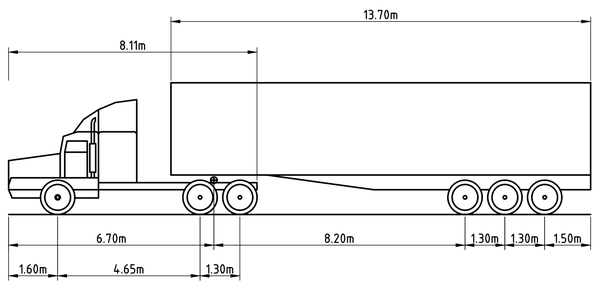
SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 3

JOB CODE 223076_02
SHEET NUMBER C153
REV 4







AUSTROADS PRIME MOVER & SEMI TRAILER (19m)

OVERALL LENGTH	19.000m
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
KERB-TO-KERB TURNING RADIUS	12.500m

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PRELIMINARY - NOT FOR CONSTRUCTION

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03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

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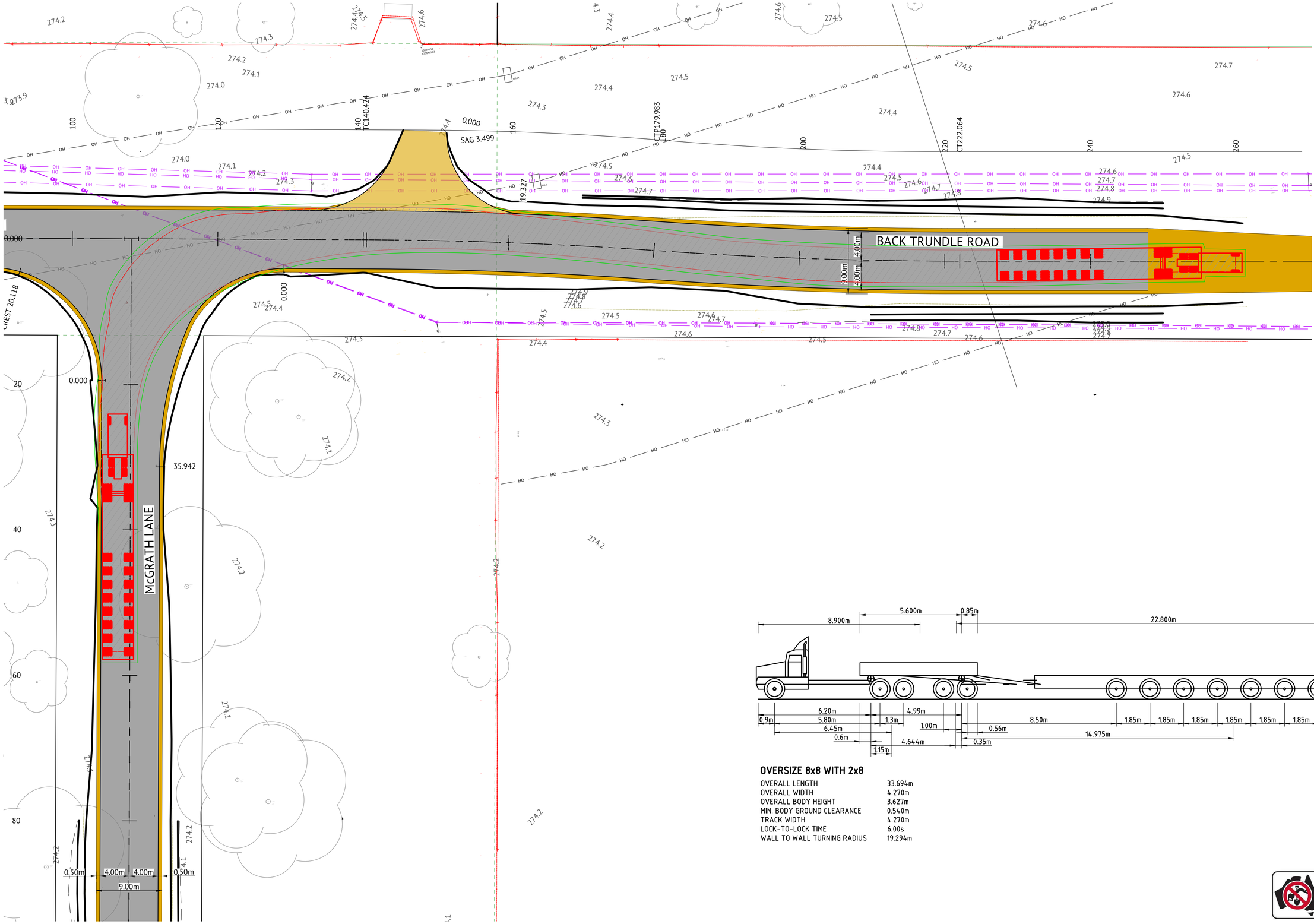
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE VEHICLE TRACKING - 19m PRIME MOVER AND SEMI TRAILER

JOB CODE 223076_02
SHEET NUMBER C191
REV 4



OVERSIZE 8x8 WITH 2x8

OVERALL LENGTH	33.694m
OVERALL WIDTH	4.270m
OVERALL BODY HEIGHT	3.627m
MIN. BODY GROUND CLEARANCE	0.540m
TRACK WIDTH	4.270m
LOCK-TO-LOCK TIME	6.00s
WALL TO WALL TURNING RADIUS	19.294m

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PRELIMINARY - NOT FOR CONSTRUCTION

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REVISIONS

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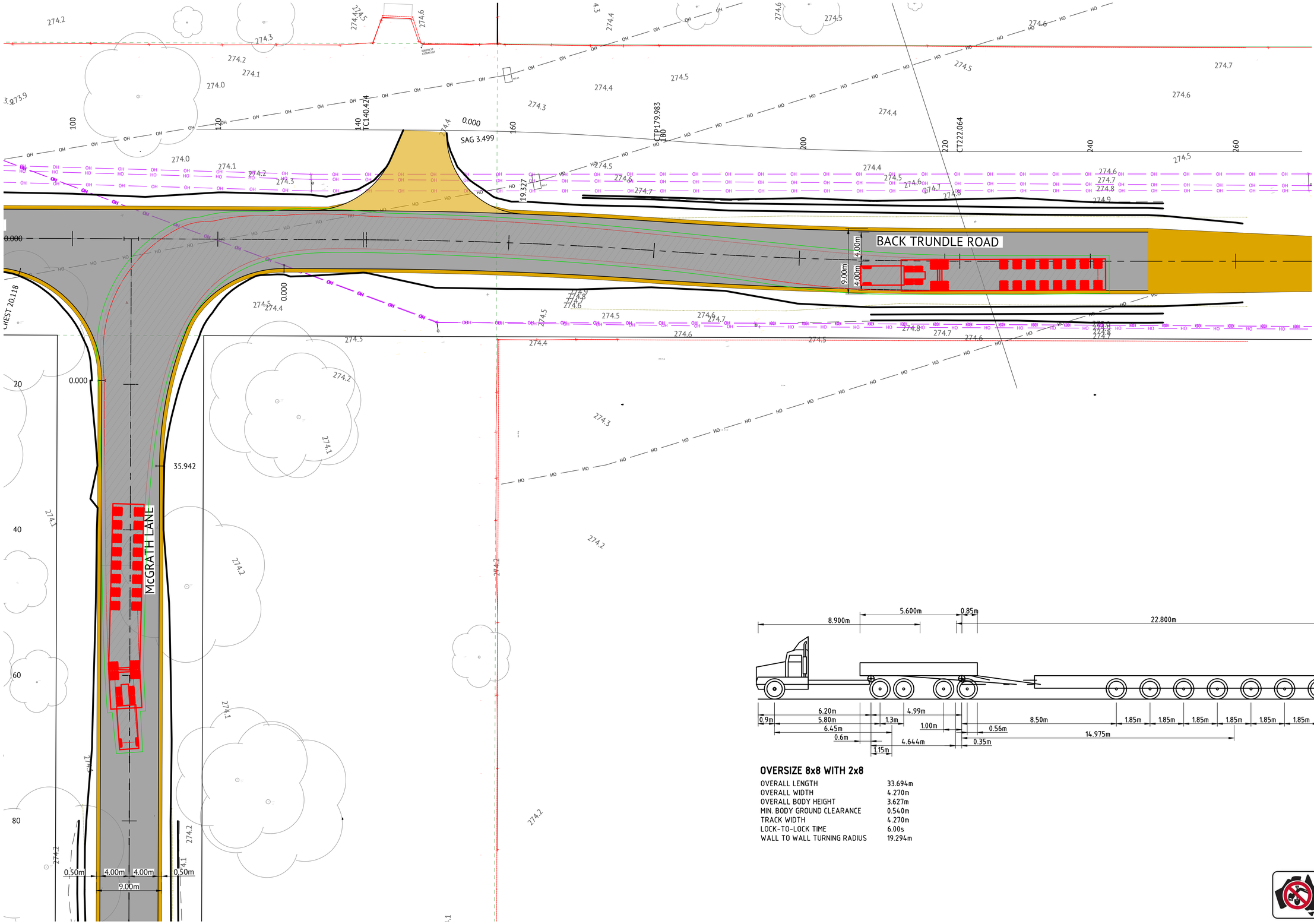
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: VEHICLE TRACKING - OVERSIZE 8x8 WITH 2x8 - SHEET 1

JOB CODE 223076_02
SHEET NUMBER C192
REV 4



OVERSIZE 8x8 WITH 2x8

OVERALL LENGTH	33.694m
OVERALL WIDTH	4.270m
OVERALL BODY HEIGHT	3.627m
MIN. BODY GROUND CLEARANCE	0.540m
TRACK WIDTH	4.270m
LOCK-TO-LOCK TIME	6.00s
WALL TO WALL TURNING RADIUS	19.294m

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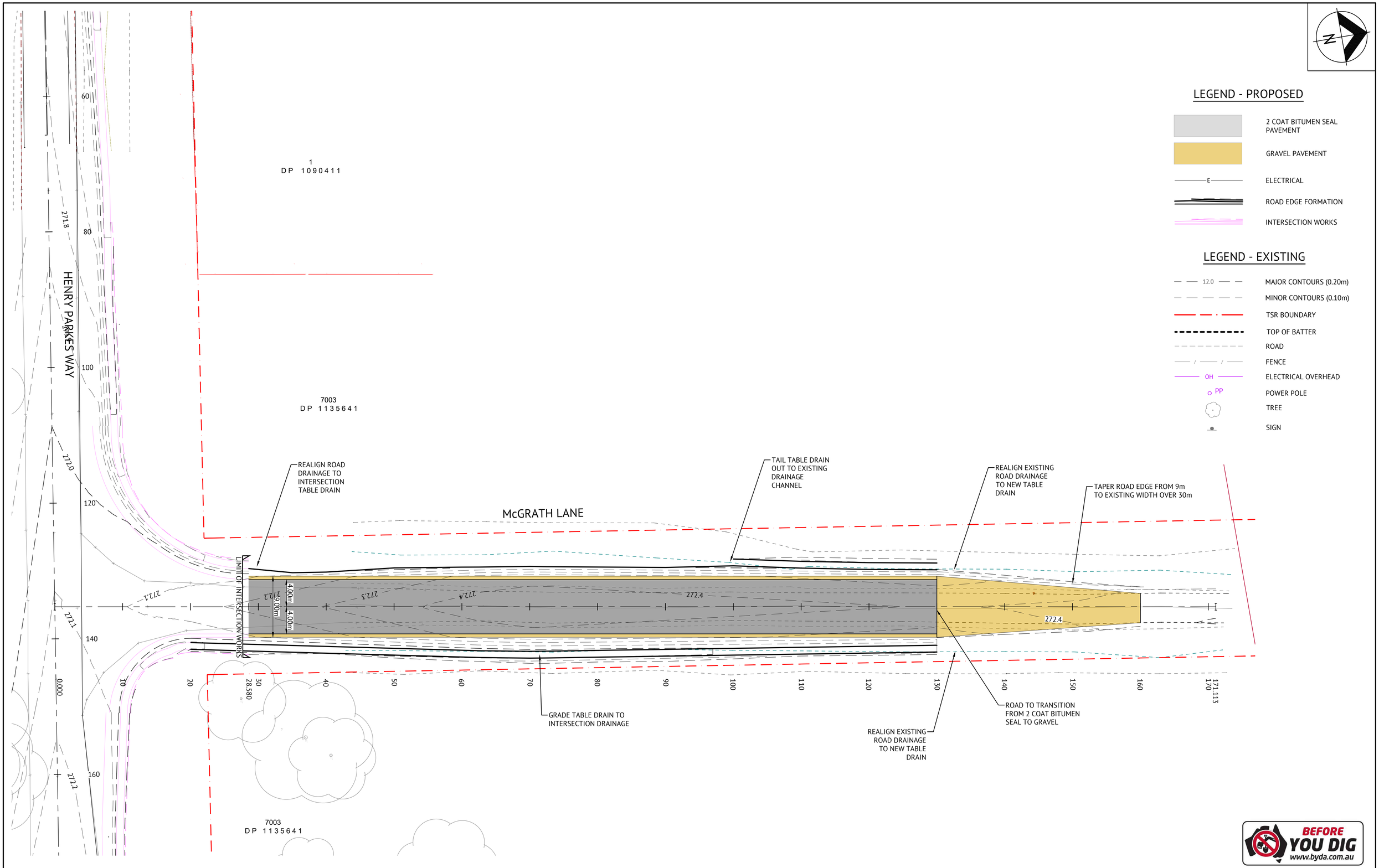
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: VEHICLE TRACKING - OVERSIZE 8x8 WITH 2x8 - SHEET 2

JOB CODE 223076_02
SHEET NUMBER C193
REV 4



LEGEND - PROPOSED

- 2 COAT BITUMEN SEAL PAVEMENT
- GRAVEL PAVEMENT
- E — ELECTRICAL
- ROAD EDGE FORMATION
- INTERSECTION WORKS

LEGEND - EXISTING

- 12.0 — MAJOR CONTOURS (0.20m)
- MINOR CONTOURS (0.10m)
- TSR BOUNDARY
- TOP OF BATTER
- ROAD
- FENCE
- OH — ELECTRICAL OVERHEAD
- PP — POWER POLE
- TREE
- SIGN

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PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA

PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW

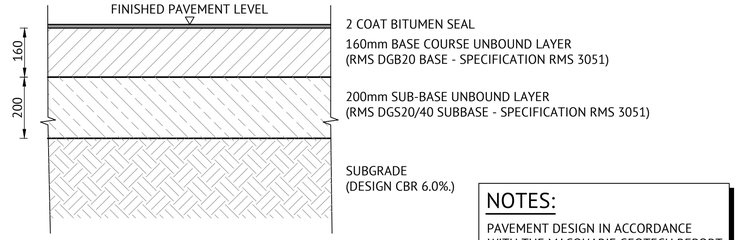
LOCATION McGRATH LANE EXTENSION FROM HENRY PARKES WAY

SHEET TITLE ENGINEERING PLAN

JOB CODE 223076_02

SHEET NUMBER C201

REV 4

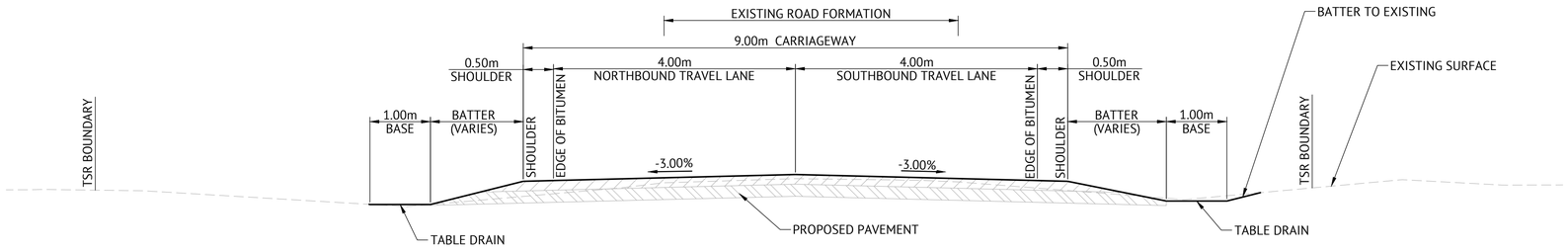


PAVEMENT DETAIL

NTS

NOTES:

PAVEMENT DESIGN IN ACCORDANCE WITH THE MACQUARIE GEOTECH REPORT G23907-1 DATED 29 APRIL 2024.



TYPICAL CROSS SECTION - McGRATH LANE CH100

SCALE 1:50

PRELIMINARY - NOT FOR CONSTRUCTION

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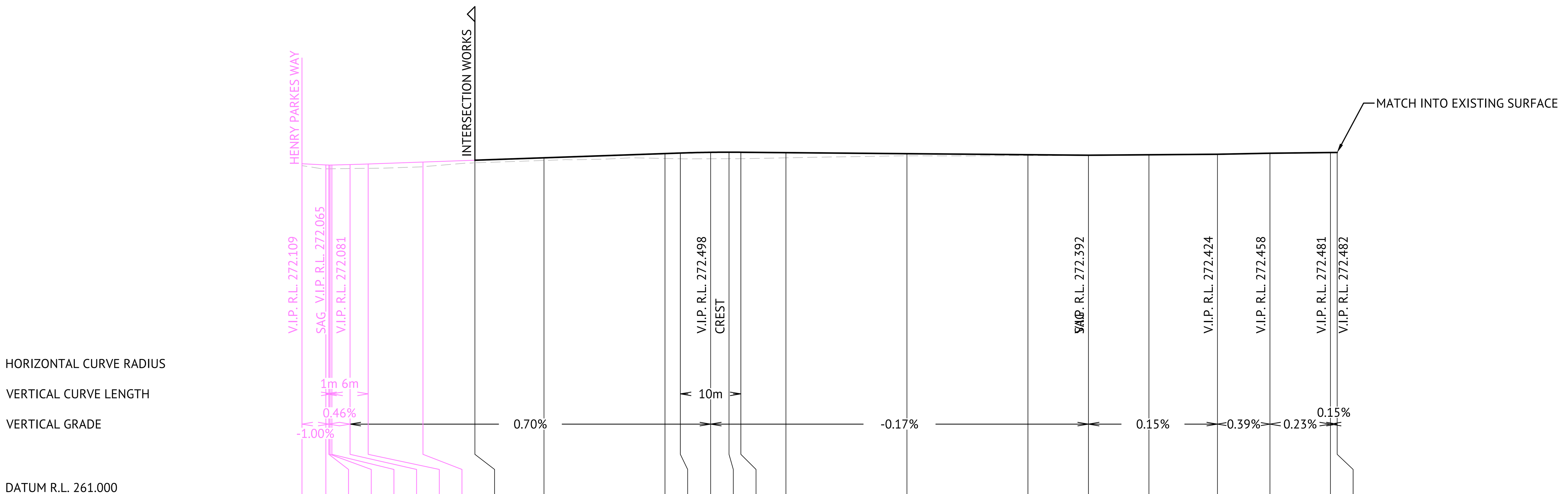
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE EXTENSION FROM HENRY PARKES WAY
SHEET TITLE TYPICAL CROSS SECTIONS

JOB CODE 223076_02
SHEET NUMBER C221
REV 4



CUT/FILL	0.067	0.129	0.125	0.124	0.124	0.132	0.144	0.154	0.154	0.086	0.161	0.189
FINISHED SURFACE LEVEL	272.109	272.070	272.067	272.066	272.067	272.083	272.102	272.165	272.225	272.305	272.445	272.463
NATURAL SURFACE LEVEL	272.043	271.941	271.942	271.942	271.943	271.951	271.958	272.012	272.140	272.220	272.284	272.274
CHAINAGE	0.000	3.945	4.445	4.631	4.945	7.945	10.945	20.000	28.580	40.000	60.000	62.549

CUT/FILL	0.213	0.217	0.214	0.172	0.069	0.034	0.000	-0.009	0.001	0.000	0.000	0.000
FINISHED SURFACE LEVEL	272.487	272.491	272.490	272.477	272.443	272.409	272.392	272.407	272.424	272.458	272.481	272.482
NATURAL SURFACE LEVEL	272.274	272.275	272.275	272.305	272.373	272.375	272.392	272.416	272.423	272.458	272.481	272.482
CHAINAGE	67.549	70.592	72.549	80.000	100.000	120.000	130.000	140.000	151.327	160.000	170.000	171.113

LONGITUDINAL SECTION - McGRATH LANE SOUTH
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

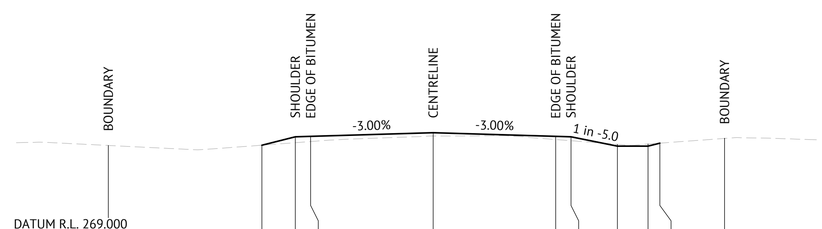
Premise
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
HORIZONTAL 1:500 (A1) 0 10 20 30m
VERTICAL 1:100 (A1) 0 2 4 6m
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE EXTENSION FROM HENRY PARKES WAY
SHEET TITLE ROAD LONGITUDINAL SECTION

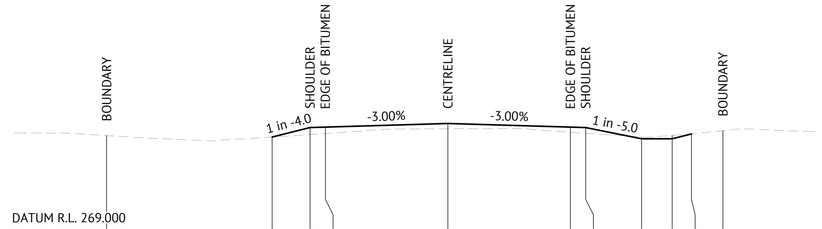
JOB CODE 223076_02
SHEET NUMBER C231
REV 4



DATUM R.L. 269.000

0.000		-0.000	0.191	0.169	0.111	0.103	0.127	-0.058	-0.068	0.000	0.000	
271.959	271.959	271.967	272.240	272.255	272.375	272.255	272.240	271.937	271.937	272.034	272.188	
271.959	271.967	272.049	272.087	272.264	272.152	272.113	271.995	272.006	272.034	272.188		
-10.607	-5.593	-4.500	-4.000	0.000	4.000	4.500	6.015	7.015	7.401	9.513		

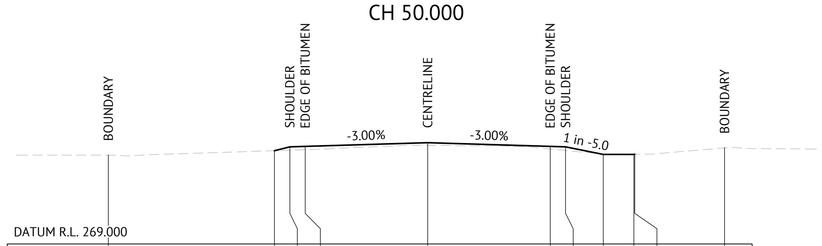
CH 50.000



DATUM R.L. 269.000

0.000		-0.000	0.229	0.209	0.172	0.168	0.188	-0.058	-0.109	0.000	0.000	
272.081	272.081	272.033	272.342	272.357	272.477	272.357	272.342	271.977	271.977	272.135	272.240	
272.081	272.033	272.113	272.148	272.305	272.189	272.154	272.035	272.086	272.135	272.240		
-11.143	-5.736	-4.500	-4.000	0.000	4.000	4.500	6.323	7.323	7.953	8.977		

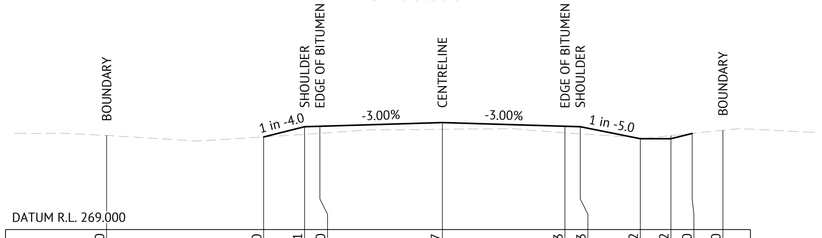
CH 80.000



DATUM R.L. 269.000

0.000		-0.000	0.110	0.109	0.086	0.087	0.119	-0.012	-0.007	0.000	0.000	
271.901		272.044	272.170	272.185	272.305	272.185	272.170	271.924	271.924	271.931	272.137	
271.901		272.044	272.060	272.076	272.220	272.098	272.051	271.936	271.931	271.931	272.137	
-10.428		-5.005	-4.500	-4.000	0.000	4.000	4.500	5.732	6.732	6.760	9.691	

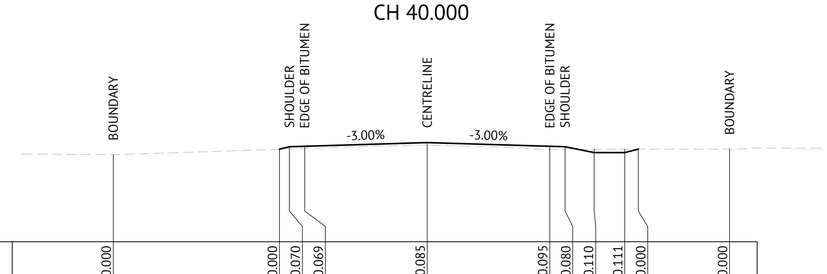
CH 40.000



DATUM R.L. 269.000

0.000		-0.000	0.251	0.230	0.217	0.213	0.233	-0.032	-0.102	0.000	0.000	
272.072		272.022	272.356	272.371	272.491	272.371	272.356	271.964	271.964	272.137	272.240	
272.072		272.022	272.106	272.141	272.274	272.158	272.123	271.996	272.066	272.137	272.240	
-10.964		-5.835	-4.500	-4.000	0.000	4.000	4.500	6.461	7.461	8.153	9.156	

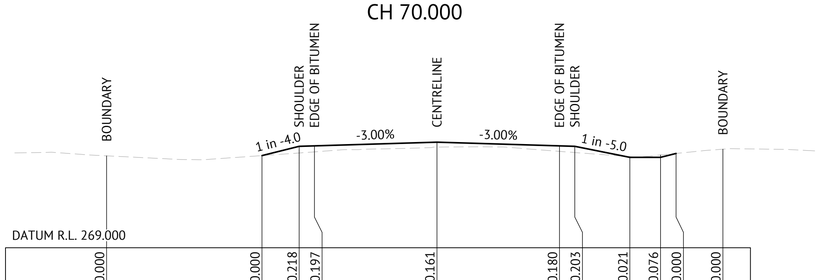
CH 70.000



DATUM R.L. 269.000

CUT/FILL	0.000	-0.000	0.070	0.069	0.085	0.095	0.080	-0.110	-0.111	0.000	0.000	
FINISHED SURFACE LEVEL	271.844	272.019	272.100	272.115	272.235	272.115	272.100	271.911	271.911	272.021	272.023	
NATURAL SURFACE LEVEL	271.844	272.019	272.030	272.046	272.151	272.020	272.020	272.021	272.021	272.021	272.023	
OFFSET	-10.250	-4.825	-4.500	-4.000	0.000	4.000	4.500	5.449	6.449	6.892	9.870	

CH 30.000



DATUM R.L. 269.000

0.000		-0.000	0.218	0.197	0.161	0.180	0.203	-0.021	-0.076	0.000	0.000	
271.999		272.007	272.310	272.325	272.445	272.325	272.310	271.951	271.951	272.078	272.216	
271.999		272.007	272.093	272.129	272.284	272.145	272.107	271.972	272.027	272.078	272.216	
-10.786		-5.713	-4.500	-4.000	0.000	4.000	4.500	6.298	7.298	7.807	9.334	

CH 60.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

Premise

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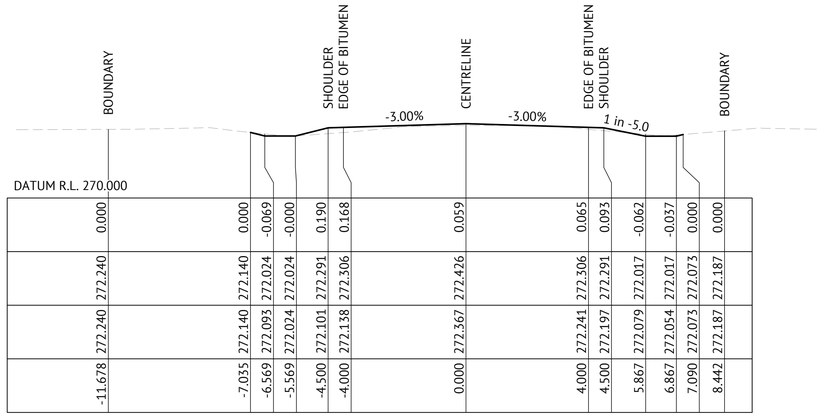
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE EXTENSION FROM HENRY PARKES WAY
SHEET TITLE ROAD CROSS SECTIONS - SHEET 1

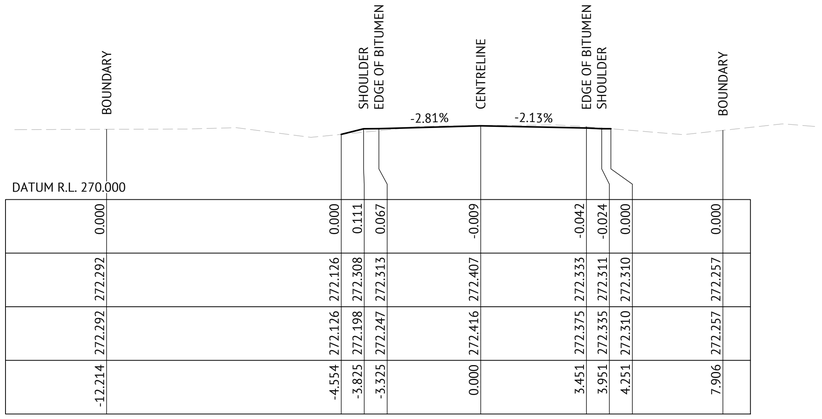
JOB CODE 223076_02
SHEET NUMBER C241
REV 4



DATUM R.L. 270.000

0.000	0.000	-0.069	-0.000	0.190	0.168	0.059	0.065	0.093	-0.062	-0.037	0.000	0.000
272.240	272.140	272.024	272.024	272.291	272.306	272.426	272.306	272.291	272.017	272.017	272.073	272.187
272.240	272.140	272.095	272.024	272.101	272.138	272.367	272.241	272.197	272.079	272.054	272.073	272.187
-11.678	-7.035	-6.569	-5.569	-4.500	-4.000	0.000	4.000	4.500	5.867	6.867	7.090	8.442

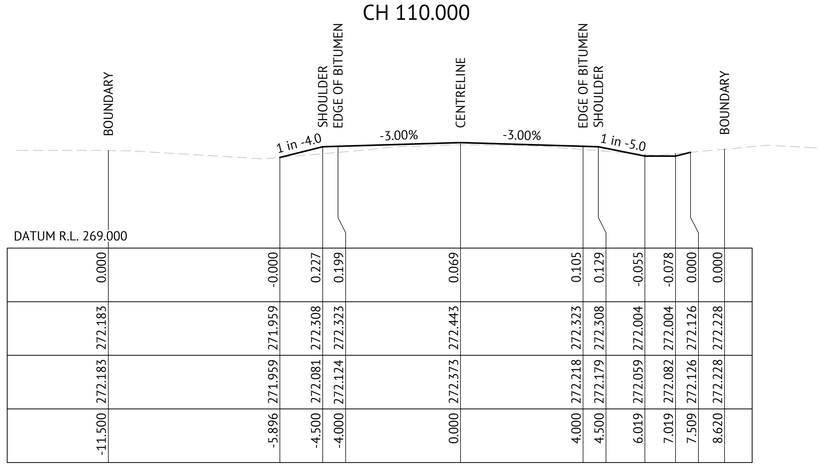
CH 110.000



DATUM R.L. 270.000

0.000	0.000	0.111	0.067	-0.009	-0.042	-0.024	0.000	0.000				
272.292	272.126	272.308	272.313	272.407	272.333	272.311	272.310	272.257				
272.292	272.126	272.198	272.247	272.416	272.375	272.335	272.310	272.257				
-12.214	-4.554	-3.825	-3.325	0.000	3.451	3.951	4.251	7.906				

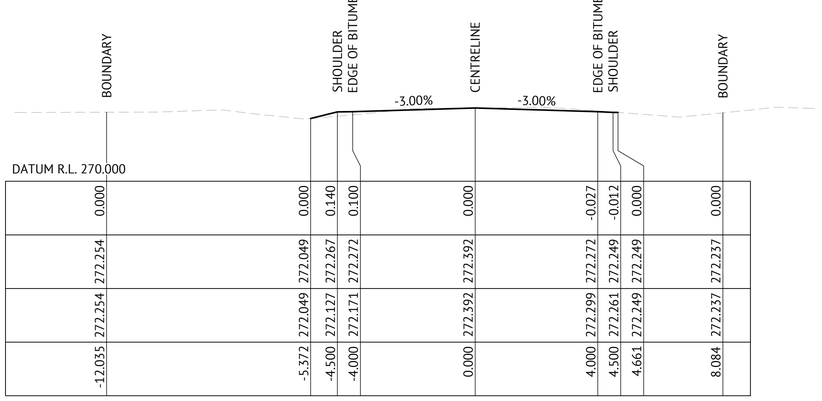
CH 140.000



DATUM R.L. 269.000

0.000	0.000	-0.000	0.227	0.199	0.069	0.105	0.129	-0.055	-0.078	0.000	0.000	
272.183	271.959	272.308	272.323	272.443	272.323	272.308	272.004	272.004	272.126	272.228		
272.183	271.959	272.081	272.124	272.373	272.218	272.179	272.059	272.082	272.126	272.228		
-11.500	-5.896	-4.500	-4.000	0.000	4.000	4.500	6.019	7.019	7.509	8.620		

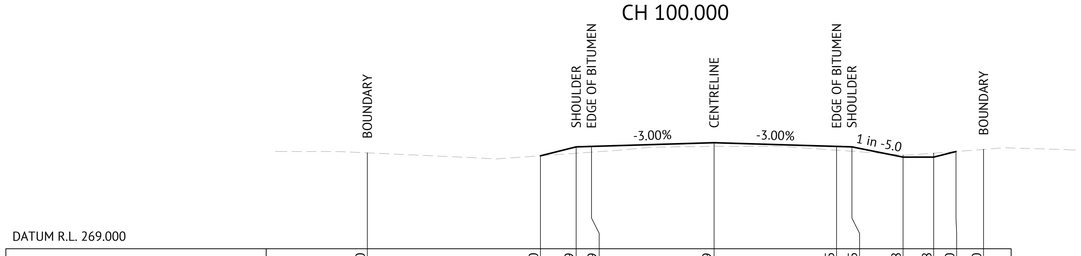
CH 100.000



DATUM R.L. 270.000

0.000	0.000	0.140	0.100	0.000	-0.027	-0.012	0.000	0.000				
272.254	272.049	272.267	272.272	272.392	272.272	272.249	272.249	272.237				
272.254	272.049	272.127	272.171	272.392	272.299	272.261	272.249	272.237				
-12.035	-5.372	-4.500	-4.000	0.000	4.000	4.500	4.661	8.084				

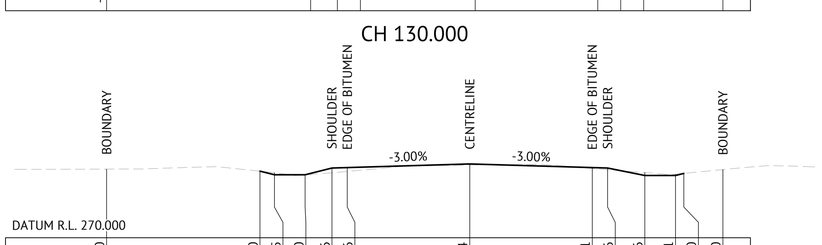
CH 130.000



DATUM R.L. 269.000

CUT/FILL	0.000	-0.000	0.209	0.189	0.119	0.125	0.145	-0.068	-0.128	0.000	0.000	
FINISHED SURFACE LEVEL	272.130	272.033	272.325	272.340	272.460	272.340	272.325	271.991	271.991	272.172	272.239	
NATURAL SURFACE LEVEL	272.130	272.033	272.116	272.151	272.341	272.215	272.180	272.058	272.119	272.172	272.239	
OFFSET	-11.321	-5.667	-4.500	-4.000	0.000	4.000	4.500	6.171	7.171	7.897	8.799	

CH 90.000



DATUM R.L. 270.000

0.000	0.000	-0.065	-0.000	0.156	0.126	0.034	0.031	0.056	-0.096	-0.041	0.000	0.000
272.240	272.173	272.055	272.055	272.274	272.289	272.409	272.289	272.274	272.031	272.031	272.099	272.225
272.240	272.173	272.120	272.055	272.118	272.163	272.375	272.257	272.218	272.126	272.072	272.099	272.225
-11.857	-6.850	-6.377	-5.377	-4.500	-4.000	0.000	4.000	4.500	5.715	6.715	6.989	8.263

CH 120.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

Premise

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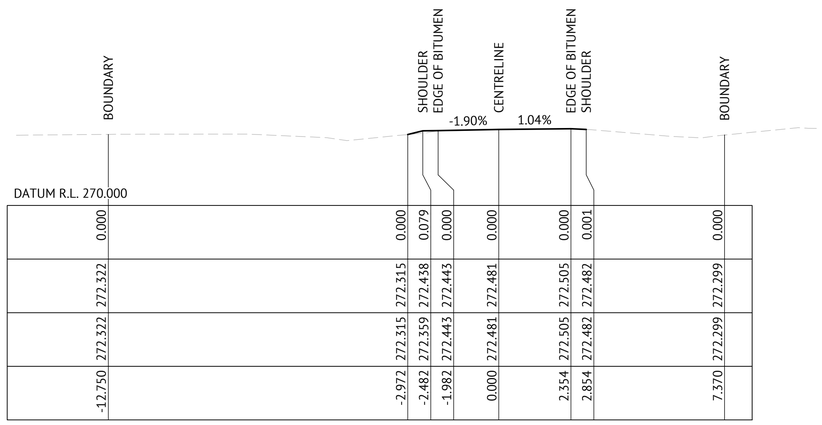
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

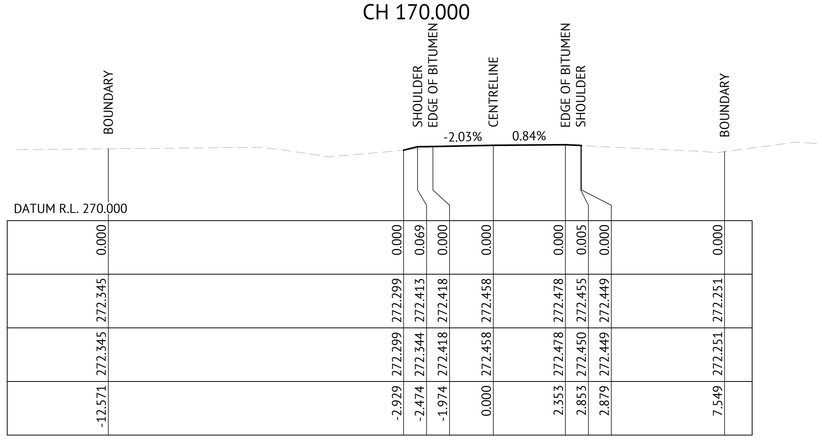
SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE EXTENSION FROM HENRY PARKES WAY
SHEET TITLE: ROAD CROSS SECTIONS - SHEET 2

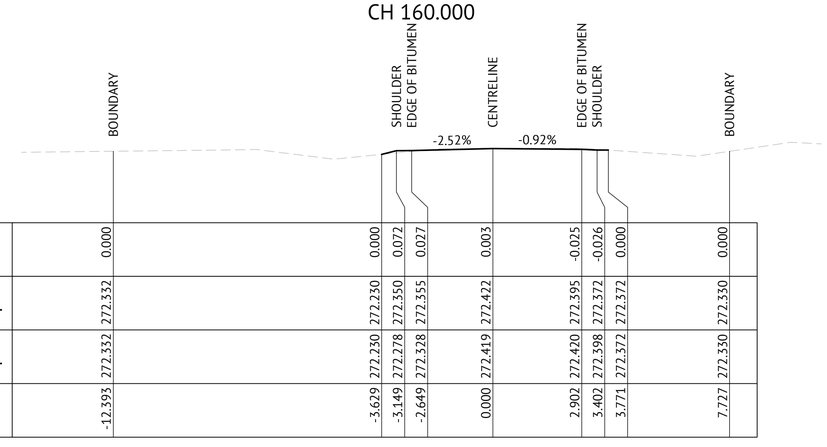
JOB CODE: 223076_02
SHEET NUMBER: C242
REV: 4



CH 170.000



CH 160.000



CH 150.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		

REVISIONS

Premise
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE EXTENSION FROM HENRY PARKES WAY
SHEET TITLE ROAD CROSS SECTIONS - SHEET 3

JOB CODE 223076_02
SHEET NUMBER C243
REV 4

LINEMARKING NOTES

1. PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE SPECIFIC REQUIREMENTS OF TfNSW SPECIFICATIONS.
2. ALL INTERNAL LINE MARKING TO CONSIST OF LINES 100mm WIDE WITH 2 COATS OF PAINT TO MANUFACTURERS SPECIFICATIONS.
3. EXTENT OF LINEMARKING SHALL BE VERIFIED ON SITE PRIOR TO INSTALLATION.
4. ALL PAINTED MARKINGS SHALL BE APPROVED REFLECTORISED U.N.O.
5. ANY EXISTING LINE MARKINGS DAMAGED BY THE PROPOSED WORKS ARE TO BE REINSTATED.
6. EXISTING CONFLICTING LINE MARKINGS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 4 IN THE TfNSW QA SPECIFICATION R145 PAVEMENT MARKING.
7. RETRO-REFLECTIVE RAISED PAVEMENT MARKERS (RRPM's) SHALL BE PLACED 25mm TO 50mm FROM THE PAINTED LINEMARKING AND ORIENTATED SO THAT FULL REFLECTIVE EFFECT IS ACHIEVED BY AIMING THE REFLECTIVE FACE IN THE DIRECTION OF APPROACHING TRAFFIC.
8. GENERALLY THE NORMAL SPACING BETWEEN RRPM's IS TO BE 12.0m U.N.O.
9. ANY EXISTING LINEMARKING NOT SHOWN ON THIS PLAN WHICH CONFLICTS OR IS INCOMPATIBLE WITH THE PROPOSED LINEMARKING SHALL BE REMOVED BY THE CONTRACTOR.

SIGNAGE NOTES

1. LOCATION OF SIGNS SHOWN ON THIS PLAN ARE INDICATIVE ONLY. CARE AND CONSIDERATION IS TO BE GIVEN TO ON SITE CONDITIONS TO AVOID ANY VISUAL OBSTRUCTION OF THE SIGN ALONG THE INTENDED COURSE OF APPROACHING TRAFFIC. EXACT LOCATION OF ALL SIGNS SHALL BE CONFIRMED ON SITE PRIOR TO INSTALLATION.
2. SIGNS SHOULD BE ORIENTATED AT APPROXIMATELY RIGHT ANGLES TO, AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE.
3. SIGNAGE SHALL BE IN ACCORDANCE WITH:
   - TfNSW SPECIFICATIONS
   - AS1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
   - AS1743 ROAD SIGNS SPECIFICATION
   - AS4049.1 PAVEMENT MARKING MATERIALS

LEGEND - PROPOSED

SIGN

REQUIRED SIGNS

W2-3

W4-3

W5-19

W2-3 T-JUNCTION SIGN TO BE INSTALLED
110m FROM HOLD LINE ALONG McGRATH LANE

BEFORE YOU DIG www.byda.com.au

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
05/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

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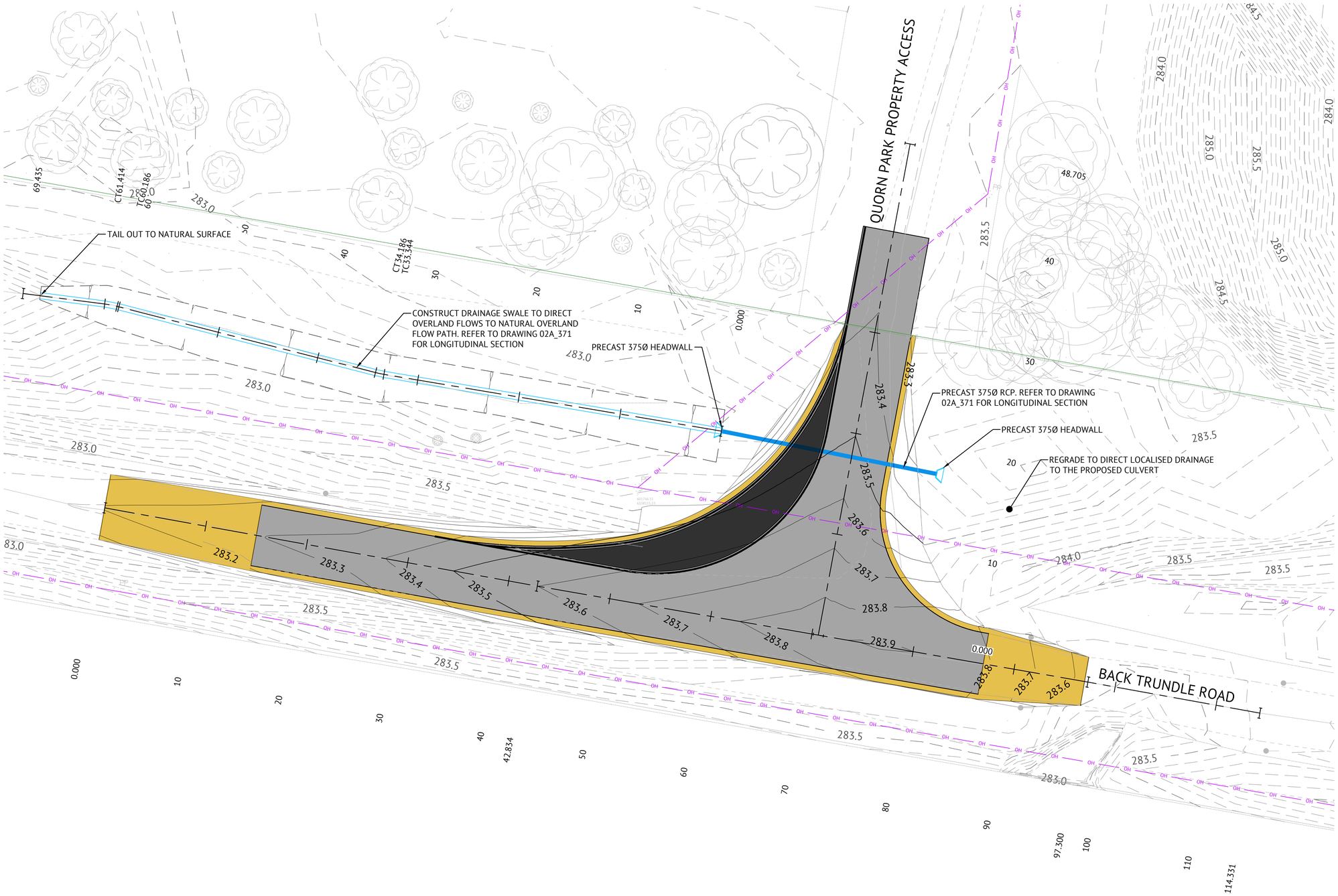
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE EXTENSION FROM HENRY PARKES WAY
SHEET TITLE PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN

JOB CODE 223076_02
SHEET NUMBER C251
REV 4



LEGEND - PROPOSED

- 2 COAT BITUMEN SEAL PAVEMENT
- GRAVEL PAVEMENT

LEGEND - EXISTING

- MAJOR CONTOURS (0.20m)
- MINOR CONTOURS (0.10m)
- ROAD
- FENCE
- ELECTRICAL OVERHEAD
- TOP OF BANK
- BOTTOM OF BANK
- DRAIN
- TREE

BEFORE YOU DIG www.byda.com.au

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

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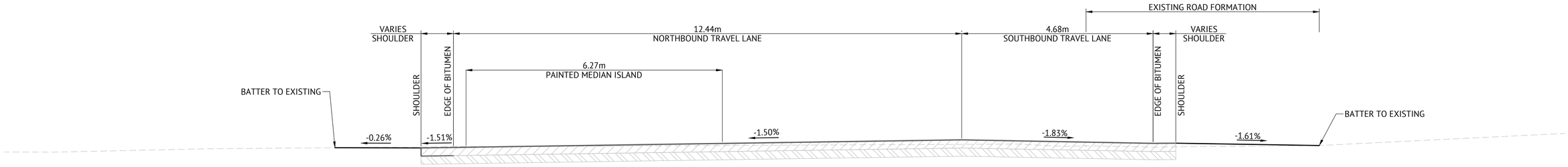
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED: R. DURHAM
CHECKED: S. HOYNES
PROJECT MANAGER: D. WALKER

SCALE: 0 4 8 12m
SCALE 1:200 (A1)
ORIGINAL SHEET SIZE A1

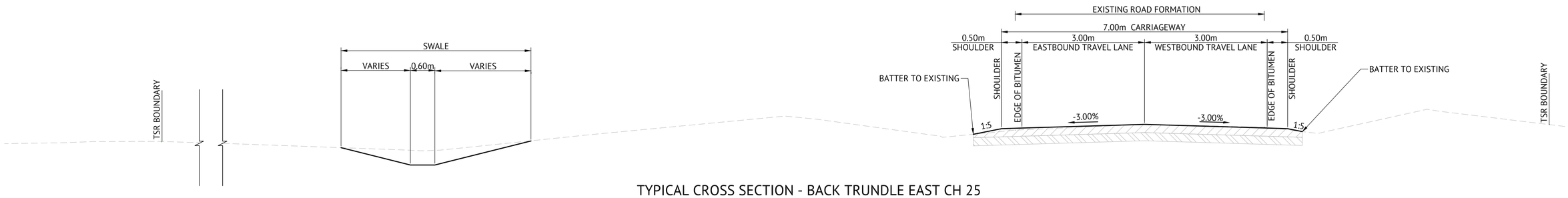
CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: QUORN PARK PROPERTY ACCESS
SHEET TITLE: ENGINEERING PLAN

JOB CODE: 223076_02
SHEET NUMBER: C301
REV: 4



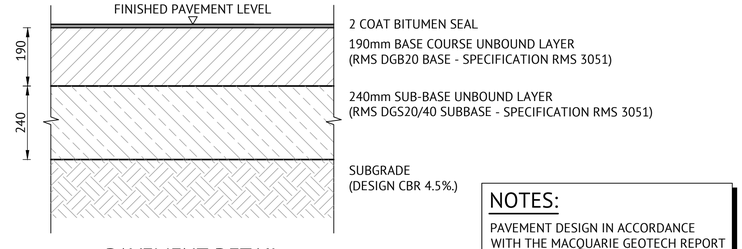
TYPICAL CROSS SECTION - PROPERTY ACCESS CH 10

SCALE 1:50



TYPICAL CROSS SECTION - BACK TRUNDLE EAST CH 25

SCALE 1:50



PAVEMENT DETAIL

NTS

NOTES:

PAVEMENT DESIGN IN ACCORDANCE WITH THE MACQUARIE GEOTECH REPORT G23907-1 DATED 29 APRIL 2024.

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

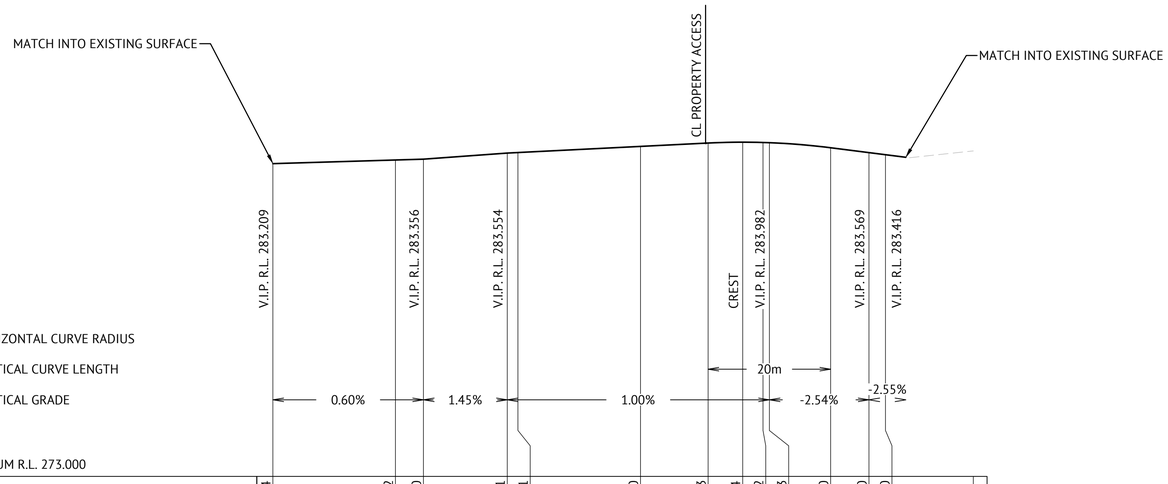
Premise
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 1 2 3m
SCALE 1:50 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE TYPICAL CROSS SECTIONS

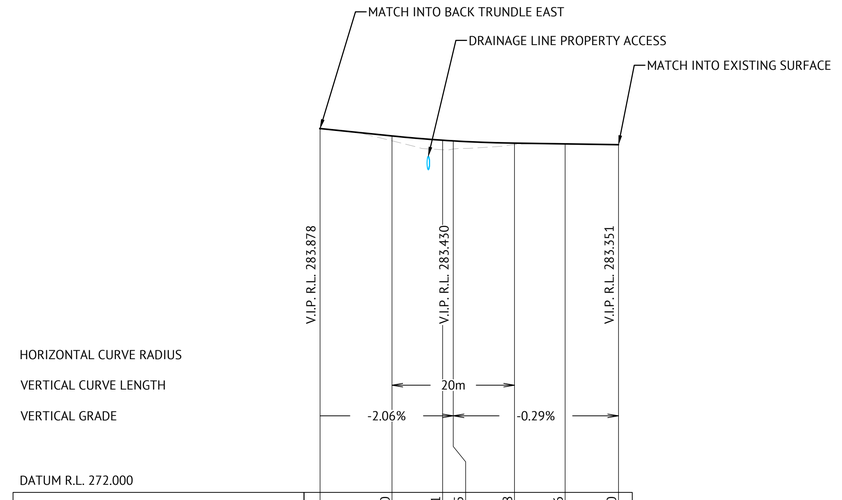
JOB CODE 223076_02
SHEET NUMBER C321
REV 4



CUT/FILL	-0.004		-0.002	-0.000	0.001	0.001	0.000	0.003	0.004	-0.012	-0.003	-0.000	-0.000	-0.000	
FINISHED SURFACE LEVEL	283.209		283.329	283.356	283.554	283.571	283.771	283.882	283.910	283.900	283.893	283.728	283.569	283.500	
NATURAL SURFACE LEVEL	283.213		283.331	283.356	283.553	283.571	283.771	283.878	283.906	283.912	283.896	283.728	283.569	283.500	283.624
CHAINAGE	0.000		20.000	24.573	38.253	40.000	60.000	71.038	76.694	80.000	81.038	91.038	97.300	100.000	114.331

LONGITUDINAL SECTION - BACK TRUNDLE EAST

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



CUT/FILL		0.160	0.311	0.265	0.048	-0.006	0.000
FINISHED SURFACE LEVEL	283.878	283.636	283.496	283.474	283.401	283.376	283.351
NATURAL SURFACE LEVEL		283.476	283.185	283.209	283.353	283.382	283.351
CHAINAGE	0.000	11.733	20.000	21.733	31.733	40.000	48.705

LONGITUDINAL SECTION - PROPERTY ACCESS

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

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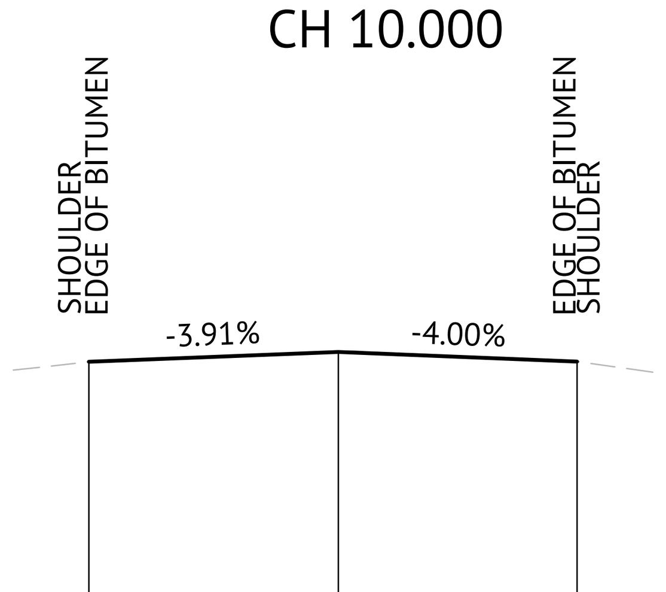
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
HORIZONTAL 1:500 (A1)
0 10 20 30m
VERTICAL 1:100 (A1)
0 2 4 6m
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE ROAD LONGITUDINAL SECTIONS

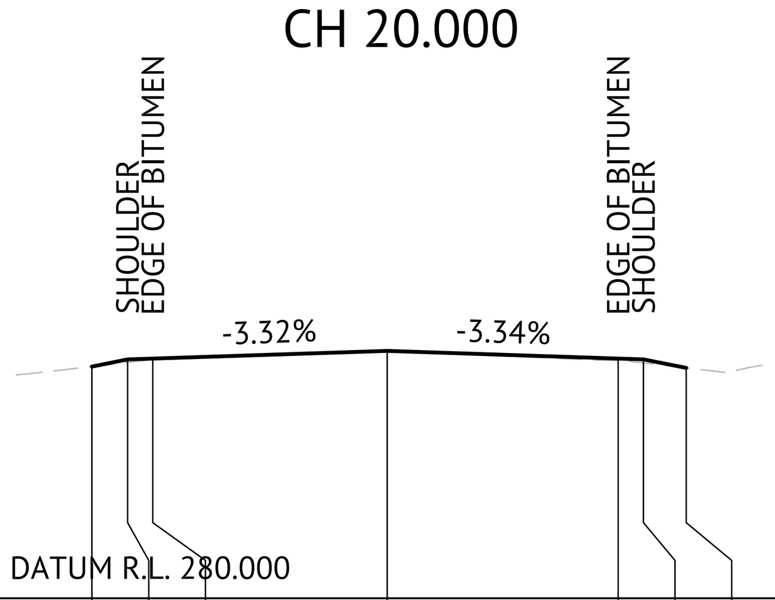
JOB CODE 223076_02
SHEET NUMBER C331
REV 4



DATUM R.L. 280.000

CUT/FILL	0.000	-0.004	0.000
FINISHED SURFACE LEVEL	283.080	283.209	283.083
NATURAL SURFACE LEVEL	283.080	283.213	283.083
OFFSET	-3.298	0.000	3.156

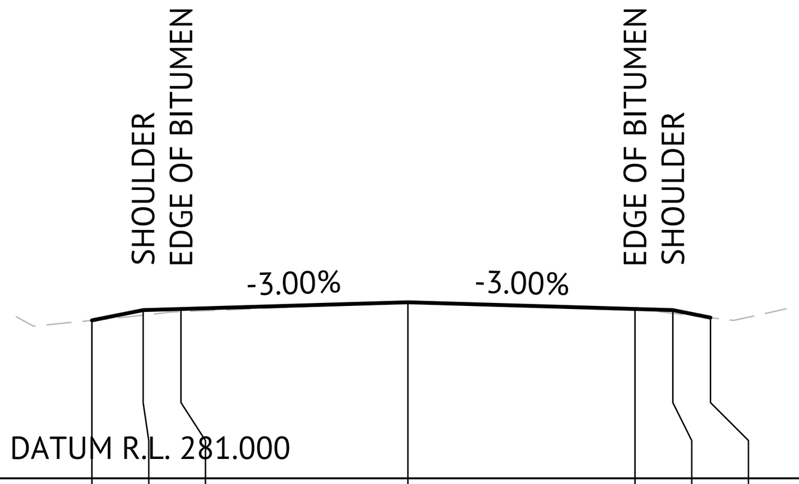
CH 0.000



DATUM R.L. 280.000

CUT/FILL	0.000	0.040	0.014	0.002	0.027	0.048	0.000
FINISHED SURFACE LEVEL	283.062	283.156	283.166	283.269	283.167	283.157	283.044
NATURAL SURFACE LEVEL	283.062	283.116	283.152	283.267	283.140	283.109	283.044
OFFSET	-3.904	-3.433	-3.099	0.000	3.052	3.385	3.950

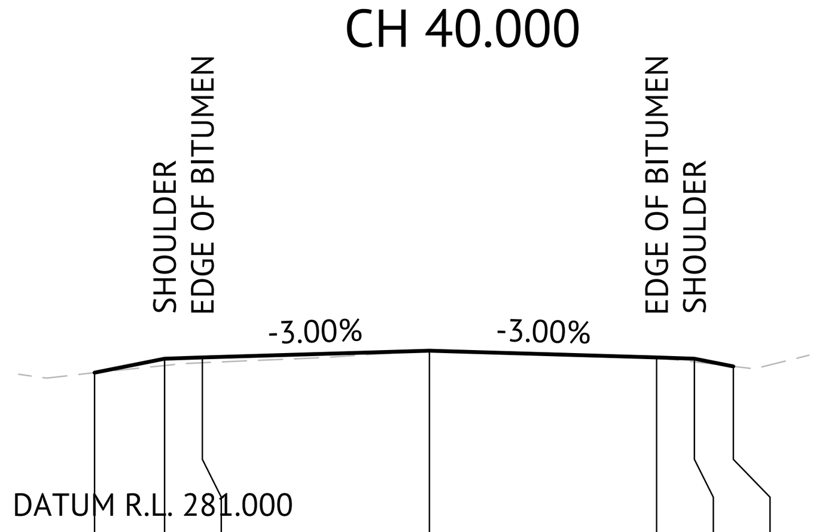
CH 10.000



DATUM R.L. 281.000

CUT/FILL	0.000	0.066	0.035	-0.002	-0.003	0.041	0.000
FINISHED SURFACE LEVEL	283.088	283.224	283.239	283.329	283.239	283.224	283.124
NATURAL SURFACE LEVEL	283.088	283.157	283.204	283.331	283.241	283.183	283.124
OFFSET	-4.176	-3.500	-3.000	0.000	3.000	3.500	3.998

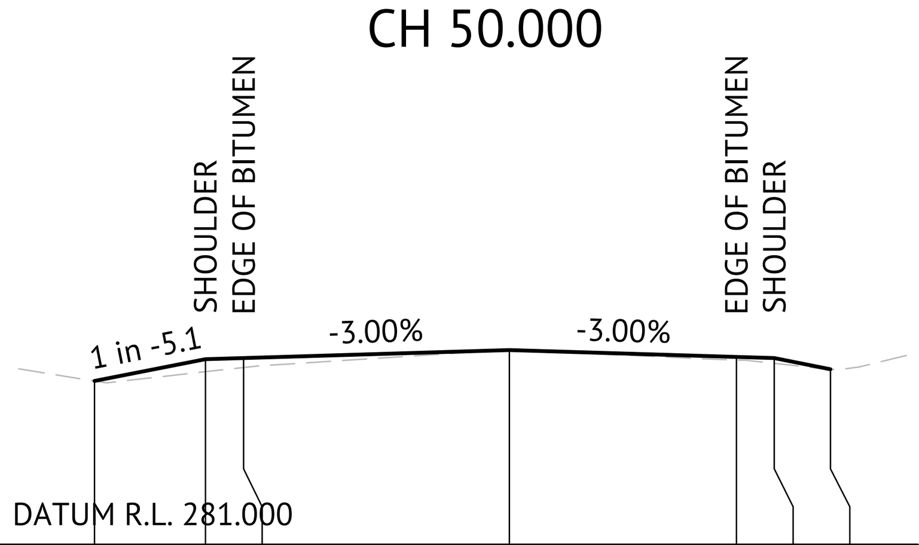
CH 20.000



DATUM R.L. 281.000

CUT/FILL	0.000	0.091	0.070	-0.000	0.005	0.043	0.000
FINISHED SURFACE LEVEL	283.144	283.329	283.344	283.434	283.344	283.329	283.227
NATURAL SURFACE LEVEL	283.144	283.238	283.275	283.434	283.340	283.287	283.227
OFFSET	-4.426	-3.500	-3.000	0.000	3.000	3.500	4.014

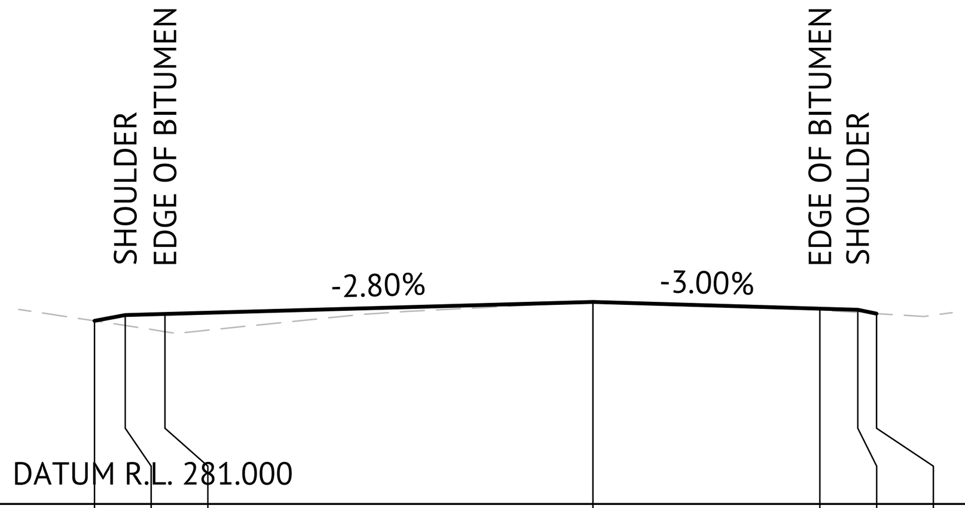
CH 30.000



DATUM R.L. 281.000

CUT/FILL	0.000	0.165	0.125	0.001	0.042	0.071	0.000
FINISHED SURFACE LEVEL	283.163	283.451	283.466	283.571	283.481	283.466	283.317
NATURAL SURFACE LEVEL	283.163	283.286	283.341	283.571	283.440	283.395	283.317
OFFSET	-5.486	-4.019	-3.514	0.000	3.000	3.500	4.244

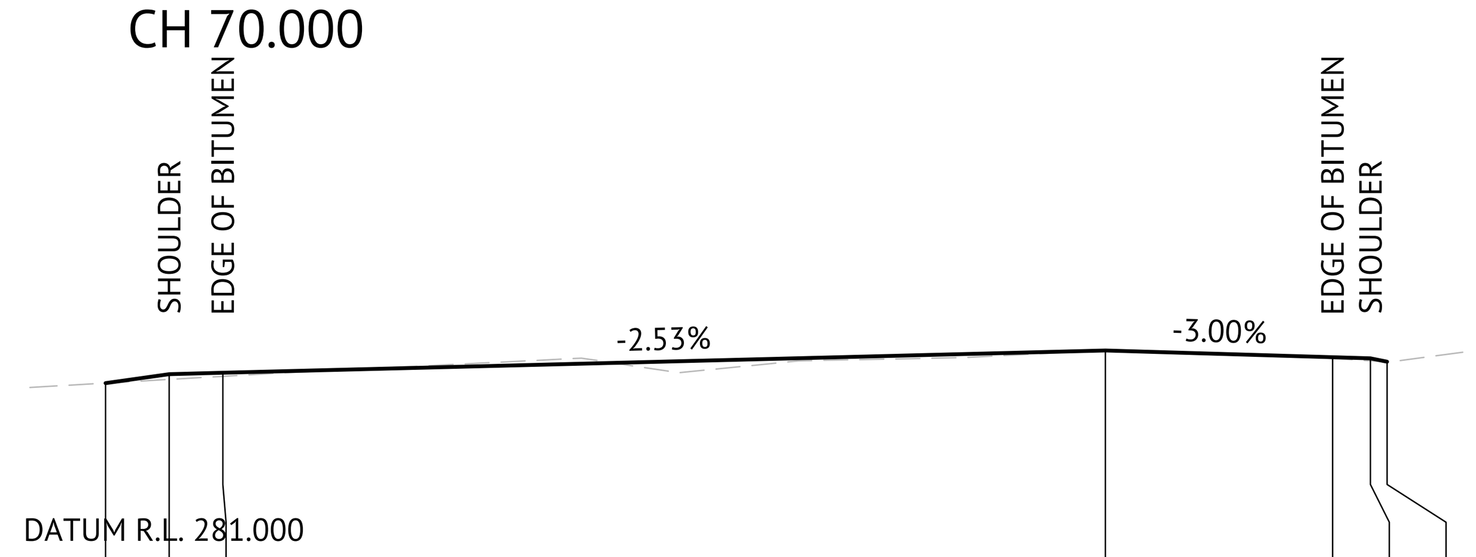
CH 40.000



DATUM R.L. 281.000

CUT/FILL	0.000	0.138	0.235	0.000	0.015	0.035	0.000
FINISHED SURFACE LEVEL	283.421	283.498	283.513	283.671	283.581	283.566	283.517
NATURAL SURFACE LEVEL	283.421	283.360	283.278	283.671	283.566	283.532	283.517
OFFSET	-6.590	-6.182	-5.658	0.000	3.000	3.500	3.748

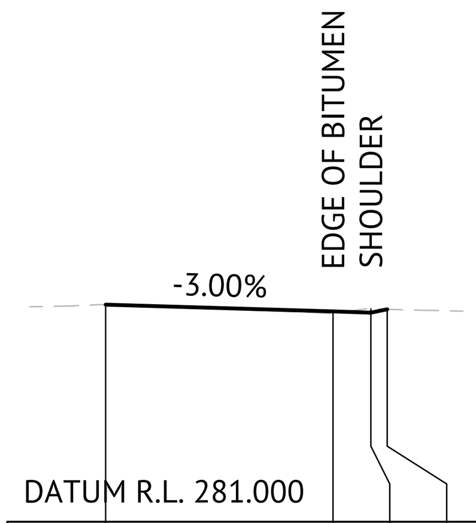
CH 50.000



DATUM R.L. 281.000

CUT/FILL	0.000	0.070	0.047	0.000	0.016	0.031	0.000
FINISHED SURFACE LEVEL	283.339	283.458	283.476	283.771	283.681	283.666	283.622
NATURAL SURFACE LEVEL	283.339	283.388	283.429	283.771	283.666	283.636	283.622
OFFSET	-13.207	-12.367	-11.659	0.000	3.000	3.500	3.720

CH 60.000



DATUM R.L. 281.000

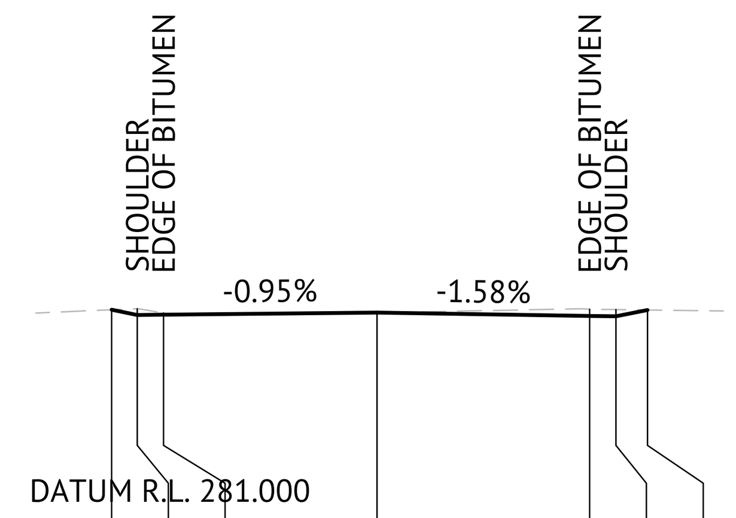
CUT/FILL	0.003	0.024	-0.048	0.000
FINISHED SURFACE LEVEL	283.871	283.781	283.766	283.809
NATURAL SURFACE LEVEL	283.868	283.758	283.815	283.809
OFFSET	0.000	3.000	3.500	3.715

CH 70.000

DATUM R.L. 281.000

CUT/FILL	0.000	0.036	0.032	-0.012	0.019	0.012	0.000
FINISHED SURFACE LEVEL	283.576	283.773	283.790	283.900	283.820	283.807	283.793
NATURAL SURFACE LEVEL	283.576	283.738	283.758	283.912	283.802	283.795	283.793
OFFSET	-9.191	-5.389	-4.796	0.000	3.000	3.500	3.569

CH 80.000



DATUM R.L. 281.000

CUT/FILL	0.000	-0.082	-0.022	0.003	-0.090	-0.089	0.000
FINISHED SURFACE LEVEL	283.791	283.723	283.727	283.753	283.709	283.706	283.789
NATURAL SURFACE LEVEL	283.791	283.806	283.749	283.751	283.799	283.795	283.789
OFFSET	-3.506	-3.167	-2.819	0.000	2.808	3.157	3.573

CH 90.000

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REVISIONS

Premise
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ORANGE, NSW 2800
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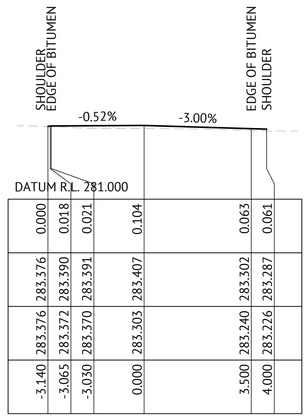
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

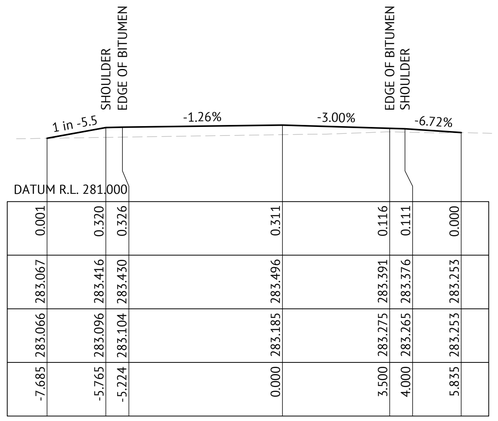
SCALE 0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE ROAD CROSS SECTIONS - BLACK TRUNDLE ROAD

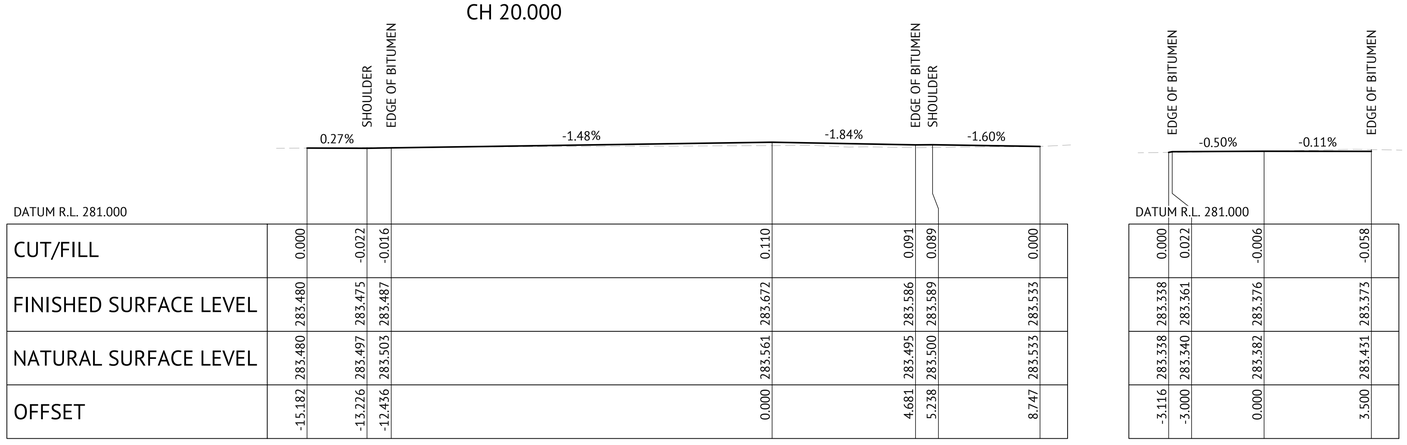
JOB CODE 223076_02
SHEET NUMBER C341
REV 4



CH 30.000



CH 20.000



CH 10.000

CH 40.000

PRELIMINARY - NOT FOR CONSTRUCTION

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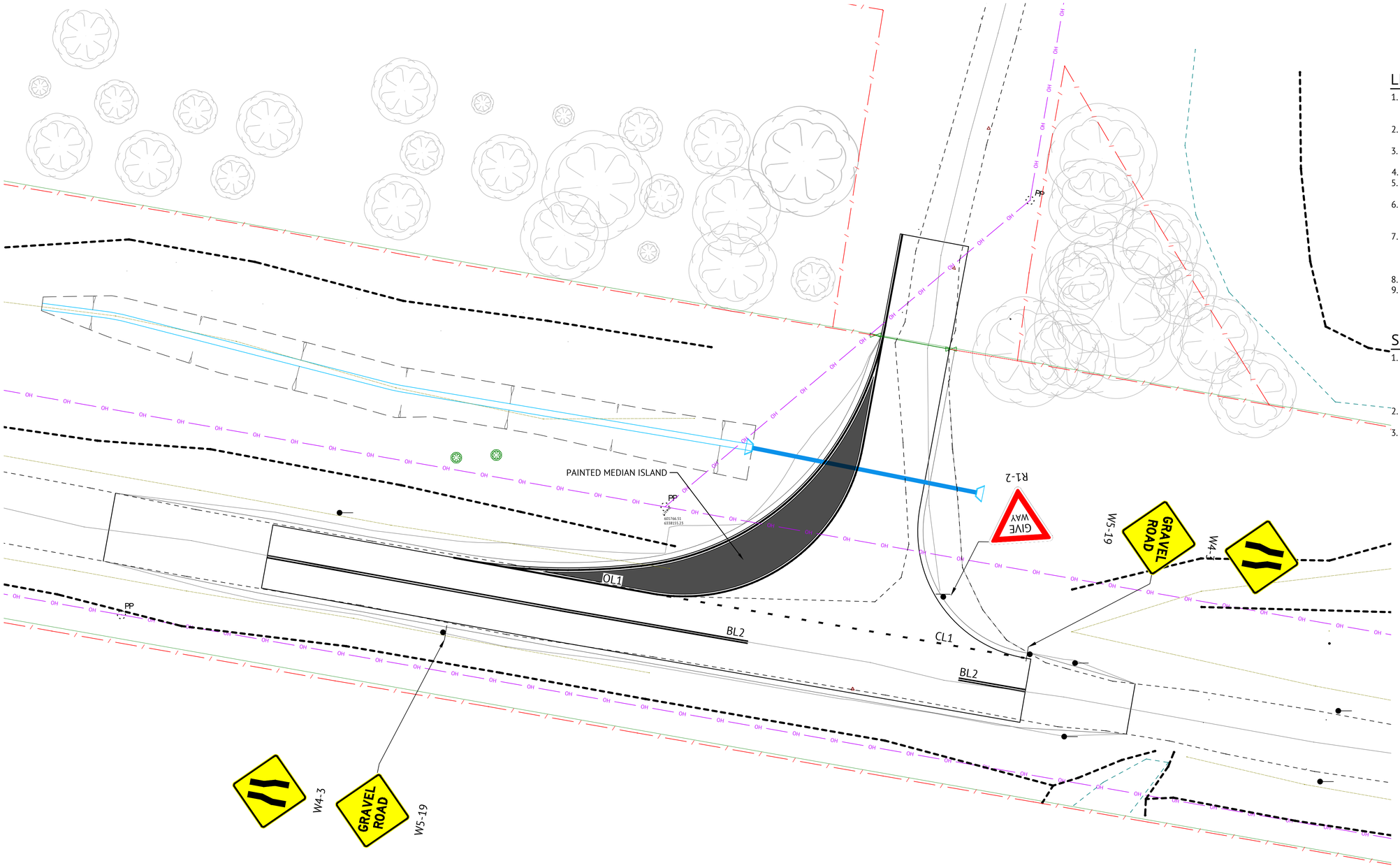
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE ROAD CROSS SECTIONS - PROPERTY ACCESS

JOB CODE 223076_02
SHEET NUMBER C342
REV 4



LINEMARKING NOTES

1. PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE SPECIFIC REQUIREMENTS OF TfNSW SPECIFICATIONS.
2. ALL INTERNAL LINE MARKING TO CONSIST OF LINES 100mm WIDE WITH 2 COATS OF PAINT TO MANUFACTURERS SPECIFICATIONS.
3. EXTENT OF LINEMARKING SHALL BE VERIFIED ON SITE PRIOR TO INSTALLATION.
4. ALL PAINTED MARKINGS SHALL BE APPROVED REFLECTORISED U.N.O.
5. ANY EXISTING LINE MARKINGS DAMAGED BY THE PROPOSED WORKS ARE TO BE REINSTATED.
6. EXISTING CONFLICTING LINE MARKINGS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 4 IN THE TfNSW QA SPECIFICATION R145 PAVEMENT MARKING.
7. RETRO-REFLECTIVE RAISED PAVEMENT MARKERS (RRPM's) SHALL BE PLACED 25mm TO 50mm FROM THE PAINTED LINEMARKING AND ORIENTATED SO THAT FULL REFLECTIVE EFFECT IS ACHIEVED BY AIMING THE REFLECTIVE FACE IN THE DIRECTION OF APPROACHING TRAFFIC.
8. GENERALLY THE NORMAL SPACING BETWEEN RRPM's IS TO BE 12.0m U.N.O.
9. ANY EXISTING LINEMARKING NOT SHOWN ON THIS PLAN WHICH CONFLICTS OR IS INCOMPATIBLE WITH THE PROPOSED LINEMARKING SHALL BE REMOVED BY THE CONTRACTOR.

SIGNAGE NOTES

1. LOCATION OF SIGNS SHOWN ON THIS PLAN ARE INDICATIVE ONLY. CARE AND CONSIDERATION IS TO BE GIVEN TO ON SITE CONDITIONS TO AVOID ANY VISUAL OBSTRUCTION OF THE SIGN ALONG THE INTENDED COURSE OF APPROACHING TRAFFIC. EXACT LOCATION OF ALL SIGNS SHALL BE CONFIRMED ON SITE PRIOR TO INSTALLATION.
2. SIGNS SHOULD BE ORIENTATED AT APPROXIMATELY RIGHT ANGLES TO, AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE.
3. SIGNAGE SHALL BE IN ACCORDANCE WITH:
   - TfNSW SPECIFICATIONS
   - AS1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
   - AS1743 ROAD SIGNS SPECIFICATION
   - AS4049.1 PAVEMENT MARKING MATERIALS

LEGEND - PROPOSED

SIGN

REQUIRED SIGNS

W2-3

R1-2

W4-3

W5-19

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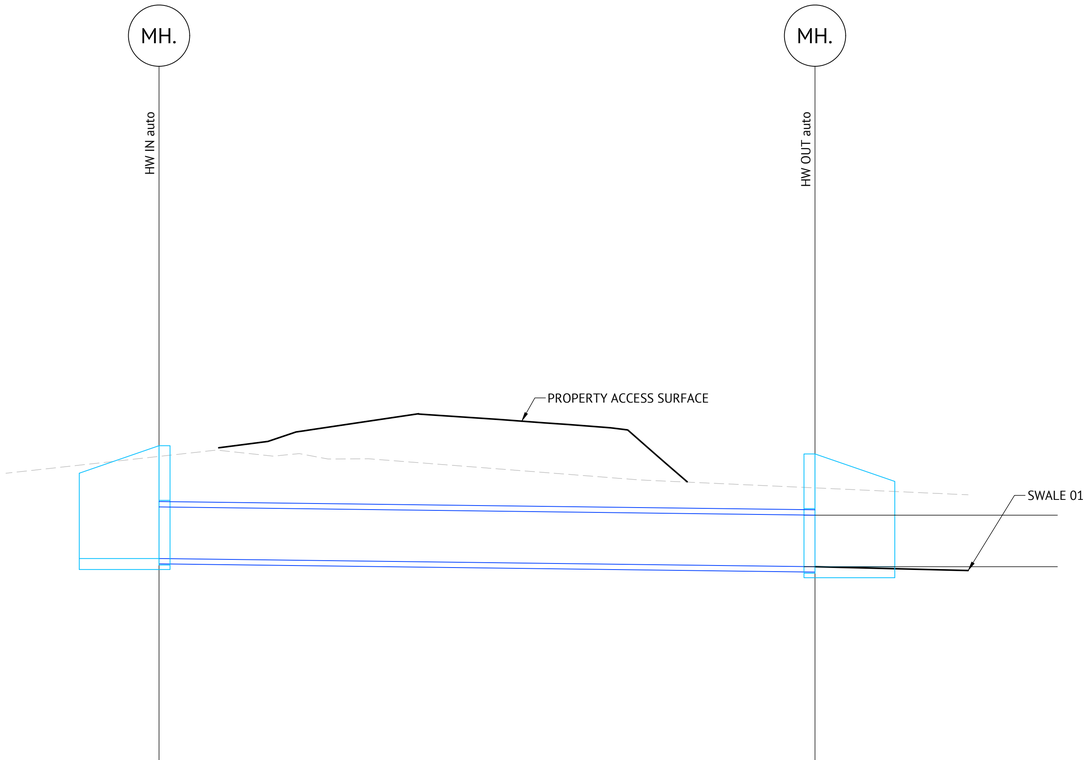
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 4 8 12m
SCALE 1:200 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN

JOB CODE 223076_02
SHEET NUMBER C351
REV 4



GRADE %		0.25%	
PIPE SIZE (mm) PIPE CLASS		375 RCP	
LINEAL DISTANCE		18.352m	
DATUM R.L.		279.000	
DEPTH TO INVERT	0.375	0.337	0.375
HYDRAULIC GRADE LINE	0.000	0.000	0.000
INVERT LEVEL	282.587	282.533 282.535	282.495
FINISHED LID/GRATE LEVEL	282.962		282.870
CHAINAGE	0.000		21.416

DRAINAGE LINE PROPERTY ACCESS
HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:20

VERTICAL GRADE			-0.50%							
DATUM R.L. 271.000										
CUT/FILL	-0.515	-0.339	-0.349	-0.351	-0.380	-0.297	-0.295	-0.262		
FINISHED SURFACE LEVEL	282.533	282.433	282.566	282.562	282.533	282.233	282.232	282.226		
NATURAL SURFACE LEVEL	283.048	282.772	282.715	282.713	282.713	282.530	282.527	282.488	282.114	
CHAINAGE	0.000	20.000	33.344	34.186	40.000	60.000	60.186	61.414	69.435	

LONGITUDINAL SECTION - SWALE01
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

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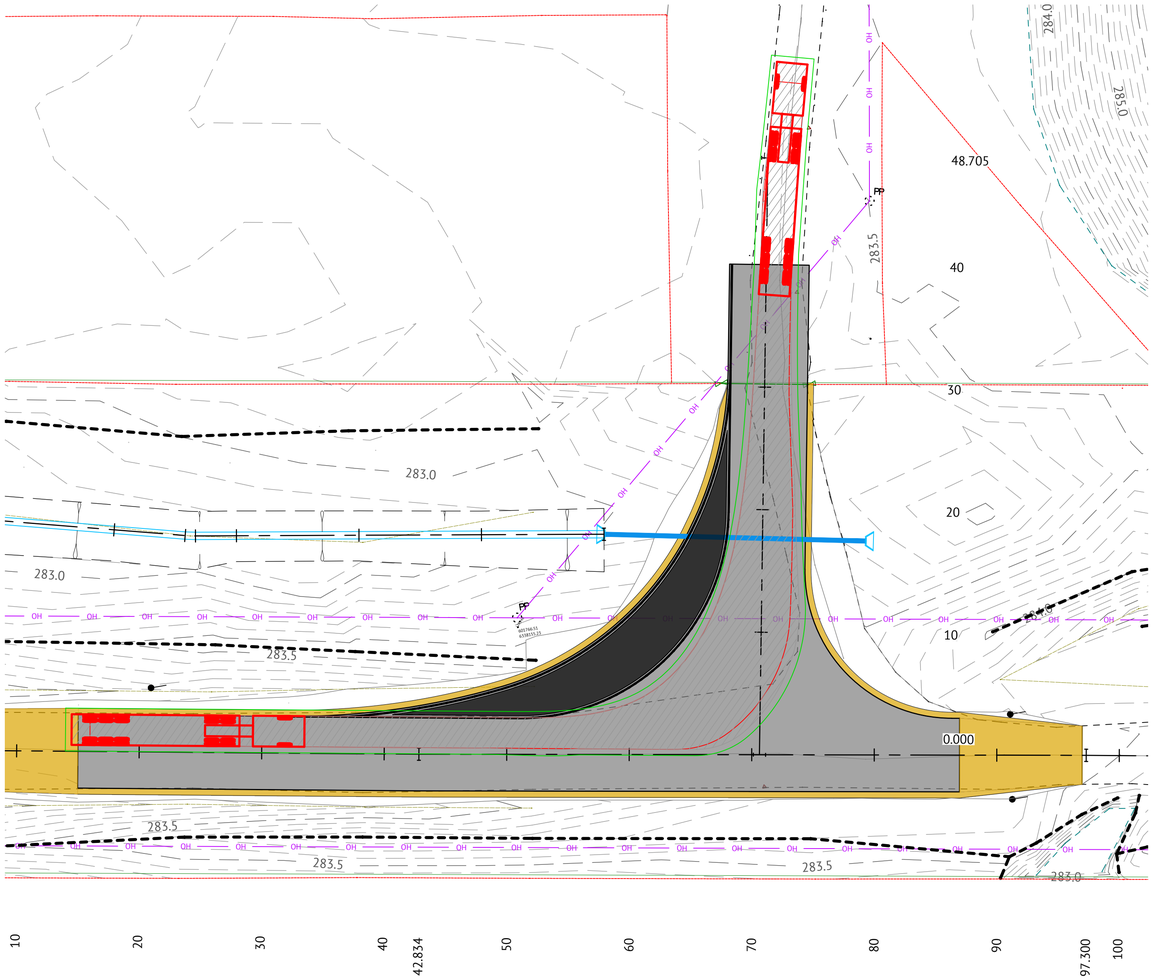
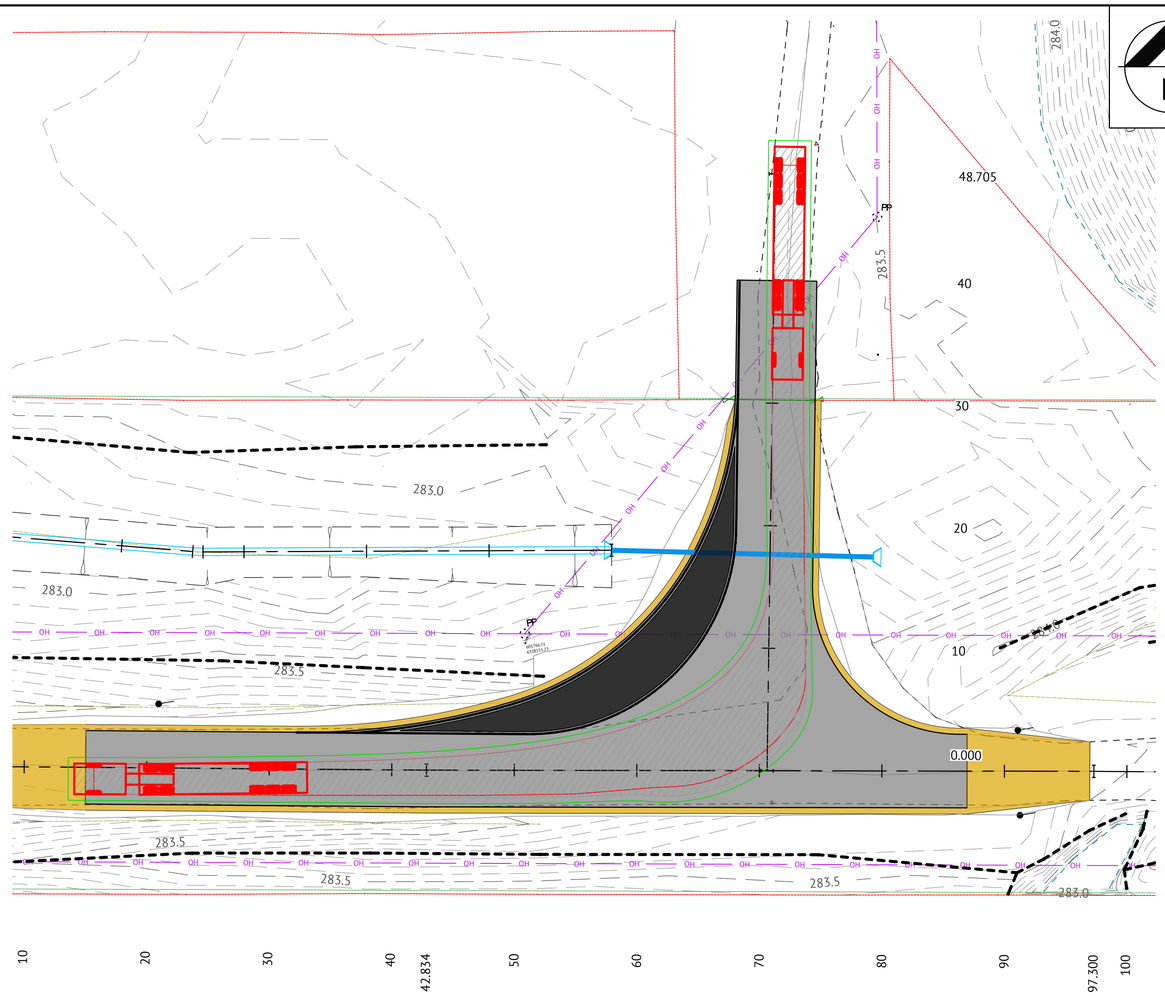
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

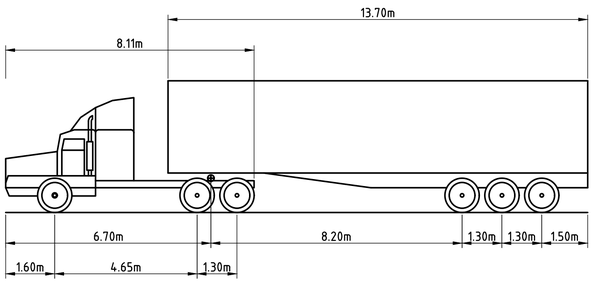
SCALE
HORIZONTAL 1:100 (A1) 0 2 4 6m
0 0.4 0.8 1.2m
VERTICAL 1:20 (A1)
HORIZONTAL 1:500 (A1) 0 10 20 30m
0 2 4 6m
VERTICAL 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE DRAINAGE LONGITUDINAL SECTIONS

JOB CODE 223076_02
SHEET NUMBER C371
REV 4







AUSTROADS PRIME MOVER & SEMI TRAILER (19m)

OVERALL LENGTH	19.000m
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
KERB-TO-KERB TURNING RADIUS	12.500m

BEFORE YOU DIG www.byda.com.au

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REVISIONS

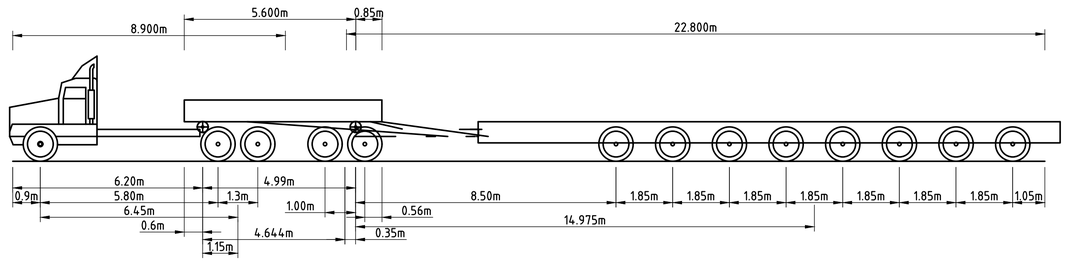
Premise
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

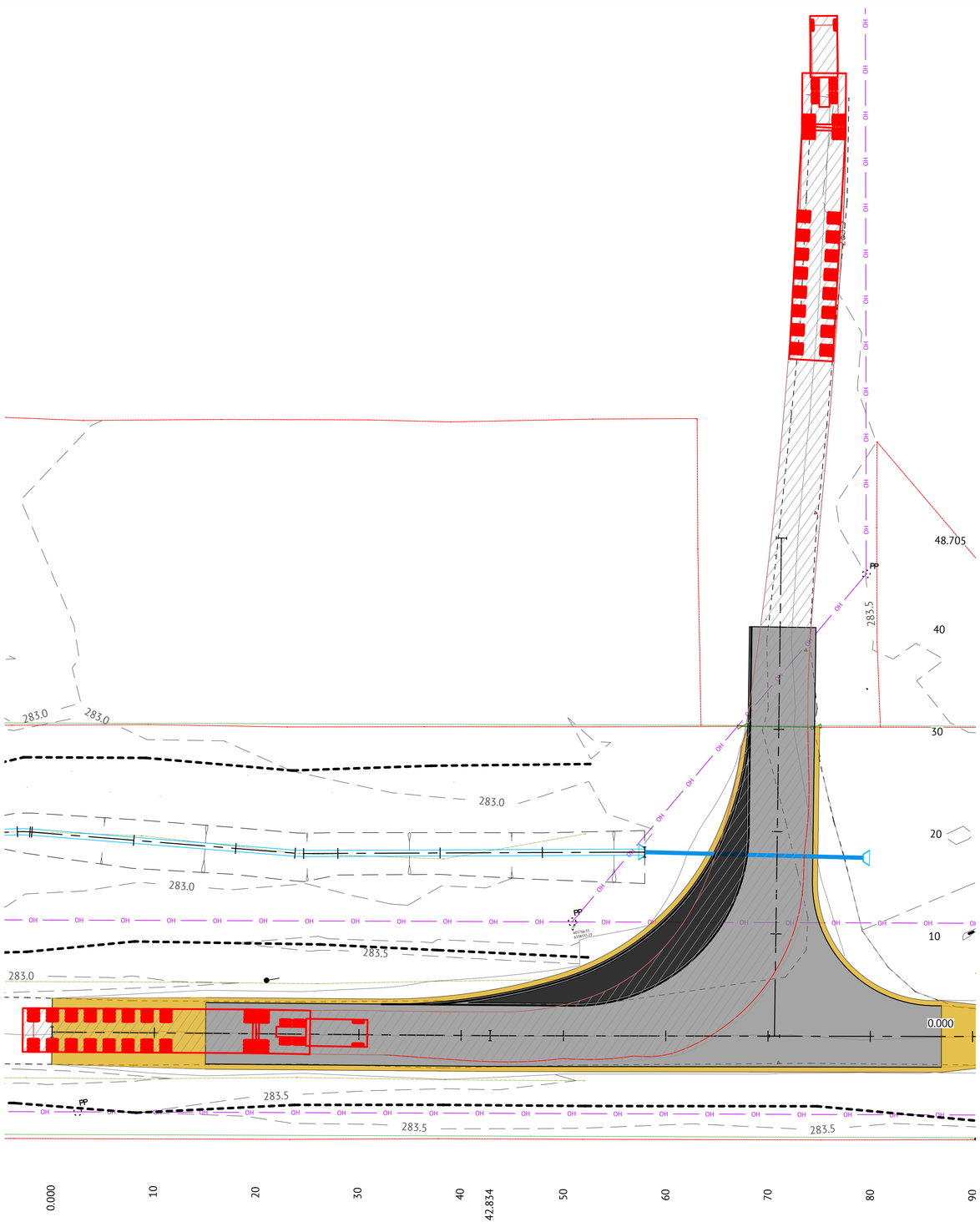
CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE VEHICLE TRACKING - 19m PRIME MOVER AND SEMI TRAILER

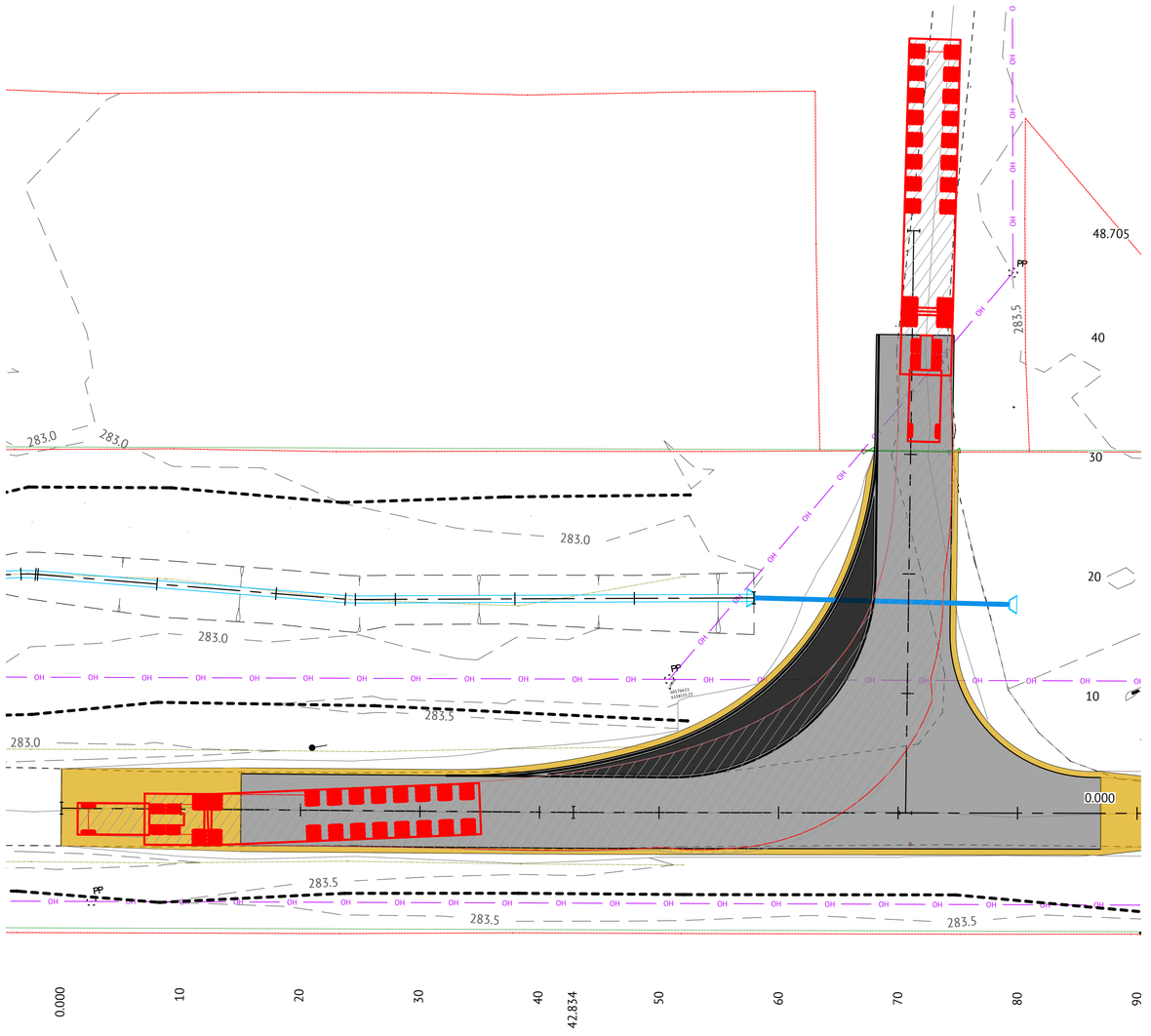
JOB CODE 223076_02
SHEET NUMBER C391
REV 4



OVERSIZE 8x8 WITH 2x8

OVERALL LENGTH	33.694m
OVERALL WIDTH	4.270m
OVERALL BODY HEIGHT	3.627m
MIN. BODY GROUND CLEARANCE	0.540m
TRACK WIDTH	4.270m
LOCK-TO-LOCK TIME	6.00s
WALL TO WALL TURNING RADIUS	19.294m





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PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

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CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

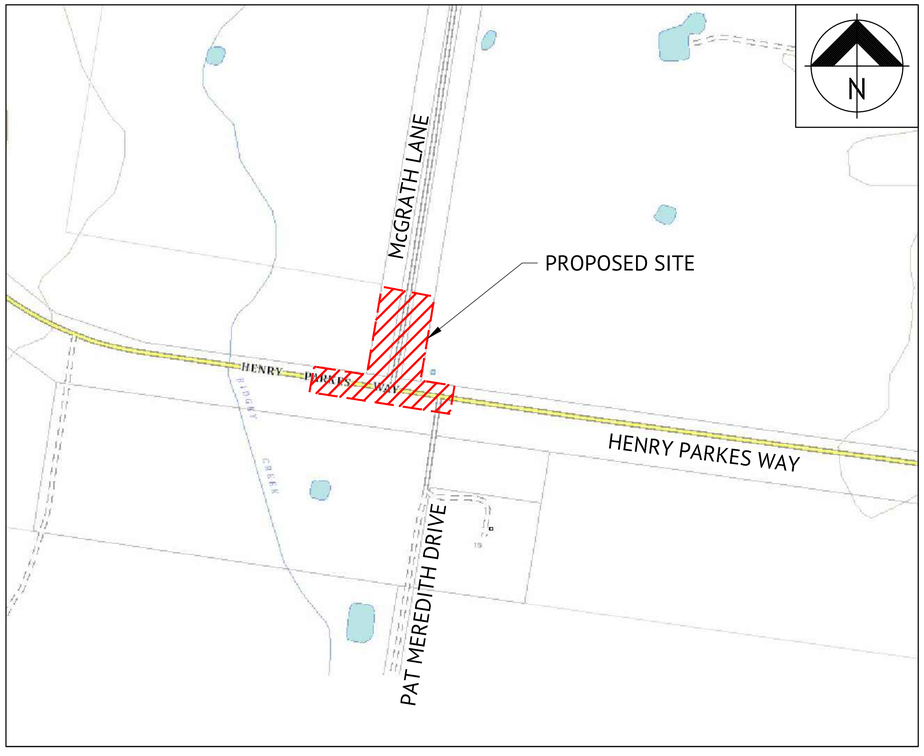
CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: QUORN PARK PROPERTY ACCESS
SHEET TITLE: VEHICLE TRACKING - OVERSIZE 8x8 WITH 2x8

JOB CODE 223076_02
SHEET NUMBER C392
REV 4

QUORN PARK SOLAR FARM - INTERSECTION UPGRADE OF HENRY PARKES WAY AND McGRATH LANE, PARKES, NSW

ENEL GREEN POWER AUSTRALIA

CIVIL INTERSECTION DESIGN



LOCALITY PLAN

NTS

DRAWING SCHEDULE	
DRAWING NO.	DRAWING TITLE
C001	COVER SHEET AND DRAWING LIST
C011	TYPICAL NOTES AND DETAILS
C101	OVERALL INTERSECTION LAYOUT PLAN
C102	ENGINEERING PLAN
C151	TYPICAL ROAD SECTIONS
C341	PAVEMENT MARKINGS & SIGNAGE LAYOUT PLAN
C342	VEHICLE TRACKING PLAN

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
31/05/2024	6	ISSUED FOR TfNSW APPROVAL		
22/05/2024	5	ISSUED FOR TfNSW APPROVAL		
01/05/2024	4	RE-ISSUED FOR TfNSW REVIEW		

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DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER
SCALE
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM - INTERSECTION UPDGRADE OF HENRY PARKES WAY AND McGRATH LANE
LOCATION HENRY PARKES WAY, PARKES, NSW
SHEET TITLE COVER SHEET AND DRAWING LIST

JOB CODE 223076_01
SHEET NUMBER C001
REV 6

GENERAL CONSTRUCTION NOTES:

1. TRANSPORT FOR NSW ARE TO BE NOTIFIED 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORKS.

2. ALL SERVICES SHOWN ON THIS PLAN HAVE BEEN PREPARED FROM A COMBINATION OF FIELD SURVEY & EXISTING RECORDS PROVIDED BY SERVICE AUTHORITIES HOWEVER ALL RELEVANT AUTHORITIES MUST BE CONTACTED & SERVICE LOCATIONS CHECKED PRIOR TO WORK COMMENCING. THE CONTRACTOR IS TO ADEQUATELY INFORM THEMSELVES AS TO THE DEPTH AND LOCATION OF ALL EXISTING & PROPOSED SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION.

3. ANY WORK TO EXISTING SERVICES THAT REQUIRE RELOCATION BY AUTHORITIES SHALL BE CARRIED OUT BY THE RELEVANT AUTHORITY BUT WITHIN THE TERMS OF THE CONTRACT AND SHALL BE CO-ORDINATED BY THE CONTRACTOR.

4. TRAFFIC & PEDESTRIAN CONTROL MEASURES ARE TO BE IN PLACE DURING ALL CONSTRUCTION WORKS. TRAFFIC CONTROL PLANS ARE TO BE PREPARED BY A CERTIFIED & APPROVED PERSON IN ACCORDANCE WITH AS1742.3-2009 & THE RMS "TRAFFIC CONTROL AT WORK SITES" - 2010.

5. THE CONTRACTOR SHALL REINSTATE ANY GRASSED AREAS OR TABLE DRAINS AFFECTED DURING CONSTRUCTION.

6. ALL CONSTRUCTION WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATION FOR THE WORKS IN ACCORDANCE WITH THE REQUIREMENTS OF TfNSW.

7. EROSION AND SEDIMENT CONTROL TO BE COMPLETED IN ACCORDANCE WITH ESC.

8. TOPSOIL TO BE EXCAVATED TO EXPOSE SUBGRADE & STOCKPILED. THE SUBGRADE (OR PROPOSED FILL AREAS) SHALL BE STRIPPED OF ALL SOFT, ORGANIC OR MOISTURE AFFECTED MATERIALS AND SHALL BE ROLLED AND COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 98% RELATIVE TO STANDARD COMPACTION AT A MOISTURE RATIO OF 60-90% OF THE OPTIMUM MOISTURE CONTENT.

9. THE PAVEMENT BASE, SUB BASE & SELECT MATERIALS SHOULD BE COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 102% RELATIVE TO STANDARD COMPACTION AT A MOISTURE RATIO OF 60-90% OF THE OPTIMUM MOISTURE CONTENT. THE SUBGRADE AND GENERAL FILL SHOULD BE COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 98% RELATIVE TO STANDARD COMPACTION AT A MOISTURE RATIO OF 60-90% OF THE OPTIMUM MOISTURE CONTENT.

10. CONSTRUCTION WORK SHALL ONLY BE CARRIED OUT WITHIN THE FOLLOWING TIMES:-
    *MONDAY TO FRIDAY 7.00 am TO 6.00 pm
    *SATURDAY 7.00 am TO 1.00 pm
    (IF INAUDIBLE ON RESIDENTIAL PREMISES)
    *OTHER WISE 8.00 am TO 1.00 pm
    THE ABOVE RESTRICTIONS MAY BE SUBJECT TO REVIEW AND VARIATION BY TfNSW UPON AN ASSESSMENT OF THE LEVEL OF ANNOYANCE, IF ANY, THAT MAY ARISE.

11. DURING SUNDAY AND PUBLIC HOLIDAYS, NO CONSTRUCTION WORK PERMITTED

12. ALL LEVELS ARE IN AUSTRALIAN HEIGHT DATUM.

13. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCY SHALL BE REFERRED TO THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.

14. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS. UNLESS NOTED OTHERWISE, ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE.

15. TfNSW'S REPRESENTATIVE TO BE NOTIFIED OF ANY WATER IN THE EXCAVATIONS.

16. THE RECTIFICATION OF ALL MATTERS ARISING FROM INSUFFICIENT INFORMATION BEING SHOWN ON THE APPROVED ENGINEERING PLANS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATION FOR THE WORKS AND TO THE REQUIREMENTS OF TfNSW'S ENGINEER.

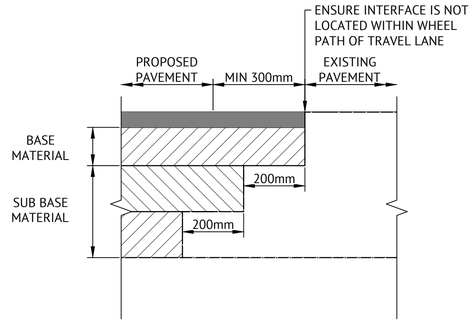
17. WRITTEN CONSENT SHALL BE SUBMITTED TO TfNSW FROM THE OWNERS OF ANY ADJOINING PROPERTY PRIOR TO ANY PHYSICAL INTERFERENCE WITH THAT PROPERTY AS A RESULT OF THE REQUIRED CONSTRUCTION.

18. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY BREACHES OF THE CLEAN WATERS ACT 1970.

TfNSW CONSTRUCTION NOTES:

ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE VARIOUS TFNSW SPECIFICATIONS FOR ROADWORKS CONSTRUCTION OUTLINED BELOW:

TFNSW QA SPECIFICATION	G1 JOB SPECIFIC REQUIREMENTS
TFNSW QA SPECIFICATION	G2 C2 GENERAL REQUIREMENTS (MAJOR CONTRACT)
TFNSW QA SPECIFICATION	G7 UTILITY ADJUSTMENT
TFNSW QA SPECIFICATION	G10 TRAFFIC MANAGEMENT
TFNSW QA SPECIFICATION	G22 WORK HEALTH AND SAFETY (CONSTRUCTION WORKS)
TFNSW QA SPECIFICATION	G36 ENVIRONMENTAL PROTECTION
TFNSW QA SPECIFICATION	G38 SOIL AND WATER MANAGEMENT (SOIL AND WATER MANAGEMENT PLAN)
TFNSW QA SPECIFICATION	G40 CLEARING AND GRUBBING
TFNSW QA SPECIFICATION	G71 CONSTRUCTION SURVEYS
TFNSW QA SPECIFICATION	R11 STORMWATER DRAINAGE
TFNSW QA SPECIFICATION	R33 TRENCH DRAINS
TFNSW QA SPECIFICATION	R44 EARTHWORKS
TFNSW QA SPECIFICATION	R49 CONSTRUCTION OF VERGES
TFNSW QA SPECIFICATION	R53 CONCRETE FOR GENERAL WORKS
TFNSW QA SPECIFICATION	R71 UNBOUND AND MODIFIED PAVEMENT COURSE
TFNSW QA SPECIFICATION	R107 SPRAYED BITUMINOUS SURFACING (WITH POLYMER MODIFIED BITUMEN)
TFNSW QA SPECIFICATION	R116 HEAVY DUTY DENSE GRADED ASPHALT
TFNSW QA SPECIFICATION	R131 GUIDE POSTS
TFNSW QA SPECIFICATION	R132 SAFETY BARRIER SYSTEMS
TFNSW QA SPECIFICATION	R142 RETROREFLECTIVE RAISED PAVEMENT MARKERS
TFNSW QA SPECIFICATION	R143 SIGNPOSTING
TFNSW QA SPECIFICATION	R145 PAVEMENT MARKING
TFNSW QA SPECIFICATION	3051 GRANULAR BASE AND SUBBASE MATERIALS FOR SURFACED ROAD PAVEMENTS



TYPICAL PAVEMENT CUTBACK DETAIL
SCALE 1:10

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
31/05/2024	6	ISSUED FOR TfNSW APPROVAL		
22/05/2024	5	ISSUED FOR TfNSW APPROVAL		
01/05/2024	4	RE-ISSUED FOR TfNSW REVIEW		

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WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE 0 0.2 0.4 0.6m
SCALE 1:10 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM - INTERSECTION UPDGRADE OF HENRY PARKES WAY AND McGRATH LANE
LOCATION HENRY PARKES WAY, PARKES, NSW
SHEET TITLE TYPICAL NOTES AND DETAILS

JOB CODE 223076_01
SHEET NUMBER C011
REV 6

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
31/05/2024	6	ISSUED FOR TfNSW APPROVAL		
22/05/2024	5	ISSUED FOR TfNSW APPROVAL		
01/05/2024	4	RE-ISSUED FOR TfNSW REVIEW		
22/02/2024	3	ISSUED FOR TfNSW REVIEW		
14/12/2023	2	ISSUED FOR TfNSW REVIEW		

REVISIONS

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DESIGNED: R. DURHAM
CHECKED: S. HOYNES
PROJECT MANAGER: D. WALKER

SCALE
0 10 20 30m
SCALE 1:500 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM - INTERSECTION UPDGRADE OF HENRY PARKES WAY AND McGRATH LANE
LOCATION: HENRY PARKES WAY, PARKES, NSW
SHEET TITLE: OVERALL INTERSECTION LAYOUT PLAN

JOB CODE: 223076_01
SHEET NUMBER: C101
REV: 6

LEGEND

EOB	PROPOSED EDGE OF BITUMEN
SHLD	PROPOSED GRAVEL SHOULDER
	PROPOSED SEALED PAVEMENT
	PROPOSED GRAVEL SHOULDER

N

McGRATH LANE IS TO BE UPGRADED FOR A DISTANCE OF 100m FROM HENRY PARKES WAY IN ACCORDANCE WITH CONDITION NO. 5 AND APPENDIX 3 IN DEVELOPMENT CONSENT SSD 9097 DATED 16 JULY 2020 AND IN ACCORDANCE WITH THE REQUIREMENTS AND APPROVAL OF PARKES SHIRE COUNCIL

1
DP 1090411

7003
DP 1135641

54.346

40

20

7003
DP 1135641

504
DP 750152

LIMIT OF INTERSECTION WORKS

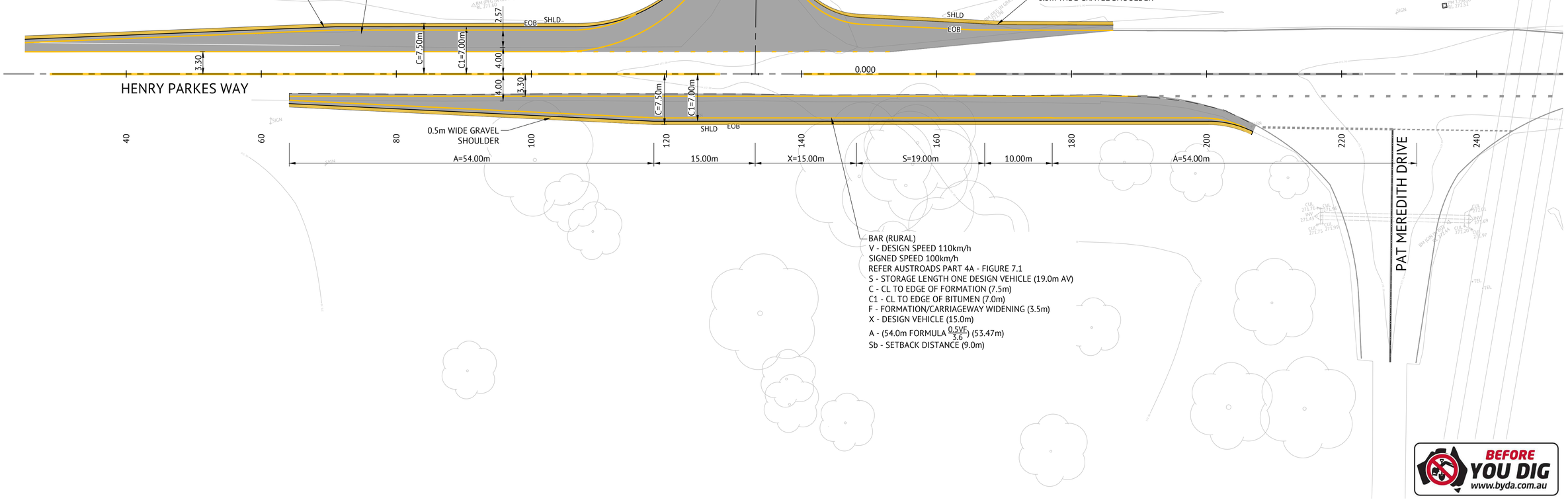
THE POTENTIAL FOR THE DESIGN OF DRAINAGE STRUCTURES AT THE INTERSECTION WILL BE ASSESSED WHEN THE DETAILED 3D DESIGN OF THE INTERSECTION IS CARRIED OUT AND THE TABLEDRAINS ARE BEING REGRADED.

BAL (RURAL)
V - DESIGN SPEED 110km/h
SIGNED SPEED 100km/h
REFER AUSTROADS PART 4A - FIGURE 8.2
P - MINIMUM LENGTH PARALLEL WIDENED SHOULDER (35.0m TABLE 8.1)
F - FORMATION/CARRIAGEWAY WIDENING (3.0m)
A - (46.0m FORMULA $\frac{0.5VF}{3.6}$) (45.83)
C - CL TO EDGE OF FORMATION (7.5m)
C1 - CL TO EDGE OF BITUMEN (7.0m)

0.5m WIDE GRAVEL SHOULDER

A=46.00m

P=35.00m



BAR (RURAL)
V - DESIGN SPEED 110km/h
SIGNED SPEED 100km/h
REFER AUSTROADS PART 4A - FIGURE 7.1
S - STORAGE LENGTH ONE DESIGN VEHICLE (19.0m AV)
C - CL TO EDGE OF FORMATION (7.5m)
C1 - CL TO EDGE OF BITUMEN (7.0m)
F - FORMATION/CARRIAGEWAY WIDENING (3.5m)
X - DESIGN VEHICLE (15.0m)
A - (54.0m FORMULA $\frac{0.5VF}{3.6}$) (53.47m)
Sb - SETBACK DISTANCE (9.0m)

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PRELIMINARY - NOT FOR CONSTRUCTION

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31/05/2024	6	ISSUED FOR TfNSW APPROVAL		
22/05/2024	5	ISSUED FOR TfNSW APPROVAL		
01/05/2024	4	RE-ISSUED FOR TfNSW REVIEW		
22/02/2024	3	ISSUED FOR TfNSW REVIEW		
14/12/2023	2	ISSUED FOR TfNSW REVIEW		

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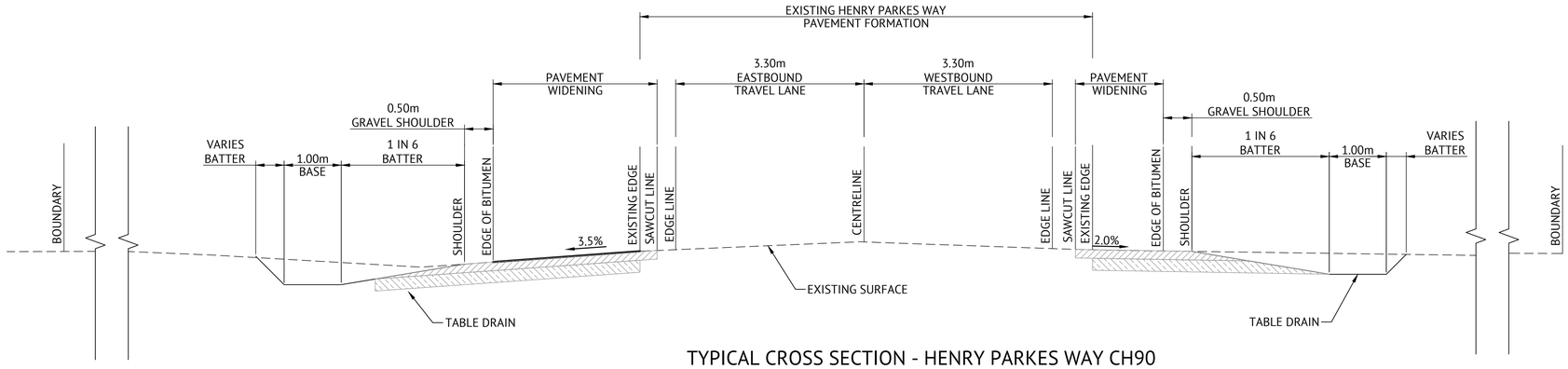
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 6 12 18m
SCALE 1:300 (A1)
ORIGINAL SHEET SIZE A1

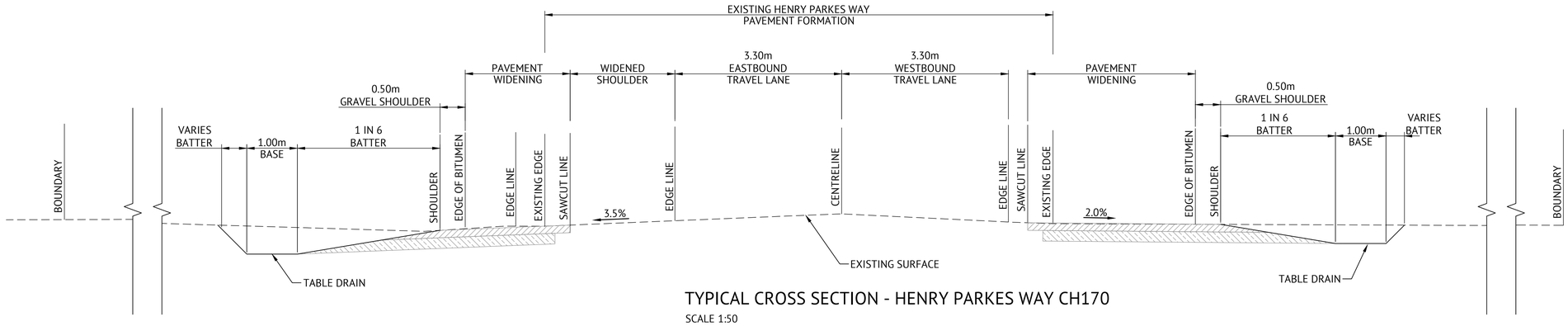
CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM - INTERSECTION UPDGRADE OF HENRY PARKES WAY AND McGRATH LANE
LOCATION: HENRY PARKES WAY, PARKES, NSW
SHEET TITLE: ENGINEERING PLAN

JOB CODE 223076_01
SHEET NUMBER C102
REV 6



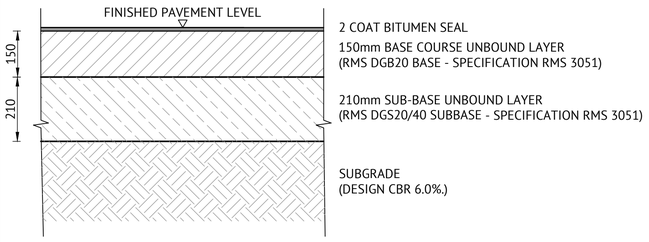
TYPICAL CROSS SECTION - HENRY PARKES WAY CH90

SCALE 1:50



TYPICAL CROSS SECTION - HENRY PARKES WAY CH170

SCALE 1:50

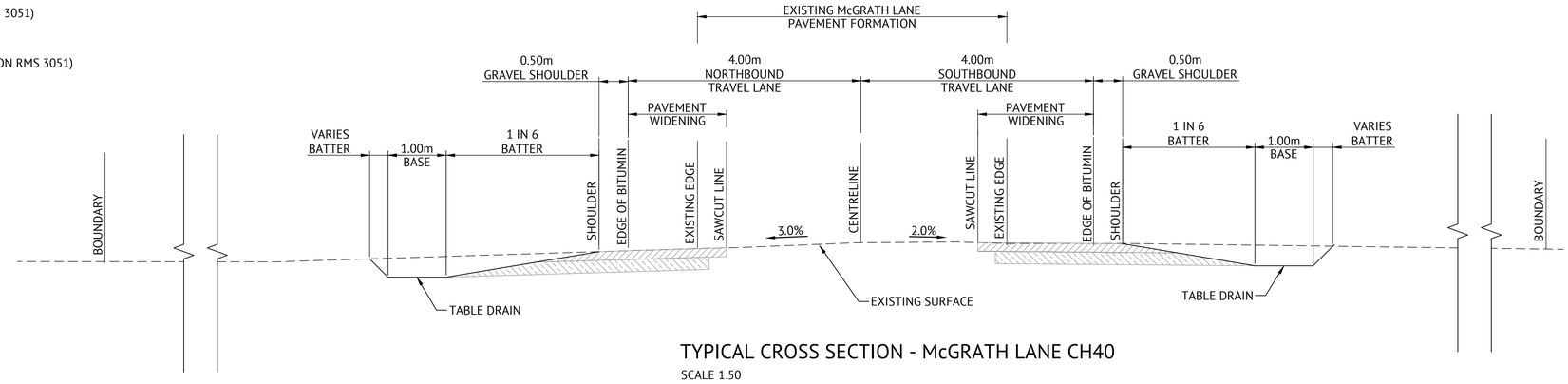


PAVEMENT DETAIL

NTS

NOTES:

PAVEMENT DESIGN IN ACCORDANCE WITH THE MACQUARIE GEOTECH REPORT G23907-1 DATED 29 APRIL 2024.



TYPICAL CROSS SECTION - McGRATH LANE CH40

SCALE 1:50

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PRELIMINARY - NOT FOR CONSTRUCTION

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31/05/2024	6	ISSUED FOR TfNSW APPROVAL		
22/05/2024	5	ISSUED FOR TfNSW APPROVAL		
01/05/2024	4	RE-ISSUED FOR TfNSW REVIEW		
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14/12/2023	2	ISSUED FOR TfNSW REVIEW		

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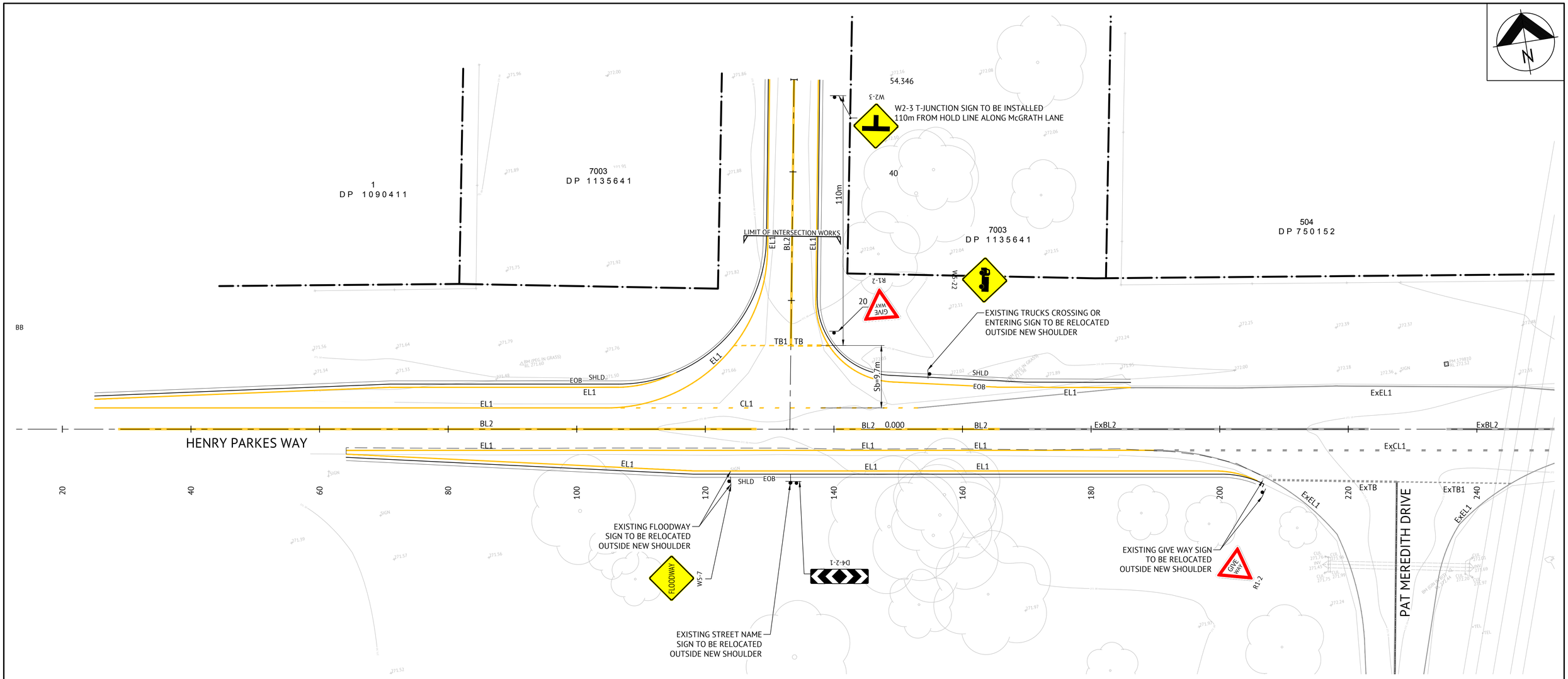
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 1 2 3m
SCALE 1:50 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM - INTERSECTION UPDGRADE OF HENRY PARKES WAY AND McGRATH LANE
LOCATION HENRY PARKES WAY, PARKES, NSW
SHEET TITLE TYPICAL ROAD SECTIONS

JOB CODE 223076_01
SHEET NUMBER C151
REV 6



LINEMARKING NOTES

1. PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE SPECIFIC REQUIREMENTS OF TfNSW SPECIFICATIONS.
2. ALL INTERNAL LINE MARKING TO CONSIST OF LINES 100mm WIDE WITH 2 COATS OF PAINT TO MANUFACTURERS SPECIFICATIONS.
3. EXTENT OF LINEMARKING SHALL BE VERIFIED ON SITE PRIOR TO INSTALLATION.
4. ALL PAINTED MARKINGS SHALL BE APPROVED REFLECTORISED U.N.O.
5. ANY EXISTING LINE MARKINGS DAMAGED BY THE PROPOSED WORKS ARE TO BE REINSTATED.
6. EXISTING CONFLICTING LINE MARKINGS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 4 IN THE TfNSW QA SPECIFICATION R145 PAVEMENT MARKING.
7. RETRO-REFLECTIVE RAISED PAVEMENT MARKERS (RRPM's) SHALL BE PLACED 25mm TO 50mm FROM THE PAINTED LINEMARKING AND ORIENTATED SO THAT FULL REFLECTIVE EFFECT IS ACHIEVED BY AIMING THE REFLECTIVE FACE IN THE DIRECTION OF APPROACHING TRAFFIC.
8. GENERALLY THE NORMAL SPACING BETWEEN RRPM's IS TO BE 12.0m U.N.O.
9. ANY EXISTING LINEMARKING NOT SHOWN ON THIS PLAN WHICH CONFLICTS OR IS INCOMPATIBLE WITH THE PROPOSED LINEMARKING SHALL BE REMOVED BY THE CONTRACTOR.

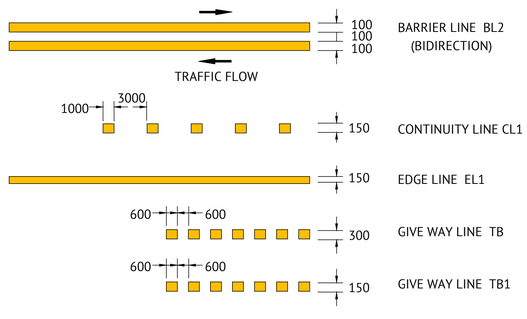
SIGNAGE NOTES

1. LOCATION OF SIGNS SHOWN ON THIS PLAN ARE INDICATIVE ONLY. CARE AND CONSIDERATION IS TO BE GIVEN TO ON SITE CONDITIONS TO AVOID ANY VISUAL OBSTRUCTION OF THE SIGN ALONG THE INTENDED COURSE OF APPROACHING TRAFFIC. EXACT LOCATION OF ALL SIGNS SHALL BE CONFIRMED ON SITE PRIOR TO INSTALLATION.
2. SIGNS SHOULD BE ORIENTATED AT APPROXIMATELY RIGHT ANGLES TO, AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE.
3. SIGNAGE SHALL BE IN ACCORDANCE WITH:
   - TfNSW SPECIFICATIONS
   - AS1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
   - AS1743 ROAD SIGNS SPECIFICATION
   - AS4049.1 PAVEMENT MARKING MATERIALS

REQUIRED SIGNS

LEGEND - PROPOSED

TYPICAL LINEMARKING LEGEND



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22/05/2024	5	ISSUED FOR TfNSW APPROVAL		
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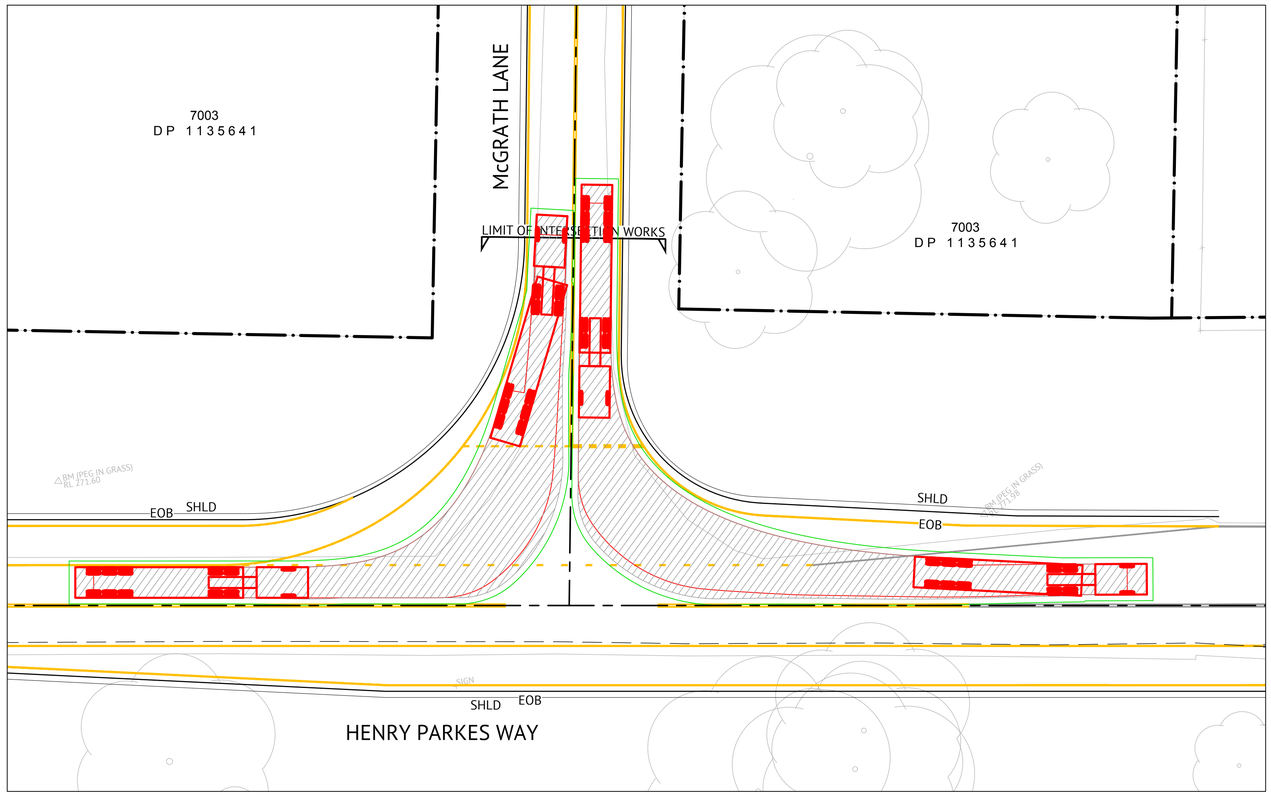
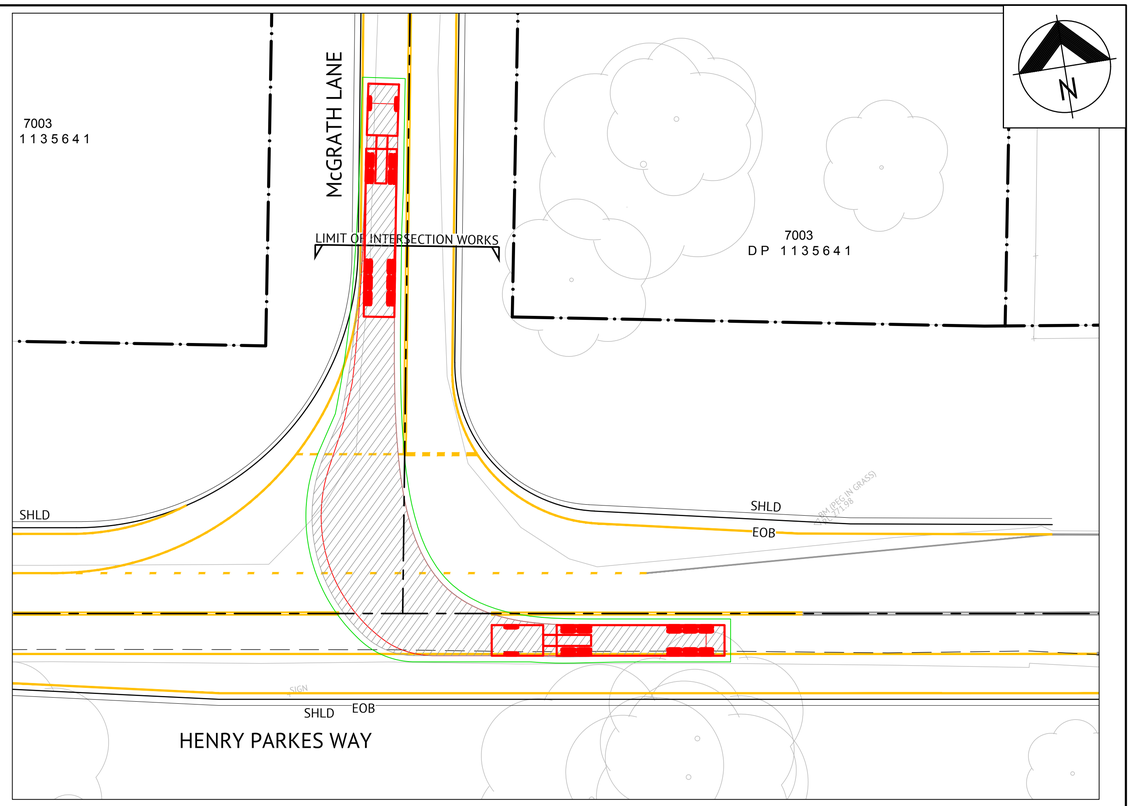
PROJECT MANAGER D. WALKER

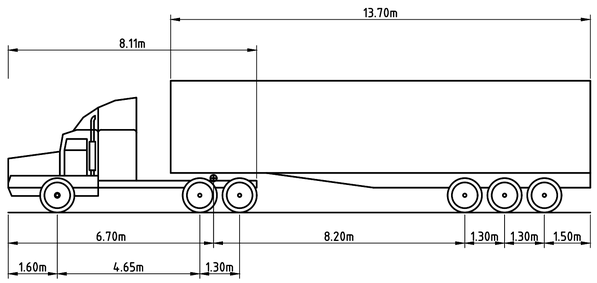
SCALE 0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM - INTERSECTION UPDGRADE OF HENRY PARKES WAY AND McGRATH LANE
LOCATION HENRY PARKES WAY, PARKES, NSW
SHEET TITLE PAVEMENT MARKINGS & SIGNAGE LAYOUT PLAN

JOB CODE 223076_01
SHEET NUMBER C341
REV 6

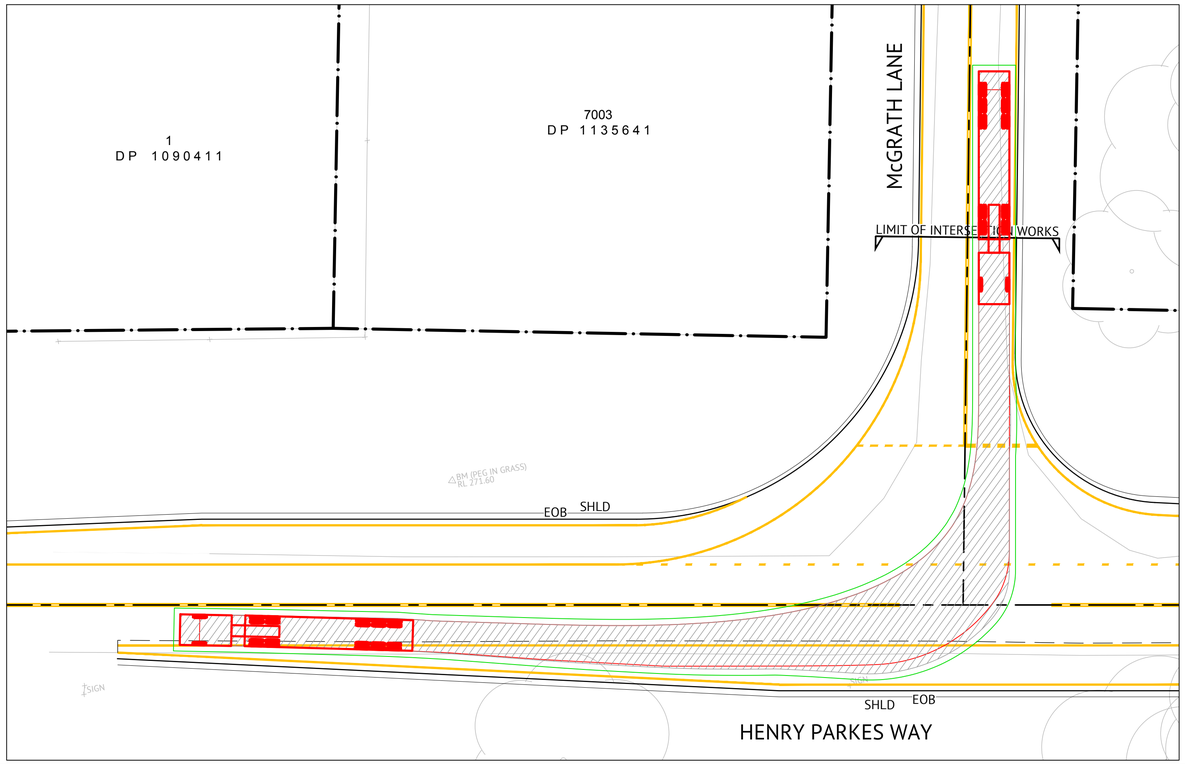






AUSTROADS PRIME MOVER & SEMI TRAILER (19m)

OVERALL LENGTH	19.000m
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
KERB-TO-KERB TURNING RADIUS	12.500m



BEFORE YOU DIG
www.byda.com.au

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
31/05/2024	6	ISSUED FOR TfNSW APPROVAL		
22/05/2024	5	ISSUED FOR TfNSW APPROVAL		
01/05/2024	4	RE-ISSUED FOR TfNSW REVIEW		
22/02/2024	3	ISSUED FOR TfNSW REVIEW		
14/12/2023	2	ISSUED FOR TfNSW REVIEW		

REVISIONS

Premise
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM - INTERSECTION UPDGRADE OF HENRY PARKES WAY AND McGRATH LANE
LOCATION: HENRY PARKES WAY, PARKES, NSW
SHEET TITLE: VEHICLE TRACKING PLAN

JOB CODE 223076_01
SHEET NUMBER C342
REV 6

Appendix E: Drivers Code of Conduct

1 Drivers Code of Conduct Objectives

This Drivers Code of Conduct is to be provided to all drivers accessing the Site, including principal contractor staff, delivery drivers, contractors etc. The objectives of the Drivers Code of Conduct are to:

- Ensure awareness for all staff and visitors of site rules, processes and procedures;
- Minimise the impact of truck and contractor vehicle movements on the on-site work environment and local road network;
- Minimise conflict with other on and off-site road users;
- Minimise truck traffic noise; and
- Ensure truck drivers use the designated routes.

The Drivers Code of Conduct also requires that, while driving any truck or contractor vehicle for Project related purposes, drivers must:

- Demonstrate safe driving and road safety activities;
- Abide by traffic and road legislation;
- Abide by on and off-site speed limits at all times;
- Follow Site signage and instructions at all times; and
- Adhere to the terms of this driver code of conduct.

2 Key Driver Controls

2.1 Truck Operating Periods

Construction hours – **including the delivery of materials to/from the Site** - will be as follows:

- 7:00am to 6:00pm Monday to Friday; and
- 8:00am to 1:00pm on Saturdays;

No Project works or vehicle movements are permitted on Sundays or public holidays.

Where it is necessary for any truck movements to occur outside of the conditioned truck movement hours, an approved Outside of Hours Work Permit will be required prior to any such truck movements. The Principal Contractor must be notified of any intention for truck movements outside of the approved construction hours, and provide approval for the Outside of Hours Work Permit application prior to its submission to the relevant authorities.

2.2 Speed Limits

All trucks, contractor and general staff drivers are to travel within the posted speed limits in the public road network at all times.

All truck, contractor and general staff drivers are to travel at a speed on no greater than 20km/h within the Site at all times.

2.3 School Bus Awareness

School buses operate along some sections of the designated access routes to/from the Site, including Back Trundle Road and Henry Parkes Way. All drivers must adhere to the NSW Road Rules when in the vicinity of a school bus, which requires that drivers slow to 40km/h whether the school bus is stationary or moving.

2.4 Site Access

All access to the Site will be via Henry Parkes Way, McGrath Lane and Back Trundle Road. **Site Entrance 1** is located to the east of McGrath Lane north of Back Trundle Road and provides primary access to the Site, and **Site Entrance 2** is located west of McGraths Lane south of Back Trundle Road and provides access to the Transmission Corridor.

All vehicles are to enter and depart the Site in a forward direction at all times.

2.5 Designated Truck Route

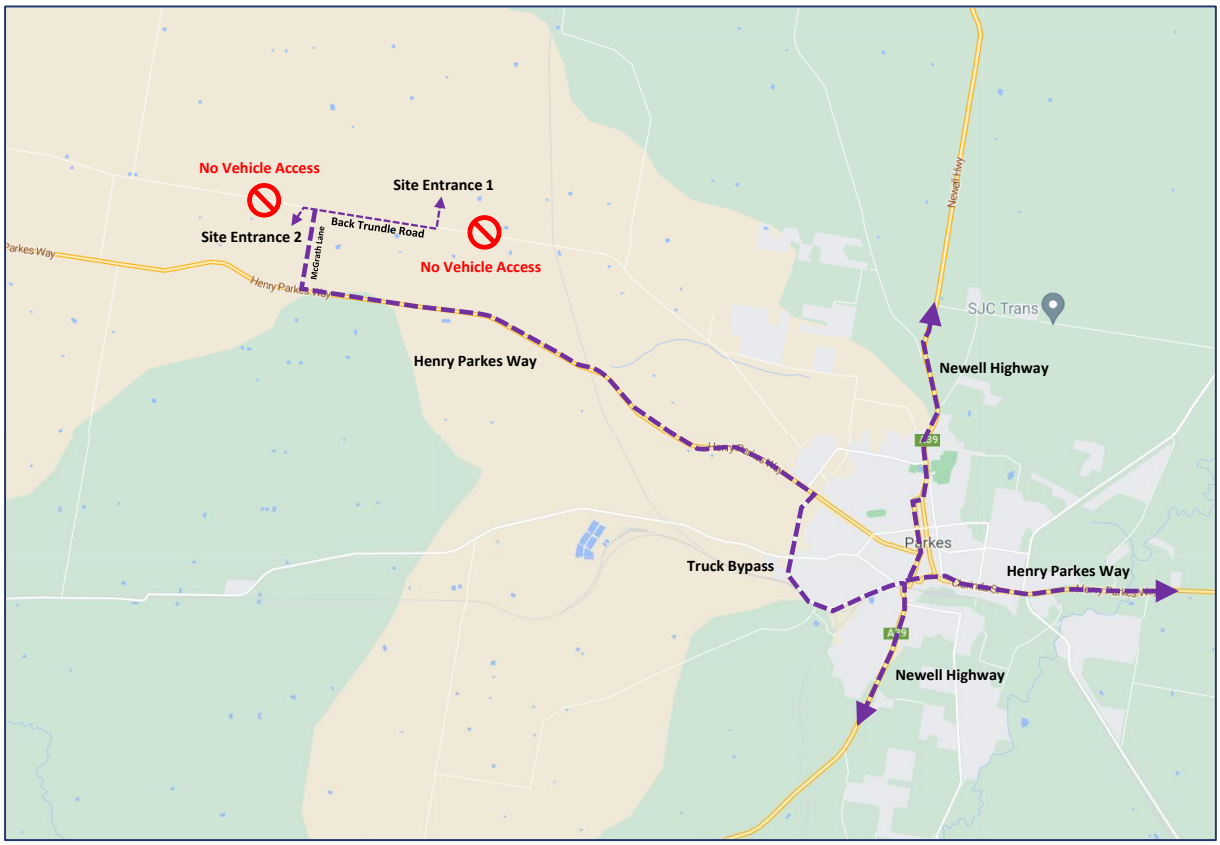
The designated truck route must be used by all truck drivers at all times. This designated truck route is shown in the Vehicle Movement Plans below.

Monitoring of the route by the Enel HSE Advisor and the Principal Contractor Logistics Manager will occur to ensure compliance.

A weekly check of project related vehicles (typically heavy vehicles) fitted with GPS tracking will occur by the Principal Contractor Logistics Manager to confirm that designated routes are being used. The Principal Contractor Logistics Manager will also complete a once per week check of the local designated routes during peak periods to confirm all vehicles are using designated routes.

If vehicles are found to be using non-designated/non-approved routes, the drivers in question will be subject to disciplinary action.

Vehicle Movement Plan: Designated Truck Routes



Oversize/Overmass Approved Route Port Botany

Source: TfNSW

Oversize/Overmass Approved Route Port of Newcastle

Source: TfNSW

2.5 Parking

On-site parking for all staff, shuttle buses and trucks will be provided throughout the different Project stages. Parking will be provided in the main construction compound area and will have sufficient room for up to 30 light vehicles and 3 coaster buses. This requires an area approximately 700 m2, which will be accommodated within the main compound area. This will be sufficient to meet the needs of the up to 100 construction staff approved.

No parking will be permitted off-site at any time.

The Principal Contractors HSE Advisor will inspect parking areas on site, and public roadside areas near the site, daily, after the beginning of the morning shift, to ensure that parking does not exceed the approved amount and that no parking is occurring off site.

3 Breach of Drivers Code of Conduct

The following activities by any truck, contractor or general staff driver will be considered as a breach of the Drivers Code of Conduct:

- Driving on routes other than those designated in the Vehicle Movement Plan;
- Reckless or dangerous driving causing injury or death;
- Driving whilst disqualified or not correctly licensed;
- Being under the influence of alcohol or drugs while driving;
- Driving when fatigued or unwell;
- Failing to stop after an incident;
- Loss of demerit points leading to suspension of licence;
- Any actions that warrant the suspension of a licence; and/or
- Exceeding the speed limits in place in public roads or on-site.

Any drivers found to be in breach of the Drivers Code of Conduct will be notified of the breach, as will their immediate managers, who will in turn be required to provide additional training/guidance to the driver. **Any repeat offenders will be prevented from returning to Site**.

4 Driver Responsibilities

All truck, contractor and staff drivers must:

- Be responsible and accountable for their actions when operating a truck or contractor vehicle;
- Ensure they have a current driver licence for the class of vehicle they are driving, and this licence is to be carried with them at all times;
- Immediately notify their manager if their drivers licence has been suspended, cancelled, or has had limitations applied;
- Comply with all traffic and road legislation when driving;
- Regularly check the operating condition of trucks or company vehicles;
- Ensure their vehicles have correctly been fitted with mufflers to minimise noise disturbance, and use only the approved vehicle routes during approved hours so as to minimise noise impacts in residential and urban areas;
- Never drive under the influence of alcohol or drugs;
- Wear a seat belt at all times when in the vehicle;
- Report any near-misses, crashes or scrapes to their manager, including those that do not result in injury;
- Report infringements to a manager at the earliest opportunity;
- Report vehicle defects to a manager prior to the next use of the vehicle; and
- Keep loads covered at all times (where relevant).

5 Crash or Incident Protocol

All contractors are to have in place a **Crash or Incident Protocol** that is applicable to all contracted drivers. The Crash or Incident Protocol must include the following procedures as a minimum.

➢ **At the Time of the Crash or Incident**, the driver must:

- Stop your vehicle as close as possible to the scene, making sure you are not hindering traffic;
- Ensure your own safety first, then help any injured people and seek assistance immediately if required;
- Ensure the following information is noted:
  - ✓ Details of the other vehicles and registration numbers.
  - ✓ Names and addresses of the other vehicle drivers.
  - ✓ Names and addresses of witnesses.
  - ✓ Insurer's details.
- Give the following information to the involved parties:

- ✓ Name, address and company details.
- ✓ If the damaged vehicle is not occupied, provide a note with your contact details for the owner to contact the company.

- **A Crash or Incident Register** must be maintained to assist in the orderly resolution of complaints. The Crash or Incident Register is to include:
  - Date and time of complaint.
  - How the complaint was received.
  - Detailed description.
  - What / when actions were taken to resolve issue.
  - Response to organisation / party that made complaint.

- **Ensure that the police are contacted should the following circumstances occur**:
  - If there is a disagreement over the cause of the crash.
  - If there are injuries.
  - If you damage property other than your own.

As soon as reasonably practical, **report all details gathered to your manager**.

6 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.

7 Driver fatigue

If a person travels more than 100km in a single trip because of construction activities, a Journey Management Plan (JMP) will be prepared. When a JMP applies to a journey, the person it applies to is required to have a break every 2 hours and to inform a nominated person when they are having a break and when they reach their destination.

A JMP is also required where there are risks associated with a journey such as adverse weather or where driving following a work shift of 12 hours or more.

Travel between the hours of 11pm and 5am is to be avoided. If unavoidable, the Construction Contractor Project Manager is to be advised and a JMP prepared.

The following matters are to be taken into consideration when preparing a JMP:

- Total travel time
- Taking a break every two hours and check in to a nominated person at each break

- The type of transportation being used (driving along, carpooling, other forms of transportation etc)
- Identifying rest break times and locations;
- Worker alertness – timing of travel, for example after a long shift. A break should be provided for before travel occurs.
- Communication if travelling alone
- Weather/road condition assessments
- Driving at night – need for the journey or whether it can be delayed until daylight

Where there is a high risk of works being fatigued the following measures would be implemented:

- Rotate workers between shifts
- Review staffing to ensure workload management
- Ensure sufficient breaks
- Add more resources to ensure adequate resourcing

Heavy vehicle fatigue management also is a key issue and, along with the above measures, the measures outlined in the Heavy Vehicle National Law with respect to fatigue apply.

A key regulation is the Heavy Vehicle (Fatigue Management) National Regulation, which recognises that fatigue is one of the biggest causes of crashes involving heavy vehicles.

The fatigue management regulations have four key requirements that apply to drivers and other parties in the Chain of Responsibility (CoR). These requirements include:

- 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. The NHVR's Heavy vehicle driver fatigue requirements bulletin 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.

8 Maintenance

The following maintenance requirements are to be met at all times, to ensure a high level of maintenance for heavy vehicles being used in relation to the project:

- 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.

9 Complaint resolution

All traffic related complaints associated with project are to be addressed as per Section 5.11 of this TMP.

All complaints will be collated and addressed within 5 days of receipt. The following methods for complaints exist:

- Via the contact us page on the project website: https://www.enelgreenpower.com/our-projects/in-development/quorn-park-hybrid-project
- By telephone on 0419 668 522
- By email at quornparkhybrid@enel.com
- In person at the site compound office at the project site.

Failure to comply with these complaint management procedures will result in disciplinary action.

Appendix F: PSC Roads Act approval for road upgrades to local roads

ROADS ACT 1993, S138 APPROVAL

Applicant Details:	Enel Green Power Australia C/- Premise Suite 3, Level 1 60-62 McNamara Street ORANGE NSW 2800
Roads Act Approval No:	1916445
Description of Activity:	Construction of Intersection and Access Point Upgrades in Support of Quorn Park Solar Farm SSD 9097 Quorn Park Property Access - 950 Back Trundle Road, Intersection of McGrath Lane and Back Trundle Road and 100m of McGrath Lane from Henry Parkes Way Intersection.
Occupation Location/Property Address:	950 Back Trundle Road, Road Reserve of Back Trundle Road and McGrath Lane.
Date of Determination:	27 May 2024

Issued in accordance with the section 138 of the Roads Act 1993.

Determination:

Council informs that the application submitted for the proposed Intersection, approach road works, property access construction works and associated drainage infrastructure within Council's road reserve has been approved. The approval granted herein permits the roadworks and associated drainage infrastructure to be constructed in accordance with the approved design drawings for the nominated works period. all approved works will be subject to PSC's Mandatory Critical Inspection and Conformance Schedule described in **Annexure A**.

The application has been determined as conditional approval subject to compliance with the conditions attached to this Notice and adherence to the requirements of the Roads Act 1993 and Road Regulations 2018.

Conditions:

Approved Plans and Documentation

1. The approved construction works within Parkes Shire Councils Road Reserve for the time and location as specified in annexure B.

2. The approved construction drawings, prepared by **Premise**, titled **QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES, QUORN PARK SOLAR FARM, PARKES NSW** Dated 21/05/2024 REVISION 4 as specified in **Annexure**

Inspections/Hold Points

3. Contractor is to provide at least 24 HOURS NOTICE prior to the works to be inspected at the following Inspection/hold points as described in **Annexure A** (**To be read in conjunction with Mandatory Critical Inspections and Conformance Criteria schedule items - included in Annexure A**)

Prior to Commencement

4. Written evidence of current public liability insurance policy in an amount of no less than $20Million. This coverage shall be maintained for the entire duration of road occupation as per Annexure C.

5. The contractor to produce evidence that all plant is registered and the subject of third party insurance.

6. The contractor must submit a **Traffic Guidance Scheme** to **Parkes Shire Council**, prepared by a Safework NSW, Prepare Work Zone Management Plan accredited designer.

During Works

7. The approved Traffic management plan must be in place for the entire construction period, and erection of signage and traffic control is be undertaken by persons trained, certified and authorised traffic controllers.

8. The contractor meets all obligations under the Work Health and Safety Act, 2011 and relevant Works Cover requirements including appropriate traffic controls.

9. The work is to be subject to full time supervision by a qualified person who is aware of the work responsibilities.

10. Any accident or injury is to be reported to Council and/or Work cover as required by their reporting procedures.

11. Any damage caused to the road or drainage system is to be brought to the notice of council's nominated officer and service owners as soon as possible.

12. Any damage caused to any other service is to be brought to the notice of Council's nominated officer and the service owners as soon as possible.

13. The works are to proceed to completion without undue delay.

At the Conclusion of Works

14. The disturbed area is restored to at least its original condition to the satisfaction of Council's nominated officer at the applicant's cost.

15. The contractor will be responsible for the removal of any excess material from all site locations.

At the Conclusion of Works

16. Any disturbed area, including pavement assets are to be restored to at least its original condition to the satisfaction of Council's nominated officer at the applicant's cost.

Signed:	On behalf of the consent authority:
Signature:	
Name:	Jaymes Rath **EXECUTIVE MANAGER TECHNICAL SERVICES**
Date:	27 May 2024

Erosion And Sedimentation Control

Works/activities undertaken to be undertaken in accordance with approved construction drawings, and specifications listed herein.

1. Erosion and sedimentation control measures installed/constructed in accordance with **approved construction drawings**

Note: **If an erosion and sediment control plan has not been included in the Subdivision Works Certificate, an ESD must be submitted to council 7 days prior to commencement of work**

Inspections required	Acceptance criteria
a) Prior to the commencement of any works approved under the subject subdivision works certificate, erosion and sediment control measures must be implemented and presented for inspection by the Development Engineer, or other nominated representative of Director of Works and Services.	Erosion and sediment control are constructed as per approved plans
b) During works, erosion and sediment control measures must be maintained for the entirety of the works, and repaired or replaced in the event of inclement weather or damage.	Erosion and sediment control are constructed and maintained as per approved plans
Conformance required	**Acceptance criteria**
None	N/A

Roadworks - Stage 1 Subgrade

Works/activities undertaken to be undertaken in accordance with approved construction drawings, and specifications listed herein.

1. Excavation to design subgrade level

2. Material is to be ripped and loosened to a minimum depth of 200mm below design subgrade level for the width of the selected material zone.

3. Maximum dimension of any rock particles in the ripped or loosened zone shall not exceed 150mm

4. Unsuitable materials such as boggy soils and/or trees plants or other etc. must be removed and replaced with select material from approved nominated onsite borrow pit/location

Inspections required	Acceptance criteria
a) Ripped or loosened material is to be made available for inspection prior to re-compaction.	• Verification that no rock particles larger than 150mm are present. • Verification that no unsuitable materials are present. If unsuitable material is identified, contractor will be required to replace unsuitable with select fill
b) Proof Roll of subgrade at design subgrade level	• PSC Development Engineer to not witness any deflection as approved plant rolls over all pavement at walking speed.

Conformance required	Acceptance criteria
1) Compaction Testing a) (insitu material)Compaction tests 4-day CBR Soak and insitu CBR b) For graded material - AS1289	Compaction test of insitu must achieve at least design CBR. 98% standard compaction

Note:
- *Density tests shall be undertaken at the start(chainage) of the works, the end(chainage) of the works and at no less than 50m intervals*
- *A minimum of 2 tests will be required for pavement less than 50m.*
- *Additional compaction tests are required at the turning head*

1. Survey of horizontal and vertical alignment of constructed subgrade layer a. Levels taken at centreline, on edge of trafficable area and at centre of lane b. Levels to be taken at 20m intervals	Constructed level <±10mm from design level Pavement thickness <±10mm from design if select or graded material used

Roadworks - Stage 2 Subbase

Works/activities undertaken to be undertaken in accordance with approved construction drawings, and specifications listed herein.

- Placement, Spreading, grading and compaction of specified graded material to specified depth, in accordance with approved plan set - pavement design detail.

Inspections required	Acceptance criteria
a) Proof Roll of subgrade at design subbase level	• PSC Development Engineer to witness no deflections as approved plant rolls over all pavement at walking speed.
Conformance required	**Acceptance criteria**
Compaction Testing to AS1289	100% standard compaction

Note:

- *Density tests shall be undertaken at the start(chainage) of the works, the end(chainage) of the works and at no less than 50m intervals*
- *A minimum of 2 tests will be required for pavement less than 50m.*
- *Additional compaction tests are required at the turning head*

2. Survey of horizontal and vertical alignment of constructed subgrade layer a. Levels taken at centreline, on edge of trafficable area and at centre of lane b. Levels to be taken at 20m intervals c. Report must be submitted to council that shows sampled points with a constructed, design and variance (out of spec levels must be shown in red)	Report and drawing detailing; Constructed level <±10mm from design level Pavement thickness <±10mm from design if select or graded material used

No further works are to commence on subsequent pavement courses until all **Inspections** and **Conformance** requirements have achieved the nominated **Acceptance Criteria** for that pavement course.

Roadworks - Stage 3 Base Course

Works/activities undertaken to be undertaken in accordance with approved construction drawings, and specifications listed herein

- Spreading and compaction of specified graded material to specified depth, in accordance with approved plan set - pavement design detail.

Inspections required	Acceptance criteria
a) Proof Roll of subgrade at design base course level	PSC Engineer to witness no deflections as approved plant rolls over all pavement at walking speed.
b) Final trim	Pavement is prepared to design levels and thickness, has reached compaction and has been rolled with a smooth drum roller to develop a smooth finish, pavement has been swept and is ready for sealing.
Conformance required	**Acceptance criteria**
Compaction Testing to AS1289	100% standard compaction

Note:

- *Density tests shall be undertaken at the start(chainage) of the works, the end(chainage) of the works and at no less than 50m intervals*
- *A minimum of 2 tests will be required for pavement less than 50m.*
- *Additional compaction tests are required at the turning head*

Survey of horizontal and vertical alignment of constructed subgrade layer a. Levels taken at centreline, on edge of trafficable area and at centre of lane b. Levels to be taken at 20m intervals c. Report must be submitted to council that shows sampled points with a constructed, design and variance (out of spec levels must be shown in red)	Report and drawing detailing; Constructed level <±10mm from design level Pavement thickness <±10mm from design if select or graded material used

Roadworks - Stage 4 Bituminous Surfacing (AUS-SPEC C244)

Works/activities undertaken to be undertaken in accordance with approved construction drawings, and specifications listed herein.

Application of Sprayed bituminous Surfacing ;

- At least 15 days before commencing sprayed bituminous surfacing work, the Contractor shall submit to the Superintendent for approval, details of the proposed bituminous surfacing design for the work together with a certification that the nominated materials for the work meet the requirements of the Specification.
- Two coat bitumen seal is applied as per approved bituminous surfacing design

Inspections required	Acceptance criteria
a) Final trim and prior to sealing	Pavement is prepared to design levels and thickness, has reached compaction and has been rolled with a smooth drum roller to develop a smooth finish, pavement has been swept and is ready for sealing. Note: Sweeping shall extend at least 300mm beyond each stage
b) As sealing is being undertaken	Works undertaken in accordance with approved seal design and AUS-SPEC C244
c) Once loose/excess stone and any debris or sediment etc has been broomed clear from road surface.	
Conformance required	**Acceptance criteria**
Ball penetration test (AGPT08-09)	>2mm (to prevent seal flushing) < 4mm should not be sealed

Open Drains and Drainage Structures (AUS-SPEC C224)

Works/activities undertaken to be undertaken in accordance with approved construction drawings, and specifications listed herein.

Construction of table-drains and table-drain outlet energy dissipation device(s) in accordance with design plans;

- Preparation of the foundation material, to conform to shape of table-drains in accordance with approved plans, and compaction requirement in accordance with C224.
- Integrating the energy dissipation measures for the table drains outlet at Farrer Street
- Revegetation of unlined drains immediately after the drains are complete in accordance with the AUS-SPEC C273- Landscaping

Inspections required	**Acceptance criteria**
a) Preparation of foundation material, to design levels and required finishing.	Visual check, adherence to design drawings
b) Preparation and installation of energy dissipation measures	Visual check, adherence to design drawings
Conformance required	**Acceptance criteria**
Compaction test a) Foundation,	Foundation achieves minimum compaction required under SWC pavement course to which is placed >95% (standard compaction), (Backfill placed in layers ≤150mm)
Conformance Survey a) Levels, dimensions/hydraulic area of table drain	In accordance with approved plans, provide in relation to road formation.

Pipe Drainage (AUS-SPEC C221)

Works/activities undertaken to be undertaken in accordance with approved construction drawings, and specifications listed herein.

Supply and installation of pipe culverts and associated device(s) in accordance with design plans;

- Supply of precast reinforced concrete pipes to comply with AS4058, class and size shall be in accordance with approved construction drawings.
- Preparation of bed zone and haunch zone to adequately bed pipes, in accordance with pipe support conditions.
- Excavation and backfilling of culverts

Inspections required	Acceptance criteria
a) Preparation of bed zone to nominated compaction C221 and trench excavated to appropriate width.	Visual check, adherence to design drawings
b) Pipe installed in accordance with pipe support conditions(C221) and adequately haunched.	Visual check, adherence to design drawings
Conformance required	**Acceptance criteria**
Compaction test a) Bedding material compacted to Minimum Relative Compaction based on pipe support type.	In accordance with Table C221.3 Bedding material compaction requirements (Backfill placed in layers ≤150mm)
Conformance Survey b) Levels, horizontal and vertical alignment	Culverts shall be installed within 10mm of the grade line and within 10mm of the horizontal alignment specified in the drawings In accordance with approved plans, provide in relation to road formation.

<table>
<tr><th colspan="2">Final</th></tr>
<tr><td colspan="2">Works/activities undertaken to be undertaken in accordance with approved construction drawings, and specifications listed herein</td></tr>
<tr><td colspan="2">• The practical completion of all works that have been constructed in accordance with Subdivision Works certificate.
• All items have been completed in accordance with approved plan set and to Parkes Shire Councils minimum standards.</td></tr>
<tr><th>Inspections required</th><th>Acceptance criteria</th></tr>
<tr><td>1) Roadworks
a) Roads are swept, clean and free of any sedimentation
b) Any damage that has occurred post roadworks has been rectified.
c) Line marking has been completed in accordance with SWC

2) Stormwater
a) All pipelines and pits are clean and free of sedimentation, rubbish etc.</td><td>Visual inspection

Visual inspection</td></tr>
<tr><th>Conformance required</th><th>Acceptance criteria</th></tr>
<tr><td>1) Works-as-Executed of all infrastructure constructed or augmented in accordance with Approved construction plans.

a) All items to have as constructed levels and the variance from design levels (showing out of spec items in red)

b) Each Infrastructure asset grouping (e.g. stormwater) must be on its own drawing, with contours.

2) All Compliance Certificates must have been issued prior to issue of final compliance certificate.</td><td>• Top, Bottom and invert levels of all drainage pits at entrance and exit, in tabular form.

• location, class, size, and material of all pipes and subsoil lines;
• location and diameter of service conduits;
• Pavement thickness as constructed; verified with survey data collected at each constructed level of pavement course.
• road centreline and kerb levels at all TPs, crests, sags, end of construction, and at 25 metre intervals on straights

• footway widths at all TPs, centre of curves, and at each end of construction;
• location of kerb laybacks and vehicular driveways(if applicable);
• Any departure from approved plans, and additional work undertaken;</td></tr>
</table>

PARKES It all adds up.

APPLICATION TO OCCUPY FOOTPATH & PUBLIC STREET

ROADS ACT 1993 – Section 138 Approval

I Enel Green Power Australia
(Company Name)

of C/- Premise: Suite 3, Level 1, 60-62 McNamara Street, Orange, NSW, 2800
(Company Address)

Phone: 02 6393 5000 Mobile: 0437 621 057

hereby apply to: **PARTIALLY CLOSE** ☑ **ROAD** ☑

CLOSE ☐ **FOOTPATH** ☐

Mcgrath Lane and Back Trundle Road
(Name of Street or Lane)

Location McGrath Lane: 100m north of Henry Parkes Way, 100 south of Back Trundle Road, 100m we
(Describe section / location of public street to be occupied)

From: _____ _____ to _____ _____
(Date) (Day) (Date) (Day)

Description of Works

Road upgrades and property accesses associated with the approved Quorn park solar farm

(Indicate nature of work and if day or night time works)

WorkCover Requirements: I have been in contact with WorkCover and am aware of, and will comply, with their requirements.		☐
Adjoining Properties: (I have contacted adjoining /affected property owners / occupiers and they have no objection to the occupation proposed).		☐
Dial Before You Dig: Dial Before You Dig have been contacted (1100) and their reply notification received.		☐
Council Infrastructure (Water / Sewer): Parkes Shire Council have located water and sewer pipes.		☐
Evidence of current public liability insurance	Attached	☐
Traffic Management and Pedestrian Safety Plan. (In accordance with AS1742.3).	Attached	☐

The approved plans **must** be available for inspection at request by Council staff on site.

Applicants Signature: Mauricio Moya Digitally signed by Mauricio Moya Date: 2024.06.06 12:42:00 +10'00' Date: _____

Please note conditions over page.

Office Use Only

APPROVED / NOT APPROVED

Signature of Approving Officer: _____ Date: / /

2 Cecile Street I PO Box 337 I PARKES NSW 2870
PH (61) 02 6861 2333 | FAX (61) 02 6862 3946
EMAIL council@parkes.nsw.gov.au I WEBSITE www.parkes.nsw.gov.au

Annexure C - Insurance

To be Provided Prior to Commencement of Works

Annexure D - TCP and Site Plan

To be Provided Prior to Commencement of Works

Annexure E - Construction Plans

QUORN PARK SOLAR FARM
INTERSECTION AND ACCESS POINT UPGRADES, PARKES, NSW
ENEL GREEN POWER AUSTRALIA
CIVIL DESIGN

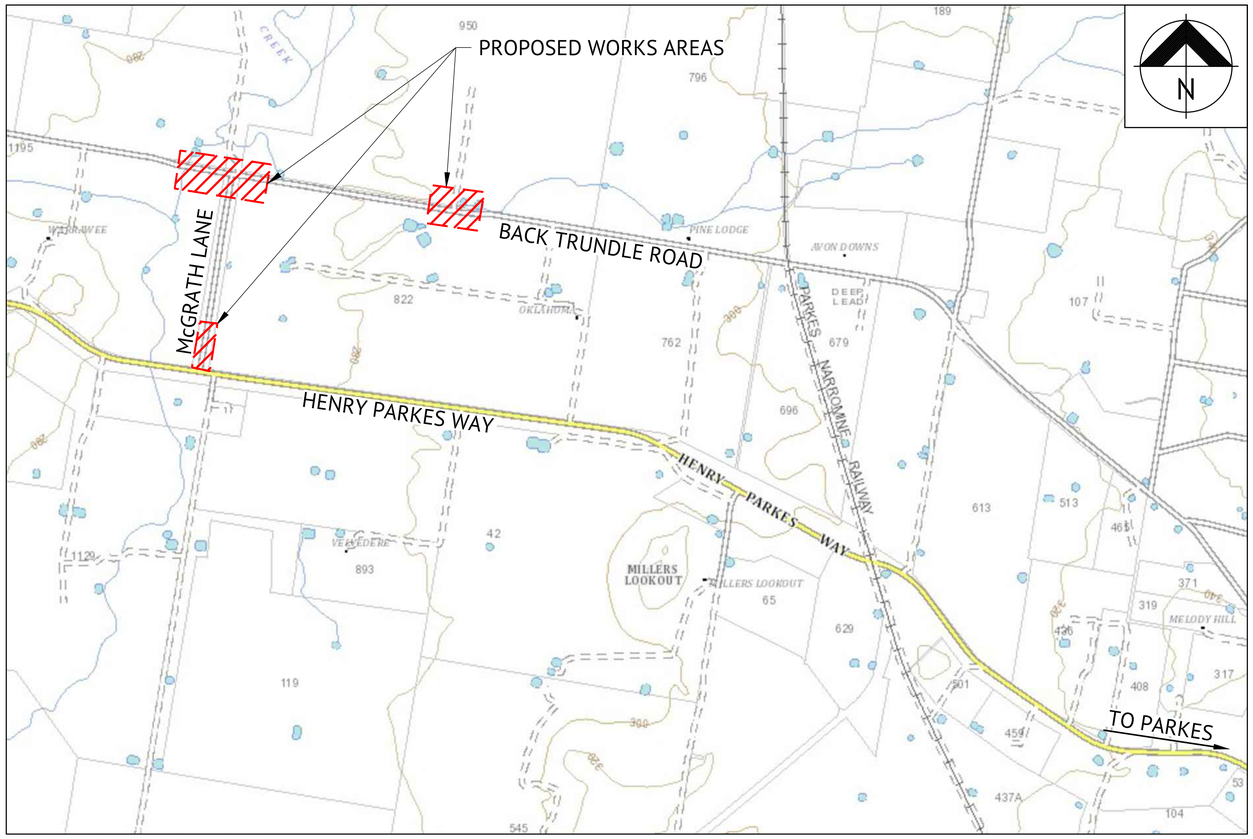


IMAGE SOURCE: MAPS.SIX.NSW.GOV.AU (2024)

LOCALITY PLAN

NTS

DRAWING SCHEDULE	
DRAWING NO.	DRAWING TITLE
C001	COVER SHEET, LOCALITY PLAN AND DRAWING LIST
C002	SITE LAYOUT PLAN
C011	TYPICAL NOTES AND DETAILS
	McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
C101	ENGINEERING PLAN - SHEET 1
C102	ENGINEERING PLAN - SHEET 2
C103	ENGINEERING PLAN - SHEET 3
C121	TYPICAL CROSS SECTIONS
C131	ROAD LONGITUDINAL SECTIONS
C141	ROAD CROSS SECTIONS - McGRATH LANE - SHEET 1
C142	ROAD CROSS SECTIONS - McGRATH LANE - SHEET 2
C143	ROAD CROSS SECTIONS - McGRATH LANE - SHEET 3
C144	ROAD CROSS SECTIONS - BACK TRUNDLE ROAD - SHEET 1
C145	ROAD CROSS SECTIONS - BACK TRUNDLE ROAD - SHEET 2
C151	PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 1
C152	PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 2
C153	PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 3
C191	VEHICLE TRACKING - 19m PRIME MOVER AND SEMI TRAILER
C192	VEHICLE TRACKING - OVERSIZE 8x8 WITH 2x8 - SHEET 1
C193	VEHICLE TRACKING - OVERSIZE 8x8 WITH 2x8 - SHEET 2
	McGRATH LANE EXTENSION FROM HENRY PARKES WAY
C201	ENGINEERING PLAN
C221	TYPICAL CROSS SECTIONS
C231	ROAD LONGITUDINAL SECTION
C241	ROAD CROSS SECTIONS - SHEET 1
C242	ROAD CROSS SECTIONS - SHEET 2
C243	ROAD CROSS SECTIONS - SHEET 3
C251	PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN
	QUORN PARK PROPERTY ACCESS
C301	ENGINEERING PLAN
C321	TYPICAL CROSS SECTIONS
C331	ROAD LONGITUDINAL SECTIONS
C341	ROAD CROSS SECTIONS - BLACK TRUNDLE ROAD
C342	ROAD CROSS SECTIONS - PROPERTY ACCESS
C351	PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN
C371	DRAINAGE LONGITUDINAL SECTIONS
C391	VEHICLE TRACKING - 19m PRIME MOVER AND SEMI TRAILER
C392	VEHICLE TRACKING - OVERSIZE 8x8 WITH 2x8

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PRELIMINARY - NOT FOR CONSTRUCTION

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21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
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03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

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WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER
SCALE
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK SOLAR FARM, PARKES NSW
SHEET TITLE COVER SHEET, LOCALITY PLAN AND DRAWING LIST

JOB CODE 223076_02
SHEET NUMBER C001
REV 4

IMAGE SOURCES:
NEARMAP 2024
SIXMAPS 2024

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CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 80 160 240m
SCALE 1:4000 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK SOLAR FARM, PARKES NSW
SHEET TITLE SITE LAYOUT PLAN

JOB CODE 223076_02
SHEET NUMBER C002
REV 4

GENERAL CONSTRUCTION NOTES:

1. PARKES SHIRE COUNCIL ARE TO BE NOTIFIED 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORKS.

2. ALL SERVICES SHOWN ON THIS PLAN HAVE BEEN PREPARED FROM A COMBINATION OF FIELD SURVEY & EXISTING RECORDS PROVIDED BY SERVICE AUTHORITIES HOWEVER ALL RELEVANT AUTHORITIES MUST BE CONTACTED & SERVICE LOCATIONS CHECKED PRIOR TO WORK COMMENCING. THE CONTRACTOR IS TO ADEQUATELY INFORM THEMSELVES AS TO THE DEPTH AND LOCATION OF ALL EXISTING & PROPOSED SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION.

3. ANY WORK TO EXISTING SERVICES THAT REQUIRE RELOCATION BY AUTHORITIES SHALL BE CARRIED OUT BY THE RELEVANT AUTHORITY BUT WITHIN THE TERMS OF THE CONTRACT AND SHALL BE CO-ORDINATED BY THE CONTRACTOR.

4. TRAFFIC & PEDESTRIAN CONTROL MEASURES ARE TO BE IN PLACE DURING ALL CONSTRUCTION WORKS. TRAFFIC CONTROL PLANS ARE TO BE PREPARED BY A CERTIFIED & APPROVED PERSON IN ACCORDANCE WITH AS1742.3-2009 & THE RMS "TRAFFIC CONTROL AT WORK SITES" - 2010.

5. THE CONTRACTOR SHALL REINSTATE ANY GRASSED AREAS OR TABLE DRAINS AFFECTED DURING CONSTRUCTION.

6. ALL CONSTRUCTION WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATION FOR THE WORKS IN ACCORDANCE WITH THE REQUIREMENTS OF PARKES SHIRE COUNCIL.

7. EROSION AND SEDIMENT CONTROL TO BE COMPLETED IN ACCORDANCE WITH ESC.

8. TOPSOIL TO BE EXCAVATED TO EXPOSE SUBGRADE & STOCKPILED. THE SUBGRADE (OR PROPOSED FILL AREAS) SHALL BE STRIPPED OF ALL SOFT, ORGANIC OR MOISTURE AFFECTED MATERIALS AND SHALL BE ROLLED AND COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 98% RELATIVE TO STANDARD COMPACTION AT A MOISTURE RATIO OF 60-90% OF THE OPTIMUM MOISTURE CONTENT.

9. THE PAVEMENT BASE, SUB BASE & SELECT MATERIALS SHOULD BE COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 102% RELATIVE TO STANDARD COMPACTION AT A MOISTURE RATIO OF 60-90% OF THE OPTIMUM MOISTURE CONTENT. THE SUBGRADE AND GENERAL FILL SHOULD BE COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 98% RELATIVE TO STANDARD COMPACTION AT A MOISTURE RATIO OF 60-90% OF THE OPTIMUM MOISTURE CONTENT.

10. CONSTRUCTION WORK SHALL ONLY BE CARRIED OUT WITHIN THE FOLLOWING TIMES:-
    *MONDAY TO FRIDAY 7.00 am TO 6.00 pm
    *SATURDAY 7.00 am TO 1.00 pm
    (IF INAUDIBLE ON RESIDENTIAL PREMISES)
    *OTHER WISE 8.00 am TO 1.00 pm
    THE ABOVE RESTRICTIONS MAY BE SUBJECT TO REVIEW AND VARIATION BY PARKES SHIRE COUNCIL UPON AN ASSESSMENT OF THE LEVEL OF ANNOYANCE, IF ANY, THAT MAY ARISE.

11. DURING SUNDAY AND PUBLIC HOLIDAYS, NO CONSTRUCTION WORK PERMITTED

12. ALL LEVELS ARE IN AUSTRALIAN HEIGHT DATUM.

13. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCY SHALL BE REFERRED TO THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.

14. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS. UNLESS NOTED OTHERWISE, ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE.

15. PARKES SHIRE COUNCIL'S REPRESENTATIVE TO BE NOTIFIED OF ANY WATER IN THE EXCAVATIONS.

16. THE RECTIFICATION OF ALL MATTERS ARISING FROM INSUFFICIENT INFORMATION BEING SHOWN ON THE APPROVED ENGINEERING PLANS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATION FOR THE WORKS AND TO THE REQUIREMENTS OF PARKES SHIRE COUNCIL'S ENGINEER.

17. WRITTEN CONSENT SHALL BE SUBMITTED TO PARKES SHIRE COUNCIL FROM THE OWNERS OF ANY ADJOINING PROPERTY PRIOR TO ANY PHYSICAL INTERFERENCE WITH THAT PROPERTY AS A RESULT OF THE REQUIRED CONSTRUCTION.

18. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY BREACHES OF THE CLEAN WATERS ACT 1970.

NOTES FOR COUNCIL:

ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH, BUT NOT LIMITED TO, THE VARIOUS PARKES SHIRE COUNCIL'S AUS-SPEC#1 CONSTRUCTION SPECIFICATIONS OUTLINED BELOW:

C101	GENERAL
C201	CONTROL OF TRAFFIC
C211	CONTROL OF EROSION & SEDIMENTATION
C212	CLEARING & GRUBBING
C213	EARTHWORKS
C220	STORMWATER DRAINAGE
C221	PIPED DRAINAGE
C222	PRECAST BOX CULVERTS
C223	DRAINAGE STRUCTURES
C230	SUBSURFACE DRAINAGE GENERAL
C231	SUBSURFACE & FOUNDATION DRAINS
C232	PAVEMENT DRAINS
C241	STABILISATION
C242	FLEXIBLE PAVEMENTS
C244	SPRAYED BITUMINOUS SURFACING
C261	PAVEMENT MARKINGS
C262	SIGNPOSTING
C263	GUIDEPOSTS

BUS STOP NOTE:

LIAISON SHALL BE CARRIED OUT BETWEEN THE PROPERTY OWNERS AND THE SCHOOL BUS COMPANY TO DETERMINE A TEMPORARY LOCATION FOR THE PICK UP AND DROP OFF OF THE SCHOOL STUDENTS THAT IS SATISFACTORY TO BOTH

PRELIMINARY - NOT FOR CONSTRUCTION

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03/05/2023	1	ISSUED FOR APPROVAL		

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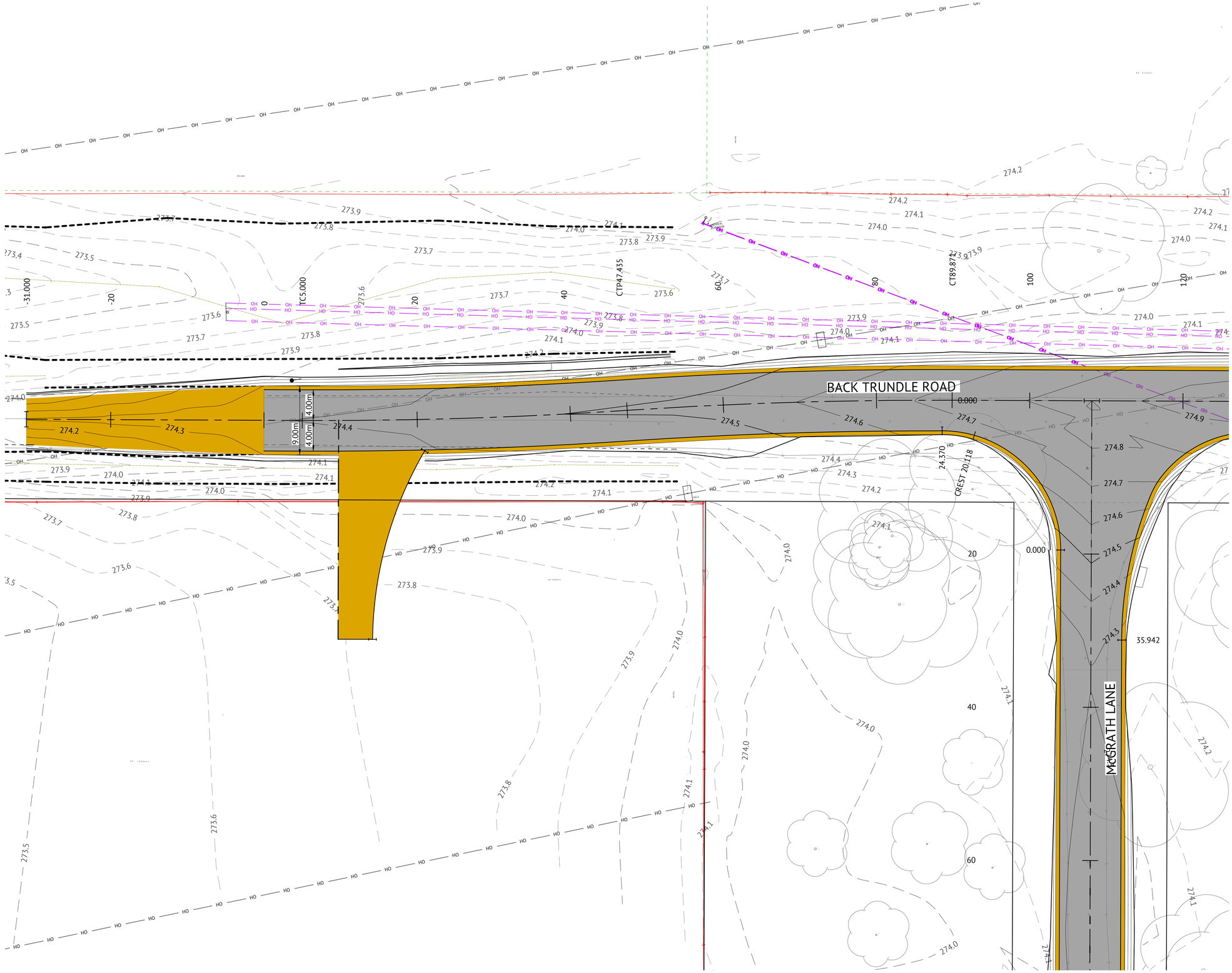
WEB: www.premise.com.au

DESIGNED: R. DURHAM
CHECKED: S. HOYNES
PROJECT MANAGER: D. WALKER
SCALE: NTS
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: QUORN PARK SOLAR FARM, PARKES NSW
SHEET TITLE: TYPICAL NOTES AND DETAILS

JOB CODE: 223076_02
SHEET NUMBER: C011
REV: 4



LEGEND - PROPOSED

- 2 COAT BITUMEN SEAL PAVEMENT
- GRAVEL PAVEMENT

LEGEND - EXISTING

- 12.0 — MAJOR CONTOURS (0.20m)
- MINOR CONTOURS (0.10m)
- ROAD
- FENCE
- OH — ELECTRICAL OVERHEAD
- PP — POWER POLE
- TREE
- SIGN

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PRELIMINARY - NOT FOR CONSTRUCTION

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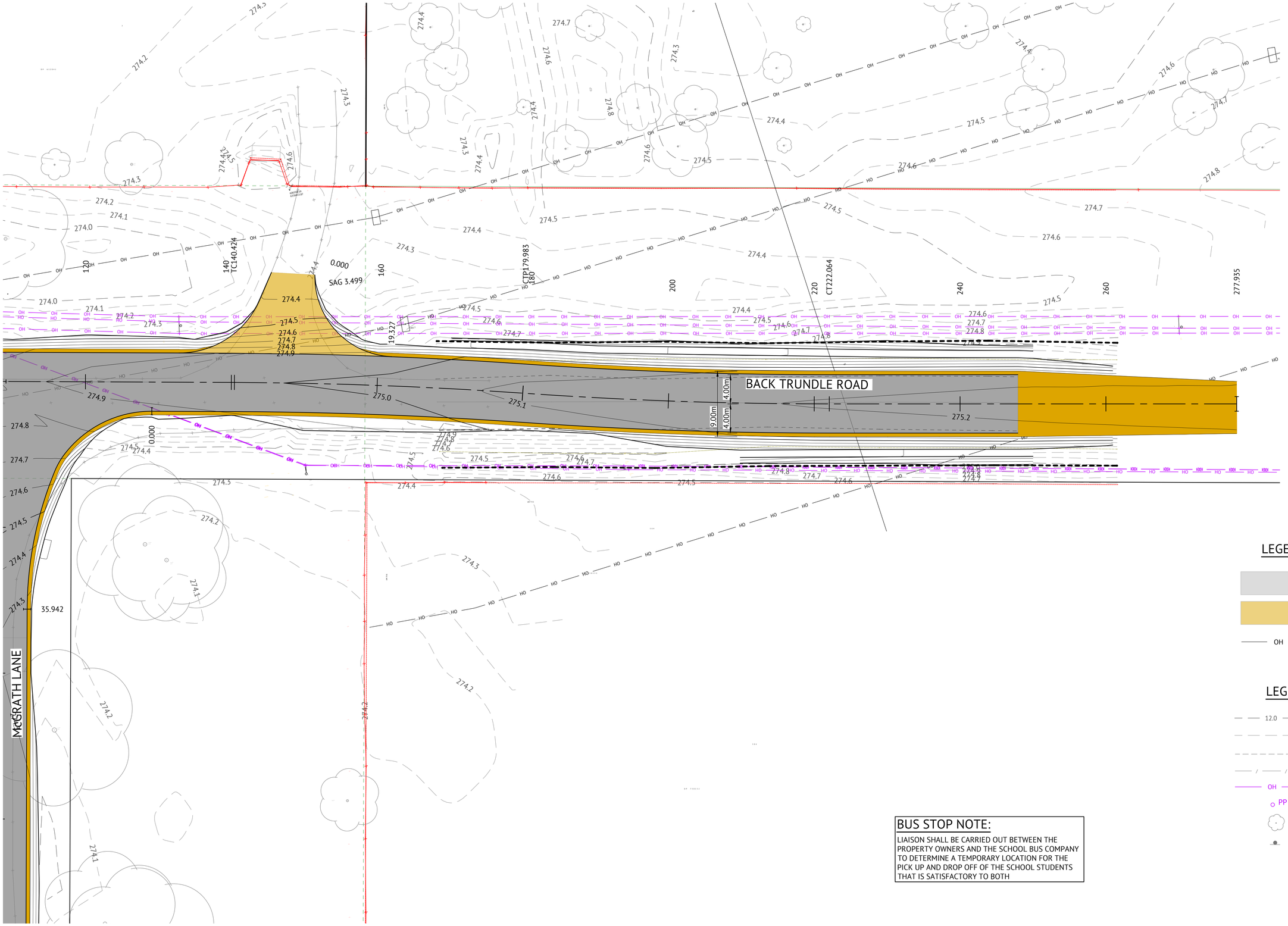
PROJECT MANAGER: D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: ENGINEERING PLAN - SHEET 1

JOB CODE: 223076_02
SHEET NUMBER: C101
REV: 4



LEGEND - PROPOSED

- 2 COAT BITUMEN SEAL PAVEMENT
- GRAVEL PAVEMENT
- OH — ELECTRICAL

LEGEND - EXISTING

- 12.0 — MAJOR CONTOURS (0.20m)
- MINOR CONTOURS (0.10m)
- ROAD
- FENCE
- OH — ELECTRICAL OVERHEAD
- PP — POWER POLE
- TREE
- SIGN

BUS STOP NOTE:

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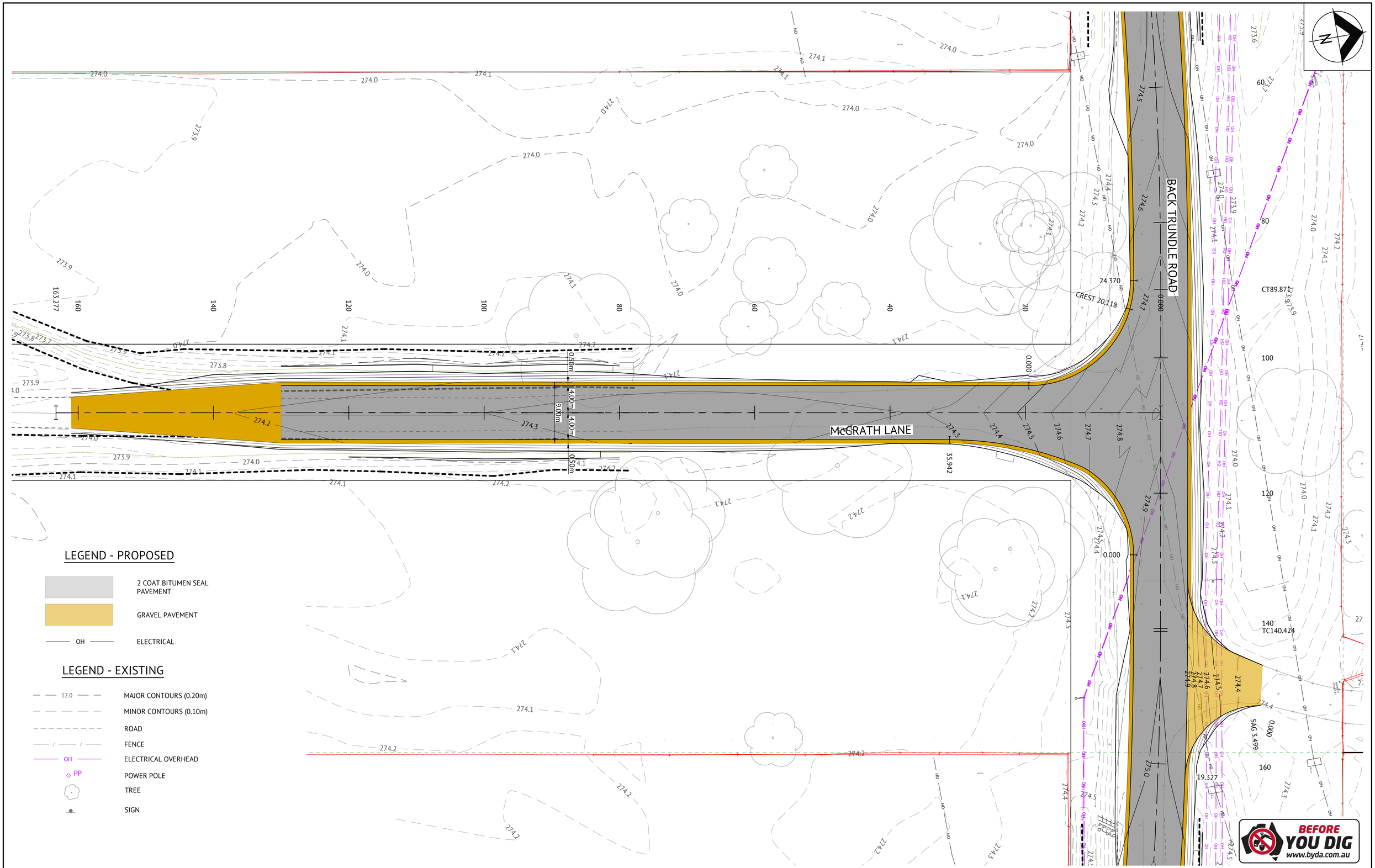
DESIGNED: R. DURHAM
CHECKED: S. HOYNES
PROJECT MANAGER: D. WALKER

SCALE: 0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: ENGINEERING PLAN - SHEET 2

JOB CODE: 223076_02
SHEET NUMBER: C102
REV: 4



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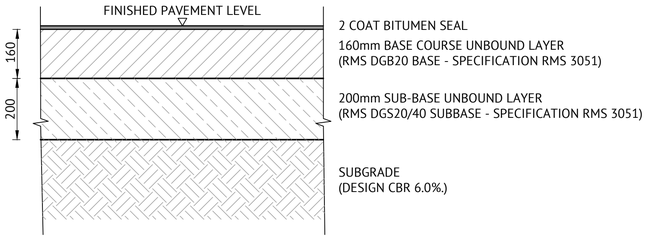
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ENGINEERING PLAN - SHEET 3

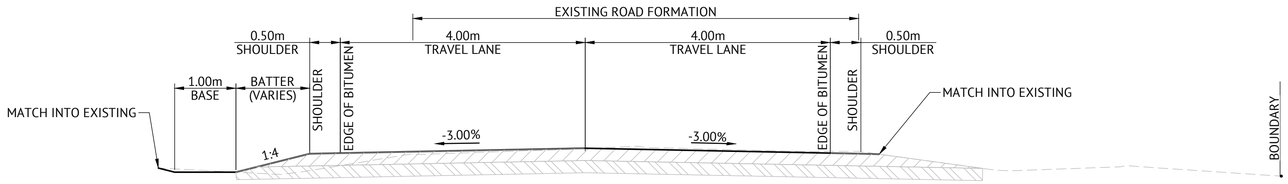
JOB CODE 223076_02
SHEET NUMBER C103
REV 4



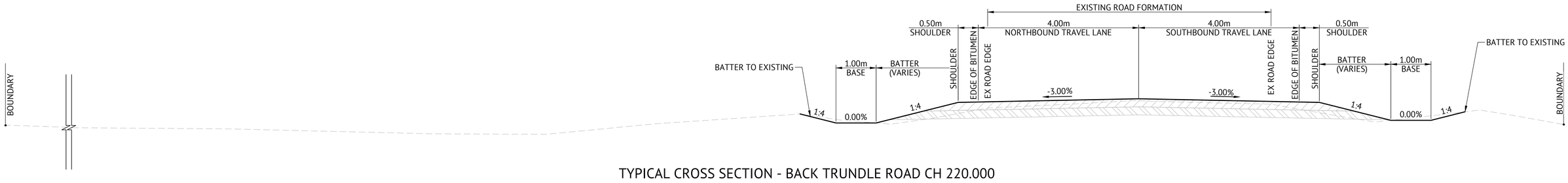
PAVEMENT DETAIL
NTS

NOTES:

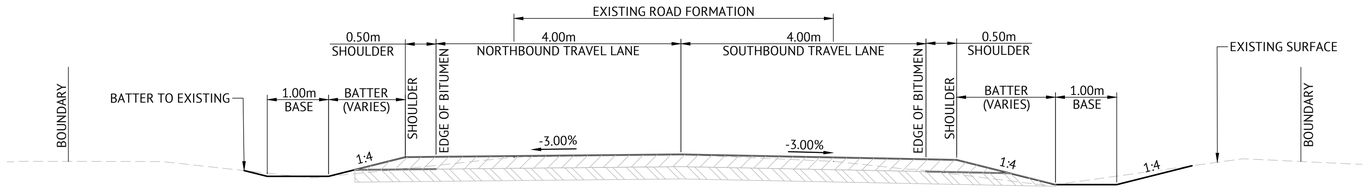
PAVEMENT DESIGN IN ACCORDANCE WITH THE MACQUARIE GEOTECH REPORT G23907-1 DATED 29 APRIL 2024.



TYPICAL CROSS SECTION - BACK TRUNDLE ROAD CH 40.000
SCALE 1:50



TYPICAL CROSS SECTION - BACK TRUNDLE ROAD CH 220.000
SCALE 1:50



TYPICAL CROSS SECTION - McGRATH LANE NORTH CH 90
SCALE 1:50

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DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 1 2 3m
SCALE 1:50 (A1)
ORIGINAL SHEET SIZE A1

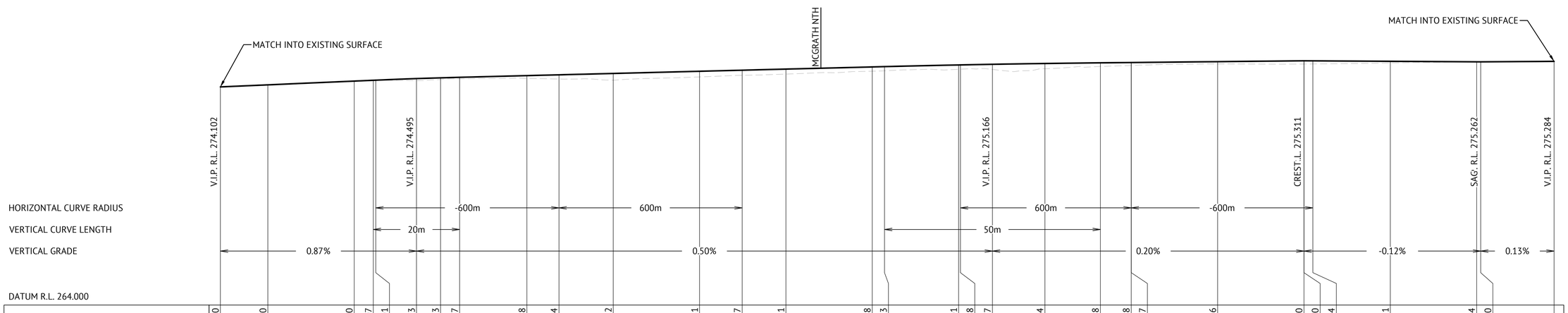
CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: TYPICAL CROSS SECTIONS

JOB CODE 223076_02
SHEET NUMBER C121
REV 4

CUT/FILL	0.204	0.078	0.082	0.120	0.087	0.085	0.085	0.079	0.142	0.189	0.195	0.130	0.110	0.087	0.062	0.048	0.006	0.000					
FINISHED SURFACE LEVEL	274.966	274.566	274.518	274.394	274.373	274.380	274.381	274.420	274.462	274.474	274.474	274.466	274.434	274.394	274.311	274.228	274.145	274.131					
NATURAL SURFACE LEVEL	274.762	274.488	274.436	274.274	274.286	274.295	274.296	274.341	274.320	274.285	274.279	274.336	274.324	274.308	274.249	274.181	274.139	274.131					
CHAINAGE	0.000	20.000	22.407	31.407	36.913	40.000	40.407	48.429	60.000	69.429	70.979	80.000	90.429	100.000	120.000	140.000	160.000	163.277					

LONGITUDINAL SECTION - MCGRATH NTH

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



CUT/FILL	0.000	0.000	-0.020	-0.007	-0.001	0.093	0.073	0.067	0.128	0.194	0.312	0.261	0.237	0.231	0.198	0.193	0.201	0.198	0.237	0.244	0.168	0.138	0.137	0.106	0.150	0.150	0.144	0.081	0.004	0.000					
FINISHED SURFACE LEVEL	274.102	274.197	274.370	274.408	274.413	274.486	274.521	274.545	274.624	274.661	274.724	274.825	274.875	274.925	275.026	275.040	275.118	275.119	275.147	275.186	275.216	275.230	275.230	275.270	275.310	275.311	275.308	275.287	275.263	275.262	275.284				
NATURAL SURFACE LEVEL	274.102	274.197	274.390	274.415	274.414	274.393	274.448	274.479	274.495	274.467	274.413	274.564	274.638	274.695	274.828	274.847	274.917	274.921	274.910	274.941	275.048	275.093	275.093	275.164	275.161	275.161	275.164	275.206	275.260	275.262					
CHAINAGE	-31.000	-20.000	0.000	4.420	5.000	14.420	20.000	24.420	40.000	47.435	60.000	80.000	89.871	100.000	120.000	122.858	140.000	140.424	147.838	160.000	172.838	179.983	180.000	200.000	220.000	220.002	222.064	240.000	260.000	260.935	277.935				

LONGITUDINAL SECTION - BACK TRUNDLE WEST

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

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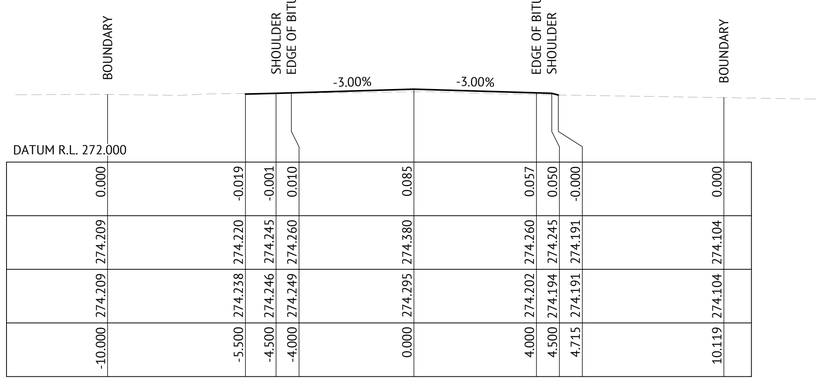
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

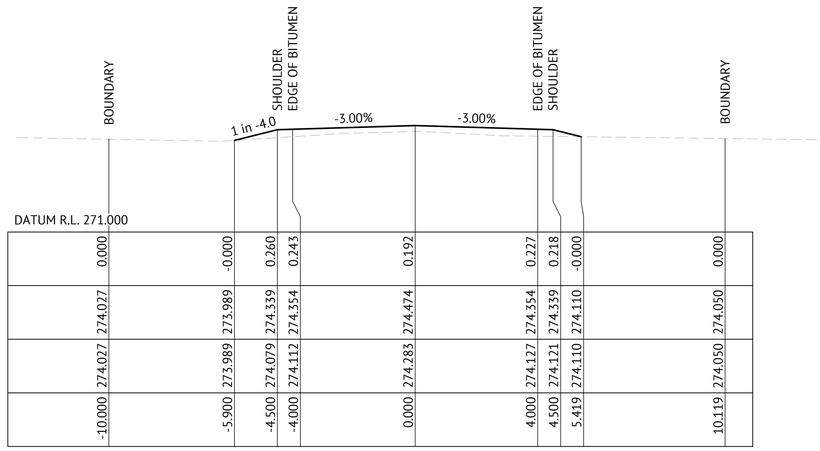
SCALE
HORIZONTAL 1:500 (A1)
0 10 20 30m
VERTICAL 1:100 (A1)
0 2 4 6m
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ROAD LONGITUDINAL SECTIONS

JOB CODE 223076_02
SHEET NUMBER C131
REV 4



CH 40.000



CH 70.000

CH 30.000

CH 60.000

CH 20.000

CH 50.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

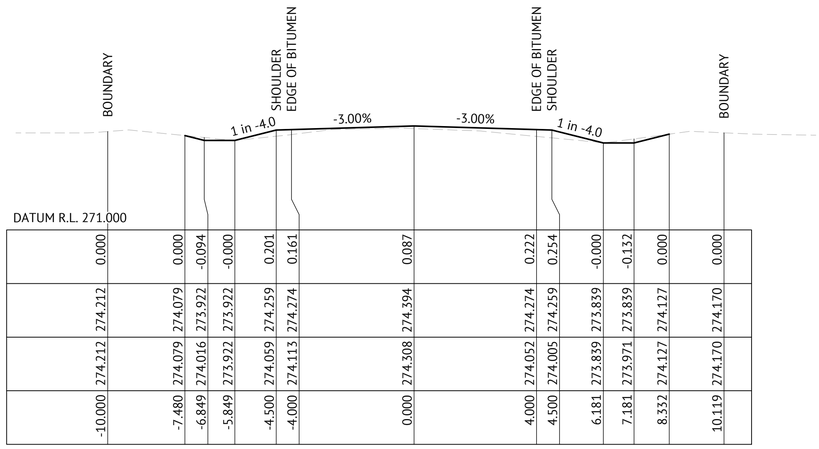
Premise
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE 0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ROAD CROSS SECTIONS - McGRATH LANE - SHEET 1

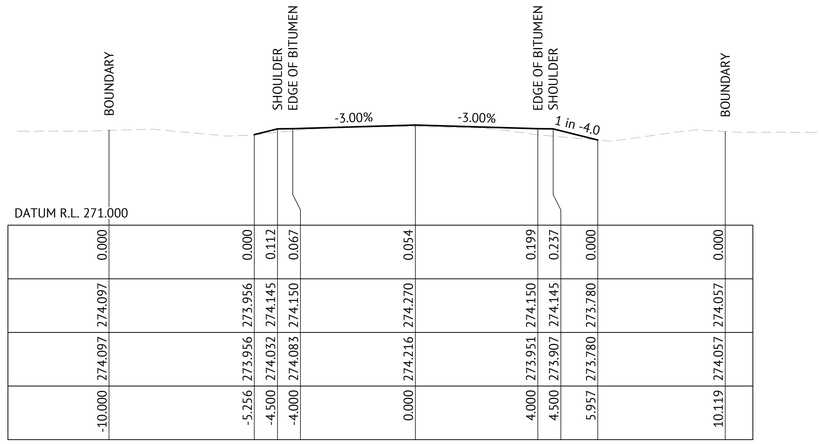
JOB CODE 223076_02
SHEET NUMBER C141
REV 4



DATUM R.L. 271.000

0.000		0.000	-0.094	-0.000	0.201	0.161		0.087		0.222	0.254	-0.000	-0.132	0.000	0.000
274.212		274.079	273.922	273.922	274.259	274.274		274.394		274.274	274.259	273.839	273.839	274.127	274.170
274.212		274.079	274.016	273.922	274.059	274.113		274.308		274.052	274.005	273.839	273.971	274.127	274.170
-10.000		-7.480	-6.849	-5.849	-4.500	-4.000		0.000		4.000	4.500	6.181	7.181	8.332	10.119

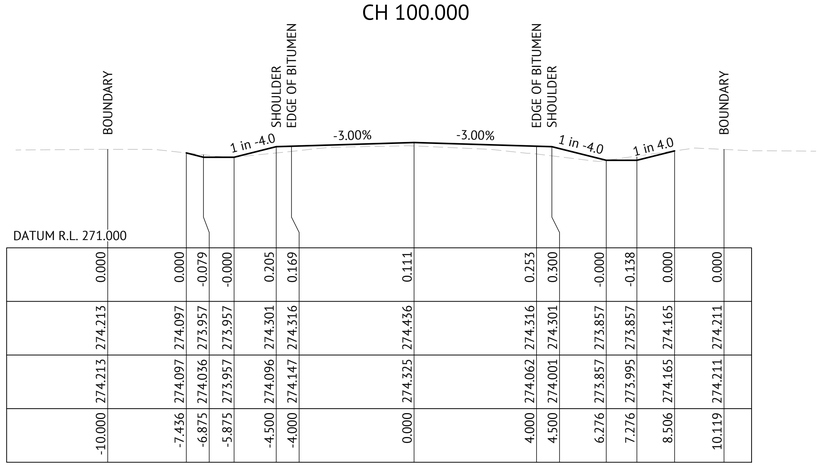
CH 100.000



DATUM R.L. 271.000

0.000		0.000	0.112	0.067		0.054		0.199	0.237	0.000		0.000		
274.097		274.097	273.956	274.145	274.150	274.270		274.150	274.145	273.780		274.057		
274.097		274.097	273.956	274.032	274.083	274.216		273.951	273.907	273.780		274.057		
-10.000		-5.256	-4.500	-4.000		0.000		4.000	4.500	5.957		10.119		

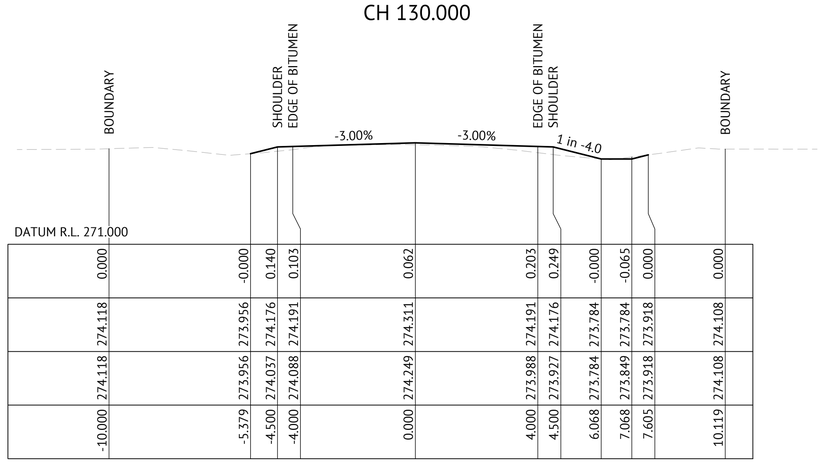
CH 130.000



DATUM R.L. 271.000

0.000		0.000	-0.079	-0.000	0.205	0.169		0.111		0.253	0.300	-0.000	-0.138	0.000	0.000
274.213		274.097	273.957	273.957	274.301	274.316		274.436		274.316	274.301	273.857	273.857	274.165	274.211
274.213		274.097	274.036	273.957	274.096	274.147		274.325		274.062	274.001	273.857	273.995	274.165	274.211
-10.000		-7.436	-6.875	-5.875	-4.500	-4.000		0.000		4.000	4.500	6.276	7.276	8.506	10.119

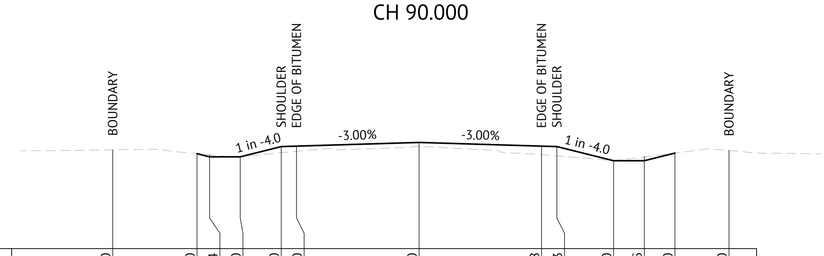
CH 90.000



DATUM R.L. 271.000

0.000		-0.000	0.140	0.103		0.062		0.203	0.249	-0.000	-0.065	0.000	0.000	
274.118		273.956	274.176	274.191		274.311		274.191	274.176	273.784	273.784	273.918	274.108	
274.118		273.956	274.037	274.088		274.249		273.988	273.927	273.784	273.849	273.918	274.108	
-10.000		-5.379	-4.500	-4.000		0.000		4.000	4.500	6.068	7.068	7.605	10.119	

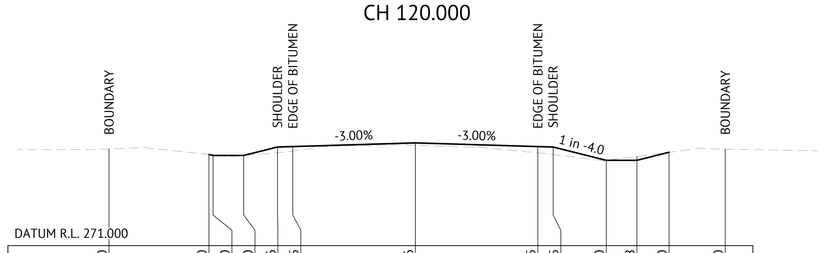
CH 120.000



DATUM R.L. 271.000

CUT/FILL	0.000		0.000	-0.064	-0.000	0.200	0.170	0.130		0.278	0.303	-0.000	-0.125	0.000	0.000
FINISHED SURFACE LEVEL	274.223		274.099	273.996	273.996	274.331	274.346	274.466		274.346	274.331	273.867	273.867	274.118	274.203
NATURAL SURFACE LEVEL	274.223		274.099	274.060	273.996	274.131	274.176	274.336		274.068	274.027	273.867	273.992	274.118	274.203
OFFSET	-10.000		-7.249	-6.838	-5.838	-4.500	-4.000	0.000		4.000	4.500	6.353	7.353	8.354	10.119

CH 80.000



DATUM R.L. 271.000

0.000		0.000	-0.020	-0.000	0.186	0.145		0.076		0.205	0.245	-0.000	-0.128	0.000	0.000
274.155		273.975	273.942	273.942	274.218	274.233		274.353		274.233	274.218	273.784	273.784	274.046	274.147
274.155		273.975	273.962	273.942	274.032	274.088		274.277		274.028	273.973	273.784	273.912	274.046	274.147
-10.000		-6.737	-6.603	-5.603	-4.500	-4.000		0.000		4.000	4.500	6.234	7.234	8.283	10.119

CH 110.000

PRELIMINARY - NOT FOR CONSTRUCTION

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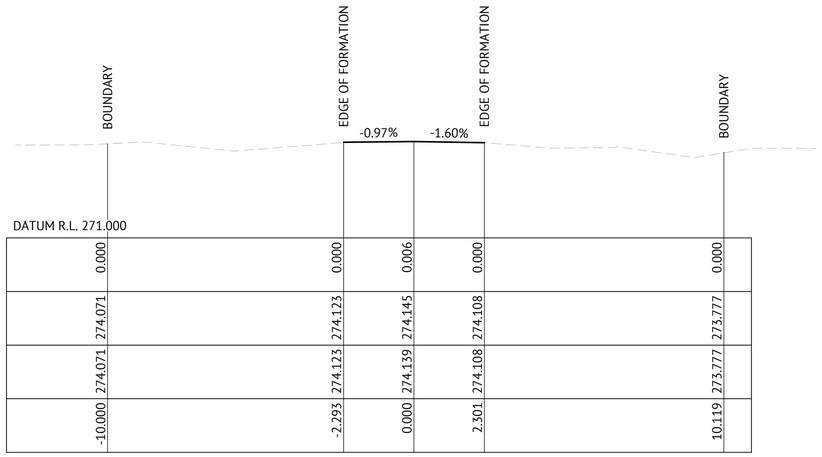
PROJECT MANAGER D. WALKER

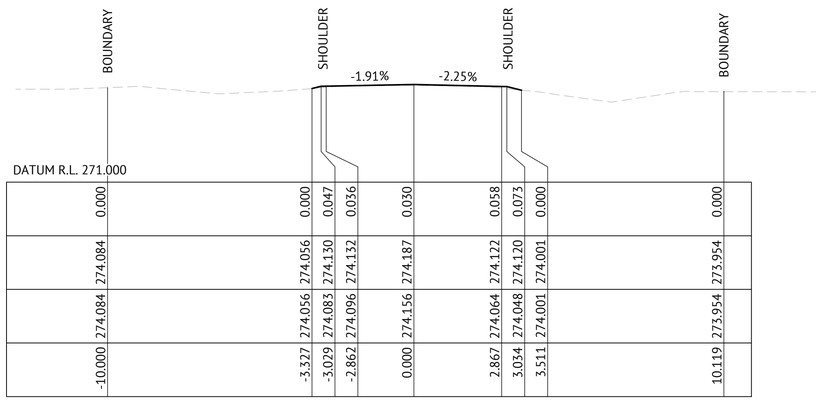
SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ROAD CROSS SECTIONS - McGRATH LANE - SHEET 2

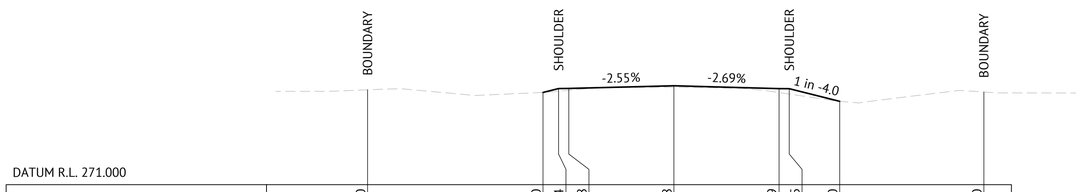
JOB CODE 223076_02
SHEET NUMBER C142
REV 4



CH 160.000



CH 150.000



CH 140.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
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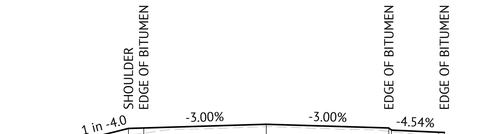
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

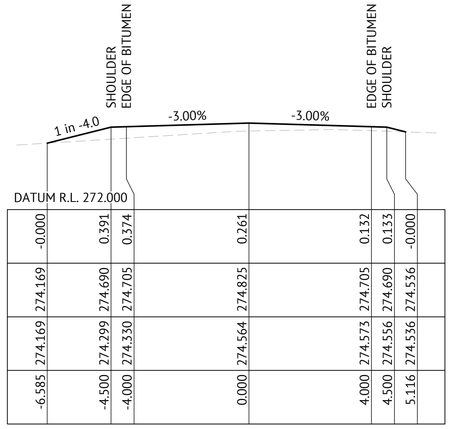
CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ROAD CROSS SECTIONS - McGRATH LANE - SHEET 3

JOB CODE 223076_02
SHEET NUMBER C143
REV 4



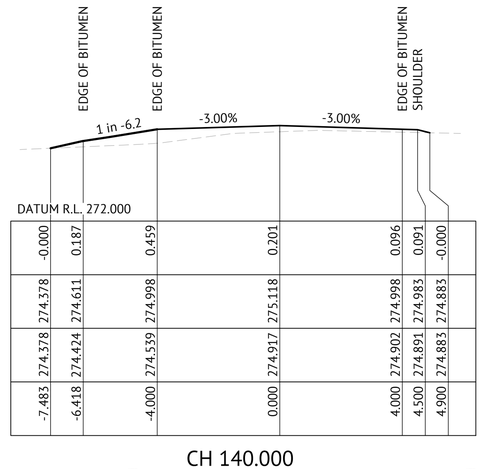
	0.000	-0.049	-0.000	0.229	0.172		0.073		0.111	0.050	0.147	0.160
	274.088	274.027	274.027	274.386	274.401		274.521		274.401	274.332	274.262	274.255
	274.088	274.076	274.027	274.158	274.229		274.448		274.291	274.281	274.115	274.096	274.813
-7.182	-6.938	-5.938	-4.500	-4.000		0.000		4.000	4.086	5.625	5.813

CH 20.000



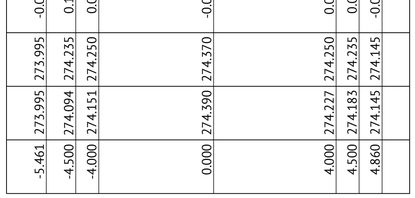
-0.000	0.391	0.374			0.261			0.132	0.133	-0.000
274.169	274.690	274.705			274.825			274.705	274.690	274.536
274.169	274.299	274.330			274.564			274.573	274.556	274.536
-6.585	-4.500	-4.000		0.000			4.000	4.500	5.116	

CH 80.000



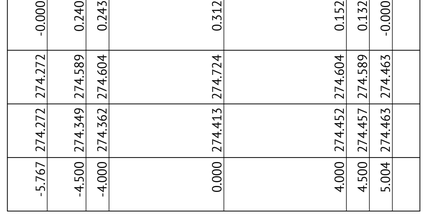
-0.000	0.187			0.459			0.201			0.096	0.091	-0.000
274.378	274.611			274.998			275.118			274.998	274.983	274.883
274.378	274.424			274.539			274.917			274.902	274.891	274.883
-7.483	-6.418		-4.000			0.000			4.000	4.500	4.900

CH 140.000



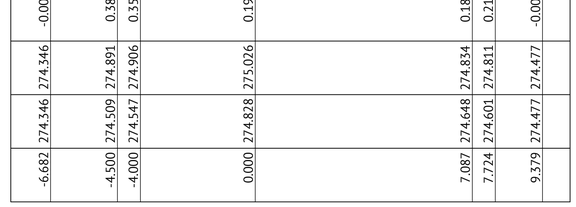
-0.000	0.141	0.099			-0.020			0.024	0.052	-0.000
273.995	274.235	274.250			274.370			274.250	274.235	274.145
273.995	274.094	274.151			274.390			274.227	274.183	274.145
-5.461	-4.500	-4.000		0.000			4.000	4.500	4.860	

CH 0.000



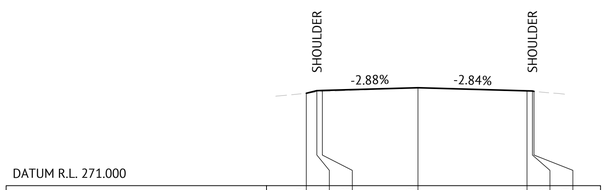
-0.000	0.240	0.243			0.312			0.152	0.132	-0.000
274.272	274.589	274.604			274.724			274.604	274.589	274.463
274.272	274.349	274.362			274.413			274.452	274.457	274.463
-5.767	-4.500	-4.000		0.000			4.000	4.500	5.004	

CH 60.000



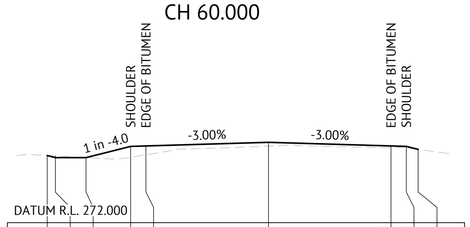
-0.000	0.382	0.359			0.198			0.186	0.210	-0.000
274.346	274.891	274.906			275.026			274.834	274.811	274.477
274.346	274.509	274.547			274.828			274.648	274.601	274.477
-6.682	-4.500	-4.000		0.000			7.087	7.724	9.379	

CH 120.000



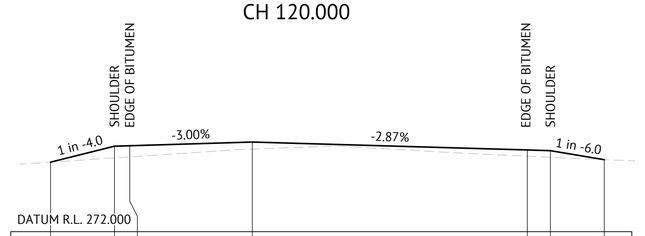
CUT/FILL	0.000	0.051	0.038	0.000			-0.003	0.008	0.000	
FINISHED SURFACE LEVEL	274.016	274.102	274.107	274.197			274.096	274.090	274.078	
NATURAL SURFACE LEVEL	274.016	274.051	274.069	274.197			274.099	274.082	274.078	
OFFSET	-3.644	-3.300	-3.123	0.000			3.560	3.737	3.788	

CH -20.000



0.000	-0.053	-0.000	0.353	0.286			0.128			0.054	0.044	-0.000
274.191	274.124	274.124	274.489	274.504			274.624			274.504	274.489	274.392
274.191	274.177	274.124	274.135	274.217			274.495			274.449	274.445	274.392
-7.223	-6.957	-5.957	-4.500	-4.000		0.000			4.000	4.500	4.887

CH 40.000



-0.000	0.383	0.365			0.231			0.205	0.215	0.000
274.269	274.790	274.805			274.925			274.668	274.644	274.350
274.269	274.408	274.441			274.695			274.463	274.428	274.350
-6.585	-4.500	-4.000		0.000			8.980	9.732	11.491

CH 100.000

PRELIMINARY - NOT FOR CONSTRUCTION

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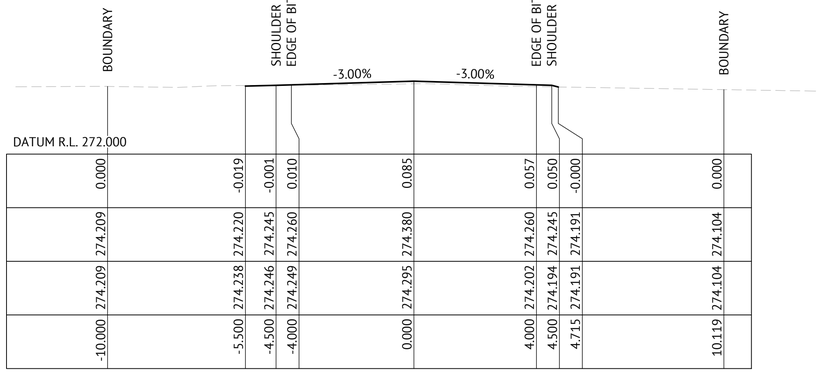
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

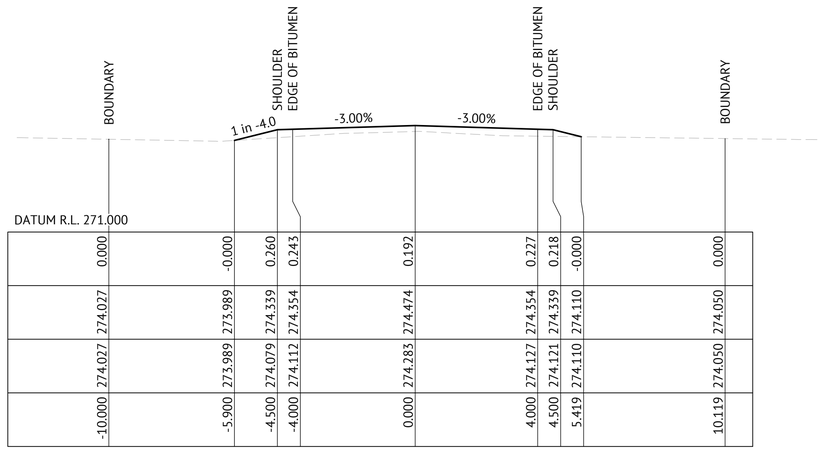
SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ROAD CROSS SECTIONS - BACK TRUNDLE ROAD - SHEET 1

JOB CODE 223076_02
SHEET NUMBER C144
REV 4



CH 40.000



CH 70.000

CH 30.000

CH 60.000

CH 20.000

CH 50.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
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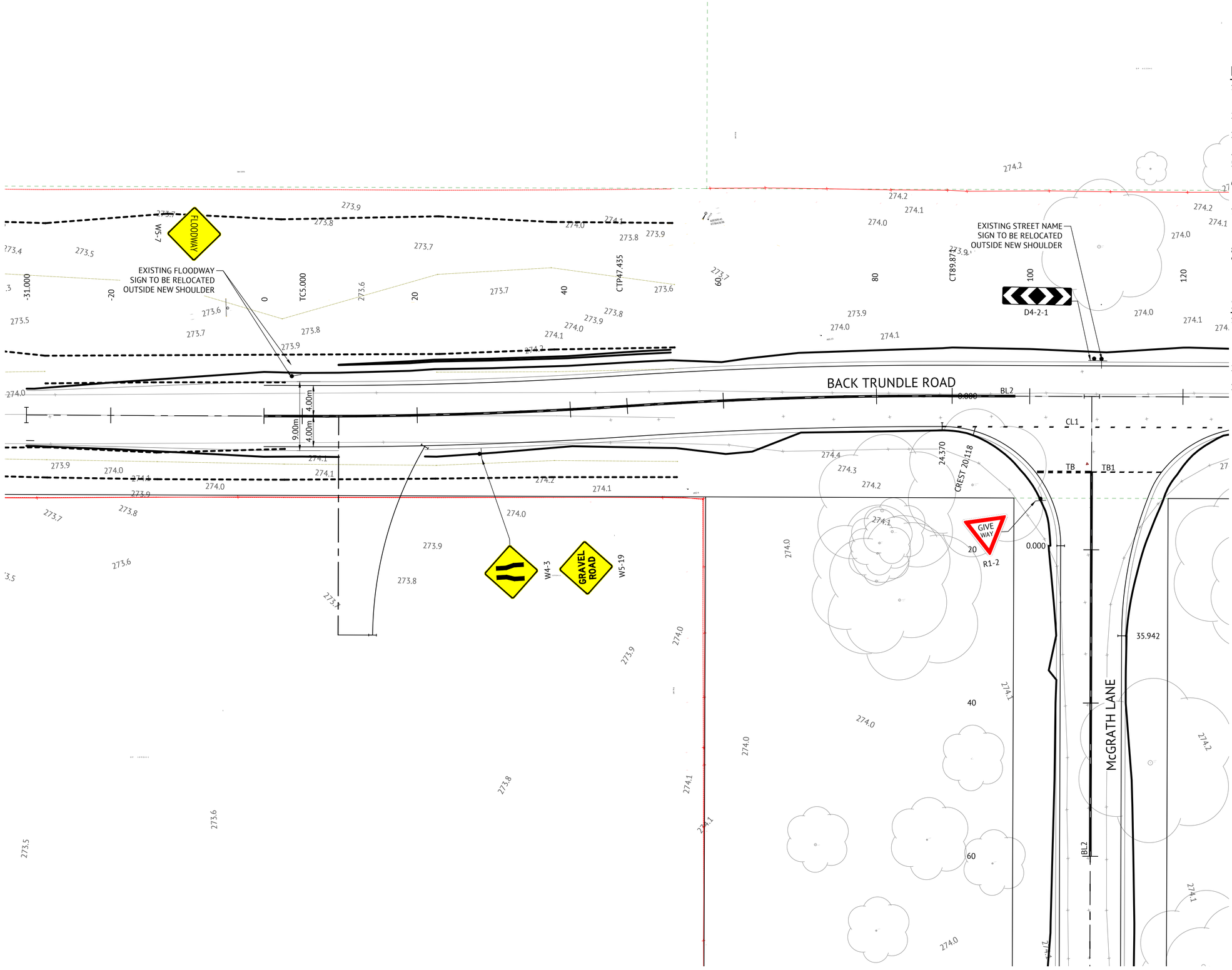
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE 0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE ROAD CROSS SECTIONS - BACK TRUNDLE ROAD - SHEET 2

JOB CODE 223076_02
SHEET NUMBER C145
REV 4



LINEMARKING NOTES

1. PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE SPECIFIC REQUIREMENTS OF TfNSW SPECIFICATIONS.
2. ALL INTERNAL LINE MARKING TO CONSIST OF LINES 100mm WIDE WITH 2 COATS OF PAINT TO MANUFACTURERS SPECIFICATIONS.
3. EXTENT OF LINEMARKING SHALL BE VERIFIED ON SITE PRIOR TO INSTALLATION.
4. ALL PAINTED MARKINGS SHALL BE APPROVED REFLECTORISED U.N.O.
5. ANY EXISTING LINE MARKINGS DAMAGED BY THE PROPOSED WORKS ARE TO BE REINSTATED.
6. EXISTING CONFLICTING LINE MARKINGS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 4 IN THE TfNSW QA SPECIFICATION R145 PAVEMENT MARKING.
7. RETRO-REFLECTIVE RAISED PAVEMENT MARKERS (RRPM's) SHALL BE PLACED 25mm TO 50mm FROM THE PAINTED LINEMARKING AND ORIENTATED SO THAT FULL REFLECTIVE EFFECT IS ACHIEVED BY AIMING THE REFLECTIVE FACE IN THE DIRECTION OF APPROACHING TRAFFIC.
8. GENERALLY THE NORMAL SPACING BETWEEN RRPM's IS TO BE 12.0m U.N.O.
9. ANY EXISTING LINEMARKING NOT SHOWN ON THIS PLAN WHICH CONFLICTS OR IS INCOMPATIBLE WITH THE PROPOSED LINEMARKING SHALL BE REMOVED BY THE CONTRACTOR.

SIGNAGE NOTES

1. LOCATION OF SIGNS SHOWN ON THIS PLAN ARE INDICATIVE ONLY. CARE AND CONSIDERATION IS TO BE GIVEN TO ON SITE CONDITIONS TO AVOID ANY VISUAL OBSTRUCTION OF THE SIGN ALONG THE INTENDED COURSE OF APPROACHING TRAFFIC. EXACT LOCATION OF ALL SIGNS SHALL BE CONFIRMED ON SITE PRIOR TO INSTALLATION.
2. SIGNS SHOULD BE ORIENTATED AT APPROXIMATELY RIGHT ANGLES TO, AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE.
3. SIGNAGE SHALL BE IN ACCORDANCE WITH:
   - TfNSW SPECIFICATIONS
   - AS1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
   - AS1743 ROAD SIGNS SPECIFICATION
   - AS4049.1 PAVEMENT MARKING MATERIALS

LEGEND - PROPOSED

SIGN

REQUIRED SIGNS

W2-3 — R1-2
W4-3 — D4-2-1
W5-19 — W5-7

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PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

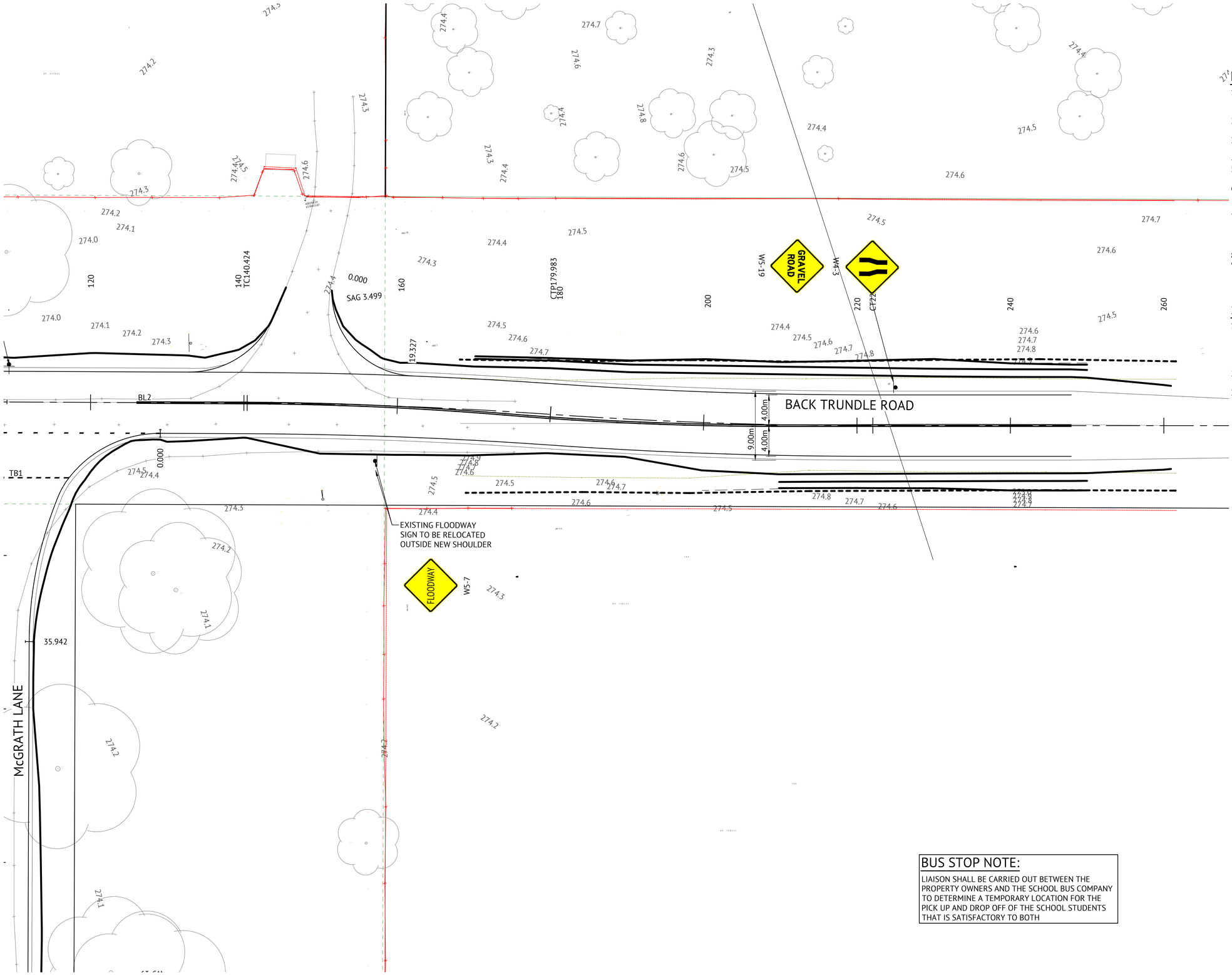
Premise
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED: R. DURHAM
CHECKED: S. HOYNES
PROJECT MANAGER: D. WALKER

SCALE: 0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 1

JOB CODE: 223076_02
SHEET NUMBER: C151
REV: 4



LINEMARKING NOTES

1. PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE SPECIFIC REQUIREMENTS OF TfNSW SPECIFICATIONS.
2. ALL INTERNAL LINE MARKING TO CONSIST OF LINES 100mm WIDE WITH 2 COATS OF PAINT TO MANUFACTURERS SPECIFICATIONS.
3. EXTENT OF LINEMARKING SHALL BE VERIFIED ON SITE PRIOR TO INSTALLATION.
4. ALL PAINTED MARKINGS SHALL BE APPROVED REFLECTORISED U.N.O.
5. ANY EXISTING LINE MARKINGS DAMAGED BY THE PROPOSED WORKS ARE TO BE REINSTATED.
6. EXISTING CONFLICTING LINE MARKINGS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 4 IN THE TfNSW QA SPECIFICATION R145 PAVEMENT MARKING.
7. RETRO-REFLECTIVE RAISED PAVEMENT MARKERS (RRPM's) SHALL BE PLACED 25mm TO 50mm FROM THE PAINTED LINEMARKING AND ORIENTATED SO THAT FULL REFLECTIVE EFFECT IS ACHIEVED BY AIMING THE REFLECTIVE FACE IN THE DIRECTION OF APPROACHING TRAFFIC.
8. GENERALLY THE NORMAL SPACING BETWEEN RRPM's IS TO BE 12.0m U.N.O.
9. ANY EXISTING LINEMARKING NOT SHOWN ON THIS PLAN WHICH CONFLICTS OR IS INCOMPATIBLE WITH THE PROPOSED LINEMARKING SHALL BE REMOVED BY THE CONTRACTOR.

SIGNAGE NOTES

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2. SIGNS SHOULD BE ORIENTATED AT APPROXIMATELY RIGHT ANGLES TO, AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE.
3. SIGNAGE SHALL BE IN ACCORDANCE WITH:
   - TfNSW SPECIFICATIONS
   - AS1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
   - AS1743 ROAD SIGNS SPECIFICATION
   - AS4049.1 PAVEMENT MARKING MATERIALS

LEGEND - PROPOSED

SIGN

REQUIRED SIGNS

W2-3 — R1-2

W4-3 — D4-2-1

W5-19 — W5-7

BUS STOP NOTE:

LIAISON SHALL BE CARRIED OUT BETWEEN THE PROPERTY OWNERS AND THE SCHOOL BUS COMPANY TO DETERMINE A TEMPORARY LOCATION FOR THE PICK UP AND DROP OFF OF THE SCHOOL STUDENTS THAT IS SATISFACTORY TO BOTH

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WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE 0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 2

JOB CODE 223076_02
SHEET NUMBER C152
REV 4

LINEMARKING NOTES

1. PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE SPECIFIC REQUIREMENTS OF TfNSW SPECIFICATIONS.
2. ALL INTERNAL LINE MARKING TO CONSIST OF LINES 100mm WIDE WITH 2 COATS OF PAINT TO MANUFACTURERS SPECIFICATIONS.
3. EXTENT OF LINEMARKING SHALL BE VERIFIED ON SITE PRIOR TO INSTALLATION.
4. ALL PAINTED MARKINGS SHALL BE APPROVED REFLECTORISED U.N.O.
5. ANY EXISTING LINE MARKINGS DAMAGED BY THE PROPOSED WORKS ARE TO BE REINSTATED.
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7. RETRO-REFLECTIVE RAISED PAVEMENT MARKERS (RRPM's) SHALL BE PLACED 25mm TO 50mm FROM THE PAINTED LINEMARKING AND ORIENTATED SO THAT FULL REFLECTIVE EFFECT IS ACHIEVED BY AIMING THE REFLECTIVE FACE IN THE DIRECTION OF APPROACHING TRAFFIC.
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9. ANY EXISTING LINEMARKING NOT SHOWN ON THIS PLAN WHICH CONFLICTS OR IS INCOMPATIBLE WITH THE PROPOSED LINEMARKING SHALL BE REMOVED BY THE CONTRACTOR.

SIGNAGE NOTES

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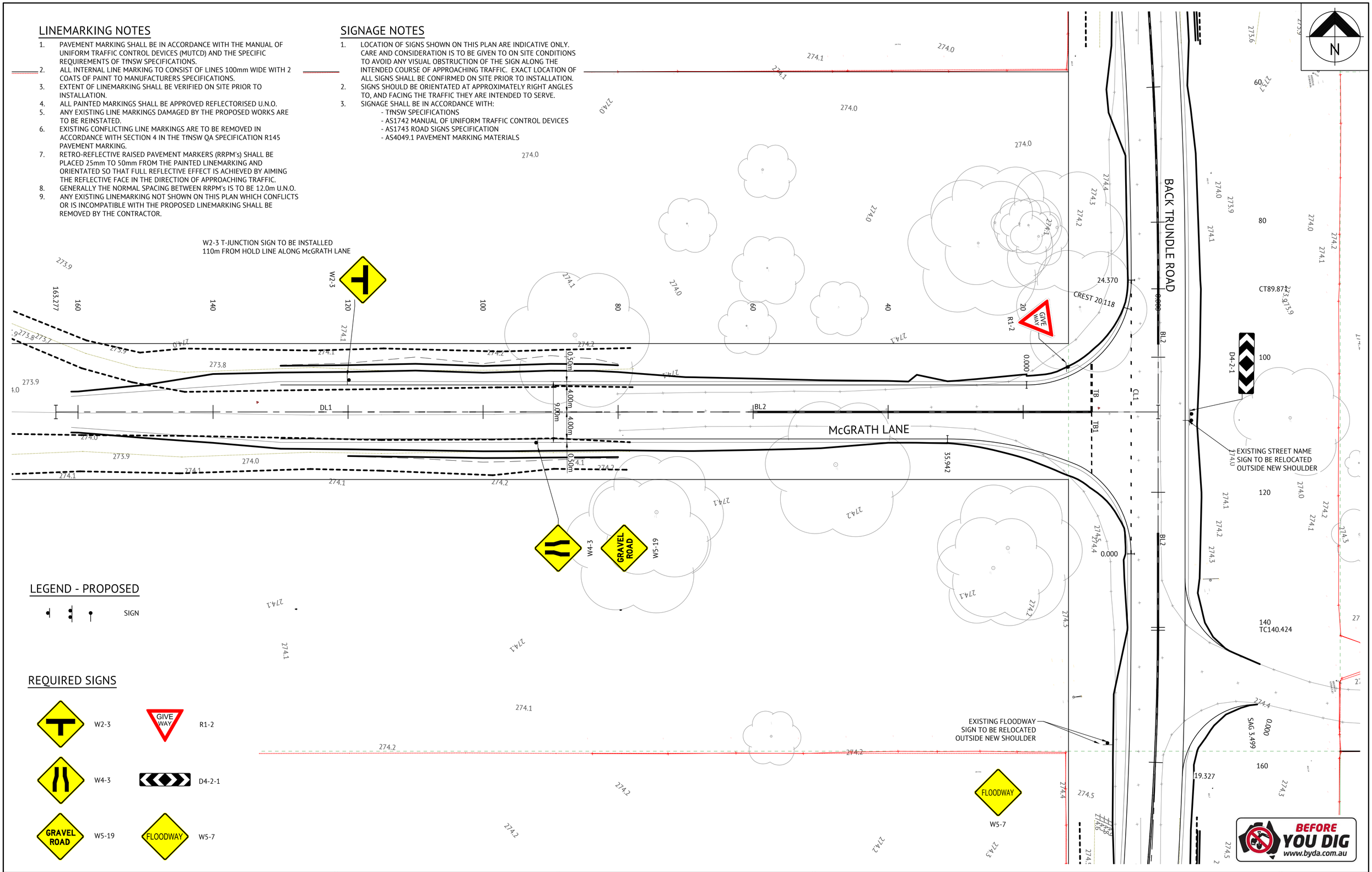
3. SIGNAGE SHALL BE IN ACCORDANCE WITH:
   - TfNSW SPECIFICATIONS
   - AS1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
   - AS1743 ROAD SIGNS SPECIFICATION
   - AS4049.1 PAVEMENT MARKING MATERIALS



LEGEND - PROPOSED

SIGN

REQUIRED SIGNS

W2-3 — R1-2

W4-3 — D4-2-1

W5-19 — W5-7

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PRELIMINARY - NOT FOR CONSTRUCTION

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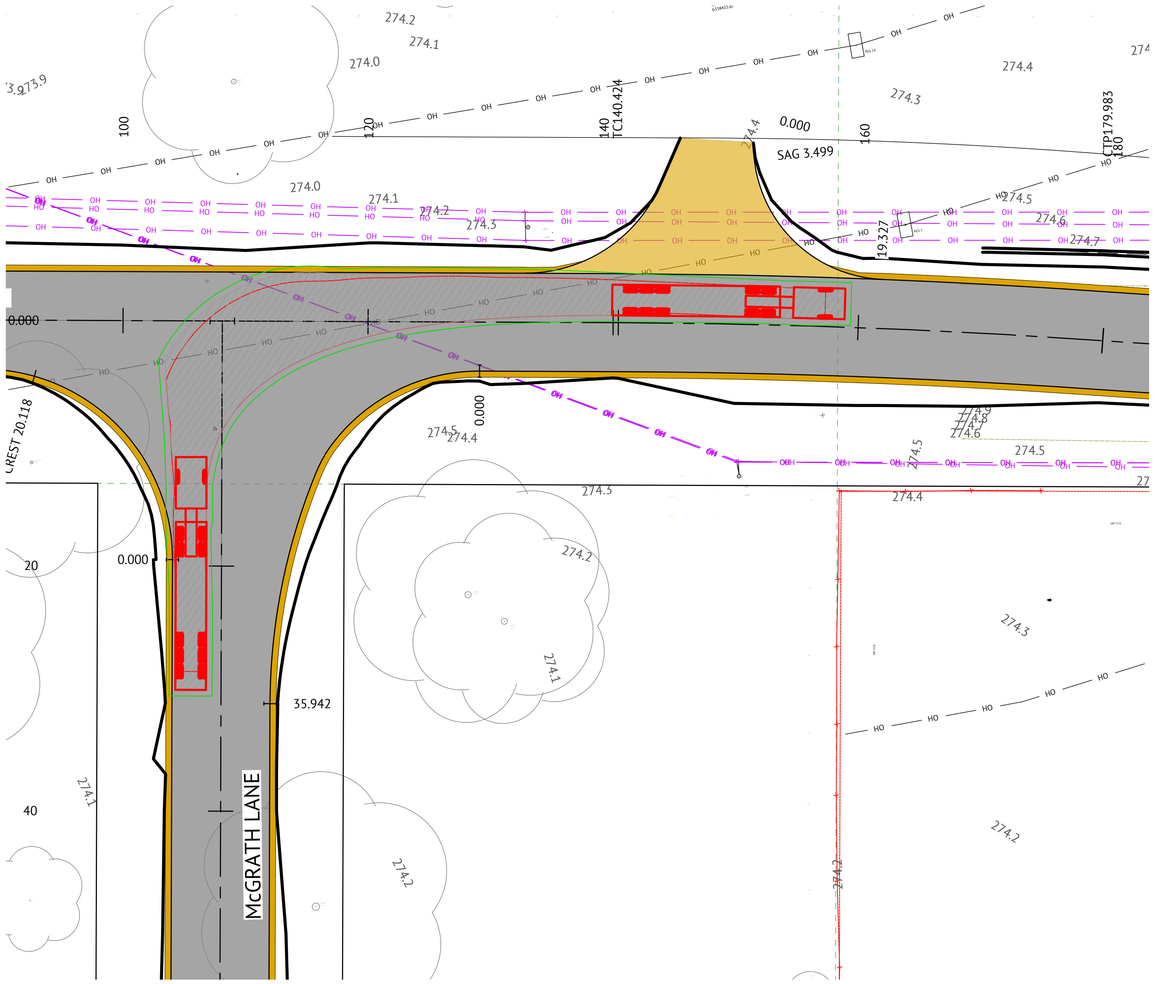
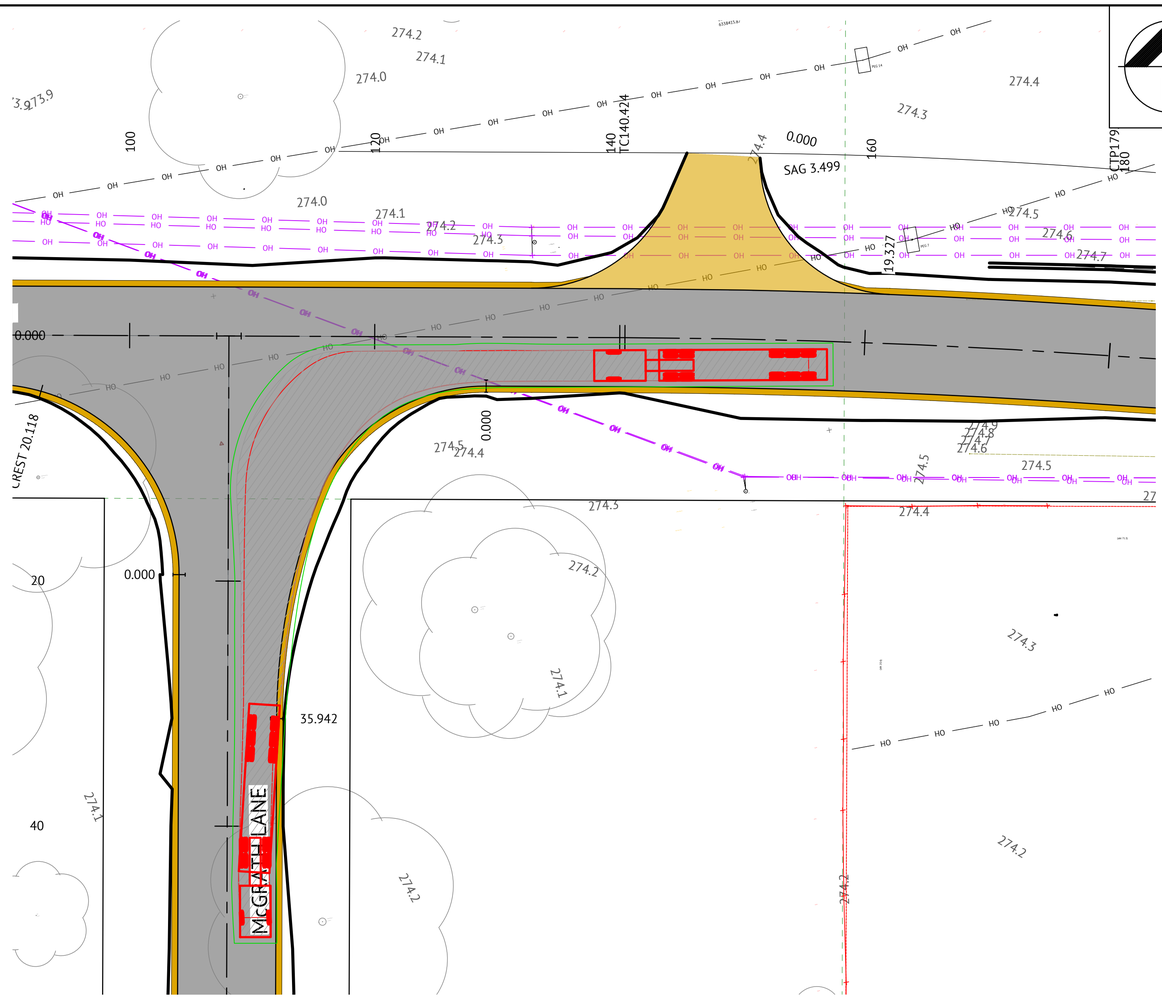
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

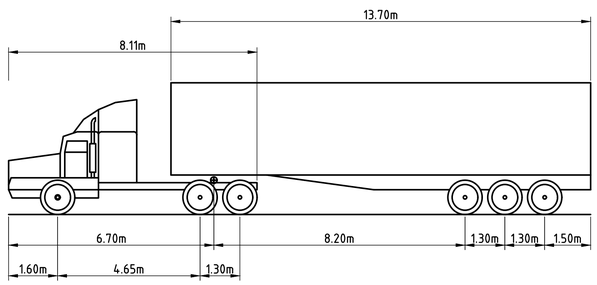
SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN - SHEET 3

JOB CODE 223076_02
SHEET NUMBER C153
REV 4







AUSTROADS PRIME MOVER & SEMI TRAILER (19m)

OVERALL LENGTH	19.000m
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
KERB-TO-KERB TURNING RADIUS	12.500m

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03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

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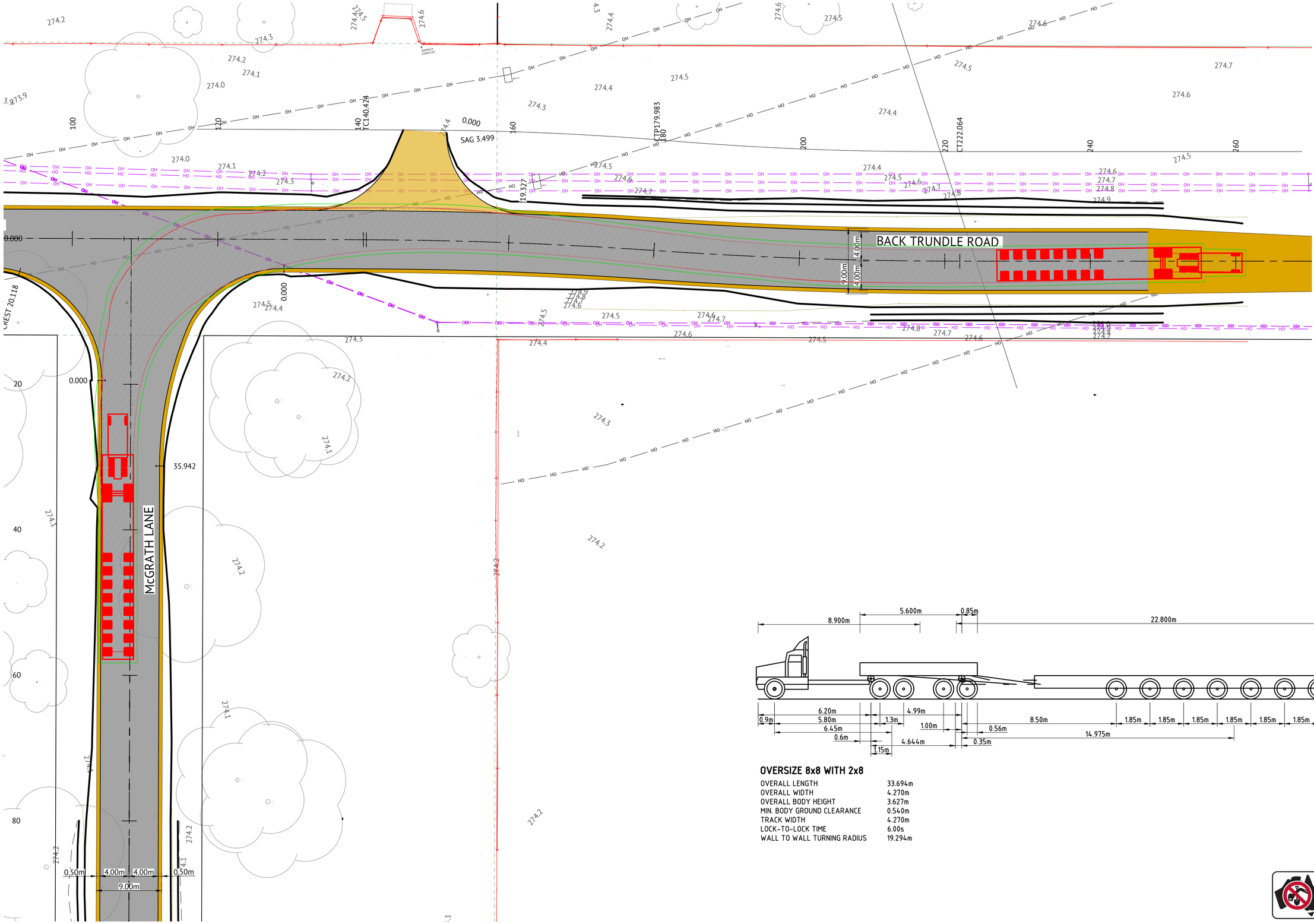
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE VEHICLE TRACKING - 19m PRIME MOVER AND SEMI TRAILER

JOB CODE 223076_02
SHEET NUMBER C191
REV 4



OVERSIZE 8x8 WITH 2x8

OVERALL LENGTH	33.694m
OVERALL WIDTH	4.270m
OVERALL BODY HEIGHT	3.627m
MIN. BODY GROUND CLEARANCE	0.540m
TRACK WIDTH	4.270m
LOCK-TO-LOCK TIME	6.00s
WALL TO WALL TURNING RADIUS	19.294m

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06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

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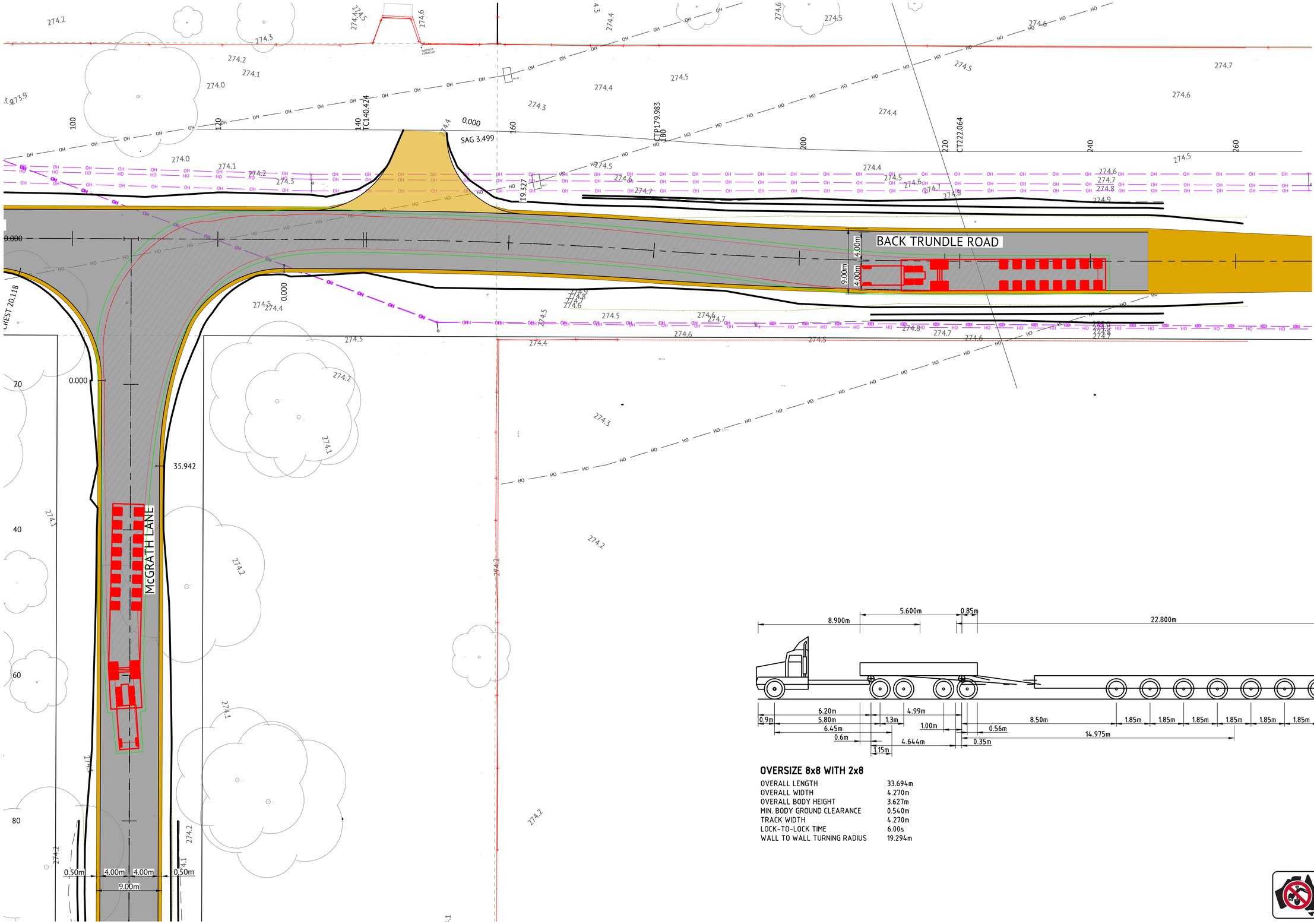
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: VEHICLE TRACKING - OVERSIZE 8x8 WITH 2x8 - SHEET 1

JOB CODE 223076_02
SHEET NUMBER C192
REV 4



OVERSIZE 8x8 WITH 2x8

OVERALL LENGTH	33.694m
OVERALL WIDTH	4.270m
OVERALL BODY HEIGHT	3.627m
MIN. BODY GROUND CLEARANCE	0.540m
TRACK WIDTH	4.270m
LOCK-TO-LOCK TIME	6.00s
WALL TO WALL TURNING RADIUS	19.294m

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PRELIMINARY - NOT FOR CONSTRUCTION

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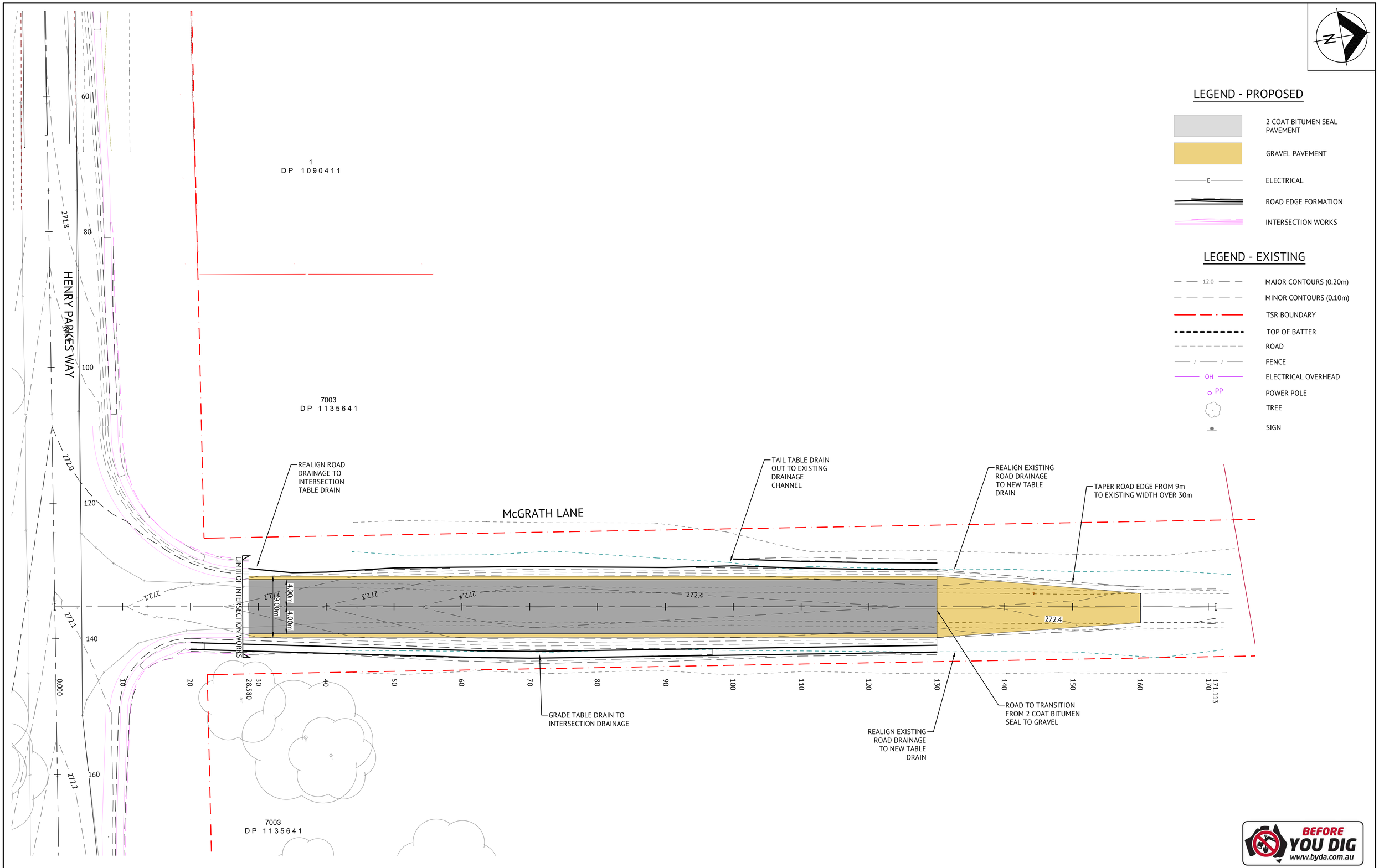
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE AND BACK TRUNDLE ROAD INTERSECTION
SHEET TITLE: VEHICLE TRACKING - OVERSIZE 8x8 WITH 2x8 - SHEET 2

JOB CODE 223076_02
SHEET NUMBER C193
REV 4



LEGEND - PROPOSED

- 2 COAT BITUMEN SEAL PAVEMENT
- GRAVEL PAVEMENT
- E — ELECTRICAL
- ROAD EDGE FORMATION
- INTERSECTION WORKS

LEGEND - EXISTING

- 12.0 — MAJOR CONTOURS (0.20m)
- MINOR CONTOURS (0.10m)
- TSR BOUNDARY
- TOP OF BATTER
- ROAD
- FENCE
- OH — ELECTRICAL OVERHEAD
- PP — POWER POLE
- TREE
- SIGN

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DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA

PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW

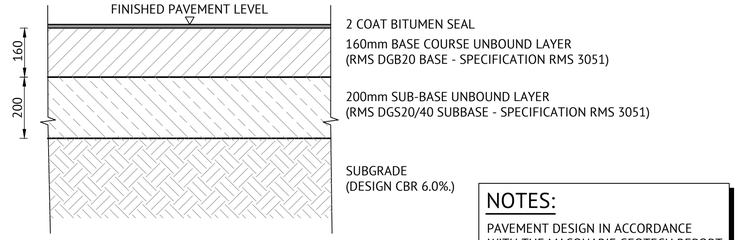
LOCATION McGRATH LANE EXTENSION FROM HENRY PARKES WAY

SHEET TITLE ENGINEERING PLAN

JOB CODE 223076_02

SHEET NUMBER C201

REV 4

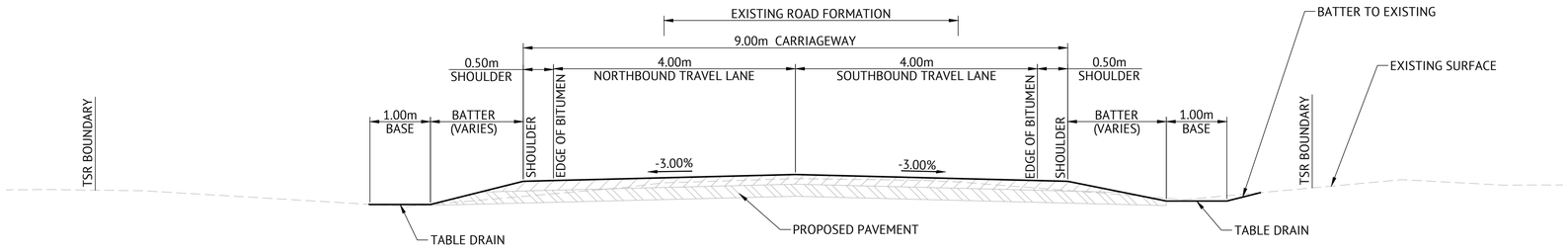


PAVEMENT DETAIL

NTS

NOTES:

PAVEMENT DESIGN IN ACCORDANCE WITH THE MACQUARIE GEOTECH REPORT G23907-1 DATED 29 APRIL 2024.



TYPICAL CROSS SECTION - McGRATH LANE CH100

SCALE 1:50

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
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03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

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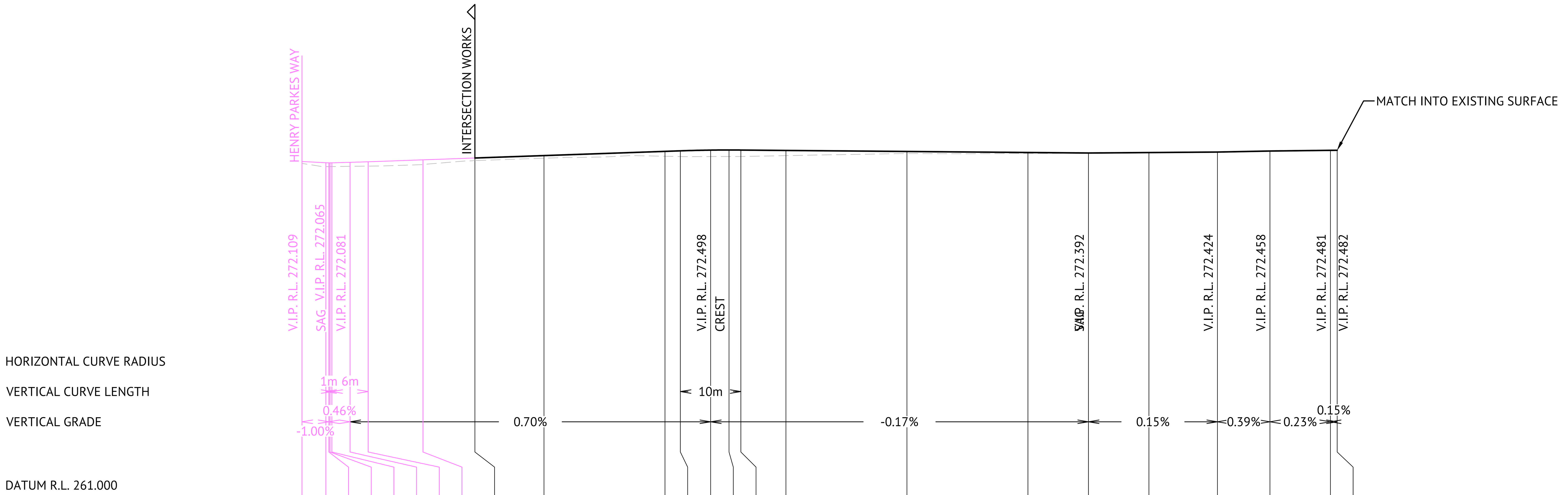
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE EXTENSION FROM HENRY PARKES WAY
SHEET TITLE TYPICAL CROSS SECTIONS

JOB CODE 223076_02
SHEET NUMBER C221
REV 4



CUT/FILL	0.067	0.129	0.125	0.124	0.124	0.132	0.144	0.154	0.154	0.086	0.161	0.189
FINISHED SURFACE LEVEL	272.109	272.070	272.067	272.066	272.067	272.083	272.102	272.165	272.225	272.305	272.445	272.463
NATURAL SURFACE LEVEL	272.043	271.941	271.942	271.942	271.943	271.951	271.958	272.012	272.140	272.220	272.284	272.274
CHAINAGE	0.000	3.945	4.445	4.631	4.945	7.945	10.945	20.000	28.580	40.000	60.000	62.549

CUT/FILL	0.213	0.217	0.214	0.172	0.069	0.034	0.000	-0.009	0.001	0.000	0.000	0.000
FINISHED SURFACE LEVEL	272.487	272.491	272.490	272.477	272.443	272.409	272.392	272.407	272.424	272.458	272.481	272.482
NATURAL SURFACE LEVEL	272.274	272.275	272.275	272.305	272.373	272.375	272.392	272.416	272.423	272.458	272.481	272.482
CHAINAGE	67.549	70.592	72.549	80.000	100.000	120.000	130.000	140.000	151.327	160.000	170.000	171.113

LONGITUDINAL SECTION - McGRATH LANE SOUTH

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

PRELIMINARY - NOT FOR CONSTRUCTION

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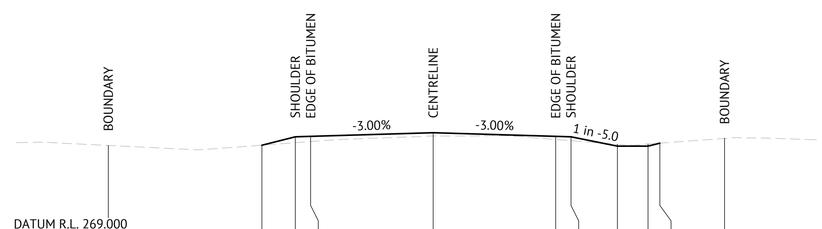
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
HORIZONTAL 1:500 (A1) 0 10 20 30m
0 2 4 6m VERTICAL 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE EXTENSION FROM HENRY PARKES WAY
SHEET TITLE ROAD LONGITUDINAL SECTION

JOB CODE 223076_02
SHEET NUMBER C231
REV 4



DATUM R.L. 269.000

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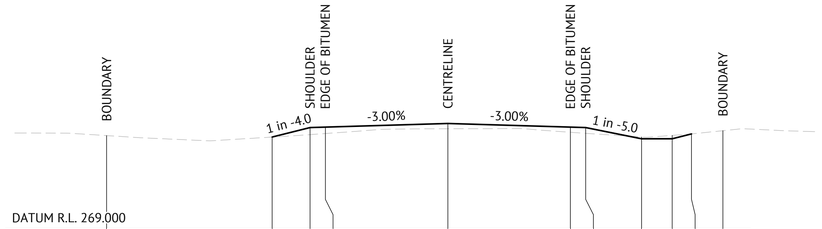
271.959	271.959	271.967	272.240	272.255	272.375	272.255	272.240	271.937	271.937	272.034	272.188	
271.959	271.967	272.049	272.087	272.264	272.152	272.113	271.995	272.006	272.034	272.188		
-10.607	-5.593	-4.500	-4.000	0.000	4.000	4.500	6.015	7.015	7.401	9.513		

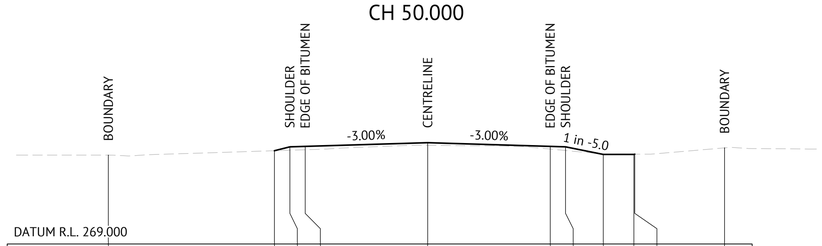
CH 50.000



DATUM R.L. 269.000

0.000		-0.000	0.229	0.209	0.172	0.168	0.188	-0.058	-0.109	0.000	0.000	
272.081	272.081	272.033	272.342	272.357	272.477	272.357	272.342	271.977	271.977	272.135	272.240	
272.081	272.033	272.113	272.148	272.305	272.189	272.154	272.035	272.086	272.135	272.240		
-11.143	-5.736	-4.500	-4.000	0.000	4.000	4.500	6.323	7.323	7.953	8.977		

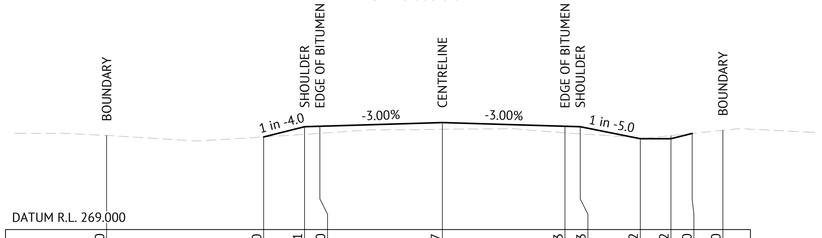
CH 80.000



DATUM R.L. 269.000

0.000		-0.000	0.110	0.109	0.086	0.087	0.119	-0.012	-0.007	0.000	0.000	
271.901		272.044	272.170	272.185	272.305	272.185	272.170	271.924	271.924	271.931	272.137	
271.901		272.044	272.060	272.076	272.220	272.098	272.051	271.936	271.931	271.931	272.137	
-10.428		-5.005	-4.500	-4.000	0.000	4.000	4.500	5.732	6.732	6.760	9.691	

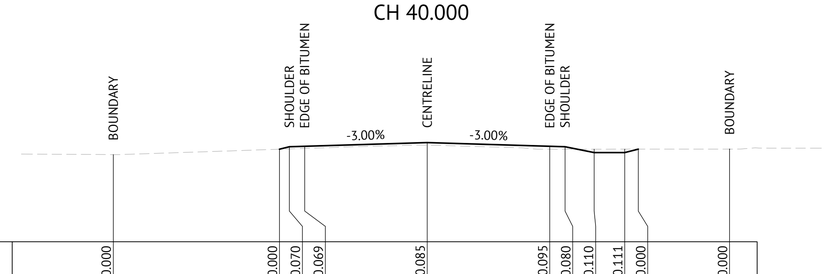
CH 40.000



DATUM R.L. 269.000

0.000		-0.000	0.251	0.230	0.217	0.213	0.233	-0.032	-0.102	0.000	0.000	
272.072		272.022	272.356	272.371	272.491	272.371	272.356	271.964	271.964	272.137	272.240	
272.072		272.022	272.106	272.141	272.274	272.158	272.123	271.996	272.066	272.137	272.240	
-10.964		-5.835	-4.500	-4.000	0.000	4.000	4.500	6.461	7.461	8.153	9.156	

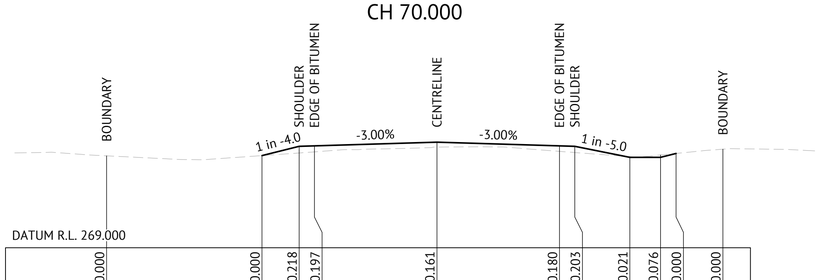
CH 70.000



DATUM R.L. 269.000

CUT/FILL	0.000	-0.000	0.070	0.069	0.085	0.095	0.080	-0.110	-0.111	0.000	0.000	
FINISHED SURFACE LEVEL	271.844	272.019	272.100	272.115	272.235	272.115	272.100	271.911	271.911	272.021	272.023	
NATURAL SURFACE LEVEL	271.844	272.019	272.030	272.046	272.151	272.020	272.020	272.021	272.021	272.021	272.023	
OFFSET	-10.250	-4.825	-4.500	-4.000	0.000	4.000	4.500	5.449	6.449	6.892	9.870	

CH 30.000



DATUM R.L. 269.000

0.000		-0.000	0.218	0.197	0.161	0.180	0.203	-0.021	-0.076	0.000	0.000	
271.999		272.007	272.310	272.325	272.445	272.325	272.310	271.951	271.951	272.078	272.216	
271.999		272.007	272.093	272.129	272.284	272.145	272.107	271.972	272.027	272.078	272.216	
-10.786		-5.713	-4.500	-4.000	0.000	4.000	4.500	6.298	7.298	7.807	9.334	

CH 60.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

Premise

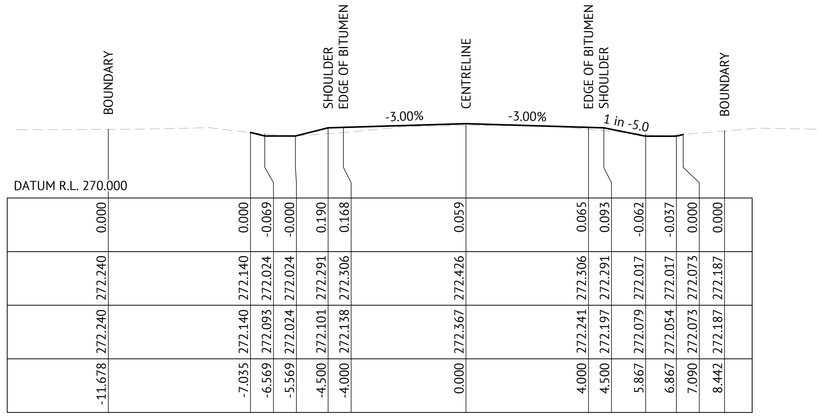
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE EXTENSION FROM HENRY PARKES WAY
SHEET TITLE ROAD CROSS SECTIONS - SHEET 1

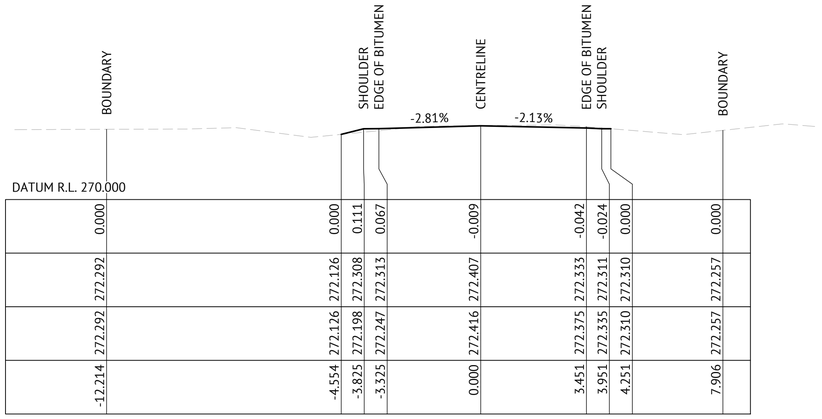
JOB CODE 223076_02
SHEET NUMBER C241
REV 4



DATUM R.L. 270.000

0.000	0.000	-0.069	-0.000	0.190	0.168	0.059	0.065	0.093	-0.062	-0.037	0.000	0.000
272.240	272.140	272.024	272.024	272.291	272.306	272.426	272.306	272.291	272.017	272.017	272.073	272.187
272.240	272.140	272.095	272.024	272.101	272.138	272.367	272.241	272.197	272.079	272.054	272.073	272.187
-11.678	-7.035	-6.569	-5.569	-4.500	-4.000	0.000	4.000	4.500	5.867	6.867	7.090	8.442

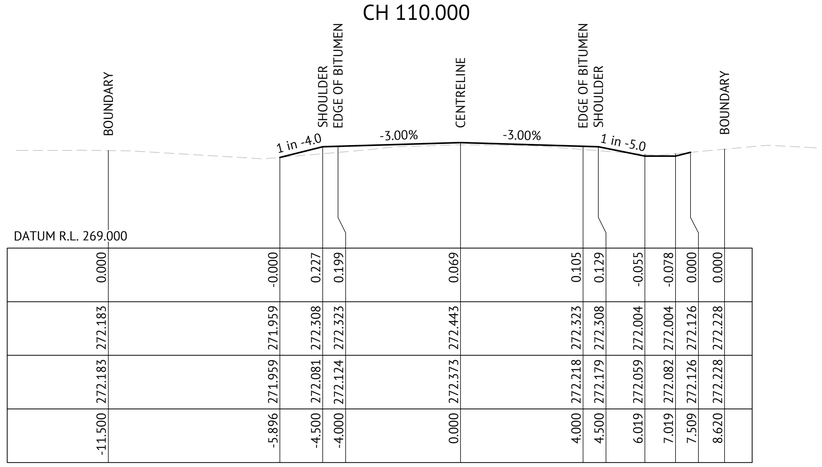
CH 110.000



DATUM R.L. 270.000

0.000	0.000	0.111	0.067	-0.009	-0.042	-0.024	0.000	0.000				
272.292	272.126	272.308	272.313	272.407	272.333	272.311	272.310	272.257				
272.292	272.126	272.198	272.247	272.416	272.375	272.335	272.310	272.257				
-12.214	-4.554	-3.825	-3.325	0.000	3.451	3.951	4.251	7.906				

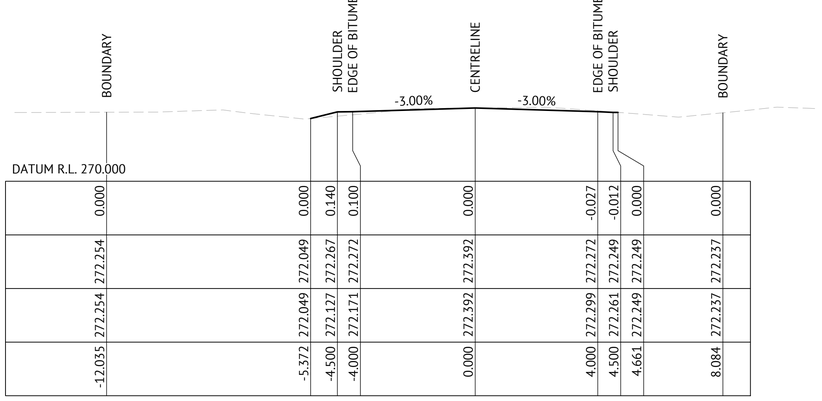
CH 140.000



DATUM R.L. 269.000

0.000	0.000	-0.000	0.227	0.199	0.069	0.105	0.129	-0.055	-0.078	0.000	0.000	
272.183	271.959	272.308	272.323	272.443	272.323	272.308	272.004	272.004	272.126	272.228		
272.183	271.959	272.081	272.124	272.373	272.218	272.179	272.059	272.082	272.126	272.228		
-11.500	-5.896	-4.500	-4.000	0.000	4.000	4.500	6.019	7.019	7.509	8.620		

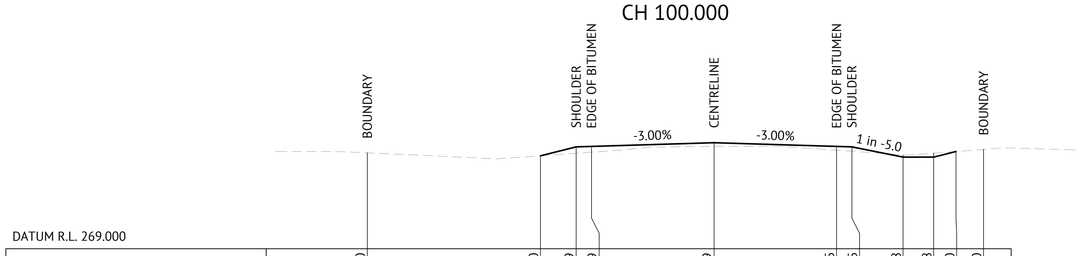
CH 100.000



DATUM R.L. 270.000

0.000	0.000	0.140	0.100	0.000	-0.027	-0.012	0.000	0.000				
272.254	272.049	272.267	272.272	272.392	272.272	272.249	272.249	272.237				
272.254	272.049	272.127	272.171	272.392	272.299	272.261	272.249	272.237				
-12.035	-5.372	-4.500	-4.000	0.000	4.000	4.500	4.661	8.084				

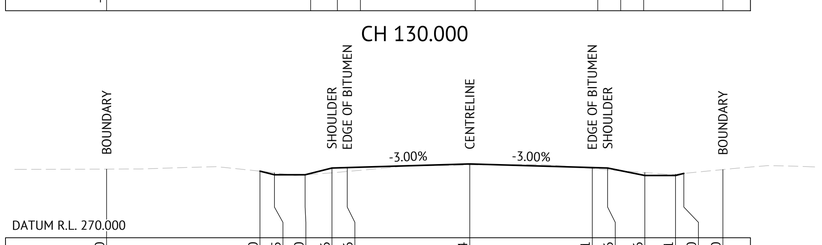
CH 130.000



DATUM R.L. 269.000

CUT/FILL	0.000	-0.000	0.209	0.189	0.119	0.125	0.145	-0.068	-0.128	0.000	0.000	
FINISHED SURFACE LEVEL	272.130	272.033	272.325	272.340	272.460	272.340	272.325	271.991	271.991	272.172	272.239	
NATURAL SURFACE LEVEL	272.130	272.033	272.116	272.151	272.341	272.215	272.180	272.058	272.119	272.172	272.239	
OFFSET	-11.321	-5.667	-4.500	-4.000	0.000	4.000	4.500	6.171	7.171	7.897	8.799	

CH 90.000



DATUM R.L. 270.000

0.000	0.000	-0.065	-0.000	0.156	0.126	0.034	0.031	0.056	-0.096	-0.041	0.000	0.000
272.240	272.173	272.055	272.055	272.274	272.289	272.409	272.289	272.274	272.031	272.031	272.099	272.225
272.240	272.173	272.120	272.055	272.118	272.163	272.375	272.257	272.218	272.126	272.072	272.099	272.225
-11.857	-6.850	-6.377	-5.377	-4.500	-4.000	0.000	4.000	4.500	5.715	6.715	6.989	8.263

CH 120.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

Premise

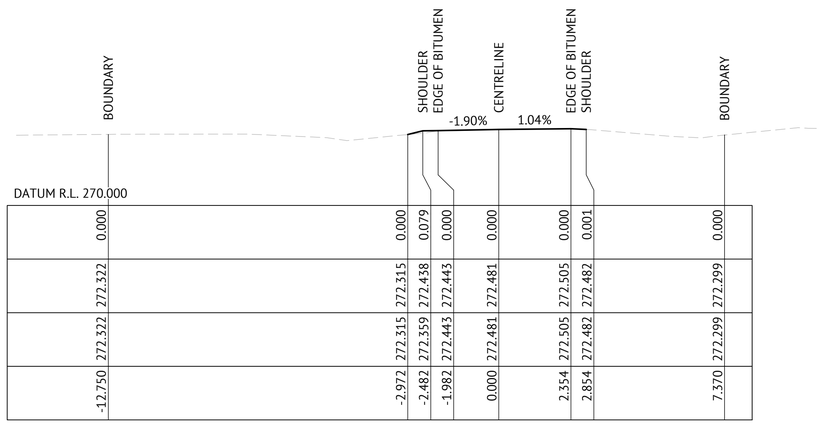
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

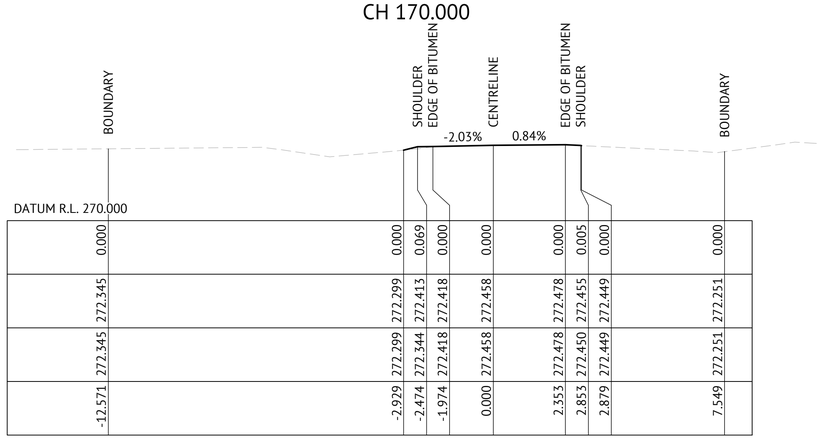
SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: McGRATH LANE EXTENSION FROM HENRY PARKES WAY
SHEET TITLE: ROAD CROSS SECTIONS - SHEET 2

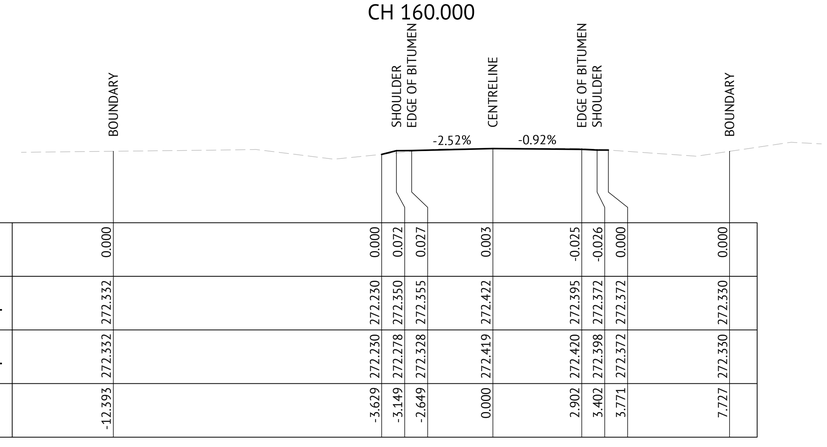
JOB CODE: 223076_02
SHEET NUMBER: C242
REV: 4



CH 170.000



CH 160.000



CH 150.000

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		

REVISIONS

Premise
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE EXTENSION FROM HENRY PARKES WAY
SHEET TITLE ROAD CROSS SECTIONS - SHEET 3

JOB CODE 223076_02
SHEET NUMBER C243
REV 4

LINEMARKING NOTES

1. PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE SPECIFIC REQUIREMENTS OF TfNSW SPECIFICATIONS.
2. ALL INTERNAL LINE MARKING TO CONSIST OF LINES 100mm WIDE WITH 2 COATS OF PAINT TO MANUFACTURERS SPECIFICATIONS.
3. EXTENT OF LINEMARKING SHALL BE VERIFIED ON SITE PRIOR TO INSTALLATION.
4. ALL PAINTED MARKINGS SHALL BE APPROVED REFLECTORISED U.N.O.
5. ANY EXISTING LINE MARKINGS DAMAGED BY THE PROPOSED WORKS ARE TO BE REINSTATED.
6. EXISTING CONFLICTING LINE MARKINGS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 4 IN THE TfNSW QA SPECIFICATION R145 PAVEMENT MARKING.
7. RETRO-REFLECTIVE RAISED PAVEMENT MARKERS (RRPM's) SHALL BE PLACED 25mm TO 50mm FROM THE PAINTED LINEMARKING AND ORIENTATED SO THAT FULL REFLECTIVE EFFECT IS ACHIEVED BY AIMING THE REFLECTIVE FACE IN THE DIRECTION OF APPROACHING TRAFFIC.
8. GENERALLY THE NORMAL SPACING BETWEEN RRPM's IS TO BE 12.0m U.N.O.
9. ANY EXISTING LINEMARKING NOT SHOWN ON THIS PLAN WHICH CONFLICTS OR IS INCOMPATIBLE WITH THE PROPOSED LINEMARKING SHALL BE REMOVED BY THE CONTRACTOR.

SIGNAGE NOTES

1. LOCATION OF SIGNS SHOWN ON THIS PLAN ARE INDICATIVE ONLY. CARE AND CONSIDERATION IS TO BE GIVEN TO ON SITE CONDITIONS TO AVOID ANY VISUAL OBSTRUCTION OF THE SIGN ALONG THE INTENDED COURSE OF APPROACHING TRAFFIC. EXACT LOCATION OF ALL SIGNS SHALL BE CONFIRMED ON SITE PRIOR TO INSTALLATION.
2. SIGNS SHOULD BE ORIENTATED AT APPROXIMATELY RIGHT ANGLES TO, AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE.
3. SIGNAGE SHALL BE IN ACCORDANCE WITH:
   - TfNSW SPECIFICATIONS
   - AS1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
   - AS1743 ROAD SIGNS SPECIFICATION
   - AS4049.1 PAVEMENT MARKING MATERIALS

LEGEND - PROPOSED

SIGN

REQUIRED SIGNS

W2-3

W4-3

W5-19

W2-3 T-JUNCTION SIGN TO BE INSTALLED
110m FROM HOLD LINE ALONG McGRATH LANE

BEFORE YOU DIG www.byda.com.au

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
05/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

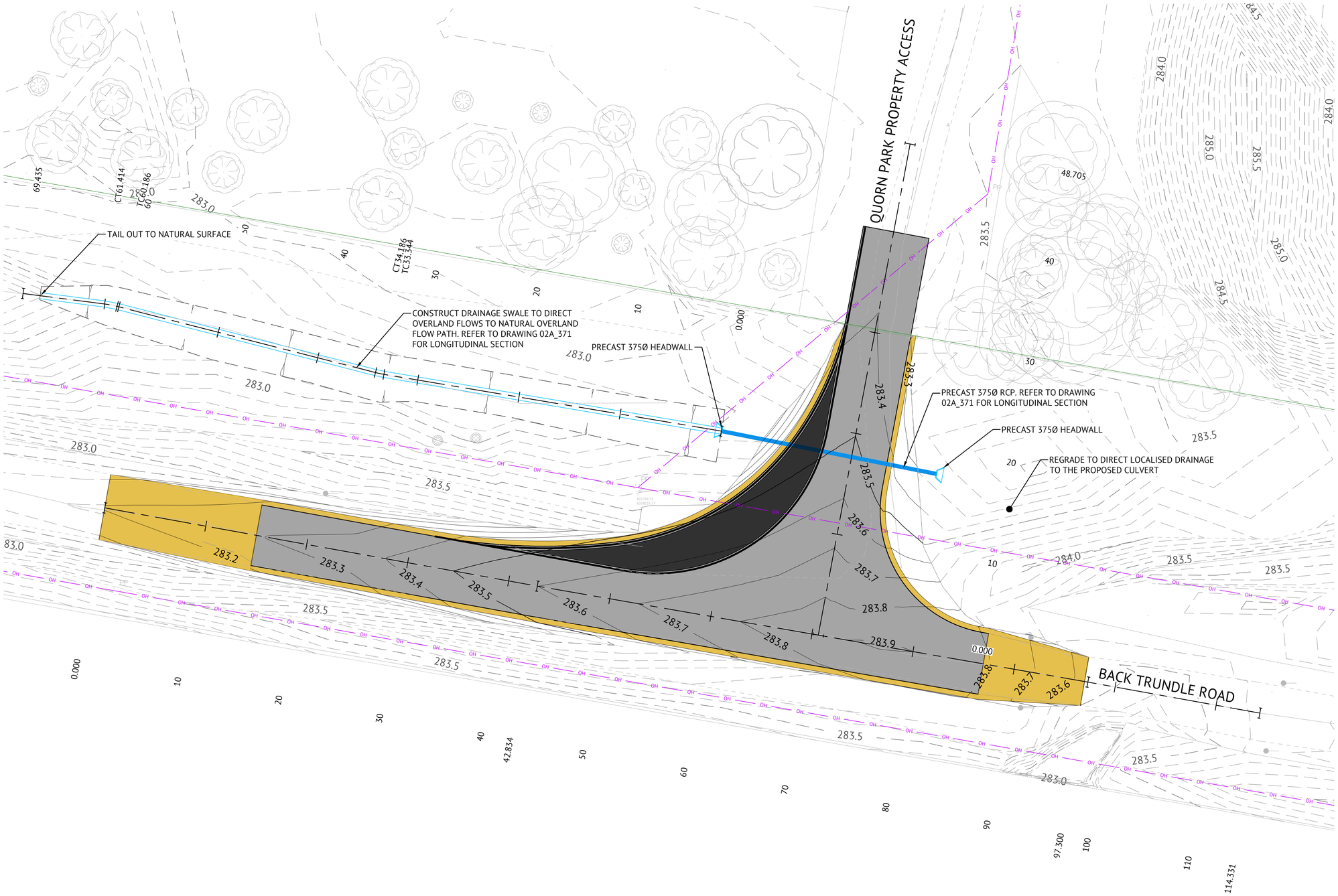
Premise
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION McGRATH LANE EXTENSION FROM HENRY PARKES WAY
SHEET TITLE PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN

JOB CODE 223076_02
SHEET NUMBER C251
REV 4



LEGEND - PROPOSED

- 2 COAT BITUMEN SEAL PAVEMENT
- GRAVEL PAVEMENT

LEGEND - EXISTING

- MAJOR CONTOURS (0.20m)
- MINOR CONTOURS (0.10m)
- ROAD
- FENCE
- ELECTRICAL OVERHEAD
- TOP OF BANK
- BOTTOM OF BANK
- DRAIN
- TREE

BEFORE YOU DIG www.byda.com.au

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

Premise

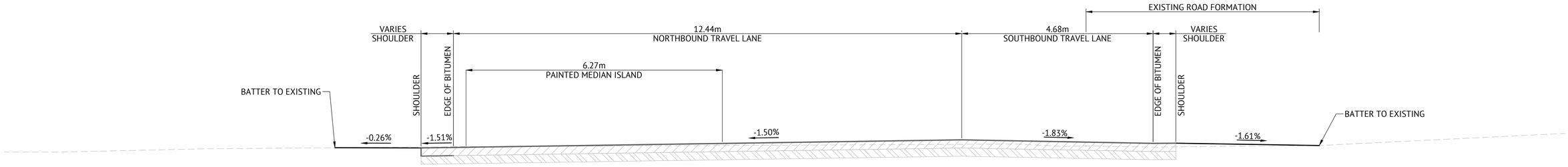
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED: R. DURHAM
CHECKED: S. HOYNES
PROJECT MANAGER: D. WALKER

SCALE: 0 4 8 12m
SCALE 1:200 (A1)
ORIGINAL SHEET SIZE A1

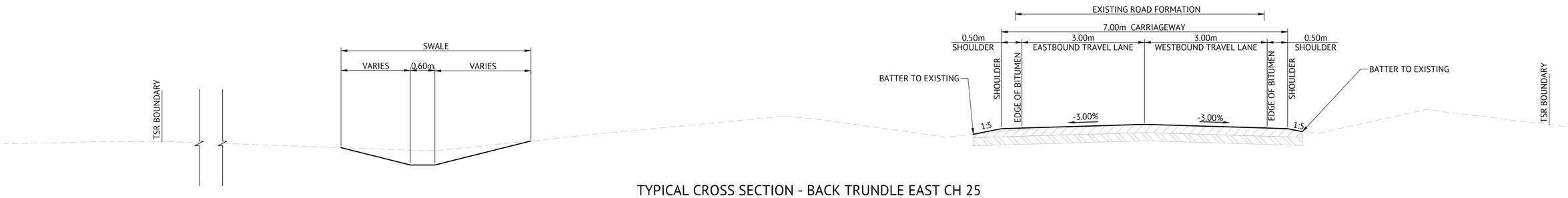
CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: QUORN PARK PROPERTY ACCESS
SHEET TITLE: ENGINEERING PLAN

JOB CODE: 223076_02
SHEET NUMBER: C301
REV: 4



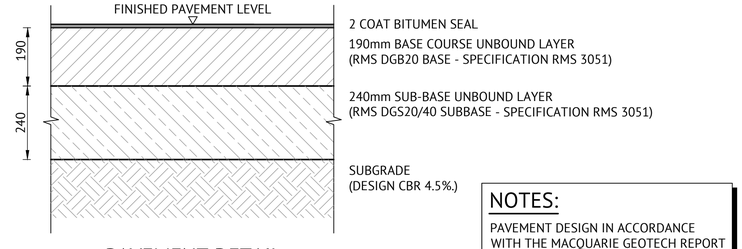
TYPICAL CROSS SECTION - PROPERTY ACCESS CH 10

SCALE 1:50



TYPICAL CROSS SECTION - BACK TRUNDLE EAST CH 25

SCALE 1:50



PAVEMENT DETAIL

NTS

NOTES:

PAVEMENT DESIGN IN ACCORDANCE WITH THE MACQUARIE GEOTECH REPORT G23907-1 DATED 29 APRIL 2024.

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

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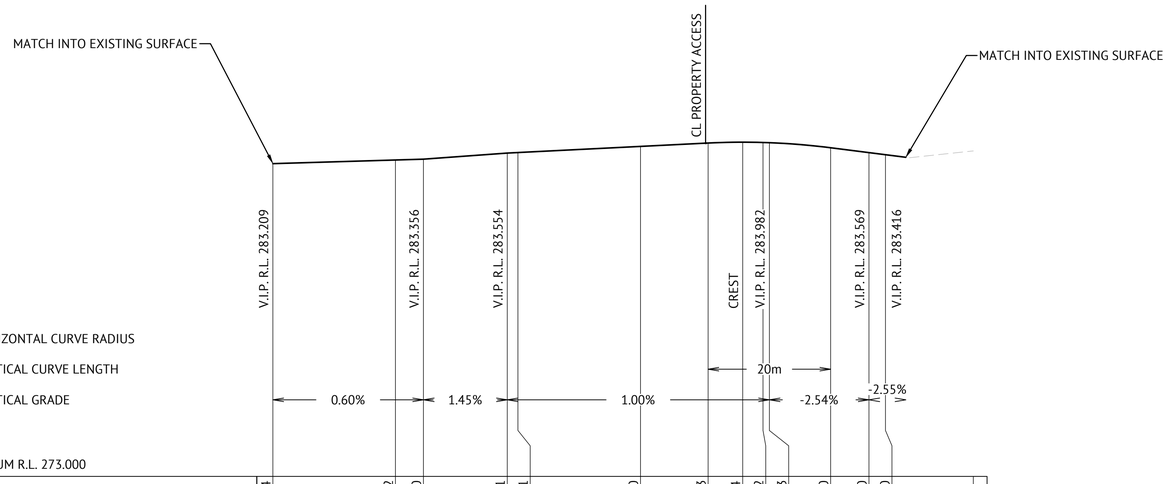
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 1 2 3m
SCALE 1:50 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE TYPICAL CROSS SECTIONS

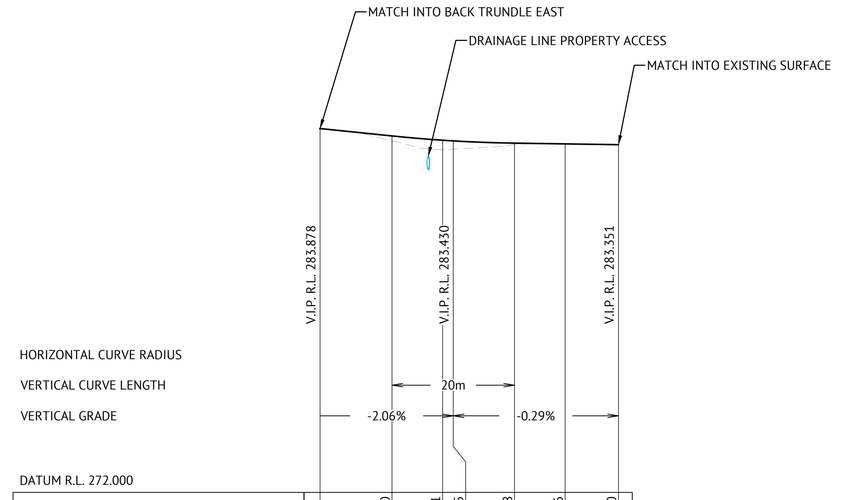
JOB CODE 223076_02
SHEET NUMBER C321
REV 4



CUT/FILL	-0.004		-0.002	-0.000	0.001	0.001	0.000	0.003	0.004	-0.012	-0.003	-0.000	-0.000	-0.000	
FINISHED SURFACE LEVEL	283.209		283.329	283.356	283.554	283.571	283.771	283.882	283.910	283.900	283.893	283.728	283.569	283.500	
NATURAL SURFACE LEVEL	283.213		283.331	283.356	283.553	283.571	283.771	283.878	283.906	283.912	283.896	283.728	283.569	283.500	283.624
CHAINAGE	0.000		20.000	24.573	38.253	40.000	60.000	71.038	76.694	80.000	81.038	91.038	97.300	100.000	114.331

LONGITUDINAL SECTION - BACK TRUNDLE EAST

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



CUT/FILL		0.160	0.311	0.265	0.048	-0.006	0.000
FINISHED SURFACE LEVEL	283.878	283.636	283.496	283.474	283.401	283.376	283.351
NATURAL SURFACE LEVEL		283.476	283.185	283.209	283.353	283.382	283.351
CHAINAGE	0.000	11.733	20.000	21.733	31.733	40.000	48.705

LONGITUDINAL SECTION - PROPERTY ACCESS

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

PRELIMINARY - NOT FOR CONSTRUCTION

DATE	REV	DESCRIPTION	REC	APP
21/05/2024	4	ISSUED FOR APPROVAL - CROSS FALLS UPDATED		
08/05/2024	3	ISSUED FOR APPROVAL - BUS STOP NOTE ADDED		
06/05/2024	2	ISSUED FOR APPROVAL		
03/05/2023	1	ISSUED FOR APPROVAL		

REVISIONS

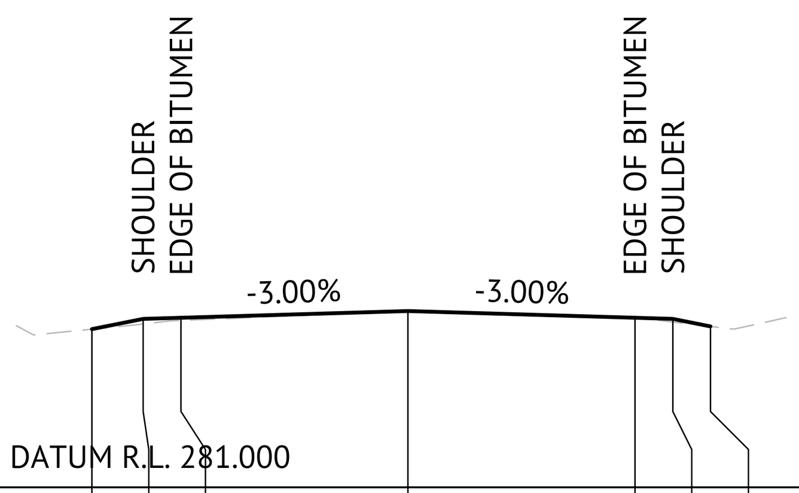
Premise
ORANGE OFFICE
SUITE 3, 60-62 MCNAMARA STREET
ORANGE, NSW 2800
PH: (02) 6393 5000
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
HORIZONTAL 1:500 (A1)
0 10 20 30m
VERTICAL 1:100 (A1)
0 2 4 6m
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE ROAD LONGITUDINAL SECTIONS

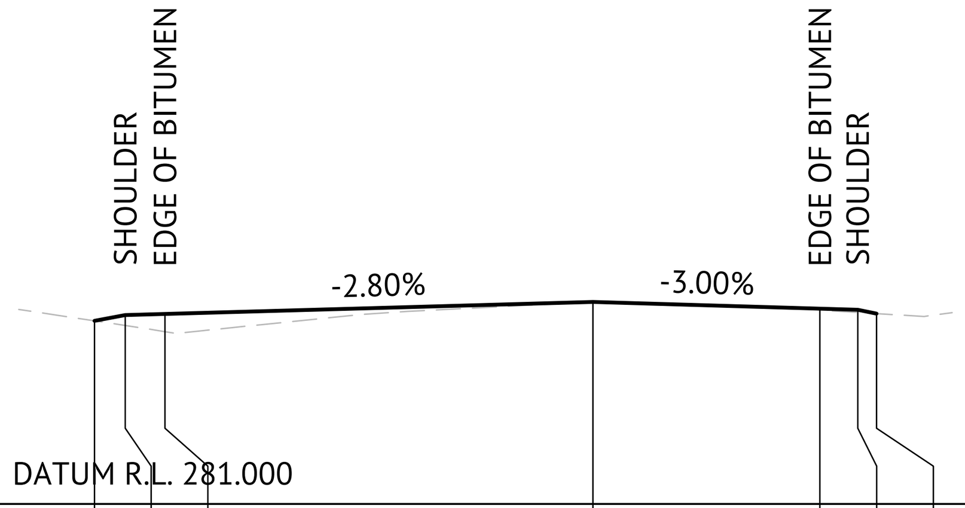
JOB CODE 223076_02
SHEET NUMBER C331
REV 4



DATUM R.L. 281.000

CUT/FILL	0.000	0.066	0.035	-0.002	-0.003	0.041	0.000
FINISHED SURFACE LEVEL	283.088	283.224	283.239	283.329	283.239	283.224	283.124
NATURAL SURFACE LEVEL	283.088	283.157	283.204	283.331	283.241	283.183	283.124
OFFSET	-4.176	-3.500	-3.000	0.000	3.000	3.500	3.998

CH 20.000



DATUM R.L. 281.000

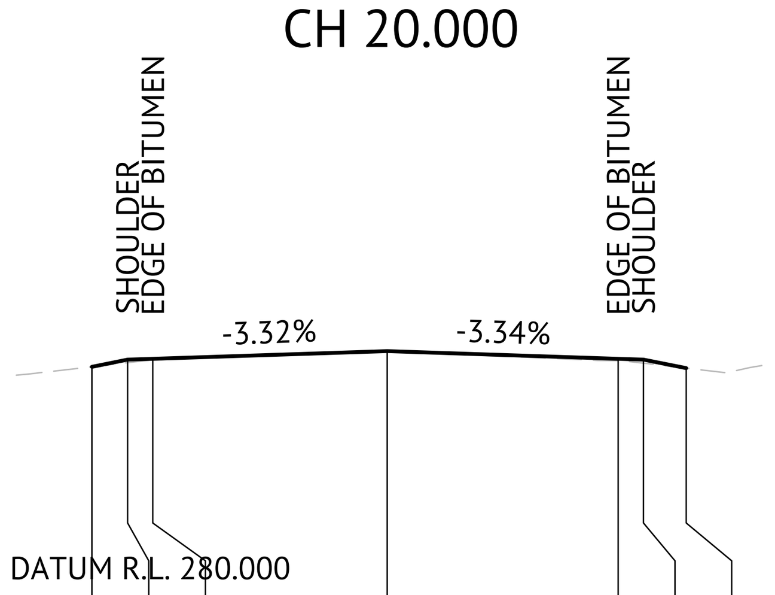
CUT/FILL	0.000	0.138	0.235	0.000	0.015	0.035	0.000
FINISHED SURFACE LEVEL	283.421	283.498	283.513	283.671	283.581	283.566	283.517
NATURAL SURFACE LEVEL	283.421	283.360	283.278	283.671	283.566	283.532	283.517
OFFSET	-6.590	-6.182	-5.658	0.000	3.000	3.500	3.748

CH 50.000

DATUM R.L. 281.000

CUT/FILL	0.000	0.036	0.032	-0.012	0.019	0.012	0.000
FINISHED SURFACE LEVEL	283.576	283.773	283.790	283.900	283.820	283.807	283.793
NATURAL SURFACE LEVEL	283.576	283.738	283.758	283.912	283.802	283.795	283.793
OFFSET	-9.191	-5.389	-4.796	0.000	3.000	3.500	3.569

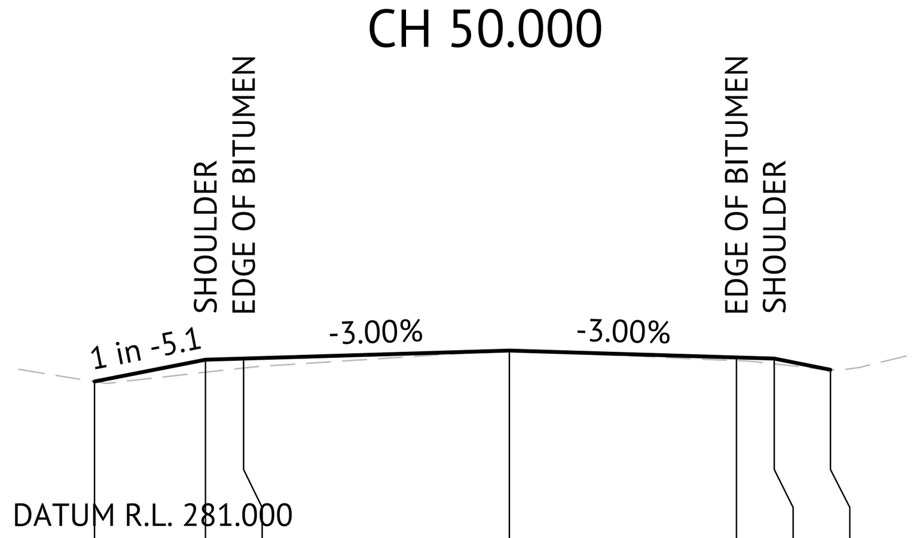
CH 80.000



DATUM R.L. 280.000

CUT/FILL	0.000	0.040	0.014	0.002	0.027	0.048	0.000
FINISHED SURFACE LEVEL	283.062	283.156	283.166	283.269	283.167	283.157	283.044
NATURAL SURFACE LEVEL	283.062	283.116	283.152	283.267	283.140	283.109	283.044
OFFSET	-3.904	-3.433	-3.099	0.000	3.052	3.385	3.950

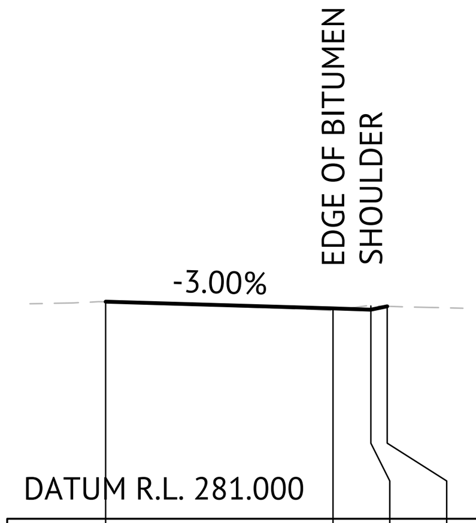
CH 10.000



DATUM R.L. 281.000

CUT/FILL	0.000	0.165	0.125	0.001	0.042	0.071	0.000
FINISHED SURFACE LEVEL	283.163	283.451	283.466	283.571	283.481	283.466	283.317
NATURAL SURFACE LEVEL	283.163	283.286	283.341	283.571	283.440	283.395	283.317
OFFSET	-5.486	-4.019	-3.514	0.000	3.000	3.500	4.244

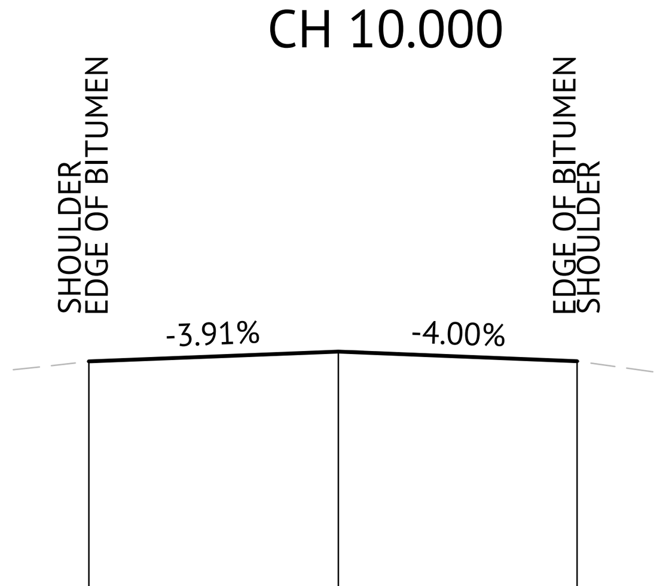
CH 40.000



DATUM R.L. 281.000

CUT/FILL	0.003	0.024	-0.048	0.000
FINISHED SURFACE LEVEL	283.871	283.781	283.766	283.809
NATURAL SURFACE LEVEL	283.868	283.758	283.815	283.809
OFFSET	0.000	3.000	3.500	3.715

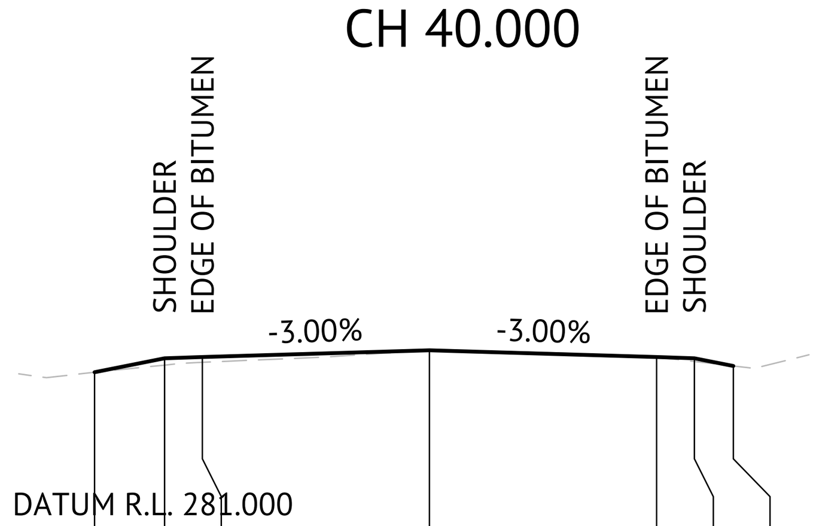
CH 70.000



DATUM R.L. 280.000

CUT/FILL	0.000	-0.004	0.000
FINISHED SURFACE LEVEL	283.080	283.209	283.083
NATURAL SURFACE LEVEL	283.080	283.213	283.083
OFFSET	-3.298	0.000	3.156

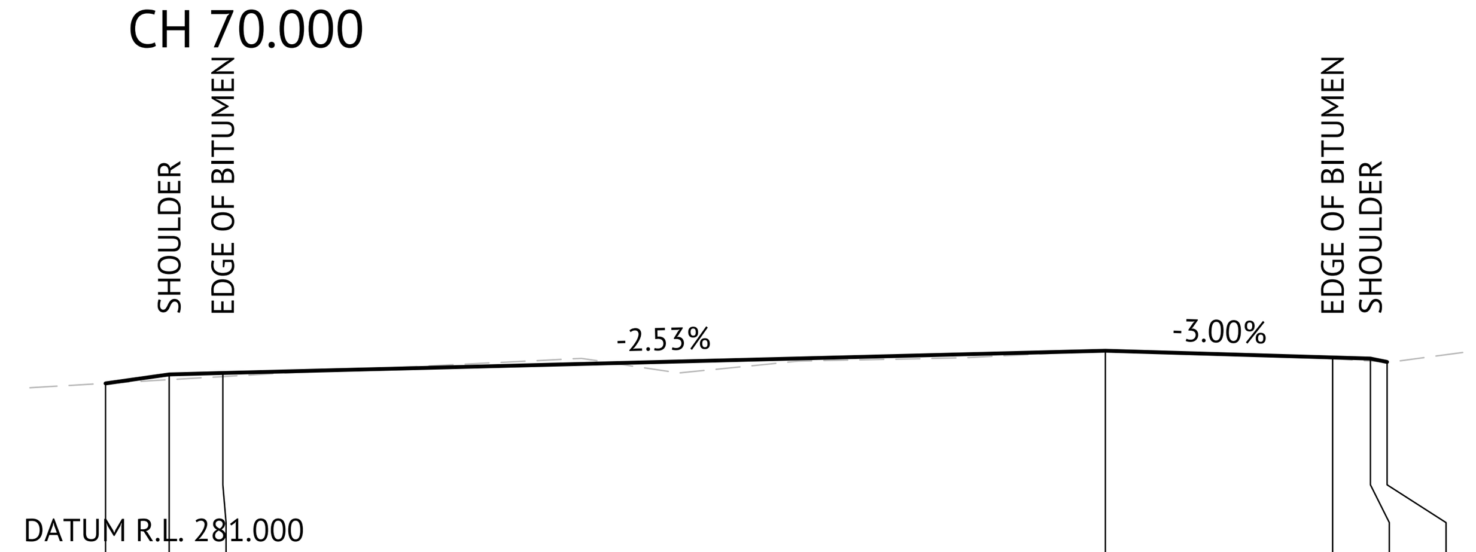
CH 0.000



DATUM R.L. 281.000

CUT/FILL	0.000	0.091	0.070	-0.000	0.005	0.043	0.000
FINISHED SURFACE LEVEL	283.144	283.329	283.344	283.434	283.344	283.329	283.227
NATURAL SURFACE LEVEL	283.144	283.238	283.275	283.434	283.340	283.287	283.227
OFFSET	-4.426	-3.500	-3.000	0.000	3.000	3.500	4.014

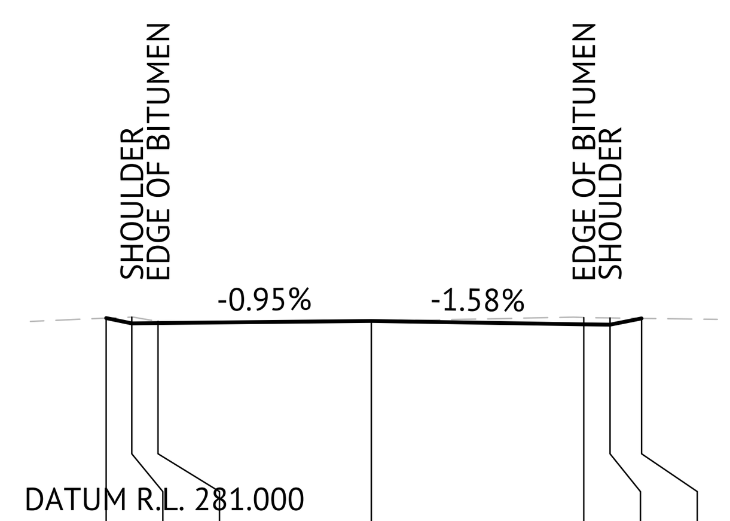
CH 30.000



DATUM R.L. 281.000

CUT/FILL	0.000	0.070	0.047	0.000	0.016	0.031	0.000
FINISHED SURFACE LEVEL	283.339	283.458	283.476	283.771	283.681	283.666	283.622
NATURAL SURFACE LEVEL	283.339	283.388	283.429	283.771	283.666	283.636	283.622
OFFSET	-13.207	-12.367	-11.659	0.000	3.000	3.500	3.720

CH 60.000



DATUM R.L. 281.000

CUT/FILL	0.000	-0.082	-0.022	0.003	-0.090	-0.089	0.000
FINISHED SURFACE LEVEL	283.791	283.723	283.727	283.753	283.709	283.706	283.789
NATURAL SURFACE LEVEL	283.791	283.806	283.749	283.751	283.799	283.795	283.789
OFFSET	-3.506	-3.167	-2.819	0.000	2.808	3.157	3.573

CH 90.000

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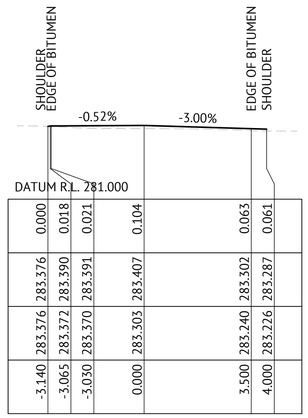
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

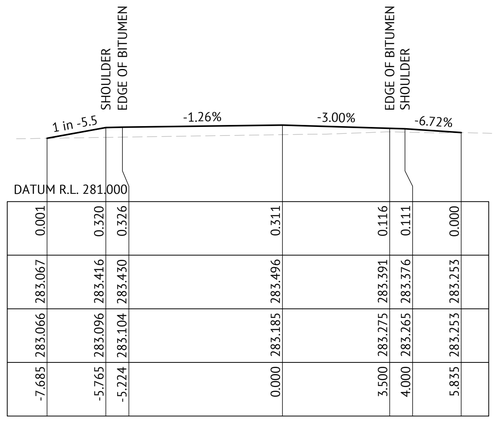
SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: QUORN PARK PROPERTY ACCESS
SHEET TITLE: ROAD CROSS SECTIONS - BLACK TRUNDLE ROAD

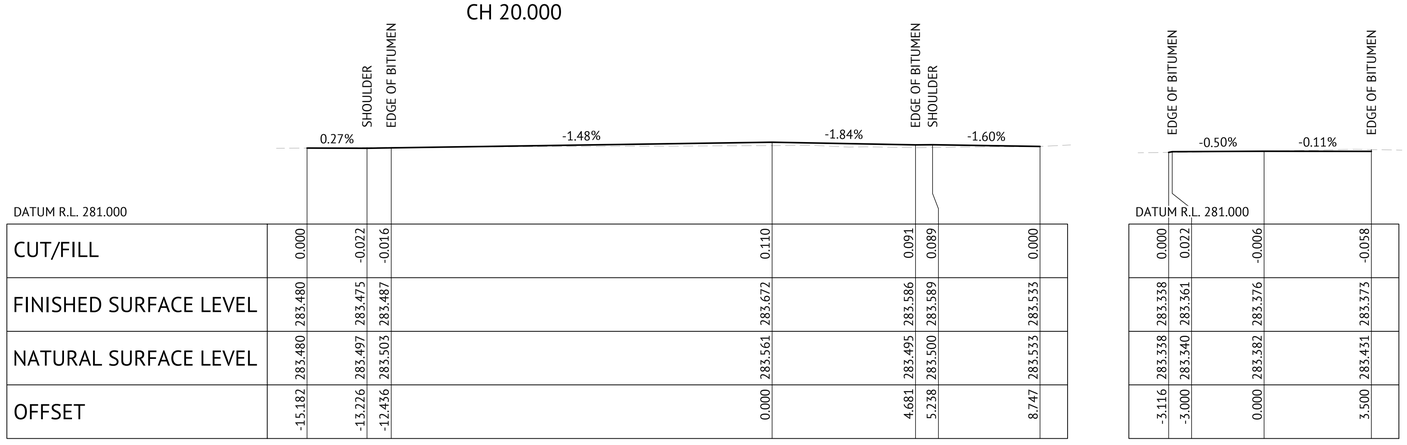
JOB CODE: 223076_02
SHEET NUMBER: C341
REV: 4



CH 30.000



CH 20.000



CH 10.000

CH 40.000

PRELIMINARY - NOT FOR CONSTRUCTION

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03/05/2023	1	ISSUED FOR APPROVAL		

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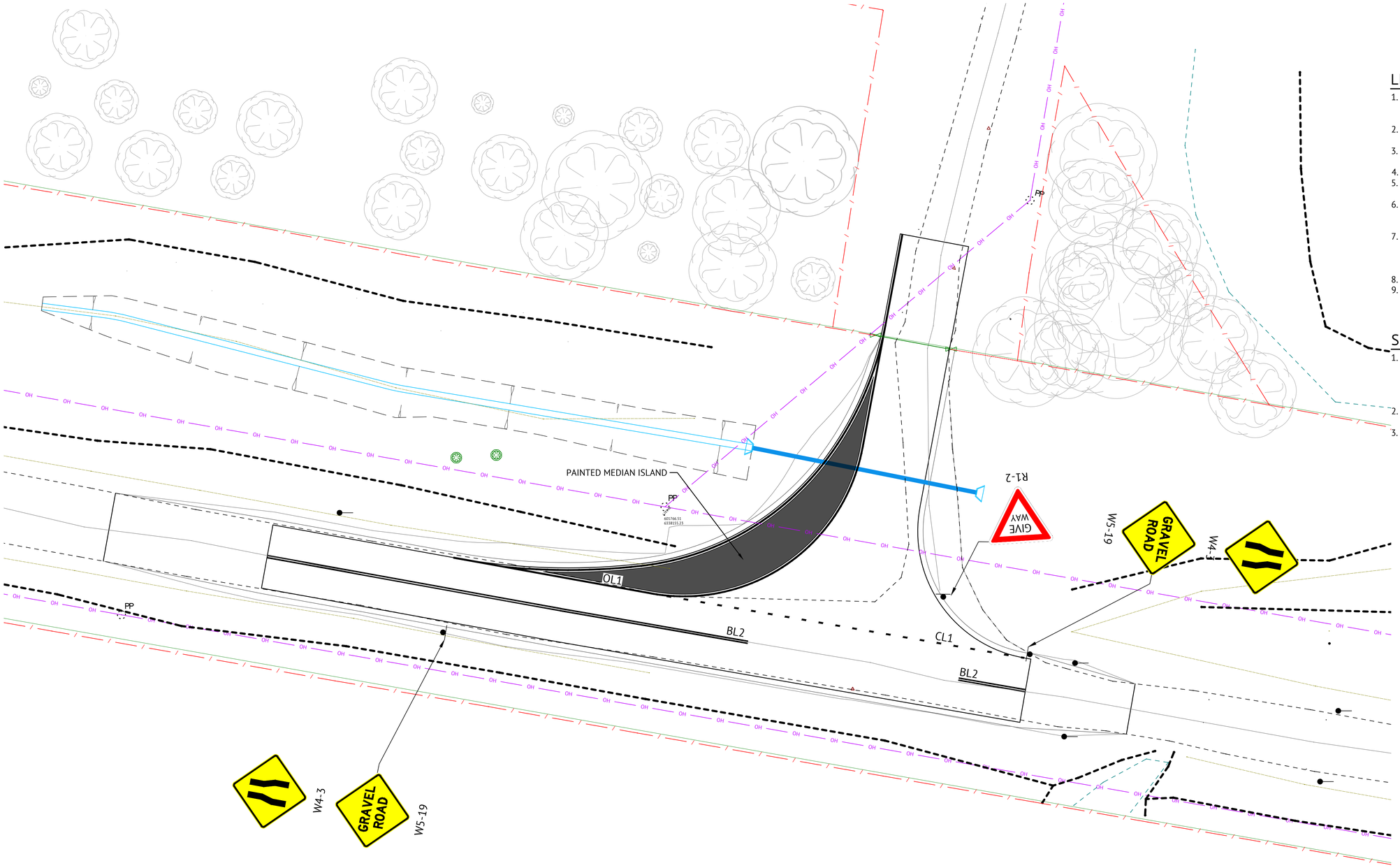
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 2 4 6m
SCALE 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE ROAD CROSS SECTIONS - PROPERTY ACCESS

JOB CODE 223076_02
SHEET NUMBER C342
REV 4



LINEMARKING NOTES

1. PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE SPECIFIC REQUIREMENTS OF TfNSW SPECIFICATIONS.
2. ALL INTERNAL LINE MARKING TO CONSIST OF LINES 100mm WIDE WITH 2 COATS OF PAINT TO MANUFACTURERS SPECIFICATIONS.
3. EXTENT OF LINEMARKING SHALL BE VERIFIED ON SITE PRIOR TO INSTALLATION.
4. ALL PAINTED MARKINGS SHALL BE APPROVED REFLECTORISED U.N.O.
5. ANY EXISTING LINE MARKINGS DAMAGED BY THE PROPOSED WORKS ARE TO BE REINSTATED.
6. EXISTING CONFLICTING LINE MARKINGS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 4 IN THE TfNSW QA SPECIFICATION R145 PAVEMENT MARKING.
7. RETRO-REFLECTIVE RAISED PAVEMENT MARKERS (RRPM's) SHALL BE PLACED 25mm TO 50mm FROM THE PAINTED LINEMARKING AND ORIENTATED SO THAT FULL REFLECTIVE EFFECT IS ACHIEVED BY AIMING THE REFLECTIVE FACE IN THE DIRECTION OF APPROACHING TRAFFIC.
8. GENERALLY THE NORMAL SPACING BETWEEN RRPM's IS TO BE 12.0m U.N.O.
9. ANY EXISTING LINEMARKING NOT SHOWN ON THIS PLAN WHICH CONFLICTS OR IS INCOMPATIBLE WITH THE PROPOSED LINEMARKING SHALL BE REMOVED BY THE CONTRACTOR.

SIGNAGE NOTES

1. LOCATION OF SIGNS SHOWN ON THIS PLAN ARE INDICATIVE ONLY. CARE AND CONSIDERATION IS TO BE GIVEN TO ON SITE CONDITIONS TO AVOID ANY VISUAL OBSTRUCTION OF THE SIGN ALONG THE INTENDED COURSE OF APPROACHING TRAFFIC. EXACT LOCATION OF ALL SIGNS SHALL BE CONFIRMED ON SITE PRIOR TO INSTALLATION.
2. SIGNS SHOULD BE ORIENTATED AT APPROXIMATELY RIGHT ANGLES TO, AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE.
3. SIGNAGE SHALL BE IN ACCORDANCE WITH:
   - TfNSW SPECIFICATIONS
   - AS1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
   - AS1743 ROAD SIGNS SPECIFICATION
   - AS4049.1 PAVEMENT MARKING MATERIALS

LEGEND - PROPOSED

SIGN

REQUIRED SIGNS

W2-3

R1-2

W4-3

W5-19

BEFORE YOU DIG www.byda.com.au

PRELIMINARY - NOT FOR CONSTRUCTION

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03/05/2023	1	ISSUED FOR APPROVAL		

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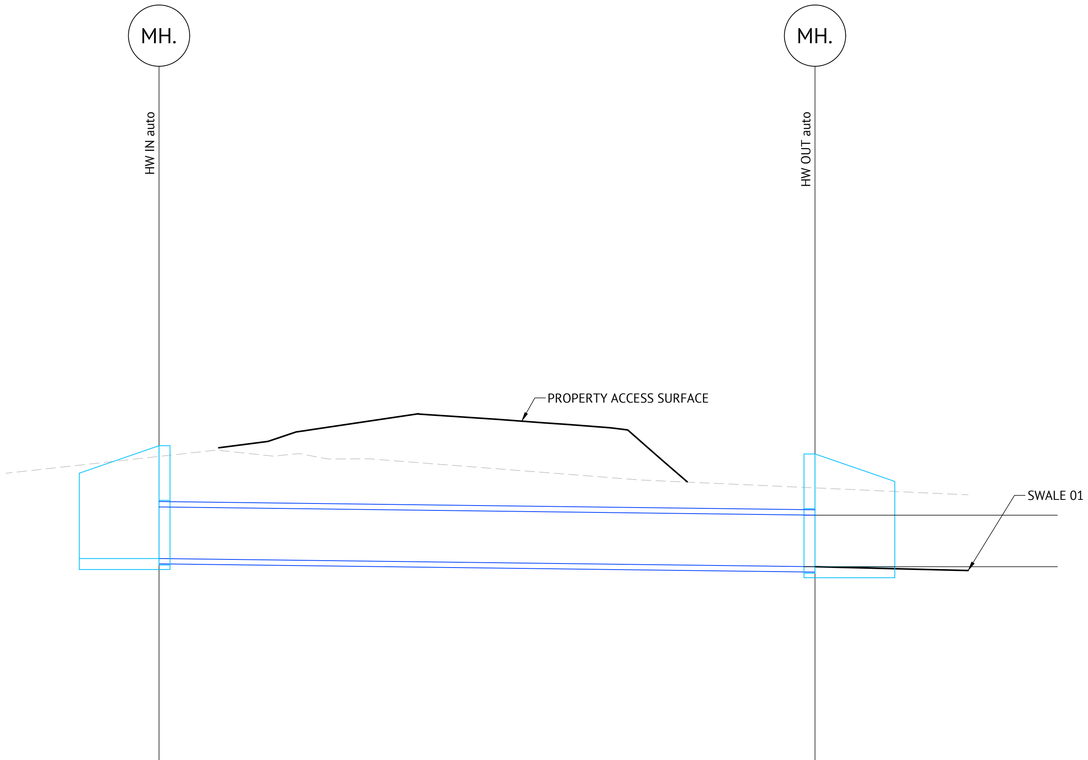
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 4 8 12m
SCALE 1:200 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE PAVEMENT MARKINGS AND SIGNAGE LAYOUT PLAN

JOB CODE 223076_02
SHEET NUMBER C351
REV 4



GRADE %		0.25%	
PIPE SIZE (mm) PIPE CLASS		375 RCP	
LINEAL DISTANCE		18.352m	
DATUM R.L.		279.000	
DEPTH TO INVERT	0.375	0.337	0.375
HYDRAULIC GRADE LINE	0.000	0.000	0.000
INVERT LEVEL	282.587	282.533 282.535	282.495
FINISHED LID/GRATE LEVEL	282.962		282.870
CHAINAGE	0.000		21.416

DRAINAGE LINE PROPERTY ACCESS
HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:20

VERTICAL GRADE			-0.50%							
DATUM R.L. 271.000										
CUT/FILL	-0.515	-0.339	-0.349	-0.351	-0.380	-0.297	-0.295	-0.262		
FINISHED SURFACE LEVEL	282.533	282.433	282.566	282.562	282.533	282.233	282.232	282.226		
NATURAL SURFACE LEVEL	283.048	282.772	282.715	282.713	282.713	282.530	282.527	282.488	282.114	
CHAINAGE	0.000	20.000	33.344	34.186	40.000	60.000	60.186	61.414	69.435	

LONGITUDINAL SECTION - SWALE01
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

PRELIMINARY - NOT FOR CONSTRUCTION

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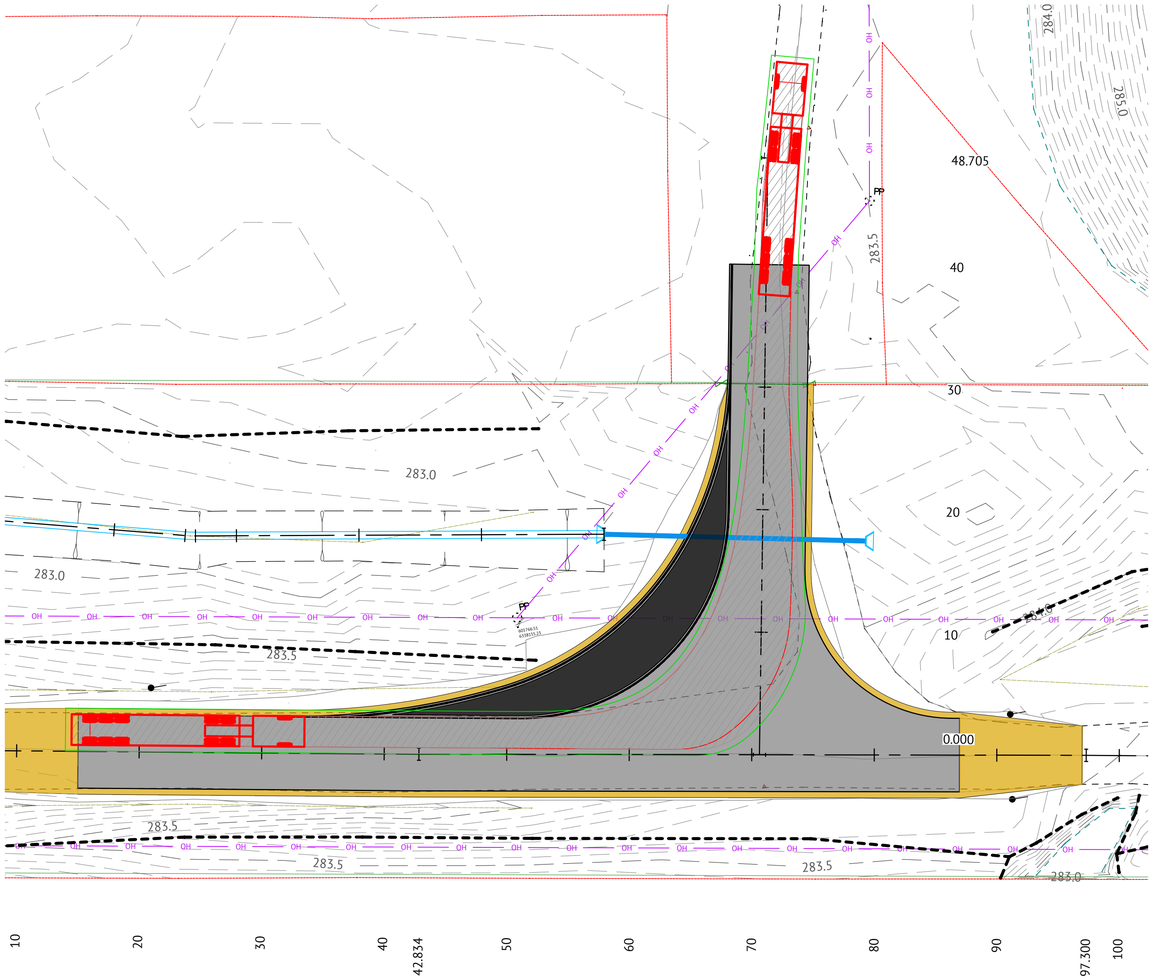
WEB: www.premise.com.au

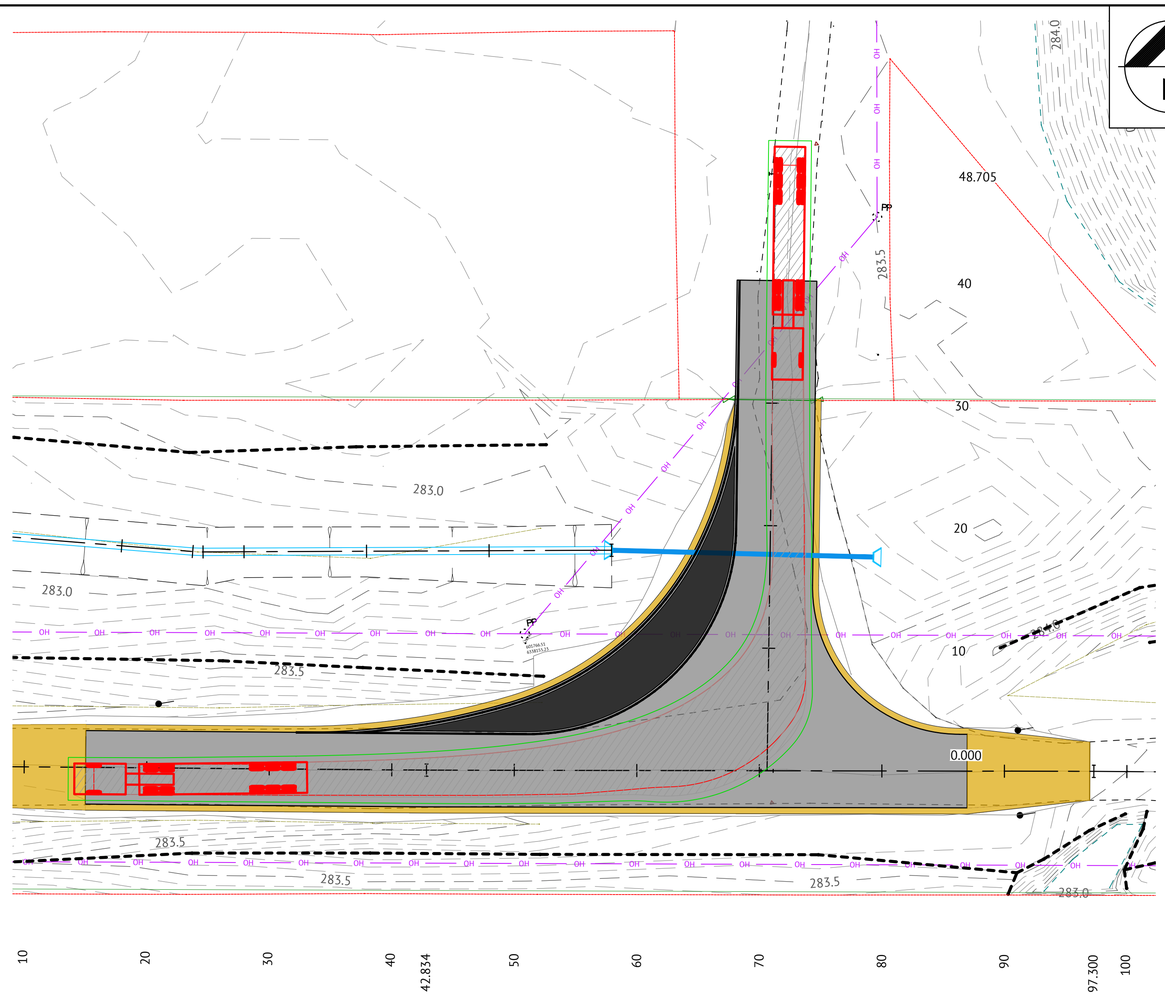
DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

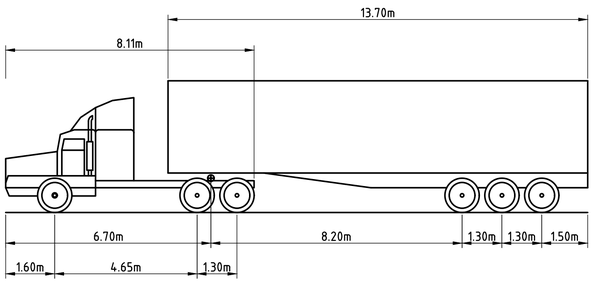
SCALE
HORIZONTAL 1:100 (A1) 0 2 4 6m
0 0.4 0.8 1.2m
VERTICAL 1:20 (A1)
HORIZONTAL 1:500 (A1) 0 10 20 30m
0 2 4 6m
VERTICAL 1:100 (A1)
ORIGINAL SHEET SIZE A1

CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE DRAINAGE LONGITUDINAL SECTIONS

JOB CODE 223076_02
SHEET NUMBER C371
REV 4







AUSTROADS PRIME MOVER & SEMI TRAILER (19m)

OVERALL LENGTH	19.000m
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
KERB-TO-KERB TURNING RADIUS	12.500m

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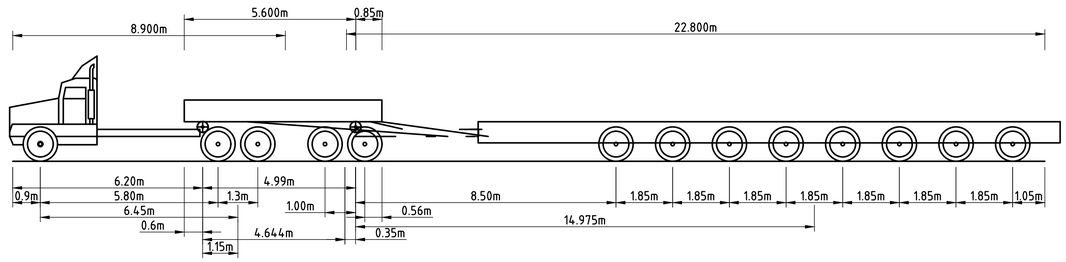
WEB: www.premise.com.au

DESIGNED R. DURHAM
CHECKED S. HOYNES
PROJECT MANAGER D. WALKER

SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

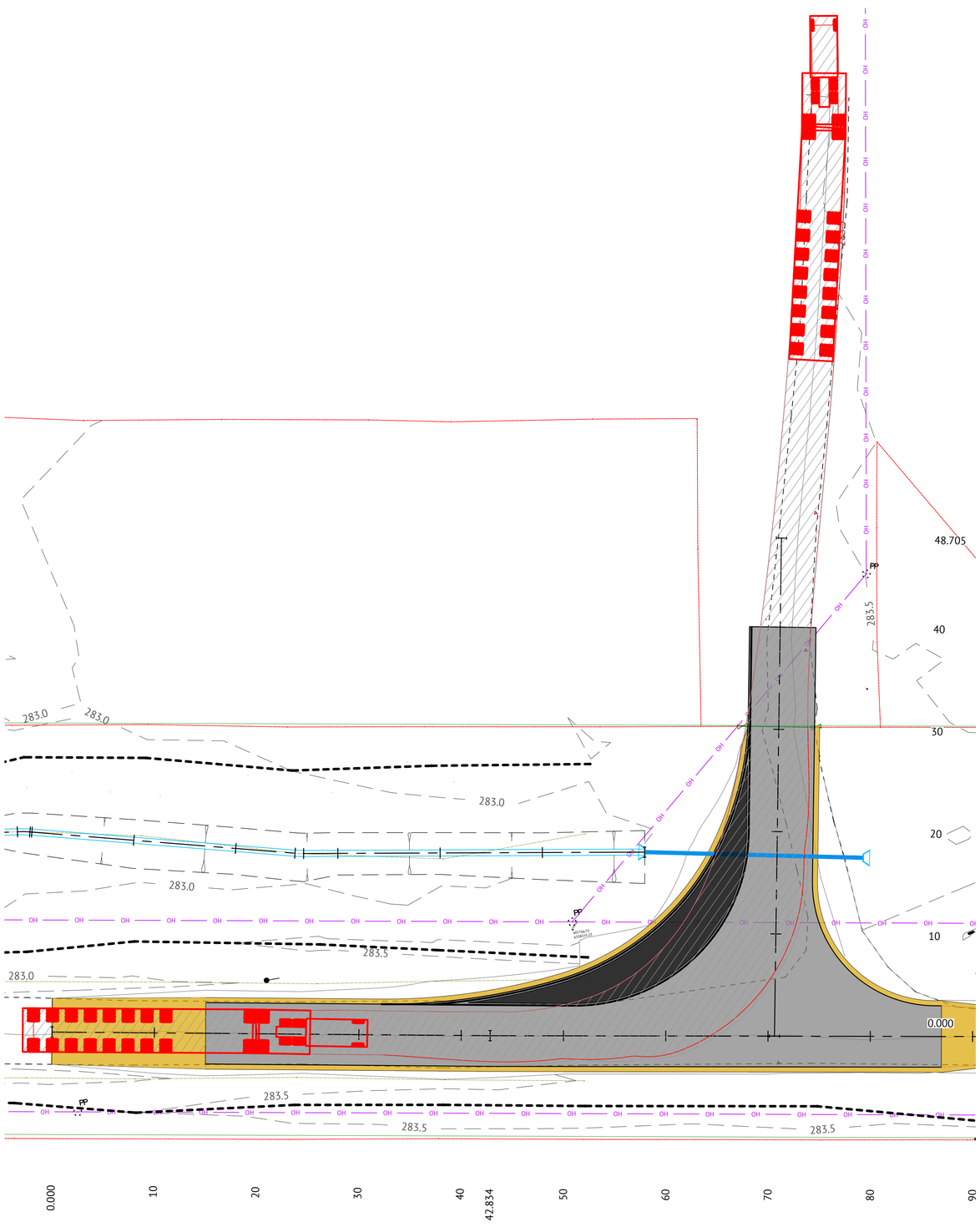
CLIENT ENEL GREEN POWER AUSTRALIA
PROJECT QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION QUORN PARK PROPERTY ACCESS
SHEET TITLE VEHICLE TRACKING - 19m PRIME MOVER AND SEMI TRAILER

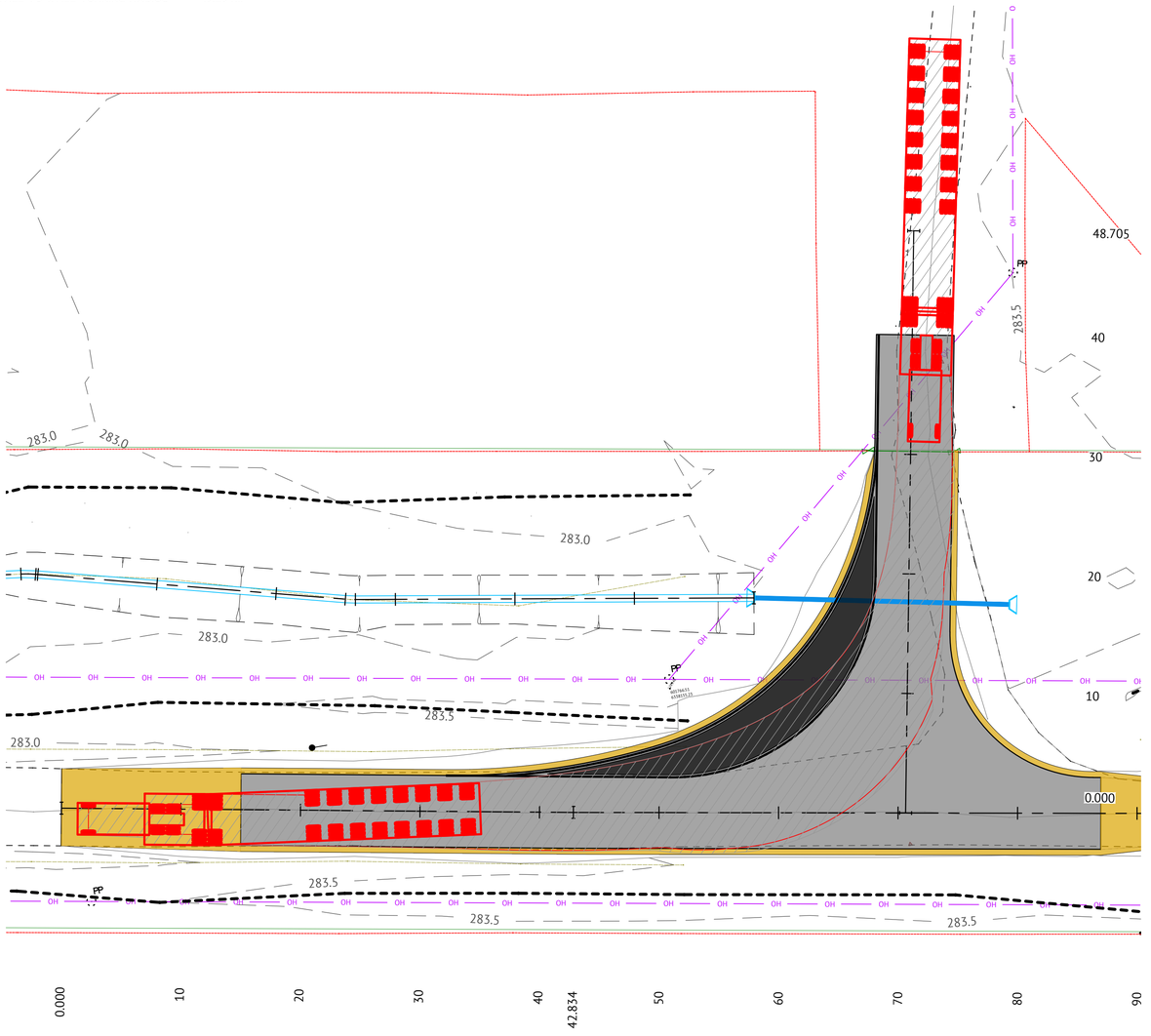
JOB CODE 223076_02
SHEET NUMBER C391
REV 4



OVERSIZE 8x8 WITH 2x8

OVERALL LENGTH	33.694m
OVERALL WIDTH	4.270m
OVERALL BODY HEIGHT	3.627m
MIN. BODY GROUND CLEARANCE	0.540m
TRACK WIDTH	4.270m
LOCK-TO-LOCK TIME	6.00s
WALL TO WALL TURNING RADIUS	19.294m





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SCALE
0 5 10 15m
SCALE 1:250 (A1)
ORIGINAL SHEET SIZE A1

CLIENT: ENEL GREEN POWER AUSTRALIA
PROJECT: QUORN PARK SOLAR FARM INTERSECTION AND ACCESS POINT UPGRADES
QUORN PARK SOLAR FARM, PARKES NSW
LOCATION: QUORN PARK PROPERTY ACCESS
SHEET TITLE: VEHICLE TRACKING - OVERSIZE 8x8 WITH 2x8

JOB CODE 223076_02
SHEET NUMBER C392
REV 4

Appendix G: Scheduled events in the Parkes LGA area 2024

Event	Location	Timing/date
Peak Hill Show	Peak Hill	12 August 2024
Parkes Annual Show	Parkes	27-28 August 2024
Trundle Bush Tucker Day	Trundle	7 September 2024
Open Gardens event	Parkes	29 September 2024
Cheers to 30 years Festival	Parkes	5 October 2024
Homegrown Parkes	Parkes	12 October 2024
Trundle Abba Festival	Trundle	19 October 2024
Charity Show n Shine	Parkes	19 October 2024
Remembrance Day	Parkes	11 November 2024

Appendix H: DPHI comments and responses

Post Approval Review
Document: Quorn Park Solar Farm Traffic Management Plan
Revision: V9 dated 17/5/24, V10 01/7/24
Reviewed: K Halliday 11/6/24, K Halliday 5/7/24

Schedule 2 - Administrative Conditions				
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT	**Sufficient (Yes/No/Partial)**	**Document reference and comment**	**Action required**	**Company response**
1. In meeting the specific environmental performance criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, upgrading or decommissioning of the development.	Partial Yes	Addressed in section 1.2.	Include commitment that all reasonable and feasible measures will be implemented to prevent and minimise any harm to the environment.	Added into section 1.2
TERMS OF CONSENT	**Sufficient (Yes/No/Partial)**	**Document reference and comment**	**Action required**	**Company response**
2. The Applicant must carry out the development: (a) generally in accordance with the EIS; and (b) in accordance with the conditions of this consent.	Partial Yes	Addressed in section 1.2.	Include commitment that the development will be carried out in accordance with the EIS cand conditions of the consent.	Added into section 1.2
Schedule 3 - Environmental Conditions - General				
TRANSPORT **Over-Dimensional and Heavy Vehicle Restrictions**	**Sufficient (Yes/No/Partial)**	**Document reference and comment**	**Action required**	**Company response**
2. The Applicant must ensure that the: (a) development does not generate more than: • 63 heavy vehicle movements a day during construction, upgrading and decommissioning; • 3 over-dimensional vehicle movements during construction, upgrading and decommissioning; • 4 heavy vehicle movements a day during operations; on the public road network;	No Partial	The TMP seeks approval to increase the number of OSOM movements. Assessment underway. Will need to be finalised prior to approval of TMP. This is underway in a separate post approval task.	Further consultation with TfNSW is required to determine if the revised vehicle number and categories (especially OSOM movements). This needs to be assessed and the TMP amended to reflect agreed limits using contemporary heavy vehicle definitions. Secretary agreement needs to be issued prior to TMP being approved.	This is ongoing and will be updated into stage 2 of the TMP. Overall numbers do not change; it is the case that some of the 63 heavy vehicle movements will now be oversize movements. Section 5.7.4 provides mechanisms for the monitoring of daily vehicle movements Staging approved by DPHI letter dated 10/7/24
(b) length of any vehicles (excluding over-dimensional vehicles) used for the development does not exceed 19 metres,	No Partial	The number and length of vehicles appear to exceed the limit specified	Review the number and length of vehicles in light of (a) above. As above	The condition excludes over-dimensional vehicles. All non over-dimensional movements will not exceed 19 m Addressed in Section 2.7.1

		in Condition 2 of Schedule 3. As above		Staging approved by DPHI letter dated 10/7/24
(c) development does not generate more than 30 vehicle movements an hour at the intersection of Henry Parkes Way and McGrath Lane unless the Secretary agrees otherwise.	Partial Yes	The proponent remains responsible for ensuring vehicle movements are not exceeded. How will this be managed? Do start times need to be staggered to ensure morning and afternoon peak does not exceed the hourly cap. Commitment included in Section 2.7.2	Include a clear commitment/statement that the limits will not be exceeded. More details are required on how	2.7.2
3. The Applicant 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.	Partial Yes	The proponent remains responsible for ensuring vehicle movements are not exceeded. How will this be managed. Table 8 says the security guard will keep daily record of vehicles and the logistics manager will have overall responsibility.	Should include a table identifying key requirements and which position is responsible for various aspects under the TMP including accurate record keeping of all heavy vehicles entering the site.	Table 8 in Section 5.7.1

Post Approval Review
Document: Quorn Park Solar Farm Traffic Management Plan
Revision: V9 dated 17/5/24, V10 01/7/24
Reviewed: K Halliday 11/6/24, K Halliday 5/7/24

Access Route	Sufficient (Yes/No/Partial)	Document reference and comment	Action required	Company response
4. All vehicles associated with the development must travel to and from the site via Henry Parkes Way, McGrath Lane, Back Trundle Road and the approved site access points on Back Trundle Road, as identified in the figure in Appendix 1 and Appendix 3.	Partial Partial	The approved access points and access roads are described, however, it is not clear how drivers will be prevented from using other roads eg a worker in a light vehicle travelling to site might take the shortest route Additional information added to Section 2.4.2 regarding light and heavy vehicles.	Address how are vehicles will be stopped from using roads other than the approved access the site. Confirm that GPS tracking will be undertaken and there is a process to review the results. Assign responsibility to a position (Logistics Coordinator?). Confirm which vehicles this will apply. If GPS tracking is not in all vehicles be careful to qualify the commitment that only those with GPS units already fitted will be checked on a periodic basis.	Section 5.8.2 talks about site induction and covers designated vehicle routes. This also addressed in the driver code of conduct. Section 5.8.2 and the Driver Code of Conduct have been updated to confirm the weekly checking of GPS data (where fitted) and the weekly physical check of the local routes to confirm vehicles are only using approved routes and that no parking is occurring on the public road (noting that during road upgrades some parking on public roads will be required).
Road Upgrades and Site Access	**Sufficient (Yes/No/Partial)**	**Document reference and comment**	**Action required**	**Company response**
5. Unless the Secretary agrees otherwise, prior to commencing construction, the Applicant must implement the road upgrades identified in Appendix 3. These upgrades must comply with the Austroads Guide to Road Design (as amended by TfNSW supplements) and be carried out to the satisfaction of the relevant road authority.	Partial Yes	Section 2.5 states that prior to commencing construction the road upgrades will be completed prior to construction commencing. Commitment added to Section 2.5	Include a commitment that all road works will comply with all relevant guidelines and standards etc. and be carried out to satisfaction of relevant road authority.	Section 2.5

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Operating Conditions	Sufficient (Yes/No/Partial)	Document reference and comment	Action required	Company response
6. The Applicant must ensure: (a) the internal roads are constructed as all-weather roads;	Yes	Section 2.6.2 commits to all internal roads being 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;	Partial Partial	Adequate parking is required for workers, heavy vehicles and equipment used on site and deliveries.	Provide details on truck parking and heavy vehicles How will parking on public roads be controlled? Deliveries of materials, equipment etc Unlikely that all vehicles will have GPS. Include regular visual checks that no parking occurs along access roads in the CTMP Monitoring and Review. Assign responsibility to a role on site.	The Driver Code of Conduct prohibits off site parking – Appendix E. Monitored through the use of GPS tracking – Section 5.8.2 and the Driver Code of Conduct have been updated to confirm the weekly checking of GPS data (where fitted) and the weekly physical check of the local routes to confirm vehicles are only using approved routes and that no parking is occurring on the public road (noting that during road upgrades some parking on public roads will be required).
(c) the capacity of the existing roadside drainage network is not reduced;	No Yes	No comment or details provided on roadside drainage Section 5.5.5 added addressing roadside drainage.	Include measures that will be taken to protect the roadside drainage network	Addressed in Section 5.4.5
(d) all vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction;	Yes	Addressed Section 5.1.2		
(e) development-related vehicles leaving the site are in a clean condition to minimise dirt being tracked onto the sealed public road network.	Yes	Addressed in section 5.4.4		

Post Approval Review
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Reviewed: K Halliday 11/6/24, K Halliday 5/7/24

Traffic Management Plan	Sufficient (Yes/No/Partial)	Document reference and comment	Action required	Company response
7. Prior to commencing the road upgrades identified in condition 5 of Schedule 3, the Applicant must prepare a Traffic Management Plan for the development in consultation with TfNSW and Council, and to the satisfaction of the Secretary in writing. This plan must include:	Yes	Parkes Shire Council supports the approval of the TMP. TfNSW comments are addressed below.		
(a) details of the transport route to be used for all development-related traffic;	Yes			
(b) details of the road upgrade works required by condition 5 of Schedule 3 to this consent;	Partial Yes	Commitment added to Section 2.5	Include a clear commitment that the road upgrade works required under Condition 5 of schedule 3 will be undertaken.	Section 2.5
(c) a protocol for undertaking independent dilapidation surveys to assess the: • existing condition of McGraths Lane and Back Trundle Road prior to construction, upgrading or decommissioning activities; and • condition of McGraths Lane and Back Trundle Road following construction, upgrading or decommissioning activities;	Partial Yes	More details required on the protocol for assessing road conditions during the construction phase. Additional information provided in Section 5.7.1	Specify which additional stages that additional surveys will apply. Based on time frames, weather conditions, vehicle numbers, OSOM movements, complaints?? What will trigger additional surveys?	Section 5.6.1
(d) a protocol for the repair of McGraths Lane and Back Trundle Road if dilapidation surveys identify these roads to be damaged during construction, upgrading or decommissioning works;	Partial Yes	Additional information provided in Section 5.7.5	Include more details on the protocol for assessing road conditions during the construction phase. Use definitive language eg will rather than may. There needs to be a clear process to determine if and when construction vehicles should be suspended eg safety risks etc.	5.6.5
(e) details of the temporary on-site construction car park;	Partial Yes	Some information on car parking. Also indicated that it could move multiple times Addressed in Section 2.6.1	Provide details on the size of the car park and possible location(s). How will it be constructed? Where do contractors park? How are the number of non staff vehicles managed?	2.6.1

(f) details of the measures that would be implemented to minimise traffic impacts during construction, upgrading or decommissioning activities, including: • temporary traffic controls, including detours and signage;	Partial Yes	The need for an on site traffic control scheme and traffic guidance scheme is noted in Section Commitment included in Section 5.3.1 to prepare TGS.	Include the TGS and TCS in the TMP.	Section 5.3.1 addresses the requirement to put a TGS in place. A TGS is the new term for a traffic control plan/scheme. From a review of recently approved TMP's, the TGS itself is not typically included. This will be prepared by the contractor who completes the works as part of their ROL application.
• notifying the local community about development-related traffic impacts;	Partial Yes	Communications strategy is addressed in section 5.8.4.	Include details of information to be provided on website. Community notifications will be needed regarding heavy vehicles under escort, road upgrade activities and any associated road closures, reduced speeds etc. Include proactive measures to liaise with potentially sensitive nearby receptors etc	Section 5.7.5
• procedures for receiving and addressing complaints from the community about development-related traffic;	Partial Partial	It should be noted that the proponent is ultimately responsible for complaints.	Specify applicable timeframes for addressing each stage of a complaint. Will they be reported as received, weekly to the proponent? What oversight will be incorporated in the monitoring by the proponent? The TMP (and all management plans) should be stand alone and include relevant procedures to follow including grievance management. Include the grievance procedure which is common to the EMS.	5.10 has been aligned with the EMS and Table 11 has been added Section 5.11.2 has been updated to be consistent with Section 8.3 of the EMS
• minimising potential cumulative traffic impacts with other projects in the area, including the Goonumbla Solar Farm and the Parkes Solar Farm during construction, upgrading or decommissioning works;	Partial Yes	Goonumbla Solar Farm and Parkes Solar Farm have been constructed and impact minimal as operational	Provide detail on how cumulative impacts will be minimised eg communicating about OSOM vehicle movements so not to overlap.	Section 5.7.4
• minimising potential for conflict with school buses, other road users and rail services as far as practicable (measures also required during operation of the project), including	Partial Yes	Designated school routes are identified in Section 5.5 and no	How will measures be enforced and monitored to ensure queuing on the public road network is avoided. Who is responsible for scheduling?	5.4.7

preventing queuing on the public road network;		school bus stops in the vicinity of the site. Section 56 Commitment included to avoid deliveries during school bus hours		
• minimising dirt tracked onto the public road network from development-related traffic;	Partial Yes	Section 5.4.4 includes steps to minimise potential for tracking dirt onto public roads Responsibility assigned to HSE advisor	Who is responsible for ensuring this happens including monitoring and rectification if dirt tracked onto public roads.	5.4.4
• 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;	Partial Yes	Section 2.6.3 and 2.6.4 addresses shuttle bus. Providing for 100 construction workers.	Greater consideration needs to be given to shuttle bus numbers, location of pick up points. What controls are there to ensure worker numbers don't exceed parking spaces and daily vehicle limits? 130 workers mentioned in TMP versus 100 in the EIS. Details are lacking. Need to demonstrate that no impact on traffic rom the TIA.	2.6.3
• scheduling of haulage vehicle movements to minimise convoy length or platoons;	Partial Yes	Regular scheduling to address delivery times in Section 5.2.3	Who and how will this be undertaken? "Careful management" does not explain. Proactive scheduling will be required to minimise the potential for convoys, queues. Provide greater detail.	5.2.3
• responding to local climate conditions that may affect road safety such as fog, dust and wet weather;	Yes	Local climate conditions are addressed in Section 5.4		-
• responding to any emergency repair or maintenance requirements; and	Partial Yes	Road repairs are discussed in Section 5.6.5. Amended language	Use definitive language eg will versus may. There needs to be a clear process to determine if and when construction vehicles should be suspended on public roads eg safety risks etc.	Updated
• a traffic management system for managing over-dimensional vehicles;	Partial N/A	Section 5.3.2 refers to the	Include the TGS in an appendix? in the TMP. Details should be provided.	This will be dealt with by an updated TMP in stage 2

		preparation of a TGS. To be addressed in later stage of TMP		
(g) a driver's code of conduct that addresses: • travelling speeds; • driver fatigue; • procedures to ensure that drivers adhere to the designated transport routes; and • procedures to ensure that drivers implement safe driving practices;	Partial Yes	The figure in 2.5 of the Code of conduct applies to all vehicles The approved route for vehicles associated with the development (not just trucks). Additional details have been added including maps.	More details are required in the code of conduct. Should include details on approved routes for vehicles, access point, parking information and restrictions on public roads near the site etc. Driver behaviour - alcohol, drugs, fatigue, wildlife etc Will there be monitoring of work hours and travel times.	
(h) 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; and	Partial Yes	Section 5.7.1 provides basic details on inductions focussing on staff. Online delivery of workers prior to commencing on site outlined in 5.8.2.	Induction should be required for all staff, contractors, delivery, truck drivers etc (not just construction staff) Discuss the mechanisms to be used to ensure that all workers undertake the induction. Eg training records, monitoring etc	5.8.2
(i) a flood response plan detailing procedures and options for safe access to and from the site in the event of flooding.	Yes	Section 5.4.2 discusses the unlikely chance of flooding and response should it occur.		-
Following the Secretary's approval the Applicant must implement the Traffic Management Plan.	Yes	Commitment included in Table1		
Schedule 4 Environmental Management and Reporting				
Environmental Management Strategy	**Sufficient (Yes/No/Partial)**	**Document reference and comment**	**Action required**	**Company response**

1. Prior to commencing construction, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary in writing. This strategy must:				yy
(a) provide the strategic framework for environmental management of the development; (b) identify the statutory approvals that apply to the development; (c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development; (d) describe the procedures that would be implemented to: • keep the local community and relevant agencies informed about the operation and environmental performance of the development; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise; • respond to any non-compliance; respond to emergencies; and (e) include: • references to any plans approved under the conditions of this consent; and • a clear plan depicting all the monitoring to be carried out in relation to the development .	No Partial		Include reference to the EMS which provides the strategic framework for environmental management including the TMP, responsibilities, processes and procedures for monitoring, complaints, notifications etc The TMP (and all management plans) should be stand alone and include relevant procedures to follow including grievance management. Provide an outline the grievance procedure which is the same as the EMS.	1.2 Complaint management is addressed in Section 5.11 Section 5.11.2 has been updated to be consistent with Section 8.3 of the EMS
Revision of Strategies, Plans and Programs	**Sufficient (Yes/No/Partial)**	**Document reference and comment**	**Action required**	**Company response**
2. The Applicant must: (a) update the strategies, plans or programs required under this consent to the satisfaction of the Secretary prior to carrying out any upgrading or decommissioning activities on site; and	Partial Yes	Reference is made to review to enhance safety and efficiency in Section 5.7.4 but does not consider	Include commitment that the TMP will be updated prior to any upgrading or decommissioning activities.	1.2

		phases beyond construction. Addressed in Section 1.2		
(b) review and, if necessary, revise the strategies, plans or programs required under this consent to the satisfaction of the 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.	No Yes	Addressed in Section 1.2	Reference the review and revise requirements that are triggered under certain circumstances specified in this condition.	1.2
Updating and Staging of Strategies, Plans or Programs	**Sufficient (Yes/No/Partial)**	**Document reference and comment**	**Action required**	**Company response**
3. With the approval of the 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 Secretary for approval. With the agreement of the 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.	Partial Yes	Suggested staging sequence could include: Stage 1a - Road upgrades or maintenance works to the public road network outlined in Appendix 1 of the development consent, building/road dilapidation surveys, installation of fencing, artefact survey and/or salvage, overhead line safety marking and geotechnical drilling and/or surveying; Stage 1b – commencement of	The TMP should be staged to enable adequate time for consultation with Transport for NSW and Council regarding OSOM movements.	A letter has been submitted via the portal. Section 1.6 has been added

		construction of the solar farm; Stage 1c: continuation of the construction of the solar farm and the transport of heavy vehicles requiring escort during construction as described in Condition 2(a) of Schedule 3 of the development consent. The TMP for this stage will need to include details of consultation with Council and TfNSW; Stage 3: Operation of the Quorn Park Solar Farm; and Stage 4: Decommissioning the Quorn Park Solar Farm at end of life. Addressed as a separate post approval matter and relevant changes made to this version of the TMP		
NOTIFICATIONS **Incident Notification**	**Sufficient (Yes/No/Partial)**	**Document reference and comment**	**Action required**	**Company response**
7. The Department must be notified via the Major Projects website portal immediately after the Applicant becomes aware of an incident. The notification must	No Yes	Text has been amended	Include a section that addresses all the notification requirements. The TMP (and all management	5.12

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.			plans) should be stand alone and include relevant procedures for incidents, non compliances etc Check next version of TMP to ensure consistency with final version of EMS.	
Non-Compliance Notification	**Sufficient (Yes/No/Partial)**	**Document reference and comment**	**Action required**	**Company response**
8. The Department must be notified in writing via the Major Projects website portal within 7 days after the Applicant becomes aware of any non-compliance with the conditions of this consent. The 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 done, or will be, undertaken to address the non-compliance.	No Yes	Text has been amended	Include a section that addresses all the notification requirements. The TMP (and all management plans) should be stand alone and include relevant procedures for incidents, non compliances etc Check next version of TMP to ensure consistency with final version of EMS.	5.12
ACCESS TO INFORMATION	**Sufficient (Yes/No/Partial)**	**Document reference and comment**	**Action required**	**Company response**
10. 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; • NSW Government • Planning, Industry and Environment 16	Partial Yes	Section 5.7.3 addresses the communications strategy. It should be noted that ultimately the proponent is responsible for providing access to information. Additional details provided in Section 5.8.4	The communications strategy should include relevant up to date information to be provided on a website that is advertised. Local residents can access details on heavy vehicle movements, OSOM movements, road upgrades, changes to traffic conditions, complaints process, contact people and numbers..	5.9.1

• a complaints register; • compliance reports; • any independent environmental audit, and the Applicant's response to the recommendations in any audit; and • any other matter required by the Secretary; and				
(b) keep this information up to date.			As above	
EIS commitments – TMP to include the following:	**Sufficient (Yes/No/Partial)**	**Document reference and comment**	**Action required**	**Company response**
• Construction timeframe and staging of works,	Partial Yes	Section 1.6 addresses staging of the TMP.	See comments above regarding suggested staging of the TMP. Include details of timeframes for the stages.	**1.6**
• Measures to consult with other road users to minimise impacts (eg. liaison with school bus operators).	Yes	Section 5.5 addresses school bus operations. No bus stop in the immediate vicinity.		
• Confirmation of anticipated additional traffic volumes generated by the farm,	Yes	Figures have been updated in the TMP.		
• Confirmation of final HV and OD vehicle haulage routes to be used for all delivery vehicles,	Partial Yes	Designated vehicle route shown on Figure 8. OSOM vehicles to be addressed at a later stage of the TMP.	Provide clear information for all drivers and ensure movements are monitored. Final confirmation of OSOM vehicle routes to be addressed at a later stage of the TMP following consultation with TfNSW and Council.	**xx**
• A process to review haulage route road conditions prior to the commencement of works,	Yes	Road dilapidation protocol outlined in Section 5.6		
• A process to carry out pre and post construction road dilapidation surveys to ensure McGrath Lane and Back Trundle Road roads are reinstated to pre-construction conditions,	Yes	Section 5.6 describes the road dilapidation surveys.		

• Requirements for any additional TMP(s) required for a specific work stage/process (e.g. delivery of oversize components),	Partial Yes	Section 1.6 addresses staging of the TMP. OSOM vehicles to be addressed at a later stage of the TMP.	See comments above regarding suggested staging of the TMP.	**1.6**
• Qualify and identify any relevant mechanisms for OD vehicle permits and traffic management requirements.	Partial Yes	Section 1.6 addresses staging of the TMP. OSOM vehicles to be addressed at a later stage of the TMP.	See comments above regarding suggested staging of the TMP.	**1.6**
Other Agency Comments - Transport for NSW (18/7/24)	**Sufficient (Yes/No/Partial)**	**Document reference and comment**	**Action required**	**Company response**
Reference is made to the Traffic Management Plan (TMP) submitted for Transport for NSW (TfNSW) consideration in accordance with consent Condition 2, Schedule 3- Environmental Conditions 2,3,4,5,6 and 7 of Notice of Determination for SSD-9097 issued 16 July 2020. *TfNSW has reviewed the TMP prepared by Arc Traffic & Transport dated 20 June 2023, the EIS prepared by Premise dated October 2019 dated 20 June 2023 (and associated amendments).* *TfNSW are **not satisfied** that the TMP prepared by Arc Traffic and Transport dated 20 June 2023 satisfies the relevant conditions of the development consent (specified above) and require the TMP to be revised to address the following comments (below).* *The revised/updated TMP is required to be referred to TfNSW in accordance with Condition 7 of the Notice of Determination upon completion of the revisions/updates to the TMP to address the matters identified below.*	Partial Yes	Section 1.6 addresses staging of the TMP. OSOM vehicles to be addressed at a later stage of the TMP.	Revise TMP to further address staging and particularly the required details for OSOM vehicles. Some issues requested by TfNSW are unable to be addressed until later in the process as details of OSOM movements are refined.	1.6
• *Generally - The TMP is required to be revised to clarify what stages of the construction process the TMP is addressing. It is noted that there is an emphasis within the draft TMP on the road works component of the construction phase with minimal details regarding OSOM routes, the OSOM*	Partial Yes	Some details regarding OSOM movements are provided in Section 4.6	Refer to comments above regarding staging to enable construction to commence and allow time for OSOM vehicle issues to be addressed.	1.6

	dimensions of the laden loads, compliance with the TIA, heavy vehicles routes, shuttle bus/carpooling commitments and compliance with the specific conditions within Schedule 3-Transport of the development consent have been addressed.		Section 1.6 addresses staging of the TMP. OSOM vehicles to be addressed at a later stage of the TMP.		
•	*Specify how compliance is achieved with Condition 2(a) of the development consent "(a) generally in accordance with the EIS" in this regard how the TMP achieves compliance with the TIA (which forms part of the EIS) and any recommendations within the TIA that were required to be provided as a part of the TMP.*	Partial Yes	Addressed in part in Section 5.7 Additional information provided in Table 3.	Include the recommendations from the TIA in Table 2 or a new table or section and cross detail how the recommendation has been addressed.	Table 3
•	*The concept design is required to be provided for the intersection of the Henry Parkes Way/McGrath Lane for the BAR/BAL intersection upgrade works, is required to be provided as a part of the TMP, to allow for design review and to ensure compliance with the conditions of the development consent (as per the requirements of condition 7(b)). The concept design currently provided as a part of the TMP is unclear, does not provide dimensions or swept paths for the design vehicles.*	Yes	Vehicle tracking plan provided in Appendix D for concept plan for the intersection.		
•	*The Traffic Management Plan identifies the development of a TGS for Temporary Traffic Management during the road upgrades. The TGS is required to be developed as a part of the TMP as per the requirements of condition 7(f) of the development consent. The TGS is required to be developed by a qualified person holding the 'Prepare Work Zone Traffic Management Plan' (PWZTMP) accreditation.*	Partial Yes	Addressed in part in Section 5.3. Commitment included in Section 5.3.1 to prepare TGS.	Include the TGS prepared by suitably qualified person. This should be included in the next stage of the TMP.	xx What is XX that has been referred to? A note has been added in section 5.4.1 to confirm that the TGS will be attached for stage 2.
•	*Section 2.1.3.8 of the EIS states that monthly employment is expected to peak at approx. 100 onsite workers involved in construction of the solar farm. Section 3.6.2 of the Traffic Management Plan indicates there is potential for up to 130 construction staff to be onsite at once. Further information is required as to how this increase will*	Partial Yes	Addressed in part in Section 2.6 and 2.7 Section 2.6.3 and 2.6.4 addresses	More details are required on the shuttle buses and how they will be managed. Who will be responsible for scheduling, pick up points, ensure workers are encouraged to use, overall vehicle trips to site are not exceeded.	2.7.2

affect traffic generation and vehicle movement limits shown in the TIA (60 light vehicle trips) and condition 2(c) of the consent. What are the implications in terms of distribution and points of origin?		shuttle bus. Providing for 100 construction workers.	More details on pick up points to be provided in next stage.	
• *To adequately address Condition 7(f) and to comply with the vehicle movements proposed in the TIA and condition 2(c)of the consent, details need to be provided for the employee shuttle bus service. The TMP needs to be updated with the following information:*	Partial Yes	As above	As above	See below
– *Provide enforceable measures/strategies/protocols to ensure full compliance with the TIA, maximum light vehicles for peak (as per TIA) (60 light vehicle trips) during the AM/PM peaks and condition 2C (max 30 vehicle movements an hour at the intersection of Henry Parkes Way and McGrath Lane). As a part of addressing this specify who is responsible for enforcement, how the measures will be enforced, what methods will be provided to monitor compliance, procedure for breaches in compliance and specify procedure for reviews of the implemented protocols, procedures, strategies.*	Partial Yes	As above	As above	See below
– *Identify pick-up and drop-off points and associated parking arrangements for workers, and measures to encourage shuttle bus usage.*	Partial Yes	As above Addressed in Section 2.63	As above	2.6.3
– *Identify if the shuttle buses will be located at the project area during the day or return to another location outside of the AM/PM peak hours.*	Partial Yes	As above Addressed in Section 2.6.4	As above	2.6.4
– *Identify how the shuttle buses will be monitored for compliance, chain of responsibility and protocols for breaches in compliance with the LV numbers.*	Partial Yes	As above Addressed in Section 2.6.4	As above	2.6.4 and 5.12
• *Section 6.1.3 of the Traffic Management Plan suggests scheduling of heavy vehicle deliveries will be implemented to minimise convoys or queuing. Details of how this will be measures should be included in the TMP.*	Partial Yes	Addressed in part in Section 5.1.3 Addressed in Section 5.1 covering delivery logistics.	Who and how will this be undertaken? "Careful management" does not explain. Proactive scheduling will be required to minimise the potential for convoys, queues etc.	5.1

• *The Traffic Management Plan is to be amended to include a requirement for the operator to check the Live Traffic website to identify any roadwork sites that may impact their journey and contact on-site representative or the Customer & Network Operations Coordinator for the South (cnc.south@transport.nsw.gov.au) prior to OSOM movement and development.west@transport.nsw.gov.a.*	Yes	Requirement addressed in Section 5.4.6.		
• *The Traffic Management Plan is required to be amended to include a commitment to providing a weekly movement / delivery schedule via email to be sent to CNC.South@transport.nsw.gov.au and development.western@transport.nsw.gov.au*	Yes	Requirement addressed in Section 5.7.4		
• *Safety around school buses is important and should be appropriately addressed. Section 6.5 states that school buses operate along the proposed construction route (Back Trundle Road and Henry Parkes Way). The Traffic Management Plan should be updated to clarify if construction traffic peaks and school bus schedules overlap.*	Yes	Section 5.5 indicates daily construction trips mostly outside school bus hours		
• *The drivers code of conduct (Appendix B) suggests the designated route must be used at all times, other than contractors in the local area. Clarification is required if a different route is proposed other than the route shown in condition 4 of the consent?*	Partial Partial	The code of conduct says all trucks must use the designated route. Section 1 of the code of conduct now covers all vehicle associated with the project.	The driver's code of conduct should include a map showing the approved access route and site entry points. Amend Section 5.10 of TMP which says "*To ensure truck drivers use the designated truck routes'.* *It should apply to all drivers to ensure they use only approved access routes.*	Section 5.10 has been updated to state: • *To ensure all staff attending the site use the designated vehicle routes – refer Section 4.3.* Section 4.3 provides the VMP.
Appendix A of the TMP appears to be blank, this needs to be updated.	No Yes		Provide Appendix B in next version.	done
Swept path analysis is required demonstrating the largest design vehicle entering and leaving the development, and moving in each direction through intersections along the proposed OSOM transport route/s. The route analysis is to include at a minimum the following:	Partial Yes	Swept path analysis/vehicle tracking for vehicles entering	Include swept path analysis for entire OSOM route in a later stage of the TMP that fully addresses OSOM vehicles.	To be dealt with in later stage TMP

		the site provided in Appendix D. N/A at this point of time. To be provided in next versions of TMP.		
Identify any level crossings, rail and TfNSW projects that will have implications in relation to the delivery of the Transformers and substations (largest OSOMs) along the OSOM route, for example the Parkes Bypass Project and measures in place to ensure minimal impacts/disruptions to these projects.	Partial Yes	Partly addressed in Section 4.6 N/A at this point of time. To be provided in next versions of TMP.	Identify level crossing in the TMP that fully addresses the OSOM movements.	To be dealt with in later stage TMP
The design vehicle templates used with the swept path analysis software are also requested in order for TfNSW to review the performance within the software (e.g. Autodesk Vehicle Tracking or Transoft AutoTURN).	Partial Yes	Partly addressed in 2.5. N/A at this point of time. To be provided in next versions of TMP.	Include details in a later stage of the TMP that fully addresses the OSOM movements.	To be dealt with in later stage TMP
Highlighting each at-risk road structures that the haulage route crosses including bridges traffic signals, signage, major culverts, and minor culverts that may not meet the desirable cover to cater for proposed axle loads.	Partial Yes	Partly addressed in Section 4.6 N/A at this point of time. To be provided in next versions of TMP.	Include details in a later stage of the TMP that fully addresses the OSOM movements.	To be dealt with in later stage TMP
Identify and provide the following measurements parameters of the OSOM components / materials to be moved: – *Identify all the types of OSOM vehicles proposed to be used for the project and whether they require police escort or pilot vehicles* – *Provide bridge assessments for all bridges along the OSOM route(s).* – *Overall combination length, width, height and mass of the laden loads, Maximum component length, widths and heights (clearance to overhead obstructions such as structures, utilities and vegetation)* – *identify all the types of OSOM vehicles proposed to be used for the project. Wheelbase dimensions* – Maximum trailer articulation angle(s) – Minimum overhang heights above the road surface	Partial Yes	Partly addressed in Section 4.6 N/A at this point of time. To be provided in next versions of TMP.	Include details in a later stage of the TMP that fully addresses the OSOM movements.	To be dealt with in later stage TMP

– *Axle loads and axle group loads in terms of both tonnes and Equivalent Standard Axles (refer to Austroads Guide to Pavement Technology).*				
It should be noted that NHVR permits do not cover the civil works required along any proposed OSOM route. Any works required along the OSOM route must be considered within the scope of works for the SSD to ensure that the development is constructable.	Yes	Noted in Appendix C		
General Comments			**Action required**	**Company response**
See comments in the marked-up pdf of the TMP.			Address comments in the marked-up PDF	
It should be noted that the proponent is ultimately responsible for ensuring that all requirements of the consent are addressed adequately throughout the life of the project. A table showing various roles and their responsibilities could assist in understanding responsibilities for monitoring and reporting on the various components of the TMP.				
Other Agency comments			**Action required**	**Company response**
Parkes Shire Council are satisfied with the TMP.			**-**	

Post Approval Review
Document: Quorn Park Solar Farm Traffic Management Plan
Revision: V9 dated 17/5/24, V10 01/7/24
Reviewed: K Halliday 11/6/24, K Halliday 5/7/24

Comments directly into the pdf	Action required	Company response
Section 1.2 – staging could be introduced here	-	**Section 1.6**
Section 1.5 - The number of vehicle movements, categories, definitions needs to be agreed with DPHI & TfNSW.		**Xx**
Section 2.4.2 – address how are drivers going to be stopped from using other roads than the approved access.		**xx**
2.6.2 - What controls will be used to prevent parking on public roads by light and heavy vehicles visiting the site. How will trucks entering the site be managed?		**2.6.2**
2.6.3 - Will parking be provided for buses on site?		**2.6.3**
4.5 – more details are required on the Shuttle bus service. Numbers		**4.5**
Table 7 - Check the details in this table reflect the numbers that have been agreed and discussed with TfNSW and DPHI.		**Table 7 - TBC in later stage TMP**
4.6.4 – check details of OSOM numbers		**TBC in later stage TMP**
5.1.3 - Who and how will this be undertaken? "Careful management" does not explain. Proactive scheduling will be required to minimise the potential for convoys, queues		**Updated**
5.4.4 - Who is responsible for ensuring this happens including monitoring and rectification if dirt tracked onto public roads		**Updated**
5.6.1 - change language. Would should be changed to will		**Done throughout**
5.6.4 - specify which additional stages this will apply. Based on time frames, weather conditions, vehicle numbers, OSOM movements, complaints?? What will trigger additional surveys?		**Updated**
5.6.4 - How frequent are the periodic surveys, who is responsible.		**Weekly. updated**
5.6.5 - Use definitive language eg will versus may. There needs to be a clear process to determine if and when construction vehicles should be suspended eg safety risks etc.		**updated**
5.7.1 - Should apply to all staff, contractors, delivery, truck drivers etc What mechanisms will be used to ensure that undertake the induction. Training records, monitoring etc		**Updated**
5.7.1 - include management of dust and mud on vehicles, vehicle speeds, no parking offsite		**Now 5.8.2, updated**
5.7.3 - Should include relevant up to date information on a website that is advertised for local residents. Include details on heavy vehicle movements, OSOM movements, road upgrades, changes to traffic conditions, complaints process, contact people and numbers. Ultimately the proponent is responsible		**Now 5.8.4, updated**
5.7.4 - all heavy vehicles arriving at site need to be recorded. Who and how will this be undertaken.		**5.1**
5.9.1 - Include details of information to be provided on website. Community notifications will be needed regarding heavy vehicles under escort, road upgrade activities and any associated road closures, reduced speeds etc. Include proactive measures to liaise with sensitive receptors etc		**5.9.1**

5.9.2 - How will the proponent manage complaints. Will they be reported as received, weekly? What oversight will be incorporated in the monitoring.		**5.11**
5.9.2 - Specify time frames for response and management.		**Table 11**
Driver code of conduct - More details are required in the code of conduct. Should include details on approved routes for vehicles, access point, parking information and restrictions on public roads near the site etc. Driver behaviour - alcohol, drugs, fatigue, wildlife etc Will there be monitoring of work hours and travel times		**Updated**
Driver code of conduct – 2.1 - This is not relevant to the drivers code of conduct. Clear guidance on when deliveries can be made is required.		**removed**
Driver code of conduct – 2.3 - Include the restrictions outlined in Condition B4 regarding school bus time restrictions		**Done**
Driver code of conduct – 2.4 - Could include map with entrances and approved roads		**Done**

Appendix I: Traffic Guidance Schemes

PROJECT	LOCATION	TGS No:
ROBSON CIVIL INTERSECTION UPGRADES	BACK TRUNDLE ROAD, PARKES	ROBSON-CIVIL-BACK-TRUNDLE-ROAD-001

TRAFFIC CONTROL TYPE	ROAD CONFIG	PAGE NO:	ROL / SZA APPROVED
STOP / SLOW	2LANE / 2WAYS UNDIVIDED	1 OF 1	YES: ☐ ROL ONLY: ☐ N/A: ■

CLIENT	SCALE	ROAD SPEED	R'WORK SPEED	SEQUENCE	PROXIMITY	ROL LICENCE NO:
ROBSON CIVIL PROJECTS	NOT TO SCALE	100	40 ROAD WORK	60 ROAD WORK, 60 ROAD WORK, 40 ROAD WORK	<1.5m	ROL ACTIVATION TIME:

REV No.	REV DATE	TGS DATE	COMMENCEMENT DATE	DURATION
0		10/07/2024		

Designer: MATT D'AQUINO

PWZTMP
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Email: Planning@workcontrol.com.au

Matt D'Aquino

Approved By: JOSE DIAZ

PWZTMP
Licence No: TCT0037008
PH: 0427 620 056

J. DIAZ

RECORD KEEPING

TIME 40km ZONES APPLIED:_____

TIME 40km ZONES REMOVED:_____

INSPECTION OF SIGNS, DEVICES & QUEUE LENGTHS

BEFORE WORK STARTS (TIME):_____

DURING WORK (TIME(S)):_____

PRE-CLOSEDOWN (TIME):_____

QUEUE LENGTH DATA:_____

TRAFFIC CONTROL TEAM LEADER: _____

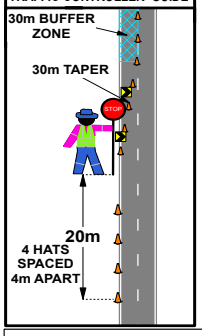
CURRENT DATE:_____

QUALIFICATION:_____

CARD NO:_____

SIGNATURE:_____

TRAFFIC CONTROLLER GUIDE



LEGEND

TRAFFIC CONES

TRAFFIC CONTROLLER

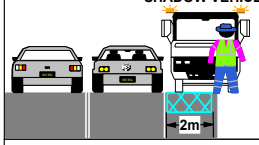
WORK AREA

WORK AREA CLEARANCE

WORK AND PLANT PERMITTED TO OPERATE IN THE FOLLOWING ZONES AND SPEED LIMITS INDICATED

SAFE DISTANCES BETWEEN WORKERS AND LIVE TRAFFIC

SHADOW VEHICLE



PERSONNEL TO WORK FROM FRONT OF WORKCONTROL VEHICLE WHILE IMPLEMENTING & DISMANTLING OF THE APPROVED TGS (TRAFFIC GUIDANCE SCHEME)

SIGNS TO BE SET 2m OUTSIDE OF FOG LINE, BUT NO MORE THAN 5m PAST THE FOG LINE

PILOT VEHICLE

PILOT VEHICLE DO NOT OVERTAKE — MUST BE USED INSTRUCTING TRAFFIC TO FOLLOW IT BUT NOT PASS IT.

WHEN IN USE, A PILOT VEHICLE IN USE SIGN MUST ALSO BE INSTALLED AT AN APPROPRIATE DISTANCE IN ADVANCE OF WHERE THE PILOT VEHICLE OPERATES

A PILOT VEHICLE SHOULD BE USED TO GUIDE TRAFFIC THROUGH A WORK AREA WHEN:

- TRAFFIC NEEDS TO FOLLOW A PARTICULAR PATH THROUGH THE WORK SITE WHICH MIGHT NOT BE OBVIOUS TO ROAD USERS.

- THERE IS A LOW COMPLIANCE WITH THE REDUCED SPEED LIMIT, FOR EXAMPLE, SWITCHING TRAFFIC ONTO A NEW CARRIAGEWAY OR RELEASING TRAFFIC AFTER A FULL CLOSURE.

-PART OF THE WORK AREA IS OUT OF VIEW OFTHE SUPERVISOR, WORK TEAM LEADER AND THE TRAFFIC CONTROLLER;

- THE TRAFFIC SPEED HAS BEEN REDUCED TO LESS THAN 45km/h DUE TO AN INCREASED RISK TO WORKERS.

AFTERCARE SIGNAGE

NO LINES DO NOT OVERTAKE	MUST BE USED WHERE THERE IS BARRIER LINES AND OVERTAKING IS NOT PERMITTED (DOUBLE LINES)
NO LINES DO NOT OVERTAKE UNLESS SAFE	MUST ONLY BE USED WHERE OVERTAKING WOULD NORMALLY BE PERMITTED IN AN ONCOMING TRAFFIC LANE (BROKEN LINES)
NEW WORK NO LINES MARKED	MUST ONLY BE USED WHERE THERE IS NOT A RISK OF COLLISION DUE TO ONCOMING TRAFFIC (MULTILANES, OVERTAKING LANES)

6.2.6 Spacing of signs

Number of signs	Approach speed	
	less than 65 km/h	greater than 66 km/h
One advanced sign	D	D
Multiple advanced signs	D	D

Table 6- 2 Required maximum spacing of cones and bollards

Purpose and usage	Speed zone of device location km/h	Maximum spacing m
On approach to a traffic controller position (centreline edge line)	All cases	4
Merge tapers	56 to 75 greater than 76	9 12
Lateral shift tapers	55 to 75 greater than 75	12 18
Protecting freshly painted lines	56 to 75 greater than 75	24 60^
All other purposes	less than or equal to 55 56 to 75 greater than 76	4 12 18

Dimension 'D'
AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4. 1. 5 and used for prostioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 or 65	45
Greater than 65	Speed of traffic, in Km/h

Taper Lengths

Approximate speed of traffic	Traffic control at beginning of taper	Lateral shift taper	Merge taper
45 or less	15	15	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
Greater than 105	N/A	100	180

Installation TCAWS 6.4.2
Before work commences, signs and devices at the work site must be installed in a sequence that is safe and efficient. After the work area has been located, via the use of a GPS, survey, landmarks, side streets or chainage, setting up a site to install signs/uncover permanent signs and devices should be in accordance with the general procedures described below:
2-lane, 2-way roads
For 2-lane, 2-way roads, installation should occur in the following order:
1. Install termination signs (if no side roads).
2. Install on side streets.
3. Install in the non-working lane (unaffected direction).
4. Install in the working lane (affected direction).

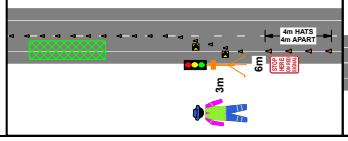
Removal TCAWS 6.4.3
Removal of traffic control signs/covering permanent signage and devices should be undertaken in the reverse order of installation, progressing from the work area out toward the approaches.
On motorway type carriageways, the removal of signs can be difficult in this sequence, in which case, signs should be removed in the same order that they were installed. The work vehicle should be positioned between the workers and approaching traffic when removing signs in this manner. When removing delineation devices, such as cones, bollards or barrier boards used to close a lane, an advanced warning vehicle should be used to warn road users of workers on foot and a work vehicle must also be positioned between the workers and approaching traffic.

RECORDING & MONITORING
Regular inspections of traffic control devices SHALL be carried out a minimum of twice daily and recorded in The Daily Traffic Diary. These records SHALL be available for inspection during the project. These records will be held on site by The Client. Details of all changes in traffic movements shall be recorded and maintained throughout the construction period and submitted within 7 days from the date of practical completion. In the event of a traffic related incident with in the site, the Client SHALL immediately notify the principals representative, the police, and any necessary emergency services.

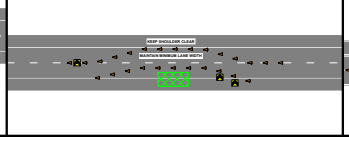
PEDESTRIAN & CYCLIST MANAGEMENT
All pedestrian & cyclist control measures, for the duration of the construction works will be monitored as required for effectiveness & improvements.
Appropriate warning signage and directional signage will be in place and monitored throughout the works as per the provided TGS's attached to this document. Where current documented control measures are ineffective, A TMD qualified person(s) should be contacted to suggest changes.

TGS (TRAFFIC GUIDANCE SCHEME) GENERAL NOTES:
1. WORKER SYMBOLIC must be used where worker on foot will be visibly working adjacent to traffic. Sign must be covered or removed where there are no workers on foot.
2. PREPARE TO STOP must be used where traffic is required to stop at a PTCD or traffic controller. This Sign must be used with the relevant PTCD warning or traffic control sign
3. STOP HERE ON RED SIGNAL must be used where traffic is required to stop in compliance with a PTS (E-Stop), placed 6m in advance of PTS (E-Stop).
4. TYPE 1 PTS (E-Stop) to be used when controlling a single lane of traffic using shuttle flow.
5. TYPE 2 PTS (Stop Slow Bat) to be used when controlling a single lane of traffic using shuttle flow.
6. TYPE 3 PTS (Trailer mounted traffic signal) to be used on automatic for aftercare.
7. 700mm traffic cones will be positioned at a max of 4m apart.
8. BUFFER/NO GO ZONE to be clearly delineated.
9. Pilot vehicle must be used where delineation from work area is not possible. (TCAWS 6.1 Table 3-2)
10. Traffic must not be released without confirmation from PILOT VEHICLE driver.
11. PILOT VEHICLE must slow to 40km/h while passing workers on foot.
12. Traffic controller location to be a MINIMUM of 3m perpendicular to the traffic PTCD although 5m is preferred where possible. Highlighted by traffic cone.
13. In the instance of a PTCD REMOTE FAILURE (i.e Flat, un-synced etc) Traffic controller is to plug PTCD remote into the PTCD. Traffic controller is to only be in the position next to the PTCD to change signal on PTCD from GREEN to RED or RED to GREEN, Traffic controller will then move to designated position each time.
14. In the instance of a PTCD FAILURE (i.e Malfunction, Fuse blown etc) Traffic controller is to conduct a risk assessment for the use of manually controlling live traffic (Stop Slow bat).
15.The site shall be packed up in a forward motion as it is unsafe to remove control signs and devices in accordance with the general principles outlined in 6.4.3
16. A roll ahead distance of min 20m shall be adopted during removal of signs and devices.
17. Vehicle placement must not straddle the edge line. Where there may be insufficient room to pull vehicle to the side, a second TC must be used to ensure driver is not getting out into the path of live traffic.

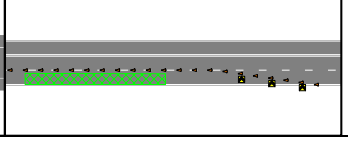
TRAFFIC CONTROL TAPER



LATERAL SHIFT TAPER



MERGE TAPER



SIGN TYPE & SIZES AS PER TCAWS TABLE 6-6

ROADWORK 1km AHEAD	1800x600 T1-16	- x2	
	1200x900 T1-5	- x2	
ROAD WORK AHEAD	900x1200 T1-31	- x2	
PREPARE TO STOP	1200x900 T1-18	- x2	
	900x1200 G9-79 (60)	- x2	
END ROAD WORK	1200x900 T1-34	- x2	
	900x1200 R4-212 (60)	- x12	
	600x600 T5-5	- x2	
	900x1200 R4-212 (40)	- x4	
	900x600 R4-1 (100)	- x2	

www.invarion.com

PROJECT	LOCATION	TGS No:
ROBSON CIVIL INTERSECTION UPGRADES	MCGRATHS LANE & BACK TRUNDLE ROAD, PARKES	ROBSON-CIVIL-MCGRATHS-LANE-&-BACK-TRUNDLE-ROAD-001

TRAFFIC CONTROL TYPE	ROAD CONFIG	PAGE NO:	ROL / SZA APPROVED
STOP / SLOW	2LANE / 2WAYS UNDIVIDED	1 OF 1	YES: ☐ ROL ONLY: ☐ N/A: ■

CLIENT	SCALE	ROAD SPEED	R'WORK SPEED	SEQUENCE	PROXIMITY	ROL LICENCE NO:
ROBSON CIVIL PROJECTS	NOT TO SCALE	100	40	80 ROAD WORK, 60 ROAD WORK, 40 ROAD WORK	<1.5m	ROL ACTIVATION TIME:

REV No.	REV DATE	TGS DATE	COMMENCEMENT DATE	DURATION
0		10/07/2024		

Designer: MATT D'AQUINO

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Licence No: TCT0048195
Email:
Planning@workcontrol.com.au

Matt D'Aquino

Approved By: JOSE DIAZ

PWZTMP
Licence No: TCT0037008
PH: 0427 620 056

J. DIAZ

RECORD KEEPING

TIME 40km ZONES APPLIED:_____

TIME 40km ZONES REMOVED:_____

INSPECTION OF SIGNS, DEVICES & QUEUE LENGTHS

BEFORE WORK STARTS (TIME):_____

DURING WORK (TIME(S)):_____

PRE-CLOSEDOWN (TIME):_____

QUEUE LENGTH DATA:_____

TRAFFIC CONTROL TEAM LEADER: _____

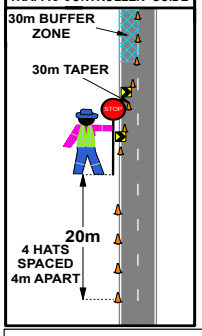
CURRENT DATE:_____

QUALIFICATION:_____

CARD NO:_____

SIGNATURE:_____

TRAFFIC CONTROLLER GUIDE



LEGEND

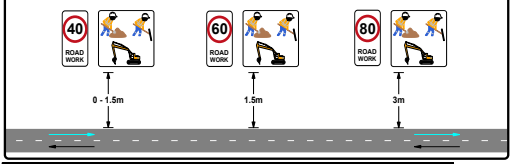
TRAFFIC CONES

TRAFFIC CONTROLLER

WORK AREA

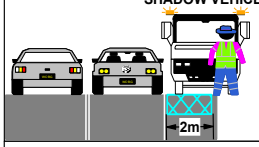
WORK AREA CLEARANCE

WORK AND PLANT PERMITTED TO OPERATE IN THE FOLLOWING ZONES AND SPEED LIMITS INDICATED



SAFE DISTANCES BETWEEN WORKERS AND LIVE TRAFFIC

SHADOW VEHICLE



PERSONNEL TO WORK FROM FRONT OF WORKCONTROL VEHICLE WHILE IMPLEMENTING & DISMANTLING OF THE APPROVED TGS (TRAFFIC GUIDANCE SCHEME)

SIGNS TO BE SET 2m OUTSIDE OF FOG LINE, BUT NO MORE THAN 5m PAST THE FOG LINE

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6.2.6 Spacing of signs

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Multiple advanced signs	D	D

Table 6- 2 Required maximum spacing of cones and bollards

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All other purposes	less than or equal to 55 56 to 75 greater than 76	4 12 18

Dimension 'D'
AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4. 1. 5 and used for prostioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 or 65	45
Greater than 65	Speed of traffic, in Km/h

Taper Lengths

Approximate speed of traffic	Traffic control at beginning of taper	Lateral shift taper	Merge taper
45 or less	15	15	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
Greater than 105	N/A	100	180

Installation TCAWS 6.4.2
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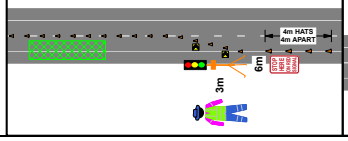
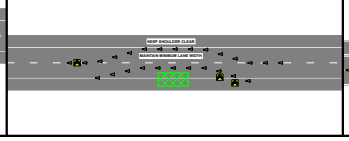
5. TYPE 2 PTS (Stop Slow Bat) to be used when controlling a single lane of traffic using shuttle flow.
6. TYPE 3 PTS (Trailer mounted traffic signal) to be used on automatic for aftercare.
7. 700mm traffic cones will be positioned at a max of 4m apart.
8. BUFFER/NO GO ZONE to be clearly delineated.
9. Pilot vehicle must be used where delineation from work area is not possible. (TCAWS 6.1 Table 3-2)
10. Traffic must not be released without confirmation from PILOT VEHICLE driver.
11. PILOT VEHICLE must slow to 40km/h while passing workers on foot.
12. Traffic controller location to be a MINIMUM of 3m perpendicular to the traffic PTCD although 5m is preferred where possible. Highlighted by traffic cone.
13. In the instance of a PTCD REMOTE FAILURE (i.e Flat, un-synced etc) Traffic controller is to plug PTCD remote into the PTCD. Traffic controller is to only be in the position next to the PTCD to change signal on PTCD from GREEN to RED or RED to GREEN, Traffic controller will then move to designated position each time.
14. In the instance of a PTCD FAILURE (i.e Malfunction, Fuse blown etc) Traffic controller is to conduct a risk assessment for the use of manually controlling live traffic (Stop Slow bat).
15.The site shall be packed up in a forward motion as it is unsafe to remove control signs and devices in accordance with the general principles outlined in 6.4.3
16. A roll ahead distance of min 20m shall be adopted during removal of signs and devices.
17. Vehicle placement must not straddle the edge line. Where there may be insufficient room to pull vehicle to the side, a second TC must be used to ensure driver is not getting out into the path of live traffic.

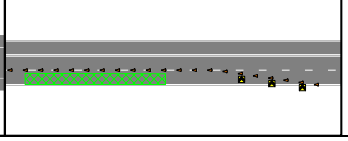
TRAFFIC CONTROL TAPER

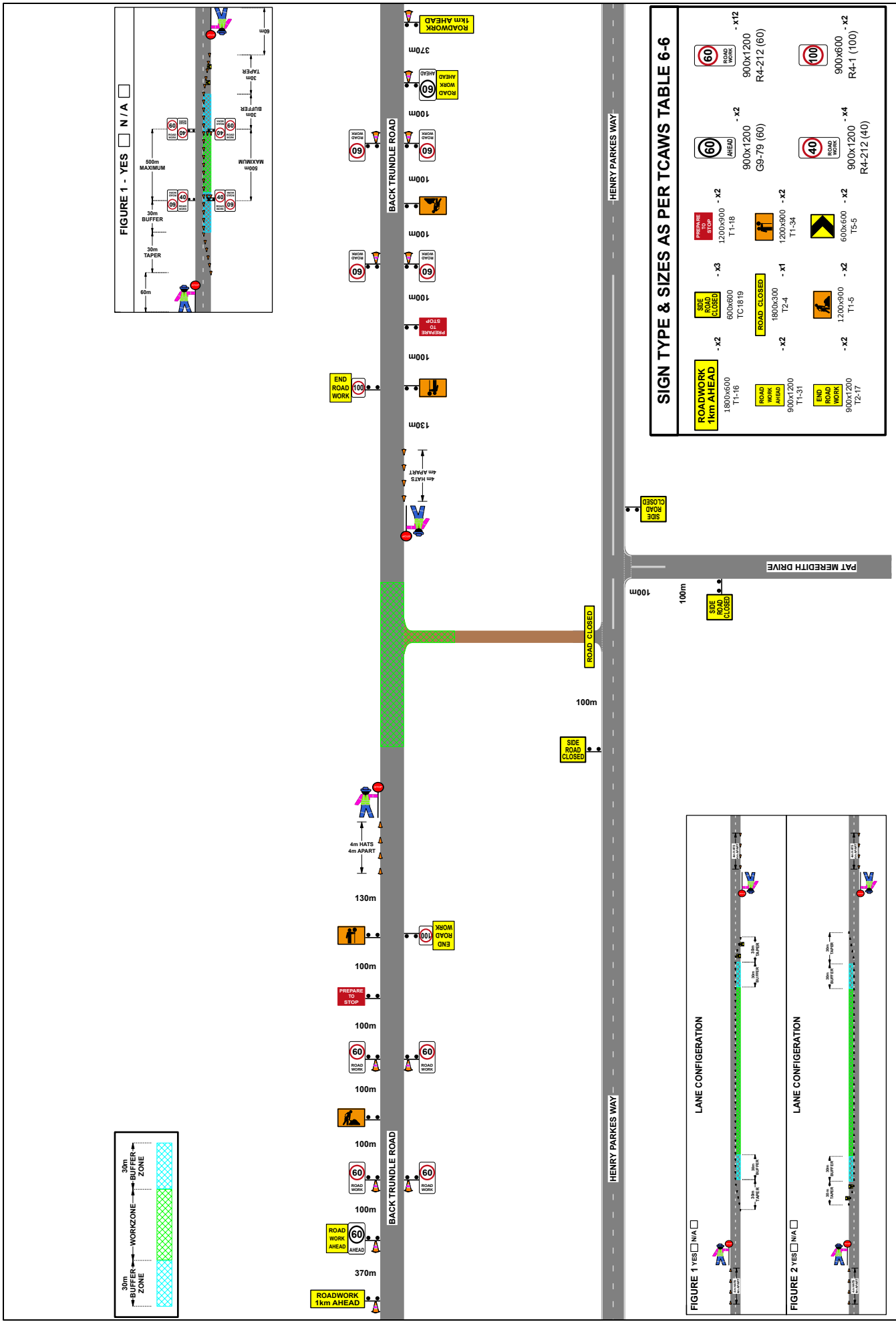


LATERAL SHIFT TAPER



MERGE TAPER




SIGN TYPE & SIZES AS PER TCAWS TABLE 6-6
ROADWORK 1km AHEAD - x2 1800x600 T1-16
SIDE ROAD CLOSED - x3 600x600 TC-1819
ROAD CLOSED - x1 1800x300 T2-4
PREPARE TO STOP - x2 1200x900 T1-18
- x2 1200x900 T1-34
- x2 600x600 T5-5
ROAD WORK AHEAD - x2 900x1200 T1-31
- x2 1200x900 T1-5
END ROAD WORK - x2 900x1200 T2-17
60 ROAD WORK - x12 900x1200 R4-212 (60)
60 AHEAD - x2 900x1200 G9-79 (60)
40 ROAD WORK - x4 900x1200 R4-212 (40)
100 900x600 R4-1 (100)
FIGURE 1 - YES N / A
60m
30m TAPER
30m BUFFER
500m MAXIMUM
500m MAXIMUM
30m TAPER
30m BUFFER
60m
BACK TRUNDLE ROAD
HENRY PARKES WAY
PAT MEREDITH DRIVE
ROADWORK 1km AHEAD
ROAD WORK AHEAD
ROAD CLOSED
SIDE ROAD CLOSED
PREPARE TO STOP
END ROAD WORK
4m HATS 4m APART
370m
100m
130m
30m BUFFER ZONE
WORKZONE
30m BUFFER ZONE
FIGURE 1 YES N/A
LANE CONFIGERATION
FIGURE 2 YES N/A
LANE CONFIGERATION

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PROJECT	LOCATION	TGS No:
ROBSON CIVIL INTERSECTION UPGRADES	MCGRATHS LANE & HENRY PARKES WAY, PARKES	ROBSON-CIVIL-MCGRATHS-LANE-&-HENRY-PARKES-WAY-001

TRAFFIC CONTROL TYPE	ROAD CONFIG	PAGE NO:	ROL / SZA APPROVED
STOP / SLOW	2LANE / 2WAYS UNDIVIDED	1 OF 1	YES: ☑ ROL ONLY: ☐ N/A: ☐

CLIENT	SCALE	ROAD SPEED	R'WORK SPEED	SEQUENCE	PROXIMITY	ROL LICENCE NO:
ROBSON CIVIL PROJECTS	NOT TO SCALE	100	40	60 60 40	<1.5m	ROL ACTIVATION TIME:

REV No.	REV DATE	TGS DATE	COMMENCEMENT DATE	DURATION
0		10/07/2024		

Designer: MATT D'AQUINO
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Email: Planning@workcontrol.com.au

Matt D'Aquino

Approved By: JOSE DIAZ
PWZTMP
Licence No: TCT0037008
PH: 0427 620 056

J. DIAZ

RECORD KEEPING

TIME 40km ZONES APPLIED:_____

TIME 40km ZONES REMOVED:_____

INSPECTION OF SIGNS, DEVICES & QUEUE LENGTHS

BEFORE WORK STARTS (TIME):_____

DURING WORK (TIME(S)):_____

PRE-CLOSEDOWN (TIME):_____

QUEUE LENGTH DATA:_____

TRAFFIC CONTROL TEAM LEADER: _____

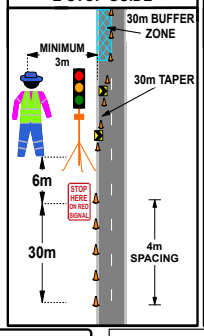
CURRENT DATE:_____

QUALIFICATION:_____

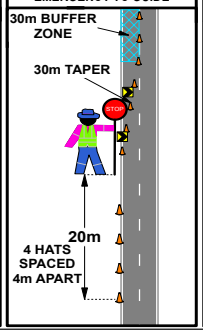
CARD NO:_____

SIGNATURE:_____

E-STOP GUIDE



EMERGENCY TC GUIDE



LEGEND

TRAFFIC CONES

E-STOP

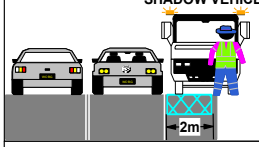
WORK AREA

WORK AREA CLEARANCE

WORK AND PLANT PERMITTED TO OPERATE IN THE FOLLOWING ZONES AND SPEED LIMITS INDICATED

SAFE DISTANCES BETWEEN WORKERS AND LIVE TRAFFIC

SHADOW VEHICLE



PERSONNEL TO WORK FROM FRONT OF WORKCONTROL VEHICLE WHILE IMPLEMENTING & DISMANTLING OF THE APPROVED TGS (TRAFFIC GUIDANCE SCHEME)

SIGNS TO BE SET 2m OUTSIDE OF FOG LINE, BUT NO MORE THAN 5m PAST THE FOG LINE

PILOT VEHICLE

PILOT VEHICLE DO NOT OVERTAKE — MUST BE USED INSTRUCTING TRAFFIC TO FOLLOW IT BUT NOT PASS IT.

WHEN IN USE, A PILOT VEHICLE IN USE SIGN MUST ALSO BE INSTALLED AT AN APPROPRIATE DISTANCE IN ADVANCE OF WHERE THE PILOT VEHICLE OPERATES

A PILOT VEHICLE SHOULD BE USED TO GUIDE TRAFFIC THROUGH A WORK AREA WHEN:

- TRAFFIC NEEDS TO FOLLOW A PARTICULAR PATH THROUGH THE WORK SITE WHICH MIGHT NOT BE OBVIOUS TO ROAD USERS.

- THERE IS A LOW COMPLIANCE WITH THE REDUCED SPEED LIMIT, FOR EXAMPLE, SWITCHING TRAFFIC ONTO A NEW CARRIAGEWAY OR RELEASING TRAFFIC AFTER A FULL CLOSURE.

-PART OF THE WORK AREA IS OUT OF VIEW OFTHE SUPERVISOR, WORK TEAM LEADER AND THE TRAFFIC CONTROLLER;

- THE TRAFFIC SPEED HAS BEEN REDUCED TO LESS THAN 45km/h DUE TO AN INCREASED RISK TO WORKERS.

AFTERCARE SIGNAGE

NO LINES DO NOT OVERTAKE	MUST BE USED WHERE THERE IS BARRIER LINES AND OVERTAKING IS NOT PERMITTED (DOUBLE LINES)
NO LINES DO NOT OVERTAKE UNLESS SAFE	MUST ONLY BE USED WHERE OVERTAKING WOULD NORMALLY BE PERMITTED IN AN ONCOMING TRAFFIC LANE (BROKEN LINES)
NEW WORK NO LINES MARKED	MUST ONLY BE USED WHERE THERE IS NOT A RISK OF COLLISION DUE TO ONCOMING TRAFFIC (MULTILANES, OVERTAKING LANES)

6.2.6 Spacing of signs

Number of signs	Approach speed	
	less than 65 km/h	greater than 66 km/h
One advanced sign	D	D
Multiple advanced signs	D	D

Table 6- 2 Required maximum spacing of cones and bollards

Purpose and usage	Speed zone of device location km/h	Maximum spacing m
On approach to a traffic controller position (centreline edge line)	All cases	4
Merge tapers	56 to 75 greater than 76	9 12
Lateral shift tapers	55 to 75 greater than 75	12 18
Protecting freshly painted lines	56 to 75 greater than 75	24 60^
All other purposes	less than or equal to 55 56 to 75 greater than 76	4 12 18

Dimension 'D'
AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4. 1. 5 and used for prostioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 or 65	45
Greater than 65	Speed of traffic, in Km/h

Taper Lengths

Approximate speed of traffic	Traffic control at beginning of taper	Lateral shift taper	Merge taper
45 or less	15	15	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
Greater than 105	N/A	100	180

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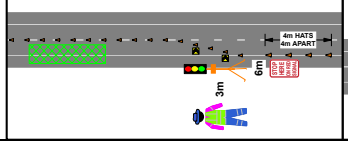

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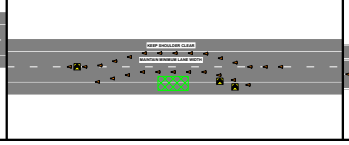

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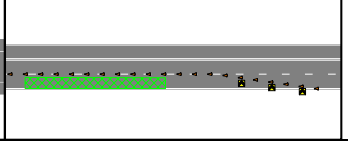
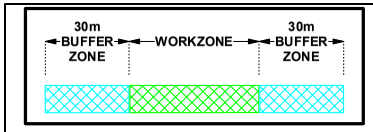




BACK TRUNDLE ROAD

SIDE ROAD CLOSED

100m

ROAD CLOSED

100m

SIDE ROAD CLOSED

JOIN PAGES 1 & 2

ROADWORK 1km AHEAD

100m

ROAD WORK AHEAD

100m

ROAD WORK 80

200m

PREPARE TO STOP

100m

ROAD WORK 60

100m

100m

ROAD WORK 60

100m

PREPARE TO STOP

100m

130m

4m SPACING

3m

STOP HERE ON RED SIGNAL

6m

HENRY PARKES WAY

ROAD WORK 80

ROAD WORK 60

ROAD WORK 60

END ROAD WORK 100

3m

6m

4m SPACING

STOP HERE ON RED SIGNAL

130m

END ROAD WORK 100

100m

PREPARE TO STOP

100m

60 ROAD WORK

60 ROAD WORK

100m

100m

ROAD WORK AHEAD 60 AHEAD

470m

ROADWORK 1km AHEAD

PAT MEREDITH DRIVE

JOIN PAGES 1 & 2

FIGURE 1 YES ☐ N/A ☐

LANE CONFIGERATION

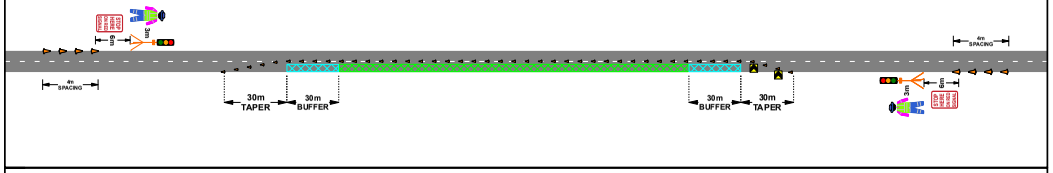
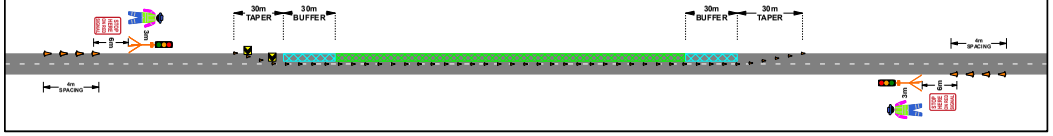


FIGURE 2 YES ☐ N/A ☐

LANE CONFIGERATION



JOIN PAGES 1 & 2

BACK TRUNDLE ROAD

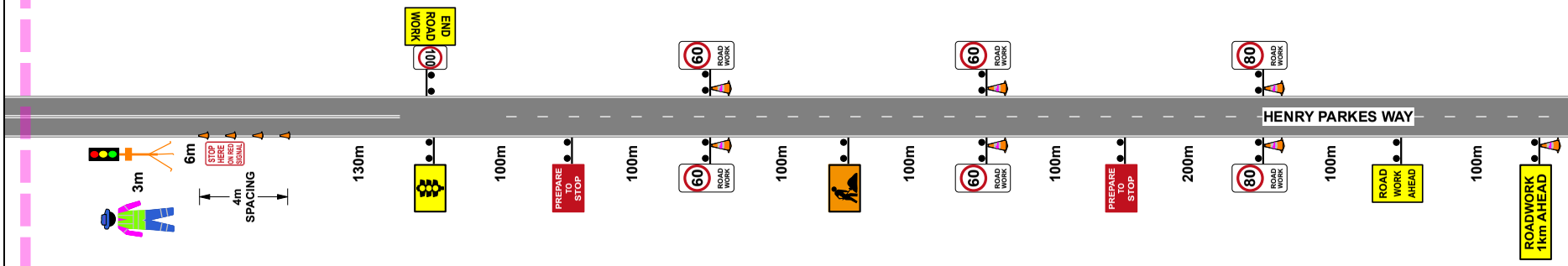
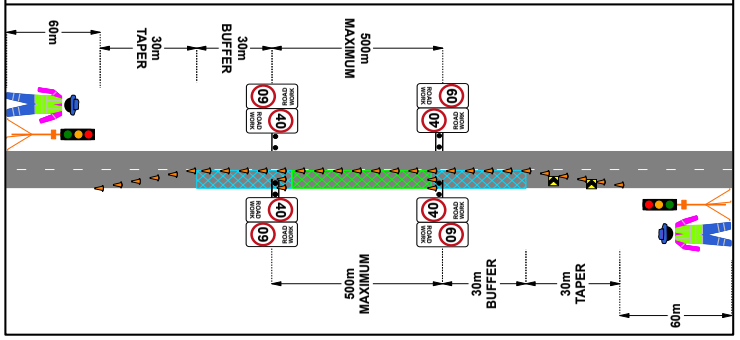


FIGURE 1 - YES ☐ N / A ☐



SIGN TYPE & SIZES AS PER TCAWS TABLE 6-6

ROADWORK 1km AHEAD 1800x600 T1-16	- x3	SIDE ROAD CLOSED 600x600 TC1819	- x2	PREPARE TO STOP 1200x900 T1-18	- x5	60 AHEAD 900x1200 G9-79 (60)	- x1
ROAD WORK AHEAD 900x1200 T1-31	- x3	ROAD CLOSED 1800x300 T2-4	- x1	 1200x900 T1-30	- x3	60 ROAD WORK 900x1200 R4-212 (60)	- x14
END ROAD WORK 900x1200 T2-17	- x3	 1200x900 T1-5	- x3	STOP HERE ON RED SIGNAL 900x600 R6-6	- x3	40 ROAD WORK 900x1200 R4-212 (40)	- x4
80 ROAD WORK 900x1200 R4-212 (80)	- x4	100 900x600 R4-1 (100)	- x3	 600x600 T5-5	- x2		

JOIN PAGES 1 & 2