Battery Anode Material (BAM) Facility

Response Document

JBS&G

January 2025

Version	Author	Reviewer
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Rev 1	Charlotte Baker, Andrew Querzoli	Simon Ballestrin, Vicki Hood
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List of Tables

1 Introduction

1.1 Project Overview

Renascor Resources Limited (Renascor) submitted a Development Application (ref. 361/P055/23) to construct a Battery Anode Material (BAM) Facility at Robinson Road, Waterloo Corner (the Project).

On 8 December 2022, the proposed development was determined to be an impact assessment development with assessment requirements released on 30 March 2023. Renascor submitted an Environmental Impact Statement (EIS) prepared in accordance with the assessment requirements on 10 May 2024. The EIS was advertised for public consultation on 19 August 2024.

The Project involves construction of a facility to produce purified spherical graphite, a key material in the manufacture of lithium-ion batteries used in electric vehicles, from graphite concentrate mined and processed at Renascor's Siviour Mine on the Eyre Peninsula.

1.2 Summary of Consultation

The EIS was advertised for public consultation on 19 August 2024 with the consultation period closing on 27 September 2024. The engagement activities included:

- Public notices published in the Advertiser on 19 August 2024
- Article featured in the August and September 2024 YourSay Newsletter
- Social media posts on X, State Planning Commission's LinkedIn and PlanSA's Facebook page
- Physical sign located on the proposed development site
- Letter to key stakeholders and landowners advising of public consultation
- In-person information session on 4 September 2024
- Online information session on 6 September 2024
- Electronic copies of the EIS available on PlanSA and YourSay website, and
- Hard copies of the EIS available at the City of Salisbury office and Department for Housing and Urban Development Office.

Renascor representatives were present at both the in-person and online information sessions. In addition, Renascor undertook the following activities during the EIS public consultation period:

- In-person information briefing with the City of Salisbury on 3 September 2024, and
- Ongoing engagement with stakeholders.

1.2.1 Government Consultation

Submissions were received from the below state and local government agencies (collectively, the Government). The content of these Government submissions is summarised by subject matter in section 2.

- Native Vegetation Council (NVC)
- Department for Environment and Water (DEW)
- Department for Infrastructure and Transport (DIT)
- Environment Protection Authority (EPA)
- Aboriginal Affairs and Reconciliation (AAR)

- Country Fire Service (CFS), and
- City of Salisbury.

Responses were received from the Department for Energy and Mining (DEM) and Primary Industries and Resources South Australia (PIRSA) indicating the EIS has adequately covered their areas of interest and no areas requiring further discussion or follow-up were raised by DEM or PIRSA.

1.2.2 Public Submissions

During the consultation period, 33 submissions were received from members of the public. Of these, 28 submissions were supportive of the Project, and the remaining 5 submissions raised items requiring further feedback. These items were related to:

- Noise from overnight traffic movements
- Sustainability of renewable energy and the Project
- Water runoff from development
- Spills impacting on the shallow aquifer
- Proximity to SA Water Bolivar Wastewater Treatment Plant (WWTP)
- Land use coexistence with surrounding commercial and agricultural lands, and
- Impacts on habitat.

Specific responses to each of the items raised are included in Table 3-1.

The submissions in support of the Project highlighted the following:

- An appropriate location for the development was chosen by Renascor away from residential areas and compatible with surrounding land use
- The Project will create new jobs especially in the northern suburbs of Greater Adelaide, and
- Recognition of the importance of using Australian resources to support the decarbonisation of the economy.

2 Government Submissions

2.1 Flora and Fauna

2.1.1 Mitigation hierarchy

The NVC requested further detail regarding the use of the vegetation clearance mitigation hierarchy in the Project design, which has been summarised below.

Table 2-1 Application of the vegetation clearance mitigation hierarchy

Mitigation Hierarchy	Project application
Avoidance	The majority of the Project site requires clearance to construct the BAM facility, noting that the site has already been previously cleared. The vegetation on the Project site is predominantly planted with some emergent chenopod shrubland. This vegetation is of low quality and contains high levels of weeds. Native vegetation along the roadside will be retained where possible. If removal of any existing vegetation along the eastern boundary is required, appropriate native species will be planted to provide screening amenity. The intake and outfall pipelines will be sited to reduce impacts to native vegetation where possible. Avoidance of native vegetation clearance was considered during the overall site selection process with native vegetation removal included in the site assessment process, with this site determined to have the lowest impact on native vegetation relative to the other sites considered. This included adjacent sites on SA Water land with higher quality native vegetation.
Minimisation	The eastern stormwater channel will involve clearance of some native vegetation. Final siting and design of this stormwater channel will minimise clearing of native vegetation and maintain the screening along the eastern boundary where practicable.
Rehabilitation	A green buffer will be created along the northern, northwestern and southwestern sides of the site following installation of the stormwater system. The eastern boundary will also be re-planted where possible. Revegetation of the site itself is not possible due to safety concerns (including fire management around infrastructure).

2.1.2 Vegetation clearance requirements

Clearance under the *Native Vegetation Act 1991*

Renascor notes a correction to the EIS; that clearance approval should be sought in accordance with Regulation 12 of the *Native Vegetation Regulations 2017* together with Schedule 1, Part 4, Clause 27.

The vegetation covering the site, calculated as 265 biodiversity units, is generally poor quality and consists of emergent chenopod shrubs growing amidst amenity plantings (noting planted vegetation is not classed as native vegetation under the *Native Vegetation Act 1991*). The NVC has expressed a preference for an on-ground offset against the proposed clearance of this emergent vegetation.

A search of the Native Vegetation Credit Register shows no known sites within the same Interim Biogeographic Regionalisation for Australia (IBRA) association (Mallala) or subregion (St Vincent). The nearest vegetation in the same IBRA region is located on Eyre Peninsula and does not represent the same vegetation types.

Renascor is continuing to investigate options for an on-ground offset and have contacted the City of Salisbury to discuss opportunities. Should no appropriate on-ground offset be identified through discussion with the City of Salisbury or other accredited third-party providers, payment into the fund is proposed to provide an offset for clearance.

Clearance under the PDI Act

In addition to the Significant Environment Benefit requirements under the *Native Vegetation Act 1991*, 18 trees on site have been determined to be a 'regulated' or 'significant' tree as defined in the *Planning, Development and Infrastructure Act 2016* (PDI Act) and require approval under the PDI Act for any damage or clearance to the trees[1]. It is noted the definition of 'regulated' and 'significant' tree under the PDI Act was amended on 16 May 2024 which increases the number of trees which meet this category.

The *Planning, Development and Infrastructure (General) (Regulated and Significant Trees) Amendment Regulations 2024* outlined in Schedule 1 - Transitional Provisions, states that the amendments do not apply for the purposes of a development that is the subject of an application for development lodged before the commencement of this clause (16 May 2024).

The initial Development Application for this Project was lodged in December 2022. Accordingly, the native vegetation report attached to the EIS (which forms part of the Development Application) is in compliance with the transitional provisions. Any native trees that require approval for clearance under the *Native Vegetation Act 1991* are exempt from this provision.

2.2 Hazards and Wastes

2.2.1 Fire

The CFS noted that emergency service points and fire water has been included in the design. Renascor commit to further engagement with the CFS during the Building Rules Consent phase of the Development Approval process.

2.2.2 Waste Management

Government notes the prominent position of the dry waste storage facility and that aspects of the potential waste management system are reliant on currently undeveloped markets.

Renascor notes that while the dry waste storage facility is close to the corner of Waterloo Corner and Robinson roads, existing vegetation that is not proposed to be cleared during construction will assist in screening.

The Waste Management and Minimisation Strategy (provided in the EIS Appendices) has shown consideration to the waste hierarchy by including options for waste streams, with a 'base case' option provided for wastes reliant on markets that may not come to fruition. This management plan

[1] Where a native tree is protected under both the *Planning Development and Infrastructure Act 2016* (regulated / significant) and *Native Vegetation Act 1991*, approval for clearance of native trees are only required under the *Native Vegetation Act 1991*. "

will be updated following development approval to reflect final disposal methods. In addition, all waste streams will be managed in accordance with EPA guidelines including, but not limited to:

- Standard for the production and use of waste derived fill (2013), and
- Compost guideline (2019).

2.2.3 Ablutions Management

The level of detail currently provided regarding onsite ablution facilities is reflective of the maturity of the engineering design. Renascor is committed to ensuring the design, construction and operation of the onsite ablution facilities will be in accordance with SA Health requirements including the *South Australian Public Health (Wastewater) Regulations 2013* and On-site Wastewater Systems Code. The final system will require approval by SA Health due to the size of the facility.

2.3 Water

2.3.1 Stormwater and Flood Management

Management of Construction Activities

Renascor will develop a stormwater management plan which addresses soil erosion and drainage as part of the Construction Environment Management Plan (CEMP).

Alignment between Project and regional stormwater management

Renascor has worked in collaboration with the City of Salisbury and SA Water to identify options for managing stormwater. The most appropriate and beneficial option to all parties was identified as aligning with the regional stormwater strategy due to the following:

- Reduced vegetation clearance resulting from using a single retention basin
- Existing stormwater system is at capacity with existing flooding currently experienced at the proposed development site in high rainfall events, and adopting site independent flood mitigation would require flood management measures that do not align with the regional stormwater strategy
- Additional stormwater containment onsite would be counterproductive to the 30-year plan for City of Salisbury, and
- Strategic Growth Plan for Waterloo Corner and Bolivar Corridor recommends stormwater from development within the catchment is concentrated on SA Water lands around the WWTP and any new development in the area will be required to direct stormwater to the existing drainage pathways.

It is acknowledged the Greater Edinburgh Parks (GEP) Stormwater Management Plan has infrastructure overlapping the Project area. The timing and likelihood of funding for upgrades as part of this multi-million dollar GEP Stormwater Plan are not yet confirmed.

Renascor is committed to ongoing collaboration with City of Salisbury and SA Water regarding broader stormwater planning along with the provision of a stormwater management plan as part of the CEMP.

Water Sensitive Urban Design

Stormwater management onsite will continue to be refined throughout design phases including further consideration of water sensitive urban design (WSUD) features (such as permeable pavement) with a stormwater management plan provided as part of the CEMP in collaboration with City of Salisbury and SA Water.

Stormwater Retention Basin

Scenario 16 in the EIS (refer to Tonkin's Report, Appendix 10 of EIS, Section 2.3.3) presents flood mapping when retention basins and stormwater channels around the BAM facility are full prior to a 1% annual exceedance probability (AEP) rainfall event. This mapping included predicted inflows from stormwater (surface water) upstream of the Project site.

Government queried as to whether shallow groundwater could contribute, in addition to surface water, to the filling of the retention basin to the north of the Project site. The EIS (page 201) states:

> *"To mitigate this impact, Renascor will separate groundwater and surface water. Exact mitigation measures are subject to detailed design but are likely to include (but not limited to) further design optimisation to minimise groundwater interaction, construction of channels during seasonal groundwater lows or the potential to line the channels (or through other construction methods)."*

Future developments identified in the GEP Stormwater Management Plan include the improvement of the stormwater channel downstream of this basin which would then allow for a shallower basin design, similar to the existing basin depth, depending upon the timing of implementation. The retention basin design presented in the EIS also represents the worst-case scenario. Refer to Section 2.3.3 for further details on optimisations to mitigate groundwater and surface water interactions.

2.3.2 Marine

Government has requested further information regarding how the waste management hierarchy was applied in the Project design specifically regarding water use. Renascor provides the table below in response to this information request.

Table 2-2 Application of the waste management hierarchy to wastewater

Waste Management Hierarchy	Project application
Avoid	The Project avoids the use of higher-quality water which is in significant demand including: • SA Water's potable water supply (used for domestic use in Adelaide) • Murray River water The Project avoids the use of hydrofluoric acid at all stages of the process (and thus avoids contamination of hydrofluoric acid in water).
Reduce / Efficiency	The Project design has been optimised to reduce water use including: • Several steps of counter-current washing processes • Implementation of the most efficient washing and filtration technology available

Reuse	SA Water effluent in the Bolivar Outfall Channel (an existing waste stream) is treated by Renascor and reused as the source of water for the Project. There are no current users of this water source, and its reuse is a significant environmental advantage for the Project.
Recycle / Recover	Water and reagents are recovered and recycled in the BAM facility.
Treat / Dispose	Water treatment steps as part of the Project design include: • Neutralisation • Nano-filtration • Evaporation • Dewatering • Clarification This treated water is returned to the Bolivar outfall channel in the same location as extracted and of a similar quality.

Water returned from the Project to the Bolivar Outfall Channel is targeting a similar quality to that removed. Several analytes (i.e. pH, total suspended solids, aluminium and lead) show slight improvements as a result of Renascor's treatment process. While some analytes are slightly increased, all are below the Australian and New Zealand Water Quality Guidelines (ANZG 2018) under average flow scenarios. The additional load from these analytes has been assessed to not significantly impact the environment as part of the EIS.

Once the BAM facility is operational, Renascor is committed to ensuring the treated water returned to the Outfall Channel is monitored as described in the draft Discharge Criteria Management Plan provided as an attachment to the EIS.

Renascor notes the EPA's comments regarding mixing within the Bolivar Outfall Channel will be enhanced if Renascor's outfall pipeline is moved to the centreline of the channel. This will be considered in the detailed design phase.

2.3.3 Surface and Groundwater Interactions

Should groundwater be intersected during construction, Renascor will ensure all groundwater management is in accordance with EPA guideline *Environmental management of dewatering during construction activities*.

Where future design phases indicate that groundwater will be intersected, further engagement with Government will occur to:

- Determine how impacts from cross contamination between surface water and groundwater may be prevented
- Ensure compliance with relevant legislation, such as any applicable groundwater licencing requirements.
- In a Prescribed Wells Area, temporary dewatering requires authorisation under the Landscape South Australia Act 2019 (LSA Act). Should dewatering be required, prior to construction, Renascor will determine the volume likely to be dewatered and contact DEW Water Licensing to arrange for authorisation under the LSA Act.

2.4 Amenity impacts

2.4.1 Air Quality

Government has noted the importance of performance of the dust mitigation technology and devices to meet air quality criteria. Further detail will be provided following detailed design as part of an EPA licence application (prior to operations).

Stack testing to verify actual performance of the dust mitigation technology and devices against the model and reduce uncertainty will also be undertaken.

Government sought clarification regarding sulfuric acid emissions given the Project involves mixing acid at above ambient temperatures. Renascor notes that sulphuric acid is planned to be stored within sealed containers at ambient temperatures. Processes involving mixing of sulphuric acid above ambient temperatures will be connected to gas scrubbers designed to meet limits set in the *Environment Protection (Air Quality) Policy 2016*.

Government commented as to whether the product bagging facility emissions were included in the air quality model. Renascor notes that the emissions from the bagging area and other buildings were captured under the label *Pneumatic graphite transport system dust collectors* in Table 12 of the air quality report (refer Appendix 11 of EIS).

Government also requested confirmation of the level of confidence in PM_{10} and $PM_{2.5}$ emissions from sources other than combustion. Emissions of PM_{10} and $PM_{2.5}$ from sources other than combustion relate to the graphite particles (all emission data sources and assumptions are provided in Table 11 of Appendix 11 (Air Quality Assessment) of the EIS). While the model has applied certain assumptions for the dust collector exhaust emissions, Renascor notes that the testing of the dust collector (stack) emissions will occur to verify the performance selected for use in the model.

Renascor acknowledges that the *Environment Protection (Air Quality) Policy 2016* has been updated during the development of EIS Air Quality Assessment (which spanned from February 2023 to January 2024). As the modelled NO_2 levels are below the new Policy values, an administrative update to reflect the new values is not considered necessary at this time. There is no change to the level of environmental impact.

2.4.2 Noise

The Government has noted the possibility of mitigation measures for noise at sensitive receptors (R14, R15 and R16) along Robinson Road. Renascor have engaged with these stakeholders regarding amenity impacts from noise as outlined in the attached noise report (Appendix A) and will continue to engage during construction and operations.

Renascor notes the concern regarding construction noise outside of standard hours (7am to 7pm Monday to Saturday) and agree any construction outside this time period will only involve ‘quiet activities’ which do not exceed an average noise level of 45 dB(A) with maximum instantaneous noise level of 60dB(A).

2.4.3 Traffic

Government noted that any upgrades to the Lincoln Highway / Schmitt Road intersection at Arno Bay shall be in accordance with DIT standards and guidelines. Despite this upgrade being outside the scope of the EIS, any road upgrades required to be undertaken by Renascor on DIT roads will be undertaken in accordance with DIT requirements.

Renascor agrees that the necessary road and road infrastructure upgrades relevant to the BAM facility will need to be undertaken prior to operation of the development.

Renascor will provide a Traffic Management Plan to DIT and City of Salisbury prior to construction and is committed to ongoing collaboration with both parties on road related matters.

2.4.4 Visual Amenity

Government has noted visual impacts to close receptors are predominantly managed through the use of visual screens while receptors in the medium to far distance will be more sensitive to building materials and cladding.

Visual screening is proposed along Robinson Road including retaining as much of the original vegetation as practicable. Renascor notes that several areas of Robinson Road will require clearance of roadside vegetation to enable site access, stormwater channels and service provision. The area of vegetation surrounding the dry waste storage will be retained where possible with additional planting of a green buffer proposed along the north of this area.

A landscape plan will be provided subsequent to approval which addresses design elements, building materials and cladding, retained vegetation, planted native vegetation, landscape buffer and consideration of the City of Salisbury Landscape Plan where appropriate.

2.5 Social and Community

2.5.1 Aboriginal Cultural Heritage

Renascor will consider undertaking an authorisation, prior to commencing works, under the *Aboriginal Heritage Act 1988* to ensure that any Aboriginal sites, objects and/or ancestral remains (heritage) that may be discovered during the Project and cannot be avoided, are managed as required under all relevant laws and legislation. This consideration will be made subsequent to the development approval and will include a risk assessment, implication to schedule, Government recommendations and traditional owner consultation.

Following completion of the assessment/consideration stated above and importantly after consultation with the traditional owners, Renascor will inform AAR regarding which approach is decided. Regardless of the outcome of the assessment/consideration, Renascor is committed to complying with all relevant laws and legislation related to protecting Aboriginal heritage.

3 Public Submissions

A summary of the specific items raised by stakeholders has been included in Table 3-1.

Table 3-1 Response to issues raised in public submissions

Submission ID	Issues Raised	Response	Relevant EIS Section(s)
1	Proximity to water treatment	The Bolivar WWTP treats sewage, producing effluent discharged into the Bolivar Outfall Channel. The Project is proposing to use this effluent as its water source, which does not currently have a beneficial use. Any Project emissions (dust and treated process water) will not impact upon the WWTP as assessed in sections 9.4 and 11.2 of the EIS.	9.4 – Surface Water and Groundwater 11.2 – Air Quality
	Air blown over Parafield Gardens and Mawson Lakes impacting schools and places of worship.	Air quality impact assessment and modelling was undertaken and included in section 11.2 of the EIS. Modelling indicated dust at the nearest residence would be well below any EPA criteria. Parafield Gardens and Mawson Lakes are much further away from the site than the closest residence and there would be no changes to air quality in these areas.	11.2 – Air Quality
	Spills and contaminants leaking into the groundwater.	The impact from potential chemical spill was assessed in section 9.4 of the EIS. All hazardous chemicals will be placed within bunded hardstand areas in accordance with relevant EPA guidelines to prevent contamination to surface and groundwater. Spill kits will be available onsite to remediate any spills.	9.4 – Surface Water and Groundwater
	Impact on surrounding land use (commercial)	Impacts to adjacent land uses were assessed in section 8 of the EIS. The assessment concluded there could be a minor improvement to adjacent land use as a result of road upgrades. The Project is considered to be a desirable land use under the current and proposed planning schemes.	8 – Land Use and Site Conditions.
	Please I had been advised this should be at least 100 km form any form of habitat	Section 10 of the EIS assesses the impacts to biological environment as a result of the Project. Vegetation onsite is of low quality and is predominantly planted vegetation for amenity reasons. No protected species have been identified during site investigations undertaken by suitably qualified ecology subject matter experts. Assessment of impacts including vegetation	10 – Biological Environment

Submission ID	Issues Raised	Response	Relevant EIS Section(s)
		clearance, noise and light spill have concluded there are no expected impacts (direct or indirect) on fauna as a result of the Project.	
2	Don't want this to be around our farmers around either. Maybe another area would be of consideration the further away. Just needs to move not a good idea near a water plant, needing a more secluded area possibly	Impacts to adjacent land uses were assessed in section 8 of the EIS. The assessment concluded there could be a minor improvement to adjacent land use as a result of road upgrades. The Project is considered to be a desirable land use under the current and proposed planning schemes. Section 2.4 of the EIS outlines the site selection process undertaken by Renascor as part of Project design. The site selection process considered environmental, social, engineering, schedule and cost factors to select the most appropriate site with the lowest environmental impact.	8 – Land Use and Site Conditions. 2.4 – Alternatives to the Project
3	Concerns regarding climate change and possibility of this site being flooded in the future.	Section 14 of the EIS outlines the impacts of climate change, how they are expected to impact the Project and mitigation measures. Section 15 of the EIS has included flood mapping to show the Project infrastructure will not be flooded by surface water nor will the Project cause increased flood risk downstream. Flood modelling (included in Appendix 10) considered both the 1% AEP under current climate and projected climate scenarios with a representative concentration pathway (RCP) of 8.5 for 2050.	14 – Climate Change and Resource Efficiency 15 – Hazard and Risks Appendix 10 – Flood modelling
11	I Object to any proposal such as this Renascor Battery Anode Material Facility that's part of the Fake Green RenewaBULL Solar/Wind/BESS Energy Poverty Grift & Ponzi Scheme/Scam that's irresponsibly Wrecking Australia & DO NOT CONSENT to the detrimental, toxic contaminating impacts, nor the complete waste of subsidy money for incapable Batteries & pathetic RenewaBULL JUNK that's ripping off everyday Australians during the Gov inflicted Cost of Living Crisis. I Object to Renascor Battery Anode Material Facility & all Industrialised Solar/Wind Electricity Generating Works + Battery Energy Storage Systems & related Transmission Interconnector Nightmares as the whole lot is an unconscionable waste of public funds for the	The merits of renewable energy is outside the scope of the EIS. The South Australian Government has committed to 100% renewable energy by 2027. The Project will support the Australian Government's Critical Minerals Strategy. The EIS provides an assessment of how the Project will be undertaken to prevent impacts to the environment and help reduce the impacts of climate change.	N/A

Submission ID	Issues Raised	Response	Relevant EIS Section(s)
	most illogical & harmful, Fake Green, RenewaBULL, imaginary power delusion that could ever be orchestrated & forced on the S.A/Australian public with NO Consent, Against Our Will, with NO Social Licence & for NO COMMUNITY BENEFIT WHATSOEVER! Failure isn't a glitch, it is a design feature of S.A's 'Renewable' Swindle which can't deliver power on demand – only guarantees economic misery, environmental destruction & community disruption.		
13	I am concerned about the noise pollution as I am a residence on the corner property and running prime movers at night will effect me.	Traffic entering/exiting the site from Robinson Road may impact three residences including the residence referred to in this submission. Renascor have and will continue to engage with Mr Choimes and the other residents regarding potential impacts from the Project and mitigations to manage noise. Renascor commits to working with Mr Choimes and the other residents to effectively deal with any potential noise issues. This includes ongoing noise monitoring during Operations, and possible appropriate mitigation works should a breach of the EPA Noise Criteria be determined at a residence (sensitive receptor).	11.3 - Noise

Appendix A Additional Community Engagement Report

Note: personal details have been redacted to ensure the privacy of individuals.

4 December 2023

Phil Hazell, Courtney Stollznow, Ian Yorke and Greg Marr
Environment Protection Authority
By email: [redacted]

Dear Phil, Courtney, Ian and Greg

RE: REPORT ON ADDITIONAL NOISE CONSULTATION IN REGARD TO RENASCOR'S PROPOSED BATTERY ANODE MATERIALS FACILITY

Further to our meeting on 25 October 2023, I am writing to provide you with an update on the additional noise consultation undertaken by Renascor in relation to the Siviour Battery Anode Material (BAM) proposal at Robinson Road Waterloo Corner.

Renascor engaged Consentium to support delivery of the activities outlined in Table 1.

Table 1-actions undertaken to engage with landowners at R14, R15 and R16

Date	Action
26/10/2023	Obtained land ownership data from SAILIS property register.
27/10/2023	Determined whether residents at R15 and R16 are owner/occupiers, or whether there is a landowner that needs to be engaged separately
30/10/2023	Investigated potential language backgrounds and liaised with SA Interpreting and Translating Centre (ITC) to obtain advice on availability of translators and interpreters and fee schedule. Outcome: Vietnamese adviser stated that a full translation may not be required and that the offer of a translation and interpretation is appropriate. "*If you would like to receive this information in Vietnamese, or would like to speak with an interpreter, please call 1800 280 203.*"
15/11/2023	Letter for 3 x residents with contact details incorporating advice from ITC in regard to appropriate phone number and language translation lines.
21/11/2023	**AFTER-HOURS DOORKNOCK - R15 LANDOWNERS** 1. [redacted] 2. [redacted]
21/11/2023	**AFTER HOURS DOORKNOCK – R16 LANDOWNERS** [redacted]
29/11/2023	Follow up with nursing home [redacted]
1/12/2023	Sent further letter to owners of R15 to alternate address.

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The outcome of the additional engagement is summarised in Table 2.

Table 2 outcomes of additional noise consultation with landowners at 414, R15 and R16

	Landowner contact details	Summary of interactions	Outcome*[1]
R14 87-89 Robinson Road	Landowner: [redacted] Owner/occupier: Y [redacted]	**23/10/2023:** Phone call – stays overnight on weekends, expressed concerns with the noise from trucks running down Robinson Road at night but higher concerns about property values and dust control. **8/11/2023**: In person meeting - no concern with noise and believes an agreement can be made to control noise at the receiver. **10/11/2023:** Renascor sent email follow up offering to enter into an agreement to detail a process whereby if he considers that amenity is impacted by noise he can request Renascor carry out further noise monitoring and if noise criteria not met, noise attenuation solutions for his residence.	Noise agreement offered (Appendix A)
R15 83-85 Robinson Road, Waterloo Corner	Landowners (25% share each): [redacted] Landowners (50% share as joint tenants): [redacted]	**21/11/2023**: 19:15 hand-delivered letter to [redacted]. Address is an Aged Care home and access was not available. Left letter in letterbox with direct contact number and request to call. **21/11/2023**: 19:00 hand-delivered letter to [redacted] Rang doorbell and knocked on door a number of times with no response. Left letter in letterbox with direct contact number and request to call. **29/11/2023:** Phone call - followed up with Nursing Home to determine what was done with the correspondence. **1/12/2023:** Sent further letter to alternate address [redacted]	Noise consultation offered (Appendix B)
R16 79-91 Robinson Road, Waterloo Corner	Landowners: [redacted]	**21/11/2023**: 18:30 hand-delivered letter to [redacted] Knocked on door which was answered but the individual claimed not to be the owner of the Robinson Road property but said his mother may know the owner.	Noise consultation offered (Appendix B)

[1] *As of 1 December 2023. Renascor will remain open to any future communication from residents.*

	Landowner contact details	Summary of interactions	Outcome*[1]
		The letter was handed to the individual to be given to his mother who he would ask to pass on to the registered owner.	

Renascor will continue to remain open to offers of agreement, should the landowners contact us in the future. I trust this satisfies the Environment Protection Authority that Renascor has undertaken sufficient engagement with landowners about the potential for additional noise.

Please don't hesitate to contact me to discuss the matter further on [redacted]

Yours sincerely

VICKI HOOD
ENVIRONMENT AND SUSTAINABILITY MANAGER
Renascor Resources Ltd.

Appendix A – Email offering to enter into noise agreement

From: Aaron Maddern [redacted]
Sent: Friday, November 10, 2023
To: Steve Choimes [redacted]
Subject: Robinson Road Development - Noise Amenity

Hi Steve,

Thankyou for meeting with me this week. It was good to understand your concerns regarding the proposed Facility and I will endeavour to provide you information to alleviate these concerns and show that we wish to be good neighbours.

As discussed, there may be potential for this Facility to exceed the Environment Protection (Commercial & Industrial Noise) Policy 2023 night-time noise criteria at your property. As part of the process to gain approval for the Facility we have completed noise modelling to predict the noise generated by the Facility and its operations. The noise model provides an estimate of the impact the Facility may have on your property.

The model indicated that for the residence on your property we may possibly have a minor exceedance during the night due to the arrival and departure of one or two trucks when they enter and exit the Facility. The operational noise at the facility has been modelled and predicted to be below the level determined to impact amenity during the night-time.

In order to ensure your amenity is protected once the Facility is operational, we would like to offer you the opportunity to enter into an agreement with Renascor. This agreement could detail a process whereby if you consider that your amenity is being impacted by noise you can request Renascor to carry out further targeted noise monitoring to determine if we are meeting the required criteria. Should the noise criteria not be met the agreement would detail noise attenuation solutions for your residence.

Can you please confirm you have received this email and indicate if you wish to go ahead with an agreement with regard to noise amenity.

Lastly, I will follow up on a separate email with more information and facts about air quality and graphite.

Regards,

Aaron Maddern
PROJECT MANAGER

Appendix B – letter of offer sent to landowners

Renascor Resources Limited
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15 November 2023

[redacted]

Dear [redacted]

RE: RENASCOR BATTERY ANODE MATERIALS FACILITY, IN REGARD TO YOUR PROPERTY AT [redacted]

Planning is underway by Renascor to power Australia's clean energy transition through the development of a Siviour Battery Anode Material (BAM) Facility in Bolivar, South Australia (please see proposed location overleaf).

I am writing to advise that there may be potential for this Facility to slightly exceed the *Environment Protection (Commercial & Industrial Noise) Policy 2023* night-time noise criteria at your above property. As part of the process to gain approval for the Facility, we have carried out a noise assessment by placing noise monitoring equipment on Robinson Road and using this data to produce a noise model. The noise model provides an estimate of the impact the Facility may have on your property.

We would like to speak with you to discuss whether an agreement for acoustic treatment may be appropriate at your property if you have buildings that are occupied overnight.

Please could you contact me at your earliest convenience, to arrange a time to discuss the matter further by phoning me on [redacted]

Yours sincerely

VICKI HOOD
ENVIRONMENT AND SUSTAINABILITY MANAGER
Renascor Resources Ltd.

CC: [redacted]

Nếu quí vị muốn nhận bản tin này bằng Việt ngữ, hoặc muốn nói chuyện qua người thông dịch, xin vui lòng gọi điện thoại số 0417 937 356.

Proposed site for the Siviour Battery Anode Material (BAM) Project at Robinson Road Waterloo Corner, comprising:

- *Allotment 3 of Filed Plan 115108 in Certificate of Title (CT) volume 5723 folio 299; and*
- *Portion of Allotment 4 of Filed Plan 115108 in Certificate of Title volume 5723 folio 299.*

Renascor Resources Limited
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Building exceptional outcomes together

Memorandum

To	Renascor Resources		
From	Tonkin	Date	3 May 2024
Job Number	221294		
Subject	Intersection Treatments for SA Water Access		

Introduction

The Renascor Resources Battery Anode Material (BAM) Project consists of a mine and concentrator near Arno Bay and a downstream Purified Spherical Graphite (PSG) production facility proposed to be located on Robinson Road, Waterloo Corner.

Graphite concentrates from the Arno Bay mine operation, are proposed to be transported to the PSG production facility, using the following vehicle combinations via Waterloo Corner Road and Port Wakefield Road.

- 26m B-Doubles,
- 36.5m AB-Triple or
- 40.7m AB Triple,

Tonkin has previously been engaged by Renascor Resources to undertake a traffic impact assessment and a heavy vehicle route assessment. Findings within the heavy vehicle route assessment (ref. 221294R001D) recommended that either a basic left turn treatment or an auxiliary left turn treatment (i.e. an intersection upgrade) be considered. Due to a lack of turning movement data at the intersection at the time of reporting for the Traffic Impact Assessment (ref. 221875R01D) and the heavy vehicle route assessment, the need for an intersection upgrade could not be confirmed.

Renascor Resources have therefore engaged Tonkin to undertake the following scope of work:

1. Collect traffic data and undertake an assessment to determine whether existing traffic volumes at the intersection warrant an upgrade of the intersection (i.e. Base Case) based on Figure 3.25 of Austroads Guide to Traffic Management Part 6 and Figure 4A-A 4 in the TMR Road Planning and Design Manual – Edition 2: Volume 3.
2. whether future traffic volumes at the intersection, including traffic generated by the Renascor Resources PSG facility, will warrant an intersection upgrade (i.e. Future Case), based on Figure 3.25 of Austroads Guide to Traffic Management Part 6 and Figure 4A-A 4 in the TMR Road Planning and Design Manual – Edition 2: Volume 3.
3. to determine the types of vehicles that are currently accessing Robinson Road based on a vehicle classification tube count.

Traffic Counts

Tonkin engaged Austraffic to undertake turning movement counts at the Robinson Road / Waterloo Corner Road intersection and midblock tube counts on Robinson Road. The turning movement

counts at the intersection were undertaken on 15th November 2023 between 7am-7pm. The mid block tube counts were undertaken over a 7 day period between 15 November 2023 and 21 November 2023.

Turning Movement Counts

Intersection warrant assessments are based on peak hourly volumes and the turning movement counts show that the morning peak (i.e. the AM Peak) occurred between 7:45-8:45am while the evening peak (i.e. the PM Peak) occurred between 15:30-16:30. Illustrations for the two peak hourly volume periods are shown in the figures below.

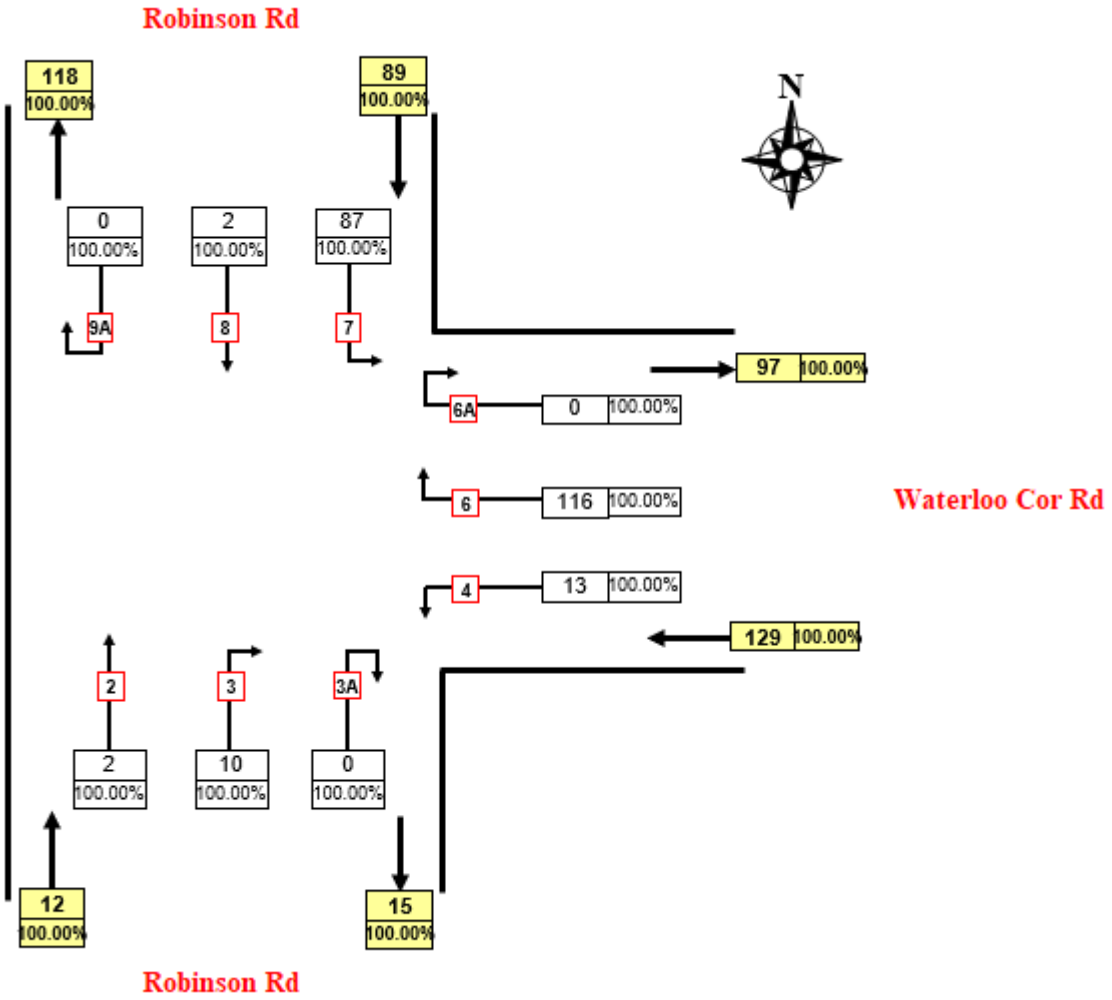


Figure 1: AM Peak 07:45-08:45

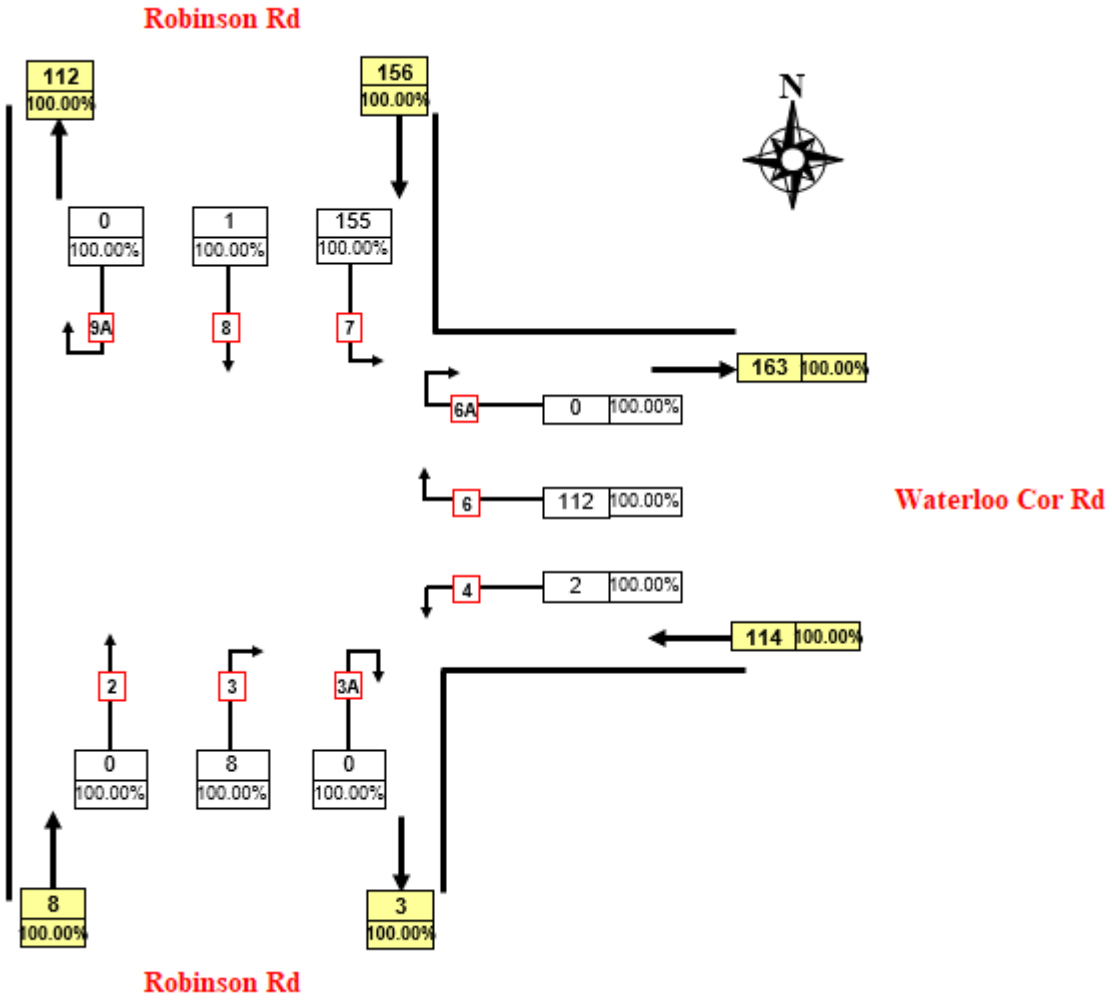
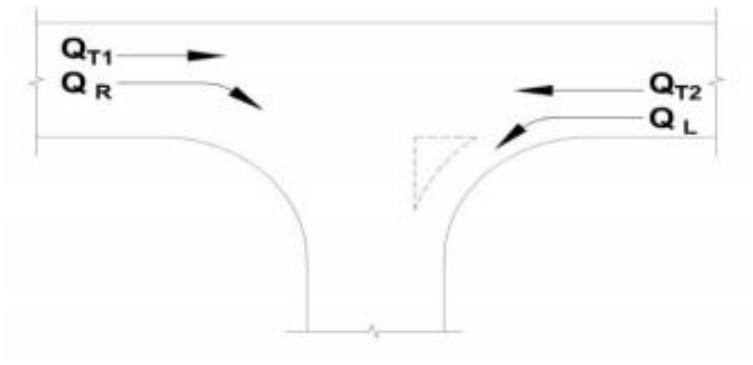


Figure 2: PM Peak 15:30-16:30

Based on Austroads Guide to Traffic Management Part 6 and the TMR Road Planning and Design Manual, an intersection warrant assessment was undertaken for the base case using the turning movement counts undertaken on 15 November 2023. A future case was also assessed based on Peak hourly traffic movements generated by the Renascor facility during "Stage 2 Operation".

Figure 3 was used to determine the major road traffic volumes (i.e QM(Left) and QM(Right)) which are used as inputs into determining the required intersection treatment.



Turn type	Splitter island	Q_m (veh/h)
Right	No	= Q_{T1} + Q_{T2}+Q_L
Right	Yes	= Q_{T1} + Q_{T2}
Left	No/yes	= Q_{T2}

Source: Arndt and Troutbeck (2006).

Figure 3: Calculation of the major road traffic volume parameter Qm

Base Case

As mentioned previously, the base case uses the turning movement counts undertaken on 15 November 2023 to determine whether existing traffic volumes warrant an intersection upgrade.

Table 1: Base Case Peak Hourly Traffic Volumes and Major Road Traffic Volumes for AM Peak

	QT1	QT2	Q(Left)	QM(Left)	Q(Right)	QM(Right)
AM Peak	87	116	13	116	2	216

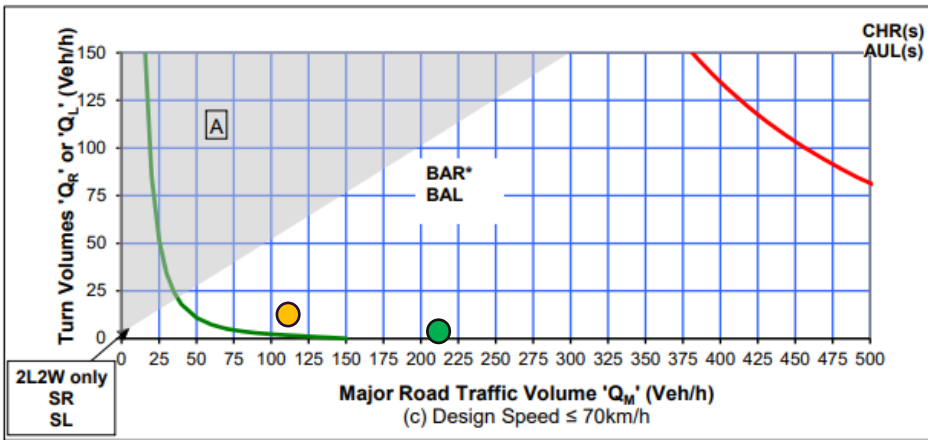


Figure 4: AM Peak Warrant Assessment

Table 2: Base Case Peak Hourly Traffic Volumes and Major Road Traffic Volumes for PM Peak

	QT1	QT2	Q(Left)	QM(Left)	Q(Right)	QM(Right)
PM Peak	155	112	2	112	1	269

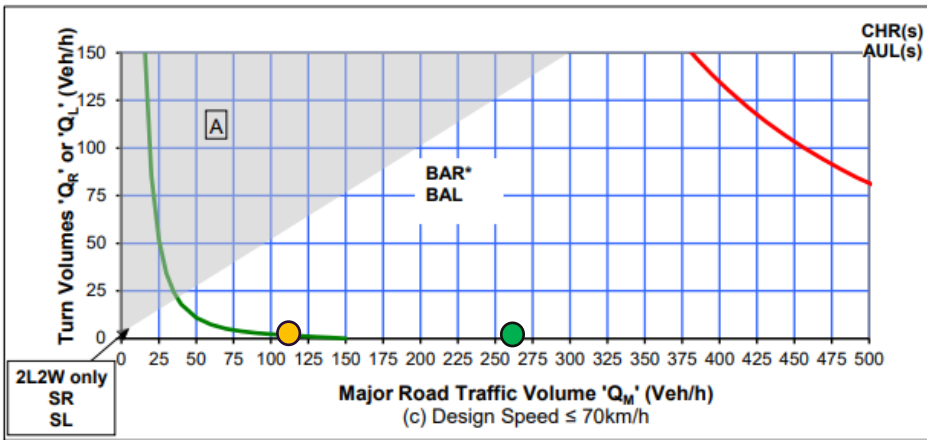


Figure 5: PM Peak Warrant Assessment (Base Case)

For both the AM and PM Peak scenarios, the assessments above show that the treatment required for the base case is a BAR/BAL (i.e. a basic right turn treatment and a basic left turn treatment). The existing intersection appears to provide a BAR with a 4 m wide sealed shoulder on the inside of the curve adjacent to a 4.4 m wide through lane, in order to allow motorists to pass vehicles waiting to turn right into Robinson Road. The requirement of a BAL for left turns appears to be met based on turn paths for a 26 m B-Double vehicle, 36.5 m AB-Triple and a 40.7 m AB-Triple undertaken on aerial backdrop (refer Appendix A), although it also appears that the wheels are tracking off the existing edge of bitumen near the existing stobie pole for the 36.5 m AB Triple and the 40.7 m AB- Triple turn paths. As per the recommendation in the route assessment report (221294R001D), trial turning assessments should be undertaken on site.

Figure 6: Width measurements at the Waterloo Corner Road/Robinson Road intersection using Metromap aerial imagery

Future Case

The future case adds peak hourly trip generation values based on vehicles entering and leaving the Renascor facility on top of the base intersection turning count volumes, to assess what intersection treatment is warranted based on Renascor's activities.

Table 3: Future Case Peak Hourly Traffic Volumes and Major Road Traffic Volumes

	QT1	QT2	Q(Left)	QM(Left)	Q(Right)	QM(Right)
AM Peak	87	116	59	116	2	216
PM Peak	155	112	32	112	1	269

Based on the traffic impact assessment prepared by Tonkin in August 2023 (ref. 221875R01D), Renascor's AM and PM Peak movements are expected to occur between 6:30 and 7:30 for both am and pm times. The AM peak hourly volume entering the Renascor facility is estimated to range from 43-46 vehicles per hour while the PM Peak hourly volume entering the facility is 29-30 vehicle per hour for "Operational – Stage 2". It is assumed that in both the AM and PM Peaks all vehicles will perform a left turn into Robinson Road from Waterloo Corner Road.

Based on the figure presented below, the warrant for a BAL left turn treatment remains, as indicated by the orange circles. Since the circle for the AM Peak is in the shaded grey area, the TMR Road Planning and Design Manual suggests considering road realignment. However, since growth in the through lanes has not been considered, it is likely that the major road will continue to be Waterloo Corner Road to Robinson Road North, and that no realignment is required.

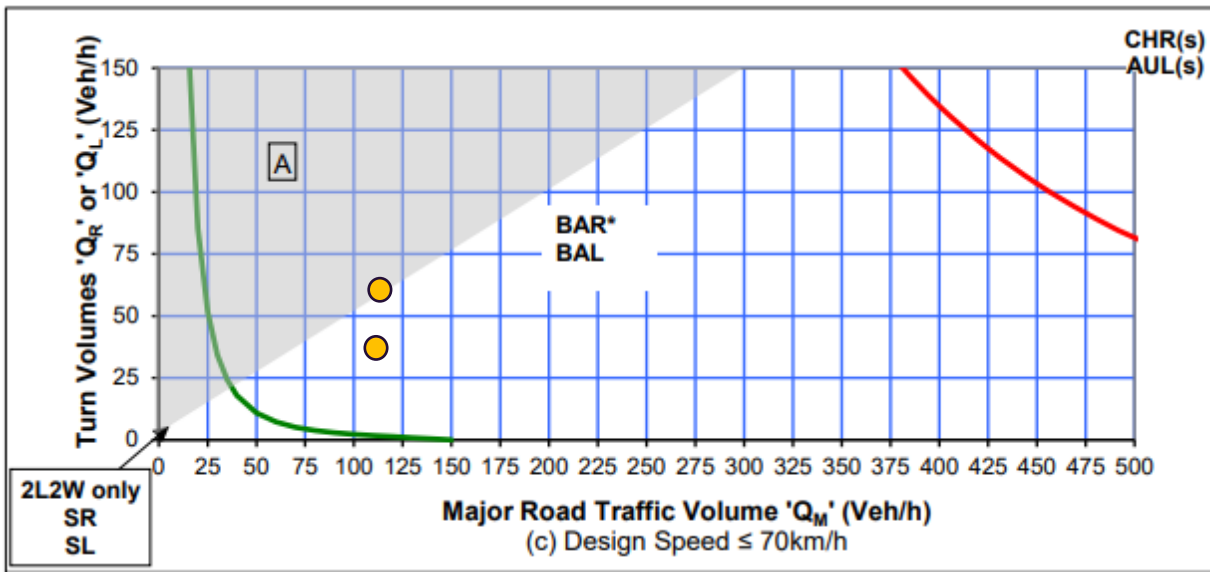


Figure 7: AM and PM Peak Warrant Assessment (Future Case)

It should also be noted that Renascor's peak periods occur outside of the AM Peak (07:45-08:45) and PM Peak (15:30-16:30) period determined from the base traffic counts undertaken by Austraffic.

Mid-block Tube Counts

7 day tube counts were undertaken on Robinson Road, from 15 November 2023 to 21 November 2023. The traffic count data shows that the AADT (two-way) on Robinson Road is 124 vehicles per day, with a heavy vehicle content of approximately 9%. The traffic counters are also able to classify vehicles based on the number of axles passing over the tubes in accordance with the Austroads94 vehicle classification scheme (refer figure below).

Level 1	Level 2		Level 3	Austroads 1994 Classification	
Length (indicative)	Axles and axle groups		Vehicle type	Class	Parameters
Type	Axle	Groups	Description		
Short up to 5.5 m	LIGHT VEHICLES				
	2	1 or 2	Short sedan, wagon, 4WD, utility, light van, bicycle, motorcycle, etc.	1	d1 ≤ 3.2 m and axles = 2
	3, 4 or 5	3	Short – towing trailer, caravan, boat, etc.	2	Groups = 3 d1 ≥ 2.1 m, d1 ≤ 3.2 m d2 ≥ 2.1 m and axles = 3, 4 or 5
Medium 5.5 m to 14.5 m	HEAVY VEHICLES				
	2	2	Two-axle truck or bus	3	d1 > 3.2 m and axles = 2
	3	3	Three-axle truck or bus	4	Axles = 3 and groups = 2
	> 3	2	Four-axle truck	5	Axles > 3 and groups = 2
Long 11.5 m to 19.0 m	3	3	Three-axle articulated or rigid vehicle and trailer	6	d1 > 3.2 m, axles = 3 and groups = 3
	4	> 2	Four-axle articulated or rigid vehicle and trailer	7	d2 < 2.1 m or d1 < 2.1 m or d1 > 3.2 m Axles = 4 and groups > 2
	5	> 2	Five-axle articulated or rigid vehicle and trailer	8	d2 < 2.1 m or d1 < 2.1 m or d1 > 3.2 m Axles = 5 and groups > 2
	6 >6	>2 3	Six-axle (or more) articulated or rigid vehicle and trailer	9	Axles = 6 and groups > 2 or axles > 6 and groups = 3
Medium combination 17.5 m to 36.5 m	> 6	4	B-double or heavy truck trailer	10	Groups = 4 and axles > 6
	> 6	5 or 6	Double road train or heavy truck and trailers	11	Groups = 5 or 6 and axles > 6
Long combination over 33.0 m	> 6	> 6	Triple road train or heavy truck and three trailers	12	Groups > 6 and axles > 6

Figure 8: Austroads 94 Classification Scheme

The results of the classification counts are presented in the figure below.

AUTOMATIC VEHICLE CLASSIFICATION AND SPEED SURVEY
SUMMARY OF RESULTS - Two ways

Client:	Tonkin
Road	Robinson Road
Survey Location:	south of corner outside 87
Suburb	Waterloo Corner
Survey Period:	Wed 15 Nov 23 to Tue 21 Nov 23
Speed Limit:	80
ATS Reference:	
GCCC Reference:	73Z

TRAFFIC VOLUME / CLASSIFICATION DATA

DAY	DAILY TRAFFIC BY AUSTROAD CLASSES														Motor	Bicycle
	1	2	3	4	5	6	7	8	9	10	11	12	13	Total	cycle	
Wednesday, November 15, 2023	144	6	24	2	2	0	2	2	5	2	2	0	2	193	5	1
Thursday, November 16, 2023	122	2	11	3	0	0	0	0	5	0	0	0	0	143	0	2
Friday, November 17, 2023	119	12	25	0	2	1	6	2	5	0	0	0	0	172	0	0
Saturday, November 18, 2023	113	8	16	0	0	4	0	0	4	0	0	0	0	145	0	0
Sunday, November 19, 2023	94	31	9	0	0	5	0	0	4	0	0	0	0	143	1	0
Monday, November 20, 2023	108	8	11	6	5	1	0	0	11	0	0	0	1	151	3	3
Tuesday, November 21, 2023	136	3	17	3	1	0	0	1	7	0	0	0	1	169	1	1
Average Daily Volume	119	10	16	2	1	2	1	1	6	0	0	0	1	159	1	1
% of Vehicles by Class	75.1%	6.3%	10.2%	1.3%	0.9%	1.0%	0.7%	0.4%	3.7%	0.2%	0.2%	0.0%	0.4%	100.0%	0.9%	0.6%

Figure 9: Midblock traffic classification count summary

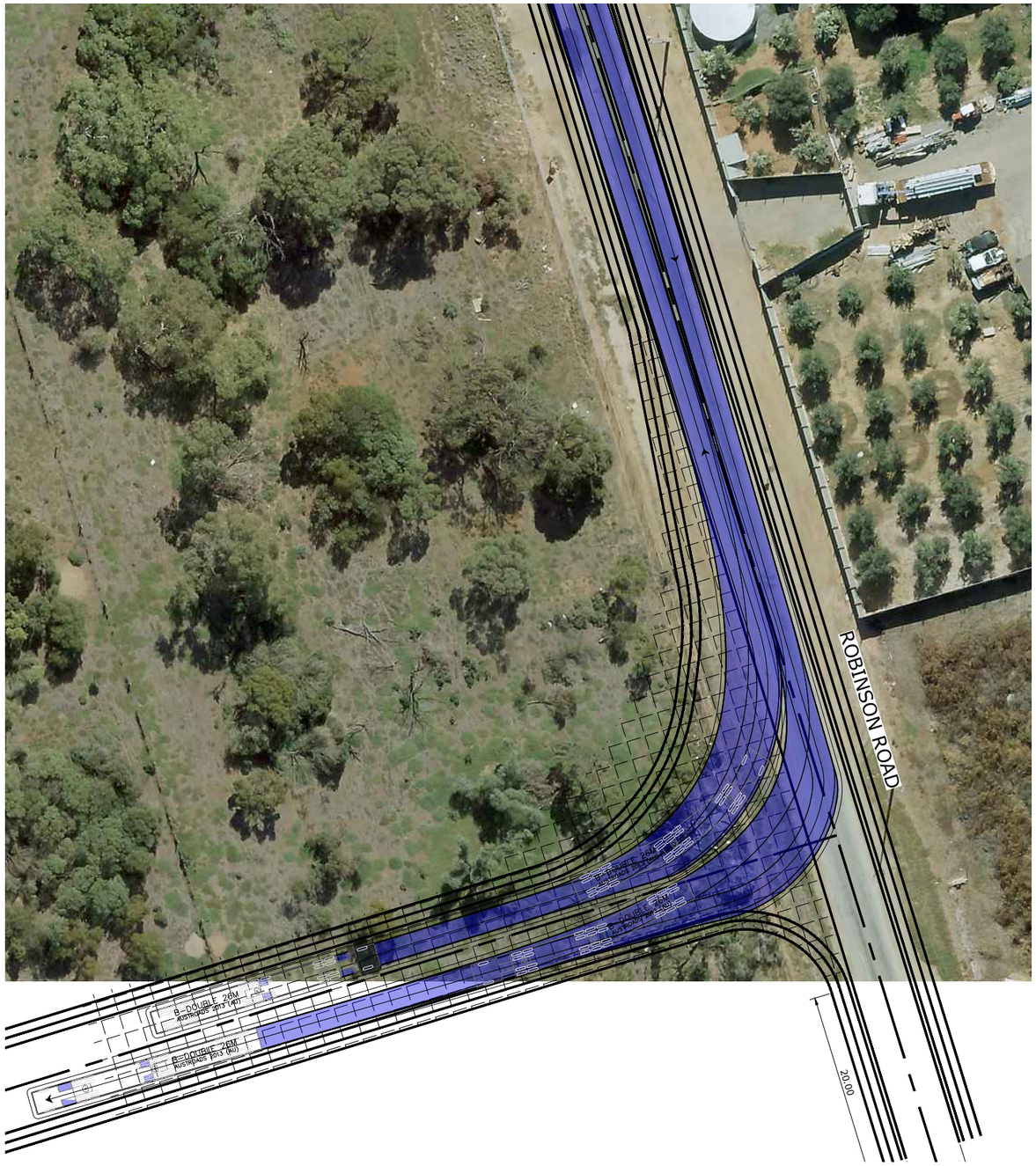
RAVNET 2023 indicates that Robinson Road is currently not a gazetted heavy vehicle route, however the classification counts show that there is a small percentage of Class 10 (i.e. B-Double) and Class 11 (i.e. Double Road Trains) vehicles accessing the road.

Conclusion

Having undertaken an assessment of the base and future cases at the Waterloo Corner Road / Robinson Road intersection, the findings indicate that a basic right turn treatment and a basic left turn treatment (i.e. BAR/BAL) are warranted in both cases. The current intersection geometry consists of a basic right turn treatment and an urban basic left turn treatment, and therefore intersection upgrades are not required if 26 m B-Doubles, 36.5 m AB Triples and 40.7 m AB triples are proposed to be used as haulage vehicles. As per the recommendations in the route assessment report, we recommend trial turn paths be undertaken for both the 36.5 m AB Triple and the 40.7 m AB Triple.

The mid block tube counts on Robinson Road show that despite not being gazetted as a heavy vehicle route, there is a small percentage of Class 10 and Class 11 vehicles accessing the road already.

Appendix A – Turn Paths



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RENASCOR RESOURCES LIMITED

WATERLOO CORNER RD AND ROBINSON RD
HEAVY VEHICLE ROUTE ASSESSMENT
TURN PATHS - 26m B-DOUBLE - SHEET 1

FILENAME: 221294 AUTOTURN_2.DWG
PROJECT NUMBER: 221294
DRAWING NUMBER: SK-100
REVISION: C

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WATERLOO CORNER RD AND ROBINSON RD
HEAVY VEHICLE ROUTE ASSESSMENT
TURN PATHS - 26m B-DOUBLE - SHEET 2

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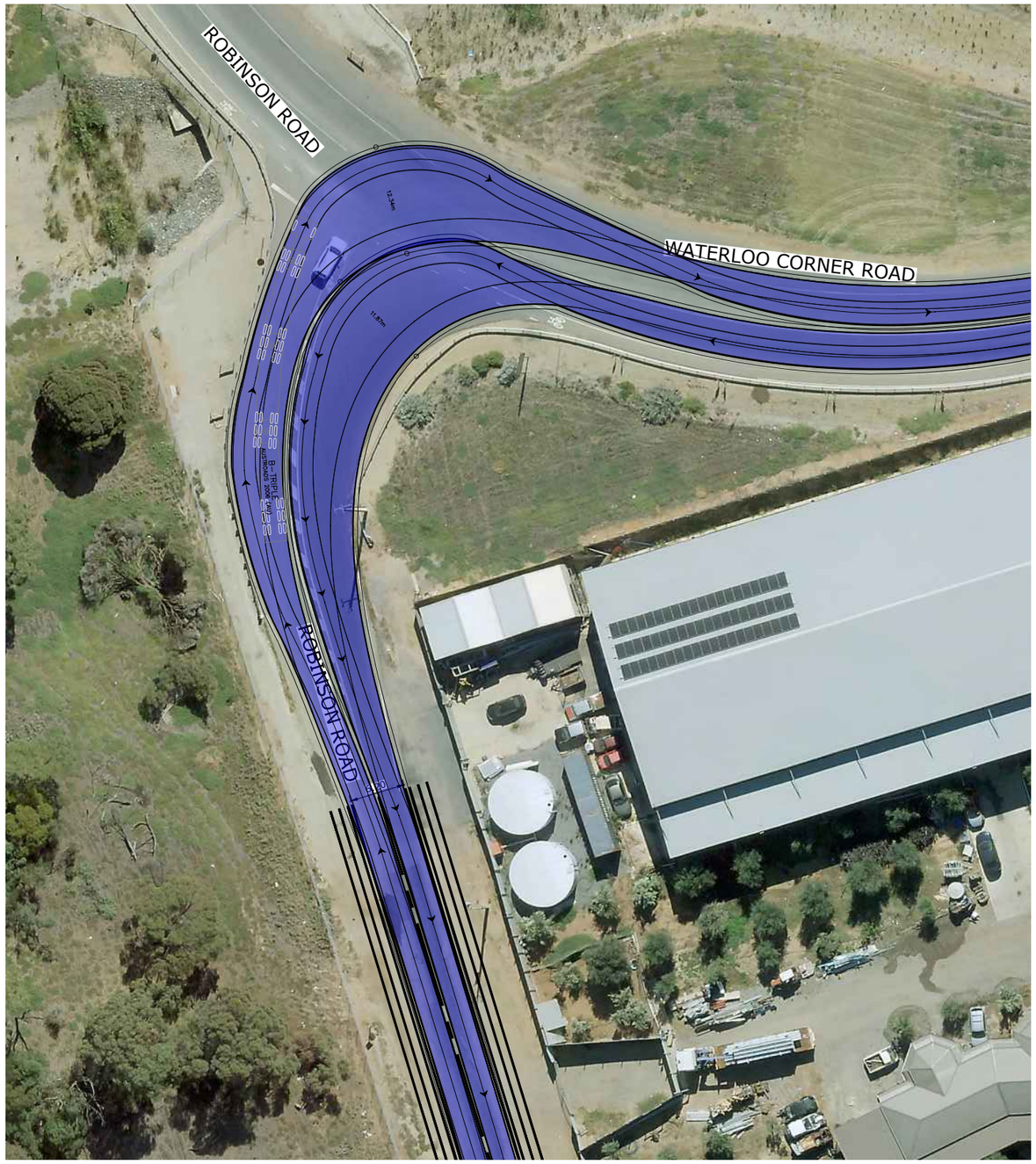

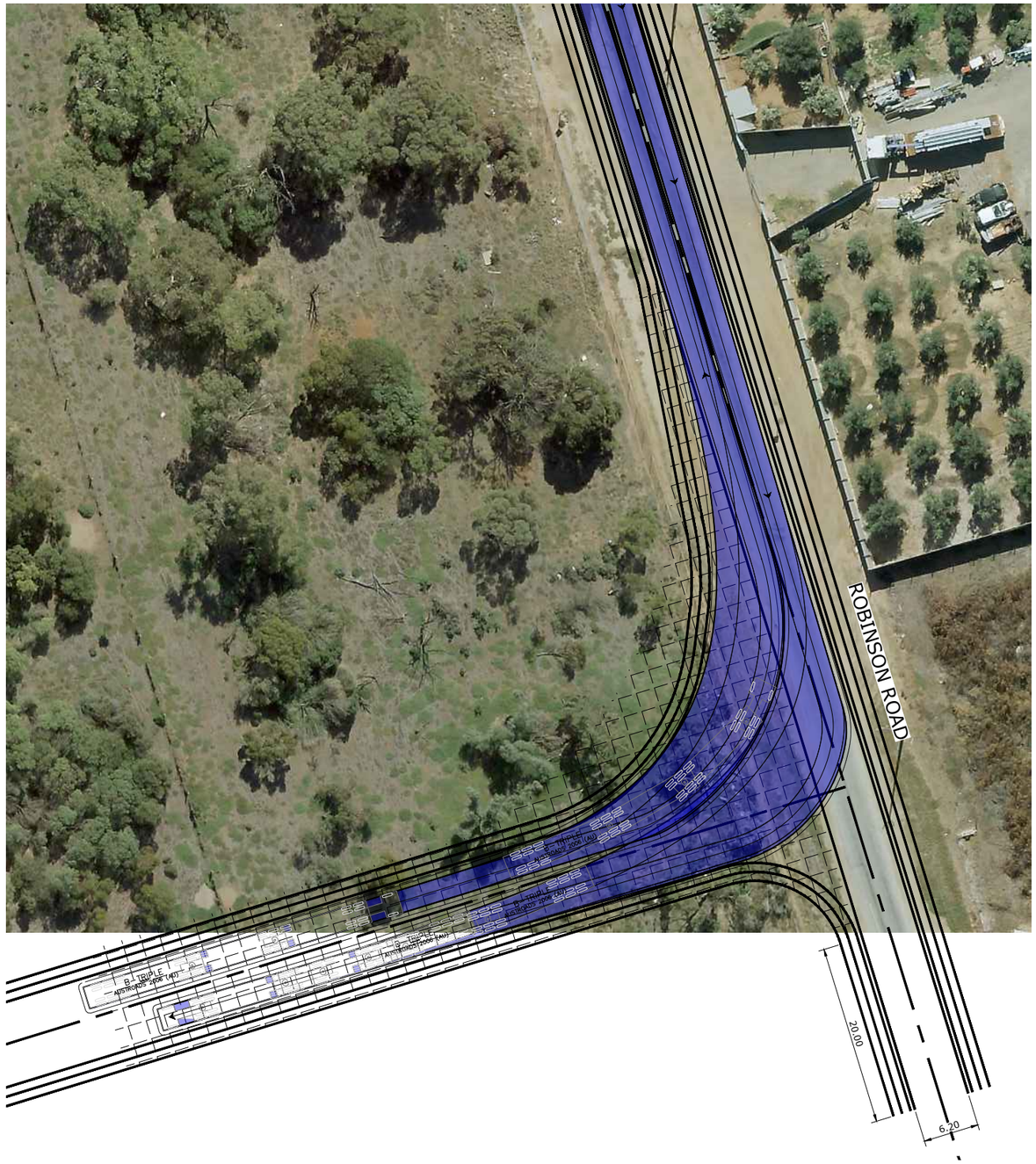

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RENASCOR RESOURCES LIMITED

WATERLOO CORNER RD AND ROBINSON RD
HEAVY VEHICLE ROUTE ASSESSMENT
TURN PATHS - 36.5m B-TRIPLE - SHEET 1

FILENAME: 221294 AUTOTURN_2.DWG
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DRAWING NUMBER: SK-102
REVISION: C

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SURVEY DATE:N/A
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WATERLOO CORNER RD AND ROBINSON RD
HEAVY VEHICLE ROUTE ASSESSMENT
TURN PATHS - 36.5m B-TRIPLE - SHEET 2

FILENAME: 221294 AUTOTURN_2.DWG

PROJECT NUMBER 221294 | DRAWING NUMBER SK-103 | REVISION B

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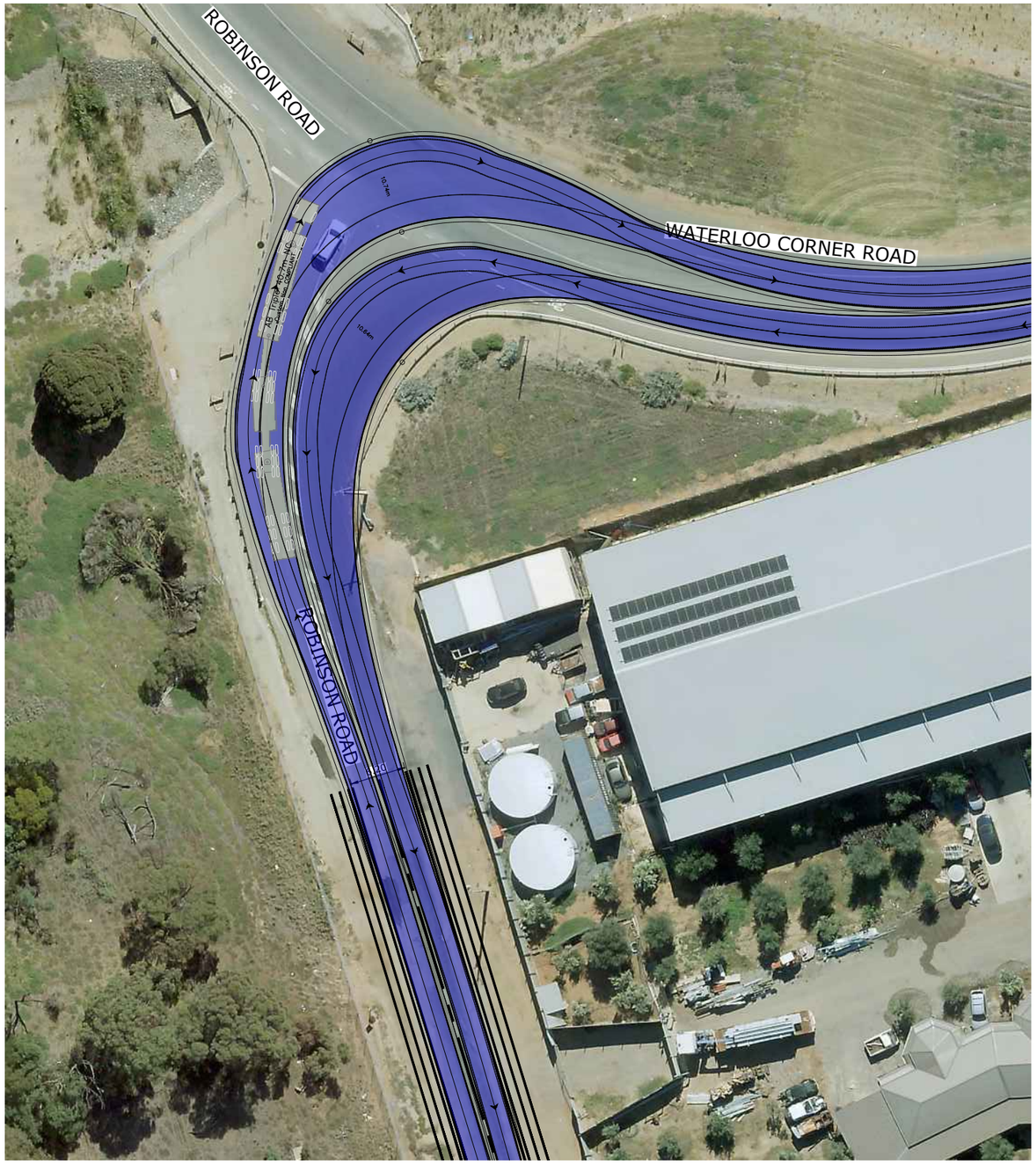

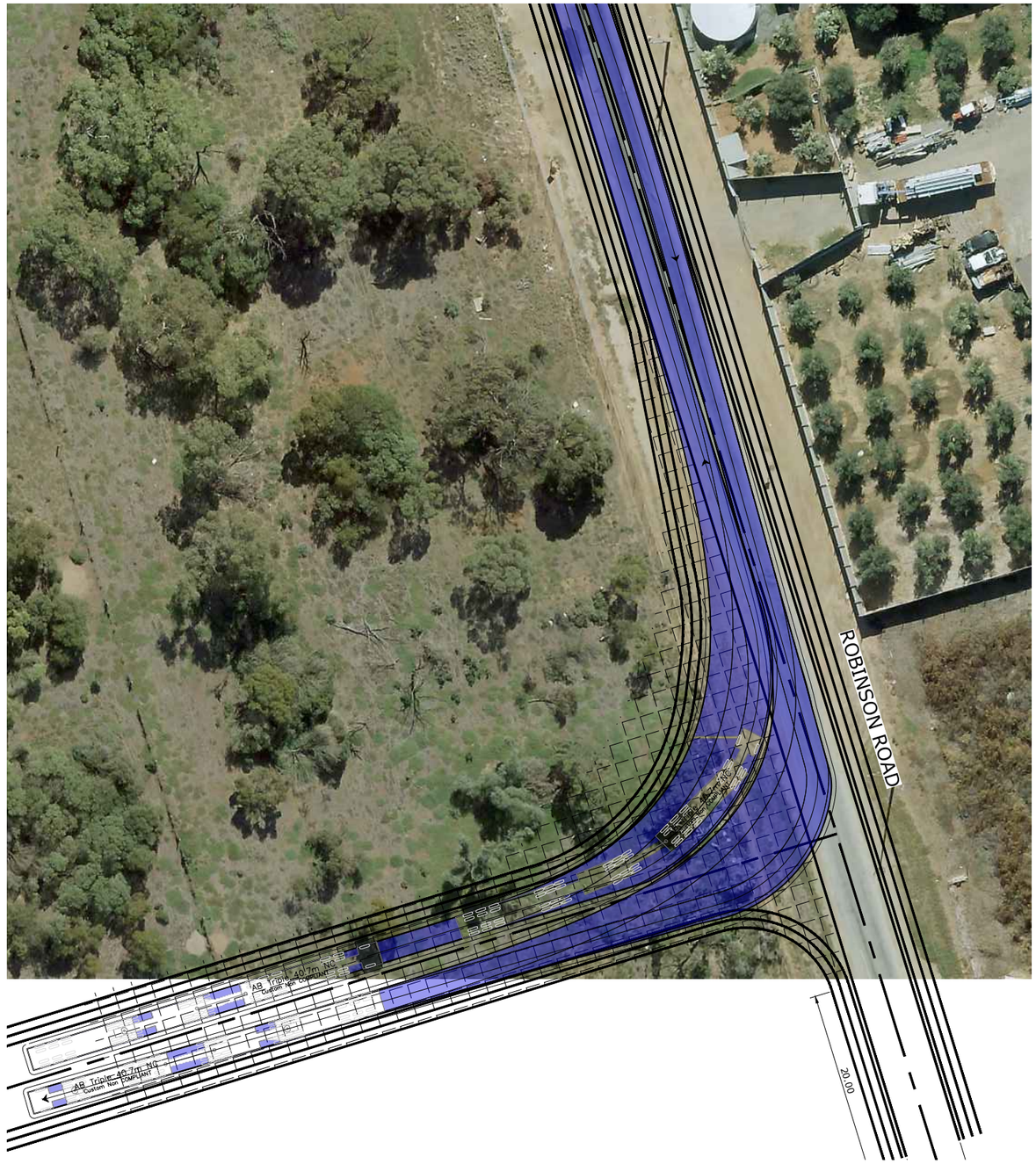

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RENASCOR RESOURCES LIMITED

WATERLOO CORNER RD AND ROBINSON RD
HEAVY VEHICLE ROUTE ASSESSMENT
TURN PATHS - 40.7m AB-TRIPLE - SHEET 1

FILENAME: 221294 AUTOTURN_2.DWG
PROJECT NUMBER: 221294
DRAWING NUMBER: SK-104
REVISION: A

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A	REIVSED ENTRANCE TO SITE	16.01.23	AM	AM

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DATUM: LOCAL DATUM
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SURVEY DATE:N/A
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RENASCOR RESOURCES LIMITED

WATERLOO CORNER RD AND ROBINSON RD
HEAVY VEHICLE ROUTE ASSESSMENT
TURN PATHS - 40.7m AB-TRIPLE - SHEET 2

FILENAME: 221294 AUTOTURN_2.DWG

PROJECT NUMBER 221294 | DRAWING NUMBER SK-105 | REVISION A

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