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Received as the Proponent's response to the Coordinator-General's information request

Euroa Hydrogen Project

Domestic Facility (Phase 1)

Revised Planning Report for a State Development Area application for 'Special Industry' (Hydrogen Production Facility, including ancillary substation) and 'Major Electricity Infrastructure' (extension to an existing 275kV Transmission Line)

October 2025

Euroa Hydrogen Project (Phase 1)

Hydrogen Production Facility

Document title:	Euroa Hydrogen Project - Domestic Facility (Phase 1). Revised Planning Report for State Development Area application for 'Special Industry' (Hydrogen Production Facility, including ancillary substation) and 'Major Electricity Infrastructure' (extension to an existing 275kV Transmission Line)
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1. Introduction

Vena Energy Services (Australia) Pty Ltd (Vena Energy) 'The applicant' has prepared this State Development Area (SDA) application for its proposed Euroa Hydrogen Project's Domestic Facility (Phase 1), ('The Project'). The Project site is located approximately 18km west of the Gladstone Central Business District, at Euroa Circuit in the suburb of Aldoga (refer to Figure 1). The Project extends over 3 primary premises formally described as Lots 1, 2 and 3 on SP245955, and 2 Secondary premises, Lot 6 on SP245936 and Lot 7 on SP245955 (Refer to Figure 2) to facilitate electricity connection infrastructure and release of stormwater from the primary site.

Broadly, the Project is the first step in achieving Vena Energy's long term clean hydrogen vision for the Asia Pacific region, through establishing a new facility to produce hydrogen for domestic offtake opportunities. Delivering this project will enable Vena Energy to gather knowledge and expertise in delivering and operating hydrogen production facilities before embarking on a phase 2 project (not part of this application) that will significantly scale up hydrogen production on the site with a desire to supply hydrogen for large scale domestic and international markets.

The Project seeks to establish a hydrogen production facility which produces compressed hydrogen gas that will be distributed domestically using purpose-built road tube trailers. The facility will comprise of an integrated hydrogen electrolysis, hydrogen conversion, storage, and distribution facility. The facility will source its electricity requirements through a connection to the existing electricity grid (i.e. NEM) utilising a spare circuit of the Larcom Creek to Euroa Circuit transmission line, with the application proposing an overhead electricity line extension from this spare circuit to a new facility substation located on the primary premises. The source of the electricity will be from renewable energy generation facilities connected within the grid.

The facility will source all its water inputs from Gladstone Area Water Boards' (GAWB's) existing water supply network which runs near the site along Aldoga Road, under a secured water allocation.

Processed effluent and wastewater produced by the Project will be treated and stored on site. The wastewater will be intermittently transported offsite via trucks to a registered waste facility to be processed.

The Project site is located within the Gladstone State Development Area (GSDA) where development is regulated under the *State Development and Public Works Organisation Act 1971* (SDPWO Act) through the GSDA Development Scheme, where the following approval is sought:

> *Development Permit for a Material Change of Use for Special Industry' (Hydrogen Production Facility, including an ancillary substation) and Major Electricity Infrastructure (extension to an existing 275kV Transmission Line).*

The application includes proposed self-assessable clearing of native vegetation being approximately 0.77ha of 'Of Concern' regional ecosystems.

Separate to this SDA application, Vena Energy will lodge an Environmental Authority (EA) application for an Environmentally Relevant Activity (ERA) for 'chemical manufacturing' (ERA7) under the *Environmental Protection Act 1994* (EP Act).

This SDA application has addressed all relevant statutory planning assessment requirements pursuant to the SDPWO Act, including the assessment against the GSDA Development Scheme.

This SDA application planning report has been lodged with the following supporting documents:

- Owner's consent from Economic Development Queensland and Gladstone Regional Council (refer to Appendix A).
- Proposal Plans including a general arrangement plan (refer to Appendix D).

- Assessment against the relevant statutory requirements including GSDA Development Scheme – SDA wide assessment criteria (refer to section 5).
- Response to relevant State codes (refer to Appendix G).

The SDA application planning report details the relevant information to be considered 'properly made' in accordance with schedule 2, 2.1 (2) of the GSDA Development Scheme, refer to section 5.4.4.

A summary of the proposed development, including site details and relevant planning assessment matters is provided in Table 1.

Table 1: Development Summary

Detail	Description
Proposed Development	
Facility description	50 MW hydrogen production facility, including electrolysis, compression, storage, and tube trailer filling stations for domestic distribution via the road network. The facility includes establishment of an ancillary facility substation and a new High Voltage Electrical line connecting the facility to an existing 275kV Transmission Line.
Output details	• Up to 18 tonnes per day of compressed hydrogen or ~6500 tonne per year. • Removal wastewater brine/sludges via truck.
Power supply	The Project will connect to the National Electricity Market (NEM) at Powerlink's Larcom Creek Substation. To facilitate this, The Project will utilise a spare circuit on Powerlink's 275kV Transmission line extending from the Larcom Creek Substation to the neighbouring Lot 6 Euroa Circuit site (existing development approval). The Project seeks to establish an extension of this circuit to a proposed ancillary project substation located in the primary premises, which forms part of this application.
Water supply	The Project will source water from GAWB's water supply network under an agreed water allocation. There is dedicated offtake pipeline running along the Euroa Circuit road reserve to facilitate the connection from GAWB's existing Boat Creek to East End treated water pipeline. GAWB is currently constructing the Fitzroy to Gladstone raw water pipeline, which runs near the site and incudes a new reservoir on the southern side of Aldoga Road. The Fitzroy to Gladstone Project secures an increased water supply for the Gladstone region water supply network.
Construction Details	
Construction timeframe	12-18 months.
Construction workforce	Approximately 50-80 construction workers at peak construction with an average of 20-30 workers across the entire construction period.
Operational Detail	
Operational workforce	5-10 full-time employees onsite at any time, with 15-30 employees required for 3 sperate 8-hour shifts to ensure 24hr operations. Additional, infrequent contractors (up to 5 -10

Detail	Description		
	workers) will attend the site for specific operational and maintenance tasks. Additional remote offsite employees monitoring performance of facility.		
Operating hours	24hrs, seven days a week, 365 days a year. Likely 3 x 8-hour shift rotations.		
Site Details			
Address, lot and plan description and landowner	Address	Lot and plan description	Landowner
	Primary Premises		
	Lot 1 Euroa Circuit, Aldoga QLD, 4694 (Lot 1)	Lot 1 on SP245955	Economic Development Queensland.
	Lot 2 Euroa Circuit, Aldoga QLD, 4694 (Lot 2)	Lot 2 on SP245955	Economic Development Queensland.
	Lot 3 Euroa Circuit, Aldoga QLD, 4694 (Lot 3)	Lot 3 on SP245955	Economic Development Queensland.
	Secondary Premises		
	Lot 6 Euroa Circuit, Aldoga QLD, 4694 (Lot 6)	Lot 6 on SP245936	Economic Development Queensland.
	Lot 7 Euroa Circuit, Aldoga QLD, 4694 (Lot 7)	Lot 7 on SP245955	Economic Development Queensland.
	Euroa Circuit Road area. (Euroa Road Area)	Public Road Area	State of Queensland, managed by Gladstone Regional Council.
Land size	Lot Description (Primary Premises)		Area
	Lot 1 on SP245955		8.302ha
	Lot 2 on SP245955		8.941ha
	Lot 3 on SP245955		8.855ha
	Total		**26.098ha**
Road frontage to Primary Premises	Euroa Circuit.		
Local Government Area	Gladstone Region.		
Development Assessment Details			
Applicable legislation	*State Development and Public Works Organisation Act 1971.*		

Detail	Description
Primary regulatory planning assessment framework	Gladstone State Development Area (GSDA) Development Scheme.
Assessing Authority	The Coordinator-General Queensland represented by the Office of Coordinator-General (OCG).
Regulated development type	SDA assessable development. Noting there will be subsequent self-assessable operational works to clear native vegetation associated with the material change of use.
Application type	Material Change of Use.
Defined use	Special Industry' (Hydrogen Production Facility, including an ancillary substation) and Major Electricity Infrastructure (extension to an existing 275kV Transmission Line).
Development precinct	High Impact Industry Precinct.
Public notification	Not applicable – The Assessing Authority representatives at the Office of the Coordinator-General (OCG) confirmed during a pre-lodgement meeting (Refer to Appendix C) the development for 'Special Industry' supports the preferred development intent of the High Impact Industry Precinct.

2. Site Details and Characteristics

2.1. Site Details

The Project site is located approximately 18km west of the Gladstone Central Business District (CBD) in the Aldoga locality within the Gladstone region, refer to Figure 1.

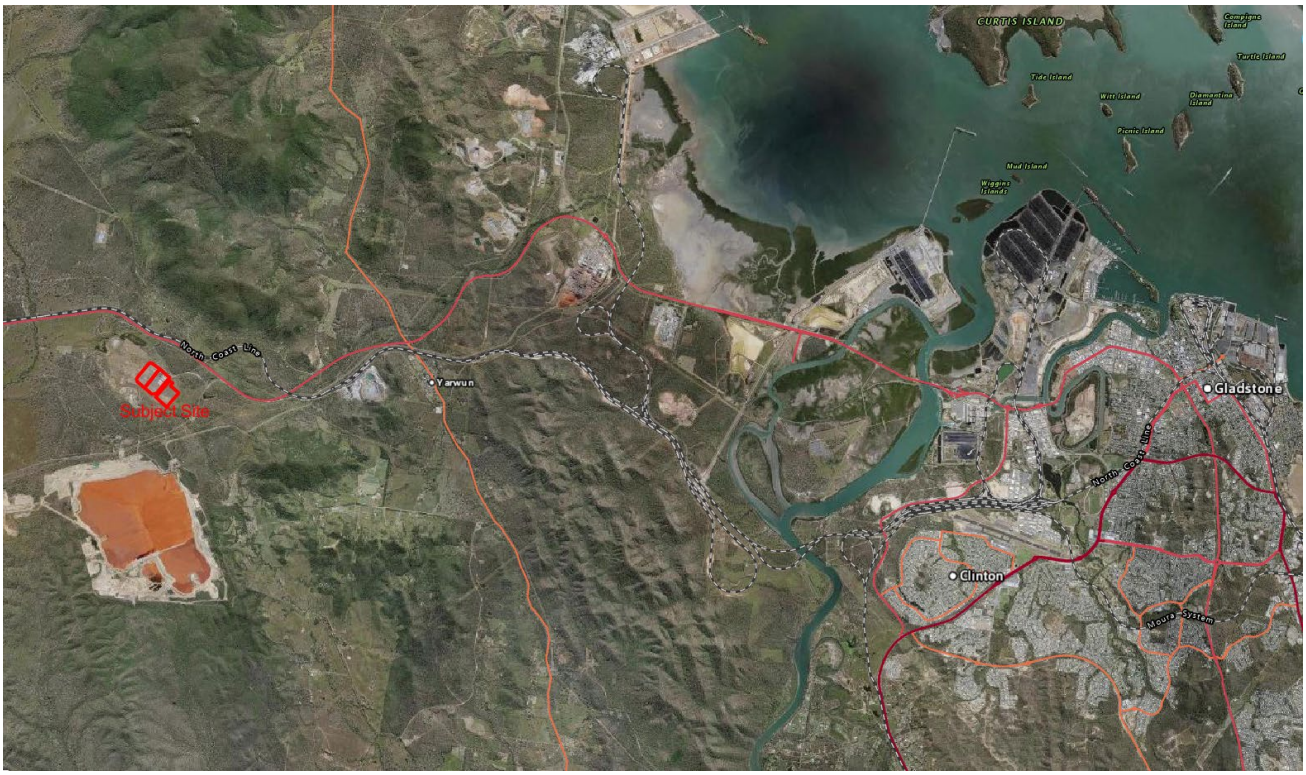


Figure 1: Site Location

The Project will establish the Hydrogen Production Facility on Lot 1 on SP245955 (Lot 1) with the Project's ancillary substation on 3 on SP245955 (Lot 3). The low to medium voltage cables connecting the from the substation to the Hydrogen Production Facility will traverse over Lot 2 on SP 245955 (Lot 2) and the Euroa Circuit road area into Lot 1. The required high voltage overhead electrical cable connecting from Powerlink, Queensland's existing Larcom Creek to Euroa high voltage transmission line to the Project's ancillary substation will traverse over Lot 6 on SP245936 (Lot 6) and the Euroa Circuit road area.

Additionally, discharge of stormwater will likely require new stormwater infrastructure to be located within Lot 7 on SP245955 (Lot 7). The primary premises and secondary premises are outlined in Table 1 and Figure 2. Landowner's consent for all premises including acceptance of discharge of stormwater is provided in Appendix A.

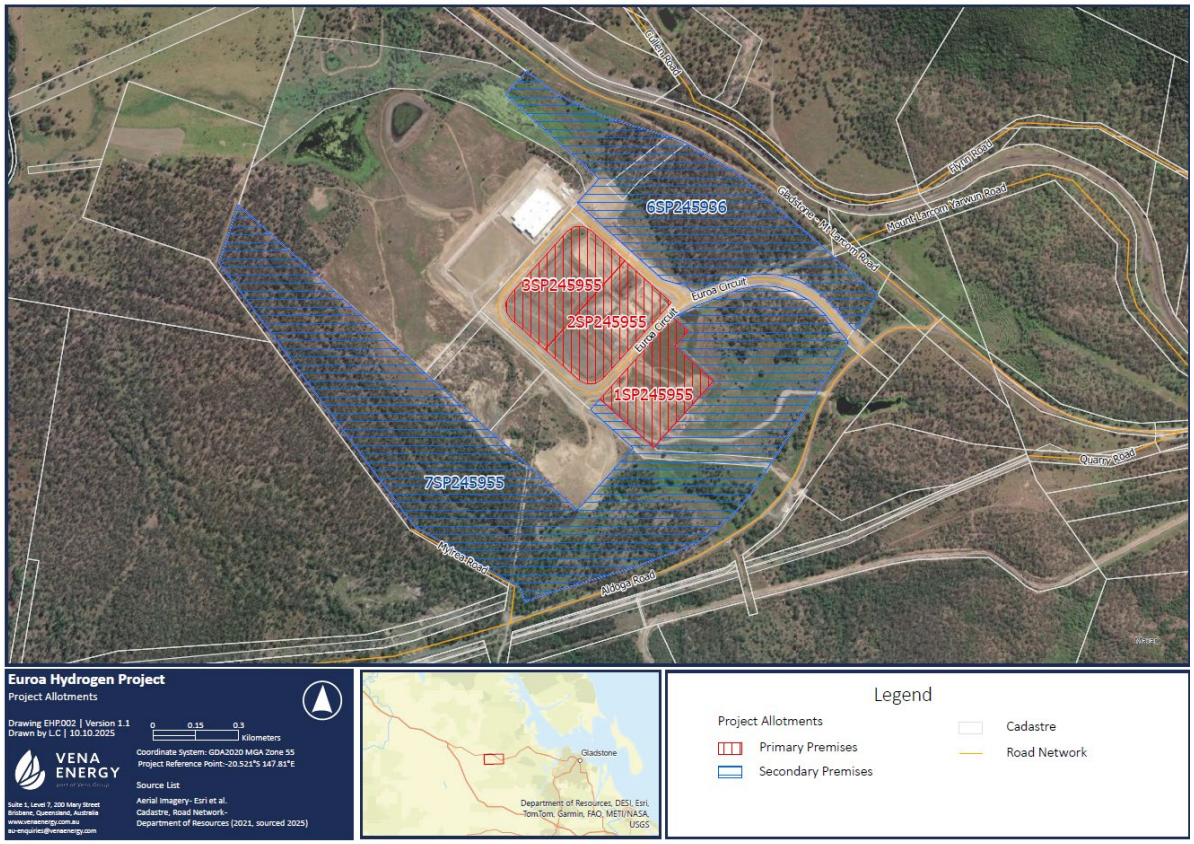


Figure 2: Map of subject lots and local roads

All allotments front Euroa Circuit providing site access to the public road network which connects with Aldoga Road and then to Gladstone-Mount Larcom Road (state-controlled road). Euroa Circuit has been recently upgraded to an industrial standard, thus is able to accommodate triple road train vehicle types. The Traffic Impact Assessment (refer to Appendix H) undertaken for the application confirms Aldoga Road and the intersection with Gladstone-Mount Larcom Road operate to an industrial standard and have sufficient queuing distances and geometry to accommodate the proposed industrial traffic.

2.2. History of the site

The primary premises has been previously cleared of vegetation and substantial earthworks have been undertaken as it was previously used as a laydown construction site associated with the construction of the LNG projects completed in the Gladstone region.

The primary premises is therefore clear of any notable biodiversity attributes and contains a series of large flat pads with existing benching. The site also has several existing stormwater basins to control stormwater flows across the site.

Lot 6 (secondary premises) has recently been developed for a high voltage transmission line and associated substation to support a nearby project. The transmission line contains a spare circuit which Vena Energy seeks to utilise to enable connection to the existing Larcom Creek Substation.

2.3. Surrounding land uses

The Project site and surrounding area is identified within an emerging industry area as designated under in the GSDA Development Scheme. The key existing nearby industrial land uses include:

- Fortescue's Green Energy Manufacturing (GEM) Centre located immediately north-west of the Project site, sharing a road frontage along Euroa Circuit. The GEM Centre received its first SDA approval in 2021 and has completed building works to enable manufacturing of hydrogen electrolyser components. A second SDA application has been submitted in July 2023, and subsequently has obtained an approval, which seeks seek to establish a 50 MW Hydrogen test train facility on adjoining land to the manufacturing facility. This facility will produce renewable hydrogen and will store, compress and distribute compressed hydrogen gas via tube trailers on the road network.
- Rio Tinto's Red mud dam is located to the south-west of the site being a large tailings dam associated with their Yarwun Alumina Refinery.
- Powerlink's Larcom Creek Substation is located approximately 4km to the north of the site. Powerlink has constructed a high voltage transmission connection from the Larcom Creek Substation to Fortescue's GEM facility. The Project seeks to connect to the spare circuit associated with this transmission line.
- Earth Commodities operate a hard rock quarry on a site approximately 3km to the east.

The following new land uses are envisaged to be established within proximity to the subject site:

- Acciona's Aldoga Solar Farm located approximately 3km to the north of the subject site will generate up to 445 MW of electricity.

The subject site is not located within 2km of sensitive receptors (i.e. existing residence) with the closest receptors located to the east, these are owned by EDQ, therefore will transition to industrial uses in the future, refer to Figure 3. The remaining private rural residences to the south-east of the site are buffered from the subject site by existing hills.

Figure 3: Nearby Sensitive Receptors

2.4. Location of relevant infrastructure/services

The proposed facility requires water and electricity to produce hydrogen with site located within proximity to existing bulk water supply pipeline and existing high voltage transmission lines (refer to Figure 4) enabling the Project to produce the targeted quantities of hydrogen.

Figure 4: Location of infrastructure services

2.4.1. Water Supply

The applicant has secured a water allocation license from the Gladstone Area Water Board (GAWB) enabling use of water from their network. This water will be sourced via recently constructed offtake pipeline constructed to the Euroa Circuit road reserve from GAWB's Boat Creek to East End pipeline network. The allocation of water will be bolstered by GAWB's completion of the Fitzroy to Gladstone raw water pipeline which traverses directly south of the subject site. This new pipeline infrastructure will feature a new water storage reservoir on the hill directly opposite Aldoga Road.

The facility will introduce onsite water storage of this bulk water to ensure a consistent and flow of water can be maintained for the facility.

2.4.2. Power Supply

Powerlink has constructed a 275 kV double circuit transmission line from the Larcom Creek Substation to Euroa Circuit with one of the circuits conencted to a neighbouring substation to supply power to Fortescues' facility. Vena Energy has

submitted a grid conenction application with Powerlink to secure use of the spare circuit on this line. Vena Energy proposes as part of this application to establish an extension from the spare circuit to their proposed project ancillary substation on the primary premises.

2.4.3. Road Network

The road for Euroa Circuit has been upgraded to an industrial standard suitable to cater for road train and A-Double truck configurations.

2.5. Land use planning context

The primary and secondary premises are located within the GSDA which was declared pursuant to the *State Development and Public Works Organisation Act 1971* (SDPWO Act). The GSDA Development Scheme is the primary land use planning framework for the area. The subject site is in a 'High Impact Industry Precinct' with the 'Materials Transportation and Services Corridor Precinct' and 'Medium Impact Industry Precinct' located nearby, refer to Figure 5. Defined uses that support the preferred development intent are 'High Impact Industry' and 'Special Industry'. The proposed development is categorised as 'Special Industry' therefore it meets the preferred development intent of the precinct.

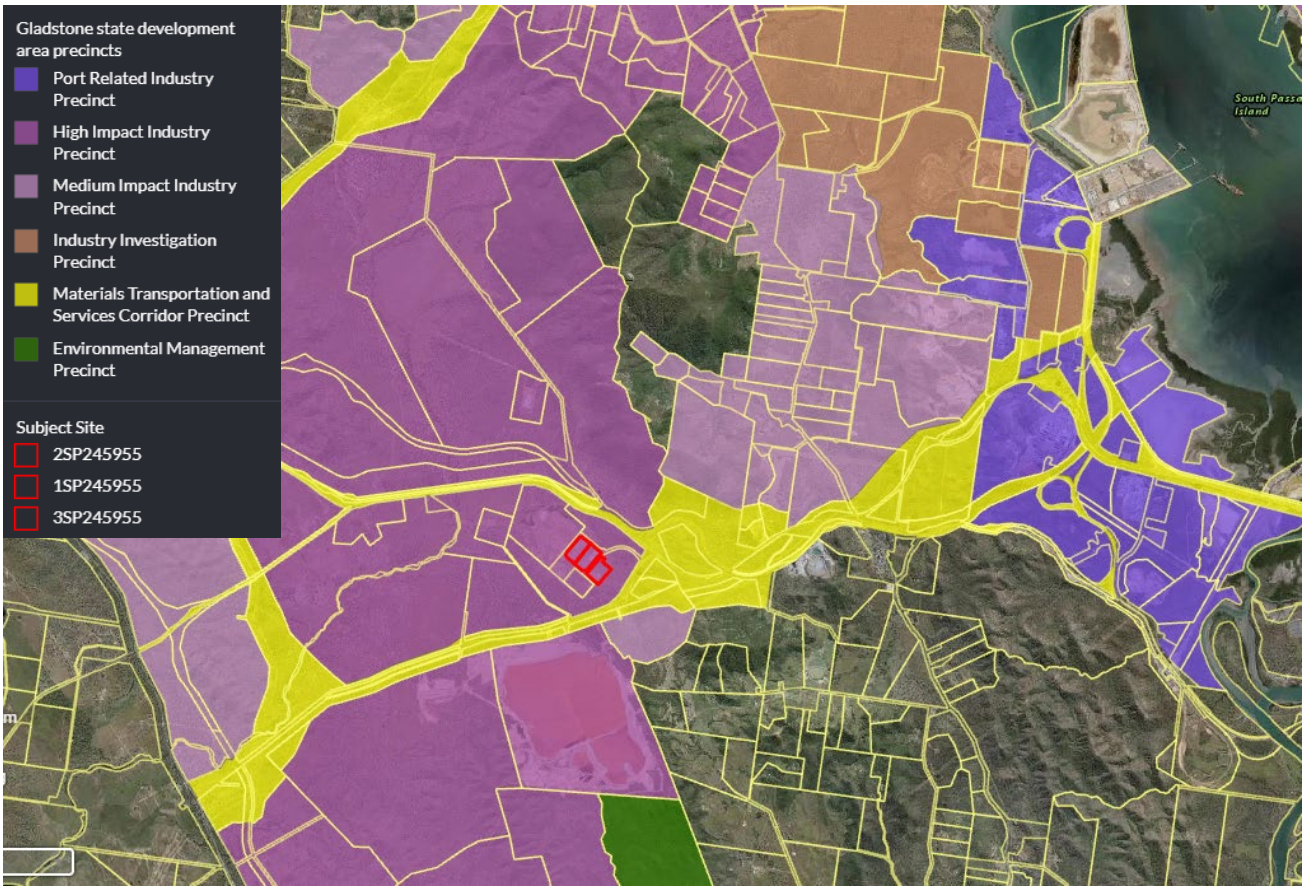


Figure 5: GSDA Development Scheme Precincts map

2.6. Site Characteristics

2.6.1. Regional Ecosystems (RE) Vegetation

As mentioned in section 2.2 of this application, the primary premises has been previously disturbed for a construction laydown activity that took place on the site, thus the site has limited ecological value and is mapped as 'Category X' (non-remnant) under the Qld Governments regional ecosystems mapping (Refer to *Figure 6*). The Ecological Assessment Report, found in Appendix K, confirms the Primary Premises (Lots 1, 2 and 3) are void of any significant vegetation.

Figure 6: Map of Regional Ecosystems (RE) vegetation (source: Qld Globe)

The proposed electricity transmission connection is located within lot 6 (secondary premises),which may require clearing of a 60m wide corridor (30m either side of the transmission infrastructure), depicted as 'Transmission Disturbance area' (TDA) in Figure 6. The 60m wide corridor is reflective of the likely width of the required easement to be established for the transmission line, which will burden Lot 6 and be in favour of Powerlink for the purpose of Electricity Infrastructure. The majority of the TDA is mapped as containing 'Of Concern' regional ecosystems. The mapped 'Of Concern mapping is catalogued as combination of RE 11.11.4c (*Eucalyptus tereticornis* dominated woodland) and 11.3.4 (*Eucalyptus tereticornis* and/or *Eucalyptus spp.* Woodland on alluvial plains).

Biodiversity Australia has undertaken an Ecological Assessment of the premises (Refer to Appendix K) and has concluded through ground truthing that the TDA will potentially clear 0.77ha of RE11.11.4 (Least concern) regional ecosystem as depicted in figure 2 within the Ecological Assessment Report.

2.6.2. Protected Plants/MSES Wildlife Habitat

The primary premises is mapped as not containing any areas containing Matters of State Environmental Significance (MSES) (Refer to *Figure 7*) or within a Protected Plants trigger area (Refer to *Figure 8*). The proposed TDA within the secondary premises is partly mapped as containing MSES wildlife (endangered or vulnerable) and falls partly within the Protected Plants trigger area. The Ecological Assessment Report (Refer to Appendix K), confirm no presence of the protected plant (*Cycas megacarpa*) within the TDA.

The Ecological Assessment indicated the presence of the Koala, Squatter Pigeon and Grey Headed Flying Fox, but concluded through Significant Impact Assessment that the proposed development is unlikely to have significant impact on the any MNES or MSES species.

Figure 7: Map of MSES (Source: QLD Globe)

Figure 8: Map of Protected Plants trigger (Source: QLD Globe)

2.6.3. Watercourses

The primary premises and the TDA on the secondary site are devoid of any watercourses or drainage lines (refer to *Figure 9*), with the nearest drainage line located to the south. The site is located within the local catchment of Larcom Creek, which runs to the north-west of the site. Larcom Creek flows into the Calliope River catchment and flows into the Gladstone harbour.

Figure 9: Local watercourses and drainage lines (source: QLD Globe)

2.6.4. Topography

The primary premises has been previously benched to produce flat pads for the previous construction laydown areas, which step down following naturally slope down from west to east. There are hills located to the east, west and south of the site with the area to the north considered lower elevation before sloping into Larcom Creek. Refer to Figure 10.

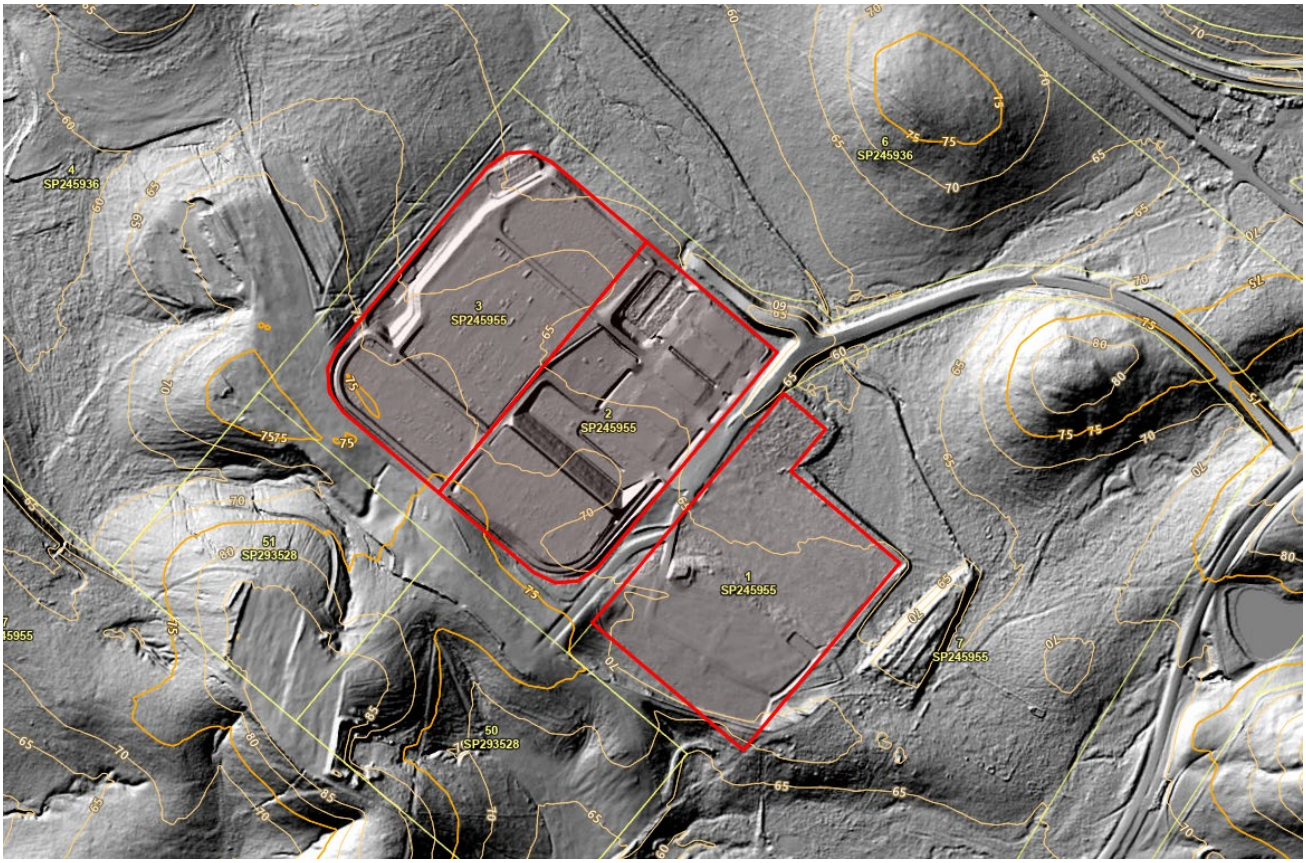


Figure 10: 3D terrestrial scan image of site (Source: QLD Globe)

2.6.5. Stormwater Drainage

Due to the primary premises being disturbed previously to establish a construction laydown area, which included significant earthworks to establish pad areas, the natural drainage patterns/runoff across/from the site has been modified. As part of these previous activities on the site, three defined stormwater basins were established (Refer to Figure 11). These basins will be retained and utilised for stormwater management for the proposed development. Refer to Appendix D for stormwater design plans showing the proposed stormwater drainage infrastructure across the site.

Figure 11: Location of existing on-site stormwater basins

Euroa Circuit has been recently upgraded and as part of those works new infrastructure has been constructed to direct flow from the subject site under Euroa Circuit to the existing drainage channels which flow through Lot 6, located north of the project site (primary premises). These works included a series of new culverts constructed as part of the Euroa Circuit road works which convey overland flows from the project site (refer to Figure 12, Figure 13 and Appendix B) under Euroa Circuit, through to the existing drainage channel flow drain running through Lot 6. The Euroa Circuit road reserve is the lawful point of discharge for Lot 2 and Lot 3 with Lot 1 discharging to Lot 7 on SP245955 which is owned by EDQ. Consent to enable discharge of stormwater flows from lot 1 to lot 7 is provided in Appendix A . All flows drain to an existing natural drainage line within Lot 6 on SP245936 to the north-east of the Project site (refer to Figure 14). This drainage line directs the flows to existing dams/flats located further to the north within nearby Lot 4 on SP245936, before entering the Larcom Creek catchment (refer to Figure 14) and heading in a south-westerly direction, downstream of the Gladstone-Mount Larcom road reserve.

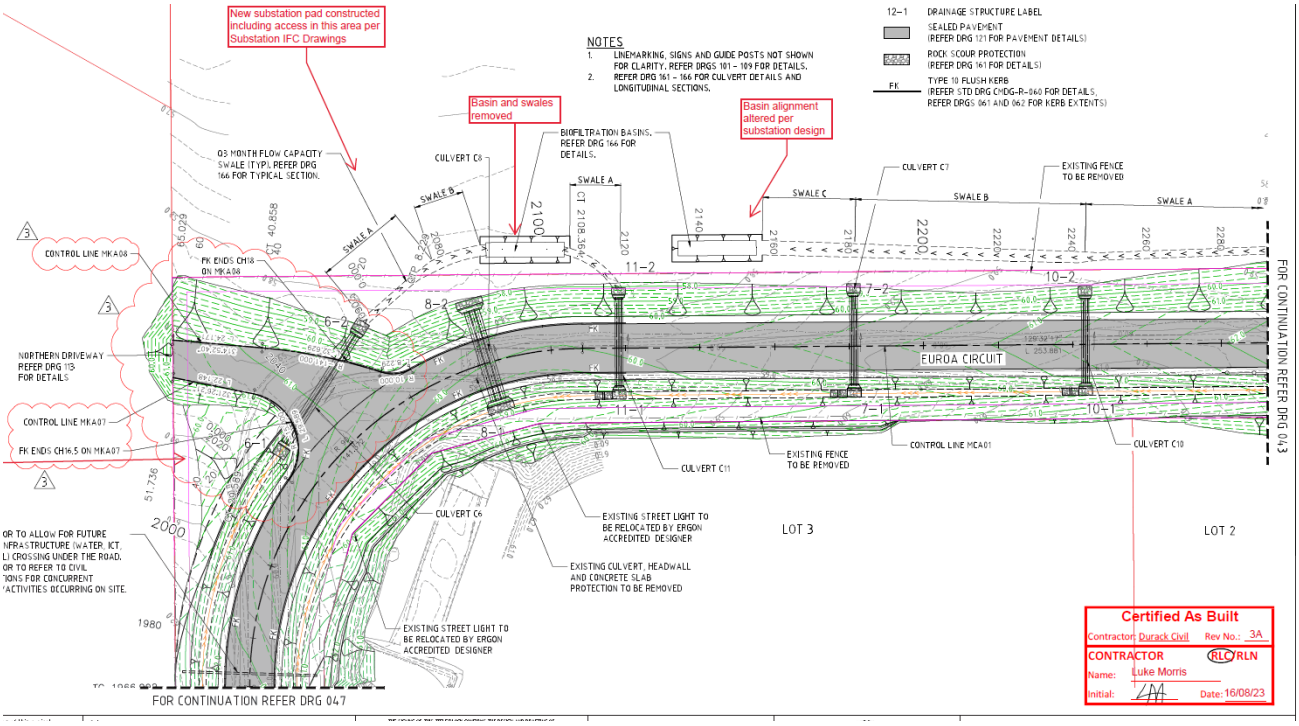


Figure 12: Constructed Road drawing fronting Lot 3

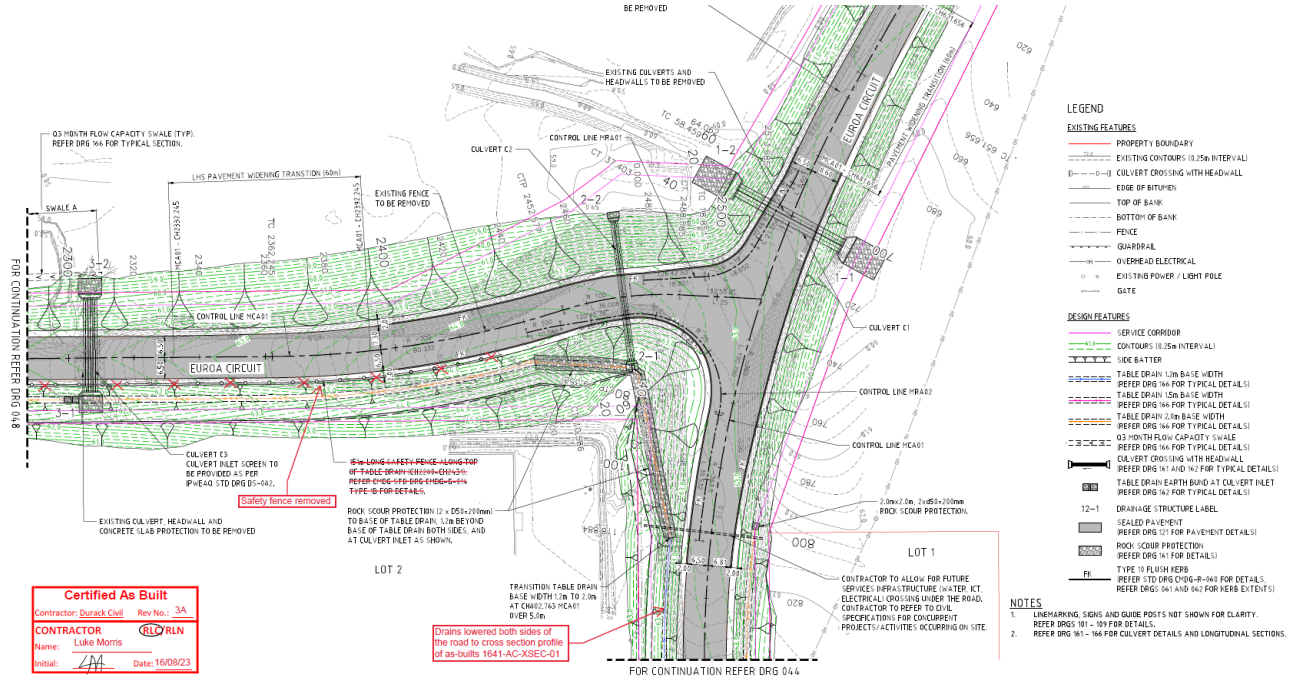


Figure 13: Constructed Road drawing fronting Lot 2

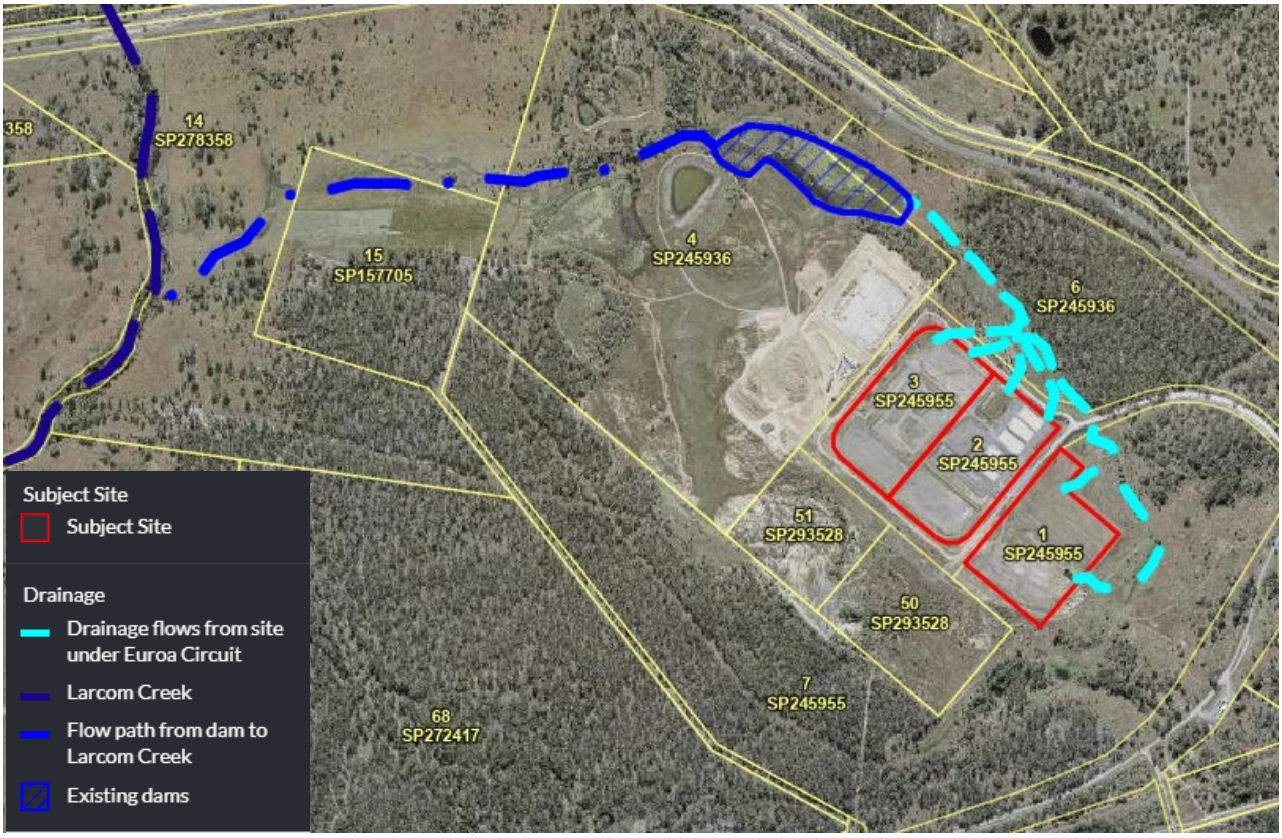


Figure 14: Existing drainage flow external to site

2.6.6. Flooding

The applicant has investigated several flood studies including Gladstone Regional Council's flood overlay mapping and confirms the site is not within a flood hazard area. A 100 ARI flood event modelling undertaken by Pitt & Sherry in May 2018 indicates the flood height within Larcom Creek, in the area approximately 2km to the north-west of the subject site, is 45.3m AHD. It is noted the lowest height level of the Project site is approximately 58-60m AHD, well above the nearest 100-year ARI flood level in the nearest creek catchment to the site.

2.6.7. Other site details and characteristics

A summary of other site details and characteristics is provided in *Table 2*.

Table 2: Other site details and Characteristics

Aspect	Description
Exiting development use	Currently unused land.
Previous Land Use	Construction laydown facility associated with Gladstone LNG infrastructure projects
Road Frontages and Length	Four street frontages, fronting Euroa Circuit. The development has a street frontage of 400m (approx.) on all four road frontages.
Access points	Euroa Circuit from Aldoga Road.

Aspect	Description
Tenure	Freehold. Refer to Appendix B.
Encumbrances	The Primary Premises are not impacted by any encumbrances. Lot 6 (secondary premises) is encumbered by EMT C on SP338515 being an easement for Electricity Purposes in favour Powerlink for the Larcom Creek to Euroa transmission line. Refer to Appendix B
Landowner	Economic Development Queensland (Primary and Secondary Premises). Gladstone Regional Council is responsible for managing the Euroa Circuit road area. Refer to Appendix B
Land contamination	The development site is not registered on the Environmental Management Register or the Contaminated Land Register. Refer to Appendix B. Further investigations will be undertaken before construction commences to confirm the site is free from contamination.
European heritage	The Project site area is not identified as a heritage place.
Cultural heritage	A due diligence assessment from 2011 identified the Project site has been heavily disturbed therefore cultural heritage artefacts are unlikely present. A Cultural Heritage Management Plan is present which largely captures the Gladstone SDA and is in effect until 2025. The applicant has commenced engagement with the registered First Nations party to undertake site specific cultural heritage assessment to ensure the applicant has satisfied its duty of care obligations.

2.6.8. Site photographs

Vena Energy has visited the site on multiple occasions and took several photos in a trip in May 2023, refer to Figure 15 and Table 3. It should be noted the Euroa Circuit road area was under construction at the time.

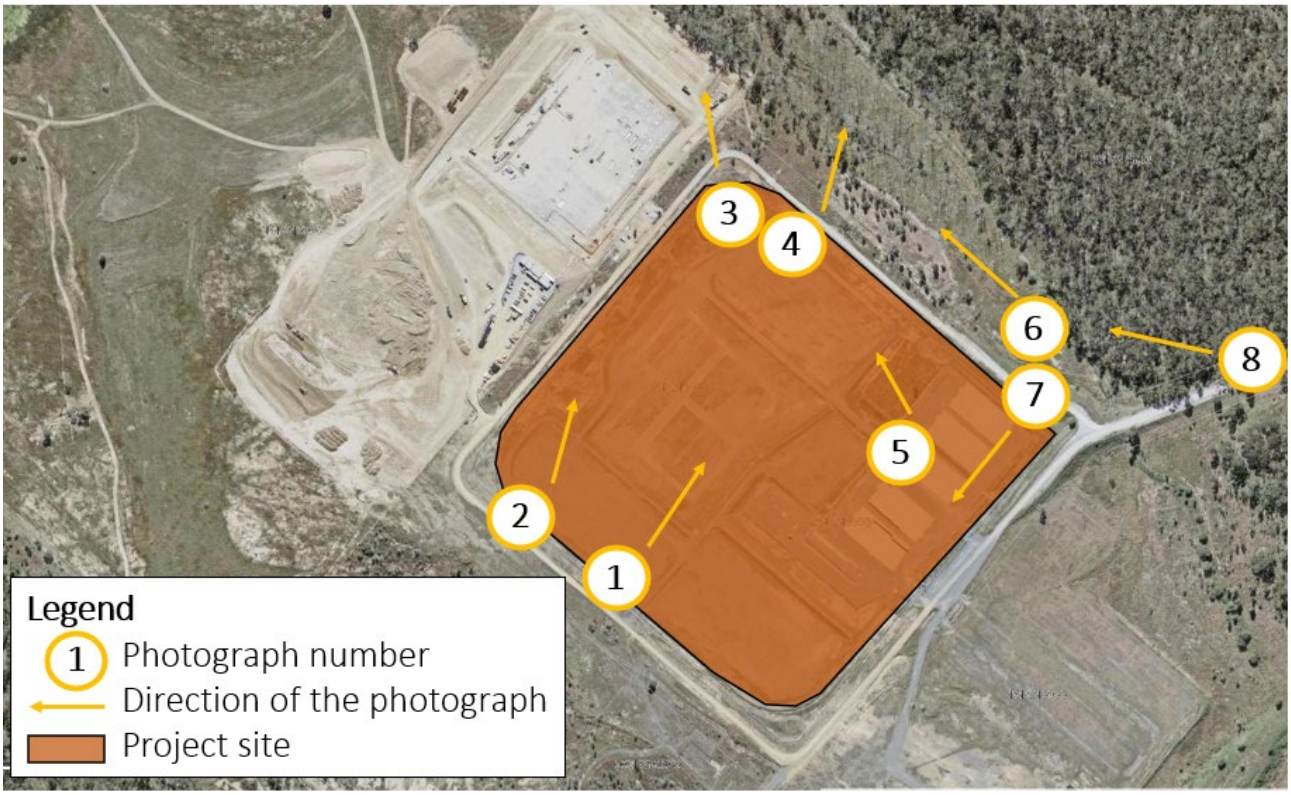


Figure 15: Orientation of site photographs

Table 3: Site Photographs

Photo 1: South-west to north-east perspective of site	*Photo 2: View of FFI's Electrolyser Manufacturing Plant*

Photo 3: View of FFI's Electrolyser Manufacturing Plant.

Photo 4: View towards northern allotment. General location of a future substation delivered by Powerlink.

Photo 5: View from a stormwater detention area over the Project site, towards FFI's Electrolyser Manufacturing Plant.

Photo 6: View from the corner of the Project site towards FFI's Electrolyser Manufacturing Plant. Euroa Circuit currently subject to upgrades.

Photo 7: View across the Project site – road upgrades along Euroa Circuit are currently being undertaken.

Photo 8: View from the entrance to the Euroa Circuit Precinct towards the Project site.

3. Background

3.1. Who is Vena Energy?

Vena Energy, the renewable energy arm of Vena Group, is dedicated to accelerating the transition to sustainable and affordable renewable energy that delivers lasting environmental, social and economic benefits to host communities and stakeholders. In Australia, Vena Energy has 732 MW(dc) of green power and 600 MWh of battery storage capacity across operational, construction or contracted projects. More information can be found at https://www.venaenergy.com.au/

3.2. Vena Energy's Hydrogen Strategy

The Euroa Hydrogen Project is the first step in Vena Energy's Hydrogen Strategy. The Strategy has three phases, with phase 1 being the development, construction and operations of a 50MW facility for domestic distribution in Australia. This will enable Vena Energy to build expertise in operating a hydrogen production facility before scaling up production in Phase 2.

Phase 2 of the Strategy is to develop, construct and operate a 400MW production facility that will export green hydrogen to the international market through the Gladstone Port. Vena Energy's long-term goal is to operate multiple hydrogen facilities in Australia and internationally for export to the Japanese and Korean markets. Vena Energy's commercialisation roadmap for hydrogen is detailed in Figure 16.

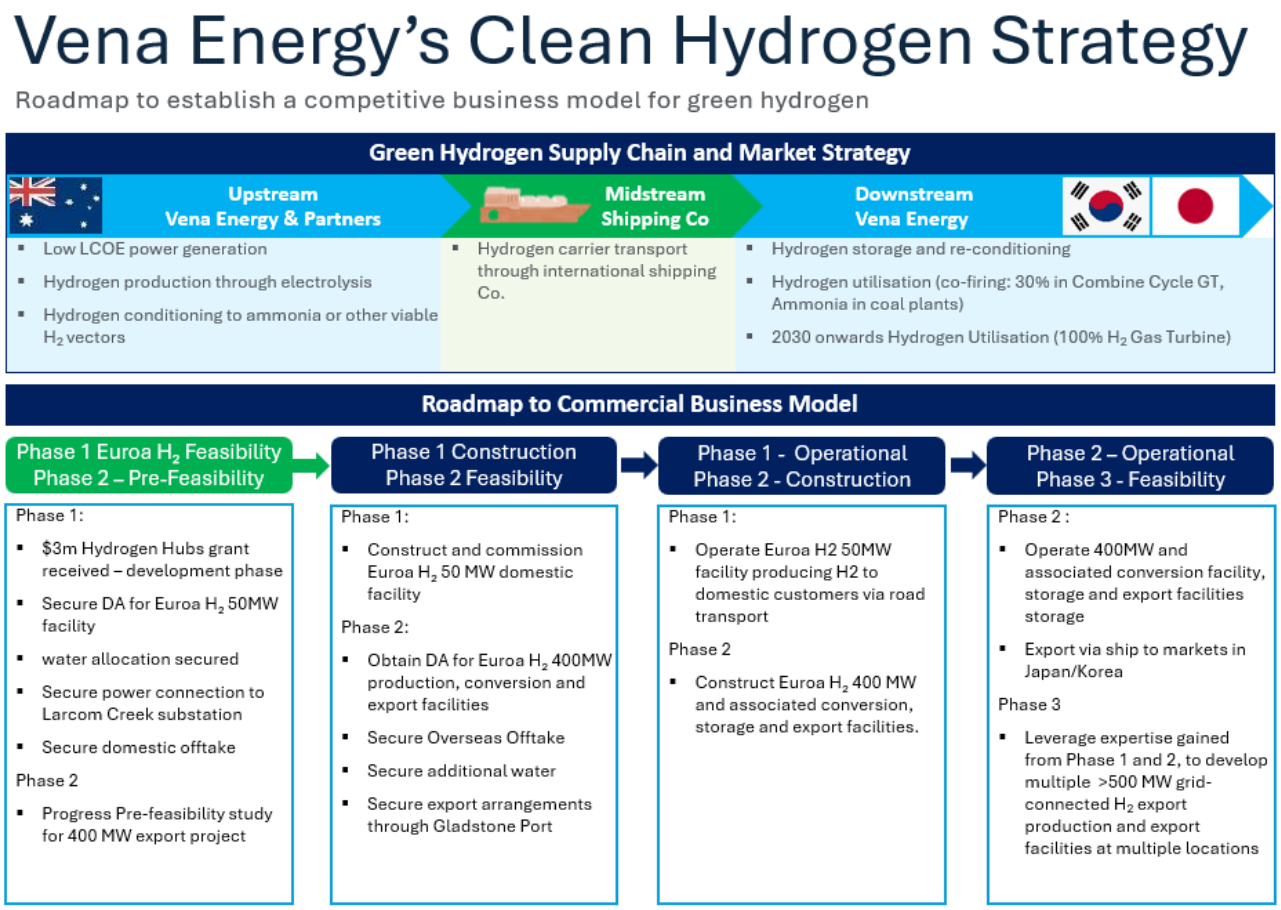


Figure 16: Vena Energy's Commercialisation Roadmap

3.3. Pre-lodgement engagement with stakeholders

3.3.1. Economic Development Queensland and Office of the Coordinator-General

A formal pre-lodgement meeting was undertaken with EDQ and the Office of the Coordinator-General (OCG) in August 2022 with further meetings, email correspondence and phone discussions with the OCG SDA assessment team following that meeting to resolve several additional matters raised in the meeting. A copy of the agenda, meeting minutes and following email correspondence is provided in Appendix C. The summary of these engagements between the applicant and OCG are:

- The OCG agreed with the applicant's interpretation of the proposed use being defined as 'Special Industry'.
- The OCG agreed the project substation can be considered 'ancillary' to the Hydrogen production facility and does not need to be defined 'substation', where explanation can be included in the application.
- Agreement between the OCG and Vena Energy around the additional transmission connection to be defined as 'Major Electricity Infrastructure'.
- The OCG confirmed that given purpose of the major electricity infrastructure, the OCG would likely waive public consultation but this is to be confirmed during a later stage in the assessment process.
- The OCG acknowledged that the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC) matters are low to minimal risk, therefore the Project is not considered to trigger a co-ordinated project assessment process defined under the SDPWO Act. Accordingly, the Project does not require the preparation of an Environmental Impact Statement (EIS) or Impact Assessment Report (IAR).
- The OCG acknowledged the requirements of the SDPWO Act requires an associated Environmental Authority (EA) application pursuant to the *Environmental Protection Act 1994*, where the application does not need to be treated as a referral under the SDA application process and maybe lodged separately. It was agreed that both applications would be lodged concurrently to ensure consistency between both applications/permits.
- The OCG assisted with seeking pre-lodgement advice from the Department of Transport and Main Roads (TMR) and through correspondence were able to narrow down the matters to addressed in relation to impacts to a state-controlled road being Gladstone-Mount Larcom Road. Refer to section 3.3.2.
- The OCG will likely refer the application to Gladstone Regional Council (GRC) for comment, which Vena Energy encouraged.
- The OCG confirmed a visual impact assessment will not be required to support the SDA application as the site is not located near any sensitive receptors.
- Discussion surrounding potential bushfire hazards located in the adjacent Lot 6 on SP245936 to the north-east, across Euroa Circuit EDQ generally relates to the existing vegetation located in this area. It was agreed the vegetation mapping does not align with the actual extent of vegetation on the ground. The extent of vegetation is less than the current mapped extent, thus the bushfire risk to the Project is less than the current bushfire mapping suggests. It was agreed bushfire hazard risk is low.

3.3.2. Department of Transport and Main Roads

Vena Energy undertook engagement with the TMR via the OCG team between 2022 and further advice sourced in 2024 and 2025. Through this engagement, the OCG determined that referral to TMR is not required when considering the referral triggers pursuant to the Planning Regulations 2017. Notwithstanding, the OCG would still seek TMR's advice on impacts to the state-controlled road network (i.e. Gladstone-Mt Larcom Road). The applicant met with TMR representatives on 19 June 2025, where both traffic impacts and stormwater matters were discussed. The TMR representatives confirmed that due to the site being separated from the State-controlled road (SCR) (i.e. Gladstone-Mt Larcom Road) and evidence the stormwater drainage flows from the site not flowing into the SCR, then no further investigations into the potential impacts of stormwater on the SCR are required.

3.3.3. Department of Environment, Tourism, Science and Innovation

The Department of Environment, Tourism, Science and Innovation (DETSI) will be the assessing authority for the Environmental Authority (EA) application seeking a permit for and Environmentally Relevant Activity (ERA) pursuant to the *Environmental Protection Act 1994.* A pre-lodgement meeting was undertaken in January 2023 where matters raised included the potential environmental impacts of the Domestic Facility during construction and operation and details on the Domestic Facility's flare. It was acknowledged that a Site-Based Management Plan will support the ERA application, where it is likely that a requirement to develop a separate Site-based Stormwater Management Plan for the construction of the Project and the operation of the Project will be conditions of development approval.

4. Project proposal

4.1. General description

The proposed development seeks to establish a Hydrogen Production Facility (The Facility) using hydrogen electrolyser technology with a name plate power demand of 50 MW. The Facility will produce hydrogen as a compressed gas that will be stored onsite before distributed domestically via road transport using specifically designed tube trailers.

The Facility is summarised as follows:

- Up to 50 MW H_2 electrolysis production facility.
- Grid connected via Powerlink's Larcom Creek Substation via a new transmission connection from the existing spare circuit on the 275kV transmission line running from Larcom Creek Substation to Lot 6.
- Water supplied from existing GAWB pipeline.
- H_2 compression between 400-517bar(g)
- Loading of compressed hydrogen into portable storage tubes (tube trailers) for temporary storage and distribution via road.

The maximum production of the Facility will be 18 tonnes of compressed H_2 gas per day. This equates to approximately 6,500 tonnes per year.

The Project seeks to only operate for 19hrs per day with the Facility being turned down to idle for 5 hrs per day when the electricity price peaks during the early evening period.

4.2. Site layout

The subject site consists of three lots, with Lot 1 separated from Lots 2 and 3 by the Euroa Circuit (refer to Figure 2) which is referred to as the Primary Premises. Additional land being Lot 6 and Lot 7 are referred as secondary premises, will be utilised for the transmission connection and for the release of stormwater discharge from Lot 1.

The proposed layout of the Facility within Lot 1 is split into 2 areas each containing the following:

Hydrogen Productions and Cleaning area:

- Water treatment and polishing plants
- Cooling and chiller plant
- Electricity and power conversion equipment
- Electrolyser stacks
- Hydrogen purification unit

Compression, Storage and Loading Area:

- Compressor units
- Compression and dispensing chiller units
- Storage area
- Tube trailer Loading bays
- Truck parking areas

The following has been considered in developing proposed general arrangement (refer to Appendix D) of the Facility:

- A series of safety buffers, particularly for the compression, storage and tube trailer filling components of the Facility to ensure in the unlikely event of a catastrophic explosion, adjoining persons and property are not impacted. The

position of these components within Lot 1 will utilise the existing buffer areas to the rear of Lot 1 avoiding the nearest public spaces, being the Euroa Circuit road area. Additional earth mounds will be introduced where required.

- Smaller safety buffers are integrated into the layout for electrolyser components from areas of public access being Euroa Circuit.
- A new project substation is positioned in the northern portion of Lot 3 which will land the proposed transmission connection from the Larcom Creek to Euroa transmission line. An underground cable will traverse across Lot 2 and the Euroa Circuit road area, to connect the stepped down power from the project substation (located on Lot 3) to the Transformers near the Power Conversion Units located over Lot 1.
- The layout features a series of internal circulation roads to enable maintenance and access to the various components of the Facility including the wastewater disposal and loading area.
- The project features an administration building with control room that is proposed near the entrance to Euroa Circuit from Lot 1, and features offices, amenities, meeting rooms, kitchen etc. Sufficient parking for staff, contractors and visitors is provided directly behind the administration building.
- A separate warehouse/workshop building located in the northern corner of Lot 1 and will house spares and enable maintenance of equipment.
- The proposal plans within Appendix D, in particular plan reference: 17695- Pipe-GA-1001 Sheet 01 Rev B details the location of the relevant pipes which enable the H2 to be transported across the site to each component of the facility. This plan details the following:
    - The use of each pipe
    - Whether they are underground or above ground; and
    - the location of relevant pipe racks where above ground pipes traverse over internal roads.

Please note detail on pipe sizing has not been designed yet, as is undertaken during detailed design.

4.3. Built form

Due to the scale of the Project and the need to protect certain components of the Facility from the elements (eg rain, sun), the electrolyser components including the electrolyser stacks, gas separation equipment and hydrogen production facility switch room will be housed in a semi enclosed shed structure allowing sufficient ventilation if gas leaks occur. This shed structure will feature fire walls to contain explosions and fire in the unlikely event of an explosions/fire.

Many of the components within the hydrogen production and cleaning area will be established in the open, but some will have roof structures to reduce the chance of rainwater increasing volume of contaminants within the bunded areas if leaks/spills occurred.

The compression station, storage area and tube trailer filling stations are required to be housed in the open, therefore will represent as a series of structures including pipes, tubular tanks, container structures. Release vents, flares and lightning rods are the only structures that may exceed 8m in height, however this detail will be developed through the detailed design stage. These structures aren't considered to be significant in mass, thus won't create a significant visual impact.

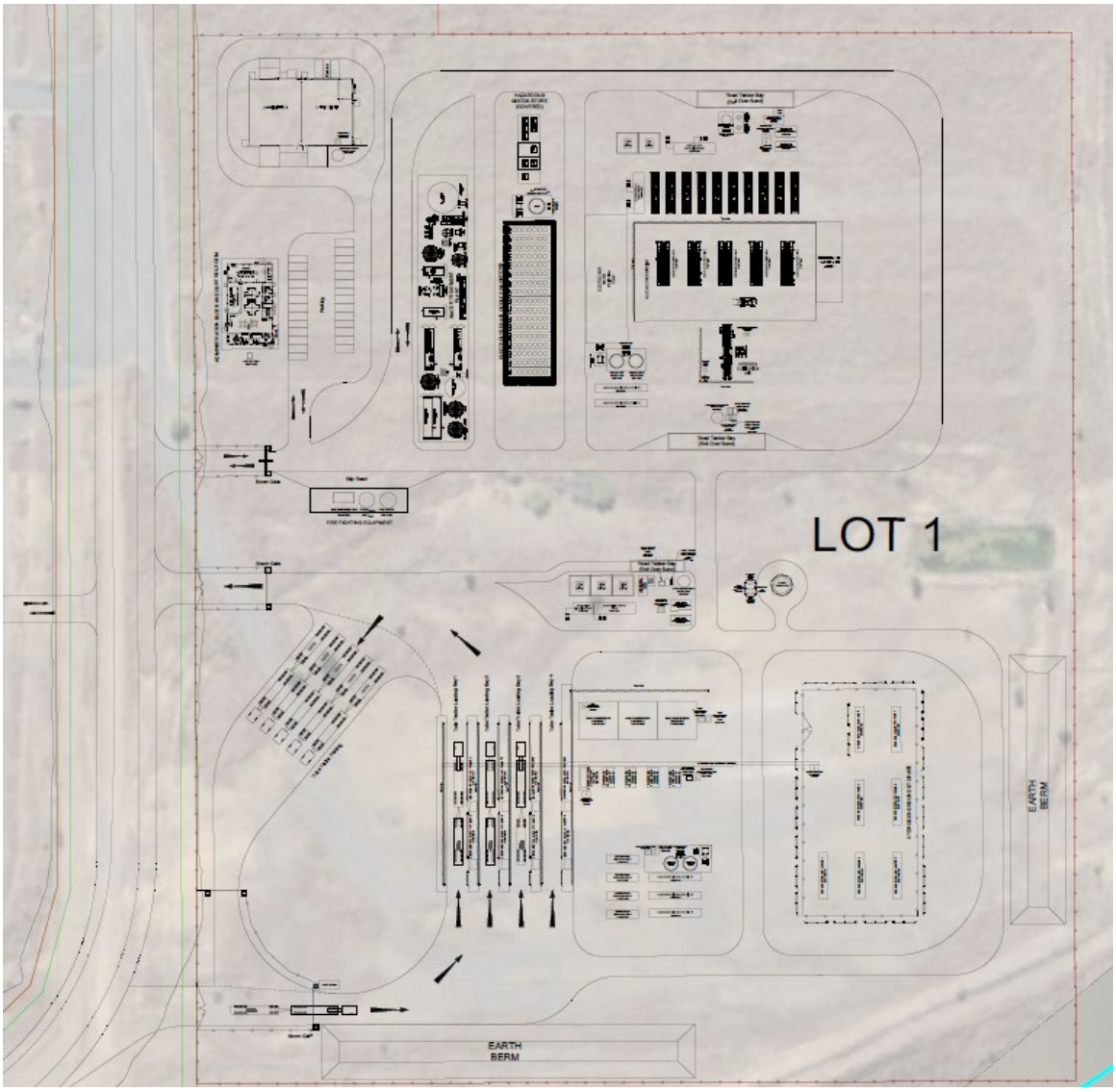


Figure 17: General Arrangement for Hydrogen Production, compression, storage and loading

4.4. Hydrogen production process

Hydrogen is created through an electrolysis of water whereby electricity separates hydrogen and oxygen, and each gas is captured separately. The process comprises of four key components which interrelate to one another being:

- Power supply and distribution.
- Water treatment and distribution.
- The electrolysis, deoxidation and dehydration.
- Compression storage and filling.

Throughout these process, cooling/chilling is required. Figure 18 provides indicative high-level schematic of the process.

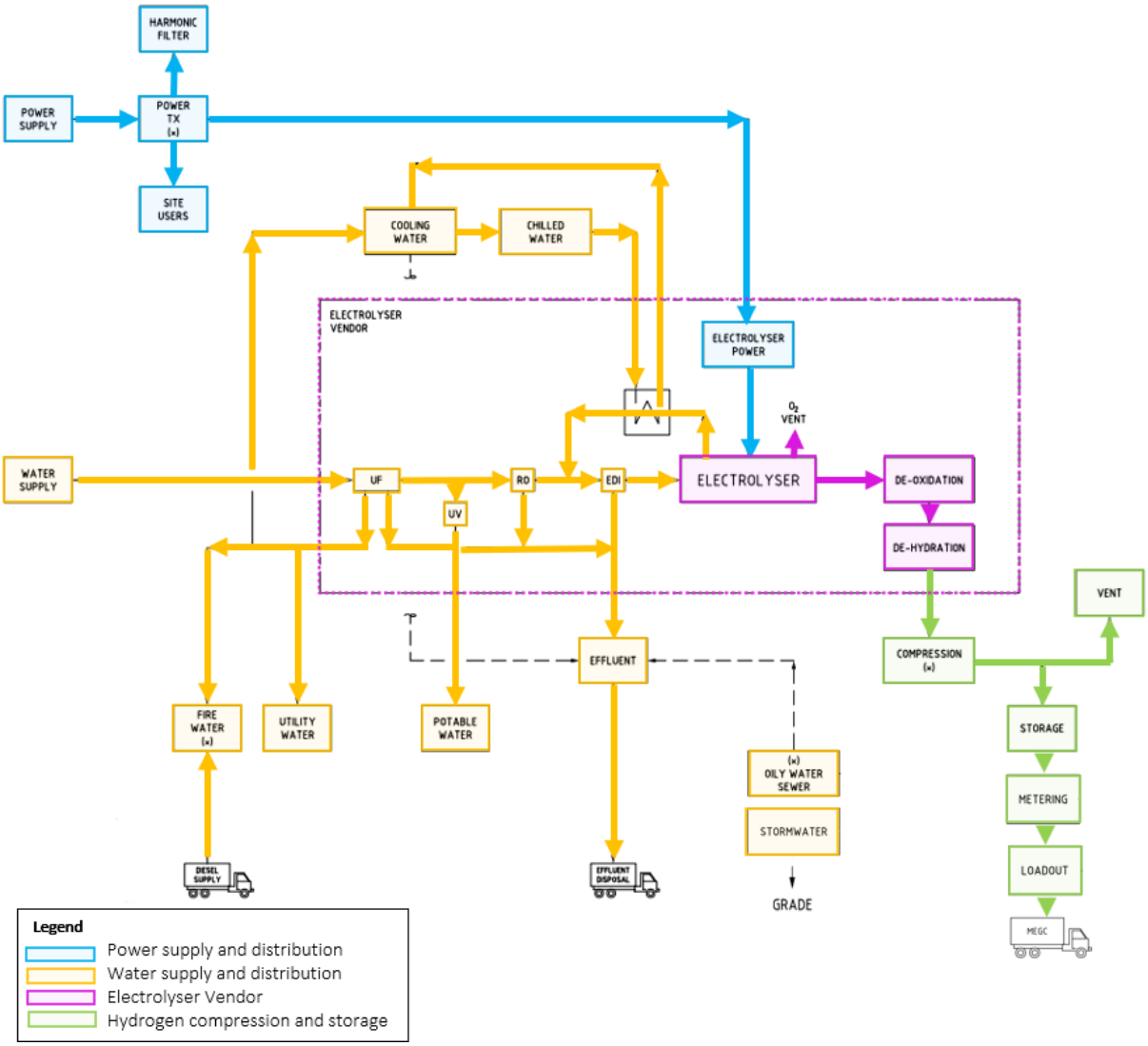


Figure 18: The hydrogen production process

4.4.1. Electricity supply connection infrastructure

The project will be connected to the NEM through establishing a new connection point into the nearby Larcom Creek Substation operated by Powerlink. The connection to the Larcom Creek Substation will be established through using an available spare circuit of the 275kV double circuit transmission line traversing from the Larcom Creek Substation through to Euroa Circuit. The application proposes to establish a new electricity transmission connection line from this end of this spare circuit, across Lot 6 and Euroa Circuit to the proposed new project substation (ancillary) located within Lot 3. The works required at the Larcom Creek Substation and the use of the spare circuit are considered 'non-contestable' works, thus will be undertaken by Powerlink. A development application was previously approved for the works, thus don't form part of this application. Through a grid connection application with Powerlink, it has been confirmed the additional transmission connection from the last tower of the Larcom Creek transmission extension to the proposed project substation is considered 'contestable works, and while this will be Powerlink owned assets, as this is for sole use of the project, it has been agreed between Vena Energy and Powerlink that Vena Energy will obtain the relevant development approval for the new electricity transmission connection infrastructure.

The proposed transmission connection infrastructure will consist of new works to extend the electrical cables from the spare circuit at end tower of the existing transmission line. As the circuit is on the NW side of the tower, the cable will

cross under the other existing circuit which connects to the existing substation located within Lot 6. These cables will be strung across to a new pole established at least 65m from the existing transmission line. The line will pivot off the pole approximately 90 deg to another pole positioned near Euroa Circuit, then will cross over Euroa Circuit to land on a new bus bar within the proposed project substation (ancillary) within Lot 3 (primary premises). The height of the poles for the undercrossing will be approximately 18m in height with new poles for line being approximately 40m in height to ensure relevant ground clearances are achieved. The proposed Electrical Transmission Connection infrastructure is depicted in Figure 19 and Appendix E. The Electrical Transmission Connection infrastructure will be owned and operated by Powerlink up to the point where is connects to the bus bar in the project substation with the project substation to be owned and operated by owner/operator of the H2 facility. An easement in favour of Powerlink for Transmission infrastructure will be registered on title over Lot 3 and Lot 6.

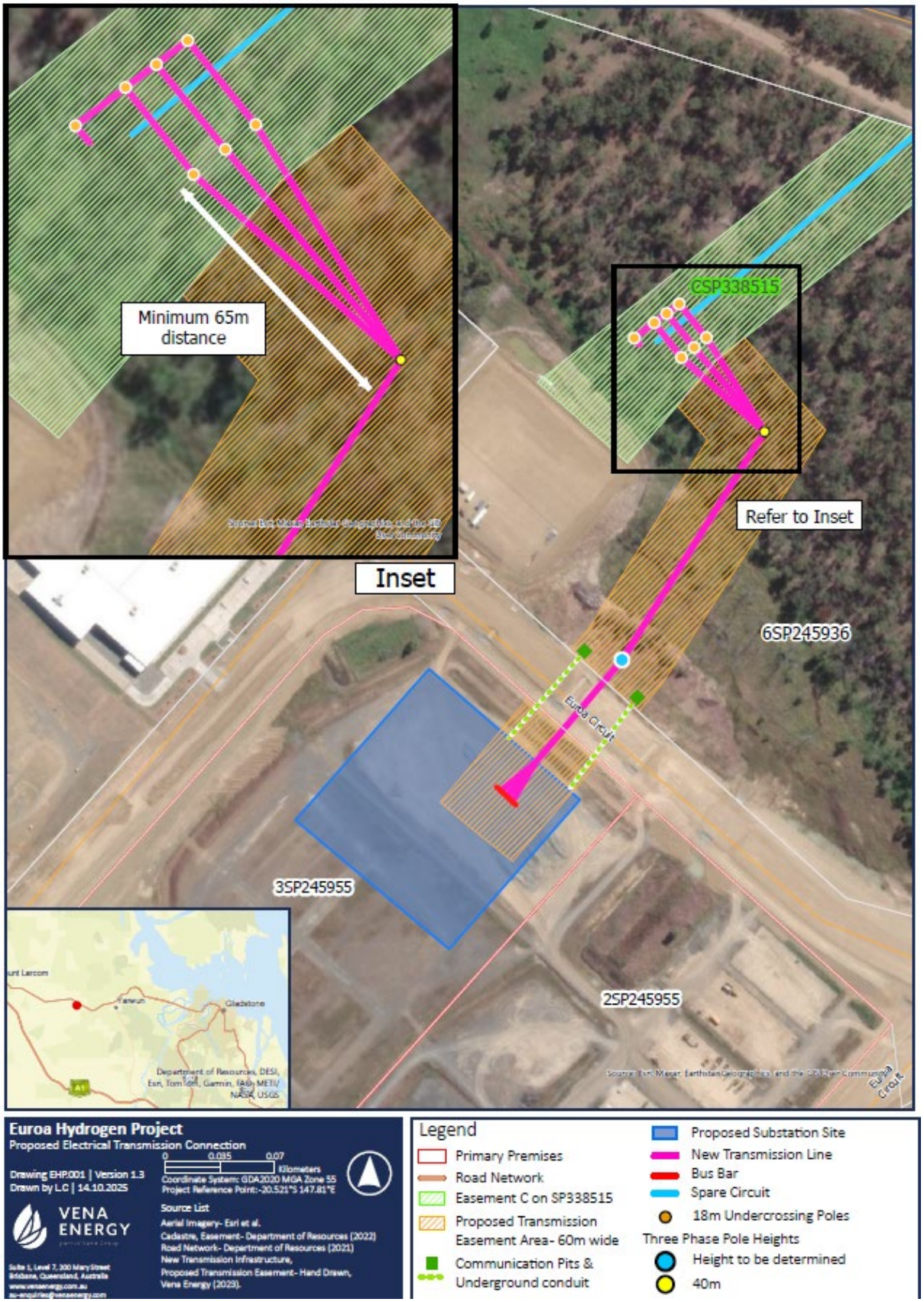


Figure 19: Map of Proposed transmission extension

4.4.2. Project ancillary substation and underground cable

The transmission connection will land into the project (ancillary) substation to be established on Lot 3 (refer to blue box in Figure 19). The substation will step down the voltage from 275kV to 33kV to feed into the transformer located within Lot 1 next to the H2 production facility via an 33kV underground cable which will traverse across Lot 2, under Euroa Circuit and into Lot 1 (Refer to Appendix D). The project substation has been positioned at the northern portion of Lot 3for the following reasons:

- To minimise the extent of the transmission infrastructure extending across the primary premises from the existing Transmission network. The transmission connection will be a Powerlink asset, thus will be secured under an easement (likely 60m wide). It is an efficient use of the land to minimise the extent of the transmission easement where necessary over the primary premises. Limiting the easement to the necessary area allows for future industrial uses to be undertaken across the primary premises.
- It is positioned as close to the north-east boundary of the primary premises considering the existing and further required benching along this frontage (refer to civil drawings in Appendix D).
- It is as close to the north-west boundary of the site considering the location of the existing swale drain running along this boundary, (refer to Figure 9) which includes culverts under Euroa Circuit (refer to Figure 12). These existing basins and culverts act to distribute overland flows from the site and upstream areas to the site.

The project substation will only service the project with space to introduce additional bays to connect the future Phase 2 Project of Vena Energy's Clean Hydrogen Strategy (refer to Figure 21). The proposed configuration achieves an efficient use of the land by minimising the use of land to accommodate separate ancillary project substations. The project substation will be separately fenced; have a perimeter vehicle track for maintenance; and a dedicated control room (refer to Figure 20).

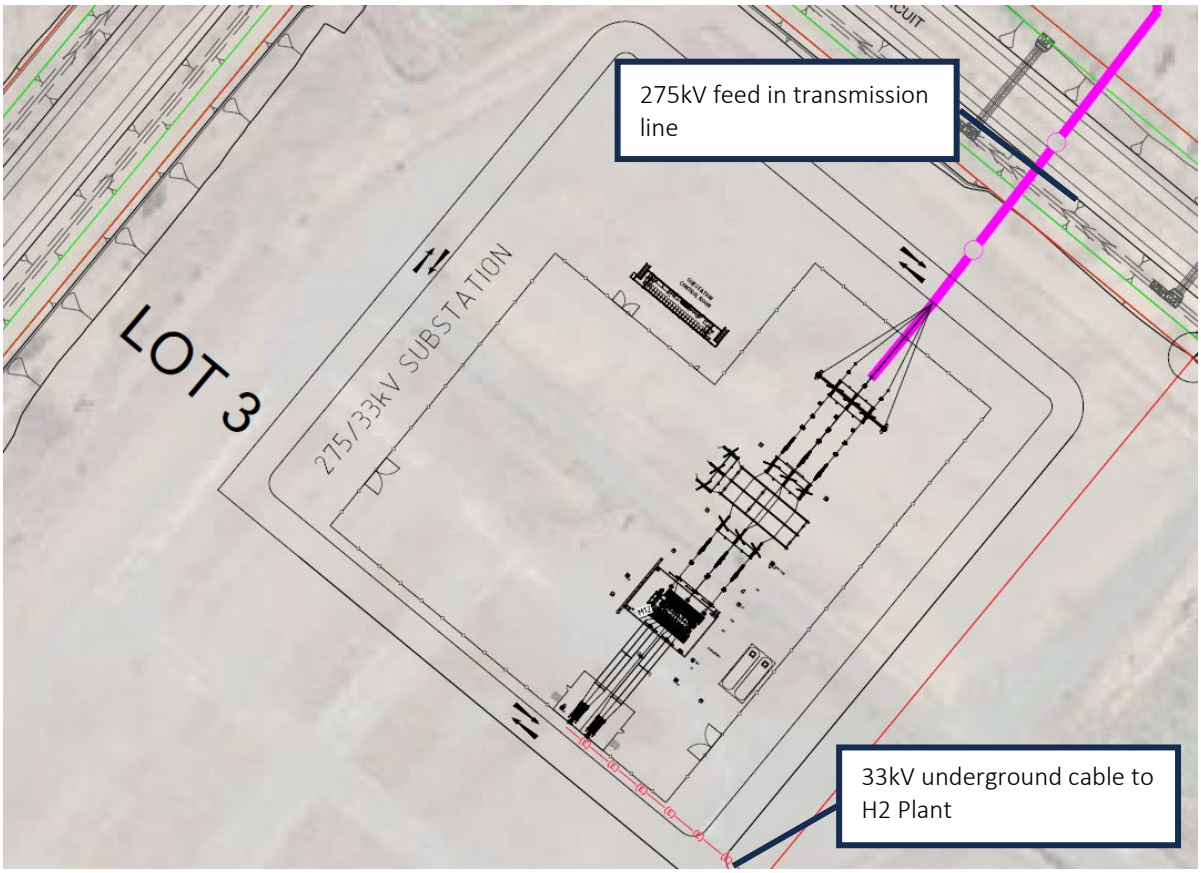


Figure 20: Concept layout of the project substation for Phase 1.

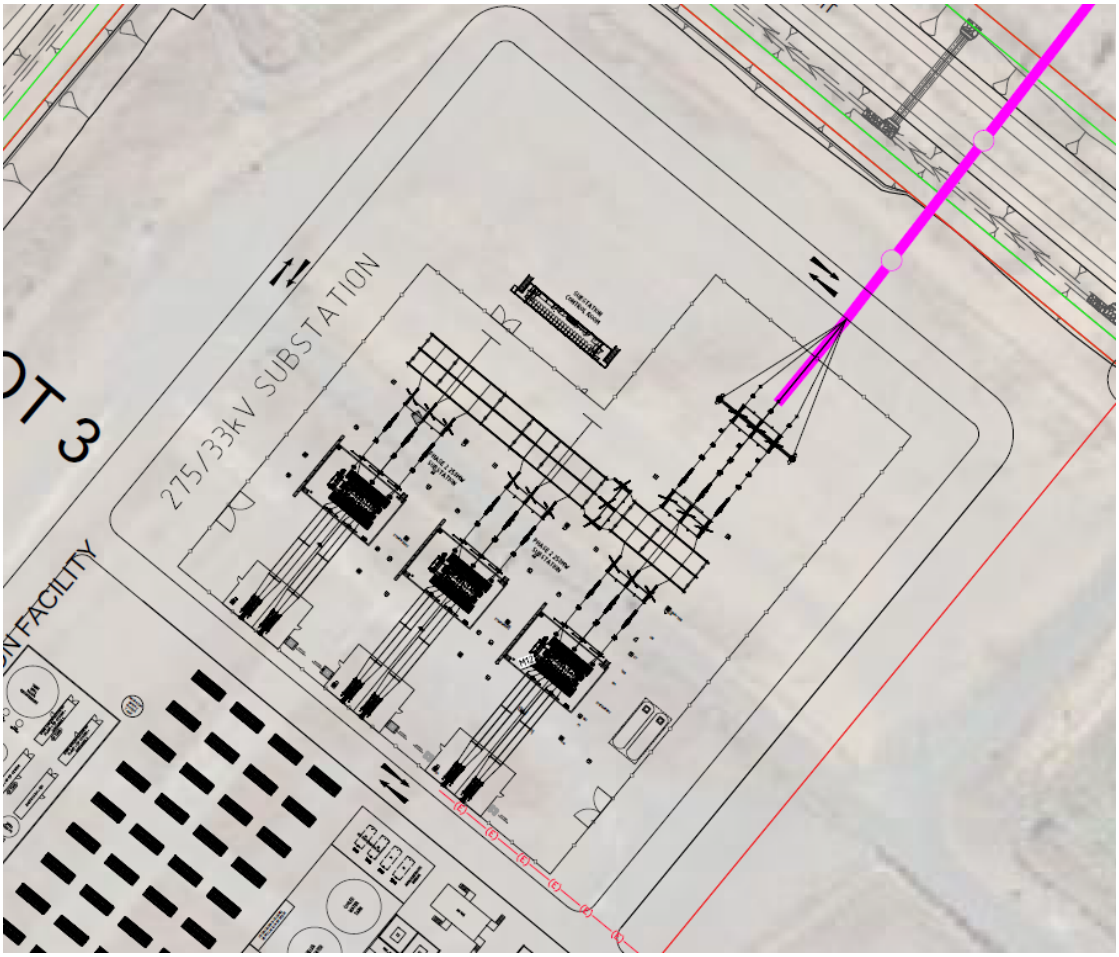


Figure 21: Expanded Substation for Phase 2 (not subject to this Development Application)

4.4.3. Transformers and Rectifiers

The feed in 33kV line from the project substation will connect to electrolyser transformer units and before being further stepped down and distributed to each of the 10 x power conversion units (Rectifiers).

Each electrolyser skid contains 2 x 5MW electrolyser units with each 5MW electrolyser unit having its own dedicated power conversion unit (Rectifier) thus 10 x Rectifiers are proposed.

4.4.4. Water supply and treatment

4.4.4.1. Treated and raw water supply

The Facility will require a bulk water supply that will be sourced from the GAWB water supply network via a recently constructed water pipeline connection along Euroa Circuit from GAWB's Boat Creek to East End pipeline network. The majority of this water supply will be treated water from the GAWB's Boat Creek to East End pipeline, however, may be blended with raw water supplied from Fitzroy to Gladstone pipeline once constructed.

4.4.4.2. Water treatment and purification system

The Facility will have a water treatment and purification system which will treat the water through a combination of active coarse water filters for the raw water component, and carbon filtration, particulate filters and up to two reverse osmosis (RO) units to achieve a very high water quality that is required for the electrolysis process. Some water will be less processed and will be directed to balance of plant operations for cooling, fire management, utility water and potable water for amenities. The residual wastewater and effluent discharged from the water treatment/purification process will be directed to the on-site wastewater holding tanks.

4.4.4.3. Wastewater

The Facility will generate various streams wastewater as a result of the water treatment and purification process and normal on-site sewerage treatment from site office amenities. The wastewater from this process will create highly concentrated brine or sludges, thus reducing the volume of wastewater to handle. Each waste stream will be stored on site in holding tanks with truck pump out facilities incorporated into the facility to enable all waste streams to be transported from the site to a registered off-site trade waste/sewerage treatment facility.

4.4.5. Electrolyser units

The electrolyser requires electricity and purified water to perform the electrolysis process to separate the hydrogen from the oxygen. The separated hydrogen gas produced will be directed to the hydrogen purification unit for further processing with the oxygen vented to the atmosphere.

4.4.6. De-oxidation and dehydration

The Hydrogen purification unit consists of a de-oxidation and dehydration processes. The de-oxidation process consists of an electric heater which is used to extract residual oxygen from the hydrogen gas and a catalyst is used to convert the residual oxygen to water. The dehydration process consists of a dual bed pressure swing adsorbents which are used to remove water from the hydrogen stream. One bed will be in service while the other regenerates. A downstream particulate filter removes dust particles prior to compression.

The residual water collected from the dehydration process can be re-directed back into the input water supply process, if required. A downstream particulate filter removes all remaining dust particles from the dehydrated hydrogen gas prior to the compression process.

4.4.7. Hydrogen compression and storage

The Facility aims to export compressed hydrogen domestically using specially designed tube trailers for road transport. The tube trailers typically store the hydrogen gas at high pressure between 350-500 bar(g) for transport purposes. The electrolyser units process the hydrogen with a maximum pressure of approximately 15-30 bar(g), therefore additional compression is required to achieve the required storage pressure suitable for the tube trailers. Due to the low molecular weight of hydrogen, multistage positive displacement compressors will be used. These will increase the hydrogen pressure from 15-30 bar(g) to the required storage pressure. The hydrogen compression will add to both power and cooling duties at the site.

The main storage volume will consist of multiple element gas containers with a pressure of approximately 400 bar(g) with maximum storage capacity of 8,000kg.

Additional separate compressors will increase the compression to enable filling of the tube trailers to desired pressure. The hydrogen gas will be sourced directly from the plant, when it is operating, with gas retrieved from the storage tanks when the plant is in idle mode, to ensure continuous filling of tube trailers.

4.5. Cooling /chiller systems

An adiabatic dry cooling system is proposed to deliver the chiller requirements of the electrolyser components of the facility. The adiabatic cooling system will cool the electrolyser fluid where the cooling water is reticulated around the site in a closed loop system. Adiabatic cooling provides cooling to below the ambient air temperature. Adiabatic cooling systems do not require an ongoing water supply to operate as compared to a conventional cooling tower, thus enables the overall water supply requirements of the facility to be reduced. An example of an adiabatic cooler is shown in Figure 22.

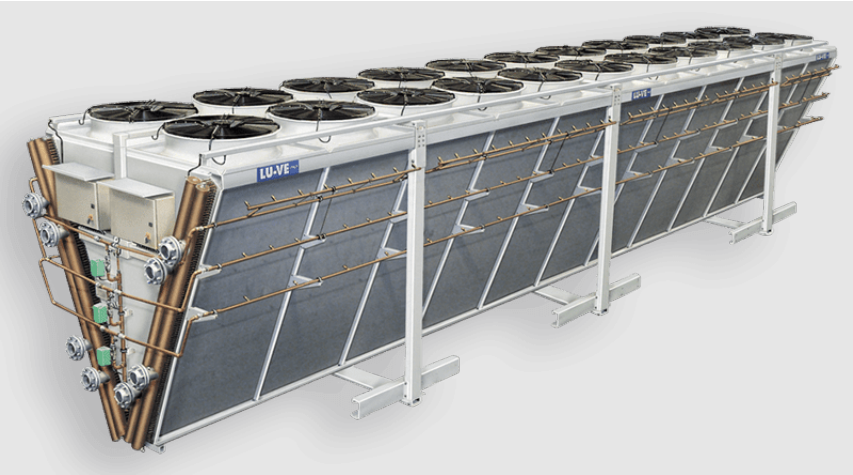


Figure 22: Example of on adiabatic cooler

4.6. Tube trailer filling

As a result of the development, Vena Energy will be an early producer of clean hydrogen. Flexibility has been built into the Project in terms of how the compressed hydrogen will be distributed. The scale and details of the Project has considered the possibility of several off-takers requiring hydrogen to be delivered to varying locations and varying volumes. For these reasons it was determined distributing compressed hydrogen up to 517 bar(g) via specialty designed tube trailers to be the most viable transport distribution solution. Each tube trailer will have a carrying capacity of approximately 1000kg.

Figure 23: Image of the H2 Tube Trailer

Figure 24: Image of Tube Trailer showing dispensing

The project proposes 4 filling bays with each bay having to 2 dispensers enabling quicker filling of trailers if required. Each bay will be segregated with fire walls to minimise ensure exposure from anu likely explosion in one of the bays.

Hydrogen as a gas is subject to heat friction when it is forced through compression, therefore, to adequately manage heat friction, the rate of flow for filling is reduced. Alternatively chilling systems are added to reduce the temperature of the H_2 gas preferably under -30° Celsius, but this adds additional complexity and cost to the operations.

Current calculations indicate a single 1000kg tube trailer will take 5-6 hours if only a single dispenser is used, with reduced time if 2 dispensers are utilised.

4.7. Traffic Generation

4.7.1. Construction traffic

Construction traffic volumes are yet to be determined but it is envisaged the peak workforce (possibly for a period 3-5 months) will be 50-80 workers. However, the average workforce for the entire construction and commissioning period is likely to be 30-40 workers. The type of traffic generated will see private vehicles for workers travelling to and from the site from in and around the Gladstone region with an intention to use locally based workforce where feasible. There will be movements of trucks and heavy vehicles at times to transport the various components into the site and to deliver materials (e.g. concrete) and machinery (cranes, excavators, telehandlers etc). Some larger heavy vehicles to transport transformers, switch gear etc maybe required to utilise the local road network, but it is envisaged the existing road network (Euroa Circuit, Aldoga Road, Gladstone-Mt Larcom Road and the Bruce Highway), can accommodate oversized vehicles.

Detailed information relating to construction methods aren't realised at this stage of the Project therefore detailed information on traffic movements during construction is not understood. The Traffic Impact Assessment has concluded that construction should be able to be catered within the existing road network without an nee for upgrades or causing adverse congestion. However, Vena Energy suggests a condition is included in the development approval, requiring the applicant to prepare and submit, a Traffic Management Plan to the Assessment Manager, to be approved prior to commencing construction which includes, but not limited to, the following information:

- management of daily traffic including any traffic control where activities impact local road networks; and
- detailed haul route assessment/plan including oversized vehicles to deliver oversized/overweight components to site.

4.7.2. Operational traffic

The following parameters are used to calculate the estimated traffic generation for the distribution of hydrogen gas operations:

- A maximum of 18 tonnes of H_2 produced per day over 19hr operation time each day.
- Tube trailer capacity 1000kg (single trailer 19m semi-configuration)
- 4 x fuelling stations proposed.
- Filling period per tube trailer is 5-6 hours when including setup and 1 dispenser used. The filling time is reduced (likely 3-4 hours) when 2 dispensers are used to fill each tube trailer at a time.

Based on these parameters it is calculated in a 24-hour period, approximately 18 tube trailers/trucks will need to be filled to ensure all H_2 produced by the facility can be distributed via road. The tube trailer filling operations and associated traffic movements operate over the entire 24hr period of the day as the facility includes 8000kg of storage to enable filling to continue even if the hydrogen production facility is turned down/turned off due to high electricity prices.

The facility also incorporates separate tube trailer parking to enable tube trailers to be filled and stored on site if there are delays in the prime mover/driver returning to the site.

The layout of the tube trailer filling station area includes a bypass lane to enable trucks to pass around the filling stations in the event all bays are occupied, or filling is delayed.

It is an anticipated that under full operation facility there will be an average of 1.5 truck movements per hour (0.75 inbound and 0.75 outbound) over the 24hr period. However, if even if a conservative calculation of 2 inbound and 2 outbound truck/tube trailer movements are utilised, it is expected this still considered a low impact to the identified road network.

Other traffic generated by the facility during operation, will include the following:

- Car movements for 4-6 permanent staff on site at any one time.
- Car and truck movements for ad-hoc maintenance.
- Truck movements for disposing of waste streams likely 2-4 trips per month.

Based on a review of recent traffic impact assessments undertake for similar development within Euroa Circuit, these assessments have concluded the existing local road network will be able to adequately cater for the proposed vehicle types during operation. These recent assessments for other developments in this precinct indicate the road network has adequate capacity to cater for the other proposed facilities with additional spare capacity, thus it is anticipated that the addition of 2 truck movements per hour and additional ad hoc light vehicle movements will not adversely impact the road network over operational life of the project. The applicant has prepared a Traffic Impact Assessment and Pavement Impact Assessment (refer to Appendix H), detailing the proposed development is unlikely to have an adverse impact to the local and State Controlled Road network.

The proposed operation currently plans to utilise 19m Semi trailer configuration for the proposed development, however the access arrangement for the tube trailer filling area has been designed to accommodate larger A-double trailer configurations. The A-Double configuration may be pursued if relevant haulage routes permits can be secured. The 2 trailer (A-Double) configuration would result in 50% less trips to distribute the same volume of H2 to offtakers.

4.7.3. Access arrangements

The facility has been designed to segregate the daily truck/tube trailer operations from the light vehicle (staff and facility maintenance traffic) into the site for safety reasons, therefore the general arrangement of the site features separate access points onto Euroa Circuit. The storage and dispensing area features a separate truck entry and exit crossover to enable a safe movement of the trucks through the site. The hydrogen production facility area will have a single entry/exit crossover onto Euroa Circuit, which will cater for truck movements for the disposal of wastewater and for maintenance operations.

All internal roads a loop configuration therefore ensuring vehicles can always enter and exit in forward gear.

The proposed operation currently plans to utilise 19m Semi trailer configuration for the proposed development, however the access arrangement for the tube trailer filling area has been designed to accommodate larger -A-double trailer configurations. The A-Double configuration may be pursued if relevant haulage routes permits can be secured.

4.8. Stormwater management

The subject site contains existing stormwater basins which captures the runoff before it is discharged to the culverts under Euroa Circuit or adjoining natural drainage lines (refer to section 2.6.5 for more detail on the existing stormwater condition) within lot 7. It is expected the proposed development will continue to use these basins for the purposes of stormwater management but may require some improvement to ensure it meets required standards for quality. The

proposed facility is not expected to increase the velocity or intensity of the pre-development flows, thus it can be assumed, the development will not have any adverse impacts to existing stormwater infrastructure in the surrounds including Mount Larcom Gladstone Road as all the flows will follow the Larcom Creek catchment in a south-westerly direction away from the road. A concept Stormwater Management Plan has been prepared and is included in Appendix J with Stormwater design drawings located in Appendix D.

4.9. Security, fencing and Access Gates

The Facility will be appropriately secured with fencing and surveillance systems. The proposed security fencing around the facility is depicted in the Proposal plans (Refer to Appendix D) to restrict public access which will be chain wire over 1.8m and feature barbed wire. The facility will have security gates at all entrances with restricted access.

4.10. Fire and emergency management

The proposed development seeks to establish a series of water tanks for firefighting purposes and provide sufficient hydrants hoses as the town water supply network does not currently extend to the subject site, Refer to Appendix D. Vena Energy will develop fire management and emergency plans in consultation with the relevant authorities to ensure risks from fire and explosions can be managed appropriately.

4.11. Construction methods

The Project site's landform has been substantially altered overtime, with large existing building pads and benching. It is therefore assumed the development will require only minimal civil works to establish the required building pad foundations for the facility.

It is estimated 50-80 construction workers will be onsite during the peak construction period over a couple of months, but likely an average of 20-30 workers over the entire construction period.

The facility will require a series of trenches to be dug to establish range of pipes and cables including under Euroa Circuit to connect between the Lot 1 and Lot 2/3. Once the underground works are complete, the relevant foundations including piers and slabs for the proposed shed and major components will be constructed.

Many of the major components for the electrolyser units, compression facility, storage facility, filling stations and balance of plant are likely to be fabricated offsite in a factory thus reducing construction processes on site.

Once the major components are established on site, the remainder of the shed can be erected, the process of connecting and commissioning all the components can be undertaken.

The site is sufficiently sized to establish temporary laydown areas, site offices construction parking, loading/unloading areas etc thus it can be assumed there will be minimal disturbance (i.e. limited traffic control required) to the local road network.

A determination on whether an operational works application for earthworks is required will be made during the detailed design phase.

4.12. Operational Management

During operation, vehicle movements to and from the Project site would be limited to vehicles from 4-6 staff, ad hoc maintenance contractors, wastewater disposal and tube trailers transporting the compressed hydrogen. It is anticipated 1.5 trucks movements per hour (0.75 inbound and 0.75 outbound) to distribute the compressed hydrogen. The Facility will be operational 24 hours per day; therefore, the Facility will likely have 3x 8hr shift rotations for staff but will also be monitored remotely when staff are not present. The proposal includes the establishment of an administration building

which will house office facilities, lunchroom, meeting/induction facilities and staff, contractor and visitor parking. A separate warehouse and workshop building will be located on site which are size appropriately to house spares and undertake maintenance and storage of equipment.

4.13. Safety Risks

The Project has been designed to mitigate risks from such matters as explosion. The applicant has undertaken a Quantitative Risk Assessment (QRA) which has helped to determine relevant buffers to site boundaries and introduction of earth mounds. The applicant has undertaken a HAZOP Study identifying critical risks to the facility including safety and environmental considerations. Relevant documentation including the QRA and HAZOP study can be found in Appendix I

4.14. Relationship to Phase 2 Facility

Vena Energy's Hydrogen Strategy (refer to section 3.2) seeks to export Hydrogen overseas to high-cost energy countries including Japan and South Korea. The proposed Phase 2 of the Euroa Hydrogen Project will seek to develop a 400MW hydrogen production facility on the primary premises. The early concept plans for this facility are shown in Appendix F. The 400MW facility will produce hydrogen using electrolysers with the produced hydrogen gas transported from the site via a dedicated hydrogen gas pipeline to another site closer to the Gladstone Port, where it will be converted into a carrier product (eg green ammonia) before being exported via ship through the Gladstone Port. The Phase 1 project, which will operate independently to the Phase 2 project, is sought to be significantly progressed to confirm the technology is feasible to produce hydrogen, thus the timing of the Phase 2 project is subject to the Phase 1 project being progressed. It is envisaged that once the Phase 1 project is under construction the required development approvals process for the Phase 2 project will commence. Progression of a Pre-FEED of the Phase 2 project is expected to commence in 2026, which enables Vena Energy to be better define the relevant components of the project. As the hydrogen will be directly transported off the site via pipe once produced, the risk associated with storing and compressing the hydrogen are not required, thus reducing safety risks.

5. Statutory Planning Assessment

5.1. Gladstone State Development Area Development Scheme

As the subject site is located within the declared GSDA the applicable legislation relating to the assessment of development is the *State Development and Public Works Organisation Act 1971* (SDPWO Act). Pursuant section 79 and 80 of the SDPWO Act, the 'Gladstone State Development Area Development Scheme' (Development Scheme) was prepared and gazetted under a notice published under section 80(1) (a) of the SDPWO Act, thus has effect over the subject lands, and not the Gladstone Region Planning Scheme. The Development Scheme stipulates a regulatory framework with the following detail applicable for this application:

- The application proposes regulated development which can be only carried out in accordance with the SDPWO Act and the Development Scheme.
- Pursuant to the Tables 2 of the Development Scheme, the application being for a Material Change of Use for Special Industry' (Hydrogen production facility, including an ancillary substation) and Major Electricity Infrastructure (extension to an existing 275kV transmission Line) is defined as 'SDA Assessable Development'
- This application is to be made to the Office of the Coordinator-General Queensland (OCG) and is to be made in accordance with Schedule 2 of the Development Scheme.

The development assessment framework within the Development Scheme states the application will be assessed against the following, to the extent they are considered relevant by the OCG:

- the strategic vision for the Gladstone SDA
- the overall objectives for development in the Gladstone SDA
- the preferred development intent for each development precinct
- SDA wide assessment criteria.

Pursuant to section 2.5.13 of the GSDA Development Scheme, the application is to demonstrate consistency with any other relevant legislative requirements that may be necessary for the development to proceed. Through consultation with the OCG, it has been determined the application should demonstrate consistency with the following:

- Central Queensland Regional Plan
- State Planning Policy
- The Port Overlay for the Priority Port of Gladstone
- The following State Development Assessment Provisions (SDAP):
    - State Code 1: Development in a state-controlled road environment
    - State Code 21: Hazardous chemical facilities

5.2. GSDA Development Scheme Strategic vision

Table 4 demonstrates the Project's alignment with the strategic vision of the Development Scheme.

Table 4: Assessment against the GSDA Development Strategic Vision

Strategic vision	Relevance to the Project
Be Central Queensland's economic powerhouse, with an efficient concentration of large-scale industry of national, state and regional significance that benefit from the SDA's strategic	The development aligns with the Commonwealth and Queensland Government's strategic context and significance as the Project contributes to: • The decarbonisation of Australian industries (NHS, 2019). • Aligns with Queensland Energy Roadmap (October 2025)

Strategic vision	Relevance to the Project
location near the Port of Gladstone and major road and rail network.	• Increasing economic development in the Gladstone region by delivering industrial infrastructure of national, state and regional significance. • The Gladstone region becoming a renewable energy superpower and to respond to a once-in-a-generation change to the energy sector (Gladstone Region Economic Transition Roadmap). The Project recognises Queensland as being at the forefront of renewable hydrogen production in Australia by providing a supply to an emerging domestic market and creating opportunities to export a safe, sustainable and reliable supply of hydrogen by 2030 to overseas partners (Queensland Hydrogen Industry Strategy 2019-2024). Phase 1 of the Project capitalises on the Gladstone region's access to the major road and rail network for domestic distribution. Phase 2 of the Project will capitalise on the proximity of the port for international export.
Support development that aligns with the Queensland Government's strategic priorities for the region, particularly related to the hydrogen industry.	The Project aligns with the Queensland Government's strategic priorities for the Gladstone region as it will be one of the first hydrogen production projects in the state, fostering the emerging industry in Gladstone.
Maintain environmental, cultural heritage and community values where possible to support wider ecological processes and provide community benefits.	The Project will be located over land which has been subject to significant land disturbance due to the previous construction laydown activities. Accordingly, the site is void of any notable environmental, cultural heritage and community values. The facility is generally unintrusive, as impacts of the Project will be managed such as trucked offsite disposal of effluent from the site, being sited amongst industrial development and the minimal operational requirements of the facility, therefore the Project is not anticipated to exacerbate any environmental impact currently experienced within the region.

5.3. GSDA Development Scheme overall objectives

The GSDA Development Scheme outlines overall objectives for development which achieves the strategic vision outlined above. An assessment of the development and the overall objectives is outlined in Table 5.

Table 5: Assessment against the GSDA Development Scheme Overall Objectives

Overall objectives	Relevance to the Project
Capitalise on Gladstone SDA's strategic location and support the role and function of the Port of Gladstone.	Phase 1 of the Project will capitalise on the existing major road and rail networks to distribute green hydrogen domestically. Phase 2 of the Project will capitalise on proximity to the port to export green hydrogen internationally.

Overall objectives	Relevance to the Project
	The GSDA strongly encourages the development of the hydrogen market; therefore, the Project will capitalise on the strategic location and location set amongst other industrial developments such as Fortescue's GEM project. The development also forms part of Vena Energy's 'Hydrogen Strategy' (refer to 3.2) to first establish the technology is feasible through the Phase 1 project before developing Phase 2 which aims to export the green hydrogen to overseas partners.
Identify and implement opportunities for synergies and co-location between other uses, services and infrastructure to minimise waste and inefficiencies.	The Project is co-located amongst other industrial land uses in the region. Due the growth in the renewable energy industry in the area, the development will benefit from upgrades to services and infrastructure such as the Euroa Circuit Precinct road network, the extension of the GAWB pipeline and a Powerlink substation. All services and infrastructure upgrades will adequately service the development and future development in the Euroa Circuit Precinct.
Use land and infrastructure efficiently and be adequately serviced by infrastructure.	
Ensure the integrity and functionality of the Gladstone SDA, including infrastructure corridors and future development opportunities, is maintained and protected from incompatible land uses.	The project would not compromise the integrity and the functionality of the GSDA as the Project will deliver infrastructure which aligns with development precincts prescribed under the Development Scheme. The Project, defined as 'special industry', supports the preferred development intent in the High Impact Industry Precinct.
Ensure new lots are appropriately sized to accommodate preferred development.	The Project does not involve the creation of new lots.
Be designed, constructed, and operated to a high quality consistent with best practice.	Vena Energy has demonstrated through its previous projects that it not only develops, and constructs its assets, but operates them for the life of the asset (over 20 years). It is in Vena Energy's interest to design, construct and operate the facility to best practice, to ensure the reliability of the asset and maximise its return on the investment.
Avoid impacts on environmental, cultural heritage, and community values (including sensitive land uses), or minimise or mitigate impacts where they cannot be avoided and offset any residual impacts.	The primary premises has been substantially altered/disturbed, therefore there are limited environmental, cultural heritage and community values. The contractor will develop a Construction Environmental Management Plan to ensure environmental duty of care and compliance with the relevant Australian Standards and provisions are adhered to, relating to items such as erosion and sediment control, noise, air and cultural heritage. The development does not require the payment or execution of offsets. An Ecological Assessment (Appendix K) has concluded the proposed development is unlikely cause a significant impact to MNES or MSES.
Not adversely impact on the outstanding universal values of the Great Barrier Reef World Heritage Area.	The Project is unlikely to create adverse impacts on the universal values of the Great Barrier Reef World Heritage Area. Stormwater discharge from the site will be managed through a Site-based Stormwater Management Plan which will be developed once detailed designs are available. Vena Energy intends to establish a water quality monitoring program to measure a baseline water quality into the Larcom Creek catchment and as

Overall objectives	Relevance to the Project
	well as ongoing monitoring during construction and operations to ensure the facility is not adversely impacting local waterways and the Great Barrier Reef.
Manage the risks associated with the Projected impacts of climate change and natural hazards to protect people and property.	This project seeks to contribute to renewable energy generation which will contribute to combating climate change. The site is well elevated thus won't be impacted by flood or storm surges. The site is generally free from risk of bushfire, however, will maintain sufficient buffers from potential grass fires.
Manage impacts of air quality on the capacity of the Gladstone airshed.	The development is not anticipated to result in impacts to the air quality of the Gladstone airshed. The site will appropriately manage air emissions during construction.

5.4. GSDA Development Scheme - Preferred development intent

The Project site is contained within the 'High Impact Industry Precinct'. The following responses are made to demonstrate alignment with the Preferred Development Intent of the High Impact Industry Precinct:

- The proposed primary land use (Special Industry) is difficult to locate and requires separation from sensitive uses.
- requires access to key transport and supply chain networks.
- The development is located near or impacts the LNG operations on Curtis Island
- The primary proposed land use (Special Industry) is a supported land use. The other proposed land uses including 'Major Electrical Infrastructure' and 'Ancillary substation' are only proposed to support the primary land use being Hydrogen Production facility (Special Industry).
- The proposed development seeks access to Gladstone-Mount Larcom Road via the Aldoga Road intersection.

5.4.1. Clarification of the proposed land uses

The applications proposed land uses have been determined as follows"

5.4.1.1. Special Industry

The primary proposed land use has been defined in consultation with the OCG (refer to 3.3.1) as 'Special Industry' pursuant to schedule 1, section 2 of the Development Scheme.

> ***special industry*** *means the use of premises for an industrial activity that:*
>
> - *includes the manufacturing, producing, processing, repairing, altering, recycling, storing, distributing, transferring, or treating of products*
> - *requires onsite controls for emissions hazardous substances and dangerous goods risks*
> - *has one or more of the following attributes:*
> - *potential for extreme impacts on sensitive land uses due to offsite emissions including aerosols, fumes, particles, smoke, odour, and noise*
> - *potential for extreme offsite impacts in the event of fire, explosion, or toxic release*
> - *may involve the storage and handling of large volumes of dangerous goods*
> - *requires significant separation from non-industrial uses*
> - *generally involves night-time and outdoor activities.*
>
> *Note: examples of special industry include oil refining or processing, waste incineration, manufacturing chemicals, manufacturing or storing explosives, power plants, manufacturing fertilisers.*

The justification for this land use is follows:

- The seeks to produce Hydrogen as well as storing and distributing it from the site.
- Hydrogen is defined as a 'Dangerous Good' pursuant to the *Environmental Protection Regulation 2019*. This regulation references the 'Australian Code for the Transport of Dangerous Goods by Road and Rail' (ADG Code 7.7_0.pdf (ntc.gov.au)). Table 3.2.3 of the Dangerous Goods Code indicates 'Hydrogen, Compressed' is a class 2.1 Dangerous Good. On this basis, the application proposes to produce, store and distribute a 'dangerous good'.
- Hydrogen is considered as a Prescribed hazardous chemical and has potential for extreme offsite impacts in the event of explosion.
- Will involve night-time and outdoor activities including tube trailer filling 24/7.

5.4.1.2. Ancillary Substation

The primary 'Special Industry' land use includes establishing a project substation which is defined as an 'ancillary substation'. The Schedule 1 of the GSDA Development Scheme includes a definition for 'substation':

Substation

- *as part of a transmission grid or supply network to:*
  - *convert or transform electrical energy from one voltage to another or*
  - *regulate voltage in an electrical circuit or*
  - *control electrical circuits or*
  - *switch electrical current between circuits or*
- *for a telecommunications facility for:*
  - *works as defined under the Electricity Act 1994, section 12(1) or workforce operational and safety communications.*

The project substation is to be located on the primary premises (Lot 3) and following discussions with Powerlink, it was confirmed the substation will be a Vena Energy owned asset (ie Powerlink's defines as a Contestable asset). Powerlink's asset boundary for the connection infrastructure from the connection point in the Larcom Creek Substation will be the landing beam (ie bus bar) for the transmission line within the substation but won't include the project substation itself.

To determine if the project substation meets the definition of 'Substation' under the Development Scheme, clarification as to whether substations is considered 'part of the transmission grid' needs to be determined.

The definition of 'Transmission Grid' is defined pursuant to the *Electricity Act 1994*:

- *A transmission grid is a system, or part of a system, of electric lines, substations and associated equipment providing connection between generation facilities and supply networks or customers not supplied through supply networks.*
- *A transmission grid includes connections to other transmission grids*

It is confirmed the facility is not connecting to the 'supply network' as the connection to the grid network is applied to Powerlink, who is a Transmission Entity, not a Distribution entity.

The 'connection point' for the project to the transmission grid pursuant *Electricity Act 1994* refers to the National Electricity Rules (NER) for a definition. The NER defines 'connection point' as:

> *In relation to other transmission networks, the point at which power flows to or from a person connected to the transmission network can be isolated from the transmission network. If there is more than one such point, the Network Service Provider and that person will agree which point is the connection point in their connection agreement.*

The grid connection point as determined by Powerlink is the bay within Powerlink's existing Larcom Creek Substation, approximately 2km to the north of the site, as this is the location where the flow of electricity to the project can be isolated from the transmission network.

It is therefore interpreted the project substation, is not part of the transmission grid as it is further downstream of the connection point, thus does not meet the definition of 'substation' pursuant to the development scheme.

The applicant considers the substation to be 'ancillary' to the primary 'Special Industry' land use, pursuant to the *Planning Act 2016*, with the term 'ancillary' clarified under guidance material. The applicant justifies the substation should be considered 'ancillary' under the guidance material for the following reasons:

- The substation is directly 'related to the primary use' in that it provides the ability for the hydrogen production facility (Primary use) to have the required electricity connection from the existing grid. The substation will be owned by the hydrogen production operator and will serve the proposed hydrogen production operation only with no intention for the substation to connect other loads outside the project.
- The substation has a 'functional relationship' with the primary use as a hydrogen production facility requires significant loads of power to operate. This power is sourced from the existing electricity network and to manage the voltage from 275kV to 33kV (required voltage for the Electrolysers) the substation serves to step down the voltage.
- The substation is subordinate to the primary use both in terms of its scale and land use impact as the ancillary substation is less than 10% of the project area. The substation is considered low impact as it does not require many moving parts, little maintenance and does not require significant work force to operate it, compared to the hydrogen production facility which has multiple components with many moving parts ongoing workers site including loading and unloading of tube trailers and is considered a higher risk use in terms of fire and, explosion risk.

Based on the above clarification, the project substation is determined as an 'ancillary substation' to the primary 'Special Industry (Hydrogen Production Facility)' use.

Major Electricity Infrastructure (extension to an existing transmission line)

The application includes a secondary land use 'Major Electricity Infrastructure (extension to an existing transmission line)' which defines the proposed transmission line extension, as detailed in section 4.4.1 to link the existing Larcom Creek to Euroa transmission line to the proposed project substation. The definition of 'Major Electricity Infrastructure' is:

> ***major electricity infrastructure*** *means the use of premises for:*
>
> *(a) a transmission grid or supply network or*
>
> *(b) a telecommunication facility if the use is ancillary to the use in paragraph (a).*
>
> *Note: the use of premises does not include a supply network or private electricity works unless the use involves a new zone substation or bulk supply substation; or the augmentation of a zone substation or bulk supply substation that significantly increases the input or output standard voltage.*

The established Larcom Creek to Euroa Transmission line previously obtained a development approval for Major Electrical Infrastructure, thus a precedence has been established. The proposed new connection line is therefore considered an extension to this existing line, thus attracts the same land use definition for the following reasons:

- The extension will form part of Powerlink's transmission network, who are a Transmission Entity under the *Electricity Act 1994.*
- The infrastructure is defined as being part of a transmission grid being electric lines connecting between generation facilities and a customer (ie the proposed hydrogen facility) not supplied through the supply network.

5.4.2. SDA wide assessment criteria

Response to the SDA wide assessment criteria is found in Table 6.

Table 6: Response to SDA wide assessment criteria

Criteria	Response
Infrastructure Services	
Development: • is designed to maximise efficiency and minimise the cost for infrastructure and services • plans for and manages its impacts on existing and planned infrastructure and services • is adequately serviced by the infrastructure and services necessary to meet the demand generated by the development • integrates with existing and planned infrastructure and services where possible.	Consultation with Powerlink, GAWB and EDQ have been undertaken prior to the submission of this SDA application to provide confidence that the Project site will be adequately serviced by infrastructure including planned upgrades. The upgrades include: • The upgrade of Euroa Circuit road to industrial standard, completed by EDQ. • The extension of a GAWB raw water pipeline currently located on the opposite site of Aldoga Road. Completed by GAWB • Construction of the Fitzroy to Gladstone raw water pipeline. Under construction by GAWB • Construction of a new twin 275kV transmission line from the Larcom Creek Substation to the Euroa Circuit Precinct. Completed by Powerlink. A small extension to the line is proposed as part of this application. The development site has been chosen given the knowledge these upgrades will be in place and can adequately service the facility. Consultation with the infrastructure services stakeholders will continue as the Project progresses towards construction, operation and future phases as part of the Euroa Hydrogen Project. All infrastructure services are planned to be in place prior to the project commencing operations.
Transport	
Increased traffic arising from the development is either able to be accommodated within existing road networks, or works are undertaken to minimise adverse impacts on existing and future uses and road networks.	Access to the Project site will be facilitated from the recently upgraded Euroa Circuit via the Aldoga Road and Gladstone-Mount Larcom Road intersection. The road and intersection have been assessed (Refer to Appendix H) and has confirmed the road network can safely accommodate the vehicle types and maximum expected traffic by the proposed development. A Construction Traffic Management Plan will be prepared prior to construction commencing to provide certainty the road network will not be substantially impacted during the construction period.
Road networks in the Gladstone SDA are designed to accommodate the proposed vehicle type and predicted traffic volumes associated with the development and the precinct/s.	

Criteria	Response
Development is designed to facilitate safe and efficient vehicular ingress and egress and does not unduly impact on the safe and efficient operation of transport infrastructure, including corridors.	The Project will achieve safe vehicle access from Euroa Circuit through the establishment of new access driveways designed and constructed to accommodate the vehicle types and volumes. During detail design, vehicle access requirements will be determined in accordance with the design standards in the Engineering and Design Standards captured in the Development Scheme (relevant standards of specified by Gladstone Regional Council (Table 7, Development Scheme).
Adequate onsite parking for the number and nature of vehicles expected is provided.	The proposed layout has included dedicated onsite car parking areas sufficient for employees, contractors and visitors to the site. This parking is conveniently located adjacent to the administration building near the front entry to the site. Separate truck parking areas are proposed for the H_2 tube trailer trucks and for other loading/unloading requirements. All parking and manoeuvring areas will be undertaken in accordance with the provisions in the Development Scheme (relevant standards of specified by Gladstone Regional Council (Table 7, Development Scheme). The development will not result in an impact to the external road network or result in off-site parking along Euroa Circuit.
Environmental Nuisance	
Development is located, designed, and operated to avoid, minimise or manage: • adverse impacts from air, noise and other emissions that will affect the environment and/or • health and safety, wellbeing, and amenity of communities and individuals • conflicts with sensitive uses arising from (but not limited to) spray drift, odour, noise, light spill, dust, smoke, or ash emissions.	The hydrogen production facility will manage adverse impacts relating to air, noise and other emissions. The Project site is located in the Euroa Circuit precinct and is co-located with other industrial land uses. The surrounding area has been acquired overtime by the State Government, whereby the intent is to regulate and manage the type of land use activities within the GSDA. An assessment identified all sensitive receptors located beyond 2km from the Project site. Refer to section 2.3 for detail, thus don't present any impacts to sensitive receptors. Furthermore, the areas surrounding the sensitive receptors comprise of other industrial land uses such as the Rio Tinto Red Mud Dam and the Earth Commodities Gladstone quarry, therefore the Domestic Facility would unlikely have a visual or wider environmental impact and nuisance to the surrounding sensitive receptors than the existing industrial land uses in the area.
The location, design and operation of development achieves the relevant acoustic objectives of the Environmental Protection (Noise) Policy 2019 and achieves the relevant air quality objectives of the Environmental Protection (Air) Policy 2019.	The development will be subject to a Construction Environmental Management Plan which will outline the minimum requirements to achieve the acoustic objectives of the Environmental Protection (Noise) Policy 2019 and achieves the relevant air quality objectives of the Environmental Protection (Air) Policy 2019.

Criteria	Response
	Additionally, an Operational Environmental Management Plan (or Site Based Management Plan) will be prepared to ensure the operation meets its environmental nuisance obligations.
Development: • avoids adverse impacts on the cumulative air quality of the Gladstone airshed or • where impacts cannot be avoided, conducts air shed modelling in accordance with current best practice to demonstrate compliance with air quality standards.	The development is not anticipated to result in impacts to the air quality of the Gladstone Airshed Modelling System (GAMS) as the only significant release is oxygen to air. The site will appropriately manage air emissions during construction, therefore is not anticipated to result in significant impacts to the existing air quality in the region. Once detailed designs are available, a greater understanding of the Project's quantitative impact will be assessed.
Contaminated Land	
Development on land likely to be contaminated or recorded on the Environmental Management Register or Contaminated Land Register does not adversely impact on human health or the environment by exposure, management, or movement of contaminants. *Note: Refer to Department of Environment and Science (DES) if a site is subject to a per-and poly-fluoroalkyl substances site investigation.*	The Project site is not recorded on the environmental management register of the contaminated land register database. The Project is unlikely to require substantial ground disturbance as the existing building pads will be reused for the Project. Contaminated land investigations and testing will be undertaken prior to construction and where appropriate management, and mitigation measures will be adopted and implemented during construction. The measures will be implemented throughout the contractor's obligations to adhere to their environmental duty of care to not adversely impact on human health or the environment as a result of the exposure, management or movement of contaminants.
Where required, develop a strategy to manage any existing contamination and the potential for additional contamination, so that human health and the environment are not adversely affected.	The development will undertake contaminated land investigations to provide certainty of the type of and condition of the soil across the site and surrounding area. The relevant land contamination requirements and management strategies will be embedded into the contractor's construction and Operation Environmental Management Plan to ensure environmental duty of care is adhered to.
Natural Hazards	
Development, in accordance with current best practice: • identifies relevant natural hazards that may impact upon the project • appropriately manages risk associated with identified hazards • avoids increasing the severity of natural hazards • avoids adverse impacts from natural hazards to protect people and property and enhances the community's resilience to natural hazards, or where adverse impacts cannot be avoided, impacts are minimised, mitigated, or offset	The Facility will be subject to a Fire Management Plan and Emergency Management Plan, where both plans will be developed in consultation with relevant authorities prior to the construction and operation of the development and will detail appropriate fire risk management strategies. The management plans will be site-specific and reflective of the proposed infrastructure. The current high-level design of the facility incorporates dedicated water storage tanks for fire-fighting. The site is well elevated and not near any mapped flood areas.

Criteria	Response
• avoids directly or indirectly increasing the severity of coastal erosion either on or off the site.	The Facility will be designed to meet relevant cyclone ratings.
(2) Development, in accordance with current best practice, achieves an appropriate level of flood immunity and: • does not adversely affect existing flow rates, flood heights, or cause or contribute to other flooding impacts on upstream, downstream, and adjacent properties, or the state transport network (including potential impacts from changes to stormwater flows and local flooding).	State Planning Policy mapping and the Gladstone Region Council mapping identifies the Project site is located outside of flood hazard areas.
Climate Change	
Development: • avoids or, if avoidance cannot be achieved, minimises net increases in the emission of greenhouse gases • can adapt to current and future impacts of a changing climate. Note: projected climate change conditions include potential impacts from sea level rises, increased maximum cyclone intensity, increased rainfall intensity or increased likelihood and intensity of bushfires.	The development will unlikely emit greenhouse gases with only the release of oxygen into the atmosphere proposed from the facility itself. The only confirmed output from the Facility is limited to wastewater which will be transported offsite via trucks to a registered waste facility. The Domestic Hydrogen Facility is the first phase of Vena Energy's Hydrogen Strategy which aims to ultimately deliver green hydrogen and distribute it internationally via the Port of Gladstone. This project seeks to contribute to renewable energy generation which will form part of the growing need to create a more resilient and environmentally sustainable electricity grid which ultimately contributes to combating climate change through the decarbonisation of Australian industries.
Acid Sulfate Soils	
Development, in accordance with current best practice, is to: • avoid the disturbance of acid sulfate soils (ASS) or ensure that the disturbance of ASS avoids or minimises the mobilisation and release of contaminants.	The Project site has an average elevation 60m AHD with a gentle fall from south-west to north-west. The development footprint is contained within an area where substantial ground and civil works have been previously undertaken. Accordingly additional groundwork for the Project would generally be limited to footings, therefore the likelihood of encountering acid sulfate soils will unlikely during construction.
Water Quality	
Consistent with the Environmental Protection (Water and Wetland Biodiversity) Policy 2019, development avoids or, if avoidance cannot be achieved, minimises, mitigates or offsets adverse impacts on the environmental values and water quality	The Project site contains three stormwater detention basins from previous land use activities which will be retained. The Project will implement a development-specific stormwater management system which is likely to incorporate a range of stormwater treatment devices including gross pollutant traps

Criteria	Response
objectives of receiving waters and wetlands arising from: • altered stormwater quality and/or flow • wastewater (other than contaminated stormwater and sewage) • the creation or expansion of regulated structures or non-tidal artificial waterways • the release and mobilisation of nutrients and sediments.	(GPT's). A Site-based Stormwater Management Plan has been prepared (Appendix J) and additional stormwater design plans area provided in Appendix D demonstrating how stormwater will be managed across the Project site. Furthermore, water quality monitoring of the nearby Larcom Creek catchment will be undertaken prior to and during construction and operation to monitor the development's potential impact on the downstream waterways system and the Great Barrier Reef Marine Park.
Development encourages a precinct-wide stormwater management approach that achieves an improved water quality outcome.	
Development protects the ecological and hydraulic function of waterway corridors in and adjacent to the Gladstone SDA, with particular regard to the Great Barrier Reef World Heritage Area, fish passage and marine plants.	
Risk Management Activities	
Development is located, designed, and operated to: • minimise the health and safety risks to communities and individuals • avoid any potential adverse impacts from emissions and hazardous activities, or where adverse impacts cannot be avoided, impacts are minimised or mitigated • protect high pressure gas pipelines from encroachment that would compromise the ability of the pipelines to function safely and effectively.	The Project site is located within the Euroa Circuit Precinct of the GSDA. The Project is located, designed and operated: • in such a way which will minimise the health and safety risks to communities and individuals. The region is currently and will continue to be subject to industrial development, namely hydrogen infrastructure and other renewable energy development given the strategic vision of the GSDA is to deliver large-scale industry of national, state and regional significance and supporting development that aligns with the Queensland Government's strategic priorities for the region, particularly relating to the hydrogen industry. The Project site and proposed development aligns with the strategic vision, overall objectives and the preferred development intent in the 'High Industrial Development Precinct', therefore aligning with the development earmarked for the area. • To manage the general safety to people and infrastructure, the Project will implement a Fire Management Plan and Emergency Management Plan. Both plans will be developed once detail design and information relating to the type of technology and manufacturing requirements are available to ensure fit-for-purpose and site-specific plans are developed.

Criteria	Response
	The development is not expected to compromise the existing function and operation of the oil and gas pipelines in the area.
Activities involving the use, storage, and disposal of hazardous materials and prescribed hazardous chemicals, dangerous goods, and flammable or combustible substances are located and managed to minimise the health and safety risks to communities and individuals.	The Project will involve the handling and storage of 'dangerous goods', being compressed hydrogen gas, therefore can pose a risk from explosion if not appropriately managed. All components of the facility have been positioned on site to ensure sufficient buffers from public spaces (i.e. roads). Appropriate security fencing will be erected to ensure they are separated from high-risk areas. As outlined above, a Fire Management Plan and Emergency Management Plan will be developed to mitigate the development in circumstances of a hazard event.
Development provides adequate protection from the harmful effects of noxious and hazardous materials and chemicals manufactured or stored in bulk during natural hazard events.	
Cultural Heritage and Community	
Indigenous and non-Indigenous cultural heritage values, and community values of the premises on which the development is undertaken, and immediate surrounds, are identified and managed, consistent with current best practice. *Note: Duty of Care under Section 23 of the Aboriginal Cultural Heritage Act 2003 should be considered a minimum requirement of all development*	The Project site does not contain or is immediately adjacent to any recorded Indigenous and non-Indigenous cultural heritage values. Notwithstanding, the developer will undertake cultural heritage surveys to confirm no presence of artefacts, establish cultural heritage management agreement with the First Nations party and will require follow duty of care practices.
Development is located, designed and operated to avoid adverse impacts on cultural heritage and community values, or where adverse impacts cannot be avoided, impacts are minimised, mitigated, or offset.	
Development recognises and protects the cultural heritage values associated with: • the Euroa Homestead on Lot 200 on SP239672 • the Mount Larcombe Station Original Homestead Site on Lot 73 on SP272417 and Lot 20 on SP272417 • the Targinnie Cemetery on Lot 95 on DS287.	The development is approximately 2.5km to 5.5km from the protected sites. The works would not impact on land that is beyond the Project site.
Where development requires a buffer to mitigate the adverse amenity impacts of the development, including, but not limited to, visual and acoustic impacts, that buffer is accommodated within the development site.	The development does not require a visual or acoustic buffer to mitigate the impact on amenity. The surrounding land is generally limited to industrial land uses where majority of land is owned by EDQ for the management of land use activities in the area. Furthermore, the area is surrounded by bushland and retains natural environmental values. The Project site is approximately 2km-5km north-west of sensitive receptors and is separated by elevated landforms which creates a physical barrier, therefore the Project would

Criteria	Response
	unlikely result in notable visual impacts and acoustic impacts to and from sensitive receptors.
Environment	
Environmental values of the premises on which the development is undertaken, and immediate surrounds are identified and managed, consistent with current best practice. Development is located, designed, and operated to: • avoid adverse impacts on environmental values including matters of local, state, and national environmental significance or where adverse impacts cannot be avoided, impacts are minimised, mitigated, or offset • maintain ecological connectivity and processes • maintain the outstanding universal value (OUV) of the Great Barrier Reef World Heritage Area including the local attributes of the OUV identified in the Master plan for the Priority Port of Gladstone and Port overlay • retain, to the greatest extent possible, tidal fish habitat and marine plants.	There are limited environmental values identified on the primary premises due to substantial land clearing and changes to the ground undertaken by previous land use activities. The Project will manage the environmental values in the surrounding area by adopting the following measures: • Contaminated land investigations to understand the condition of the land, including the soil profile. • Baseline and ongoing water quality monitoring prior to and during construction to understand whether the Project will have notable impact to the surrounding waterways. It is noted that the measures will be refined once detail designs are developed. The designs will likely inform the quantitative impact whereby project-specific mitigation and management measures can be adopted and implemented. The water quality monitoring will also be a mechanism to determine whether the Project will have any impact on the outstanding universal value (OUV) of the Great Barrier Reef World Heritage Area. Vena Energy are open to working with the OCG to determine the best practice for maintaining the OUV of the Great Barrier Reef World Heritage Area. The proposed transmission extension will require some minor clearing of mapped RE vegetation that cannot be avoided. This vegetation area is also mapped as potentially containing protected flora species (*Cycas megacarpa).* However, the Ecological Assessment Report (Appendix K) has confirmed the proposed development will not cause any significant impacts to important flora or fauna species including MNES or MSES species. The protected plant was not recorded to occur in the TDA.
Any residual significant adverse impacts are offset in accordance with the relevant Commonwealth or Queensland environmental offset framework.	The development does not require the payment or execution of offsets as the Project does not impact on matters of local, state or national environmental significance.
Lighting associated with the construction and operation of development is designed to limit the impacts on aquatic wildlife, including turtles and migratory species.	The development will be operational 24 hours a day. Security lighting will be present for the safety of authorised personnel, working at night. The lighting will be designed to minimise lighting emissions outside the site. The Project would not have an impact on aquatic wildlife.
Where development requires a buffer to mitigate the impacts of the development, that buffer must be accommodated within the development site.	The general arrangement of the facility has incorporated buffers to public spaces (i.e. roads) to protect from the unlikely instance of an explosion. Refer to Appendix I.

Criteria	Response
Development avoids native vegetation clearing, or where avoidance is not reasonably possible, minimises clearing to: • conserve vegetation • avoid land degradation • avoid fragmentation and conserve connectivity.	The Ecological Assessment Report (Appendix K) The project proposes to clear a small area (approximately 0.77 ha) of mapped native vegetation (refer to section 2.6.1), which cannot be avoided as the connection to the only transmission line near the site can only be traversed through this mapped area. Within item 3 of Schedule 3 of the GSDA Development Scheme, it stipulates the 'self- assessable development requirements for the operational works for the clearing of native vegetation for a material change of use application. The application complies with these requirements, refer to section 5.4.3.
Engineering and Design Standards	
Development is to be designed and constructed in accordance with the relevant engineering and design standards (and any subsequent revisions to the relevant standards) stated in Table 7 of the Gladstone SDA Development Scheme. Alternative and innovative solutions that demonstrate compliance with the relevant standards are encouraged.	The development is currently in FEED stage and will be designed, constructed and operated to meet all relevant standards.
Other Government matters	
Development is to demonstrate consistency with any other relevant legislative requirements that may be necessary for the development to proceed and to the extent practicable, be consistent with regional plans, the State Planning Policy, the Port Overlay for the priority Port of Gladstone, and the State Development Assessment Provisions, where the State interests articulated by these instruments are likely to be affected by the development.	This SDA application has captured a review of the Queensland Government's legislative and strategic context, including a review of the relevant provisions of the State Planning Policy and the Port Overlay – Priority Port of Gladstone. The Project does not trigger requirements under the Planning Regulation 2016, therefore a formal assessment against any State Development Assessment Provisions have not been undertaken.
Development recognises and protects the long-term availability of the extractive resource and access related to the Targinnie Key Resource Area (Number 119).	The development will not compromise the availability of the extractive resource and access relating to the Targinnie Key Resource Area. The Project site is approximately 5.5km from the key resource area.
Development does not compromise existing or future port facilities and operation on Strategic Port Land.	The Facility is likely to compromise the existing or future port facilities. Hydrogen will be produced, handled and distributed domestically; therefore, the works would not require an interface with the Port of Gladstone. Phase 2 (not part of this application) will likely export hydrogen through the Port.
Energy and Water Efficiency	

Criteria	Response
Building, site design, and layout maximises energy efficiency having regard to: • building orientation and passive solar design • maximising opportunities for cross ventilation • appropriate shade treatments • landscaping treatments to the western side of the building.	The building and site design has considered the development footprint, type of infrastructure and most appropriate orientation of the development for operational requirements and the future development for the export facility, which will also be located on the subject site. Landscape treatment is not required given the surrounding industrial land uses and the industrial nature of the area.
Water efficiency is optimised with alternative water supply sources, including: • rainwater harvesting systems • recycled water source.	Large volumes of water supply are required to operate the facility and cannot be sourced from rainwater harvesting. However, the facility will feature water treatment/purification processes which any excess water outputted from the facility will be re-directed into the treatment/purification to be used again.
Where practicable, development should be consistent with the Queensland government's renewable energy policies.	The development complies with the relevant Queensland Government renewable energy policies with the facility being operated by power generated from a nearby proposed solar farm and any additional grid connected power sourced from renewable power purchasing agreements.
Visual Impacts	
Visual impacts of buildings, retaining structures, or other development are minimised through building design, landscaping, and use of appropriate materials when viewed from a publicly accessible viewpoint such as major roads and the Mount Larcom landform.	The primary premises can only be minimally viewed from one section of the Gladstone- Mount Larcom Road with the existing Fortescue building blocking the view of the proposed facility. The facility is unable to be viewed from other sections of the Gladstone-Mount Larcom Road due to the existing topography and vegetation. The site is able to be viewed from the peak of Mount Larcom, but is considered not to have significant impacts to the view of the landscape. There are no means to screen site with landscaping when viewed from the peak of Mount Larcom.
Development maintains and enhances significant vegetation where possible and provides landscaping that: • minimises the visual impacts of the development • incorporates at least 50 per cent local species • is low maintenance.	The proposed development seeks to only clear a small portion of vegetation (approximately 0.77ha) next to the existing transmission line. This clearing cannot be avoided but is not expected to create any adverse visual impacts. Opportunities to enhance significant vegetation are limited as the majority of the site is cleared and the site the facility will utilise the majority of the site including retaining areas free of vegetation to minimise fire hazards.
Reconfiguring a Lot	
	Not applicable.

5.4.3. Self Assessable development – clearing of native vegetation

Requirements	Response
Clearing is for the following vegetation: • regulated regrowth vegetation • an of concern regional ecosystem in a category B area • a least concern regional ecosystem in a category B area.	Complies. The proposed area of clearing is (b) 'Of concern regional ecosystems (refer to figure Figure 6) only. The Ecological Assessment Report (Appendix K) has determined the mapped vegetation to be cleared is actually 'least concern' RE.
• Clearing is associated with reconfiguring a lot that is authorised by an SDA approval or • clearing is associated with a material change of use that is authorised by an SDA approval and is for development listed in Schedule 1 Part 2 but • does not include development associated with animal husbandry, animal keeping or cropping.	Complies The clearing is associated with a material change of use being clearing associated with this application seeking SDA approval for 'Special industry' and 'Major electricity infrastructure' only, which is listed in Schedule 1, Part 2.

5.4.4. Properly made application details

The GSDA Development Scheme details the requirements to make a properly made application. The applicant addresses the requirements in Table 7.

Table 7: Response to Properly made application requirements

Requirements	The Project
A clear and accurate description of the land subject to the application.	The Project is proposed over the following premises: • Primary Premises – Lot 1, 2 and Lot 3 on SP245955. • Secondary Premises – Lot 6 on SP245936, Lot 7 on SP945955 and the Euroa Circuit Road area The Project site is approximately 18km west of the Gladstone CBD and has a total site area of 17.8ha. For more information, see section 2.1
The proponent's name, address and contact details.	**Proponents name:** Vena Energy Services (Australia) Pty. Ltd. **Address:** Suite 1, level 7, 200 Mary Street, Brisbane 4000. **Contact Details:** Mark Carter, Manager – Development and Stakeholders Phone: (+61) 408 883 228 Email: Mark.Carter@venaenergy.com Leanne Chan, Senior Development Planner – Development and Stakeholders Phone: (+61) 426 363 297 Email: Leanne.Chan@venaenergy.com
Identify the development for which approval is being sought	Material change of use for 'Special Industry' (Hydrogen Production Facility, including an ancillary substation) and 'Major Electricity Infrastructure' (extension to an existing 275kV Transmission Line).

Requirements	The Project
Subject to subsection (3), include the written consent of the owner of the land.	The written consent of the owners are provided in Appendix A. The landowners are: • Lot 1,2,3 and 7 on SP245955 and Lot 6 on SP245936 – Minister for Economic Development Qld • Euroa Circuit road area – Gladstone Regional Council.
State the referral triggers under the Planning Act (and referral entities if known) for the application.	The applicable referrals are listed as follows: <u>Referral to TMR for impacts to a State Controlled Road</u> Pre-lodgement engagement with the OCG confirmed referral will be undertaken with TMR for matters relating impacts to the state-controlled road network, despite the application not triggering referral to TMR under the referral triggers of the Planning Act 2016 for the following reasons: • Does not meet the threshold triggers of Schedule 20 of the Planning Regulations, not the Special Industry throughput is 6500T per year, less than the 10,000T per year threshold • The Primary Premises is not within 25m of a State Transport corridor nor 100m of an intersection of with a state-controlled Road or future corridors/roads. <u>Referral for Hazardous chemical facility</u> The proposed facility would trigger referral for Hazardous chemical facility (Sch 10, Part 7, Div 3 of the Planning Regs) as the facility exceeds the threshold of a Hazardous chemical facility. The following agencies aren't deemed to be triggered for the following reasons: • The operating facility will trigger an Environmental Authority (EA) for an Environmentally Relevant Activity (ERA 7). However, it has been agreed the applicant will lodge a separate Environmental Authority (EA) application with the DETSI and not triggered as a referral agency under this SDA application process. • The project does not trigger referral for clearing native vegetation as the native vegetation is 'Of Concern' Regional Ecosystems and the site is deemed to be within an Urban Area and an Urban Purpose is proposed. It is understood the OCG will seek comments from Gladstone Regional Council for this application.
If the application is part of a larger development, include a description of the larger. Development and details of how the application relates to the larger development	A separate larger hydrogen production facility is planned on the subject site in the future. However, this project will operate separate to the proposed 50 MW facility. The applicant will engage separately with the OCG when that project is progressed. Details provided in section 4.14.
Include a statement on whether the development has been, is or will be subject to an EIS or IAR	It has been determined through consultation with the OCG, the Project is not a co-ordinated project, therefore would not be subject to an EIS or IAR process under the *Environmental Protection Act 1994.* Confirmation the Project is not a coordinated project was issued by the OCG during the pre-lodgement meeting in August 2022, refer to section 3.3.

Requirements	The Project
be accompanied by: (i) a detailed and comprehensive planning report and (ii) if one has been prepared, an EIS or IAR relevant to the application including a Coordinator-General's report and (iii) payment of the relevant fee, if prescribed by regulation.	• This planning report aligns with the requirements outlined in schedule 1 of the GSDA Development Scheme. • The Project is not a coordinated project, therefore an EIS or IAR are not required. • The relevant fee will be issued in accordance with schedule 5 of the SDPWO Regulation (part 6, division 1 of the Act for planning development – State development areas). Schedule 5, part 2, item 4 of the SDPWO Regulation states, making the SDA application for a material change of use of premises for any other use is $51,598 where the application is lodged prior to 1 July 2021. An application fee payable during any later financial year is indexed to CPI for each financial year starting 1 July 2021. Accordingly, the OCG has confirmed the fee to be $99,572.00.

5.5. Central Queensland Regional Plan

The proposed development aligns with the regional outcomes of the Central Queensland Regional Plan as follows:

- The subject site is not located in an agricultural area, thus is not a competing land use for agricultural outcomes.
- Is located near Gladstone's urban area, thus is providing opportunities for local employment for Gladstone residents, thus contributing to Gladstone's certainty as a major regional city.
- The project capitalises on the infrastructure in existence and being planned for the Gladstone area including the Transmission infrastructure, road network, water supply infrastructure, and the Gladstone Port (for Phase 2 of the project).
- The project will assist in establishing a new hydrogen industry for Gladstone, creating additional opportunities for economic growth for the region.
- Will cause minimal impact to the environment through utilising land that has previously been disturbed and producing hydrogen in a manner that has very low emissions to the environment.

5.6. State Planning Policy

The State Planning Policy (SPP) forms part of the system to facilitate the achievement of ecological sustainability and sets out planning and development assessment policies about matters of State interest (4(a) *Planning Act 2016)*. The SPP protects and delivers the state's planning interests policy through Queensland's planning framework. There are 17 state interests captured under five broad themes. Table 8 demonstrates the Project's alignment all the relevant State interests.

Table 8: Alignment with State Interest of the SPP

Description of State interests	Relevance to the Project
Planning for the environment and heritage	

Description of State interests	Relevance to the Project
State interest – Biodiversity • Development is located in areas to avoid significant impacts on matters of national environmental significance and considers the requirements of the Environment Protection and Biodiversity Conservation Act 1999. • Ecological processes and connectivity is maintained or enhanced by avoiding fragmentation of matters of environmental significance.	The primary premises has been subject to significant land disturbance as it was previously used as a construction laydown with LNG projects in Gladstone. A desktop environmental assessment confirmed the primary premises is devoid of any significant vegetation or other habitat features, therefore impacts on ecologically important habitat areas will be minimal. Some clearing will be required to facilitate the connection from existing transmission network to the project substation, but this clearing is considered minor and previous flora assessments indicate the area to be cleared does not contain and protected plant species. The Project is synonymous with the previous, current and future industrial land uses over the Project and surrounding area, therefore existing ecological processes and connectivity will be maintained. An ecological assessment will be undertaken separately to the assessment of this SDA application to confirm the Project's impact on matters of national environmental significance and to determine whether the Project will require referral to under the EPBC Act.
State interest – cultural heritage Matters of Aboriginal cultural heritage and Torres Strait Islander cultural heritage are appropriately conserved and considered to support the requirements of the Aboriginal Cultural Heritage Act 2003 and the Torres Strait Islander Cultural Heritage Act 2003.	The applicant has commenced engagement with the First Nations Party and will endeavour to work with the party to identify any matters of Aboriginal cultural heritage over the site to ensure they are appropriately conserved and considered. Preliminary desktop assessments of the site indicate that due to significant previous land disturbance as a result of the previous land use activities; the likelihood of the site containing any significant artefacts is low. Notwithstanding the above, a duty of care will be exercised during construction and operation where all contractors will be contractually required to take all reasonable and practicable measures to ensure all activity does not harm Aboriginal cultural heritage.

Description of State interests	Relevance to the Project
State interest – water quality • Development facilitates the protection or enhancement of environmental values and the achievement of water quality objectives for Queensland waters. • Development is located, designed, constructed and operated to avoid or minimise adverse impacts on environmental values of receiving waters arising from: ○ altered stormwater quality and hydrology	The Project will manage water quality through the implementation of baseline water quality monitoring prior to construction. Ongoing water quality monitoring will be undertaken throughout the duration of construction to understand the ongoing health of the nearby waterways. The implementation of water quality monitoring will be managed with the contractor prior to construction to ensure the Project achieves Queensland's water quality objectives. The development will maintain the existing stormwater detention ponds and where required, improve these devices to ensure no adverse impacts.
Planning for safety and resilience to hazards	
State interest – natural hazards, risk and resilience Development in natural hazard areas: • avoids risks to public safety and the environment from the location of the storage of hazardous materials and the release of these materials as a result of a natural hazard	The northern portion of the project site is mapped within a bushfire hazard area. The Project will involve the production, storage and distribution of compressed hydrogen, where hydrogen is identified as a 'dangerous good'. The operation of the Project would unlikely exacerbate the site and surrounding area from bushfire hazard risk. The site will maintain an adequate buffer from area containing high bushfire hazard risk to the north. The site is not within a designated flood area. The development will be designed to withstand relevant cyclone ratings.
Planning for infrastructure	
State interests – energy and water supply Existing and approved future major electricity infrastructure locations and corridors (including easements and electricity substations), and bulk water supply infrastructure locations and corridors (including easements) are protected from development that would compromise the corridor integrity, and the efficient delivery and functioning of the infrastructure.	The Project will not compromise future infrastructure upgrades which will cater for the Euroa Circuit Precinct. Vena Energy have undertaken and will continue to undertake engagement with EDQ and other stakeholders to ensure the development acknowledges and does not compromise infrastructure upgrades in the area.

Description of State interests	Relevance to the Project
State interests – energy and water supply The development and supply of renewable energy at the regional, local and individual scale is enabled in appropriate locations.	The Project will be delivered in the GSDA – earmarked for high impact industrial development. The development will align with the Queensland Government's objective to deliver infrastructure to support the growth of the hydrogen industry in the Gladstone Region and increase economic development opportunities in the area. GAWB are currently constructing the Fitzroy to Gladstone raw water pipeline which runs next to the subject site and Powerlink are constructing an extension transmission line next to the site, which will provide power to the Project site.
State interests – infrastructure integration The outcomes of significant infrastructure plans and initiatives by all levels of government are considered and reflected, where relevant.	The subject site forms part of the Queensland Government's hydrogen industry plans. The Queensland Government is progressing to plan for new water supply and electrical infrastructure to support this emerging industry.
State interests – transport infrastructure Transport infrastructure and existing and future transport corridors are reflected and supported through compatible land uses. Development in areas surrounding state transport infrastructure, and existing and future state transport corridors, is compatible with, or support the most efficient use of, the infrastructure and transport network.	The Project is in the GSDA. The GSDA provides for industrial development of national, state and regional significant and complementary industrial, infrastructure and service uses due to the region's proximity to infrastructure corridors including Gladstone's Port infrastructure and access to the Bruce Highway and railway. The Project is compatible with the infrastructure and transport network in the region as the Hydrogen Facility will distribute hydrogen domestically via the road network.

5.7. Port Overlay – Priority Port of Gladstone

The Port Overlay establishes requirements for regulatory instruments including the SDPWO Act, where the OCG must consider the matters in the Port Overlay when making or amending the Development Scheme. In accordance with section 1.1(4) of the Development Scheme, the Development Scheme is consistent with and adequately integrates the Port Overlay for the priority Port of Gladstone August 2020 (Port Overlay). On this basis, it is determined that if the Project is consistent with the GSDA Development Scheme, it is consistent with the Port Overlay.

5.8. Local legislative context

Pursuant to section 1.3(3) of the Development Scheme, development that is not regulated by the Development Scheme may be regulated by other legislation and planning instruments including the Gladstone Regional Council Planning Scheme. Furthermore, part 1, section 1.1 of the Gladstone Regional Council Planning Scheme – Version 2, identifies the Development Scheme as a plan which overrides or otherwise affects the operation of the Gladstone Region Planning Scheme.

However, the applicant seeks to ensure the development is to be designed and constructed in accordance with the Gladstone Regional Council's relevant local government engineering and design standards (section 2.5.12, Table 7, development scheme) and will lodge any subsequent operational works applications with Council, if required.

6. Government policy context

As the global push to decarbonise strengthens to reduce the extent of climate change, Australia is responding through a range of government policies that aim to deliver Australia's emissions reduction targets. This includes developing a renewable hydrogen industry to assist with decarbonising our economy and potentially enable export of clean energy to overseas partners to contribute to international decarbonisation. The Project aligns with key Commonwealth, State and Local Government policies/initiatives.

6.1. Commonwealth Policy/Initiatives

There are several Commonwealth Policies/initiatives that are relevant to the Project and outlined below.

6.1.1. National Hydrogen Study

The Australian Government has set emissions reduction targets of 43% by 2030 and net zero by 2050. To achieve this, developing a renewable hydrogen industry will assist in decarbonising the following:

- A clean fuel for domestic industrial process heat and green steel production.
- A form of energy storage in the domestic electricity grid.
- A clean fuel for transport for domestic transport including trucks heavy vehicles and machinery, marine vessels.
- A marine fuel replacement (e.g. ammonia or methanol) for the shipping industry.
- As a key ingredient in the production of sustainable aviation fuels.
- A key ingredient in production of green ammonia for agriculture and food sectors.

To realise these opportunities, the Commonwealth Government developed the National Hydrogen Strategy (NHS) in 2019 which set a vision for clean, innovative, safe and hydrogen industry that benefits all Australians, with the aim to position Australia as a major global player. Three years on, the aim has not changed, but the path to achieve this, needs to adapt to respond to the evolving hydrogen landscape, therefore a National Hydrogen Strategy Review is underway with a consultation paper being released for comment in July 2023. This review asked for comment on a range of matters which are emerging as the industry grows.

The Euroa Hydrogen Project is considered to align with NHS including the discussion points raised in the review as it seeks to establish robust project that proves hydrogen can be produced safely and efficiently and set up flexible distribution arrangements so that multiple industries can source the clean hydrogen from the Project.

6.1.2. Hydrogen hubs grant funding

The Commonwealth Government issued grant funding for projects in declared hydrogen hub locations which included Gladstone. Vena Energy was successful in securing funding under this grant in 2023.

6.2. Queensland Government Policy/Initiatives

The Queensland Government has the following relevant policies/initiatives including:

- The Queensland Energy and Jobs Plan.
- Queensland Hydrogen Industry Strategy 2019-2024.

6.2.1. Queensland Energy Road Map

The Queensland Government released the 'Queensland Energy RoadMap' (The Plan) in October 2025. with the goal of achieving affordable, reliable and sustainable energy for all Queenslanders. The Roadmap highlights Gladstone as critical

for electricity and economy and has identified Powerlink's Grid reinforcement project as key to the growth and prosperity of the region to support existing and future industries including potential for many largescale wind, solar and battery project in the wider Central Queensland region. The Euroa H2 project aligns with the intent of the Roadmap being a project undertaken through private investment and aims to support emerging new fuels to support transport including Sustainable Aviation Fuels.

6.3. Gladstone Regional Councils Economic Transition Roadmap

The Gladstone Region Economic Transition Roadmap (Roadmap) is a 10-year Roadmap from 2022 to 2032. The Roadmap was published in November 2022 and provides support and guidance for the Gladstone region to become a renewable energy superpower and position the Gladstone community to respond to a once-in-a-generation change to the energy sector. The recent research identified the change of pace from coal-fired electricity generation will accelerate with a prediction that the NEM could have periods where the entire electricity demand is met through renewable energy as early as 2025.

Key themes identified in the Roadmap include:

- Energy security and affordability.
- Establishing a viable hydrogen industry.
- Diversifying the economy.
- Supporting and developing the local workforce.
- Capturing the community benefits.
- Protecting land and water resources.

The Project aligns with the key themes identified in the roadmap as the Project will introduce new hydrogen technology that will provide opportunities for the local workforce to establish new skills to construct and operate hydrogen facilities. The development aligns with the Gladstone Region Economic Transition Roadmap as the Project will contribute to Gladstone and Queensland combatting climate change and energy resilience.

7. Conclusion

This planning report, prepared by Vena Energy, supports an SDA application for the Phase 1 Euroa Hydrogen Project, in accordance section 84D of the SDPWO Act for the following:

> *Development Permit for a Material Change of Use for Special Industry' (Hydrogen Production Facility, including an ancillary substation) and Major Electricity Infrastructure (extension to an existing 275kV Transmission Line).*

The Primary premises for the Project is Lot 1, 2 and 3 Euroa Circuit, Aldoga, more formally described as Lot 1, 2 and 3 on SP245955. The proposed project is consistent with the GSDA Development Scheme and aligns with the legislative and strategic context in Queensland, including the Queensland Government's 'Queensland Energy and Jobs Plan', 'Queensland Hydrogen Industry Strategy' and Gladstone Regional Council's 'Gladstone Region Economic Transition Roadmap'.

The assessment concludes the Project is consistent with the vision, overall outcomes and the SDA wide assessment criteria.

A separate EA application for ERA for chemical manufacturing (ERA7) will be submitted separately to the lodgement of this SDA application.

In conclusion, it is recommended that the SDA application for the Euroa Hydrogen Project's Domestic Facility (Phase 1) is approved, subject to reasonable and relevant conditions.

Appendix A Owner's Consent

Economic Development Queensland
Creating and investing in sustainable places for Queensland to prosper

Our reference: OUT24/4360

12 September 2024

Mark Carter
Senior Manager Development & Stakeholders
Vena Energy Services (Australia) Pty Ltd.
Suite 1, Level 7,
200 Mary Street Brisbane QLD 4000

Emailed to – mark.carter@venaenergy.com

Dear Mark,

RE: Request for Owners Consent to Lodge Application over Lots 1, 2, 3 and 7 on SP2245955, and Lot 6 on SP245936, Aldoga Industrial Precinct, Gladstone State Development Area land owned by the Minister for Economic Development Queensland.

I, John White, Executive Director, Industrial Development, Economic Development Queensland as delegate of the Minister for Economic Development Queensland, hereby consent to the lodgment of applications or permits to the relevant administering authority by the following entity, HIA2 Pty Ltd / Vena Energy Services (Australia) Pty Ltd (the Applicants), or their agents and / or nominees required for the application which relates to the primary Project premises being located on Lots 1, 2, 3 on SP2245955 and secondary Project premises; electricity infrastructure connection and stormwater drainage, being located on Lot 6 on SP245936 and Lot 7 on SP224595, in the Gladstone Regional Council local government area within the Gladstone State Development Area.

This owners consent is provided on the basis that:

- This consent is not an agreement by, or confirmation from, the Minister for Economic Development Queensland, that the Applicants will be given rights to occupy or use any part of the land for the proposed development.
- It does not remove the statutory obligation of the Applicants to obtain all necessary cultural, environmental and development approvals from the administering authority prior to the commencement of any construction.
- It will not prejudice Economic Development Queensland from undertaking day to day operations or further detailed reviews of the proposed development and its impacts on land controlled by the Minister of Economic Development Queensland.
- It is only related to the Applicants lodging an application with the relevant approving authority.
- It does not allow the Applicants to act on behalf of the Minister of Economic Development Queensland. The Applicants are not the Minister for Economic Development Queensland's agent.
- It has an expiry date of twelve (12) months from the date of this letter

If you require any further information, please contact Mr Matt Morris, Development Manager, Economic Development Queensland by telephone on 0472 866 464 or by email matthew.morris@edq.qld.gov.au, who will be pleased to assist.

Yours sincerely

John White
Executive Director – Industrial Development
Economic Development Queensland

GLADSTONE
REGIONAL COUNCIL

7 June 2024

Attention: Mr. Mark Carter – Senior Manager Development & Stakeholders
Vena Energy
Suite 1, Level 7
200 Mary Street
BRISBANE QLD 4000

Dear Sir,

RE: REQUEST FOR OWNERS CONSENT – FOR INFRASTRUCTURE CROSSING EUROA CIRCUIT, ALDOGA

This is to confirm that Council has been engaged by Vena Energy for the proposed Hydrogen Production Facility at Euroa Circuit Aldoga.

Vena Energy are seeking to lodge a Development Application pursuant to the *State Development and Public Works Organisation Act 1971* for the State Development Application for works in the Gladstone State Development Area. As a result of pre-lodgement discussions with the Office of the Coordinator General, it was identified that owners consent is required for any associated infrastructure which crosses a road.

Two crossing locations are proposed for this development which cross Euroa Circuit. These include a high voltage transmission line Crossing 1 Location and a lower voltage line proposed at Crossing 2 Location as marked in the Annexure A herein. A Crossing Deed will be entered into with Vena Energy and a Works on Road Permit will be applied for the construction phase of the project.

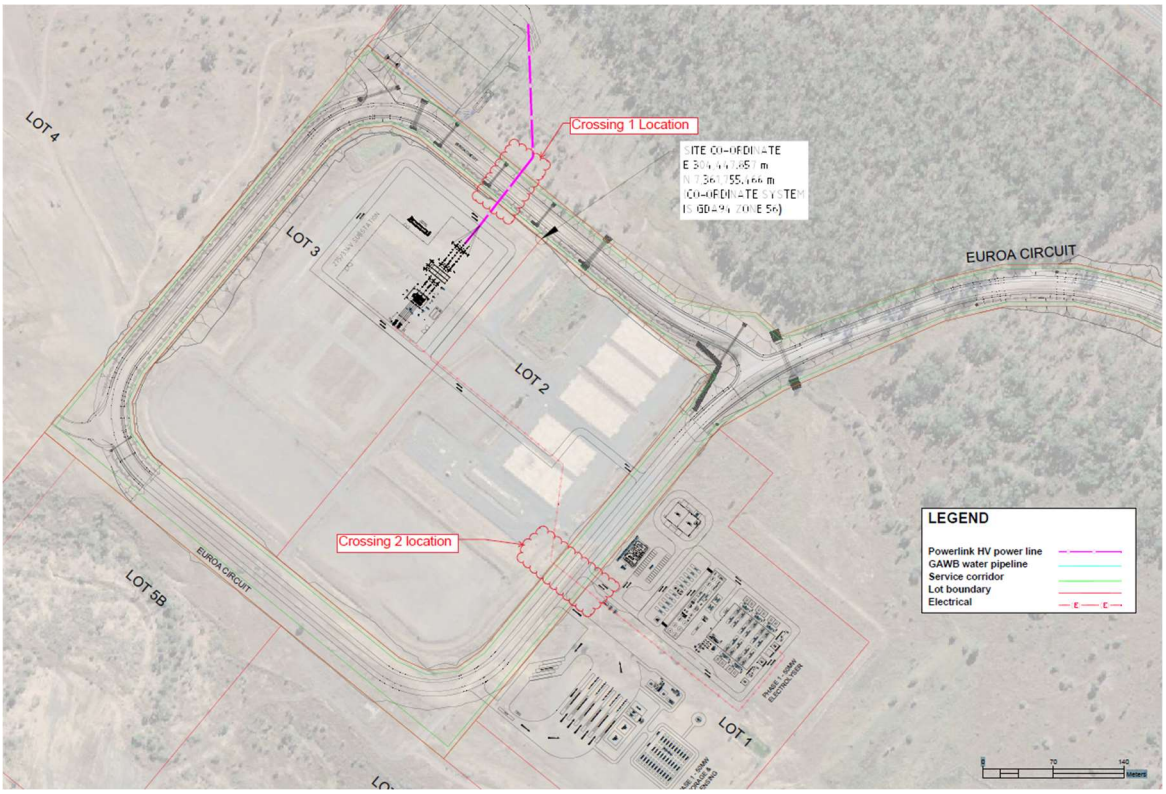
Gladstone Regional Council as owner and manager of the road and road reserve areas, is to consent to the infrastructure crossing the road for this project. Council provides the consent herein for the infrastructure to cross the road in accordance with Annexure A and the Crossing Deed.

Should you have any questions, please do not hesitate to contact the undersigned.

Yours sincerely

MARK FRANCIS
GENERAL MANAGER ASSETS & ENVIRONMENT
Encl.

Annexure A – proposed crossing locations of Euroa Circuit



Mark Carter

From: Janine York <Janine.York@resources.qld.gov.au>
Sent: Monday, 26 August 2024 12:20 PM
To: Leanne Chan
Subject: [Ext] FW: Request for Consent - Hydrogen Production Facility - Euroa Circuit
Attachments: Request for Consent to Department of Resources.pdf

OFFICIAL

Hi Leanne,

Euroa Circuit is a dedicated road that is open for public use. Although the road is owned by the State, the control, construction, maintenance etc. is undertaken by the Department of Transport and Main Roads (TMR) under the *Transport Infrastructure Act 1994* for State controlled roads or the relevant local government under the *Local Government Act 2009* (LGA) for other roads.

Owners Consent is not required in this instance as an authority has been provided by Council as the local road manager for the activity. The applicant must have this authority in place before being able to occupy the road area. Council in their letter dated 7 June 2024 advises their consent to the infrastructure crossing the road for the project in accordance with the Crossing Deed being entered into.

Regards

Queensland Government

Janine York
Senior Land Officer
Lands | Land and Surveying Services
Department of Resources

P: 07 4624 1500
E: lasst3@resources.qld.gov.au
A: 25 Quintin Street, Roma Qld 4455 | PO Box 350, Roma Qld 4455
W: www.resources.qld.gov.au

From: Leanne Chan <leanne.chan@venaenergy.com>
Sent: Monday, August 12, 2024 9:48 AM
To: SLAM Lodgement
Cc: Mark Carter
Subject: Request for Consent - Hydrogen Production Facility - Euroa Circuit

Good Morning,

Vena Energy Services (Australia) Pty Ltd (Vena Energy, requests written consent from the Department of Resources (DoR) to enable Vena Energy to lodge a development application pursuant to the SDPWO Act for a

proposed Hydrogen Production Facility which includes infrastructure within a road at Euroa Circuit, Aldoga. The Project is located at Euroa Circuit, Aldoga in the Gladstone region, more properly described as lots 1, 2 and 3 on SP245955, Lot 6 onSP245936 and road (Euroa Circuit). The site is in the Gladstone State Development Area (GSDA) and is designated for High Impact Industry uses.

To support this request, the following documents are attached:

- Letter request
- Attachment A: Forms Part A and B
- Attachment B: General Arrangement Plan
- Attachment C: Example of road crossing at Vena Energy's Tailem Bend 2 Project
- Attachment D: Consent granted by Gladstone Regional Council
- Attachment E: Draft Crossing Deed

If you have any questions, please don't hesitate to contact me.

Kind regards,
Leanne

Leanne Chan
Senior Development Planner, Development & Stakeholders
M +61 426 3632 97 | E Leanne.Chan@venaenergy.com

VENA ENERGY

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www.venaenergy.com.au | LinkedIn | Facebook | Instagram | Youtube
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Appendix B Searches/Site Information

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**51033407**	**Search Date:**	27/03/2023 15:10
Date Title Created:	18/04/2016	**Request No:**	43969545
Previous Title:	50861394		

ESTATE AND LAND

Estate in Fee Simple

LOT 1 SURVEY PLAN 245955
Local Government: GLADSTONE

REGISTERED OWNER

Dealing No: 717181718 11/04/2016

MINISTER FOR ECONOMIC DEVELOPMENT QUEENSLAND

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 40042567 (LOT 12 ON SP162130)

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Corrections have occurred - Refer to Historical Search

** End of Current Title Search **

COPYRIGHT QUEENSLAND TITLES REGISTRY PTY LTD [2023]
Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**51033408**	**Search Date:**	27/03/2023 15:10
Date Title Created:	18/04/2016	**Request No:**	43969546
Previous Title:	50861394		

ESTATE AND LAND

Estate in Fee Simple

LOT 2 SURVEY PLAN 245955
Local Government: GLADSTONE

REGISTERED OWNER

Dealing No: 717181718 11/04/2016

MINISTER FOR ECONOMIC DEVELOPMENT QUEENSLAND

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 40042567 (LOT 12 ON SP162130)

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Corrections have occurred - Refer to Historical Search

** End of Current Title Search **

COPYRIGHT QUEENSLAND TITLES REGISTRY PTY LTD [2023]
Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**51033409**	**Search Date:**	27/03/2023 15:10
Date Title Created:	18/04/2016	**Request No:**	43969542
Previous Title:	50861394		

ESTATE AND LAND

Estate in Fee Simple

LOT 3 SURVEY PLAN 245955
Local Government: GLADSTONE

REGISTERED OWNER

Dealing No: 717181718 11/04/2016

MINISTER FOR ECONOMIC DEVELOPMENT QUEENSLAND

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 40042567 (LOT 12 ON SP162130)

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Corrections have occurred - Refer to Historical Search

** End of Current Title Search **

COPYRIGHT QUEENSLAND TITLES REGISTRY PTY LTD [2023]
Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**50861393**	**Search Date:**	14/11/2023 14:21
Date Title Created:	21/10/2011	**Request No:**	46285029
Previous Title:	50383837, 50501837		

ESTATE AND LAND

Estate in Fee Simple

LOT 6 SURVEY PLAN 245936
Local Government: GLADSTONE

REGISTERED OWNER

Dealing No: 714121390 20/10/2011

MINISTER FOR ECONOMIC DEVELOPMENT QUEENSLAND

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
   Deed of Grant No. 30181145 (POR 26)
   Deed of Grant No. 40012840 (Lot 1 on RP 619803)
2. EASEMENT No 714121392 20/10/2011 at 12:22
   benefiting the land over
   EASEMENT A ON SP245936.
3. EASEMENT IN GROSS No 722789690 04/10/2023 at 14:39
   burdening the land
   QUEENSLAND ELECTRICITY TRANSMISSION CORPORATION LIMITED
   A.C.N. 078 849 233
   over
   EASEMENT C ON SP338515

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Corrections have occurred - Refer to Historical Search

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

COPYRIGHT QUEENSLAND TITLES REGISTRY PTY LTD [2023]
Requested by: D-ENQ CITEC CONFIRM

Current Title Search

Queensland Titles Registry Pty Ltd
ABN 23 648 568 101

Title Reference:	**51033411**	**Search Date:**	11/09/2024 11:18
Date Title Created:	18/04/2016	**Request No:**	49300231
Previous Title:	50861394		

ESTATE AND LAND

Estate in Fee Simple

LOT 7 SURVEY PLAN 245955
Local Government: GLADSTONE

REGISTERED OWNER

Dealing No: 717181718 11/04/2016

MINISTER FOR ECONOMIC DEVELOPMENT QUEENSLAND

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
   Deed of Grant No. 30176204 (POR 3)
   Deed of Grant No. 30176205 (POR 4)
   Deed of Grant No. 30181145 (POR 26)
   Deed of Grant No. 40012840 (Lot 1 on RP 619803)
2. EASEMENT No 717181725 11/04/2016 at 15:55
   benefiting the land over
   EASEMENT C ON SP245955
3. EASEMENT IN GROSS No 721886724 05/08/2022 at 16:06
   burdening the land
   GLADSTONE AREA WATER BOARD
   over
   EASEMENT A ON SP328351

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

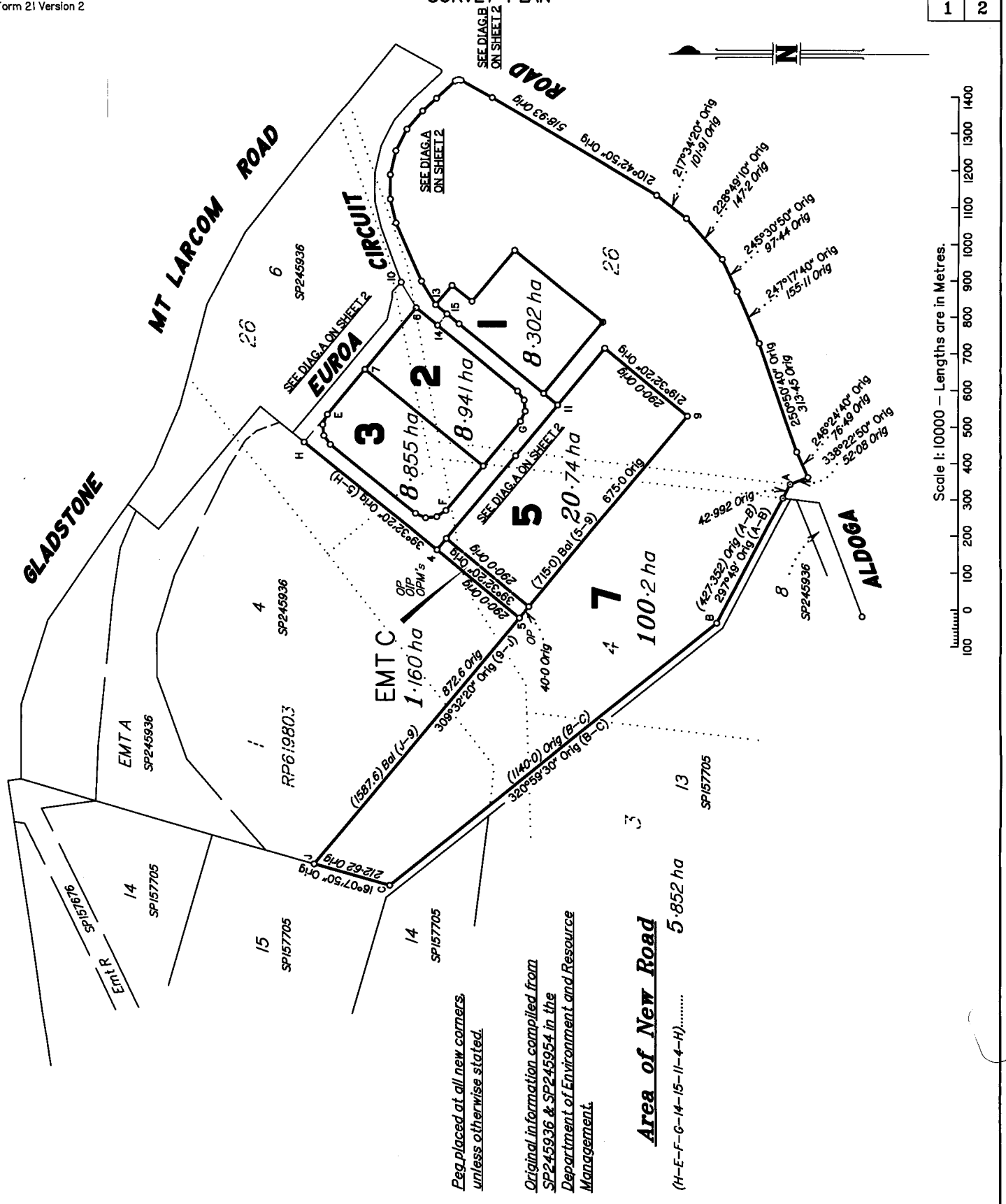
** End of Current Title Search **

COPYRIGHT QUEENSLAND TITLES REGISTRY PTY LTD [2024]
Requested by: D-ENQ CITEC CONFIRM

Land Title Act 1994; Land Act 1994
Form 21 Version 2

SURVEY PLAN

Sheet 1 of 2



I, David William FREDRIKSEN hereby certify that the land comprised in this plan was surveyed by Rientz Russell Inglis (Surveying Graduate), for whose work I accept responsibility and that the plan is accurate, that the said survey was performed in accordance with the Survey and Mapping Infrastructure Act 2003 and Surveyors Act 2003 and associated Regulations and Standards and that the said survey was completed on 6/07/2011.

D. W. Fredriksen Cadastral Surveyor

Date 7/7/2011

0 50 mm 100 mm 150 mm

State copyright reserved.

Plan of Lots 1–3, 5 & 7 and Easement C in Lot 5

Cancelling Lot 7 on SP245936.

PARISH: MT LARCOM COUNTY: Clinton

Meridian: MGA Zone 56 vide SP157676 F/N's: No

Scale: 1:10000

Format: STANDARD

SP245955

Plan Status:

Copyright protects the plan/s being ordered by you. Unauthorised reproduction or amendments are not permitted.

WARNING : Folded or Mutilated Plans will not be accepted.
Plans may be rolled.
Information may not be placed in the outer margins.

717181718

$808.00
11/04/2016 15:51

BE 400 NT

Registered

5. Lodged by
Allens Beo-24A

(Include address, phone number, reference, and Lodger Code)

1. Certificate of Registered Owners or Lessees.

I/~~We~~ Minister for Economic Development Queensland

(Names in full)

*as Registered Owners of this land agree to this plan and dedicate the Public Use Land as shown hereon in accordance with Section 50 of the Land Title Act 1994.

~~*as Lessees of this land agree to this plan~~.

~~Signature of *Registered Owners *Lessees~~

This plan is exempt from local government approval under schedules 19 and 26 of the Sustainable Planning Regulation 2009. As outlined in part 21, of the Land Title Practice Manual

Name: Jason Camden Date: 4-4-16

Signature: Jason Camden

Being the authorised delegate for the Minister for Economic Development Queensland.

* Rule out whichever is inapplicable

2. ~~Local Government Approval:~~

* THE Minister for Economic Development Queensland hereby approves this plan ~~in accordance with the:~~

%

Subject to schedule 4; table 3 item 2(f) of the Sustainable Planning Regulations 2009

Name: Jason Camden. Date 4-4-16

Signature: Jason Camden.

Being the authorised delegate for the Minister for Economic Development Queensland.

Dated this ..... day of .....

..... #

..... #

* Insert the name of the Local Government. % Insert Integrated Planning Act 1997 or Local Government (Planning & Environment) Act 1990
# Insert designation of signatory or delegation

3. Plans with Community Management Statement:
CMS Number:
Name:

4. References:
Dept File:
Local Govt:
Surveyor: 4068

6.

Existing		Created				
Title Reference	Description	New Lots	Road	Emts	Cov.	Profit a prendre
50861394	Lot 7 on SP245936	1–3, 5 & 7	New Rd	C	—	—

EXISTING LEASE ALLOCATIONS

	Dealing Number	Lots to be Encumbered
A/SP245954		2, 3
B/SP245954		5

EXISTING ADMINISTRATIVE ADVICE ALLOCATIONS

Administrative Advice	Lots to be Encumbered
710683234	1– 3, 5, 7

Lots	Orig
7	Por 3, Por 4, Por 26 & Lot 1 on RP619803
2, 3, 5	Por 4 & Por 26
1	Por 26

7. Portion Allocation:

8. Map Reference:
9150–34234

9. Locality:
ALDOGA

10. Local Government:
GLADSTONE REGIONAL COUNCIL

11. Passed & Endorsed: 16/8/11 D.G.

By: D. W. FREDRIKSEN
Date: 7/7/2011
Signed: D. W. Fredriksen
Designation: CADASTRAL SURVEYOR

12. Building Format Plans only.
I certify that:
* As far as it is practical to determine, no part of the building shown on this plan encroaches onto adjoining lots or road;
* Part of the building shown on this plan encroaches onto adjoining * lots and road

Cadastral Surveyor/Director* Date
*delete words not required

13. Lodgement Fees:

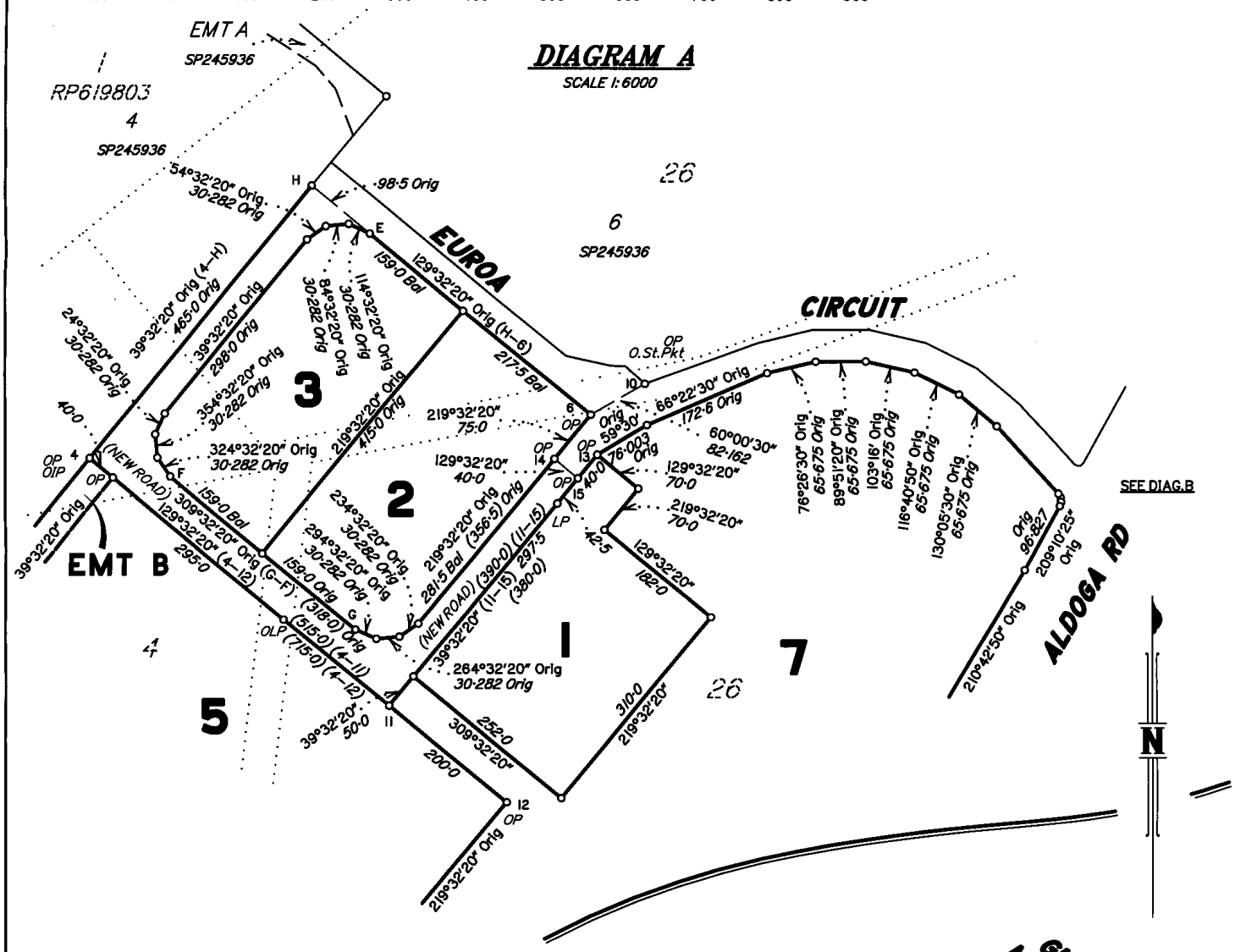
Survey Deposit	$
Lodgement	$
New Titles	$
Photocopy	$
Postage	$
TOTAL	$

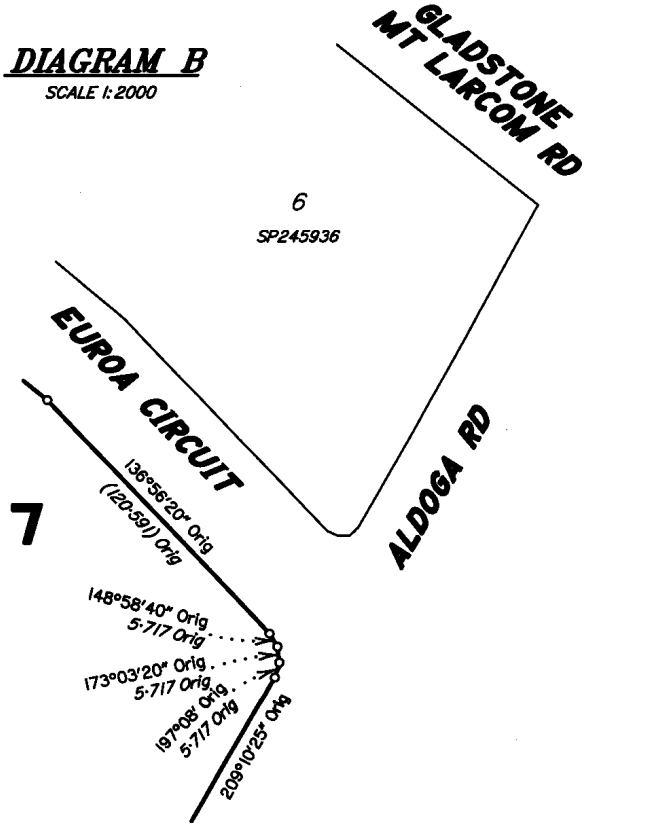
14. Insert Plan Number SP245955

Land Title Act 1994 ; Land Act 1994
Form 21A Version 1

ADDITIONAL SHEET

Scale 1: 6000 — Lengths are in Metres.





REFERENCE MARKS

STN	TO	ORIGIN	BEARING	DIST
4	OIP	SP245936	286°13'	49·237
10	O.St.Pkt	SP245936	225°02'	31·619

PERMANENT MARKS

PM	ORIGIN	BEARING	DIST	NO	TYPE
4—OPM (New Conn)	SP157705	331°40'10"	1326·25	95195	Standard
4—OPM (New Conn)	SP157676	6°11'20"	918·85	129062	Star Picket

Scale 1: 2000 — Lengths are in Metres.

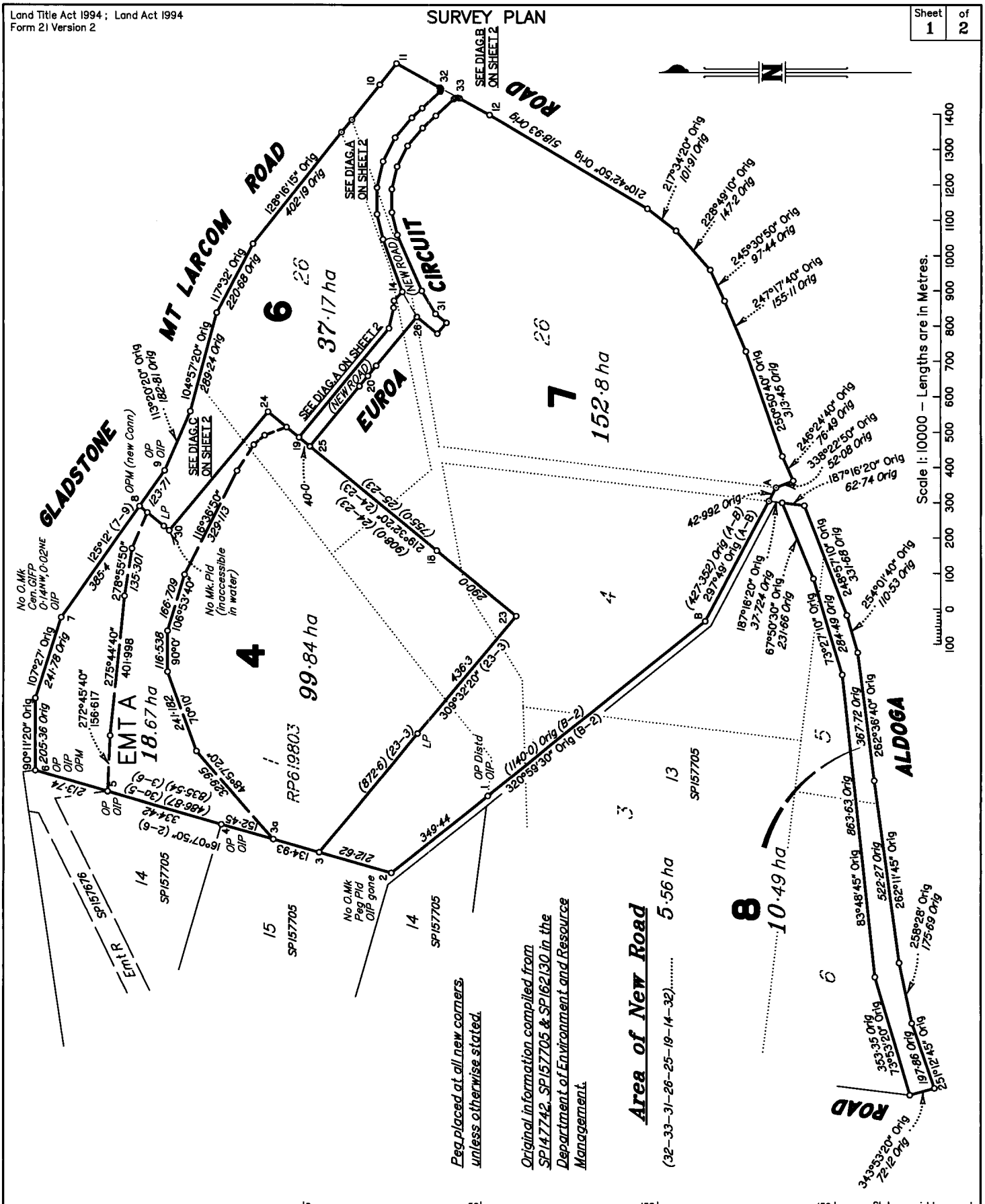
State copyright reserved.

Insert Plan Number SP245955

Land Title Act 1994 ; Land Act 1994
Form 21 Version 2

SURVEY PLAN

Sheet 1 of 2



I, David William FREDRIKSEN hereby certify that the land comprised in this plan was surveyed by Rientz Russell Inglis (Surveying Graduate), for whose work I accept responsibility and that the plan is accurate, that the said survey was performed in accordance with the Survey and Mapping Infrastructure Act 2003 and Surveyors Act 2003 and associated Regulations and Standards and that the said survey was completed on 1/07/2011.

D.W. Fredriksen ..... Cadastral Surveyor

Date 7/7/2011

Plan of Lots 4 and Lots 6–8 and Easement A in Lot 4

Cancelling Lot 12 on SP162130 and Lot 9 on SP147742.

PARISH: MT LARCOM COUNTY: Clinton

Meridian: MGA Zone 56 vide SP157676 F/N's: No

Scale: 1:10000

Format: STANDARD

SP245936

Plan Status:

State copyright reserved.

Copyright protects the plan/s being ordered by you. Unauthorised reproduction or amendments are not permitted.

714121390

$609.10
20/10/2011 12:21

BE 400 NT

WARNING : Folded or Mutilated Plans will not be accepted.
Plans may be rolled.
Information may not be placed in the outer margins.

Registered

5. Lodged by
PROPERTY SERVICES GROUP
PO BOX 15517, CITY EAST, QLD, 4002
PH: 32244141
LODGER CODE : 2068
(Include address, phone number, reference, and Lodger Code)

1. Certificate of Registered Owners or Lessees.

I/We THE MINISTER FOR INDUSTRIAL DEVELOPMENT OF QUEENSLAND

(Names in full)

* as Registered Owners of this land agree to this plan and dedicate the Public Use Land as shown herein in accordance with Section 50 of the Land Title Act 1994.

* as Lessees of this land agree to this plan.

THE MINISTER FOR INDUSTRIAL DEVELOPMENT OF QUEENSLAND
The Official Seal

Signature of *Registered Owners *Lessees

JOHN WHITE
ACTING EXECUTIVE DIRECTOR, PROPERTY SERVICES GROUP AS DELEGATE OF THE MINISTER FOR INDUSTRIAL DEVELOPMENT OF QUEENSLAND

* Rule out whichever is inapplicable

6.

Existing		Created				
Title Reference	Description	New Lots	Road	Emts	Cov.	Profit a prendre
50501837	Lot 12 on SP162130	4, 6, 7	New Rd	A	—	—
50383837	Lot 9 on SP147742	6, 7, 8	New Rd	—	—	—

EXISTING ADMINISTRATIVE ADVICE ALLOCATIONS

Administrative Advice	Lots to be Encumbered
710683234	4, 6, 7

Lots	Orig
4	Por4, Por26, Lot 1 on RP619803.
6	Por26, Lot 1 on RP619803.
7	Por3, Por4, Por26, Lot 1 on RP619803.
8	Por4, Por5, Por6.

2. Local Government Approval.

* THE MINISTER FOR INDUSTRIAL DEVELOPMENT OF QUEENSLAND hereby approves this plan ~~in accordance with the~~:
% SUBJECT TO SCHEDULE 4, TABLE 3, ITEM 2(f) OF THE SUSTAINABLE PLANNING REGULATION 2009

Dated this ..... day of .....

..... #

..... #

* Insert the name of the Local Government.
# Insert designation of signatory or delegation
% Insert Integrated Planning Act 1997 or Local Government (Planning & Environment) Act 1990

7. Portion Allocation :

8. Map Reference :
9150–34234

9. Locality :
ALDOGA

10. Local Government :
GLADSTONE REGIONAL COUNCIL

11. Passed & Endorsed : 16/8/11 D.W.F.
By : D. W. Fredriksen
Date : 7/7/2011
Signed : D.W. Fredriksen
Designation : CADASTRAL SURVEYOR

12. Building Format Plans only.
I certify that :
* As far as it is practical to determine, no part of the building shown on this plan encroaches onto adjoining lots or road;
* Part of the building shown on this plan encroaches onto adjoining * lots and road

....
Cadastral Surveyor/Director* Date
*delete words not required

13. Lodgment Fees :

Survey Deposit	$
Lodgment	$
New Titles	$
Photocopy	$
Postage	$
TOTAL	$

3. Plans with Community Management Statement :
CMS Number :
Name :

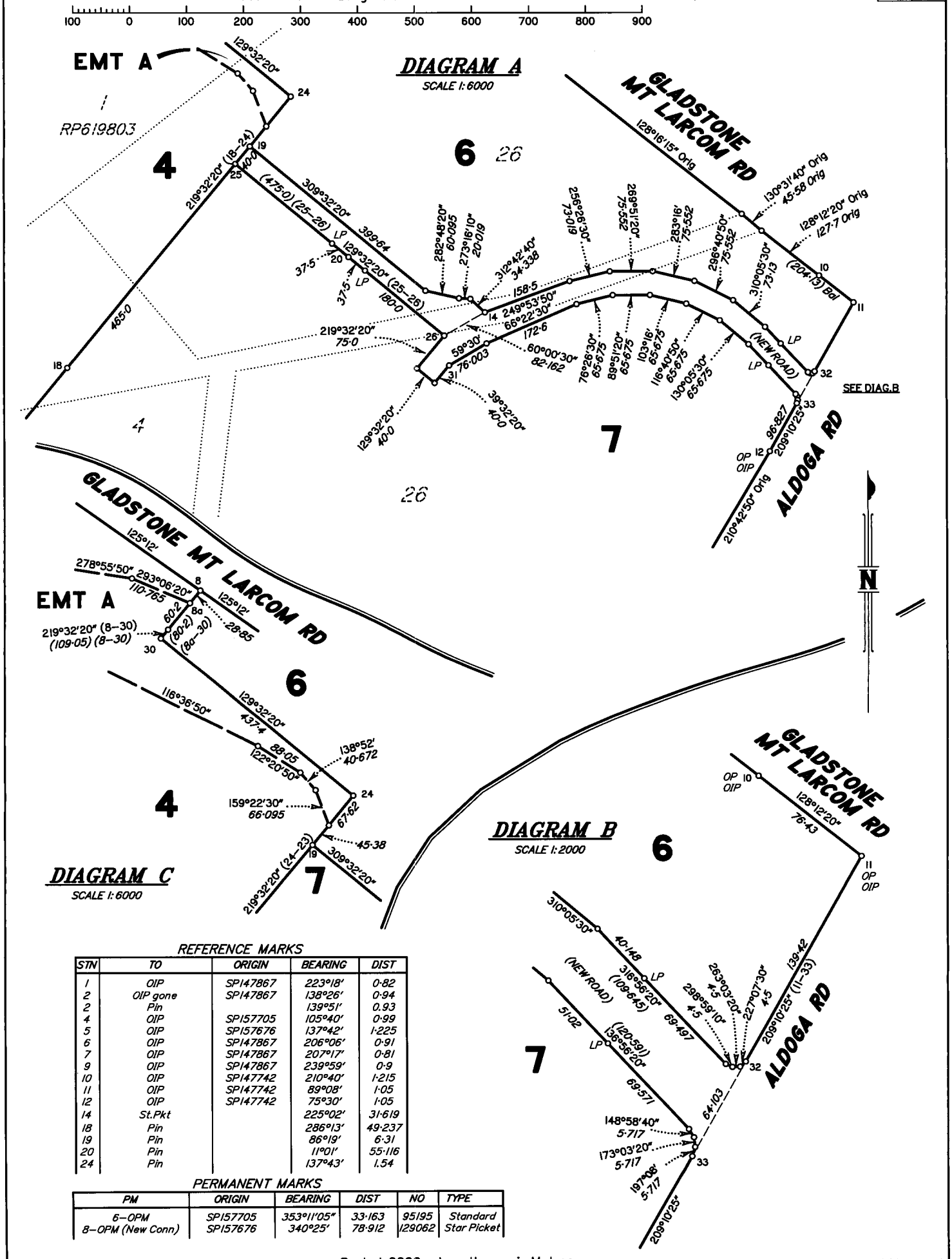
4. References :
Dept File :
Local Govt :
Surveyor : 4068

14. Insert Plan Number SP245936

Land Title Act 1994 ; Land Act 1994
Form 21A Version 1

ADDITIONAL SHEET

Scale 1: 6000 — Lengths are in Metres.



REFERENCE MARKS

STN	TO	ORIGIN	BEARING	DIST
1	OIP	SP147867	223°18'	0·82
2	OIP gone	SP147867	138°26'	0·94
2	Pin		139°51'	0.93
4	OIP	SP157705	105°40'	0·99
5	OIP	SP157676	137°42'	1·225
6	OIP	SP147867	206°06'	0·91
7	OIP	SP147867	207°17'	0·81
9	OIP	SP147867	239°59'	0·9
10	OIP	SP147742	210°40'	1·215
11	OIP	SP147742	89°08'	1·05
12	OIP	SP147742	75°30'	1·05
14	St.Pkt		225°02'	31·619
18	Pin		286°13'	49·237
19	Pin		86°19'	6·31
20	Pin		11°01'	55·116
24	Pin		137°43'	1.54

PERMANENT MARKS

PM	ORIGIN	BEARING	DIST	NO	TYPE
6—OPM	SP157705	353°11'05"	33·163	95195	Standard
8—OPM (New Conn)	SP157676	340°25'	78·912	129062	Star Picket

Scale 1: 2000 — Lengths are in Metres.

State copyright reserved.

Insert Plan Number SP245936

Land Title Act 1994, Land Act 1994
Form 21 Version 4

SURVEY PLAN

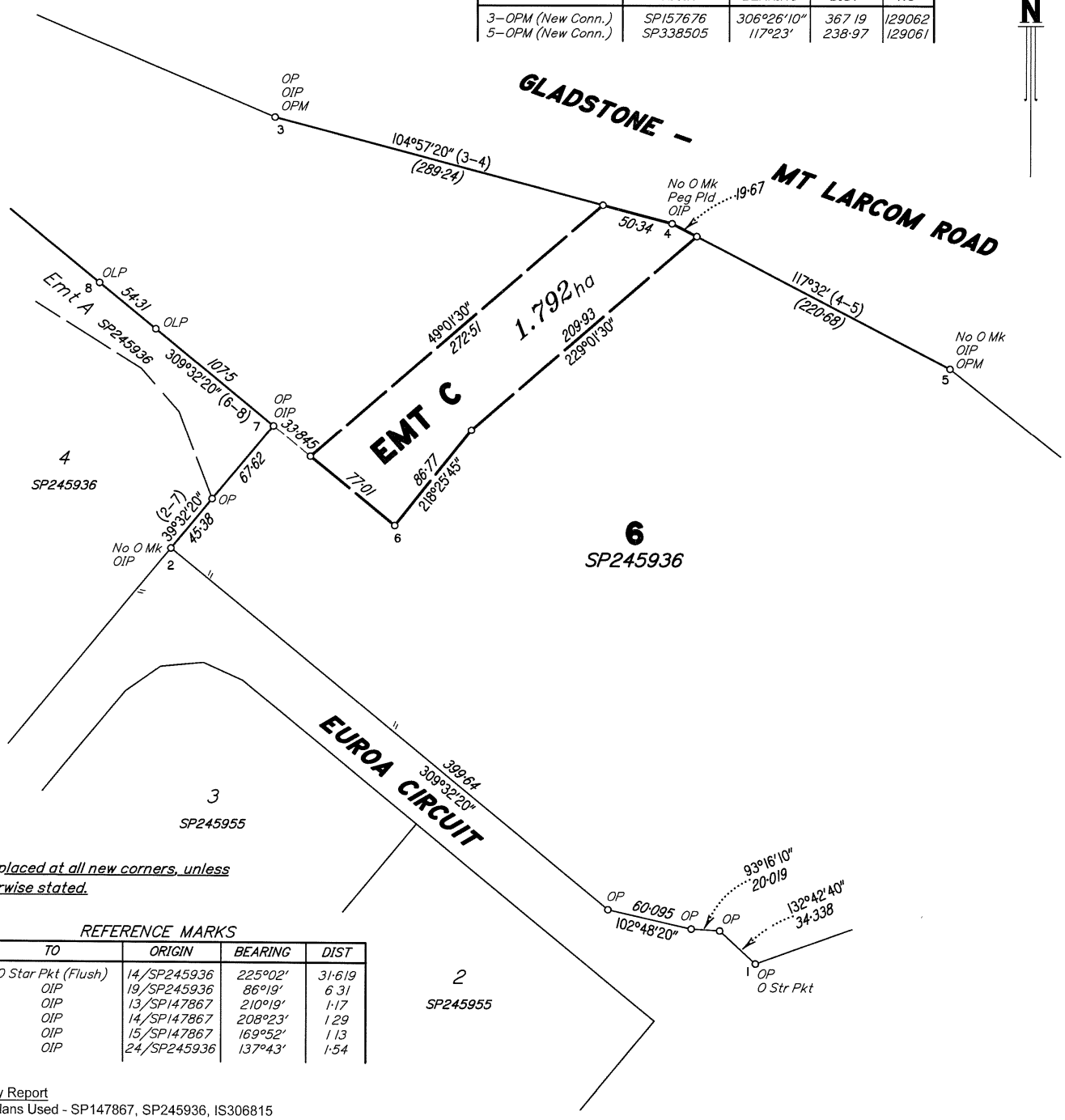
Sheet 1 of 2

M.G.A. COORDINATES GDA–2020

PM	EASTING	NORTHING	ZONE	P.U.	LINEAGE	METHOD	REMARKS
129061	305 035 717	7 361 970·590	56	0·025	Datum		SCDB
129062	304 052·948	7 362 475·275	56	0·017	Datum		SCDB

PERMANENT MARKS

PM	ORIGIN	BEARING	DIST	NO
3–OPM (New Conn.)	SP157676	306°26'10"	367 19	129062
5–OPM (New Conn.)	SP338505	117°23'	238·97	129061



Peg placed at all new corners, unless otherwise stated.

REFERENCE MARKS

STN	TO	ORIGIN	BEARING	DIST
1	O Star Pkt (Flush)	14/SP245936	225°02'	31·619
2	OIP	19/SP245936	86°19'	6 31
3	OIP	13/SP147867	210°19'	1·17
4	OIP	14/SP147867	208°23'	1 29
5	OIP	15/SP147867	169°52'	1 13
7	OIP	24/SP245936	137°43'	1·54

Survey Report
- Plans Used - SP147867, SP245936, IS306815
- Bearings and distances generally agree with original surveys

Scale 1: 3000 – Lengths are in Metres

50 0 50 100 150 200 250 300 350 400

I, Alan Scott Maclean hereby certify that the land comprised in this plan was surveyed by Scott Emslie Macklyn (Surveying Graduate) for whose work I accept responsibility and that the plan is accurate, that the said survey was performed in accordance with the Survey and Mapping Infrastructure Act 2003 and Surveyors Act 2003 and associated Regulations and Standards and that the said survey was completed on 15/02/2023

Cadastral Surveyor

Date 22/02/2023

0 50 mm 100 mm 150 mm

State copyright reserved

Plan of Easement C

in Lot 6 on SP245936

LOCAL GOVERNMENT: **GLADSTONE R.C.** LOCALITY: **ALDOGA**

Meridian MGA Zone 56 vide GNSS

Survey Records: No

Scale. **1:3000**

Format: STANDARD

SP338515

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Land Title Act 1994, Land Act 1994
Form 21B Version 2

722789689
EC 403 $481.67
04/10/2023 14:39:16

(Dealing No)

WARNING : Folded or Mutilated Plans will not be accepted. Plans may be rolled. Information may not be placed in the outer margins.

4 Lodged by

(Include address, phone number, email, reference, and Lodger Code)

1 Existing		Created		
Title Reference	Description	New Lots	Road	Secondary Interests
50861393	Lot 6 on SP245936	---	---	Emt C

6 Building Format Plans only.

I certify that :
* As far as it is practical to determine, no part of the building shown on this plan encroaches onto adjoining lots or road;
* Part of the building shown on this plan encroaches onto adjoining * lots and road

Cadastral Surveyor/Director * Date
* delete words not required

Lots	Orig

2 Orig Grant Allocation :

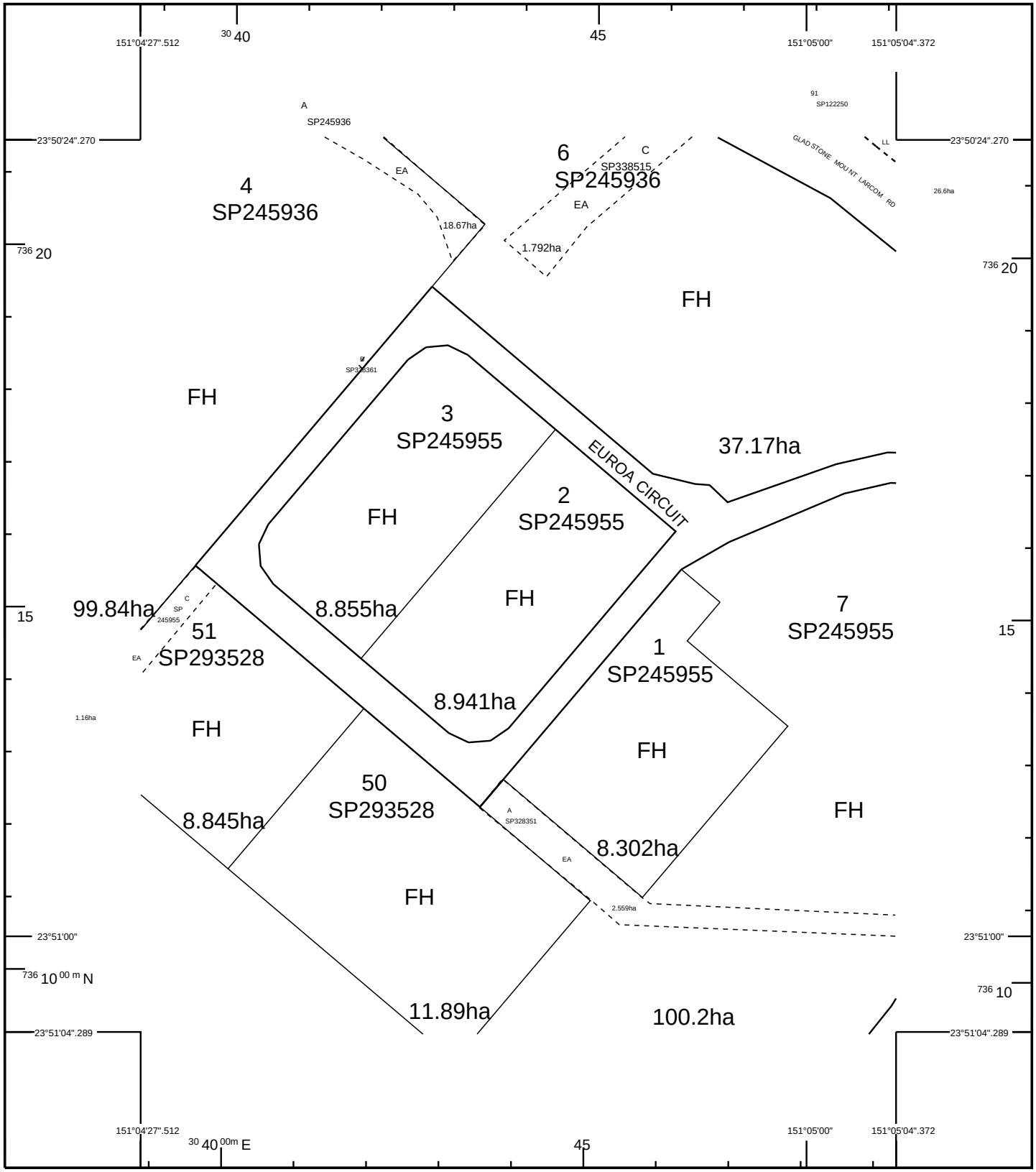
3 References :
Dept File
Local Govt :
Surveyor : 5078-23

5 Passed & Endorsed :
By : A. S. Maclean
Date 22/2/23
Signed : A S Maclean
Designation : Cadastral Surveyor

7 Lodgement Fees :

Survey Deposit	$
Lodgement	$
New Titles	$
Photocopy	$
Postage	$
TOTAL	$

8 Insert Plan Number **SP338515**



STANDARD MAP NUMBER
9150-34231

0 150 300 450 600 750 m

HORIZONTAL DATUM:GDA94 ZONE:56 SCALE 1 : 7500

SmartMap

An External Product of
SmartMap Information Services

Based upon an extraction from the
Digital Cadastral Data Base

MAP WINDOW POSITION &
NEAREST LOCATION

SUBJECT PARCEL DESCRIPTION

DCDB

Lot/Plan	2/SP245955
Area/Volume	8.941ha
Tenure	FREEHOLD
Local Government	GLADSTONE REGIONAL
Locality	ALDOGA
Segment/Parcel	39036/694

CLIENT SERVICE STANDARDS

PRINTED 27/06/2025

DCDB 26/06/2025

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https://www.qld.gov.au/housing/buying-owning-home/property-land-valuations/smartmaps

GDA

Queensland
Government

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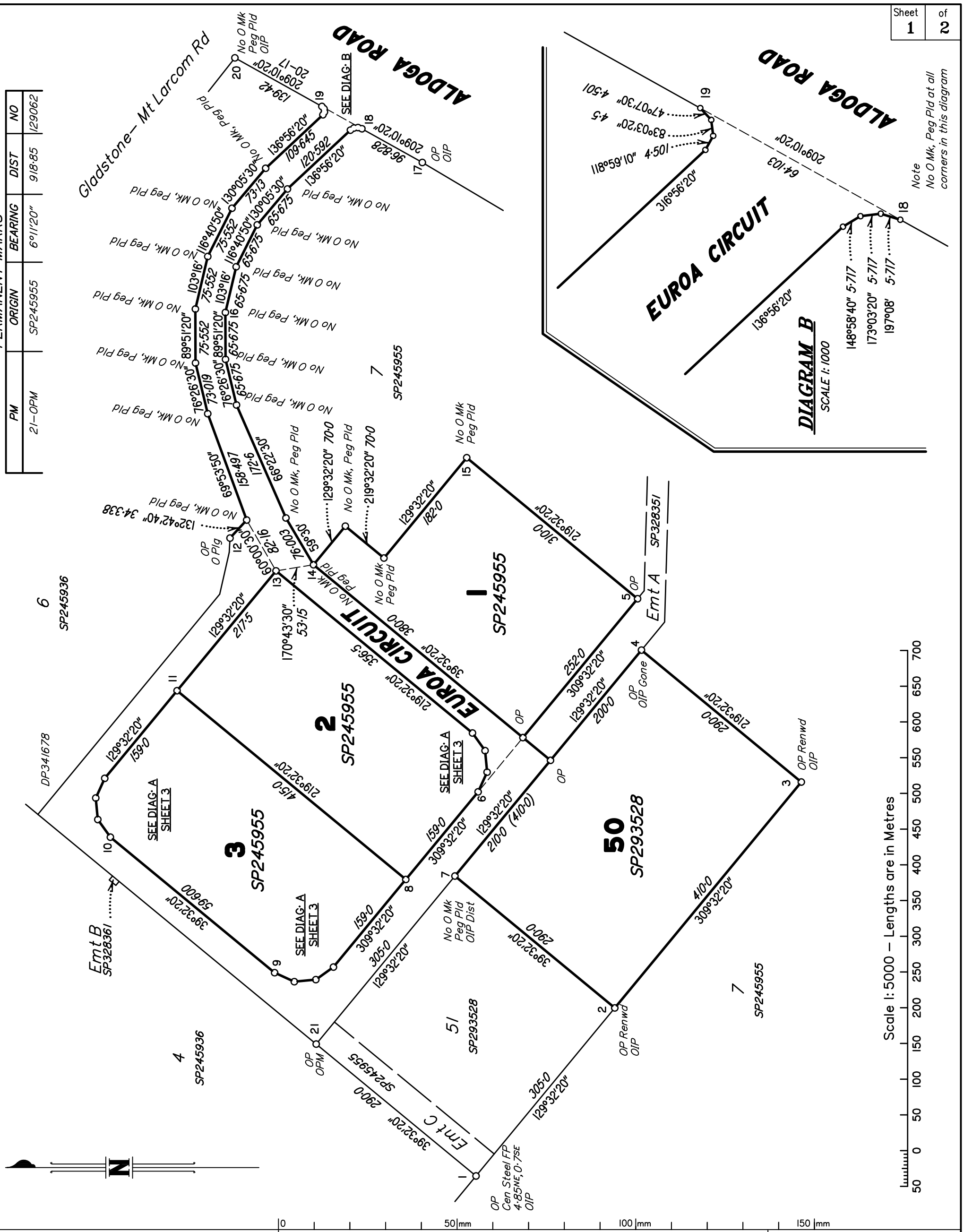
(Department of Resources) 2025.



PERMANENT MARKS

PM	ORIGIN	BEARING	DIST	NO
21–OPM	SP245955	6°11'20"	918·85	129062

I, Alan Scott Maclean hereby certify that the land comprised in this plan was surveyed by Zed Cole Scott-Johnson (Surveying Associate) for whose work I accept responsibility and that the plan is accurate, that the said survey was performed in accordance with the Survey and Mapping Infrastructure Act 2003 and Surveyors Act 2003 and associated Regulations and Standards and that the said survey was completed on 18/12/2023.

..... Cadastral Surveyor

Date 31/01/2024

IDENTIFICATION SURVEY OF

Lots 1–3 on SP245955 and Lot 50 on SP293528

LOCAL AUTHORITY	Gladstone Regional Council	LOCALITY	ALDOGA
		ORIGINAL	
		MERIDIAN	MGA Zone 56 Vide SP293528
		JOB REF	5078–27

FREDRIKSEN MACLEAN & ASSOCIATES
CONSULTING SURVEYORS
GLADSTONE, BILOELA & MOURA
(07)49725677
EMAIL: mail@fredmac.com.au

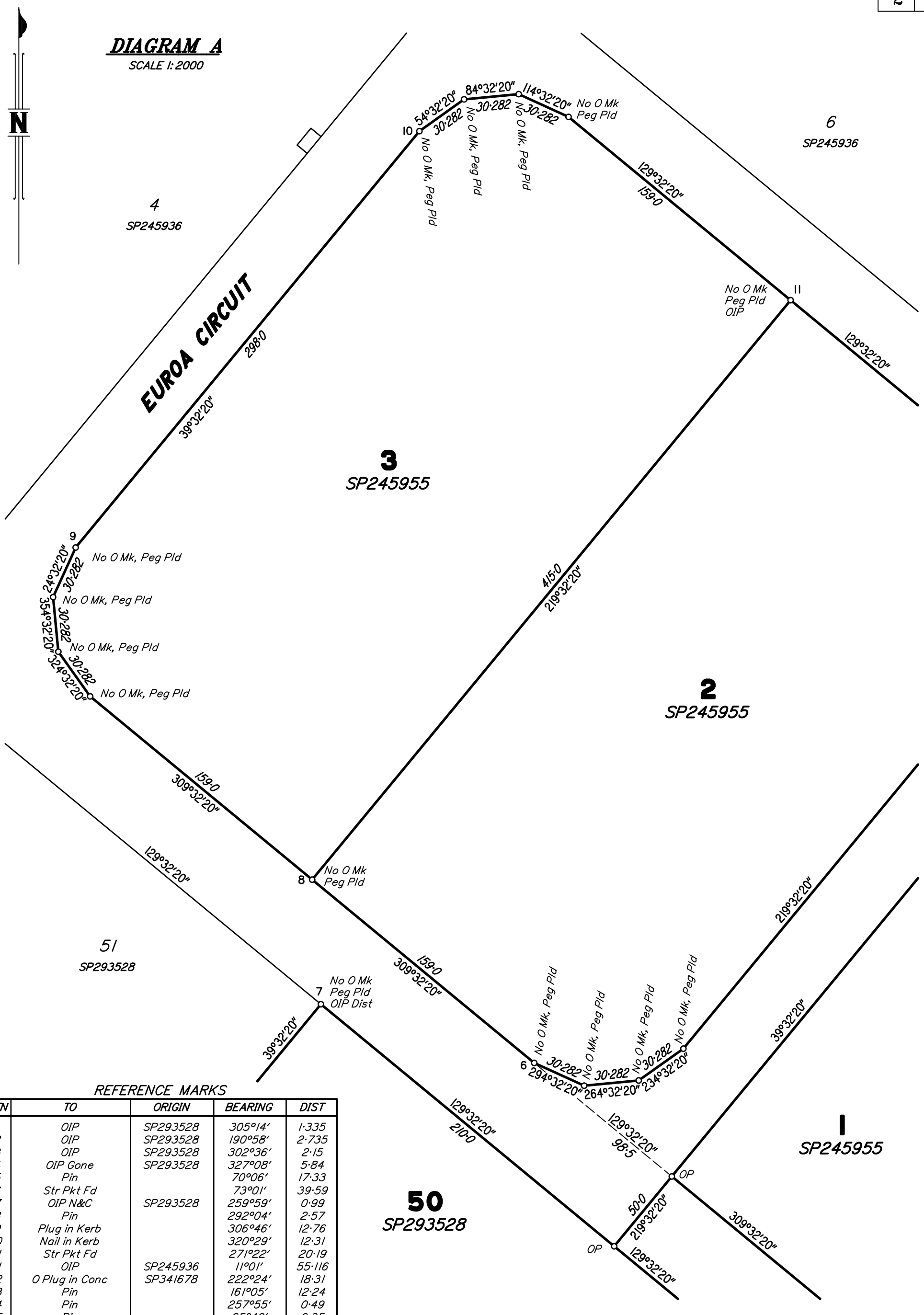
Scale: 1:5000

Format: IDENTIFICATION

IS325399

DRAFTED	ASM
DRAWING FILE	IS325399.DWG

ADDITIONAL SHEET



REFERENCE MARKS

STN	TO	ORIGIN	BEARING	DIST
1	OIP	SP293528	305°14′	1·335
2	OIP	SP293528	190°58′	2·735
3	OIP	SP293528	302°36′	2·15
4	OIP Gone	SP293528	327°08′	5·84
5	Pin		70°06′	17·33
6	Str Pkt Fd		73°01′	39·59
7	OIP N&C	SP293528	259°59′	0·99
8	Pin		292°04′	2·57
9	Plug in Kerb		306°46′	12·76
10	Nail in Kerb		320°29′	12·31
11	Str Pkt Fd		271°22′	20·19
11	OIP	SP245936	11°01′	55·116
12	O Plug in Conc	SP341678	222°24′	18·31
13	Pin		161°05′	12·24
14	Pin		257°55′	0·49
15	Pin		65°40′	6·35
16	Pin		4°37′	2·39
17	OIP	SP147742	75°30′	1·05
18	Screw Fd		84°47′	76·11
18	Str Pkt Fd		132°09′	41·47
20	OIP	SP147742	89°08′	1·05

Insert Plan Number IS325399

0 50 mm 100 mm 150 mm

QUEENSLAND TITLES REGISTRY
Land Title Act 1994 and Land Act 1994

EASEMENT

FORM 9 Version 4
Page 1 of 1

Duty Imprint

722789690
EC 601 $224.32
04/10/2023 14:39:16

aling Number

FFICE USE ONLY

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Client No 1012972 Duties Act 2001
Transaction No 526-991-203
Duty Paid $417.00 Exempt
UTI $0.78
Date 04/10/2023 Signed

1. Grantor

MINISTER FOR ECONOMIC DEVELOPMENT
QUEENSLAND

Lodger (Name, address, E-mail & phone number) **Lodger Code**

QUEENSLAND ELECTRICITY
TRANSMISSION CORPORATION LIMITED
(ACN 078 849 233)
PO Box 1193 Virginia Q 4014
Telephone 07 3860 2111
legalservices@powerlink com au

2. Description of Easement/Lot on Plan **Title Reference**

Servient Tenement (burdened land)

EASEMENT G IN LOT 2 ON SP301578 ON SP338505	51155102
EASEMENT H IN LOT 6 ON SP233091 ON SP338505	50852536
EASEMENT J IN LOT 30 ON CP CTN107 ON SP338505	50085277
EASEMENT C IN LOT 6 ON SP245936 ON SP338515	50861393

#Dominant Tenement (benefited land)

not applicable if easement in gross

NOT APPLICABLE

3. Interest being burdened

FEE SIMPLE

#4. Interest being benefited

NOT APPLICABLE

not applicable if easement in gross

5. Grantee Given names Surname/Company name and number (include tenancy if more than one)

QUEENSLAND ELECTRICITY
TRANSMISSION CORPORATION
LIMITED ACN 078 849 233

6. Consideration

$1 00

7. Purpose of easement

ELECTRICITY PURPOSES

8. Grant/Execution

The Grantor for the above consideration grants to the Grantee the easement over the servient tenement for the purpose stated in item 7 and the Grantor and Grantee covenant with each other in terms of - ~~*the attached schedule, *the attached schedule and document no~~, *document no **709461576**

* delete if not applicable

Witnessing officer must be aware of his/her obligations under section 162 of the Land Title Act 1994

signature

full name

qualification

SEE ENLARGED PANEL

Witnessing Officer
(Witnessing officer must be in accordance with Schedule 1 of Land Title Act 1994 eg Legal Practitioner, JP, C Dec)

/ /
Execution Date

Grantor's Signature

signature

Temitayo Adepoyibi

full name

Solicitor

qualification

15/8/23

Witnessing Officer
(Witnessing officer must be in accordance with Schedule 1 of Land Title Act 1994 eg Legal Practitioner, JP, C Dec)

Execution Date

Grantee's Signature

QUEENSLAND ELECTRICITY TRANSMISSION CORPORATION LIMITED (ACN 078 849 233) by its Attorney ~~Catrina Michele Willis~~ Teresa Howard, Acting Legal Counsel, under Power of Attorney No 721908520 ~~Senior Corporate Lawyer under Power of Attorney No 721908605~~

© Queensland Titles Registry Pty Ltd 2023

Title References 51155102, 50852536, 50085277, 50861393

8. Grant/Execution

The Grantor for the above consideration grants to the Grantee the easement over the servient tenement for the purpose stated in item 7 and the Grantor and Grantee covenant with each other in terms of - ~~*the attached schedule, *the attached schedule and document no———~~, *document no **709461576**

* delete if not applicable

Witnessing officer must be aware of his/her obligations under section 162 of the Land Title Act 1994

signature

full name

qualification

Witnessing Officer
(Witnessing officer must be in accordance with Schedule 1 of Land Title Act 1994 eg Legal Practitioner, JP, C Dec)

19/04/2023
Execution Date

JOHN WHITE **Grantor's Signature**
Minister for Economic Development Queensland
by its authorised delegate

GENERAL CONSENT

1. Lot on Plan Description | **Title Reference**

LOT 2 ON SP301578 | 51155102

2. Instrument/document being consented to

Instrument/document type FORM 9 EASEMENT AND SURVEY PLAN

Dated / /

Names of parties Minister for Economic Development Queensland **as Grantor** and
Queensland Electricity Transmission Corporation Limited (ACN 078 849 233) **as Grantee**

3. Instrument/document under which consent required

Instrument/document type Easement

Dealing No 707667421

Name of consenting party Queensland Electricity Transmission Corporation Limited A C N 078 849 233

4. Execution by consenting party

The party identified in item 3 consents to the registration of the instrument/document identified in item 2

Witnessing officer must be aware of his/her obligations under section 162 of the Land Title Act 1994

CMKamada — signature

Marcela Yumi Kamada — full name

Lawyer — qualification

Witnessing Officer
(Witnessing officer must be in accordance with Schedule 1 of Land Title Act 1994 eg Legal Practitioner, JP, C Dec)

04/10/23
Execution Date

Consenting Party's Signature
QUEENSLAND ELECTRICITY TRANSMISSION CORPORATION LIMITED (ACN 078 849 233) by its Attorney
NATASHA PATRICK, ~~Legal Counsel, under Power of Attorney No 721908520~~
, **Senior Corporate Lawyer**, under Power of Attorney No 721908605

Mortgagee's Australian Credit Licence (if any)

Privacy Statement
Collection of information from this form is authorised by legislation and is used to maintain publicly searchable records For more information see the Department's website

Department of Environment and Science (DES)
ABN 46 640 294 485
400 George St Brisbane, Queensland 4000
GPO Box 2454 Brisbane QLD 4001 AUSTRALIA
www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 50899150 EMR Site Id: 14 November 2023
This response relates to a search request received for the site:
Lot: 1 Plan: SP245955

EMR RESULT

The above site is NOT included on the Environmental Management Register.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DES has not been notified
2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DES has not been notified

If you have any queries in relation to this search please email emr.clr.registry@des.qld.gov.au

Administering Authority

Department of Environment and Science (DES)
ABN 46 640 294 485
400 George St Brisbane, Queensland 4000
GPO Box 2454 Brisbane QLD 4001 AUSTRALIA
www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 50899151 EMR Site Id: 14 November 2023
This response relates to a search request received for the site:
Lot: 2 Plan: SP245955

EMR RESULT

The above site is NOT included on the Environmental Management Register.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DES has not been notified
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Administering Authority

Department of Environment and Science (DES)
ABN 46 640 294 485
400 George St Brisbane, Queensland 4000
GPO Box 2454 Brisbane QLD 4001 AUSTRALIA
www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 50899152 EMR Site Id: 14 November 2023
This response relates to a search request received for the site:
Lot: 3 Plan: SP245955

EMR RESULT

The above site is NOT included on the Environmental Management Register.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DES has not been notified
2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DES has not been notified

If you have any queries in relation to this search please email emr.clr.registry@des.qld.gov.au

Administering Authority

Department of Environment, Science and Innovation (DESI)
ABN 46 640 294 485
GPO Box 2454 Brisbane QLD 4001 AUSTRALIA
www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 50959721 EMR Site Id: 11 September 2024
This response relates to a search request received for the site:
Lot: 6 Plan: SP245936

EMR RESULT

The above site is NOT included on the Environmental Management Register.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DESI has not been notified
2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DESI has not been notified

If you have any queries in relation to this search please email emr.clr.registry@des.qld.gov.au

Administering Authority

Department of Environment, Science and Innovation (DESI)
ABN 46 640 294 485
GPO Box 2454 Brisbane QLD 4001 AUSTRALIA
www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 50959722 EMR Site Id: 11 September 2024
This response relates to a search request received for the site:
Lot: 7 Plan: SP245955

EMR RESULT

The above site is NOT included on the Environmental Management Register.

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

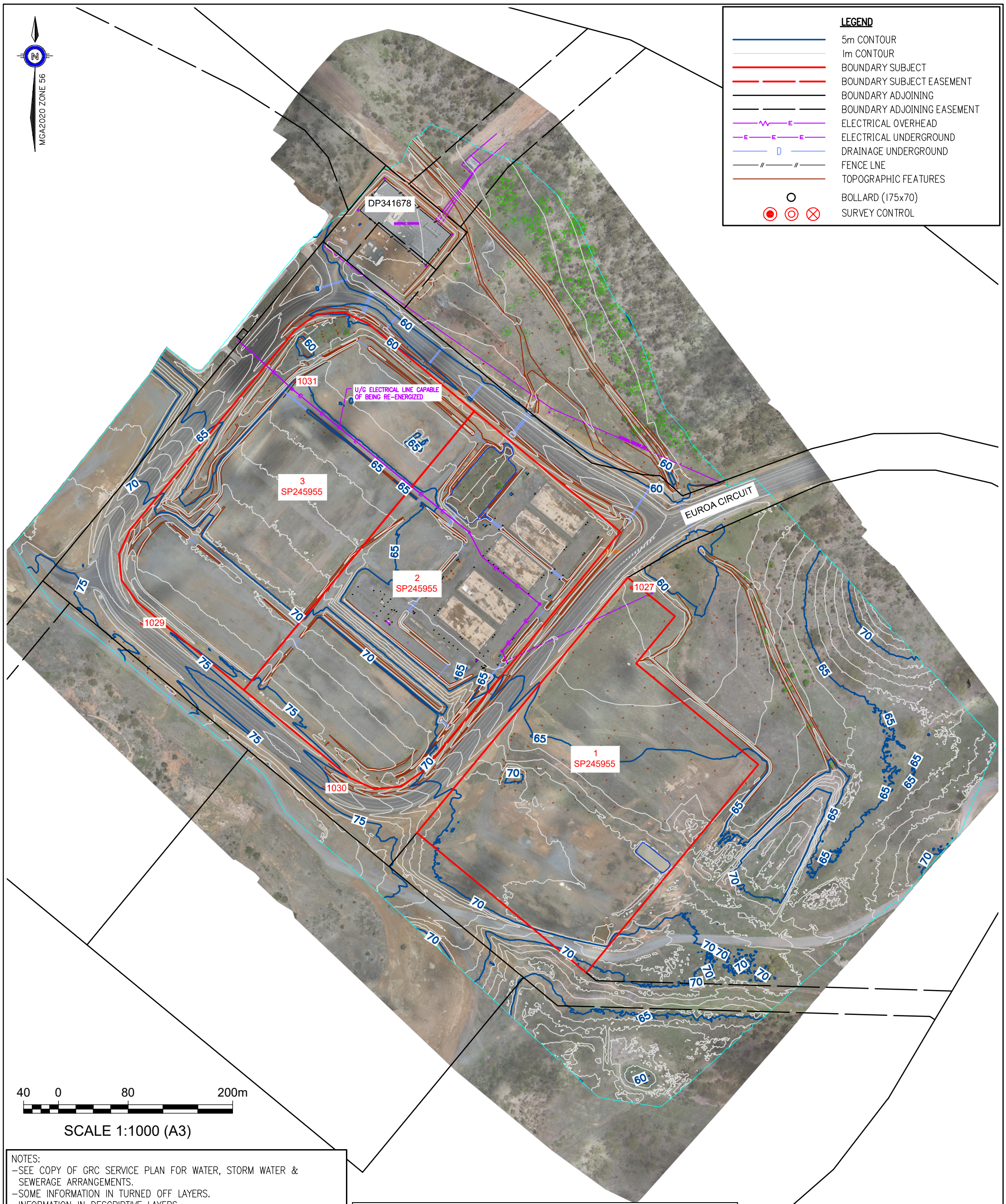
ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DESI has not been notified
2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DESI has not been notified

If you have any queries in relation to this search please email emr.clr.registry@des.qld.gov.au

Administering Authority



NOTES:
- SEE COPY OF GRC SERVICE PLAN FOR WATER, STORM WATER & SEWERAGE ARRANGEMENTS.
- SOME INFORMATION IN TURNED OFF LAYERS.
- INFORMATION IN DESCRIPTIVE LAYERS.
- BOUNDARY TO PLOT ACCURACY ONLY. DIMENSIONS SHOWN ARE ABOUT AND ARE SUBJECT TO SURVEY.
- PLAN COMPILED FROM SURVEY AND COUNCIL RECORDS.
- CONTOURS HAVE BEEN PROJECTED THROUGH STRUCTURES TO PROVIDE APPROXIMATE LEVELS.
- DESCRIPTIONS OF SERVICES AND SIZES ARE IN THE CAD FILE.
- SURVEY IS PLANAR FROM PM129062. SCALE BY 1.0000533216 FOR GRID COORDINATES.
- SURVEY COMPLETED 24/01/17 VIA UAV, GNSS AND TOTAL STATION MEASUREMENTS.

MGA2020 ZONE 56 PLANAR CONTROL TABLE

POINT ID	EASTING	NORTHING	RL	DESCRIPTION
129062	304052.948	7362475.275	57.000	PM
1027	304628.71	7361553.978	62.656	STAR PICKET
1029	304067.075	7361513.123	74.136	PLUG
1030	304275.987	7361323.515	75.058	PLUG
1031	304351.69	7361853.597	65.200	STAR PICKET

THIS PLAN HAS BEEN PREPARED TO CLIENT SPECIFICATIONS AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE WITHOUT CONFIRMING THAT THE DATA IS FIT FOR THE INTENDED USE BY CONTACTING FREDRIKSEN MACLEAN & ASSOCIATES

FREDRIKSEN MACLEAN & ASSOCIATES
CONSULTING SURVEYORS
GLADSTONE, BILOELA & MOURA
HEAD OFFICE
9 DREWE STREET
PH (07)49725677
P.O. BOX 1245
EMAIL: mail@fredmac.com.au

PROPERTY DESC.	LOT 1-3 ON SP245955
LOCALITY	ALDOGA
LOCAL AUTHORITY	GLADSTONE REGIONAL COUNCIL
LEVEL DATUM	AHDD
LEVEL ORIGIN	PM129062 RL 57·000
HORIZONTAL DATUM	MGA2020 ZONE 56 PLANAR
MERIDIAN	MGA VIDE GNSS
HORIZONTAL ORIGIN	PM129062 E: 304052·948 N: 7362475·275

SCALE	1:4000/A3
SURVEYED	AF & KB
F. BOOKS	
DRAFTED	AF
CHECKED	ASM
APPROVED	ASM

DATE	DETAILS	INIT.
01/02/24	ISSUE	AF

AMENDMENTS

CLIENT: VENA ENERGY

TITLE: CONTOUR & DETAIL SURVEY EUROA CIRCUIT

PROJECT: ALDOGA, GLADSTONE

SHEET 1 OF 1 SHEETS

DRAWING NUMBER: 5976-1-1

REVISION: A

EUROA CIRCUIT - ROAD UPGRADE

ALDOGA ROAD, ALDOGA, QLD

CLIENT - ECONOMIC DEVELOPMENT QUEENSLAND
DEPARTMENT OF STATE DEVELOPMENT, INFRASTRUCTURE, LOCAL GOVERNMENT & PLANNING

LOCALITY PLAN
N.T.S.

Certified As Built
Contractor: Durack Civil Rev No.: 3A
CONTRACTOR **RLC/RLN**
Name: Luke Morris
Initial: LM Date: 16/08/23

CAD REF:\\NA.AECOMNET.COM\LFS\APAC\BRISBANE-AUBNE\SECURE\PROJECTS\60X\60664764_EUROA_CIRCUIT_DD\910_CAD_GIS\910_CAD\20-SHEETS\60664764-001DWG

LAST MODIFIED:7/7/2022 2:15 PM

This drawing is confidential and shall only be used for the purposes of this project.

REVISIONS

No.	BY	DATE	DESCRIPTION	APPD
3	OR	12.07.22	RE-ISSUED FOR CONSTRUCTION	SR
2	OR	25.03.22	ISSUED FOR TENDER	SR
1	OR	16.12.21	ISSUED FOR CONSTRUCTION	SR
C	OR	10.12.21	RESPONSE TO GRC OPERATIONAL WORKS RFI	SR
B	OR	28.10.21	ISSUED FOR OPERATIONAL WORKS APPROVAL	SR
A	OR	22.10.21	ISSUED FOR REVIEW	SR

Scale

THE SIGNING OF THIS TITLE BLOCK CONFIRMS THE DESIGN AND DRAFTING OF THIS PROJECT HAVE BEEN PREPARED AND CHECKED IN ACCORDANCE WITH THE AECOM QUALITY ASSURANCE SYSTEM TO ISO 9001-2000

DESIGNED	AS	CHECKED	TP
DRAWN	OR	CHECKED	KP
APPROVED	SR	DATE	12.07.22

AECOM

RPEQ No. 14965
AECOM Australia Pty Ltd A.B.N. 20 093 846 925

Queensland Government

ECONOMIC DEVELOPMENT QUEENSLAND

EUROA CIRCUIT - ROAD UPGRADE
COVER SHEET AND LOCALITY PLAN

Status: DETAILED DESIGN
Drg No.: 60664764-001
Rev: 3

DRAWING SCHEDULE

PROJECT DRAWINGS

DRAWING No.	DESCRIPTION
	CIVIL DRAWINGS
60664764-001	COVER SHEET AND LOCALITY PLAN
60664764-002	DRAWING SCHEDULE AND NOTES
60664764-011	GENERAL ARRANGEMENT PLAN
60664764-021	EARTHWORKS PLAN - SHEET 1 OF 8
60664764-022	EARTHWORKS PLAN - SHEET 2 OF 8
60664764-023	EARTHWORKS PLAN - SHEET 3 OF 8
60664764-024	EARTHWORKS PLAN - SHEET 4 OF 8
60664764-025	EARTHWORKS PLAN - SHEET 5 OF 8
60664764-026	EARTHWORKS PLAN - SHEET 6 OF 8
60664764-027	EARTHWORKS PLAN - SHEET 7 OF 8
60664764-028	EARTHWORKS PLAN - SHEET 8 OF 8
60664764-031	EROSION AND SEDIMENT CONTROL PLAN - SHEET 1 OF 8
60664764-032	EROSION AND SEDIMENT CONTROL PLAN - SHEET 2 OF 8
60664764-033	EROSION AND SEDIMENT CONTROL PLAN - SHEET 3 OF 8
60664764-034	EROSION AND SEDIMENT CONTROL PLAN - SHEET 4 OF 8
60664764-035	EROSION AND SEDIMENT CONTROL PLAN - SHEET 5 OF 8
60664764-036	EROSION AND SEDIMENT CONTROL PLAN - SHEET 6 OF 8
60664764-037	EROSION AND SEDIMENT CONTROL PLAN - SHEET 7 OF 8
60664764-038	EROSION AND SEDIMENT CONTROL PLAN - SHEET 8 OF 8
60664764-039	EROSION AND SEDIMENT CONTROL DETAILS - SHEET 1 OF 2
60664764-040	EROSION AND SEDIMENT CONTROL DETAILS - SHEET 2 OF 2
60664764-041	ROADWORKS AND DRAINAGE PLAN - SHEET 1 OF 8
60664764-042	ROADWORKS AND DRAINAGE PLAN - SHEET 2 OF 8
60664764-043	ROADWORKS AND DRAINAGE PLAN - SHEET 3 OF 8
60664764-044	ROADWORKS AND DRAINAGE PLAN - SHEET 4 OF 8
60664764-045	ROADWORKS AND DRAINAGE PLAN - SHEET 5 OF 8
60664764-046	ROADWORKS AND DRAINAGE PLAN - SHEET 6 OF 8
60664764-047	ROADWORKS AND DRAINAGE PLAN - SHEET 7 OF 8
60664764-048	ROADWORKS AND DRAINAGE PLAN - SHEET 8 OF 8
60664764-051	LONGITUDINAL SECTION MCA01 - SHEET 1 OF 5
60664764-052	LONGITUDINAL SECTION MCA01 - SHEET 2 OF 5
60664764-053	LONGITUDINAL SECTION MCA01 - SHEET 3 OF 5
60664764-054	LONGITUDINAL SECTION MCA01 - SHEET 4 OF 5
60664764-055	LONGITUDINAL SECTION MCA01 - SHEET 5 OF 5
60664764-057	LONGITUDINAL SECTION MKA05, MKA06
60664764-058	LONGITUDINAL SECTION MKA07, MKA08
60664764-059	LONGITUDINAL SECTION MRA01
60664764-060	LONGITUDINAL SECTION MRA02
60664764-061	TYPICAL SECTIONS - SHEET 1 OF 2
60664764-062	TYPICAL SECTIONS - SHEET 2 OF 2
60664764-071	CROSS SECTION MCA01 - SHEET 1 OF 20
60664764-072	CROSS SECTION MCA01 - SHEET 2 OF 20
60664764-073	CROSS SECTION MCA01 - SHEET 3 OF 20
60664764-074	CROSS SECTION MCA01 - SHEET 4 OF 20
60664764-075	CROSS SECTION MCA01 - SHEET 5 OF 20
60664764-076	CROSS SECTION MCA01 - SHEET 6 OF 20
60664764-077	CROSS SECTION MCA01 - SHEET 7 OF 20
60664764-078	CROSS SECTION MCA01 - SHEET 8 OF 20
60664764-079	CROSS SECTION MCA01 - SHEET 9 OF 20
60664764-080	CROSS SECTION MCA01 - SHEET 10 OF 20
60664764-081	CROSS SECTION MCA01 - SHEET 11 OF 20
60664764-082	CROSS SECTION MCA01 - SHEET 12 OF 20
60664764-083	CROSS SECTION MCA01 - SHEET 13 OF 20
60664764-084	CROSS SECTION MCA01 - SHEET 14 OF 20
60664764-085	CROSS SECTION MCA01 - SHEET 15 OF 20
60664764-086	CROSS SECTION MCA01 - SHEET 16 OF 20
60664764-087	CROSS SECTION MCA01 - SHEET 17 OF 20
60664764-088	CROSS SECTION MCA01 - SHEET 18 OF 20
60664764-089	CROSS SECTION MCA01 - SHEET 19 OF 20
60664764-090	CROSS SECTION MCA01 - SHEET 20 OF 20
60664764-101	SIGNS AND PAVEMENT MARKING PLAN - SHEET 1 OF 8
60664764-102	SIGNS AND PAVEMENT MARKING PLAN - SHEET 2 OF 8
60664764-103	SIGNS AND PAVEMENT MARKING PLAN - SHEET 3 OF 8
60664764-104	SIGNS AND PAVEMENT MARKING PLAN - SHEET 4 OF 8
60664764-105	SIGNS AND PAVEMENT MARKING PLAN - SHEET 5 OF 8
60664764-106	SIGNS AND PAVEMENT MARKING PLAN - SHEET 6 OF 8
60664764-107	SIGNS AND PAVEMENT MARKING PLAN - SHEET 7 OF 8
60664764-108	SIGNS AND PAVEMENT MARKING PLAN - SHEET 8 OF 8
60664764-109	SIGNS AND PAVEMENT MARKING PLAN - EUROA CCT-EUROA CCT INTERSECTION DETAIL
60664764-111	DRIVEWAY DETAILS - SOUTHERN DRIVEWAY
60664764-113	DRIVEWAY DETAILS - NORTHERN DRIVEWAY

3

DRAWING SCHEDULE CONT'D

PROJECT DRAWINGS

DRAWING No.	DESCRIPTION
	CIVIL DRAWINGS CONT'D
60664764-121	PAVEMENT DETAILS
60664764-131	TURNING CIRCLES - 90m RADIUS - B-DOUBLE (25m)/SEMI-TRAILER (19m)
60664764-132	TURNING CIRCLES - 90m RADIUS - B-DOUBLE (25m)/B-DOUBLE (25m)
60664764-133	TURNING CIRCLES - EUROA-EUROA CCT INT. - RIGHT IN/LEFT OUT B-DOUBLE (25m)
60664764-134	TURNING CIRCLES - EUROA-EUROA CCT INT. - LEFT IN/RIGHT OUT B-DOUBLE (25m)
60664764-135	TURNING CIRCLES - EUROA-EUROA CCT INT. - RIGHT IN 62m BLADE CARRIER
60664764-136	TURNING CIRCLES - EUROA-EUROA CCT INT. - LEFT OUT 62m BLADE CARRIER
60664764-137	TURNING CIRCLES - EUROA-ALDOGA INT. - RIGHT IN 62m BLADE CARRIER
60664764-138	TURNING CIRCLES - EUROA-ALDOGA INT. - LEFT OUT 62m BLADE CARRIER
60664764-139	TURNING CIRCLES - SOUTHERN DRIVEWAY - LEFT IN/RIGHT OUT B-DOUBLE (25m)
60664764-140	TURNING CIRCLES - SOUTHERN DRIVEWAY - RIGHT IN/LEFT OUT B-DOUBLE (25m)
60664764-141	TURNING CIRCLES - SOUTHERN DRIVEWAY - RIGHT OUT 62m BLADE CARRIER
60664764-142	TURNING CIRCLES - SOUTHERN DRIVEWAY - LEFT IN 62m BLADE CARRIER
60664764-143	TURNING CIRCLES - NORTHERN DRIVEWAY - RIGHT IN/LEFT OUT B-DOUBLE (25m)
60664764-144	TURNING CIRCLES - NORTHERN DRIVEWAY - LEFT IN/RIGHT OUT B-DOUBLE (25m)
60664764-145	TURNING CIRCLES - NORTHERN DRIVEWAY - LEFT OUT 62m BLADE CARRIER
60664764-146	TURNING CIRCLES - NORTHERN DRIVEWAY - RIGHT IN 62m BLADE CARRIER
60664764-151	CATCHMENT PLAN
60664764-161	CULVERT DETAILS - SHEET 1 OF 2
60664764-162	CULVERT DETAILS - SHEET 2 OF 2
60664764-163	CULVERT SETOUT DETAILS
60664764-164	CULVERT LONGITUDINAL SECTIONS - SHEET 1 OF 2
60664764-165	CULVERT LONGITUDINAL SECTIONS - SHEET 2 OF 2
60664764-166	BIOFILTRATION BASIN AND TABLE DRAIN TYPICAL SECTIONS AND DETAILS
60664764-171	LANDSCAPING PLAN -SHEET 1 OF 8
60664764-172	LANDSCAPING PLAN -SHEET 2 OF 8
60664764-173	LANDSCAPING PLAN -SHEET 3 OF 8
60664764-174	LANDSCAPING PLAN -SHEET 4 OF 8
60664764-175	LANDSCAPING PLAN -SHEET 5 OF 8
60664764-176	LANDSCAPING PLAN -SHEET 6 OF 8
60664764-177	LANDSCAPING PLAN -SHEET 7 OF 8
60664764-178	LANDSCAPING PLAN -SHEET 8 OF 8

3

STANDARD DRAWINGS

DRAWING No.	DESCRIPTION
	GRC
CMDG-D-010	EXCAVATION, BEDDING AND BACKFILLING OF CONCRETE/REINFORCED FIBRE DRAINAGE PIPES
CMDG-D-011	EXCAVATION, BEDDING AND BACKFILLING OF PRECAST BOX CULVERTS
CMDG-D-050	SEDIMENT CONTROL DEVICES - SEDIMENT FENCE - ENTRY/EXIT SEDIMENT TRAP
CMDG-R-040	RURAL ROAD ACCESS AND PROPERTY ACCESS OVER TABLE DRAINS
CMDG-R-042A	URBAN COMMERCIAL/INDUSTRIAL DRIVEWAY
CMDG-R-060	STANDARD KERB AND CHANNEL PROFILES
CMDG-R-080	STREET NAME SIGN
CMDG-R-081	SIGN LOCATION AND INSTALLATION DETAILS
CMDG-G-014	TUBULAR STEEL FENCE
CMDG-G-016	STREET PLANTING
	TMR
SD1116	SUBSOIL DRAINS OUTLETS AND CLEANOUTS
SD1243	PRECAST CULVERT HEADWALLS - HEADWALL CONNECTIONS FOR CULVERTS
SD1250	R C BOX CULVERTS AND SLAB LINK BOX CULVERTS - CULVERTS HEIGHT > 600
SD1260	R C BOX CULVERTS AND SLAB LINK BOX CULVERTS - CULVERTS HEIGHT = 375 TO 600
SD1304	PIPE CULVERTS - WINGWALLS, HEADWALL AND APRON FOR PIPE DIAMETER 750 TO 2400
SD1356	ROAD EDGE GUIDE POSTS - POST AND INSTALLATION DETAILS
SD1452	TRAFFIC SIGN - SIGHT BOARD
SD1644	VEGETATION GROUND WORKS - HARDSTAND ABUTMENTS TO VEGETATION WORKS
SD1650	VEGETATION WORKS - TURFING
SD1651	VEGETATION WORKS - SEEDING
SD1654	VEGETATION WORKS - PLANTING CONTAINER STOCK > 25L CONTAINER
	IPWEAQ
DS-082	CULVERT INLET SCREEN

GENERAL NOTES

1. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE GLADSTONE REGIONAL COUNCIL, OPERATIONAL WORKS APPROVAL CONDITIONS, POLICIES, STANDARD SPECIFICATIONS AND STANDARD DRAWINGS.
2. REFER PROJECT SPECIFICATION FOR DETAILED REQUIREMENTS FOR MATERIALS, MANAGEMENT OF WORKS, CONSTRUCTION REQUIREMENTS, TOLERANCES, INSPECTION OF THE WORKS AND THE LIKE.
3. THE LOCATION OF UTILITIES SHOWN ARE INDICATIVE ONLY. PRIOR TO COMMENCEMENT OF WORKS THE CONTRACTOR IS TO IDENTIFY THE LOCATION OF ALL EXISTING SERVICES WHETHER INDICATED ON THE PLANS OR OTHERWISE. THE CONTRACTOR IS TO NOTIFY THE SUPERINTENDENT OF ANY POTENTIAL CONFLICTS THAT MAY OCCUR PRIOR TO THE COMMENCEMENT OF THE WORKS. ANY DAMAGE TO EXISTING SERVICES IS TO BE RECTIFIED AT THE CONTRACTOR'S EXPENSE.
4. IT IS THE CONTRACTORS RESPONSIBILITY TO INDEPENDENTLY IDENTIFY/OBTAIN/IMPLEMENT ALL RELEVANT PERMITS AND APPROVALS TO CONSTRUCT THE WORKS.
5. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER WORKING DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF CONSTRUCTION. ALL DISCREPANCIES AND VARIATIONS SHALL BE REFERRED TO THE SUPERINTENDENT BEFORE PROCEEDING WITH THE WORK.
6. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
7. DESIGN SURFACE NOMINATED ON DRAWINGS IS FINISHED SURFACE LEVEL OF SITE, INCLUDING ALL LANDSCAPE AND HARDSCAPE FINISHED LEVELS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SITE DRAINAGE AND GENERAL MAINTENANCE OF THE AREA DURING CONSTRUCTION.
9. WORKMANSHIP MATERIALS AND TOLERANCES SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
10. WHERE OVERHEAD PUBLIC UTILITY LINES AND SURFACE DRAINAGE WORKS AND/OR UNDERGROUND PIPES, CONDUIT, OR CABLES EXIST IN THE VICINITY OF THE WORKS, THE CONTRACTOR SHALL TAKE CARE TO PROTECT SUCH FACILITIES. THE MATTER SHALL BE IMMEDIATELY REPORTED TO THE RELEVANT AUTHORITY AND TO THE SUPERINTENDENT. THE COST OF THE NECESSARY REPAIRS OR RENEWALS SHALL BE BORNE ENTIRELY BY THE CONTRACTOR.
11. DUE CARE SHALL BE TAKEN WHEN EXCAVATING ADJACENT TO EXISTING SERVICES WHICH TRAVERSE THE SITE. THE SERVICES SHALL BE LOCATED, PROBED AND EXACT INFORMATION AS TO THE LOCATION, SIZE, NUMBER AND LEVEL OF SUCH SHALL BE PROVIDED TO THE SUPERINTENDENT AS MODIFICATION OR RELOCATION REQUIRED.

ABBREVIATIONS

1. UNO - UNLESS NOTED OTHERWISE.
2. TMR/DTMR - QLD DEPARTMENT OF TRANSPORT AND MAIN ROADS
3. IPWEAQ - INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA QUEENSLAND.
4. GRC - GLADSTONE REGIONAL COUNCIL

SURVEY DATA

1. LEVEL DATUM : AHD.
2. HORIZONTAL DATUM MGA 56
3. SURVEY PROVIDED BY FREDRIKSEN MACLEAN & ASSOCIATES, DATED - 17.08.2021
   FILENAME - 5078-18-1 RevA DETAIL SURVEY EUROA CIRCUIT

Certified As Built

Contractor: Durack Civil Rev No.: 3A

CONTRACTOR RLC/RLN

Name: Luke Morris

Initial: LM Date: 16/08/23

CAD REF:\\NA.AECOMNET.COM\LFS\APAC\BRISBANE-AUBNE\SECURE\PROJECTS\60XX\60664764_EUROA_CIRCUIT_DD\910_CAD_GIS\910_CAD\20-SHEETS\60664764-002.DWG

LAST MODIFIED:7/7/2022 2:15 PM

REVISIONS

No.	BY	DATE	DESCRIPTION	APPD
3	OR	12.07.22	RE-ISSUED FOR CONSTRUCTION	SR
2	OR	25.03.22	ISSUED FOR TENDER	SR
1	OR	16.12.21	ISSUED FOR CONSTRUCTION	SR
C	OR	10.12.21	RESPONSE TO GRC OPERATIONAL WORKS RFI	SR
B	OR	28.10.21	ISSUED FOR OPERATIONAL WORKS APPROVAL	SR
A	OR	22.10.21	ISSUED FOR REVIEW	SR

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Scale

THE SIGNING OF THIS TITLE BLOCK CONFIRMS THE DESIGN AND DRAFTING OF THIS PROJECT HAVE BEEN PREPARED AND CHECKED IN ACCORDANCE WITH THE AECOM QUALITY ASSURANCE SYSTEM TO ISO 9001-2000

DESIGNED	AS	CHECKED	TP
DRAWN	OR	CHECKED	KP
APPROVED	SR	DATE	12.07.22

AECOM

RPEQ No. 14965
AECOM Australia Pty Ltd A.B.N. 20 093 846 925

Queensland Government

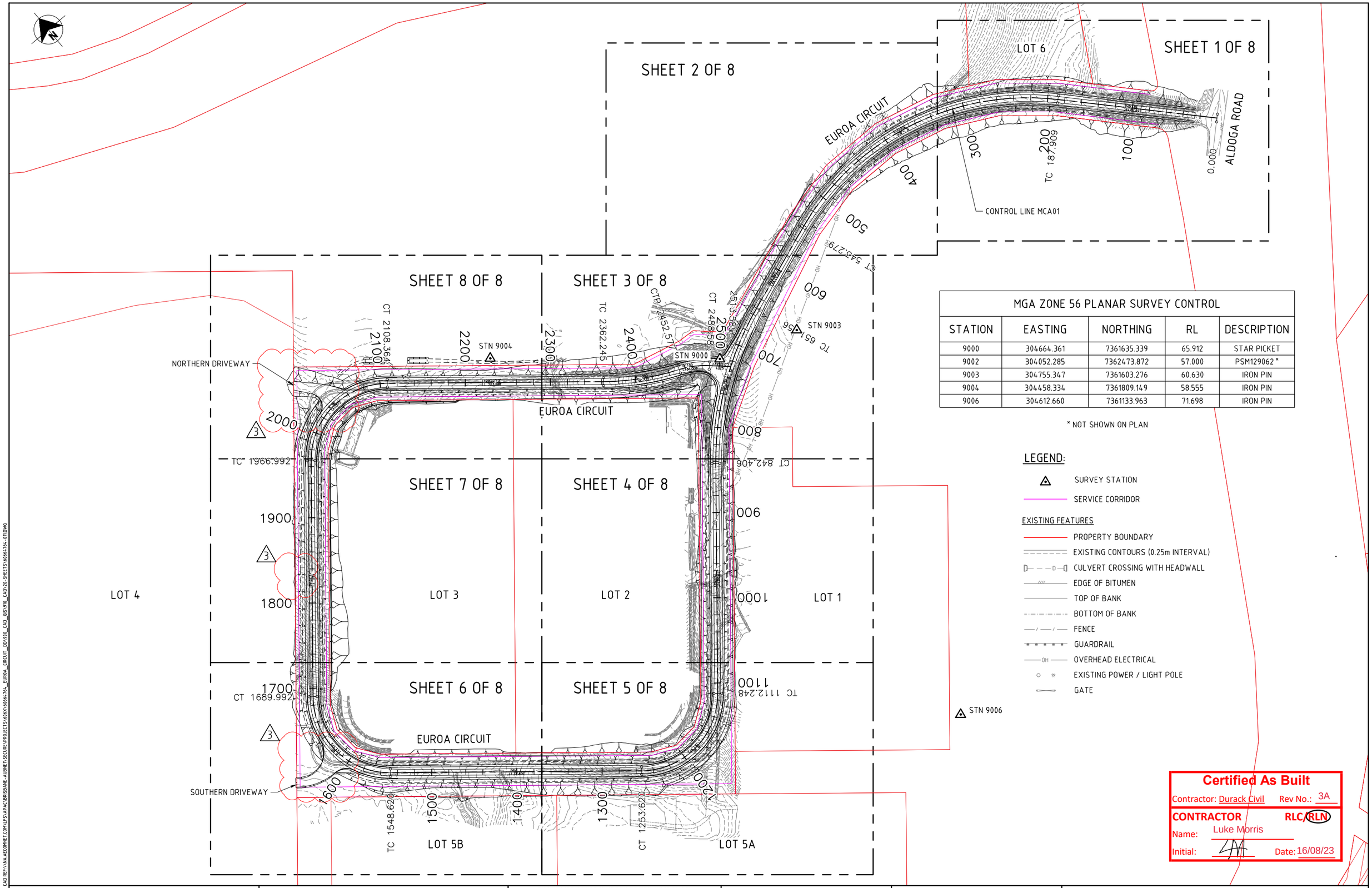
ECONOMIC DEVELOPMENT QUEENSLAND

EUROA CIRCUIT - ROAD UPGRADE
DRAWING SCHEDULE AND NOTES

Status: DETAILED DESIGN

Drg No. 60664764-002

Rev. 3



MGA ZONE 56 PLANAR SURVEY CONTROL				
STATION	EASTING	NORTHING	RL	DESCRIPTION
9000	304664.361	7361635.339	65.912	STAR PICKET
9002	304052.285	7362473.872	57.000	PSM129062 *
9003	304755.347	7361603.276	60.630	IRON PIN
9004	304458.334	7361809.149	58.555	IRON PIN
9006	304612.660	7361133.963	71.698	IRON PIN

* NOT SHOWN ON PLAN

LEGEND:

- SURVEY STATION
- SERVICE CORRIDOR

EXISTING FEATURES

- PROPERTY BOUNDARY
- EXISTING CONTOURS (0.25m INTERVAL)
- CULVERT CROSSING WITH HEADWALL
- EDGE OF BITUMEN
- TOP OF BANK
- BOTTOM OF BANK
- FENCE
- GUARDRAIL
- OVERHEAD ELECTRICAL
- EXISTING POWER / LIGHT POLE
- GATE

Certified As Built

Contractor: Durack Civil Rev No.: 3A

CONTRACTOR RLC/RLN

Name: Luke Morris

Initial: Date: 16/08/23

CAD REF:\\NA.AECOMNET.COM\LFS\APAC\BRISBANE-AUBNE\SECURE\PROJECTS\60X\60664764_EUROA_CIRCUIT_DD\910_CAD_GIS\910_CAD\20-SHEETS\60664764-011.DWG

LAST MODIFIED:7/12/2022 1:39 PM

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REVISIONS

No.	BY	DATE	DESCRIPTION	APPD
3	OR	12.07.22	RE-ISSUED FOR CONSTRUCTION	SR
2	OR	25.03.22	ISSUED FOR TENDER	SR
1	OR	16.12.21	ISSUED FOR CONSTRUCTION	SR
B	OR	28.10.21	ISSUED FOR OPERATIONAL WORKS APPROVAL	SR
A	OR	22.10.21	ISSUED FOR REVIEW	SR

Scale

SCALE Z 0 20 40 60 80 100m

1 : 4000 (A3) 1 : 2000 (A1)

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DESIGNED	AS	CHECKED	TP
DRAWN	OR	CHECKED	KP
APPROVED	SR	DATE	12.07.22

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Queensland Government

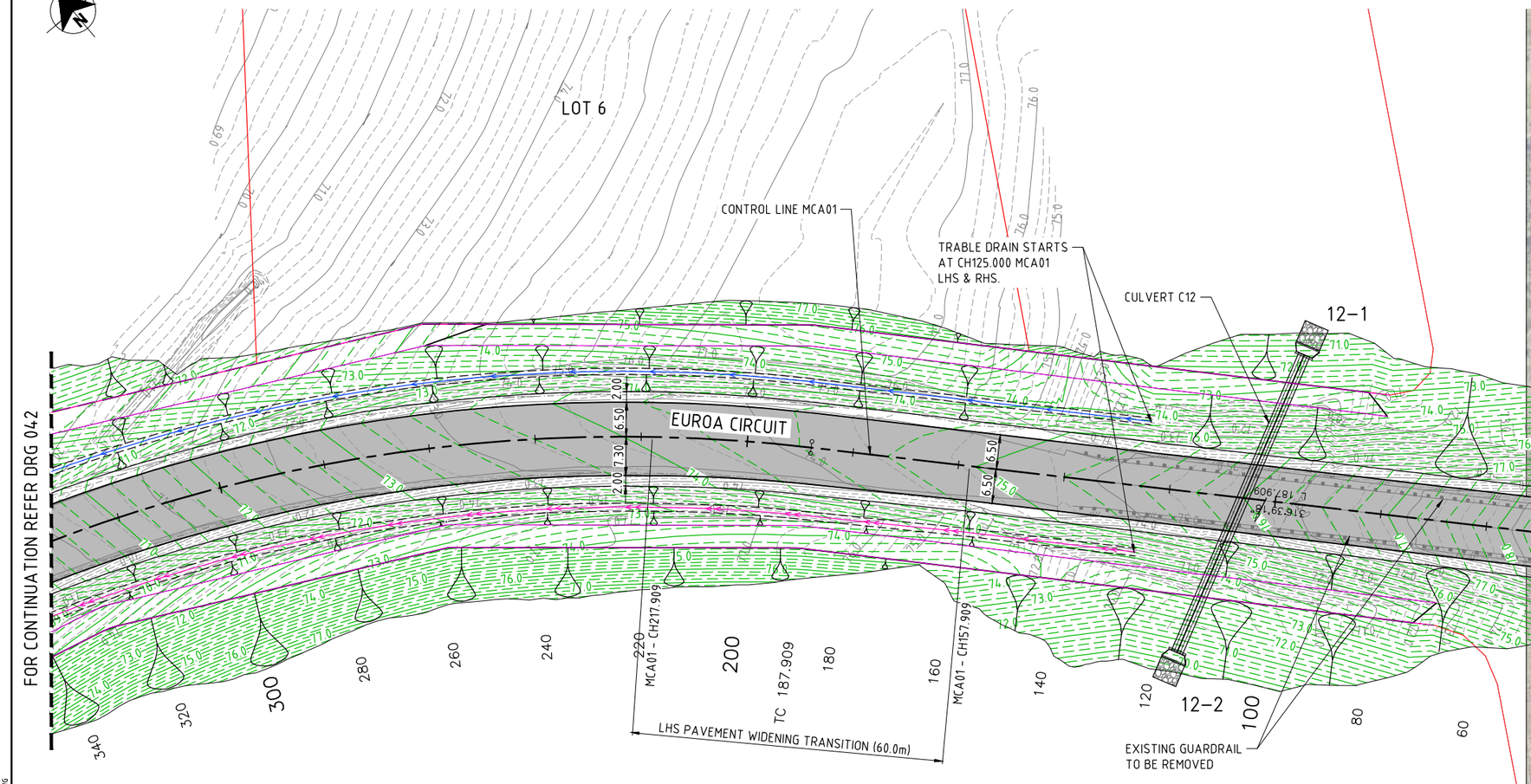
ECONOMIC DEVELOPMENT QUEENSLAND

EUROA CIRCUIT - ROAD UPGRADE
GENERAL ARRANGEMENT PLAN

Status: DETAILED DESIGN

Drg No. 60664764-011

Rev. 3



Culvert C12 Alignment amended per attached survey report per RFI-001

LEGEND

EXISTING FEATURES

- PROPERTY BOUNDARY
- 72.0 EXISTING CONTOURS (0.25m INTERVAL)
- CULVERT CROSSING WITH HEADWALL
- EDGE OF BITUMEN
- TOP OF BANK
- BOTTOM OF BANK
- FENCE
- GUARDRAIL
- OH OVERHEAD ELECTRICAL
- EXISTING POWER / LIGHT POLE
- GATE

DESIGN FEATURES

- SERVICE CORRIDOR
- 67.0 CONTOURS (0.25m INTERVAL)
- SIDE BATTER
- TABLE DRAIN 1.2m BASE WIDTH (REFER DRG 166 FOR TYPICAL DETAILS)
- TABLE DRAIN 1.5m BASE WIDTH (REFER DRG 166 FOR TYPICAL DETAILS)
- TABLE DRAIN 2.0m BASE WIDTH (REFER DRG 166 FOR TYPICAL DETAILS)
- Q3 MONTH FLOW CAPACITY SWALE (REFER DRG 166 FOR TYPICAL DETAILS)
- CULVERT CROSSING WITH HEADWALL (REFER DRG 161 AND 162 FOR TYPICAL DETAILS)
- TABLE DRAIN EARTH BUND AT CULVERT INLET (REFER DRG 162 FOR TYPICAL DETAILS)
- 12–1 DRAINAGE STRUCTURE LABEL
- SEALED PAVEMENT (REFER DRG 121 FOR PAVEMENT DETAILS)
- ROCK SCOUR PROTECTION (REFER DRG 161 FOR DETAILS)

NOTES

1. LINEMARKING, SIGNS AND GUIDE POSTS REMOVED FOR CLARITY. REFER DRGS 101 - 109 FOR DETAILS.
2. REFER DRG 161 - 166 FOR CULVERT DETAILS AND LONGITUDINAL SECTIONS.

Certified As Built

Contractor: Durack Civil Rev No.: 3A

CONTRACTOR RLC/RLN

Name: Luke Morris

Initial: Date: 16/08/23

CAD REF:\\NA.AECOMNET.COM\LFS\APAC\BRISBANE-AUBNET\SECURE\PROJECTS\60X\60664764_EUROA_CIRCUIT_DD\90_CAD_GIS\10_CAD\20-SHEETS\60664764-041.DWG

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No.	BY	DATE	DESCRIPTION	APPD
3	OR	12.07.22	RE-ISSUED FOR CONSTRUCTION	SR
2	OR	25.03.22	ISSUED FOR TENDER	SR
1	OR	16.12.21	ISSUED FOR CONSTRUCTION	SR
B	OR	28.10.21	ISSUED FOR OPERATIONAL WORKS APPROVAL	SR
A	OR	22.10.21	ISSUED FOR REVIEW	SR

Scale

SCALE B 0 10 20 25m
1 : 1000 (A3) 1 : 500 (A1)

THE SIGNING OF THIS TITLE BLOCK CONFIRMS THE DESIGN AND DRAFTING OF THIS PROJECT HAVE BEEN PREPARED AND CHECKED IN ACCORDANCE WITH THE AECOM QUALITY ASSURANCE SYSTEM TO ISO 9001-2000

DESIGNED	AS	CHECKED	TP
DRAWN	OR	CHECKED	KP
APPROVED	SR	DATE	12.07.22

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Queensland Government

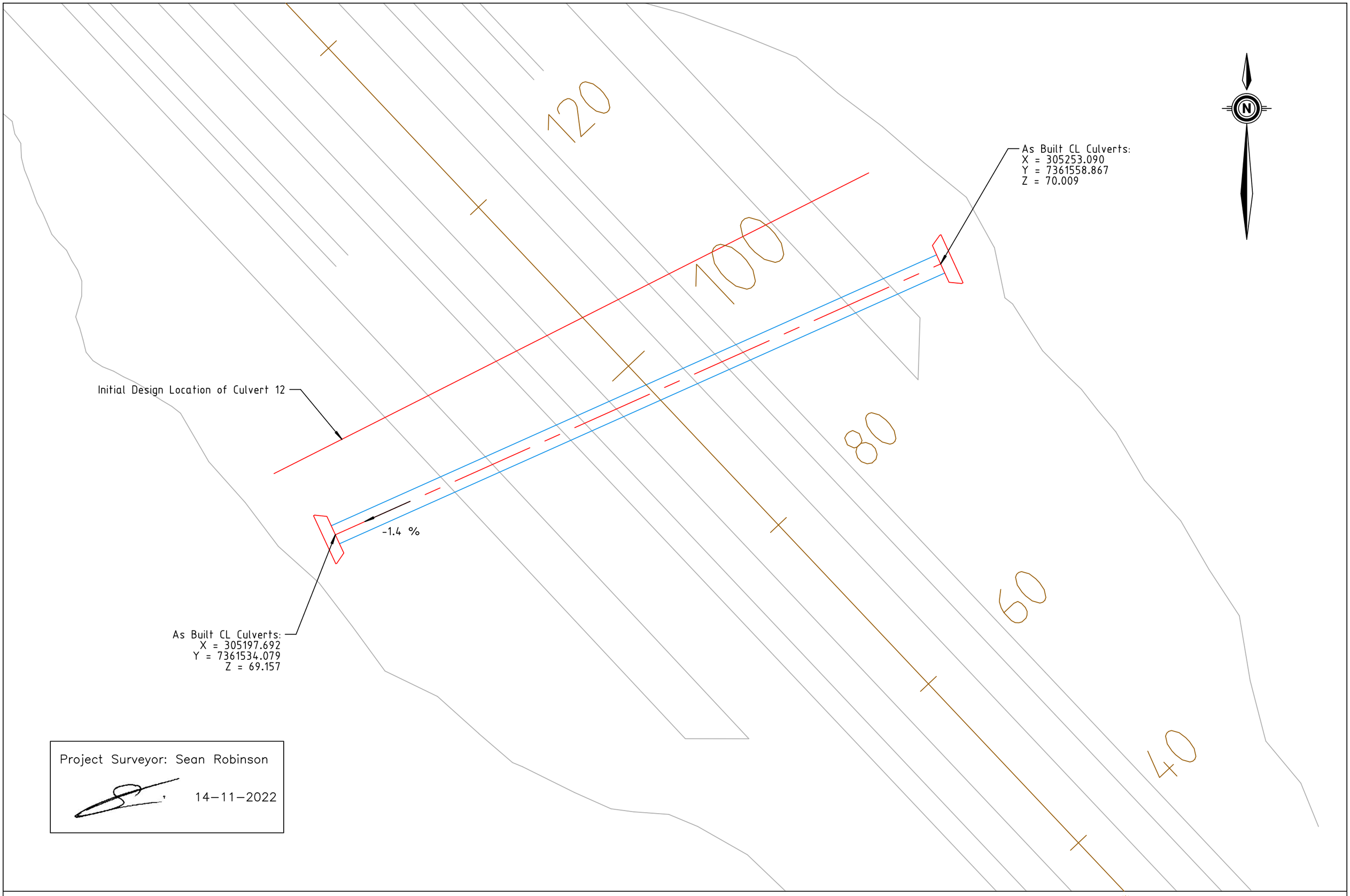
ECONOMIC DEVELOPMENT QUEENSLAND

EUROA CIRCUIT - ROAD UPGRADE
ROADWORKS AND DRAINAGE PLAN
SHEET 1 OF 8

Status: DETAILED DESIGN

Drg No. 60664764-041

Rev. 3



Euroa Ct ALDOGA
As Built Culvert 12

Doc No.: 1641-CULV-12

ROBINSON ENGINEERING SURVEYS

DRAWN: SR
SCALE 1:300 @ A3
14-11-2022

LEGEND

EXISTING FEATURES

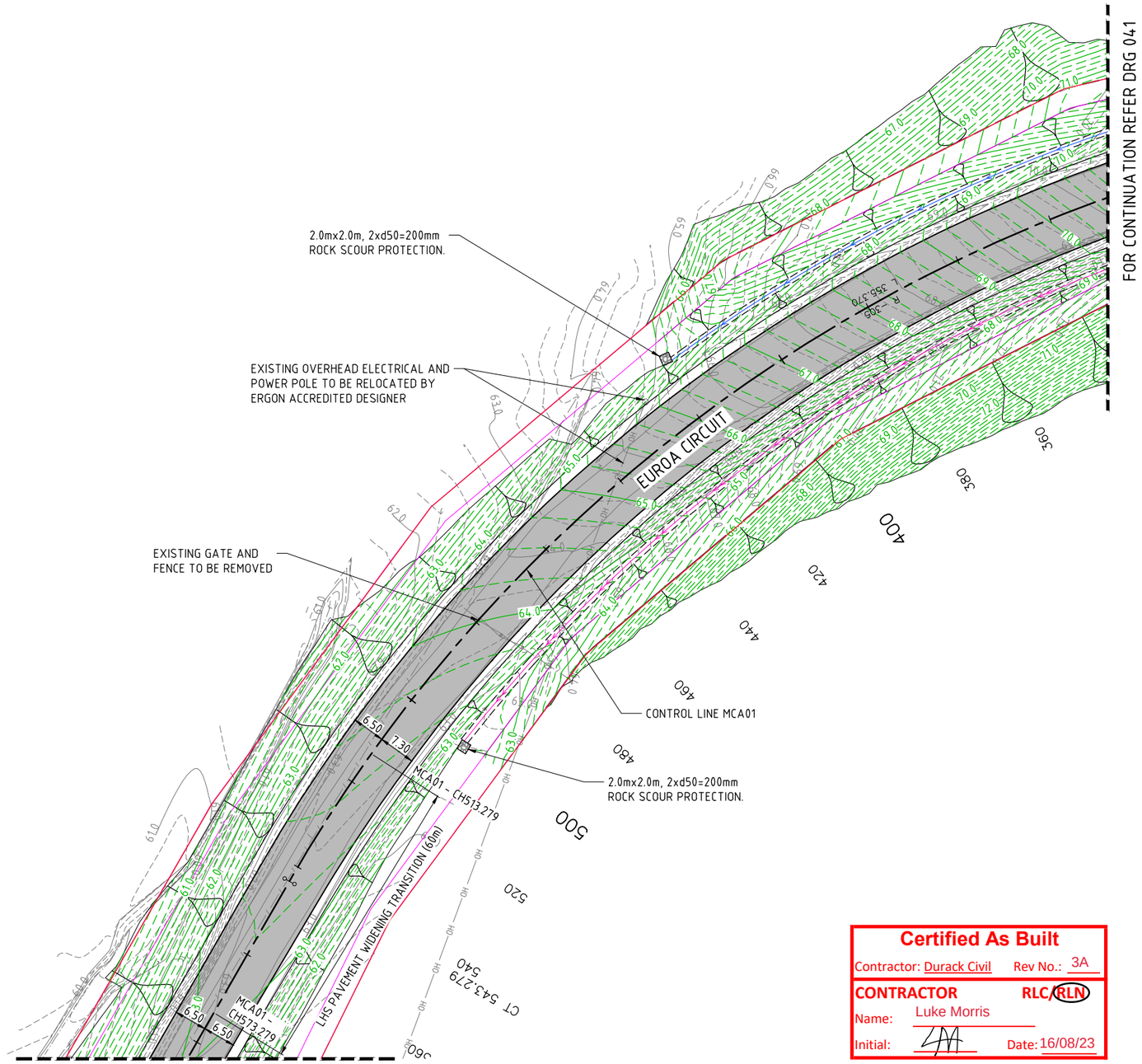
- PROPERTY BOUNDARY
- EXISTING CONTOURS (0.25m INTERVAL)
- CULVERT CROSSING WITH HEADWALL
- EDGE OF BITUMEN
- TOP OF BANK
- BOTTOM OF BANK
- FENCE
- GUARDRAIL
- OVERHEAD ELECTRICAL
- EXISTING POWER / LIGHT POLE
- GATE

DESIGN FEATURES

- SERVICE CORRIDOR
- CONTOURS (0.25m INTERVAL)
- SIDE BATTER
- TABLE DRAIN 1.2m BASE WIDTH (REFER DRG 166 FOR TYPICAL DETAILS)
- TABLE DRAIN 1.5m BASE WIDTH (REFER DRG 166 FOR TYPICAL DETAILS)
- TABLE DRAIN 2.0m BASE WIDTH (REFER DRG 166 FOR TYPICAL DETAILS)
- Q3 MONTH FLOW CAPACITY SWALE (REFER DRG 166 FOR TYPICAL DETAILS)
- CULVERT CROSSING WITH HEADWALL (REFER DRG 161 AND 162 FOR TYPICAL DETAILS)
- TABLE DRAIN EARTH BUND AT CULVERT INLET (REFER DRG 162 FOR TYPICAL DETAILS)
- 12–1 DRAINAGE STRUCTURE LABEL
- SEALED PAVEMENT (REFER DRG 121 FOR PAVEMENT DETAILS)
- ROCK SCOUR PROTECTION (REFER DRG 161 FOR DETAILS)

NOTES

1. LINEMARKING, SIGNS AND GUIDE POSTS NOT SHOWN FOR CLARITY. REFER DRGS 101 - 109 FOR DETAILS.
2. REFER DRG 161 - 166 FOR CULVERT DETAILS AND LONGITUDINAL SECTIONS.



Certified As Built

Contractor: Durack Civil Rev No.: 3A

CONTRACTOR RLC/RLN

Name: Luke Morris

Initial: Date: 16/08/23

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A	OR	22.10.21	ISSUED FOR REVIEW	SR

Scale

SCALE B 0 10 20 25m 1 : 1000 (A3) 1 : 500 (A1)

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DESIGNED	AS	CHECKED	TP
DRAWN	OR	CHECKED	KP
APPROVED	SR	DATE	12.07.22

AECOM

RPEQ No. 14965
AECOM Australia Pty Ltd A.B.N. 20 093 846 925

Queensland Government

ECONOMIC DEVELOPMENT QUEENSLAND

EUROA CIRCUIT - ROAD UPGRADE
ROADWORKS AND DRAINAGE PLAN
SHEET 2 OF 8

Status: DETAILED DESIGN

Drg No. 60664764-042

Rev. 3

LAST MODIFIED:7/7/2022 4:42 PM

CAD REF:\\NA.AECOMNET.COM\LFS\APAC\BRISBANE-AUBNET\SECURE\PROJECTS\60X\60664764_EUROA_CIRCUIT_DD\900_CAD_GIS\910_CAD\20-SHEETS\60664764-042.DWG

FOR CONTINUATION REFER DRG 042

EXISTING FENCE TO BE REMOVED

EXISTING CULVERTS AND HEADWALLS TO BE REMOVED

Q3 MONTH FLOW CAPACITY SWALE (TYP). REFER DRG 166 FOR TYPICAL SECTION.

LHS PAVEMENT WIDENING TRANSTION (60m)

SWALE A

EXISTING FENCE TO BE REMOVED

CULVERT C2

CONTROL LINE MRA01

EUROA CIRCUIT

PAVEMENT WIDENING TRANSITION (60m)

CULVERT C1

CONTROL LINE MCA01

CONTROL LINE MRA02

CONTROL LINE MCA01

CULVERT C3
CULVERT INLET SCREEN TO BE PROVIDED AS PER IPWEAQ STD DRG DS-082.

~~151m LONG SAFETY FENCE ALONG TOP OF TABLE DRAIN (CH2280-CH2431). REFER CMDG STD DRG CMDG-G-014 TYPE 1B FOR DETAILS.~~

Safety fence removed

EXISTING CULVERT, HEADWALL AND CONCRETE SLAB PROTECTION TO BE REMOVED

ROCK SCOUR PROTECTION (2 x D50=200mm) TO BASE OF TABLE DRAIN, 1.2m BEYOND BASE OF TABLE DRAIN BOTH SIDES, AND AT CULVERT INLET AS SHOWN.

2.0mx2.0m, 2xd50=200mm ROCK SCOUR PROTECTION.

LOT 2

LOT 1

TRANSITION TABLE DRAIN BASE WIDTH 1.2m TO 2.0m AT CH802.763 MCA01 OVER 5.0m

CONTRACTOR TO ALLOW FOR FUTURE SERVICES INFRASTRUCTURE (WATER, ICT, ELECTRICAL) CROSSING UNDER THE ROAD. CONTRACTOR TO REFER TO CIVIL SPECIFICATIONS FOR CONCURRENT PROJECTS/ACTIVITIES OCCURRING ON SITE.

Drains lowered both sides of the road to cross section profile of as-builts 1641-AC-XSEC-01

FOR CONTINUATION REFER DRG 044

FOR CONTINUATION REFER DRG 048

LEGEND

EXISTING FEATURES

- PROPERTY BOUNDARY
- EXISTING CONTOURS (0.25m INTERVAL)
- CULVERT CROSSING WITH HEADWALL
- EDGE OF BITUMEN
- TOP OF BANK
- BOTTOM OF BANK
- FENCE
- GUARDRAIL
- OVERHEAD ELECTRICAL
- EXISTING POWER / LIGHT POLE
- GATE

DESIGN FEATURES

- SERVICE CORRIDOR
- CONTOURS (0.25m INTERVAL)
- SIDE BATTER
- TABLE DRAIN 1.2m BASE WIDTH (REFER DRG 166 FOR TYPICAL DETAILS)
- TABLE DRAIN 1.5m BASE WIDTH (REFER DRG 166 FOR TYPICAL DETAILS)
- TABLE DRAIN 2.0m BASE WIDTH (REFER DRG 166 FOR TYPICAL DETAILS)
- Q3 MONTH FLOW CAPACITY SWALE (REFER DRG 166 FOR TYPICAL DETAILS)
- CULVERT CROSSING WITH HEADWALL (REFER DRG 161 AND 162 FOR TYPICAL DETAILS)
- TABLE DRAIN EARTH BUND AT CULVERT INLET (REFER DRG 162 FOR TYPICAL DETAILS)
- 12–1 DRAINAGE STRUCTURE LABEL
- SEALED PAVEMENT (REFER DRG 121 FOR PAVEMENT DETAILS)
- ROCK SCOUR PROTECTION (REFER DRG 161 FOR DETAILS)
- FK TYPE 10 FLUSH KERB (REFER STD DRG CMDG-R-060 FOR DETAILS, REFER DRGS 061 AND 062 FOR KERB EXTENTS)

NOTES

1. LINEMARKING, SIGNS AND GUIDE POSTS NOT SHOWN FOR CLARITY. REFER DRGS 101 - 109 FOR DETAILS.
2. REFER DRG 161 - 166 FOR CULVERT DETAILS AND LONGITUDINAL SECTIONS.

Certified As Built

Contractor: Durack Civil Rev No.: 3A

CONTRACTOR RLC/RLN

Name: Luke Morris

Initial: LM Date: 16/08/23

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C	OR	10.12.21	RESPONSE TO GRC OPERATIONAL WORKS RFI	SR
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A	OR	22.10.21	ISSUED FOR REVIEW	SR

Scale

SCALE B 0 10 20 25m
1 : 1000 (A3) 1 : 500 (A1)

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DESIGNED	AS	CHECKED	TP
DRAWN	OR	CHECKED	KP
APPROVED	SR	DATE	12.07.22

AECOM

RPEQ No. 14965
AECOM Australia Pty Ltd A.B.N. 20 093 846 925

Queensland Government

ECONOMIC DEVELOPMENT QUEENSLAND

EUROA CIRCUIT - ROAD UPGRADE
ROADWORKS AND DRAINAGE PLAN
SHEET 3 OF 8

Status: DETAILED DESIGN

Drg No. 60664764-043

Rev. 3

LAST MODIFIED:7/7/2022 2:31 PM

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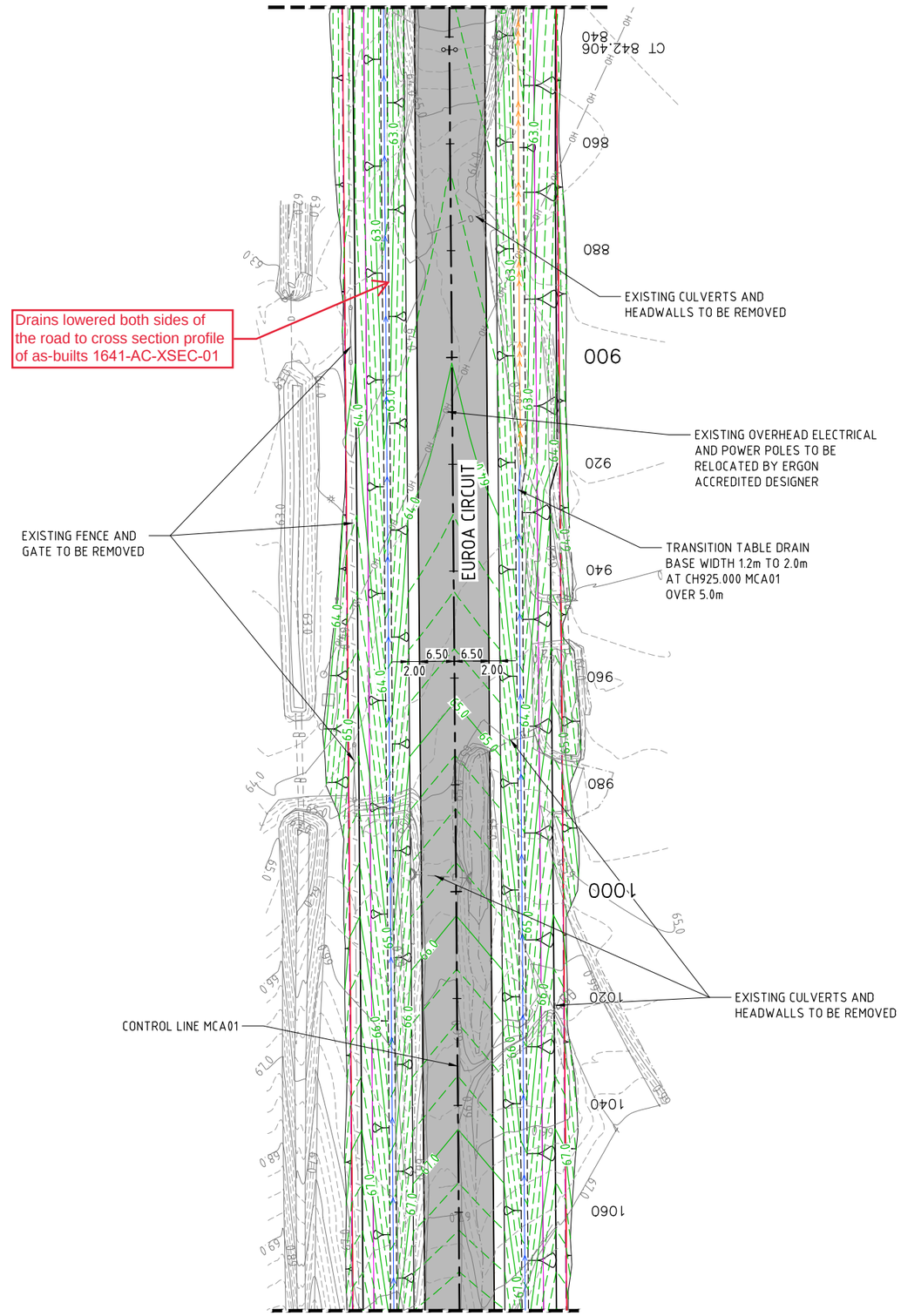
FOR CONTINUATION REFER DRG 043



FOR CONTINUATION REFER DRG 045

LEGEND

EXISTING FEATURES

- PROPERTY BOUNDARY
- EXISTING CONTOURS (0.25m INTERVAL)
- CULVERT CROSSING WITH HEADWALL
- EDGE OF BITUMEN
- TOP OF BANK
- BOTTOM OF BANK
- FENCE
- GUARDRAIL
- OVERHEAD ELECTRICAL
- EXISTING POWER / LIGHT POLE
- GATE

DESIGN FEATURES

- SERVICE CORRIDOR
- CONTOURS (0.25m INTERVAL)
- SIDE BATTER
- TABLE DRAIN 1.2m BASE WIDTH (REFER DRG 166 FOR TYPICAL DETAILS)
- TABLE DRAIN 1.5m BASE WIDTH (REFER DRG 166 FOR TYPICAL DETAILS)
- TABLE DRAIN 2.0m BASE WIDTH (REFER DRG 166 FOR TYPICAL DETAILS)
- Q3 MONTH FLOW CAPACITY SWALE (REFER DRG 166 FOR TYPICAL DETAILS)
- CULVERT CROSSING WITH HEADWALL (REFER DRG 161 AND 162 FOR TYPICAL DETAILS)
- TABLE DRAIN EARTH BUND AT CULVERT INLET (REFER DRG 162 FOR TYPICAL DETAILS)
- 12–1 DRAINAGE STRUCTURE LABEL
- SEALED PAVEMENT (REFER DRG 121 FOR PAVEMENT DETAILS)
- ROCK SCOUR PROTECTION (REFER DRG 161 FOR DETAILS)

NOTES

1. LINEMARKING, SIGNS AND GUIDE POSTS NOT SHOWN FOR CLARITY. REFER DRGS 101 – 109 FOR DETAILS.
2. REFER DRG 161 – 166 FOR CULVERT DETAILS AND LONGITUDINAL SECTIONS.

Certified As Built

Contractor: Durack Civil Rev No.: 2A

CONTRACTOR RLC/RLN

Name: Luke Morris

Initial: LM Date: 16/08/23

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REVISIONS

No.	BY	DATE	DESCRIPTION	APPD
2	OR	25.03.22	ISSUED FOR TENDER	SR
1	OR	16.12.21	ISSUED FOR CONSTRUCTION	SR
B	OR	28.10.21	ISSUED FOR OPERATIONAL WORKS APPROVAL	SR
A	OR	22.10.21	ISSUED FOR REVIEW	SR

Scale

SCALE B 0 10 20 25m 1 : 1000 (A3) 1 : 500 (A1)

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DESIGNED	AS	CHECKED	TP
DRAWN	OR	CHECKED	KP
APPROVED	SR	DATE	12.07.22

AECOM

RPEQ No. 14965
AECOM Australia Pty Ltd A.B.N. 20 093 846 925

Queensland Government

ECONOMIC DEVELOPMENT QUEENSLAND

EUROA CIRCUIT – ROAD UPGRADE
ROADWORKS AND DRAINAGE PLAN
SHEET 4 OF 8

Status: DETAILED DESIGN

Drg No. 60664764-044

Rev. 2

LAST MODIFIED:7/7/2022 2:23 PM

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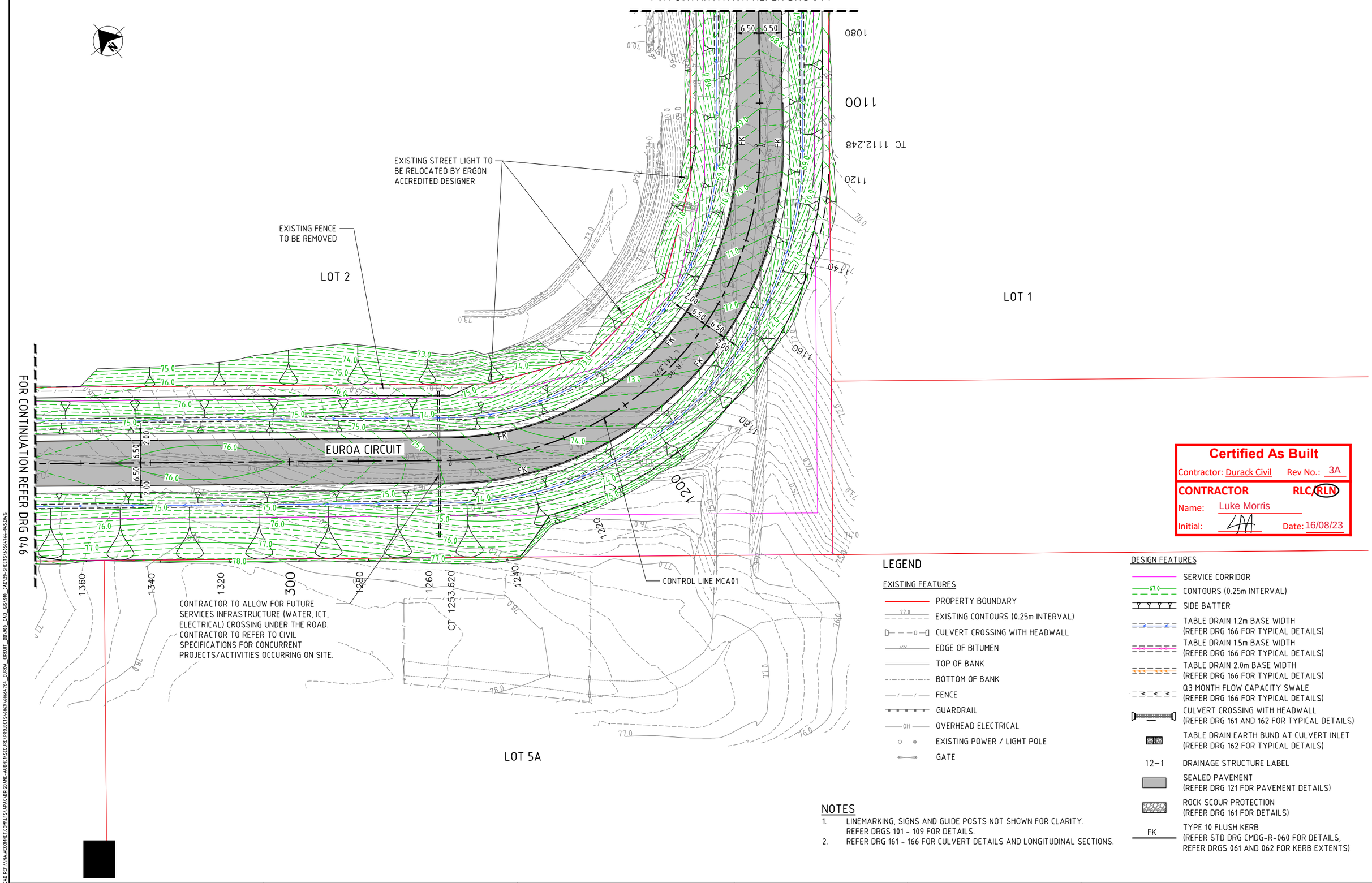
FOR CONTINUATION REFER DRG 044



Certified As Built

Contractor: Durack Civil Rev No.: 3A

CONTRACTOR RLC/RLN

Name: Luke Morris

Initial: LM Date: 16/08/23

LEGEND

EXISTING FEATURES

- PROPERTY BOUNDARY
- EXISTING CONTOURS (0.25m INTERVAL)
- CULVERT CROSSING WITH HEADWALL
- EDGE OF BITUMEN
- TOP OF BANK
- BOTTOM OF BANK
- FENCE
- GUARDRAIL
- OVERHEAD ELECTRICAL
- EXISTING POWER / LIGHT POLE
- GATE

DESIGN FEATURES

- SERVICE CORRIDOR
- CONTOURS (0.25m INTERVAL)
- SIDE BATTER
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- FK TYPE 10 FLUSH KERB (REFER STD DRG CMDG-R-060 FOR DETAILS, REFER DRGS 061 AND 062 FOR KERB EXTENTS)

NOTES

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2. REFER DRG 161 - 166 FOR CULVERT DETAILS AND LONGITUDINAL SECTIONS.

CAD REF:\\WA.AECOMNET.COM\LES\APAC\BRISBANE-AUBNE\SECURE\PROJECTS\60X\60664764_EUROA_CIRCUIT_DD\910_CAD_GIS\910_CAD\20-SHEETS\60664764-045.DWG

LAST MODIFIED:7/7/2022 2:23 PM

REVISIONS

No.	BY	DATE	DESCRIPTION	APPD
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2	OR	25.03.22	ISSUED FOR TENDER	SR
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A	OR	22.10.21	ISSUED FOR REVIEW	SR

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Scale

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APPROVED	SR	DATE	12.07.22

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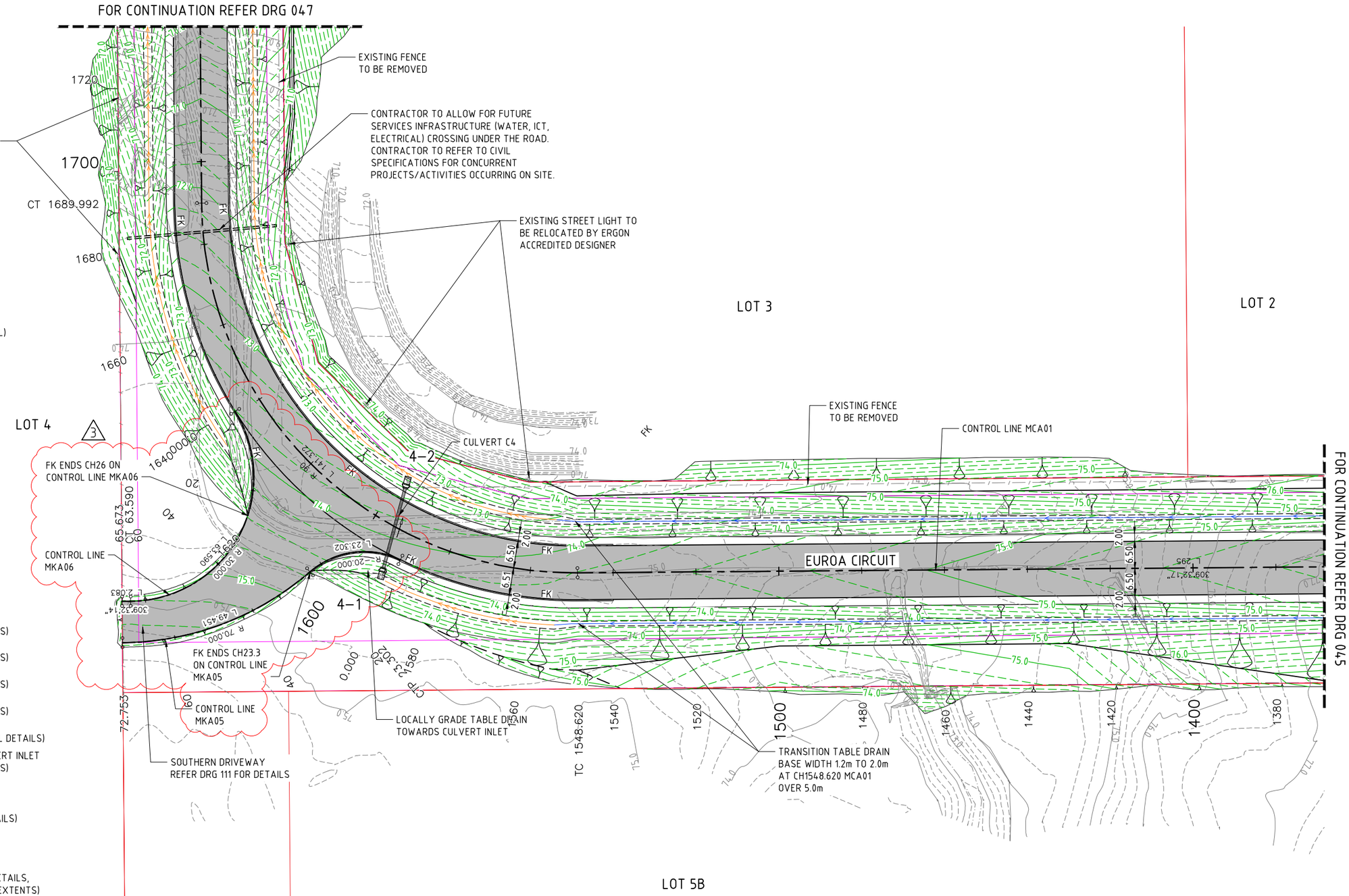
ECONOMIC DEVELOPMENT QUEENSLAND

EUROA CIRCUIT - ROAD UPGRADE
ROADWORKS AND DRAINAGE PLAN
SHEET 5 OF 8

Status: DETAILED DESIGN

Drg No. 60664764-045

Rev. 3



LEGEND

EXISTING FEATURES

- PROPERTY BOUNDARY
- EXISTING CONTOURS (0.25m INTERVAL)
- CULVERT CROSSING WITH HEADWALL
- EDGE OF BITUMEN
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Contractor: Durack Civil Rev No.: 3A
CONTRACTOR RLC/RLN
Name: Luke Morris
Initial: LM Date: 16/08/23

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Scale
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DRAWN	OR	CHECKED	KP
APPROVED	SR	DATE	12.07.22

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ECONOMIC DEVELOPMENT QUEENSLAND
EUROA CIRCUIT – ROAD UPGRADE
ROADWORKS AND DRAINAGE PLAN
SHEET 6 OF 8

Status: DETAILED DESIGN
Drg No. 60664764-046
Rev. 3

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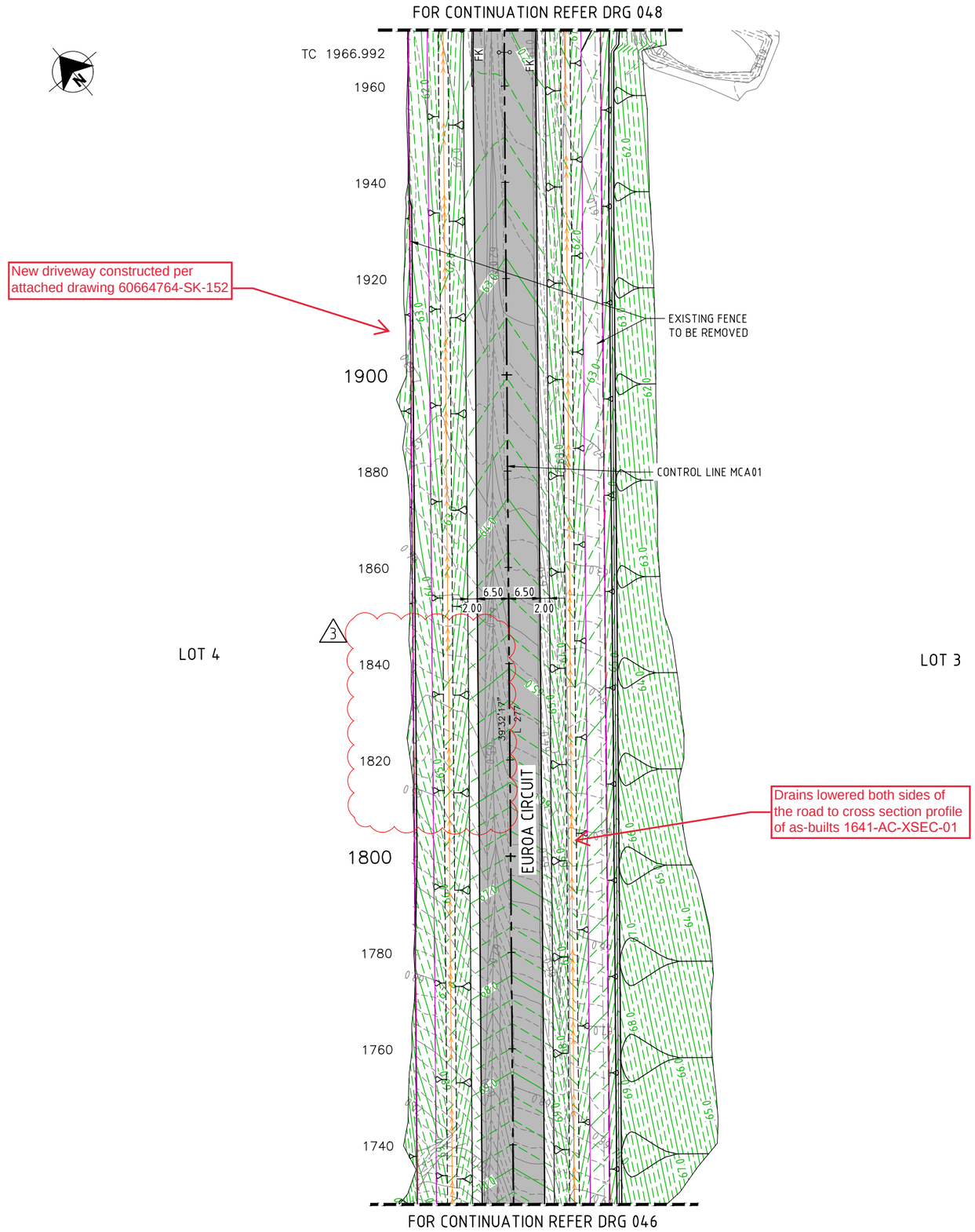

LEGEND

EXISTING FEATURES

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ECONOMIC DEVELOPMENT QUEENSLAND

EUROA CIRCUIT - ROAD UPGRADE
ROADWORKS AND DRAINAGE PLAN
SHEET 7 OF 8

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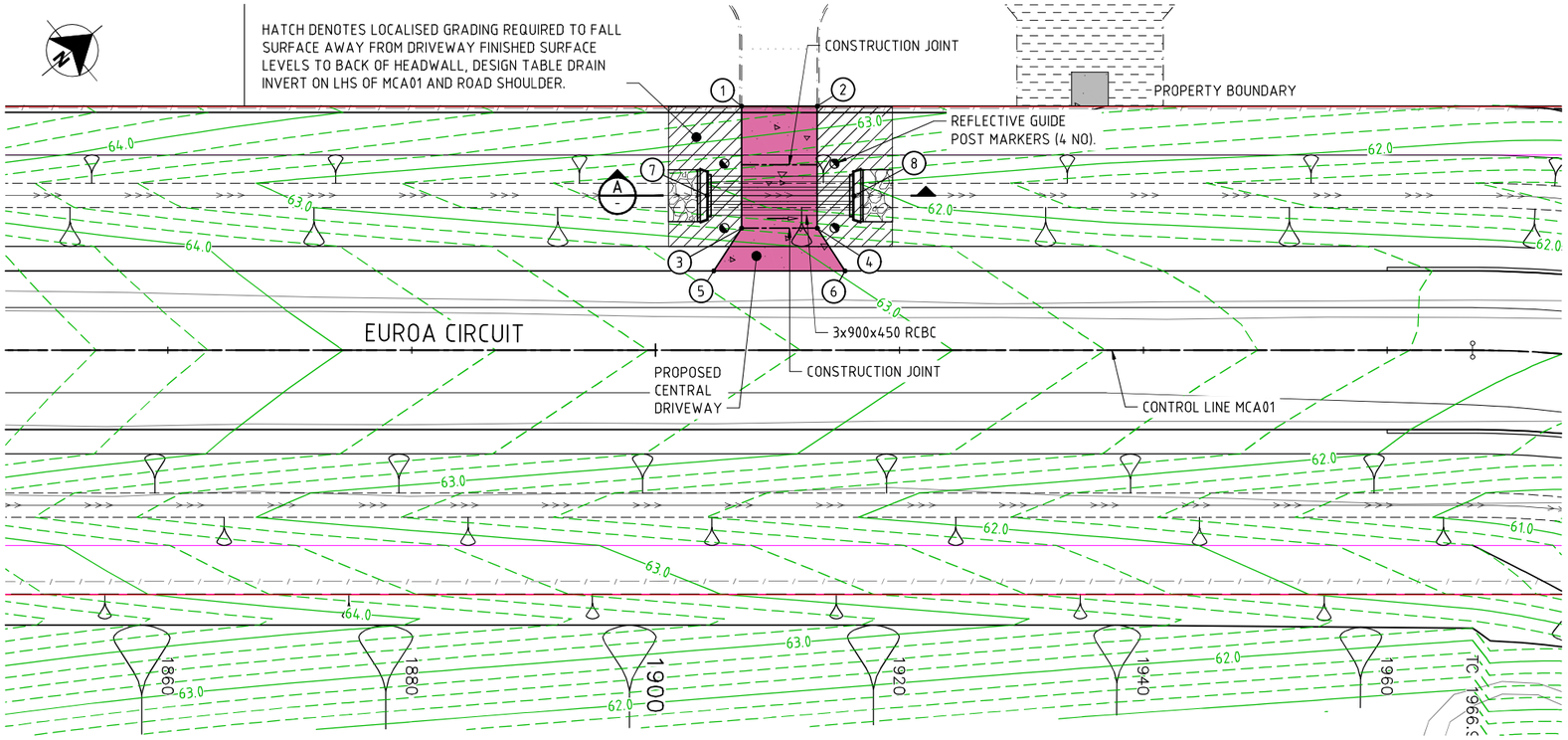
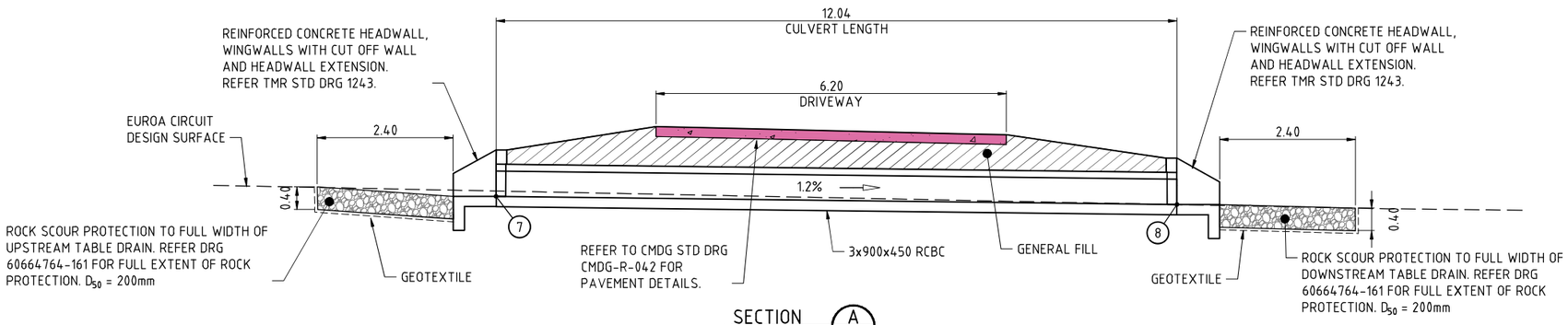


PLAN
SCALE 1:250

SETOUT POINTS

POINT No.	COORDINATES		LEVEL	DESCRIPTION
	EASTING	NORTHING		
1	304166.517	7361818.776	63.609	DRIVEWAY FSL
2	304170.464	7361823.558	63.485	DRIVEWAY FSL
3	304174.229	7361812.410	63.376	DRIVEWAY FSL
4	304178.176	7361817.192	63.227	DRIVEWAY FSL
5	304175.476	7361808.422	63.197	DRIVEWAY FSL
6	304182.329	7361816.724	62.982	DRIVEWAY FSL
7	304170.372	7361811.926	62.204	CULVERT IL
8	304178.044	7361821.212	62.059	CULVERT IL



SECTION A
SCALE 1:50

NOTES:
1. REFER TO DRG 60664764-161 FOR ALL CULVERT DETAILS AND REQUIREMENTS.
2. REFER TO CIVIL PROJECT SPECIFICATIONS FOR ALL EARTHWORKS, STORMWATER AND ROADWORKS REQUIREMENTS.

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LAST MODIFIED:9/14/2022 2:36 PM

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SCALE C 0 5 10 12.5m
1 : 500 (A3) 1 : 250 (A1)

Rev A
16.09.2022

EUROA CURCUIT ALDOGA
CENTRAL DRIVEWAY AND CULVERT

60664764-SK-152

LEGEND

EXISTING FEATURES

- PROPERTY BOUNDARY
- EXISTING CONTOURS (0.25m INTERVAL)
- CULVERT CROSSING WITH HEADWALL
- EDGE OF BITUMEN
- TOP OF BANK
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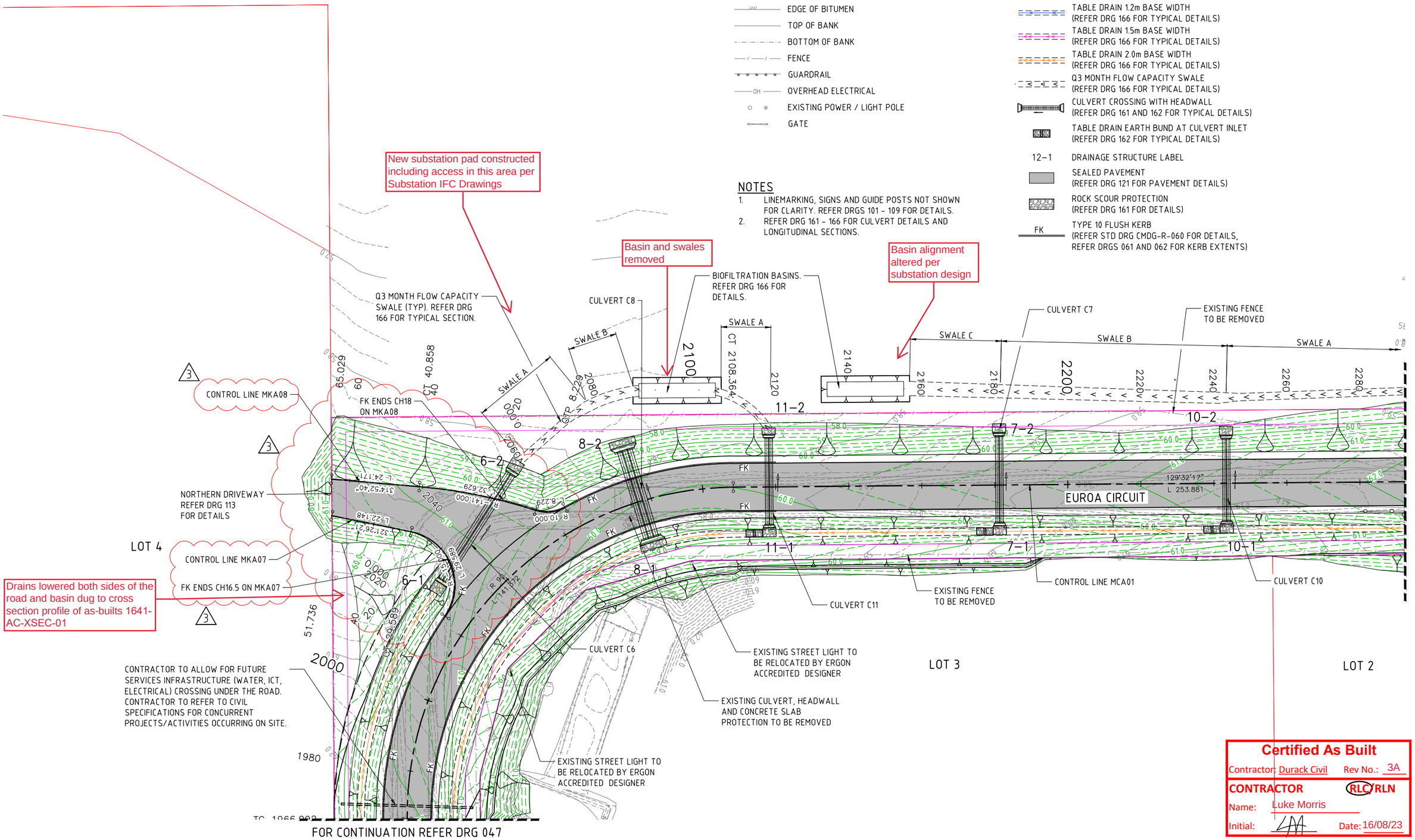

Certified As Built

Contractor: Durack Civil Rev No.: 3A

CONTRACTOR RLC/RLN

Name: Luke Morris

Initial: LM Date: 16/08/23

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RPEQ No. 14965
AECOM Australia Pty Ltd A.B.N. 20 093 846 925

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ECONOMIC DEVELOPMENT QUEENSLAND

EUROA CIRCUIT - ROAD UPGRADE
ROADWORKS AND DRAINAGE PLAN
SHEET 8 OF 8

Status: DETAILED DESIGN

Drg No. 60664764-048

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LAST MODIFIED:7/12/2022 3:46 PM

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Appendix C Pre-lodgement information

Euroa Domestic H2 Project

Minutes – pre-lodgement discussions

Matter	
Meeting Location:	EDQ/OCG office – 1 William Street, Brisbane – 13th Floor
Project Name:	Euroa Domestic Hydrogen project – Development application matters
Date & Time:	Monday 22 August 2022
Attendees:	• Owen Sela (OS) – Vena Energy Australia (VEA) • Duncan Mortimer (DM) – VEA • Mark Carter (MC) – VEA • John Wagner (JW) - HIA/Wagner Group • John White (JW2) - Economic Development Qld (EDQ) • John Brun (JB) – EDQ • Matt Morris (MM)– EDQ • Sally Chapman (SC) – Office of the Coordinator General (OCG) • Amanda Koenig (AK) – OCG • Andrew Walls (AW) - OCG

Minutes:

Agenda Items	Discussion points	Action
1. Update Project detail	- Brief summary of project provided by MC. - EDQ/OCG reps indicated they had read Development Plan. - JW confirmed 4-5 trucks per day to distribute compressed Hydrogen domestically.	-
2. Discuss development application (DA) matters	- SC and AK confirmed Amanda will be the OCG's contact person for application matters. <u>Application Type</u> - SC confirmed DA under SDA Development scheme isn't referred to as 'Code assessable' but in terms of determining if public notification is required the new development scheme only requires Public Notification when the defined use is not considered a 'preferred' Use. <u>Defined Use</u> - MC suggested the defined use is likely 'High Impact Industry' due to the Hydrogen chemical being defined as a 'Dangerous Good' pursuant to the Dangerous Goods code. - SC advised the traffic impact generated by the development will influence when use is medium or high impact industry. - MC advised he would send separate corres to OCG (AK and SC) to confirm defined use. <u>EIS/IAR?</u> - SC agreed with MC's interpretation that no EIS/IAR is required as the EPBC matters are low to minimal risk. MC advised VEA may still refer to Federal Enviro department for clarity that the project is 'not a controlled action'.	- MC to send corres to OCG (SC and AK) to confirm: Defined Use, referral to TMR, SARA involvement in EA application process.

Agenda Items	Discussion points	Action
	<u>Referrals to State departments</u> - SC confirmed OCG will use Planning Reg triggers as a guide to determine which state agencies need to comment on the application. - MC advised site is not within 25m of State Transports Infrastructure, thus could only be triggered based on a threshold trigger (sch 20 of Regs). MC will send corres to OCG (AK and SC) to confirm if TMR is triggered - MC advised low traffic movements 4-5 trucks per day (Confirmed by JW) to distribute Hydrogen plus some other traffic for staff (1-2 vehicles), plus effluent disposal). - The development will trigger an EA for an ERA 7 (chemical manufacturing) and 8 (Chemical storage). VEA is seeking to run application under EP Act with DES concurrently with the DA application to ensure consistency at the time drafting conditions etc. SC mentioned involvement of SARA in the process. Request to clarify this separately. <u>Technical Aspects</u> - Noise matter to be discussed with DES as part of EA application process - OCG confirmed Visual Impacts aren't likely to be matter of concern. Agree this can be addressed in the Planning report with no requirement for separate Visual Impact Assessment (VIA). - OCG requested construction aspects to development to be addressed in the application. MC advised some information can be included; however the EA will be required a Draft Site Based Management Plan (SBMP) to prepared/submitted, which will address impacts during construction and operation. - Traffic will likely create only 4 -5 trucks per day, thus low impact - Bushire hazard located in vegetated area in lot 6 (ie NE of subject site, across Euroa Circuit). EDQ advised the portion of lot 6 in front of Euroa Circuit forms part of the stormwater management area, thus will remain cleared, effectively acting as a buffer to the subject site from the bushfire hazard area. EDQ additionally advised the Euroa circuit road infrastructure is quite wide in this location, additionally acting as a buffer.	

Mark Carter

From: Amanda Koenig <Amanda.Koenig@coordinatorgeneral.qld.gov.au>
Sent: Friday, 4 November 2022 9:50 AM
To: Mark Carter
Cc: Sally Chapman
Subject: RE: [Ext] RE: Euroa H2 Project - Defined use pursuant to the GSDA Development Scheme

Hi Mark

We have discussed the proposed SDA application with Department of Transport and Main Roads (DTMR). DTMR requests the referral of the project as they are currently conducting planning of Gladstone Mt Larcom Road and have an interest in the following matters (but not limited to):

1. Construction and Operational Traffic (including, if possible, the origin/ destination/type of the construction related traffic)
2. Details on piped inputs and outputs, with a particular interest on size, alignment and location of pipes relative to the state-controlled roads and rail network, whether the pipes are to be underground/ overhead, crossing state-controlled roads and rail lines or proposed to be located along state-controlled roads.

I'm happy to discuss this with you if that assists you. If you have any queries, please let me know.

Kind regards,
Amanda

Queensland Government

Amanda Koenig
Principal Project Officer
Planning and Development Services – Office of the Coordinator-General
Department of State Development, Infrastructure, Local Government and Planning

*Microsoft teams – **meet now***

P 3452 7575 (Monday, Wednesday, Thursday and Friday)
Level 17, 1 William Street, Brisbane QLD 4000
PO Box 15517, CITY EAST, QLD 4002
statedevelopment.qld.gov.au

From: Mark Carter <mark.carter@venaenergy.com>
Sent: Wednesday, 19 October 2022 9:59 AM
To: Amanda Koenig <Amanda.Koenig@coordinatorgeneral.qld.gov.au>
Cc: Sally Chapman <Sally.Chapman@coordinatorgeneral.qld.gov.au>; Duncan Mortimer <Duncan.Mortimer@venaenergy.com>; Felicity McCann <Felicity.McCann@coordinatorgeneral.qld.gov.au>; Melanie Harris <Melanie.Harris@coordinatorgeneral.qld.gov.au>
Subject: RE: [Ext] RE: Euroa H2 Project - Defined use pursuant to the GSDA Development Scheme

Hi Amanda,

Further to our recent phone discussion, I provide advice relating to the TMR referral triggers, summarising the proposed development and the reason why VEA believes application is not required to be referred to TMR. We are happy for you to provide this advice to your SARA/TMR reps to confirm their view on the matter.

Please call if you require.

Cheers

Mark Carter
Manager Development & Stakeholders
D: +61 408 883 228 |E: mark.carter@venaenergy.com

VENA ENERGY

Suite 2, Level 10 | 200 Mary Street | Brisbane QLD 4000
Website: www.venaenergy.com.au |

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From: Amanda Koenig <Amanda.Koenig@coordinatorgeneral.qld.gov.au>
Sent: Wednesday, 14 September 2022 10:51 AM
To: Mark Carter <mark.carter@venaenergy.com>
Cc: Sally Chapman <Sally.Chapman@coordinatorgeneral.qld.gov.au>; Duncan Mortimer <Duncan.Mortimer@venaenergy.com>; Felicity McCann <Felicity.McCann@coordinatorgeneral.qld.gov.au>; Melanie Harris <Melanie.Harris@coordinatorgeneral.qld.gov.au>
Subject: [Ext] RE: Euroa H2 Project - Defined use pursuant to the GSDA Development Scheme

Hi Mark

Thank you for your email and phone discussion this morning. In response to the questions raised please see our responses below.

Defined use:

Based on the information provided to date, the definition of "high impact industry" is an appropriate definition for the proposal. As the application progresses and further detailed information becomes available in relation to Stage 1, we can reassess this advice if needed. We can review and provide comment on any draft application material prior to lodgement of an SDA application.

Requirement for public notification:

Schedule 2, section 2.3 of the Gladstone SDA (GSDA) development scheme (May 2022) includes requirements for the public consultation stage and whether this stage is appliable or not. The public consultation stage applies unless an application is for a material change of use for a defined use that supports the preferred development intent of the

precinct. In this case the site is included in Port Related Industry Precinct of the GSDA and high impact industry is a use listed as supporting the preferred development intent of the precinct. The other uses that are listed as supporting the preferred development intent includes medium impact industry, port facilities and special industry.

Therefore, the public consultation stage would not apply if the use proposed is a high impact industry.

Referral to State Agencies

A referral entity for an SDA application is nominated by the Coordinator-General to provide technical advice about any element of an SDA application. The referral under the SDA application process is different to the State Assessment and Referral Agency (SARA) process under the *Planning Regulation 2017*, however we refer SDA applications to state government agencies that would have a referral trigger under the Planning Act as a guide.

The relevant council and other entities nominated by the Coordinator-General are refereed SDA applications for review and comment on their particular areas of interest as well. Other agencies are referred SDA applications on a case-by-case basis even if the application trigger under the planning regulation is not triggered.

Department of Transport and Main Roads (DTMR) are likely to be a referral entity for this application to enable DTMR to determine if the proposal has any impacts on the State infrastructure network. We are happy to confirm with DTMR if they would like to see a copy of the application as part of the referral process prior to lodgement. As discussed, we can provide some tailored information to DTMR for them to review and can arrange a meeting if required.

Department of Environment and Science is a referral entity when a proposal also involves an Environmentally Relevant Activity. This is to ensure conditions on any SDA applications do not conflict with environmental authority likely conditions/requirements. We work closely and collaborate with DES to ensure both applications are assessed in parallel. The other likely referral entities for Stage 1 will also be the Office of Industrial Relations (Major Hazard Facilities Unit) and Resources Safety & Health Queensland.

We also often refer applications to third parties for their information. In this case we may refer the application to FFI as a nearby future operator.

In the documentation there is also a reference to vegetation clearing. From aerial photography the site appears to be predominantly cleared, however if vegetation clearing is proposed please note the relevant provisions in the development scheme relating to the regulation of operational works for native vegetation clearing in the Gladstone SDA. Among other things, this includes:

- section 1.3.2 (excluded development) development that would otherwise be SDA assessable development or SDA self-assessable development is not regulated development for the development scheme if development for operational work for clearing native vegetation in accordance with Schedule 21 of the *Planning Regulation 2017*, except for clearing that is for urban purposes in an urban area
- section 2.4.1, Table 1 (regulated development within the Port Related Industry Precinct) includes operational works for clearing of native vegetation as SDA self-assessable development and/or SDA assessable (where identified in an SDA application for MCU or reconfiguring a lot)
- If applicable, schedule 3, section 3 contains requirements for SDA self-assessable development for operational works for the clearing of native vegetation.

Please don’t hesitate to contact us with any queries and we look forward to working with you on this project.

Kind regards
Amanda

Queensland Government

Amanda Koenig
Principal Project Officer
Planning and Development Services – Office of the Coordinator-General
Department of State Development, Infrastructure, Local Government and Planning

*Microsoft teams – **meet now***

P 3452 7575 (Monday, Wednesday, Thursday and Friday)
Level 17, 1 William Street, Brisbane QLD 4000
PO Box 15517, CITY EAST, QLD 4002
statedevelopment.qld.gov.au

From: Mark Carter <mark.carter@venaenergy.com>
Sent: Tuesday, 6 September 2022 5:44 PM
To: Amanda Koenig <Amanda.Koenig@coordinatorgeneral.qld.gov.au>
Cc: Sally Chapman <Sally.Chapman@coordinatorgeneral.qld.gov.au>; Duncan Mortimer <Duncan.Mortimer@venaenergy.com>
Subject: Euroa H2 Project - Defined use pursuant to the GSDA Development Scheme

Hi Amanda,

It was great to meet you in the recent meeting regarding the Euroa H2 project. During the meeting we discussed a few matters relating to the required development application that required further follow up correspondence including:

- Defined Use
- Confirm No Public Notification required
- Referral to state agencies

My comments on each matter are as follows:

Defined Use:
As mentioned in the meeting, it is our interpretation the defined use for the facility best aligns with 'High Impact Industry' use definition. I note the definition of this use is as follows:

high impact industry *means the use of premises for an industrial activity that:*

a) includes the manufacturing, producing, processing, repairing, altering, recycling, storing, distributing, transferring, or treating of products

b) requires onsite controls for emissions, hazardous substances, and dangerous goods risks

c) has one or more of the following attributes:

a. potential for significant impacts on sensitive land uses due to offsite emissions including aerosols, fumes, particles, smoke, odour, and noise

b. potential for significant offsite impacts in the event of fire, explosion, or toxic release

c. *generates high traffic flows in the context of the locality or the road network*

d. *may involve night-time and outdoor activities.*

Note: examples of high impact industry include abattoirs, concrete batching plants, boiler making and engineering, and metal foundry, storing and distributing dangerous goods

Comments to each item:

Item a): The proposed facility is producing, storing and distributing products being compressed hydrogen

Item b): requires onsite control of a 'Dangerous Good' being control of hydrogen gas through establishment of a specialised plant. The Development Scheme does not specifically define a 'Dangerous Good' however we note the Environmental Protection Regulation 2019 (ie when assessing ERA's) does define 'Dangerous Goods' and references the 'Australian Code for the Transport of Dangerous Goods by Road and Rail' (ADG Code 7.7_0.pdf (ntc.gov.au)). Table 3.2.3 of the Dangerous Goods Code indicates 'Hydrogen, Compressed' is a class 2.1 Dangerous Good. On this basis, we determine the facility is producing and storing a 'Dangerous Good'.

Item c): the proposed development has two (2) of the attributes being:

1. the storage of compressed Hydrogen gas has potential for significant offsite impacts in the event of Fire or explosion
2. May involve night-time activities as the plant is likely to operate 24hrs per day.

Example note: The proposed development aligns with the examples provided in that it will be storing and distributing a dangerous good.

On the above information we seek the OCG to confirm they agree the defined use is 'High Impact Industry'?

Requirement for public notification:
It was suggested by the OCG that if a 'defined use' is a 'preferred use' under the relevant precinct of et development scheme, public notification is not required. If the OCG agrees the defined use is 'High Impact Industry', then we seek a response confirming public notification is not required as the High Impact Industry is a preferred use in the High Impact Industry precinct?

Referral to State Agencies
In the meeting it was confirmed the applicant must state the referral triggers under the Planning Act (and referral entities if known) for the application. Our review of the Planning regulations of the potential referrals has concluded with the following interpretations:

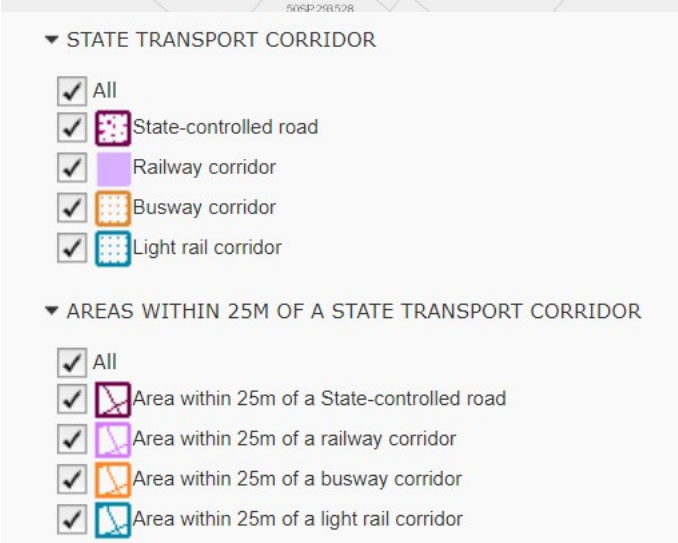
1.State Transport (TMR)
In relation to the referral trigger under sch 10, part 9, Div 4, subdiv 1, table 1, column 2 'State Transport Generally' of the PA regs, this trigger refers to the schedule 20 threshold triggers for referral to TMR for impacts to State transport infrastructure. Item 18 (High Impact industry, other than an abattoir), indicates that referral is triggered if 'Using machinery having an annual throughput of product of 10,000T. The proposed facility does not have a throughput greater than 10,000T as the facility seeks to process 4,000kg (4 tonnes) of compressed hydrogen per day, which is annualised based on 365 days totalling 1460T per year. Additionally, the facility does not use 'machinery' rather the plant only requires power and water inputs to create hydrogen. Both of these products will be transported to site via power lines or pipes and not by machinery.

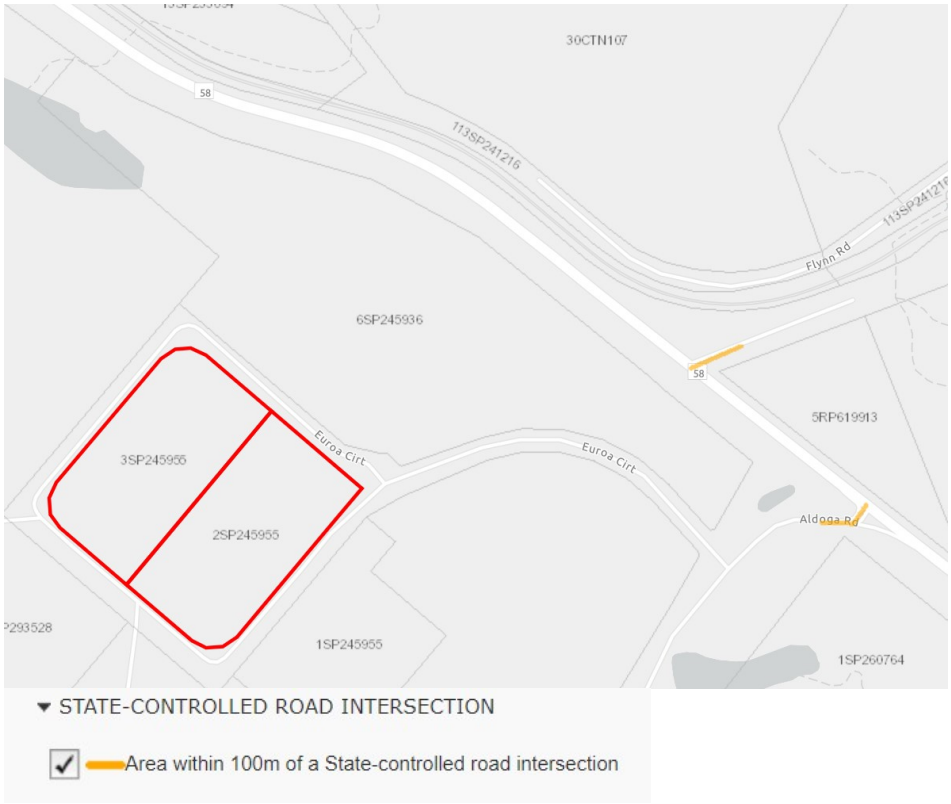
The only output is wastewater. This is likely to be disposed of via truck, which may be considered 'machinery', however the output volumes are likely between 12,000-20,000 Litres per days, which is calculated as 'tonnes per year' basis as follows:

12,000KG- 20,0000KG per day
12T- 20 T per day
4380 - 7300 Tonnes per year

We estimate that wastewater disposal via truck equates to 1-2 medium rigid trucks trips per day or 1 semi-trailer trip per day.
On this basis, we determine the application to not trigger referral tom TMR pursuant sch 10, part 9, Div 4, subdiv 1, table 1, column 2 'State Transport Generally' of the PA regs. Does the OCG agree?

The subject site (Lot 2 and 3 on SP245955) Is not within 25m of the nearest State Controlled Roads (SCR) or rail corridor nor within 100m of an intersection which intersects with an SCR, thus does not trigger referral for being near State transport infrastructure (Sch10, part 9, Div 4, subdiv 2, table 4, column 2)





Our view is that other referrals including vegetation clearing is not triggered as the site is not mapped as containing assessable vegetation, and the site is zoned for an urban purpose in an urban area.

In relation to the EA application seeking ERA's, we propose this will be lodged directly with DES pursuant to the processes established EP Act rather than the Planning Act. This would be lodged generally around the same time as the DA application to ensure alignment of conditions etc. On this basis it is our preference not to treat the EA as a referral, rather we deal directly with DES in a separate EA application process run concurrently with the DA. Does the OCG team agree with this approach?

Based on the above, we don't believe the application will rigger referral to any state agencies Does the OCG agree?

We would appreciate the OCG's response to these question prior to lodging the DA as it helps us to determine the level of detail we need to provide for the with the application. We understand that the OCG will formally confirm which state agencies the application will be referred post lodgement.

Look forward to your responses on these matters. Please call if you have any questions.

Cheers

Mark Carter
Manager Development & Stakeholders
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Mark Carter

From: Felicity McCann <Felicity.McCann@coordinatorgeneral.qld.gov.au>
Sent: Friday, 10 May 2024 4:14 PM
To: Mark Carter
Cc: Sally Chapman; Michael Moran; Anil Nangia; John Wagner; John White; Matthew Morris
Subject: [Ext] RE: Vena Energy's Euroa H2 project - revised DA application matters.

Hi Mark,

Thanks again for the update on Vena Energy's project and for providing the information below and the updated plans.

Could you please provide an indicative timeframe of when Vena would be in a position to submit the draft application material? We can also advise DTMR and OIR of incoming draft material to review to ensure they have resourcing available.

I have prepared a response to your previous email (my responses are in blue), if you have any questions or need anything clarified please let me know.

1. *Detail of revised proposal*

As previously discussed, we have decided to relocate the Hydrogen Production Facility from Lot 2/3 to lot 1. We have also moved the substation from across the road (ie Lot 6 next to the substation for Fortescue), to now be located on Lots 2/3. The revised GA layout plan is attached . We intend to own and operate the substation, which will be solely for the Hydrogen Production Facility, and includes space for 2 additional bays pfr future expansion for the potential connection of the 'Behind the meter' solar farm on a nearby site, and the future 400MW facility.

To facilitate the movement of the Hydrogen Production Facility onto lot 1 we have subsequently moved the compression, storage and tube trailer loading facility further south-west on lot 1. Additionally, we have re-arranged some of the ancillary components of the building including:

- *Combined the administration block and control room into a single building located at the front of the site with staff and visitor parking included.*
- *Separate warehouse and workshop building, which will enable the Operators to store spares and undertaken maintenance of equipment.*

We provide a separate layout which includes our preliminary layout for the future 400MW Hydrogen Production Facility (separate future Development application).

We have also been refining how the plant will operate through analysis of electricity prices and modelling how we can operate the facility to achieve the most cost-effective Hydrogen production. Our current modelling is indicating a capacity factor of approximately 80%, which indicates we would turn off or ramp down the facility during the evening (2.5hrs) and the morning peak (2hrs), thus will run for approximately 19.5hrs. based on 80% capacity factor, the output of the hydrogen increases from 15 to 18 tonnes per day (from 5,500 up to 6500 tonnes per year).

Noted, please ensure any new land owners consent reflect these changes where needed.

Additionally, please ensure the SDA application material and/or site plans provides:

- full detail on the activities carried out in the warehouse and workshop
- how and where the hydrogen will be transported from the electrolyser to the storage and dispensing

- include any fencing, gatehouses/security booths, elevations (or details such as flare height, shed height for any covered components

Plus any other details on processes, site details etc that will assist OCG in understanding the activities being carried out, the potential impacts, mitigation and management strategies etc to limit the amount of further information that may be requested. Happy to discuss further if needed.

2. *Defined Uses*

We thank you for your email from 22 Feb, we accept to revise the defined use for the Hydrogen Production Facility component to be defined as 'Special Industry', we will amend our application accordingly.

Noted.

In relation to the 'substation' component, we interpret it to be ancillary to the Hydrogen Production Facility and not a standalone use on the following basis:

The definition of 'substation' under the Development Scheme is:

Substation

a) *as part of a transmission grid or supply network to:*
   i. *convert or transform electrical energy from one voltage to another or*
   ii. *regulate voltage in an electrical circuit or*
   iii. *control electrical circuits or*
   iv. *switch electrical current between circuits or*

b) *for a telecommunications facility for:*
   i. *works as defined under the Electricity Act 1994, section 12(1) or workforce operational and safety communications.*

As mentioned, the proposed substation is now proposed to be located on the subject site (ie lots 2 and 3) and will be Vena owned asset, directly associated with hydrogen production facility allowing an easier process to connect in the behind meter substation and the future 400MW facility. It is therefore important to understand whether the substation 'is part of the transmission grid' or not, to determine if it should be defined as a standalone 'Substation'.

'Transmission Grid' as defined under the Electricity Act is:

1. *A transmission grid is a system, or part of a system, of electric lines, substations and associated equipment providing connection between generation facilities and supply networks or customers not supplied through supply networks.*
2. *A transmission grid includes connections to other transmission grids*

It is confirmed the facility is not connecting to the supply network as we are applying to connect to the network through Powerlink who is a Transmission Entity, not a Distribution entity.
Next is to determine the location of the 'connection point' of the customer to the transmission grid to determine which components of infrastructure are considered 'part of the transmission grid' and which are not (ie where the transmission grid ends, and a private facility infrastructure starts). Within the Electricity Act there is a definition for 'Connection Point', which refers to the National Electricity Rules (NER) for a definition. The NER defines connection point as:

In relation to other transmission networks, the point at which power flows to or from a person connected to the transmission network can be isolated from the transmission network. If there is more than one such point, the Network Service Provider and that person will agree which point is the connection point in their connection agreement.

Vena Energy has recently lodged a Connection enquiry and received a response from Powerlink confirming the 'Connection Point' is the bay within Powerlink's existing Larcom Creek substation, approximately 2km to the north of the site, as this is the location where the flow of electricity can be isolated from the transmission network. Vena has subsequently lodged their Connection application with Powerlink and the 'connection point' is continuing to be determined to be the existing bay within the Larcom creek substation by Powerlink.

It is therefore interpreted that the transmission line from the Larcom Creek substation to Lot 6 across the road, that has been built by Powerlink, is not part of the transmission grid in our instance, inferring Vena's proposed substation on the subject site to be not part of the transmission grid either as it is further downstream of the connection point. However, in saying this, there is a position that the electrical line from the Larcom Creek substation to Lot 6 is defined as being part of the transmission grid as it has been constructed and operated by a Transmission entity (ie Powerlink) and its purpose is to connect a customer to the grid (ultimately a Generating Facility). While there might be differing opinions as to whether the line between the Larcom Creek substation and lot 6 is considered part of the transmission grid, it is our interpretation there is clear delineation that substation is located after the connection point in terms of the transmission grid, therefore it is clear the substation to not be defined as a as 'part of the transmission grid, therefore is not defined as a 'substation' pursuant to the land use definition, therefore should be considered 'ancillary' to the hydrogen production facility. The interpretation of a substation being considered 'ancillary' and not a separately defined land use, is consistent to other renewable projects (eg solar farms BESS and wind farms) across the State, where the project will include a project substation which manages the electricity load generated by the renewable facility before it is connected into the grid.

Additionally, it is our interpretation the Transmission line from Larcom Creek to Vena's proposed substation is defined as 'Major Electricity Infrastructure' and forms part of the Transmission Grid. We are under the presumption there has been a development application has been lodged by Powerlink and approved for Major Electricity Infrastructure for the Transmission line from Larcom Creek substation to the Lot 6. However, the required extension of this line from this last tower on lot 6 to the proposed ancillary substation could also be defined as Major Electricity Infrastructure, due to the voltage being over 66kV, therefore we are comfortable to separately define it in the application as Major Electricity Infrastructure.

To be clear, the cable connection from the ancillary substation to the Hydrogen Production facility (ie from lots 2/3 to lot 1) will be stepped down in voltage at 66kV or under and will be private electricity works, therefore is not defined as Major Electricity Infrastructure

Based on the above, we interpret the application is applying for the following:

Material change of use for Special Industry (Hydrogen Production Facility and ancillary substation) and Major Electricity Infrastructure (extension to an existing 275kV Transmission line).

In consideration of the above, we note the following:

- The detail above mainly relates to the definition of 'substation' in the Gladstone SDA development scheme but does provide some information to assist in determining whether a substation could be classed as ancillary.
- It is recommended focus is on justifying the substation as being an ancillary use and uses reasonings based on the term ancillary instead of whether a substation is a standalone use as per the above. The SDA application material must include this justification.
- Previous discussions noted Vena was considering if the powerlines would be included in their application or if Powerlink (or another entity) would lodge. Could you please confirm the approach?
    - If an SDA application is made by Vena for an MCU for special industry and major electricity infrastructure, no additional fee would be required. However, as previously identified previously, per Schedule 2, section 2.3 of the Gladstone SDA development scheme, the public consultation stage would not automatically be waived for 'major electricity infrastructure ' in the Special Industry Precinct. Nevertheless, as previously stated, OCG would likely waive any public consultation stage given the purpose of the 'major electricity infrastructure'.
- If the substation was ultimately listed as a separate use (i.e. MCU for special industry, substation and major electricity infrastructure) I can confirm no additional fee would be required and OCG would likely waive any public consultation stage
- Some further detail on 'ancillary use' is provided below.

<u>Definition of 'use'</u>

The Gladstone SDA development scheme does not include a definition of ancillary but includes a definition of use which refers to the Planning Act. The definition of 'use' in the Planning Act is '*for premises, includes an <u>ancillary</u> use of premises*'. .

<u>What is 'ancillary'?</u>

Some guidance material on ancillary uses includes:

- The ancillary use must be related to the primary use
    - Vena states the substation will be a Vena owned asset, directly associated with hydrogen production facility allowing an easier process to connect to the behind meter substation and the future 400MW facility
- The ancillary use must have a functional relationship to the principal use
    - As stated above the ancillary use of the behind the meter substation to connect to the hydrogen production facility and the future 400MW facility
- The portion of the use determined to be an ancillary use is subordinate to the primary use both in terms of its scale and land use impact
    - the proportion of the site to be used for the ancillary use is approximately 10% of the project area (this is for Stage 1 and Stage 2). In terms of land use impact no information is provided to determine what the substation land use impact would be compared to the predominant hydrogen production facility but it is assumed that the substation land use impact will be substantially less than the predominant hydrogen production facility land use impact. This is based on the potential for impacts in the event of fire/explosion risk in general compared to substations.

The information above states Vena will be applying for the following:

Material change of use for Special Industry (Hydrogen Production Facility and ancillary substation) and Major Electricity Infrastructure (extension to an existing 275kV Transmission line).

Provided the SDA application is applying for the above, includes the words 'ancillary substation', and includes sufficient justification for the substation to be considered 'ancillary', we view this as an acceptable approach.

This justification should include further details of how the substation meets the 'ancillary' guidelines generally used under the Planning Act as well as consideration of any impacts from the substation that are separate to the main hydrogen production facility and major electricity infrastructure.

3. *Consent for crossing of road reserve.*

Due to the layout of the facility now relocating the Hydrogen facility over lot 1, we aren't required to establish the hydrogen pipeline through the road reserve. However we have requested Gladstone Regional Council to provide us consent for both Electrical lines, which maybe overhead or underground, which crosses Euroa Circuit. Once Council consent is obtained, we will finalise consent from the Department of Resources.

Noted.

4. *Landowners consent for stormwater discharge.*

Our previous position on the landowners consent for the adjoining lots 4, 6 and 7 detailed in my email of 30/01/24 still stands, we will obtain consent from EDQ for discharge of stormwater into lot 7, but consent is not required for lot 4 or 6 as the legal point of discharge is the road (Euroa Circuit) and there are no works proposed in lot 4, or 6. EDQ is happy to update their consent accordingly.

Noted, and per response on 2 February 2024, please ensure this information is included in the resubmitted SDA application for clarity. A stormwater management plan is recommended for inclusion in the SDA application material

5. *Traffic Impacts*

We previously agreed that Vena would update the previously submitted traffic generation numbers in the planning report traffic numbers to consider the additional construction of the substation. I attach a revised traffic section of the town planning report, which increases the construction workforce to accommodate the substation works, plus increase the operational traffic generation from 15T to 18T of hydrogen produced and tracked per day. We request the OCG to seek TMR's advice on these revised numbers, considering the point I raised in the previous email correspondence of 30/01/24 and our meeting.

We have forwarded the Revised Traffic Generation Section document to TMR and will forward the advice/information we receive. As stated above and in previous conversations, we will seek to share draft application material with TMR to ensure a streamlined assessment process and to frontload any key issues. OCG can also coordinate a meeting with TMR if required.

In relation to the other matters previously raised, which we have discussed and agreed on path forward, I summarise as follows:

- *Vena Is preparing response to State Code 21*

Noted and recommend this and draft application material is shared with OIR once completed. OCG can also coordinate a meeting with OIR if required.

- *We have update the site plans (see attached) providing arrows for the direction of vehicles through the site.*

Noted.

- *More detail on list of emissions will be provided in Town planning report, but will be further details in the EA application (lodged separately, but copy to be provided to the OCG).*

Noted.

- *Future phases – we attach the GA plan for the future 400MW layout and will describe this better in the planning report.*

Noted.

Queensland Government

Felicity McCann
Manager
Planning and Services – South Team
Office of the Coordinator-General
Department of State Development, Infrastructure, Local Government and Planning

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Follow us

I acknowledge the traditional custodians of the lands and waters of Queensland. I offer my respect to elders past, present and emerging as we work towards a just, equitable and reconciled Australia.

From: Mark Carter <mark.carter@venaenergy.com>
Sent: Thursday, May 2, 2024 12:00 PM
To: Felicity McCann <Felicity.McCann@coordinatorgeneral.qld.gov.au>
Cc: Sally Chapman <Sally.Chapman@coordinatorgeneral.qld.gov.au>; Michael Moran <Michael.Moran@coordinatorgeneral.qld.gov.au>; Anil Nangia <Anil.Nangia@venaenergy.com>; John Wagner <John.Wagner@wagnerco.com.au>; John White <John.White@dsdilgp.qld.gov.au>; Matthew Morris <Matthew.Morris@dsdilgp.qld.gov.au>
Subject: Vena Energy's Euroa H2 project - revised DA application matters.

Hi Felicity,

It has been a while since we have communicated. We have been working through a series of refinements to our proposal for a Hydrogen Production Facility at Euroa Circuit. We are now in a position to progress with resubmission. I therefore would like to re-commence working through the various matters we last discussed before we re-lodge to hopefully ensure a smooth application process.

1. Detail of revised proposal

As previously discussed, we have decided to relocate the Hydrogen Production Facility from Lot 2/3 to lot 1. We have also moved the substation from across the road (ie Lot 6 next to the substation for Fortescue), to now be located on Lots 2/3. The revised GA layout plan is attached . We intend to own and operate the substation, which will be solely for the Hydrogen Production Facility, and includes space for 2 additional bays pfr future expansion for the potential connection of the 'Behind the meter' solar farm on a nearby site, and the future 400MW facility.

To facilitate the movement of the Hydrogen Production Facility onto lot 1 we have subsequently moved the compression, storage and tube trailer loading facility further south-west on lot 1. Additionally, we have re-arranged some of the ancillary components of the building including:

- Combined the administration block and control room into a single building located at the front of the site with staff and visitor parking included.
- Separate warehouse and workshop building, which will enable the Operators to store spares and undertaken maintenance of equipment.

We provide a separate layout which includes our preliminary layout for the future 400MW Hydrogen Production Facility (separate future Development application).

We have also been refining how the plant will operate through analysis of electricity prices and modelling how we can operate the facility to achieve the most cost-effective Hydrogen production. Our current modelling is indicating a capacity factor of approximately 80%, which indicates we would turn off or ramp down the facility during the evening (2.5hrs) and the morning peak (2hrs), thus will run for approximately 19.5hrs. based on 80% capacity factor, the output of the hydrogen increases from 15 to 18 tonnes per day (from 5,500 up to 6500 tonnes per year).

2. Defined Uses

We thank you for your email from 22 Feb, we accept to revise the defined use for the Hydrogen Production Facility component to be defined as 'Special Industry', we will amend our application accordingly.

In relation to the 'substation' component, we interpret it to be ancillary to the Hydrogen Production Facility and not a standalone use on the following basis:

The definition of 'substation' under the Development Scheme is:

Substation

a) as part of a transmission grid or supply network to:

i. convert or transform electrical energy from one voltage to another or

ii. regulate voltage in an electrical circuit or

iii. control electrical circuits or

iv. switch electrical current between circuits or

b) for a telecommunications facility for:

i. *works as defined under the Electricity Act 1994, section 12(1) or workforce operational and safety communications.*

As mentioned, the proposed substation is now proposed to be located on the subject site (ie lots 2 and 3) and will be Vena owned asset, directly associated with hydrogen production facility allowing an easier process to

connect in the behind meter substation and the future 400MW facility. It is therefore important to understand whether the substation 'is part of the transmission grid' or not, to determine if it should be defined as a standalone 'Substation'.

'Transmission Grid' as defined under the Electricity Act is:

> *1. A transmission grid is a system, or part of a system, of electric lines, substations and associated equipment providing connection between generation facilities and supply networks or customers not supplied through supply networks.*
> *2. A transmission grid includes connections to other transmission grids*

It is confirmed the facility is not connecting to the supply network as we are applying to connect to the network through Powerlink who is a Transmission Entity, not a Distribution entity.
Next is to determine the location of the 'connection point' of the customer to the transmission grid to determine which components of infrastructure are considered 'part of the transmission grid' and which are not (ie where the transmission grid ends, and a private facility infrastructure starts). Within the Electricity Act there is a definition for 'Connection Point', which refers to the National Electricity Rules (NER) for a definition. The NER defines connection point as:

> In relation to other *transmission networks*, the point at which power flows to or from a person *connected* to the *transmission network* can be isolated from the *transmission network*. If there is more than one such point, the *Network Service Provider* and that person will agree which point is the *connection point* in their *connection agreement*.

Vena Energy has recently lodged a Connection enquiry and received a response from Powerlink confirming the 'Connection Point' is the bay within Powerlink's existing Larcom Creek substation, approximately 2km to the north of the site, as this is the location where the flow of electricity can be isolated from the transmission network. Vena has subsequently lodged their Connection application with Powerlink and the 'connection point' is continuing to be determined to be the existing bay within the Larcom creek substation by Powerlink.

It is therefore interpreted that the transmission line from the Larcom Creek substation to Lot 6 across the road, that has been built by Powerlink, is not part of the transmission grid in our instance, inferring Vena's proposed substation on the subject site to be not part of the transmission grid either as it is further downstream of the connection point. However, in saying this, there is a position that the electrical line from the Larcom Creek substation to Lot 6 is defined as being part of the transmission grid as it has been constructed and operated by a Transmission entity (ie Powerlink) and its purpose is to connect a customer to the grid (ultimately a Generating Facility). While there might be differing opinions as to whether the line between the Larcom Creek substation and lot 6 is considered part of the transmission grid, it is our interpretation there is clear delineation that substation is located after the connection point in terms of the transmission grid, therefore it is clear the substation to not be defined as a as 'part of the transmission grid, therefore is not defined as a 'substation' pursuant to the land use definition, therefore should be considered 'ancillary' to the hydrogen production facility. The interpretation of a substation being considered 'ancillary' and not a separately defined land use, is consistent to other renewable projects (eg solar farms BESS and wind farms) across the State, where the project will include a project substation which manages the electricity load generated by the renewable facility before it is connected into the grid.

Additionally, it is our interpretation the Transmission line from Larcom Creek to Vena's proposed substation is defined as 'Major Electricity Infrastructure' and forms part of the Transmission Grid. We are under the

presumption there has been a development application has been lodged by Powerlink and approved for Major Electricity Infrastructure for the Transmission line from Larcom Creek substation to the Lot 6. However, the required extension of this line from this last tower on lot 6 to the proposed ancillary substation could also be defined as Major Electricity Infrastructure, due to the voltage being over 66kV, therefore we are comfortable to separately define it in the application as Major Electricity Infrastructure.

To be clear, the cable connection from the ancillary substation to the Hydrogen Production facility (ie from lots 2/3 to lot 1) will be stepped down in voltage at 66kV or under and will be private electricity works, therefore is not defined as Major Electricity Infrastructure

Based on the above, we interpret the application is applying for the following:

Material change of use for Special Industry (Hydrogen Production Facility and ancillary substation) and Major Electricity Infrastructure (extension to an existing 275kV Transmission line).

3. Consent for crossing of road reserve.

Due to the layout of the facility now relocating the Hydrogen facility over lot 1, we aren't required to establish the hydrogen pipeline through the road reserve. However we have requested Gladstone Regional Council to provide us consent for both Electrical lines, which maybe overhead or underground, which crosses Euroa Circuit. Once Council consent is obtained, we will finalise consent from the Department of Resources.

4. Landowners consent for stormwater discharge.

Our previous position on the landowners consent for the adjoining lots 4, 6 and 7 detailed in my email of 30/01/24 still stands, we will obtain consent from EDQ for discharge of stormwater into lot 7, but consent is not required for lot 4 or 6 as the legal point of discharge is the road (Euroa Circuit) and there are no works proposed in lot 4, or 6. EDQ is happy to update their consent accordingly.

5. Traffic Impacts

We previously agreed that Vena would update the previously submitted traffic generation numbers in the planning report traffic numbers to consider the additional construction of the substation. I attach a revised traffic section of the town planning report, which increases the construction workforce to accommodate the substation works, plus increase the operational traffic generation from 15T to 18T of hydrogen produced and tracked per day. We request the OCG to seek TMR's advice on these revised numbers, considering the point I raised in the previous email correspondence of 30/01/24 and our meeting.

In relation to the other matters previously raised, which we have discussed and agreed on path forward, I summarise as follows:

- Vena Is preparing response to State Code 21
- We have update the site plans (see attached) providing arrows for the direction of vehicles through the site.
- More detail on list of emissions will be provided in Town planning report, but will be further details in the EA application (lodged separately, but copy to be provided to the OCG).

- Future phases – we attach the GA plan for the future 400MW layout and will describe this better in the planning report.

If you can provide your response to the above, we can then provide an updated Draft application for your review allowing us to continue working through these matters before we formally lodge again.

Please call if you have any questions.

Cheers

Mark Carter
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Queensland Government

Department of
Transport and Main Roads

TMR Pre-lodgment Advice

OCG reference:	Click here to enter text.
OCG office:	Office of the Coordinator General, Department of State Development & Infrastructure
OCG email:	Michael.Moran@coordinatorgeneral.qld.gov.au
TMR reference:	TMR24-042521
TMR contact name:	Anika Khan
TMR contact details:	4931 1523

1.0 Application details

Street address:	Euroa Circuit, Aldoga QLD 4680
Real property description:	2SP245955, 3SP245955, 1SP245955
Local government area:	Gladstone Regional Council
Applicant name:	Vena Energy Services (Australia) Pty Ltd
Applicant contact details:	c/- Department of State Development & Infrastructure PO Box 15517 City East QLD 4002 Michael.Moran@coordinatorgeneral.qld.gov.au
Description of Proposal:	Hydrogen production facility

2.0 Matters of interest to the state

The development application has the following matters of interest to the state under the provisions of the *Planning Regulation 2017*:

Trigger Mode	Trigger Number	Trigger Description
State-Controlled Roads	10.9.4.2.4.1	Development application for a material change of use, other than an excluded material change of use, that is assessable development under a local categorising instrument, if all or part of the premises - (a) are within 25m of a State transport corridor; or (b) are a future State transport corridor; or (c) are - (i) adjacent to a road that intersects with a State-controlled road; and (ii) within 100m of the intersection

3.0 Documents considered

The following documentation was relied upon in providing this advice:

Drawing/report title	Prepared by	Date	Reference no.	Version / issue

	Applicant	08/05/2024	FW: Vena energy's Euroa H2 project – opportunity for early review application material	-
Site Plan	UGL	25/04/2024	17695-VENA-GA-000-011	D
Site Plan	UGL	25/04/2024	17695-VENA-GA-000-010	D
Revised Traffic Generation Section	Applicant	08/05/2024	-	-

4.0 Assessment

4.1 Considerations and assessment

- The pre-lodgement advice is regarding a future Hydrogen production facility, located at Euroa circuit, Aldoga.

Figure 1 Site Aerial view. Source: Queensland eDAM mapping (Accessed: 17/05/2024)

- The proposed site does not front directly to the state-controlled road (SCR).
- The site is currently accessed via local roads being Aldoga Road and Euroa circuit.
- The proposal does not suggest any direct access to the state-controlled road; however, Aldoga road intersects with Gladstone- Mt Larcom road a SCR.
- TMR has preliminarily reviewed the provided Traffic Generation document and Site General Arrangement Drawings 17695-VENA-GA-000-010 Sheet 01 Rev D, Stage 1: 50MW Electrolyser and 17695-VENA-GA-000-011 Sheet 01 Rev D, Stage 2: 50MW +400MW Electrolyser, for the proposed Hydrogen Production Plant. TMR provides the following pre-application advice regarding impacts to the state-controlled road (SCR) network:

1. **<u>Access from the state-controlled road (SCR)</u>**
   Lot 1, 2 & 3 on SP245955 has vehicular access to the SCR (181 Gladstone – Mount Larcom Road) via the local roads Euroa Circuit and Aldoga Road.

Technical Guidance:

TMR's *Vehicular access to state-controlled roads policy (Jan 2023)*

https://www.tmr.qld.gov.au/community-and-environment/planning-and-development/other-matters-requiring-approval/vehicle-access-to-state-controlled-roads-policy

2. **Traffic impact assessment (TIA)**

To assess the safety and efficiency impacts that the proposed development is likely to have on the SCR network, TMR will require a Traffic Impact Assessment (TIA), prepared in accordance with TMR's *Guide to Traffic Impact Assessment (Dec 2018*) and signed by a Registered Professional Engineer in Queensland (RPEQ) with experience in the relevant practice area. The TIA must demonstrate that the proposed development does not have an adverse impact on:

- the safety of state-controlled roads
- state-controlled intersections
- the operational capacity of state-controlled roads
- transport infrastructure, including bridges, culverts, and drainage infrastructure
- the pavement condition of state-controlled roads.

The TIA must include assessment of both construction and operation impacts. Details such as vehicle types, equivalent standard axles, loads and routes must be included. The impact of the proposed development on the state-controlled intersection of Aldoga Road and Gladstone – Mt Larcom Road will need to be assessed including the assessment of each individual movement. As necessary, turning path assessment for design vehicle and SIDRA analysis to be provided.

Technical Guidance:

TMR's *Guide to Traffic Impact Assessment (Dec 2018)*

https://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/Guide-to-Traffic-Impact-Assessment

3. **Stormwater & drainage impacts**

The proposed site plan will result in an increase of impervious area; therefore, it is recommended that the applicant demonstrate compliance with the relevant stormwater and overland flow provisions in State code 1 by providing:

- Scaled and sufficiently detailed plans showing basic stormwater information. (See Appendix 1 of TMR's *State Development Assessment Provisions supporting guideline: Development in a state-controlled road environment*).
- A RPEQ certified stormwater management plan prepared in accordance with the *Queensland Urban Drainage Manual*. A flood impact assessment may also be required as part of the stormwater management plan. (See Appendix 2 of TMR's *State Development Assessment Provisions supporting guideline: Development in a state-controlled road environment*).

Technical Guidance:

TMR's *State Development Assessment Provisions supporting guideline: Development in a state-controlled road environment*

https://www.tmr.qld.gov.au/community-and-environment/planning-and-development/planning-and-development-assessment-under-the-planning-act/assessable-development

TMR's *Hydrologic and Hydraulic Modelling Guideline (Jan 2024)*

https://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/Hydrologic-and-Hydraulic-Modelling

5.0 Pre-lodgement advice

Our agency recommends the following:

(a) recommends the following advice be provided to the applicant:

Item	Advice
State Development Assessment Provisions	
1.	Provide an assessment of the proposed development against the State Code 1: development in a state-controlled road environment (SDAP 3.9). This must include information such as total material volumes, travel direction, trips, and so on.
2	Provide a Traffic Impact Assessment (TIA), prepared in accordance with TMR's *Guide to Traffic Impact Assessment (Dec 2018*) and signed by a Registered Professional Engineer in Queensland (RPEQ) with experience in the relevant practice area.
Further development permits required	
Item	**Advice**
3	Installation of any traffic control measures on the state-controlled roads will require a Traffic Control Permit (TCP) from the Department of Transport and Main Roads. This can be applied for through the Department's online Permits for Access to the Road and Corridor (PARC) portal.
4	The applicant will require approval under Section 33 of the *Transport Infrastructure Act 1994* before any road works in the SCR can commence. For example, intersection upgrade works.

6.0 Endorsement

Officer
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Approver

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Principal Town Planner
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23 May 2024