RE Future

Swansons Lane Wind Farm

Application for Planning Permit

Appendix H – Preliminary Transport Assessment

May 2025

38°16'30.6"S
142°49'06.2"E

Swansons Lane Wind Farm, Garvoc VIC

Traffic and Transport Assessment

22 May 2025
Prepared for RE Future

IMP2503035TTA01F01

Impact

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1 Introduction

1.1 Engagement

IMPACT® have been engaged by RE Future to undertake a traffic impact assessment for the proposed Swansons Lane Wind Farm located in Garvoc, Victoria.

Specifically, **IMPACT**® have been requested to explore the viability of bringing wind turbine blades to the subject land from the Port of Portland.

The purpose of this investigation is to confirm the extent of upgrades and / or mitigation measures that are required to the existing road infrastructure and immediate surrounding network, to transport larger turbine components to the subject land.

This Traffic Impact Assessment has been prepared to accompany the Project's approval documentation.

1.2 References

In preparing this assessment we have referenced the following:

- Traffic Impact Assessment prepared by RE Future Pty Ltd; 'Appendix H Preliminary Transport Assessment';
- 20250331 SWA Level 2 Bridge Inspection Report undertaken by Advanced Structural Consultancy;
- The site plan developed by RE Future Pty Ltd; 'Figure 5 Site Plan';
- Moyne Shire Council Planning Scheme, including:
  - Clause 52.32 - Wind Energy Facilities;
  - Clause 35.07 - Farming Zone;
- Austroads Guide to Road Design Part 4a: Unsignalised and Signalised Intersections;
- Austroads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossing Management;
- Traffic volumes from the Department of Transports (DTP) database; and
- Crash statistics from the Department of Transports (DTP) database.

2 Swansons Lane Wind Farm

2.1 Location

The proposed Swansons Lane Wind Farm development is located in Garvoc in Victoria, on the boundary of the Corangamite Shire and the Moyne Shire, approximately 8 km south-west of Terang.

The wind farm site is bound by Coyles Road in the north, Princes Highway in the east, Princes Highway Road in the south and Sisters-Garvoc Road in the west. The closest towns to the Project are Panmure and Terang, approximately 10 km to the east and 8 km northeast of the Project respectively.

Figure 1 provides an illustration of the subject land in the context of Victoria (and also the Port of Portland), whilst Figure 2 shows the subject land in a more local context.

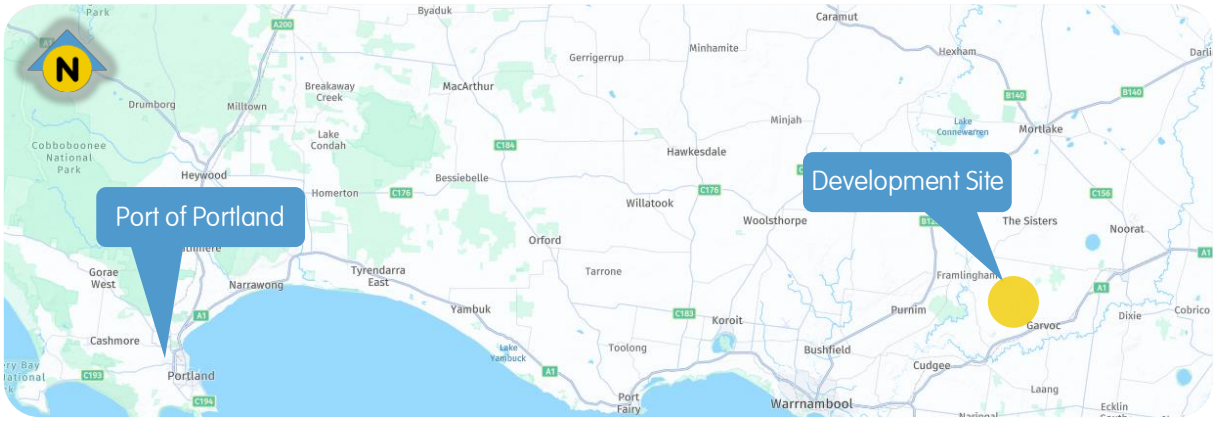


Figure 1 Location of Development Site (Victorian Context)

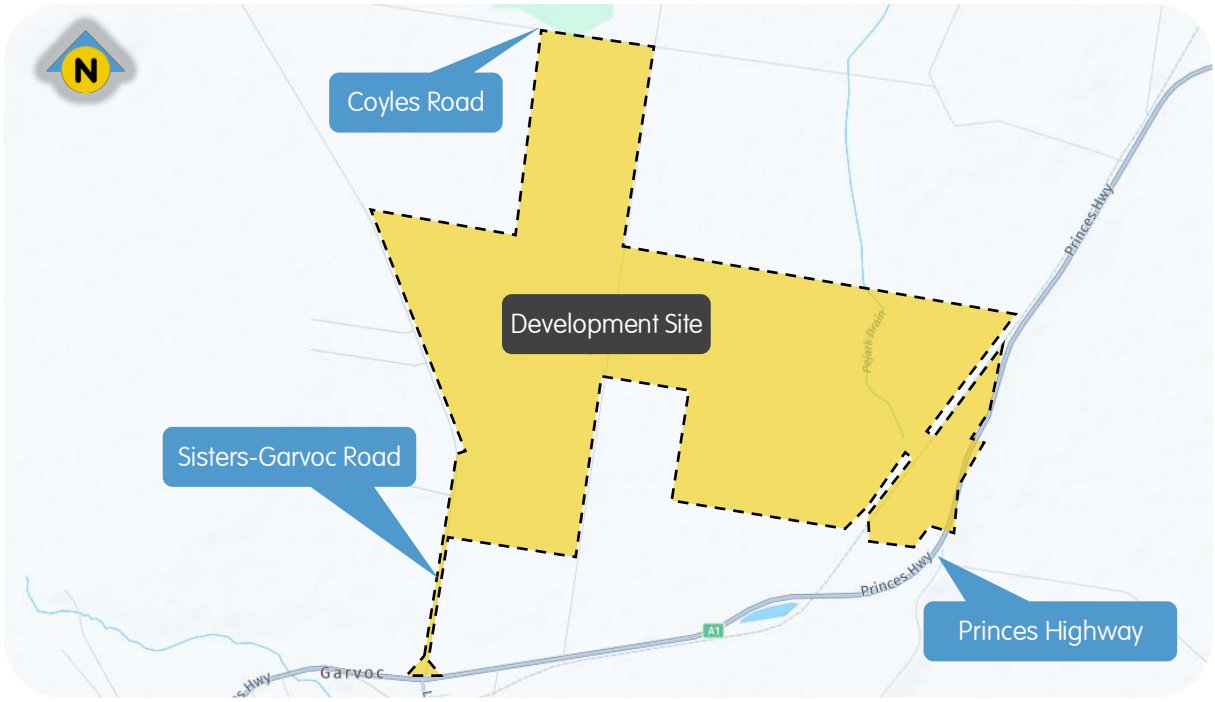


Figure 2 Location of Development Site (Local Context)

The subject land comprises mainly of flat-lying to gently sloping open paddocks, which have historically been used for grazing activities.

2.2 Existing Road Network

The following section provides a brief summary of the classification, alignment and design of each road (local and arterial) in proximity to the subject site.

2.2.1 Princes Highway

Princes Highway is classified as a Primary State Arterial Road extending generally in a northeast-southwest direction.

Princes Highway is typically constructed with a sealed road pavement measuring approximately 10.5 metres in width and provides one (1) trafficable lane in each direction.

Traffic volume data extracted from the Department of Transport's (DTPs) online portal indicates that this section of Princes Highway carries in the order of 4,000 vehicles per day.

This section of Princes Highway operates at a posted speed limit of 80 km/hr.

Figure 3 illustrates a typical cross section of Princes Highway near the subject site.

Figure 3 Princes Highway typical section facing east adjacent subject site

2.2.2 Occupation Lane

Occupation Lane is classified as a local road extending in a north-south direction between Princes Highway to the south and Mortlake-Framlingham Road to the north.

Occupation Lane is constructed with a seal pavement approximately 5.5 metres wide.

No traffic volumes were available at the time of writing this report however it is expected that this section of Occupation Lane will carry up to 100 vehicles per day. There are no posted speed limits along this section of road and is therefore assumed to be a default of 100km/hr.

The intersection of Occupation Lane and Princes Hwy currently caters for dedicated left-turn and right-turn lanes, and in addition is pre-approved for B-double access.

Figure 4 illustrates a typical cross section of Occupation Lane.

Figure 4 Occupation Lane typical section facing north

2.2.3 Terang-Framlingham Road

Terang-Framlingham Road is classified as a local road extending in a east-west direction between Ellerslie-Panmure Road to the west and Keilambete Road to the east.

Terang-Framlingham Road is constructed with a seal pavement approximately 7.0 metres wide.

No traffic volumes were available at the time of writing this report however it is expected that this section of Occupation Lane will carry up to 100 vehicles per day.

There are no posted speed limits along this section of road and is therefore assumed to be a default of 100km/hr.

Figure 5 illustrates a typical cross section of Terang-Framlingham Road.

Figure 5 Terang-Framlingham Road typical section facing east

2.2.4 Sisters-Garvoc Road

Sisters-Garvoc Road is classified as a local road extending in a south-northwest direction between Occupation Lane to the northwest and Princes Highway to the south.

Sisters-Garvoc Road is typically constructed with a central seal approximately 4.2 metres wide.

No traffic volumes were available at the time of writing this report however it is expected that this section of Sisters-Garvoc Road will carry up to 50 vehicles per day.

There are no posted speed limits along this section of road and is therefore assumed to be a default of 100km/hr.

Figure 6 illustrates a typical cross section of Sisters-Garvoc Road near the subject site.

Figure 6 Sisters-Garvoc Road typical section facing north adjacent subject site

2.2.5 Coyles Road

Coyles Road is classified as a local road extending in a generally east-west direction between Princes Highway to the east and merging with Sisters-Garvoc Road to the west.

Coyles Road is typically constructed with a central gravel seal approximately 4.5 metres wide.

No traffic volumes were available at the time of writing this report however it is expected that this section of Sisters-Garvoc Road will carry up to 50 vehicles per day.

There are no posted speed limits along this section of road and is therefore assumed to be a default of 100km/hr.

Figure 7 illustrates a typical cross section of Coyles Road near the subject site.

Figure 7 Coyles Road typical section facing west adjacent subject site

2.2.6 Crash Statistics

Crash data was extracted from the DTP's online crash portal and indicates a total of five (5) crashes within the vicinity of the site across a five (5) year period. Further details of the crashes are specified under Table 1 which highlight that one (1) fatality has occurred along Sisters-Garvoc Road as a result of collision with a fixed object. Notwithstanding, the remainder of crashes located within the vicinity are isolated incidents and show no trend or insufficiency in road geometry.

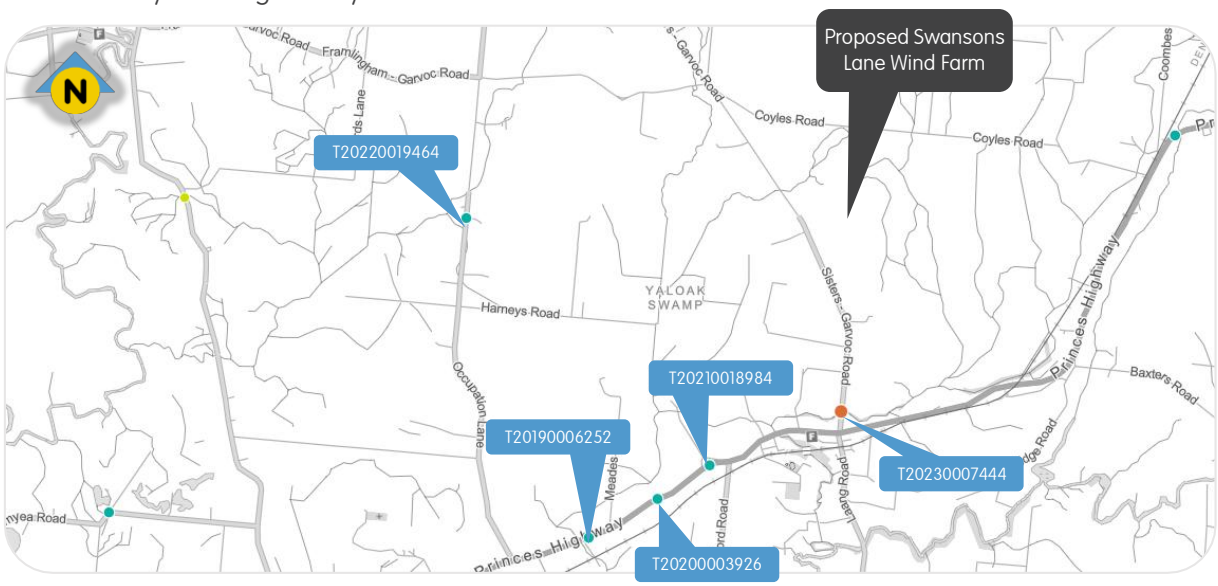


Figure 8 Crash Statistics from 2019 - 2025 near the proposed site

Table 1 Crash Data Summary

Crash ID	Year	Road	Severity	DCA Code	Description	Lighting Condition
T20190006252	2019	Princes Hwy	Serious Injury	173	Right off into fixed object.	Daytime
T20200003926	2020	Princes Hwy	Serious Injury	181	Collision with fixed object	Dark
T20210018984	2021	Princes Hwy	Serious Injury	120	Head on	Daytime
T20220019464	2022	Occupation Ln	Serious Injury	190	Fell from vehicle	Daytime
T20230007444	2023	Sisters-Garvoc Rd	Fatal Accident	164	Collision with fixed object	Dark

2.3 Planning and Policy Context

The site sits within the Local Government Area (LGA) of the Moyne Shire Council and Corangamite Shire Council.

A majority of the land within the site is designated as Farming Zone, with no specific planning overlays applicable to this area of land.

Figure 9 provides a visual representation of the proposed development area within the subject area (FZ light green).

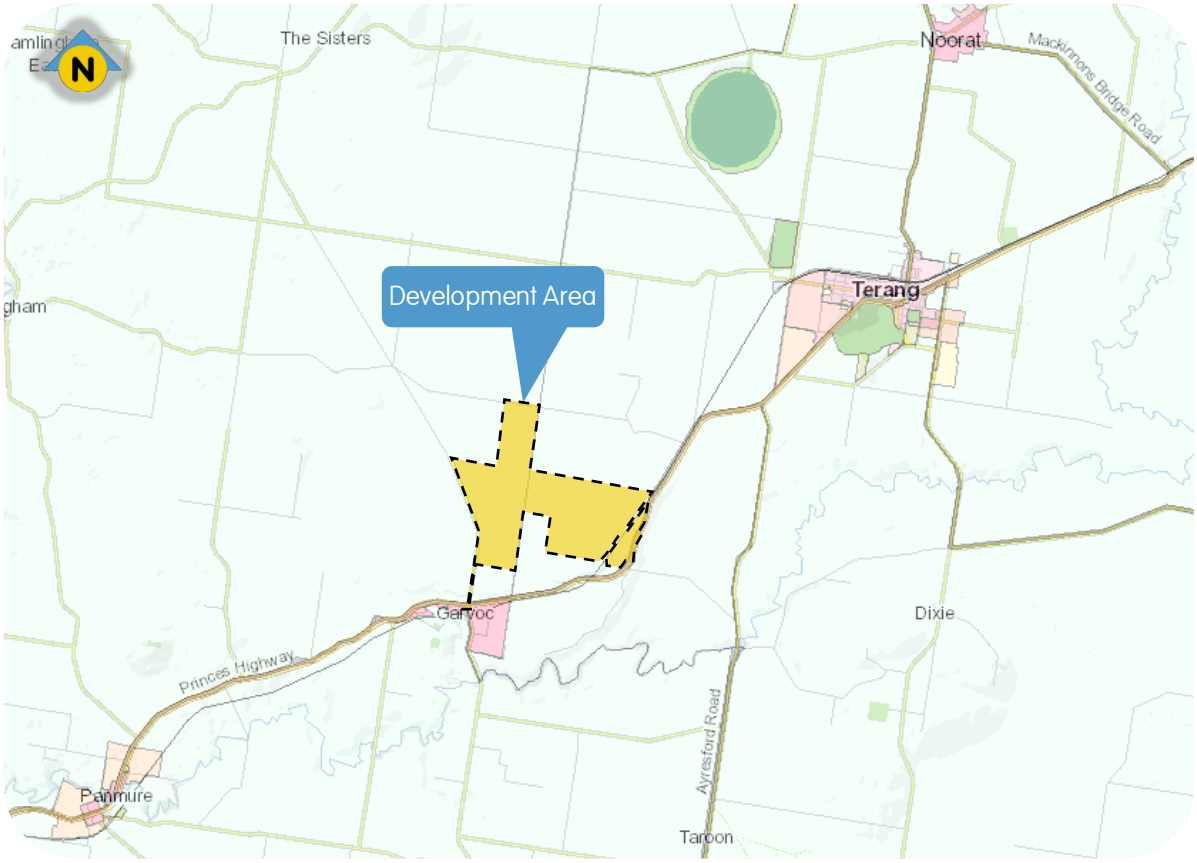


Figure 9 Planning Zones and Overlays

2.3.1 Planning Framework

2.3.1.1 Clause 52.32 - Wind Energy Facilities

Clause 52.32 of the Victorian Planning Provisions outlines the relevant application requirements associated with the development of Wind Energy Facilities. Relevant to traffic and access matters, considerations under Clause 52.32 include:

- Clause 52.32-4 Application Requirements
  - Site and context analysis in relation to the surrounding area;
    - Access to infrastructure

2.3.1.2 Clause 35.07 - Farming Zone

A Wind Energy Facility is a Section 2 use within the Farming Zone subject to meeting the requirements of Clause 52.32.

Relevant to access for the wind energy facility, in considering an application for use and building and works, the decision guidelines listed under Clause 35.07-6 include:

- How the use and development make use of existing infrastructure and services.

2.4 VicRoads Road Network Limits

The pre-approved B-Double and Higher Mass Limit (HML) network in the locality of the development site are reproduced as Figure 10.

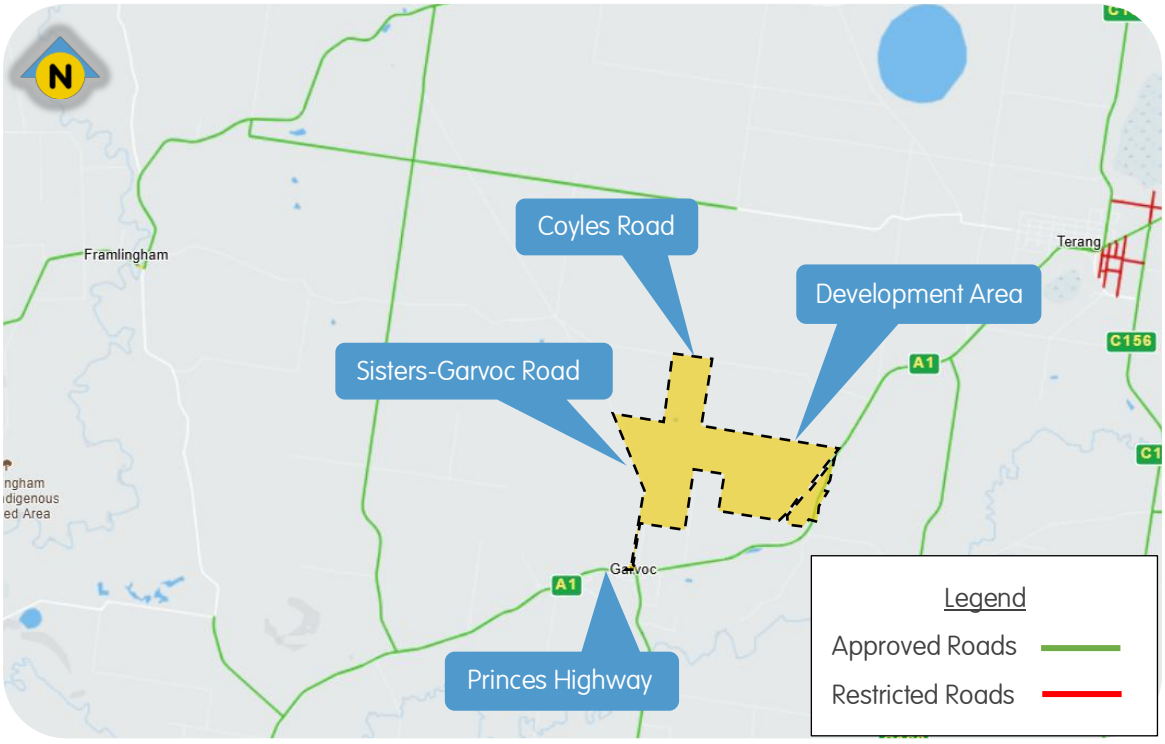


Figure 10 VicRoads Preapproved B-Double & Higher Mass Limit (HML) Network

As shown in the figures above, Princes Highway is a pre-approved B-Double and HML haulage route. A majority of the local roads in proximity to the site (e.g. Sisters-Garvoc Road and Coyles Road) are not approved for B double and HML access and therefore will need approval from the responsible authority and NHVR.

2.5 Project Description

The proposal contemplates the development of the subject area as a Wind Farm, comprising a total of five (5) wind turbines and will generate up to ~155,000 MW per year.

The Wind Farm development site will be located across multiple land holdings, with a total land area in the order of 689 ha.

Figure 11 overleaf shows the proposed turbine locations in the context of the broader subject area subject site. A more detailed scaled site plan is shown in Appendix A.

One (1) Site Office Area is proposed to service the site, to the east of Sisters-Garoc Road and the south of Coyles Road. We understand that the construction compound will be used to service all turbine sites within the subject area.

The site will use private access tracks to connect the turbine sites to the construction compound.

We understand that these private access tracks will be upgraded / constructed to all weather roads, suitable for the haulage of construction vehicles during the delivery of the Wind Farm project.

We understand that any access point (to the turbine site or construction compound) will be constructed as required to facilitate access by OSOM delivery vehicles where necessary.

IMPACT® are advised that each turbine will be comprised of the following components:

- Three (3) x 86-metre long turbine blades;
- Up to five (5) x tubular steel tower sections;
- A nacelle which contains the generator, a gear box and electrical equipment;
- Transformer and switch gear (which is also housed inside the turbine: and
- A hardstand area (a pad for the turbine and crane).

Three (3) access point are proposed or vehicle access as shown in Figure 11, providing entry to the site compound from Sisters-Garvoc Road for regular construction vehicles, Coyles Road for OSOM deliveries, and Princes Highway for the works pertaining to the substation and network connection.

A site office area is located centrally to the site and will contain an amenities block, on-site car park and control buildings. In addition, a laydown area is also proposed next to the site office area.

The Wind Farm will link to an existing overhead 66kV transmission line located along the eastern end of the site boundary.

The Wind Farm will have an expected operating life of 25-30 years.

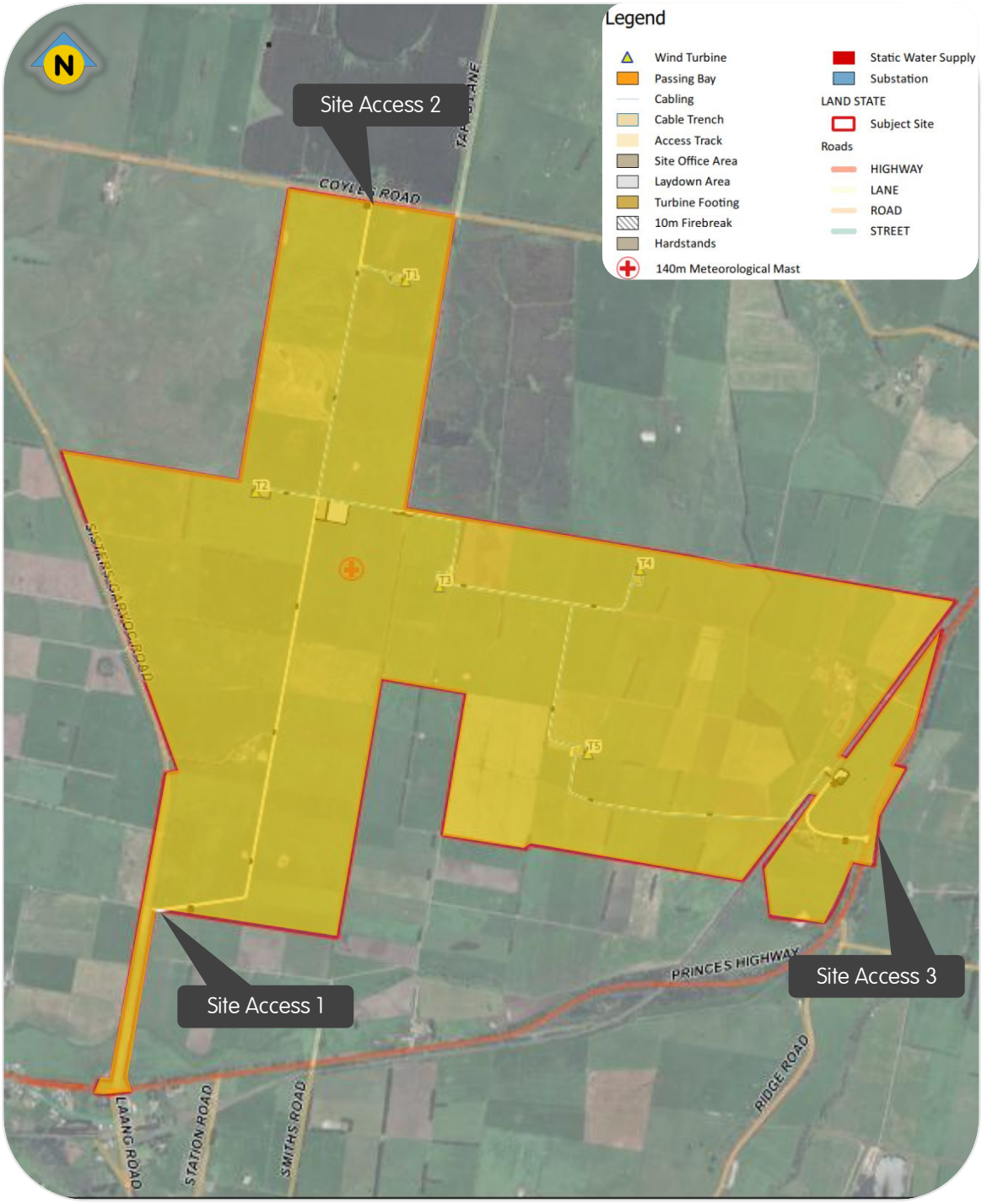


Figure 11 Proposed Development Footprint

3 Vehicle Access Routes

3.1 Access Arrangements

Three (3) site access locations are proposed for the subject site, specifically each access point will solely cater for the following vehicles:

- **Site Access 1:** Construction material delivery vehicles;
- **Site Access 2:** Wind turbine component OSOM vehicles; and
- **Site Access 3:** Substation component delivery vehicles.

3.2 Construction Materials Delivery Routes

The source location and delivery routes (as discussed below) for all components is yet to be confirmed. The following sections outline the most likely scenario.

Access to the site for all construction material vehicles shall be afforded via the southern site access along Sisters-Garvoc Road from Princes Highway.

It is expected that the Traffic Management Plan (TMP) will provide further detail and confirmation on the preferred locations for the construction materials.

3.2.1 Gravel / Aggregate

IMPACT® are advised that the site will require in the order of 8,000 tonnes of gravel aggregate.

The gravel is to be sourced by local contractors, who will leverage local quarries in Cobden and Warrnambool.

We understand that some additional blending materials may be sourced further afield and then blended with the gravel aggregate on-site. Based on the foregoing, the impact of most aggregate delivery vehicles will typically be limited to Sisters-Garvoc Road.

3.2.2 Water Deliveries

We are advised that external water deliveries required for construction and dust suppression will be sourced locally from either Cobden or Warrnambool.

Water tanks are located on site near laydown areas and the site office and staging area.

3.2.3 Concrete Trucks

Concrete materials are to be sourced from established batching plants in Warrnambool and Cobden via Sisters-Garvoc Road and then distributed to each turbine site as required.

3.2.4 Steel Reinforcement Deliveries

We understand that steel deliveries will be most likely be delivered from Warrnambool or Geelong.

We expect that delivery vehicles will use the shortest route possible whilst leveraging the pre-approved HML roads (discussed in Section 2.4). Accordingly, vehicles will likely arrive from the southwest (via Princes Highway).

3.3 Construction Staff

During the delivery of the project, it is expected that the majority of staff will typically reside in either Terang or Warrnambool.

We understand that most staff will be travelling to / from the site via the Princes Highway.

3.4 Wind Turbine Component Deliveries

IMPACT® understands that Port of Portland will be the point of entry for the major Wind Farm components.

A haulage route has been identified, and an assessment has been undertaken in Section 4 to confirm the validity of the proposed haulage route. It is noted that the existing bridge along Sisters-Garvoc Road is not adequate for the transport of wind turbine components (due to geometric constraints). Notwithstanding, all OSOM deliveries will be afforded at the northern site access via Coyles Road.

3.5 Substation Component Deliveries

The substation is expected to be transported from either Melbourne or Adeliade and will be delivered to site via the Princes Highway utilising pre-approved and permitted haulage routes. The substation delivery is likely to be over-mass rather than over-dimensional and will require appropriate permits from the NHVR.

3.6 Site Access Strategy

3.6.1 Construction Materials Vehicle Deliveries

Delivery Route

Based on the foregoing, we note that materials deliveries are typically being sourced from Cobden or Warrnambool.

It is expected that deliveries will arrive at the staging area via Sisters-Garvoc Road before being distributed to each individual turbine site as required.

In addition, construction material deliveries are expected to leverage pre-approved routes / arterial roads prior to travelling onto Sisters-Garvoc Road and the site access.

Recommendations

Regarding site access for these delivery vehicles, we recommend that the site access tracks and local roads providing access to/from material components be constructed / upgraded to a standard which permits heavy vehicle access for construction material delivery for all weather events.

3.6.2 Wind Farm Component Delivery

Delivery Route

Components for the Wind Farm will be delivered from Portland via the route described in the following chapter.

Locally, vehicles will arrive at the site via the proposed access point (via Coyles Road) before being delivered to the relevant turbine site.

Recommendations

Regarding local site access for these delivery vehicles, we recommend that the site access track and local roads (where required) be widened at intersection to facilitate the largest (i.e. turbine) component delivery vehicles. This will also ensure that each road / site access can geometrically cater to all other construction traffic.

3.6.3 Substation Delivery

Delivery Route

Components for the substation will be delivered from either Melbourne or Adeliade.

Vehicle deliveries will arrive at the site access via the Princes Highway located on the eastern site boundary prior to accessing the proposed access track.

Recommendations

Regarding local site access for these delivery vehicles, we recommend that the site access track and local roads (where required) be widened at intersection to facilitate the largest (i.e. turbine) component delivery vehicles. This will also ensure that each road / site access can geometrically cater to all other construction traffic.

3.6.4 Staff Vehicles

We are advised that most staff will drive to/from the subject site, including managerial staff where vehicles will arrive via the Princes Highway from Warrnambool or Terang.

4 Vehicle Access Route - Turbine Blades

4.1 Preliminary Investigation

4.1.1 Haulage Vehicle Paramters

IMPACT® have been advised that the Project seeks to use turbine blades that are up to 86 metres in length. However, for the purposes of this assessment, turbine delivery movements have been modelled on the basis of 89m turbine blades as illustrated in Figure 12.

Additionally, it is noted that the rear trailer / wheels of the vehicle can be 'detached' and steered separately from the prime mover. This function is used to help refine vehicle movements and navigate around intersections / 'Pinch Points' that are too tight to follow the main trailer.

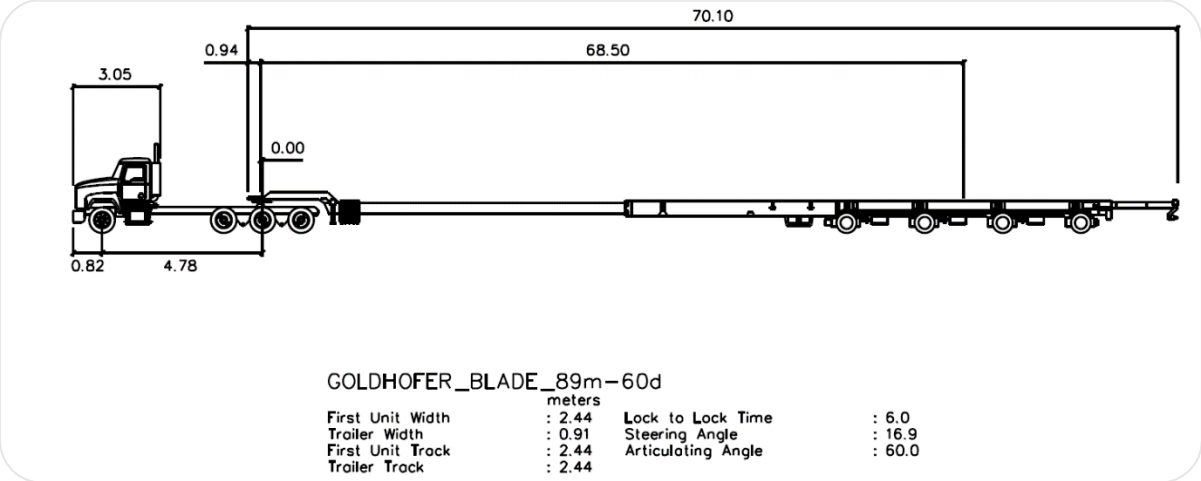


Figure 12 Turbine Blade Delivery Vehicle Specifications

4.1.2 Route Review

The Project requires the delivery of OSOM components to the subject land to one (1) site access point.

This investigation considers the route bringing components in from the Port of Portland to the subject land.

The following sets out an initial review of the route between this port and the subject land. The purpose of this high-level review is to identify relevant 'pinch points' along this route and where further detailed analysis is required to confirm maneuverability.

4.1.2.1 Port of Portland

It is expected that wind farm components will be delivered to a laydown area within the Port of Portland, from here the tower and blades will be loaded onto the delivery vehicles and transported to the various site access points along the route as indicatively illustrated in Figure 13 overleaf and described below.

Note: This route is not based on the shortest distance between the subject land port of delivery, but one that would help to minimise the number of 'pinch points' and thus reduce the impact of vehicle haulage along the delivery route.

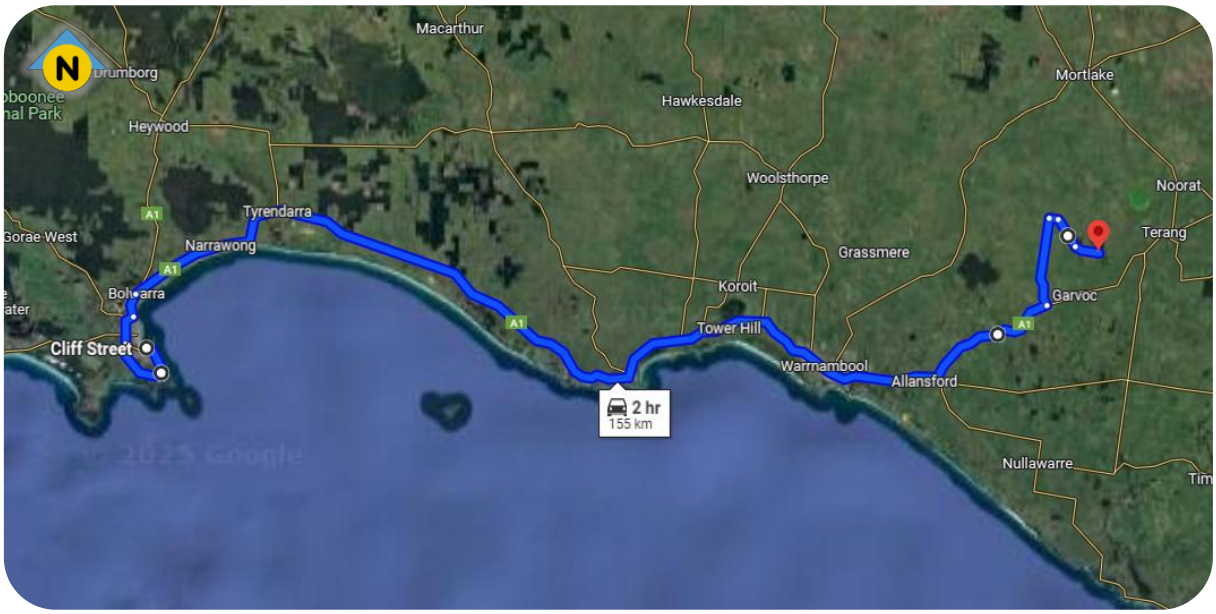


Figure 13 Proposed Turbine Blade Delivery Route - Port of Portland

Specifically, vehicles will take the route / roads to the subject site shown in Table 2 below.

Table 2 Proposed Delivery Route from the Port of Portland to the Subject Site

Road - Hierarchy	Distance Travelled
Cliff Street - Local Council Road (Glenelg Shire Council)	Approximately 200 metres
Madeira Packet Road - State Arterial Road	Approximately 10 kilometres
Henty Highway - State Arterial Road	Approximately 6.3 kilometres
Princes Highway - State Arterial Road	Approximately 121 kilometres
Occupation Lane - Local Council Road (Moyne Shire Council)	Approximately 9.9 kilometres
Terang-Framlingham Road (Moyne Shire Council)	Approximately 1.1 kilometres
Sisters-Garvoc Road (Moyne Shire Council)	Approximately 3.5 kilometres
Site Entry	
Coyles Road- Local Council Road (Moyne Shire Council)	Approximately 2.8 kilometres

Turbine Blade 'Pinch Points'

The above route (Figure 13) was reviewed against the turbine blade vehicle dimensions (Figure 12) to determine where further analysis might be warranted.

Specifically, when performing this investigation, the following intersections / movements were considered to require further analysis to confirm if access is achievable and the extent of impact / mitigation required to facilitate that movement. The 'pinch points' that were identified are listed in Table 3.

Table 3 Port of Portland to Coyles Road Road 89m Turbine Blade 'Pinch Points'

Indicator	Movement Description	Location
PA	Left turn from Cliff Street onto Madeira Packet Rd	38°21'15.7"S 141°36'50.9"E
PB	Madeira Packet Rd right and left to stay on Madeira Packet Rd	38°22'58.9"S 141°37'31.8"E
PC	Madeira Packet Rd through to Madeira Packet Rd (at Cape Nelson Rd)	38°22'05.5"S 141°35'39.0"E
PD	Madeira Packet Rd left onto Henty Hwy	38°21'03.6"S 141°35'15.6"E
PE	Henty Hwy left turn to stay on Henty Hwy	38°19'24.8"S 141°35'52.0"E
PF	Henty Hwy right turn onto Princes Fwy	38°18'05.5"S 141°36'01.7"E
PG	Princes Hwy left turn onto Occupation Ln	38°18'44.0"S 142°45'39.1"E
PH	Occupation Lane right turn onto Terang-Framlingham Rd	38°13'32.1"S 142°45'52.5"E
PI	Terang-Framlingham Rd right turn onto Sisters-Garvoc Rd	38°13'36.8"S 142°46'35.6"E
PJ	Sisters-Garvoc Rd keep left onto Coyles Rd	38°15'11.0"S 142°47'48.1"E
PK	Colyes Road right turn onto Site Access	38°15'37.4"S 142°49'39.6"E

4.2 Swept Path Review

Once the above 'pinch points' were established, a detailed analysis was undertaken for the most critical movements along the route.

To undertake this analysis, turning inputs based on the specifications produced in Figure 12 have been adopted.

Furthermore, each plan has been prepared based on available aerial imagery, sourced for various resources including Google Earth, Nearmap Imagery & Bing Maps.

The following sets out our assessment and findings for each of the critical 'pinch points' based on this model / simulation. A full scaled plan of each of the images provided below is also attached as Appendix C.

4.2.1 Risk Ratings

As part of this investigation a series of risk ratings have been applied to each critical 'pinch point' / movement and are based on several factors, including (but not necessarily limited to):

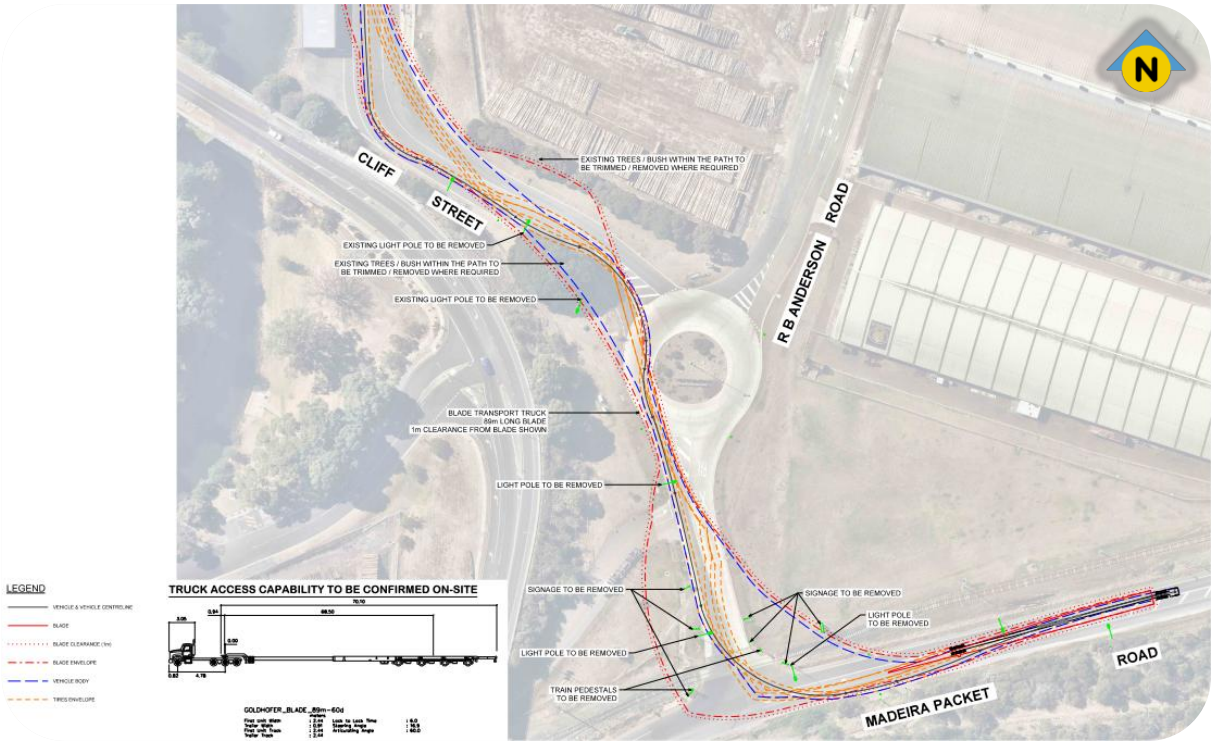
- Viability / likelihood of an option being approved by an authority and time delay associated with approvals;
- Possible cost implications of recommended mitigation measures;
- Possible safety implications of the proposal; and
- Potential impacts on other stakeholders, including local road users.

The following risk ratings were subsequently adopted:

- Low
  - A mitigation / movement that is expected to have both a low likelihood and low impact when assessed against the above factors;
- Medium
  - A mitigation / movement that may have either a high likelihood or high impact against one of the above factors;
- High
  - A mitigation / movement that is expected to have a high likelihood and high impact against the above factors.

4.2.2 Origin - Port of Portland

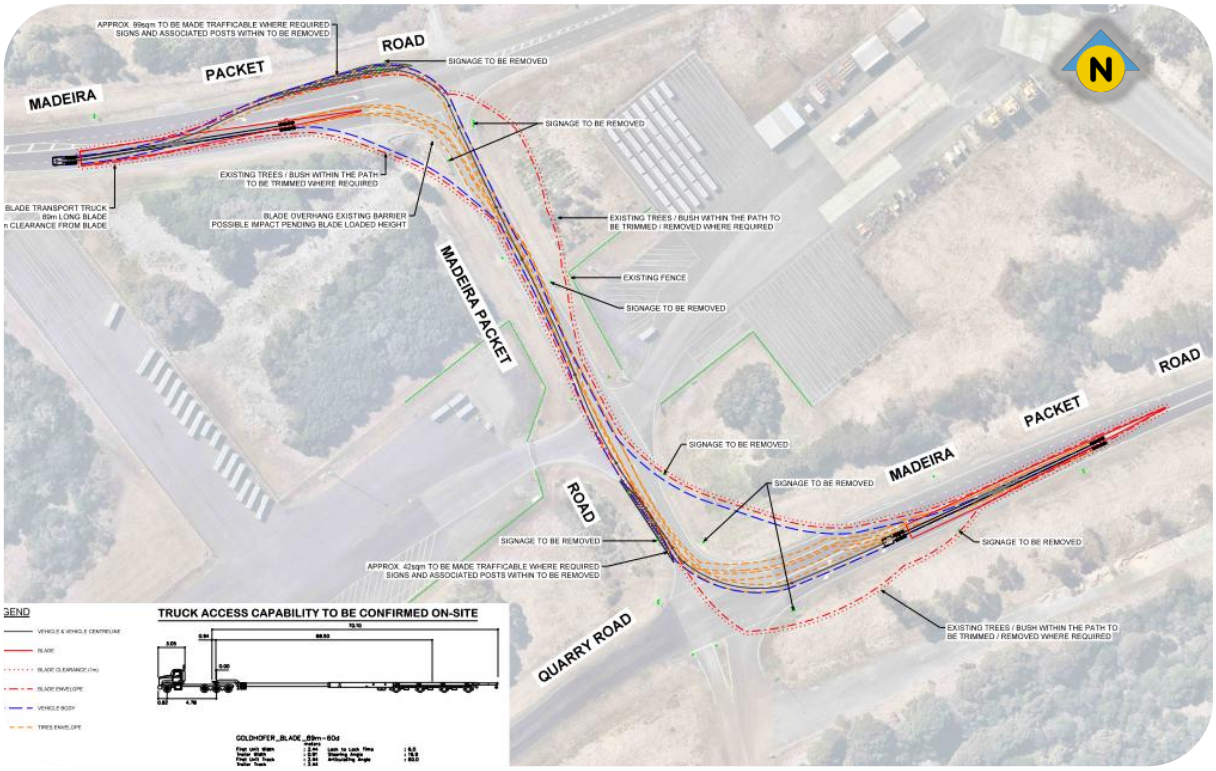
Pinch Point 1 - 'PA'



Movement Description	*Required Mitigation Measures*
Delivery vehicles will approach the intersection using the full width of the existing road pavement. Whilst navigating through the roundabout, vehicles will travel on the opposing side of the roundabout using the entire width of the exiting road pavement. Vehicles will then turn left using the existing road pavement swinging wide over the grass and existing rail line. On the departure side of the intersection, the vehicles will begin on the opposite side of the road before vehicles can straighten back up to be on the correct side of the existing road pavement.	Street signs & light poles located along the departure of the roundabout and either side of the approach to the intersection will need to be temporarily removed during transport. Temporary signs should be put in place during construction and moved into place after vehicles navigate the corner. In addition, multiple frangible light poles will need to be removed temporarily and replaced following construction. Temporary lighting should be utilised during construction activities. Existing trees at multiple locations along the vehicle path to be removed and reinstated once construction / deliveries have concluded. Existing train pedestals need to also be temporarily removed during transport. Railway line must be clear when vehicles are navigating the intersection due to the vehicle body overhanging over the tracks.

Overall risk rating for this movement is medium.

Pinch Point 2 - 'PB'

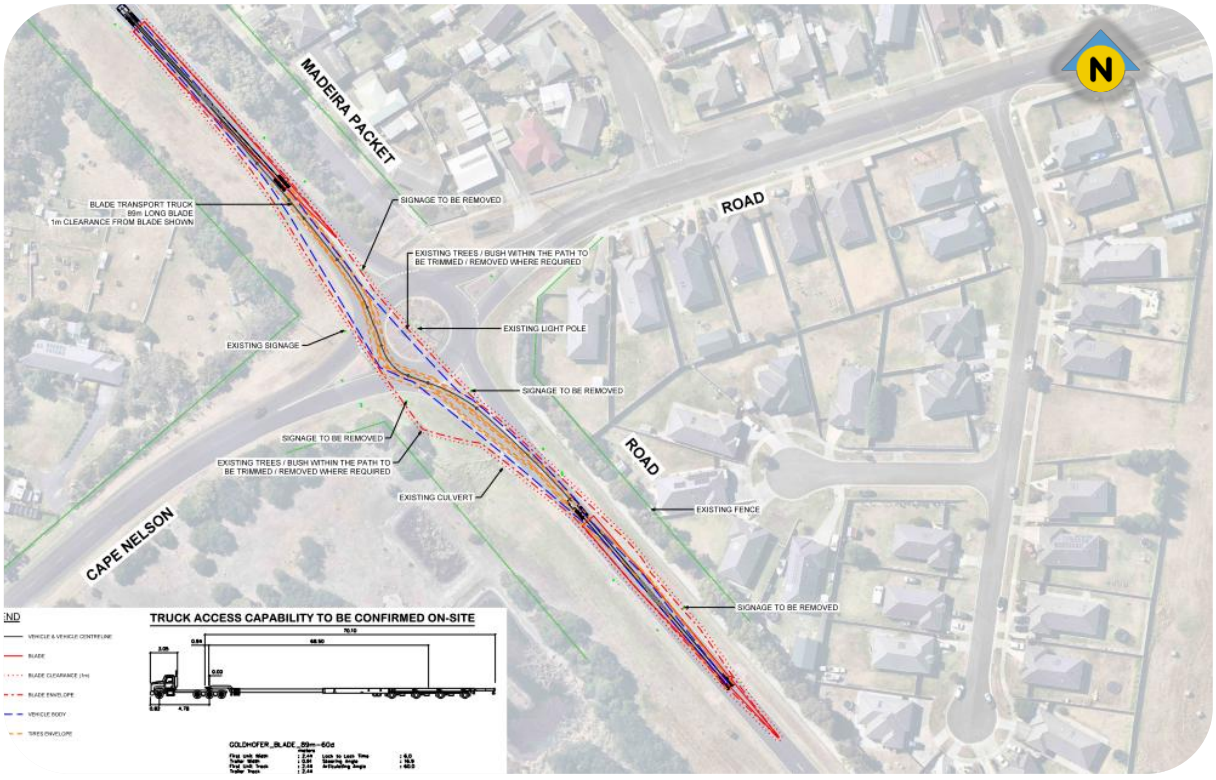


Movement Description	*Required Mitigation Measures*
Delivery vehicles will approach the intersection on the correct side of the road. Whilst turning right, vehicles will utilise the full existing road pavement. The blade will swing south while the vehicle body will cut the corner to the north. Vehicles will then turn left onto the opposite side of the road before straightening up to the correct side of the road pavement.	Street signs between both intersections on the east side of the road will need to be temporarily removed during transport. Temporary signs should be put in place during construction and moved into place after vehicles navigate the corner. Existing trees at multiple locations along the vehicle path to be removed and reinstated once construction / deliveries have concluded. Minor widening to be made trafficable to facilitate wheel paths. On-site confirmation recommended to confirm potential impact on the existing barrier at the intersection that may need to be temporarily removed during transport.

Overall risk rating for this movement is medium.

On-site confirmation recommended to confirm extent of impact (if any) on nearby barrier.

Pinch Point 3 - 'PC'

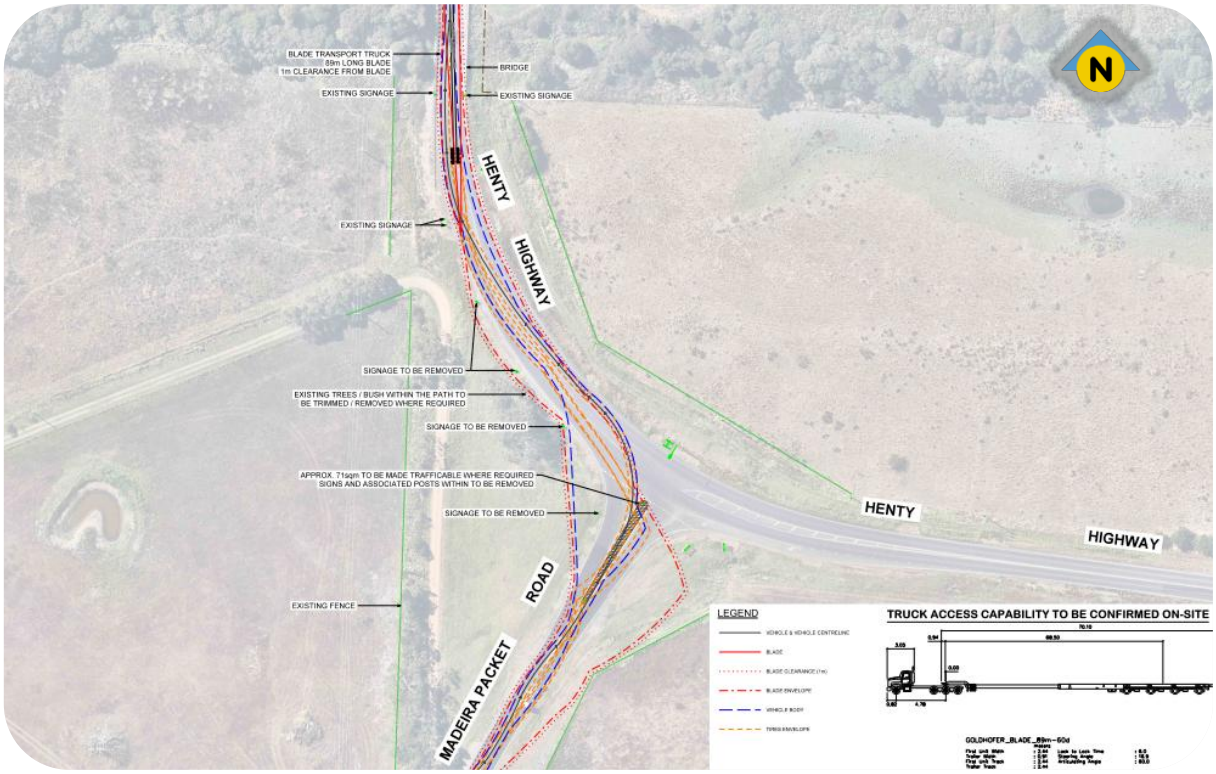


Movement Description	*Required Mitigation Measures*
Delivery vehicles will approach the intersection on the correct side of the road. Whilst navigating through the roundabout, vehicles will remain on the existing road pavement. The blade will overswing over the existing grass to the west on the approach as well as the central island at the approach and departure of the roundabout. The vehicle body will also overhang over the central island of the roundabout. On the departure the vehicle will swing onto the opposite side of the road until it can straighten onto the correct side of the existing road pavement.	No major conflicts identified. Street signs in the central islands on the approach and departure may need to be temporarily removed during transport. Temporary signs should be put in place during construction and moved into place after vehicles navigate the corner. On-site confirmation recommended to confirm locations of signage. In addition, existing light pole in the central island of the roundabout may need to be removed temporarily and replaced following construction. Temporary lighting should be utilised during construction activities. On-site confirmation recommended to confirm potential impact on the existing light pole.

Overall risk rating for this movement is low.

On-site confirmation recommended to confirm extent of impact (if any) on nearby signage and light pole.

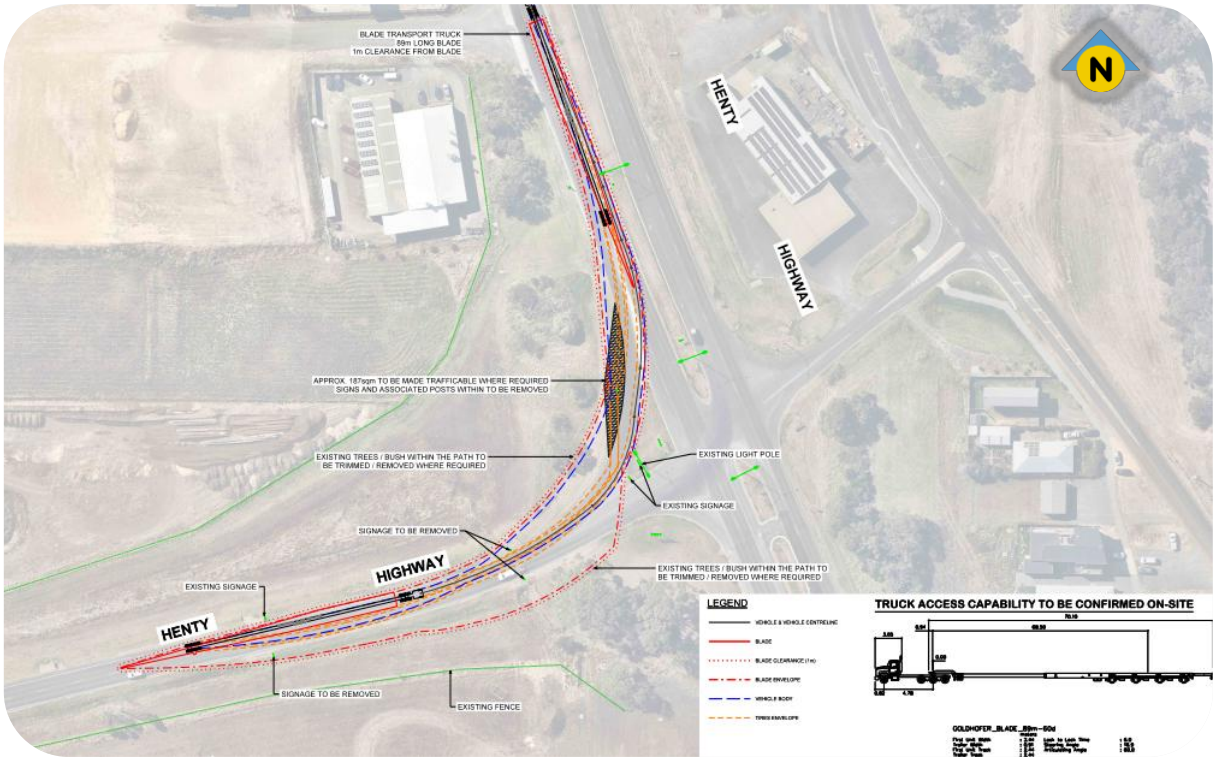
Pinch Point 4 - 'PD'



Movement Description	*Required Mitigation Measures*
Delivery vehicles will approach the intersection on the correct side of the road. Vehicles will then swing wide to the east using the opposing lane of the existing pavement to then turn left. On its departure the vehicle will drive on the opposite side of the rad pavement until it can return to the correct side of the existing pavement. While performing this movement the vehicle will overhang marginally on existing grass areas.	No major conflicts identified. Street signs on either side of the approach and in the central island will need to be temporarily removed during transport. Temporary signs should be put in place during construction and moved into place after vehicles navigate the corner.

Overall risk rating for this movement is low.

Pinch Point 5 - 'PE'

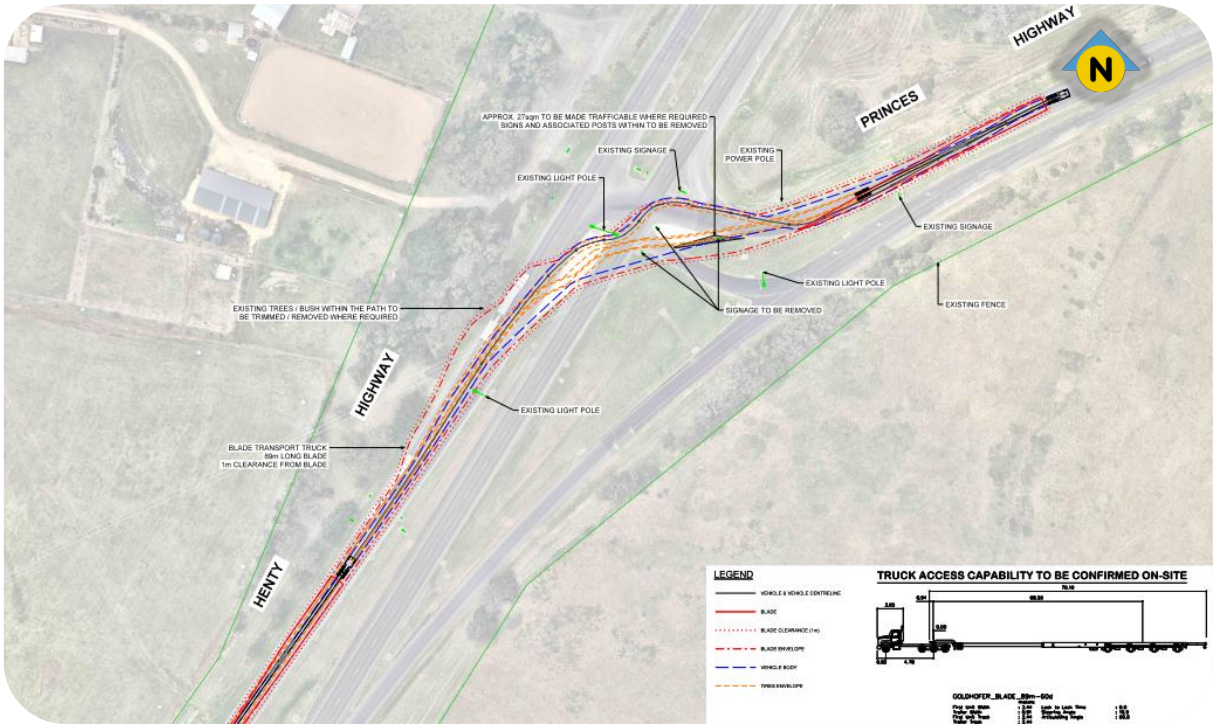


Movement Description	*Required Mitigation Measures*
Delivery vehicles will approach the intersection on the correct side of the road. Whilst navigating through the intersection, vehicles will swing wide using both sides of the road pavement before using the left turn slip lane. Vehicles may overhang on the central island and onto the verge on the southern boundary. On the departure side of the intersection, the vehicles will remain on the correct side of the existing road pavement.	No major conflicts identified. Street signs located on either side of the left turn slip lane will need to be temporarily removed during transport. Temporary signs should be put in place during construction and moved into place after vehicles navigate the corner. Minor fill material on the western verge on the departure to be made trafficable to allow for wheel paths. Potential tree trimming may be required of existing trees located along the vehicle path. On-site confirmation recommended to confirm potential impact on the existing vegetation.

Overall risk rating for this movement is low.

On-site confirmation recommended to confirm extent of impact (if any) on nearby trees.

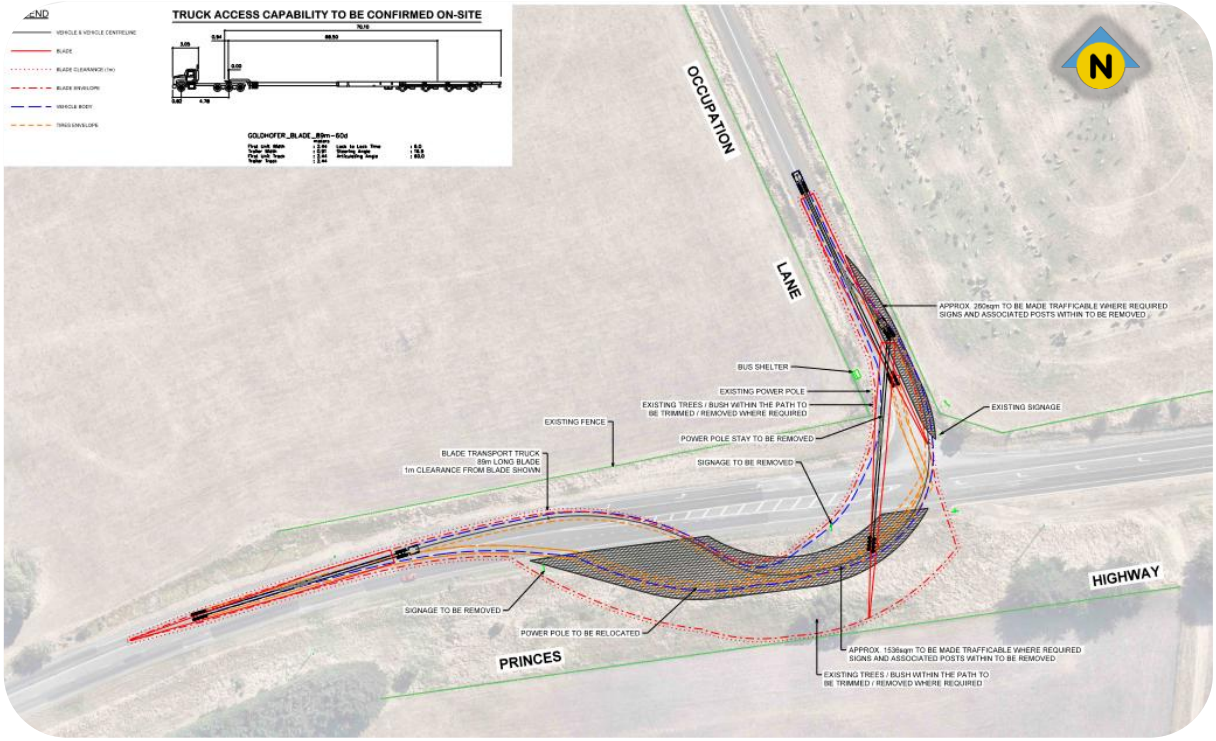
Pinch Point 6 - 'PF'



Movement Description	*Required Mitigation Measures*
Delivery vehicles will approach the intersection on the correct side of the road. Whilst turning right, the vehicles will cut across the central medians and depart onto the correct side of the existing road pavement to the northeast, While navigating through the turn the blade will swing wide to the west over the road barriers.	No major conflicts identified. Street signs located along the eastern leg will need to be temporarily removed during transport. Temporary signs should be put in place during construction and moved into place after vehicles navigate the corner. Potential tree trimming may be required of existing trees located along the vehicle path. On-site confirmation recommended to confirm potential impact on the existing vegetation.

Overall risk rating for this movement is low.

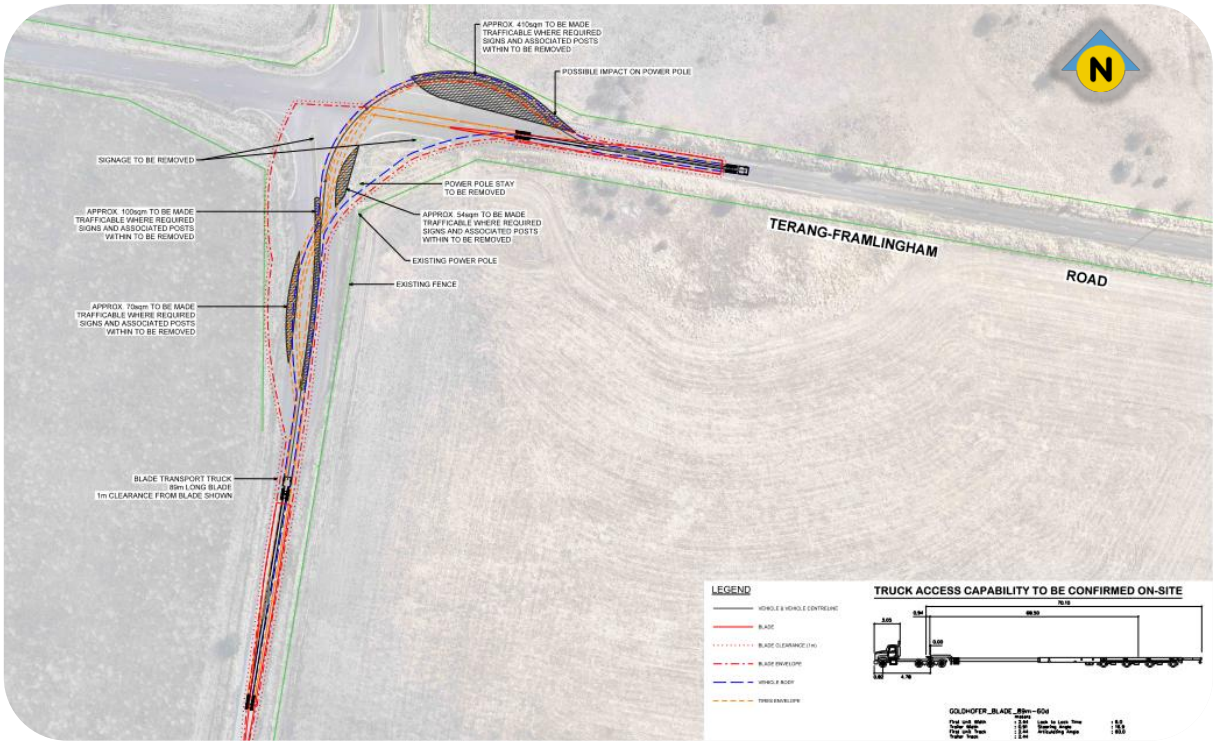
Pinch Point 9 - 'PG'



Movement Description	*Required Mitigation Measures*
Delivery vehicles will approach the intersection on the correct side of the road. The vehicles will then turn out onto the opposing lane and southern verge prior to swinging left onto Occupation Lane. While performing this turn the blade will swing over the central island in this intersection. Once vehicles have turned using the opposite direction left slip lane, they will move to the correct side of the existing road pavement.	Trafficable fill material will be required on the southern verge to facilitate the turn. Street signs and power poles to be temporarily removed during transport. Temporary signs should be put in place during construction and moved into place after vehicles navigate the corner.

Overall risk rating for this movement is low.

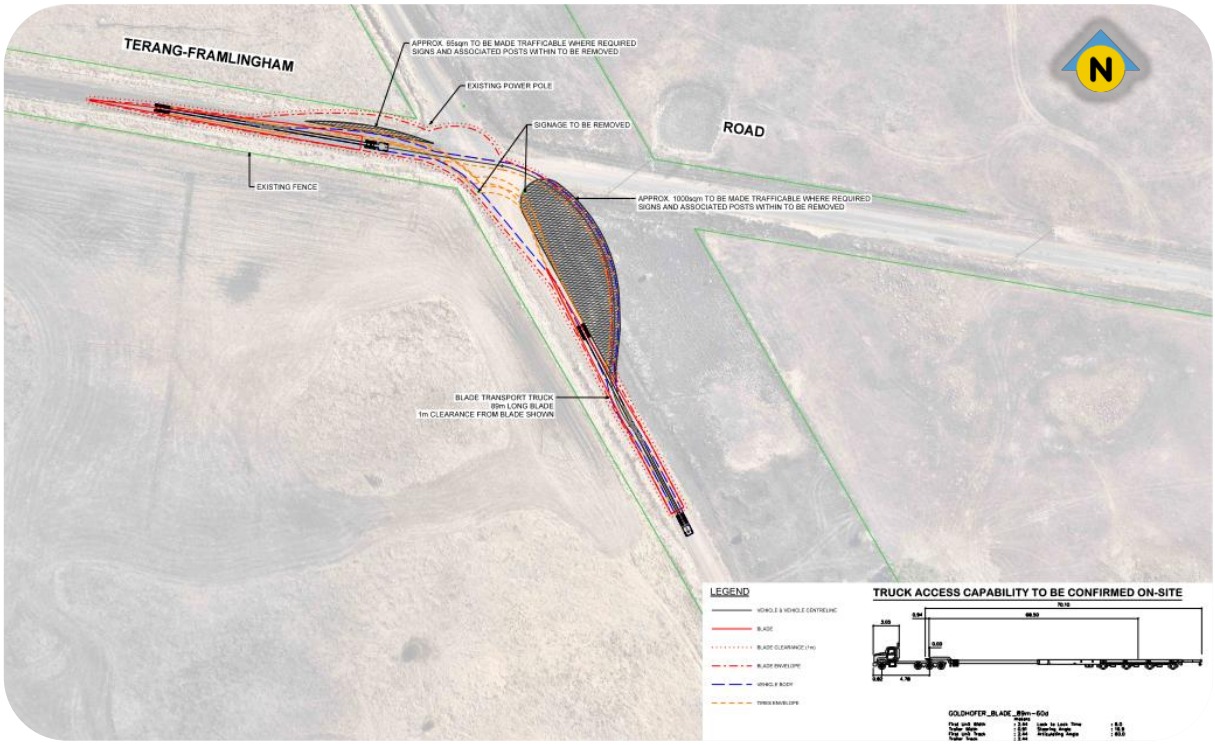
Pinch Point 10 - 'PH'



Movement Description	*Required Mitigation Measures*
Delivery vehicles will approach the intersection on the correct side of the road. The vehicles will then turn right using the left turn using the western verge. While performing this turn the blade will swing over the central island in this intersection. Once vehicles have turned using the opposite direction left slip lane, they will move to the correct side of the existing road pavement.	Street signs located on the central median need to be temporarily removed during transport. Fill material required to facilitate the wheel paths. Power pole located on the northern & eastern verge will need to be temporarily removed to facilitate the turn.

Overall risk rating for this movement is low.

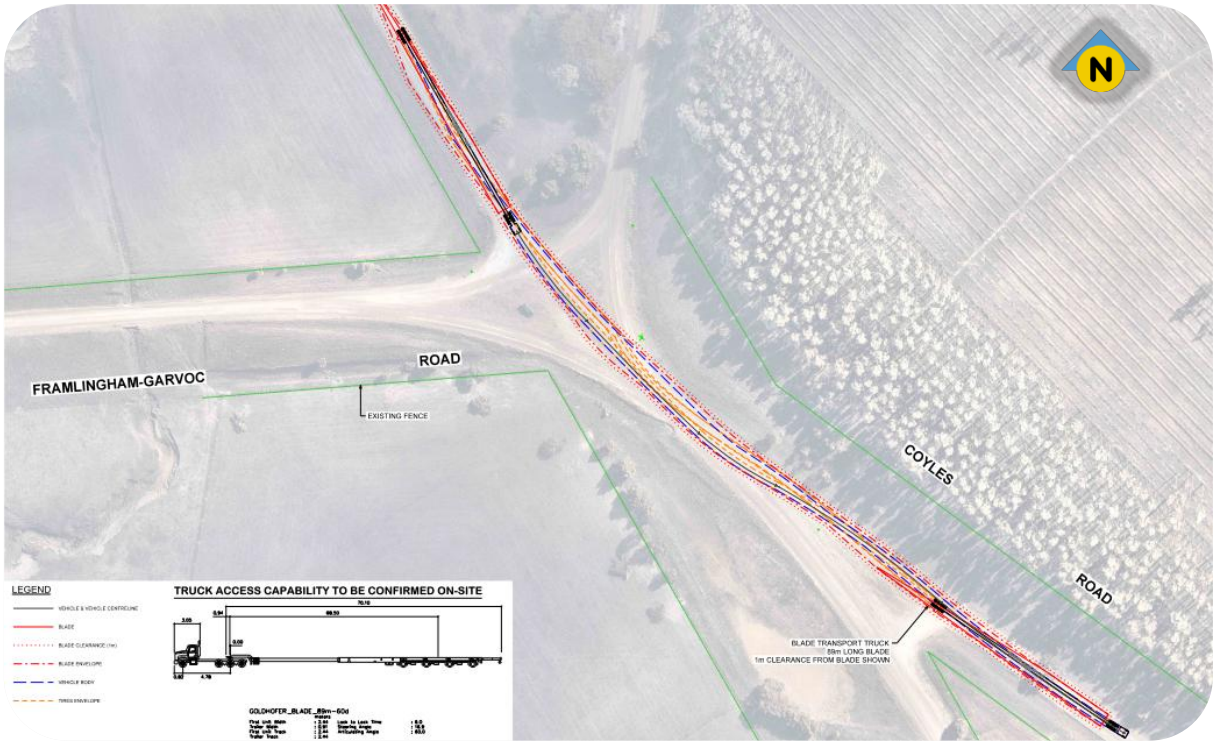
Pinch Point 11 - 'PI'



Movement Description	*Required Mitigation Measures*
Delivery vehicles will approach the intersection on the correct side of the road. The vehicles will then turn right using the left turn slip lane on the opposite side of the departure road to perform this movement. Once vehicles have turned using the opposite direction left slip lane, they will move to the correct side of the existing road pavement.	Street signs located on the departure lane to be temporarily removed. Additional trafficable fill material will be required on the approach and departure verges to facilitate wheel paths. Street signs to be temporarily removed during transport. Temporary signs should be put in place during construction and moved into place after vehicles navigate the corner.

Overall risk rating for this movement is low.

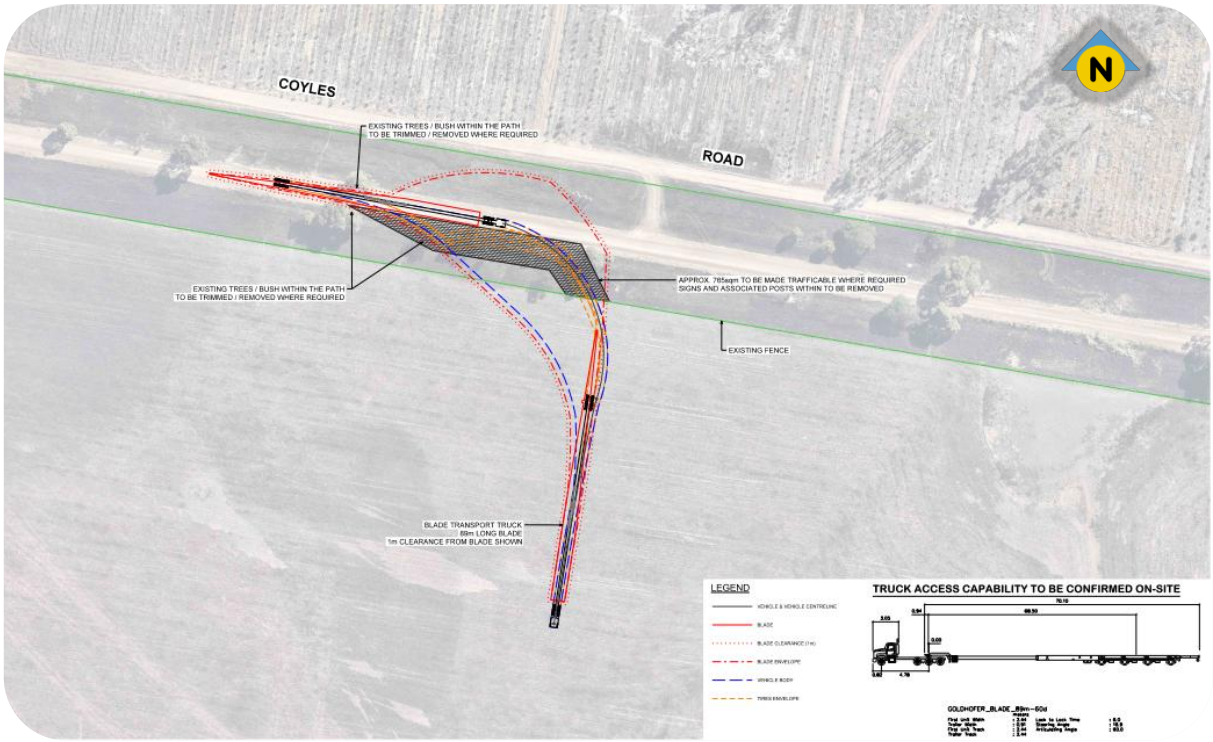
Pinch Point 12 - 'PJ'



Movement Description	*Required Mitigation Measures*
Delivery vehicles will approach the intersection on the correct side of the road. The vehicles will then drive through the intersection without steering onto the opposing lane.	No major conflicts identified.

Overall risk rating for this movement is low.

Pinch Point 13 - 'PK' (Site Access)



Movement Description	*Required Mitigation Measures*
Delivery vehicles will approach the intersection on the correct side of the road. The vehicles will then turn right into the site access.	Fill trafficable material required on the southern verge to facilitate wheel paths. Existing trees and vegetation to be trimmed and removed / reinstated as required.

Overall risk rating for this movement is low.

4.2.2.1 Summary - Pinch Points

These intersections include two (2) Medium impact intersections ('PA' or Cliff Street / Madeira Packet Road and 'PB' or Madeira Packet Road), with the remaining as low impact intersections.

The above route investigation revealed that most intersections required relatively minor mitigation measures.

We note however that there were some more critical mitigation measures required, as detailed in Table 4.

Table 4 Summary of Critical Impacts / Mitigation Measures - Port of Portland

Impact	Mitigation Measure / Note	Applicable Intersection
Impact on train pedestals	Confirmation and approval required from relevant rail authority	PA
Impact on vegetation	Confirmation and approval required from relevant road authority / arborist	PB
Impact on barriers	Confirmation and approval required from relevant road authority	PB

As above, we note that each of the proposed deliveries will require escort / pilot vehicles along their entire length. Pilot vehicles will be responsible for stopping / temporarily holding traffic when delivery trucks move through relevant pinch points.

Note: Rear steering will be used by vehicles at most intersections to assist in movement and minimising the extent of impact required.

Based on the foregoing, the following overall risk rating has been adopted for the delivery of turbine blades from the Port of Portland. This risk rating is based on the highest observed risk at any one intersection along the route.

Overall Risk Rating – Low.

5 Traffic Considerations

5.1 Traffic Generation

5.1.1 General

Typically, all internal Wind Farm construction traffic is limited to internal access roads, with only deliveries and staff movements required to travel across the external road network.

Accordingly, we expect that all delivery vehicle movements will travel to the relevant turbine hardstand areas (as required).

5.2 Key Traffic Generation Assumptions

The following section sets out our key assumptions to estimate traffic movements generated by the subject site.

5.2.1 Project Delivery Timeframe & Construction Periods

We are advised that the proposed Wind Farm construction and delivery will occur across an approximate 12-month period.

Furthermore, we have adopted the following delivery stages for the project:

- General Construction Activities
  - These are assumed to occur throughout the duration of the project construction;
- Site Set-Up
  - This stage is assumed to be undertaken and completed over a four (4) week period;
- Roads & Hard standings
  - This is assumed to be undertaken over a 12-16 week period (approximately the total construction period);
  - This stage will be undertaken concurrently with the foundation construction and turbine erection components;
- Foundation construction
  - This stage will occur after the relevant roads / hardstands have been constructed for each turbine site;
  - A construction period of approximately six (6) days has been adopted for this component of works;
- Turbine erection (including delivery) & Cable Installation
  - This stage will occur after the relevant roads, hardstands & foundations has occurred;
  - This stage is assumed to be undertaken over an approximate 12-16 week period, occurring after (but also at the same time) as the previous stages; and
- Testing and operations
  - This stage is expected to occur after the delivery of turbines and is anticipated to last approximately eight (8) weeks.

5.2.2 Delivery Route & Materials Assumptions

Of significance, we note the following in relation to site generated vehicle movements:

- Water for construction will be trucked and stored in water tanks located at the staging area and laydown areas;
  - No external movements are required for water deliveries;
  - Dust suppression vehicles will be utilised along relevant local roads and access tracks as required.
- Concrete will be batched at established concrete batching plants;
  - Concrete truck delivery vehicles will be required from established concrete batching plants in Warrnambool or Cobden;
  - Aggregate and materials for concrete will be delivered to the batching plants before being distributed locally as concrete to each turbine site as required.
- Aggregate for access track construction will be delivered from a local quarry
  - Some additional movements may be required from further afield to mix into the aggregate.
- Wind turbine components will be imported with:
  - Three (3) blades per turbine;
  - Five (5) tower sections per turbine; and
  - A single nacelle, drive train, hub/spinner & power module per turbine.
- A total of 8,000 tonnes of aggregate will be required for roads and hardstands
  - Sources from established quarries within the vicinity of the site and sourced further afield if needed (to ensure appropriate quality)
- A total of approximately 800 cubic metres of concrete will be required for turbine foundations
  - All concrete is batched at established concrete batching plants.

5.3 Construction Traffic Generation

External traffic generated by the site will be split across three (3) broad categories:

- General traffic (LV) generated by staff / visitors to/from the site (i.e. utes, vans and private cars)
- Over Dimensional (OD) used for the delivery of long / heavy WTG components: and
- Other heavy vehicles (HV) which are used for the delivery of the smaller WTG components and construction materials.

It is anticipated that staffing movements will be split between Terang / Warrnambool while construction delivery movements will be split between Warrnambool / Cobden.

Table 5 summarises the estimated traffic mix of vehicle movements generated over the 12-month (approximately 250 working days) construction period.

A total of approximately 4,593 vehicle movements comprising of light, heavy and over dimensional vehicles are anticipated over the construction period. It is acknowledged that, however, that daily traffic volumes will vary depending on the specific site construction activities. During the peak construction phase, traffic volumes will likely increase up to 200 daily movements per day.

Table 5 Estimated Construction Traffic

Type of Vehicle	Total Vehicle Movements*
Light Vehicle	1,000 total LV movements
Heavy Vehicles	3,429 total HV movements
Over Dimensional Vehicles	164 total OD movements
Total Vehicles	**4,593 total movements**

*Includes both loaded and unloaded trips, for each loaded trip there will be one loaded (return) trip, where the transport vehicle will be collapsed to regulation dimensions where applicable.

5.4 Assessment of Construction Material Delivery & Staff Movements

5.4.1 Sisters-Garvoc Road & Site Access

5.4.1.1 Construction Traffic

As discussed, Sisters-Garvoc Road will carry all construction material and staff movements.

The site is expected to generate in the order of 200 daily vehicle movements during the peak activity periods with up to 100 inbound movements during the peak period.

As specified, Sisters-Garvoc Road caters for up to 50 daily movements or up to five (5) peak hour movements.

5.4.1.2 Turn Lane Warrants

Reference has been made to AustRoads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings[1] (AGTM Part 6). This document provides guidance on the warrants for various turn treatments at unsignalised intersections, these warrants are reproduced as Figure 14.

Coinciding with the estimated existing traffic along Sisters-Garvoc Road and the construction traffic, guidance taken from Figure 14 illustrates that the site access triggers the need to provide no more than a basic right turn (BAR) treatment as traffic will arrive from Princes Highway to the south.

Turn treatments should be designed to accommodate B-double vehicle movements with supplementary pavement widening incorporated where necessary to facilitate wheel-paths for larger over-dimensional vehicles.

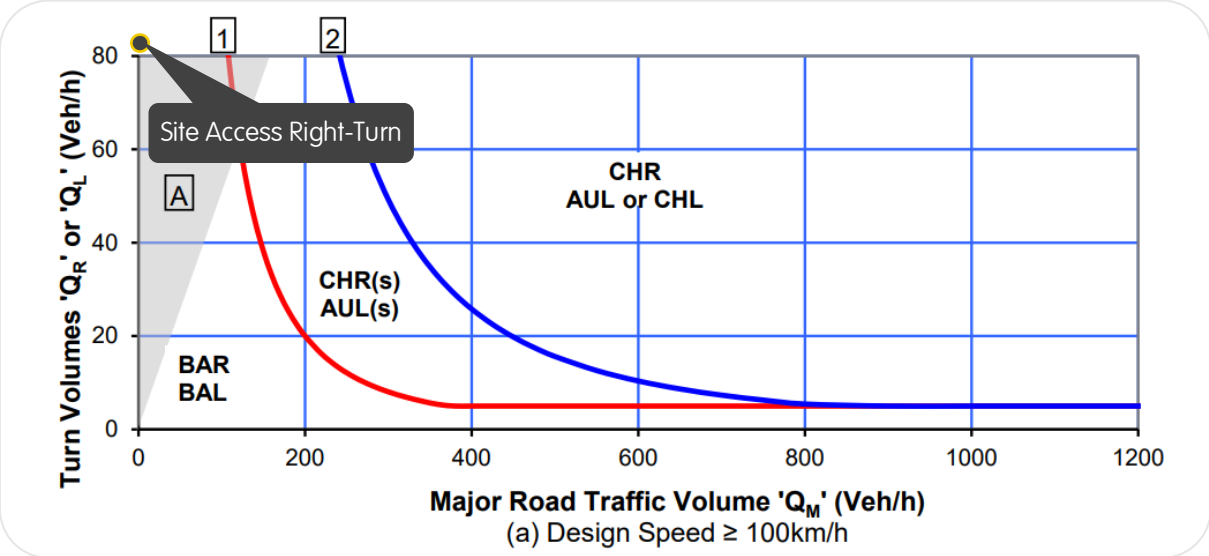


Figure 14 Warrants for Turn Treatments at Unsignalised Intersections

[1] AustRoads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings, AustRoads 2017 Edition)

5.4.1.3 Sightline Assessment

An assessment of the sight distance available from the site access point has been undertaken using aerial imagery. We note that an on-site assessment should be undertaken to validate the following sight distance review prior to construction.

The Austroads Guide provides sight distance values for vehicles at varying design speeds.

Sisters-Garvoc Road current is defaulted at 100km/hr which yields a requirement to provide at least 300m of clear visibility at the site access intersection.

Sight distance at this intersection to the north and south are expected to comfortably exceed the minimum requirement, as illustrated in Figure 15.

Figure 15 Sight Distance Assessment - Proposed Site Access (Source: Nearmap 22/03/2018)

5.4.1.4 Pavement Maintenance

The section of Sisters-Garvoc Road from the Princes Highway to the proposed site access will require a detailed pavement investigation (and potential upgrades if deemed appropriate) prior to construction to ensure that deterioration of the road does not occur during construction. In addition, regular review of pavement conditions including a program of maintenance would be required during the construction phase and rectified to the responsible authority's satisfaction.

5.4.2 Princes Highway & Sisters-Garvoc Road

5.4.2.1 Construction Traffic

Princes Highway in the vicinity of the site carries in the order of 4,000 vehicles per day or 400 vehicle movements during the peak period and is split equally, with 200 vehicles travelling in the westbound and eastbound directions.

The Project will generate a total of 200 vehicle movements during the peak construction period with 100 movements expected to be inbound vehicle trips. The inbound trips are anticipated to be split between eastbound and westbound movements, e.g. 50 inbound trips from each direction.

Accordingly, Princes Highway is expected to increase in traffic, with a total of 4,200 daily vehicle movements during the peak construction period. In addition, peak hour movements will increase to 300 vehicle movements. As a result, the intersection of Princes Highway and Occupation Lane will experience an increase in left-turn and right-turn movements.

5.4.2.2 Turn Lane Warrants

Reference has been made to AustRoads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings[2] (AGTM Part 6). This document provides guidance on the warrants for various turn treatments at unsignalised intersections, these warrants are reproduced as Figure 16.

Coinciding with the existing traffic along Princes Highway and the site generated peak hour traffic, guidance taken from Figure 16 illustrates that the intersection of Princes Highway and Sisters-Garvoc Road will require a basic left-turn (BAL) and a channelised right-turn (CHR) treatment.

The intersection of Princes Highway and Sisters-Garvoc Road currently caters for a dedicated left-turn lane on the western and eastern approach. It is recommended that, once further information is available regarding the origin of staff and construction traffic, a review of the turning movement warrants be undertaken. This is particularly relevant given the current assessment assumes an even distribution of staff and construction arrivals from all directions.

Turn treatments should be designed to accommodate construction material deliveries / B-double vehicle movements with supplementary pavement widening incorporated where necessary to facilitate larger over-dimensional vehicles.

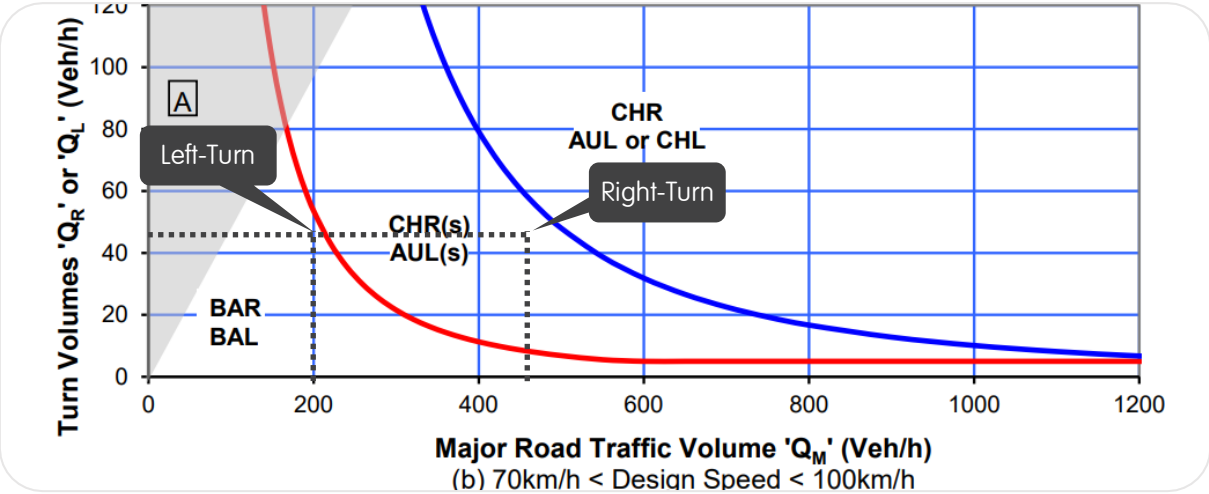


Figure 16 Warrants for Turn Treatments at Unsignalised Intersections

[2] AustRoads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings, AustRoads 2017 Edition)

5.4.2.3 Sightline Assessment

An assessment of the sight distance available from Sisters-Garvoc Road onto Princes Highway has been undertaken using aerial imagery. We note that an on-site assessment should be undertaken to validate the following sight distance review prior to construction.

The Austroads Guide provides sight distance values for vehicles at varying design speeds.

Princes Highway at Sisters-Garvoc Road currently has a posted speed limit of 80km/hr which yields a requirement to provide at least 226m of clear visibility at its intersection to Occupation Lane.

Sight distances at this intersection to the west and east are expected to comfortably exceed the minimum requirement, as illustrated in Figure 17.

Figure 17 Sight Distance Assessment, Princes Hwy & Sisters-Garvoc Rd

5.4.2.4 Pavement Maintenance

Arterial roads are generally suitable for accommodating OSOM vehicle movements, provided that project-specific conditions and restrictions are adhered to. However, given the short duration of the construction period, it is expected that DTP will retain maintenance responsibilities for the arterial roads along the haulage route.

5.5 Assessment of Wind Farm Components

5.5.1 Wind Farm Delivery

5.5.1.1 OSOM Route

As described, the proposed OSOM route will utilise the northern site access located on Coyles Road.

The route is expected to originate from Port of Portland and within the local network, travel via Princes Highway onto Occupation Lane, Terang-Framlingham Road, Sisters-Garvoc Road and onto Coyles Road before entering the site access.

5.5.1.2 Construction Traffic

A total of 164 OSOM deliveries are expected over the duration of the construction phase, with a frequency of one (1) to two (2) vehicle movements per day. These movements are proposed to occur outside the typical road network peak periods to minimise disruption to general traffic.

5.5.1.3 Pavement Upgrades & Maintenance

To support these movements, it is recommended that the unsealed section of road between Sisters-Garvoc Road and Coyles Road be upgraded to a standard which permits heavy vehicle access for construction material delivery for all weather events. Furthermore, based on the assessment of the swept path analysis, the intersections along the select haulage route will require localised widening treatments. This may involve temporary pavement widening or placement of seal/gravel material to support OSOM vehicle wheel paths.

Prior to operation, it is recommended that a review of the existing pavement along the proposed OSOM route be reviewed and investigated for potential upgrade prior to the transport of the OSOM components. In addition, regular review of pavement conditions including a program of maintenance would be required during the construction phase and rectified to the satisfaction of the responsible authority upon completion.

5.5.2 Substation Delivery

5.5.2.1 OSOM Route

The single OSOM vehicle required to deliver the substation components will follow the route outlined in Section 4.1.2.1. However, rather than turning left onto Occupation Lane, the OSOM vehicle will proceed along Princes Highway and turn left onto the existing access track located at the eastern boundary of the site.

5.5.2.2 Construction Traffic

A total of approximately 50 daily vehicle movements are anticipated for the construction of the substation and access track during the peak construction period, including the delivery of one (1) OSOM delivery for the substation component. Of these, approximately 25 are expected to be inbound movements.

The anticipated construction traffic will be temporary and limited to a short construction window. Given the rural setting and low background traffic volumes, the additional vehicle movements are not expected to result in any material impacts to the surrounding road network. In addition, the OSOM delivery will be scheduled outside peak travel times and along pre-approved freight routes to minimise any disruption.

5.5.2.3 Pavement Upgrades & Maintenance

To accommodate these movements, it is recommended that the access track to the substation be upgraded to a standard suitable for heavy vehicle access and capable of withstanding all-weather conditions during construction. Additionally, once the source of deliveries for the substation compound is finalised and delivery numbers known, widening at the intersection with Princes Highway should be considered to facilitate turning movements for construction vehicles, particularly left-turns from the south. It is noted that right-turn movements are already supported by an existing basic right-turn lane.

Prior to operation, it is recommended that a review of the existing pavement along the proposed OSOM route be reviewed and investigated for potential upgrade prior to the transport of the OSOM components. In addition, regular review of pavement conditions including a program of maintenance would be required during the construction phase and rectified to the satisfaction of the responsible authority upon completion.

5.6 Operational Traffic Impacts

The site will operate with a small full-time maintenance crew. Accordingly, apart from the initial construction phase, the proposal is anticipated to have a negligible impact upon traffic on the local road network.

Details of likely traffic generation during operation are as follows:

- Routine maintenance at the site is expected to occur once per month. Accordingly, 50 vehicle movements are expected to occur along the local road network per year including occasional visits by stakeholders. All other movements are internal to the site; and
- Occasional maintenance will occur when components of the development need to be replaced, such as replacing a blade or gearbox. This is expected to occur very occasionally and will be subject to approval processes with the relevant authorities.

In the context of the Wind Farm construction and background traffic along Coyles Road and Sisters-Garvoc Road, operating traffic will be minimal. By virtue of the minimal traffic along other local roads, project traffic will be noticeable but not yield any significant impact on these roads.

5.7 Other Impacts

5.7.1 Sisters-Garvoc Road Bridge

Located along Sisters-Garvoc Road is a 5.4m wide bridge providing for one-way vehicle access.

Council have provided a Level 2 Visual Bridge Inspection Report, prepared by Advanced Structural Consultancy on 17th April 2024, indicating that the bridge is generally in good condition, with only minor signs of erosion and settlement.

Additionally, Council have advised that the bridge currently supports regular movements of 26m B-doubles and A-doubles, operating at 68.5 and 70.5 tonnes respectively.

Given the bridge's demonstrated capacity to support such loads on a regular basis and in the absence of any identified structural deficiencies in the recent inspection, it is not anticipated that the proposed construction-related traffic will not result in any material deterioration or adverse impact to the bridge's structural integrity.

Furthermore, an alternative route has been identified (as mentioned in the previous chapters) for all OSOM deliveries to avoid imposing unnecessary loads and impacts on the bridge. This route also includes recommendations for upgrading any substandard pavement to an all-weather pavement to ensure adequate access to the site.

5.8 Traffic Management Plan

We expect that a detailed Traffic Management Plan (TMP) will need to be prepared prior to the commencement of the construction of the project to confirm any mitigation measures and management works required at that time.

The TMP would be implemented as a condition of any Development Consent issued for the Wind Farm and would be developed in consultation with Council, DTP, the Project Team and any other relevant stakeholders to provide a more accurate indication of traffic impacts and to identify responsibilities for road maintenance and upgrades throughout the construction period.

6 Conclusion & Recommendations

This assessment has reviewed the proposed haulage routes and associated traffic impacts for the construction of the Swansons Lane Wind Farm.

Due to geometric constraints associated with the existing bridge on Sisters-Garvoc Road, all OSOM deliveries are proposed to access the site via the intersection of Princes Highway and Occupation Lane. The use of Princes Highway and Sisters-Garvoc Road will be limited to construction material deliveries and staff movements.

Wind turbine components are expected to be transported from Portland, with vehicles accessing the site via a designated entry point on Coyles Road. Construction materials will be primarily sourced from local quarries in the vicinity of the site, while staff are expected to travel from either Warrnambool or Terang.

Three (3) distinct site access points are proposed for the windfarm: one designated for the construction material deliveries via Sisters-Garvoc Road, another for the wind turbine component deliveries via Coyles Road and a third for the substation construction material deliveries via an existing access along Princes Highway.

As part of this review, swept path assessments were completed for all critical intersections along the haulage route. These assessments indicate that trees and signages will be affected and require temporary removal, trimming and reinstatement. An on-site inspection is recommended to confirm the full extent of required modifications and ensure that OSOM movements are achievable.

Princes Highway, Occupation Lane, Occupation Lane, Terang-Framlingham Road, Sisters-Garvoc Road and Coyles Road are expected to experience an increase in construction traffic particularly from heavy and OSOM vehicles. As such, this report identifies that some form of upgrades be considered to improve turning and overall safety of these intersections.

The intersection of Princes Highway and Sisters-Garvoc Road will see an increase in approximately 200 daily movements during the peak construction periods. This level of traffic is not expected to exceed the capacity of the intersection, however monitoring and traffic management measures are recommended during construction to ensure safe and efficient operation.

The anticipated increase in traffic is also likely to contribute to pavement wear and road degradation. To manage this risk, it is recommended that the project team engage a qualified road pavement auditor to monitor road conditions throughout the construction phase and advise on the appropriate rehabilitation measures as necessary.

Although the construction traffic will impact the road network, we consider that the impacts will be adequately managed through the implementation of a Traffic Management Plan which will be informed by the findings and recommendations of this report.

APPENDIX A
Scaled Site Plan

Swansons Lane Wind Farm

Figures

Site Plan

Legend

- Wind Turbine
- Passing Bay
- Cabling
- Cable Trench
- Access Track
- Site Office Area
- Laydown Area
- Turbine Footing
- 10m Firebreak
- Hardstands
- 140m Meteorological Mast
- Static Water Supply
- Substation

LAND STATE

- Subject Site

Roads

- HIGHWAY
- LANE
- ROAD
- STREET

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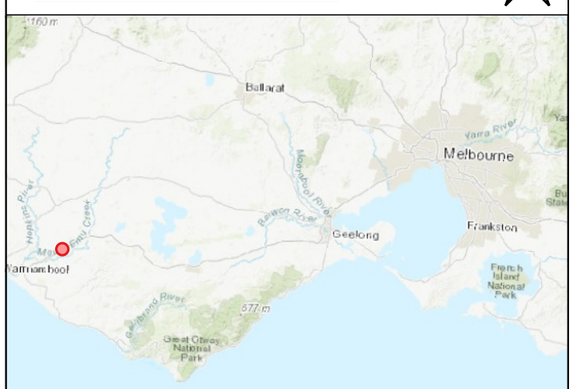
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 05

0 500 1,000 m



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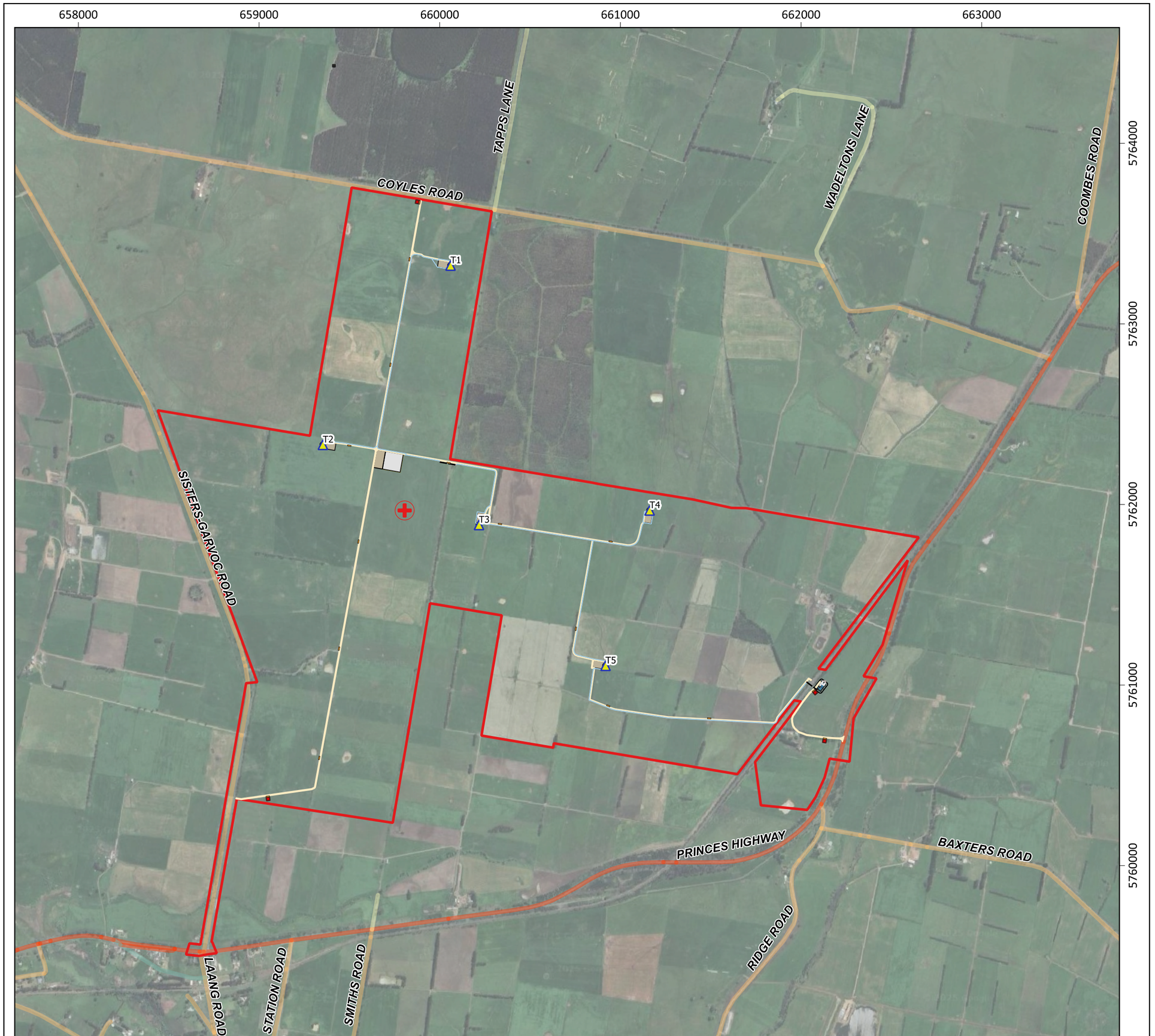
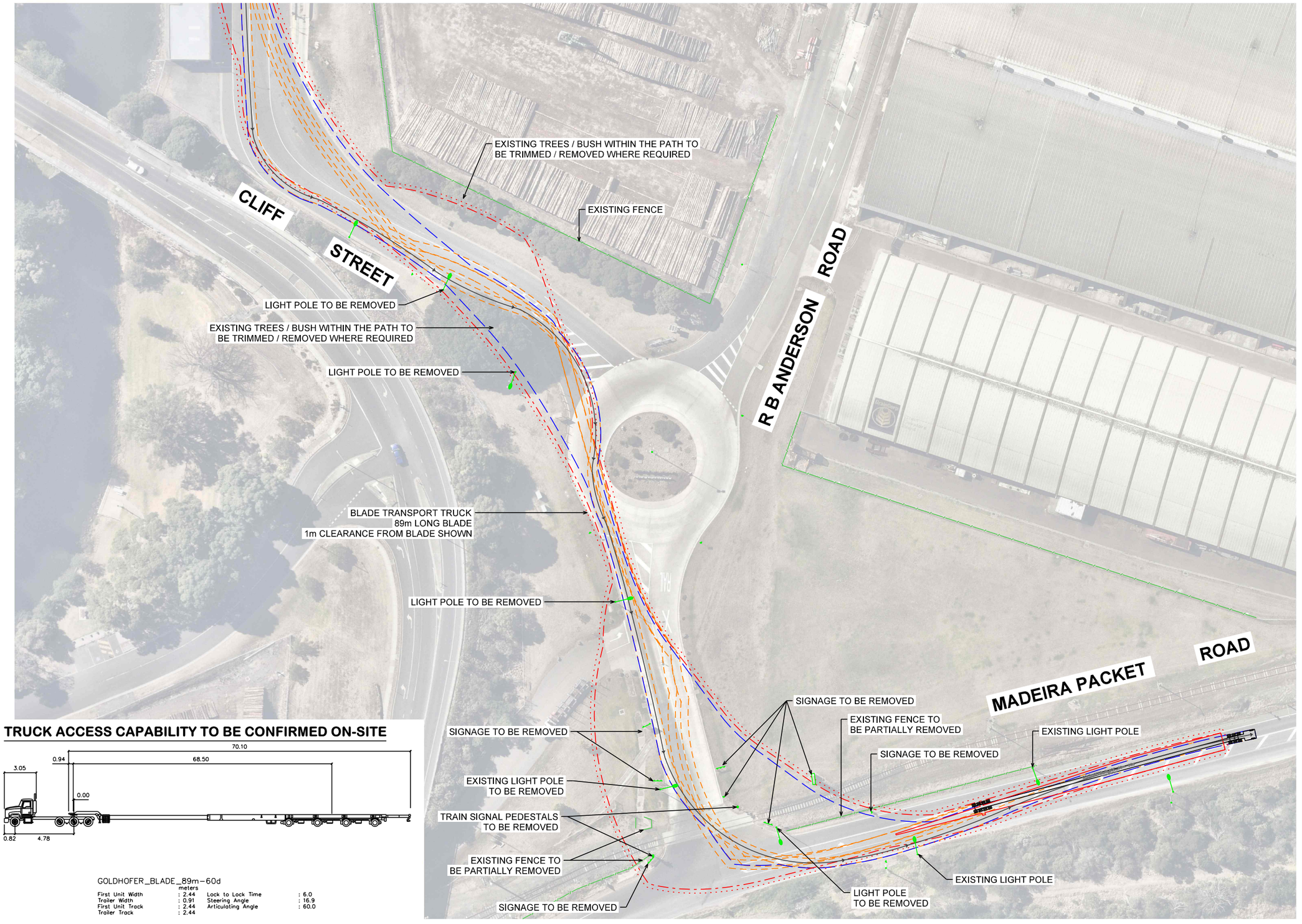


APPENDIX B
Haulage Route - Swept Path Analysis

— 89m Turbine Blade Truck Swept Paths



LEGEND

- VEHICLE & VEHICLE CENTRELINE
- BLADE
- BLADE CLEARANCE (1m)
- BLADE ENVELOPE
- VEHICLE BODY
- TIRES ENVELOPE

TRUCK ACCESS CAPABILITY TO BE CONFIRMED ON-SITE

GOLDHOFER_BLADE_89m-60d

meters

First Unit Width	: 2.44	Lock to Lock Time	: 6.0
Trailer Width	: 0.91	Steering Angle	: 16.9
First Unit Track	: 2.44	Articulating Angle	: 60.0
Trailer Track	: 2.44		

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. LOCAL ROADS - CLIFF STREET (SPEED ZONE 50KM/H)
   - R B ANDERSON ROAD (SPEED ZONE 50KM/H)
   DECLARED ROAD - MADEIRA PACKET ROAD (SPEED ZONE 60KM/H),
3. BASE INFORMATION NEARMAP AERIAL PHOTOGRAPHY DATED 08.03.2025

16/05/2025 1:39:00 PM

RE Future

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SCALE
1:1000 @ A3

Client
RE FUTURE PTY LTD

Date **2025-05-16**
Drawn / Approved **TD / ES**

Project
OSOM ASSESSMENT - SWANSONS LANE WIND FARM
SISTERS-GARVOC ROAD, GARVOC VIC
MOYNE SHIRE COUNCIL
PORTLAND - SITE ACCESS ROUTE

Title
SWEPT PATH ANALYSIS - 89m TURBINE BLADE
CLIFF STREET ONTO MADEIRA PACKET ROAD
PORTLAND VIC

Status
PRELIMINARY

Drawing Number
IMP2503035 - DRG-01-01

Revision
C

APPROX. 99sqm TO BE MADE TRAFFICABLE WHERE REQUIRED
SIGNS AND ASSOCIATED POSTS WITHIN TO BE REMOVED

SIGNAGE TO BE REMOVED

SIGNAGE TO BE REMOVED

EXISTING TREES / BUSH WITHIN THE PATH
TO BE TRIMMED WHERE REQUIRED

BLADE TRANSPORT TRUCK
89m LONG BLADE
1m CLEARANCE FROM BLADE

BLADE OVERHANG EXISTING BARRIER
POSSIBLE IMPACT PENDING BLADE LOADED HEIGHT

EXISTING TREES / BUSH WITHIN THE PATH TO
BE TRIMMED / REMOVED WHERE REQUIRED

EXISTING FENCE

SIGNAGE TO BE REMOVED

SIGNAGE TO BE REMOVED

SIGNAGE TO BE REMOVED

SIGNAGE TO BE REMOVED

SIGNAGE TO BE REMOVED

APPROX. 42sqm TO BE MADE TRAFFICABLE WHERE REQUIRED
SIGNS AND ASSOCIATED POSTS WITHIN TO BE REMOVED

EXISTING TREES / BUSH WITHIN THE PATH TO
BE TRIMMED / REMOVED WHERE REQUIRED

MADEIRA PACKET ROAD

MADEIRA PACKET ROAD

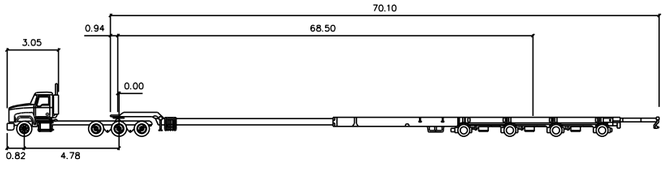
MADEIRA PACKET ROAD

QUARRY ROAD

LEGEND

- VEHICLE & VEHICLE CENTRELINE
- BLADE
- BLADE CLEARANCE (1m)
- BLADE ENVELOPE
- VEHICLE BODY
- TIRES ENVELOPE

TRUCK ACCESS CAPABILITY TO BE CONFIRMED ON-SITE



GOLDHOFER_BLADE_89m-60d

	meters		
First Unit Width	: 2.44	Lock to Lock Time	: 6.0
Trailer Width	: 0.91	Steering Angle	: 16.9
First Unit Track	: 2.44	Articulating Angle	: 60.0
Trailer Track	: 2.44		

GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROAD - MADEIRA PACKET ROAD (SPEED ZONE 60KM/H),
3. BASE INFORMATION NEARMAP AERIAL PHOTOGRAPHY DATED 08.03.2025

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ABN 78 611 424 107
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1:1000 @ A3

Client
RE FUTURE PTY LTD

Date **2025-05-16**
Drawn / Approved **TD / ES**

Project
**OSOM ASSESSMENT - SWANSONS LANE WIND FARM
SISTERS-GARVOC ROAD, GARVOC VIC
MOYNE SHIRE COUNCIL
PORTLAND - SITE ACCESS ROUTE**

Title
**SWEPT PATH ANALYSIS - 89m TURBINE BLADE
MADEIRA PACKET RD ONTO MADEIRA PACKET RD
PORTLAND VIC**

Status
PRELIMINARY

Drawing Number
IMP2503035 - DRG-01-02

Revision
C

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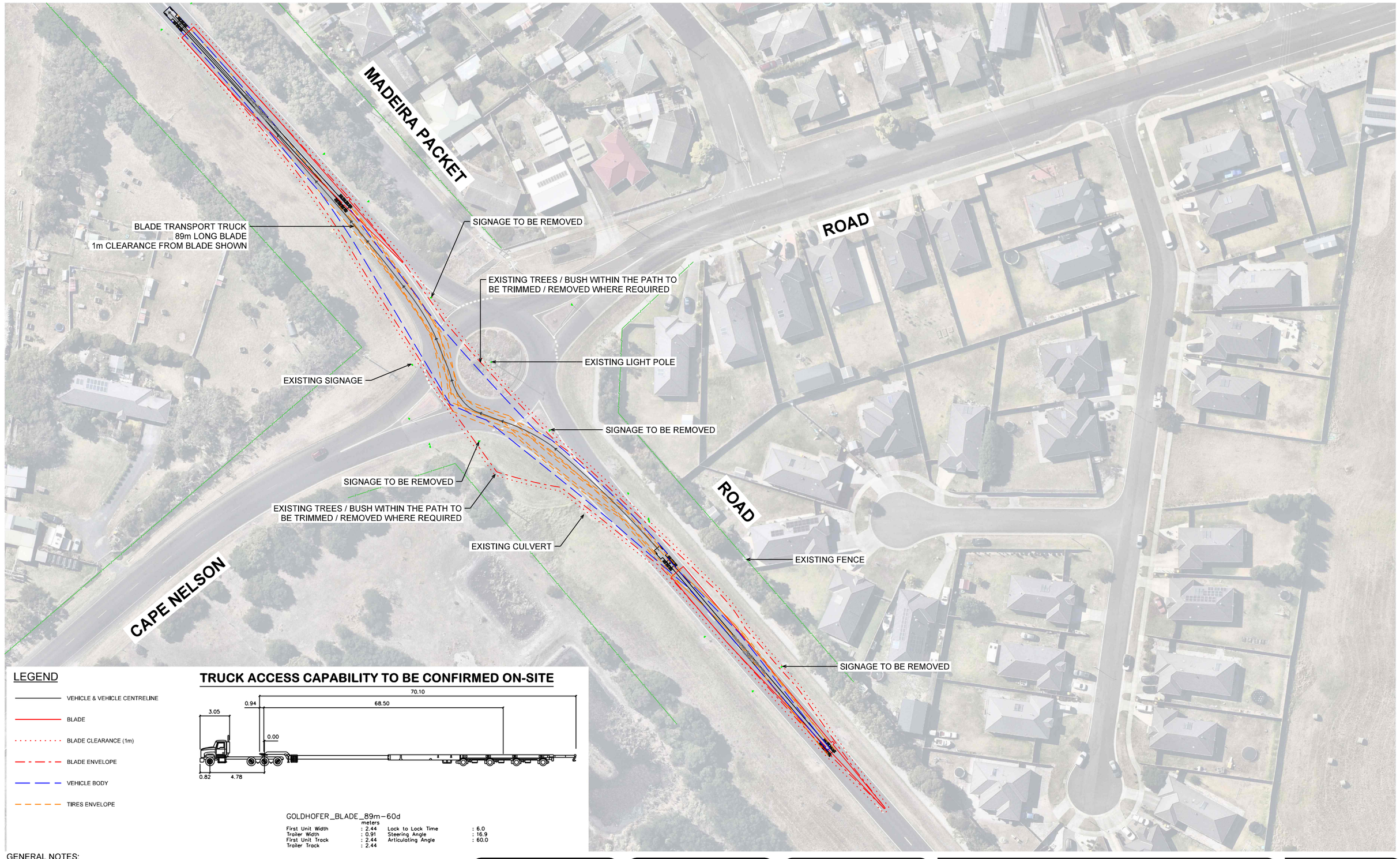

LEGEND

- VEHICLE & VEHICLE CENTRELINE
- BLADE
- BLADE CLEARANCE (1m)
- BLADE ENVELOPE
- VEHICLE BODY
- TIRES ENVELOPE

TRUCK ACCESS CAPABILITY TO BE CONFIRMED ON-SITE

GOLDHOFER_BLADE_89m-60d
meters

First Unit Width	: 2.44	Lock to Lock Time	: 6.0
Trailer Width	: 0.91	Steering Angle	: 16.9
First Unit Track	: 2.44	Articulating Angle	: 60.0
Trailer Track	: 2.44		

GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. LOCAL ROAD - CAPE NELSON ROAD (SPEED ZONE 60KM/H)
   DECLARED ROAD - MADEIRA PACKET ROAD (SPEED ZONE 60KM/H),
3. BASE INFORMATION NEARMAP AERIAL PHOTOGRAPHY DATED 08.03.2025

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Client
RE FUTURE PTY LTD

Date **2025-05-16**
Drawn / Approved **TD / ES**

Project
OSOM ASSESSMENT - SWANSONS LANE WIND FARM
SISTERS-GARVOC ROAD, GARVOC VIC
MOYNE SHIRE COUNCIL
PORTLAND - SITE ACCESS ROUTE

Title
SWEPT PATH ANALYSIS - 89m TURBINE BLADE
MADEIRA PACKET RD ONTO MADEIRA PACKET RD
PORTLAND VIC

Status
PRELIMINARY

Drawing Number
IMP2503035 - DRG-01-03

Revision
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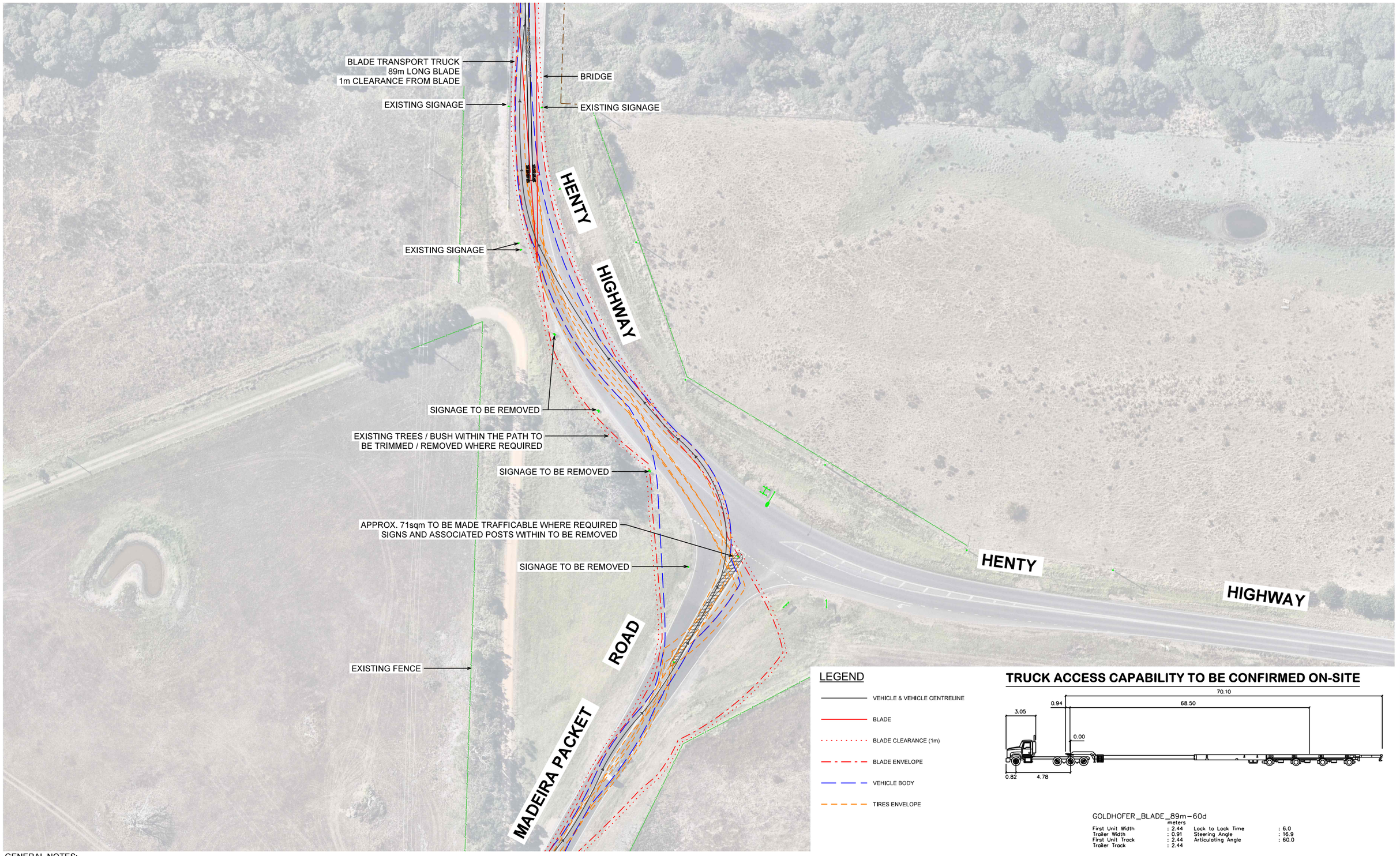

LEGEND

- VEHICLE & VEHICLE CENTRELINE
- BLADE
- BLADE CLEARANCE (1m)
- BLADE ENVELOPE
- VEHICLE BODY
- TIRES ENVELOPE

TRUCK ACCESS CAPABILITY TO BE CONFIRMED ON-SITE

GOLDHOFER_BLADE_89m-60d

meters

First Unit Width	: 2.44	Lock to Lock Time	: 6.0
Trailer Width	: 0.91	Steering Angle	: 16.9
First Unit Track	: 2.44	Articulating Angle	: 60.0
Trailer Track	: 2.44		

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROAD - MADEIRA PACKET ROAD (SPEED ZONE 60KM/H),
   - HENTY HIGHWAY (SPEED ZONE 80KM/H).
3. BASE INFORMATION NEARMAP AERIAL PHOTOGRAPHY DATED 08.03.2025

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RE FUTURE PTY LTD

Date **2025-05-16**
Drawn / Approved **TD / ES**

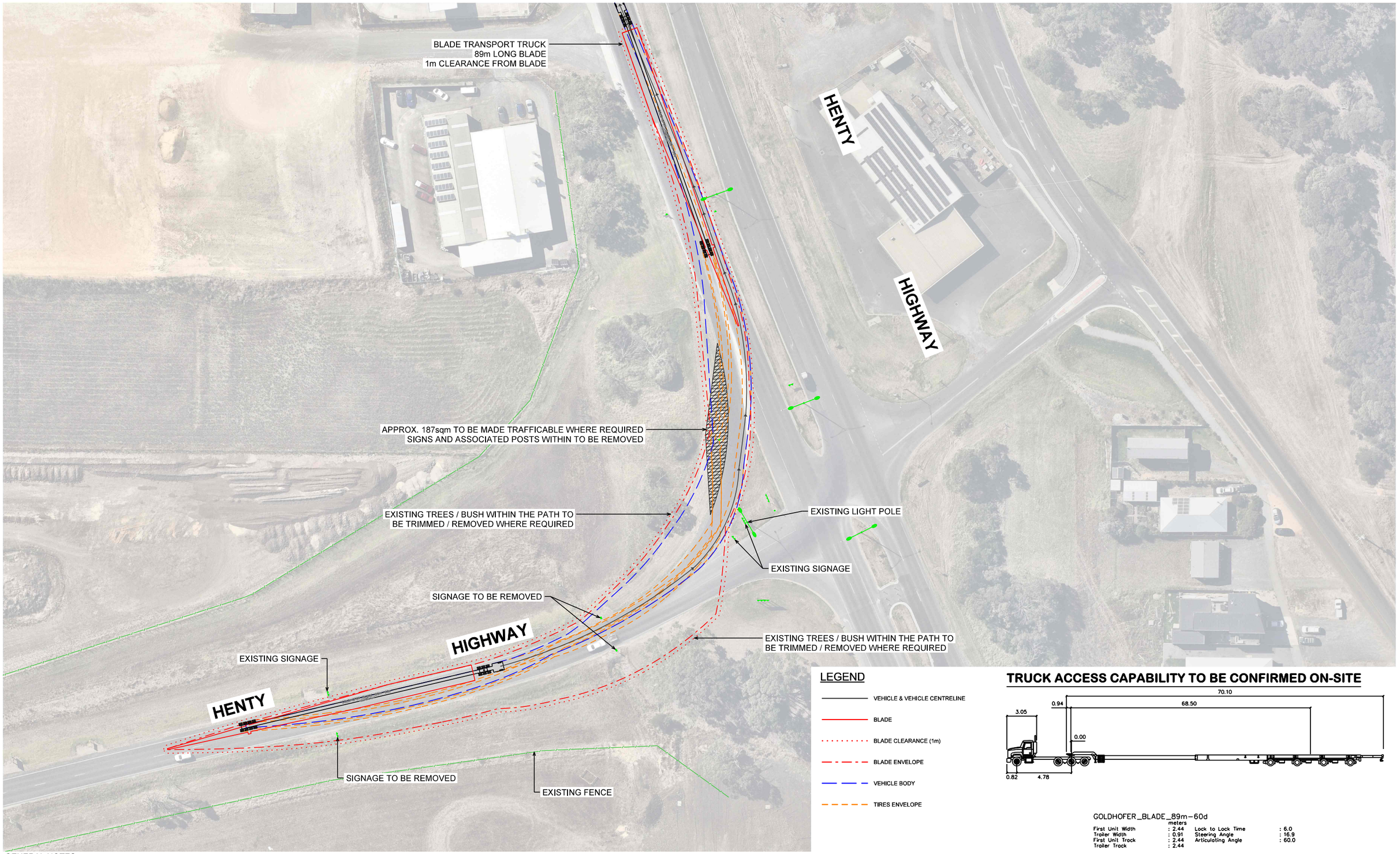
Project
OSOM ASSESSMENT - SWANSONS LANE WIND FARM
SISTERS-GARVOC ROAD, GARVOC VIC
MOYNE SHIRE COUNCIL
PORTLAND - SITE ACCESS ROUTE

Title
SWEPT PATH ANALYSIS - 89m TURBINE BLADE
MADEIRA PACKET ROAD ONTO HENTY HIGHWAY
PORTLAND VIC

Status
PRELIMINARY

Drawing Number
IMP2503035 - DRG-01-04

Revision
C



LEGEND

- VEHICLE & VEHICLE CENTRELINE
- BLADE
- BLADE CLEARANCE (1m)
- BLADE ENVELOPE
- VEHICLE BODY
- TIRES ENVELOPE

TRUCK ACCESS CAPABILITY TO BE CONFIRMED ON-SITE

GOLDHOFER_BLADE_89m-60d

	meters		
First Unit Width	: 2.44	Lock to Lock Time	: 6.0
Trailer Width	: 0.91	Steering Angle	: 16.9
First Unit Track	: 2.44	Articulating Angle	: 60.0
Trailer Track	: 2.44		

GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROAD - HENTY HIGHWAY (SPEED ZONE 80KM/H).
3. BASE INFORMATION NEARMAP AERIAL PHOTOGRAPHY DATED 15.05.2023

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RE FUTURE PTY LTD

Date **2025-05-16**
Drawn / Approved **TD / ES**

Project
OSOM ASSESSMENT - SWANSONS LANE WIND FARM
SISTERS-GARVOC ROAD, GARVOC VIC
MOYNE SHIRE COUNCIL
PORTLAND - SITE ACCESS ROUTE

Title
SWEPT PATH ANALYSIS - 89m TURBINE BLADE
HENTY HIGHWAY ONTO HENTY HIGHWAY
PORTLAND VIC

Status
PRELIMINARY

Drawing Number
IMP2503035 - DRG-01-05

Revision
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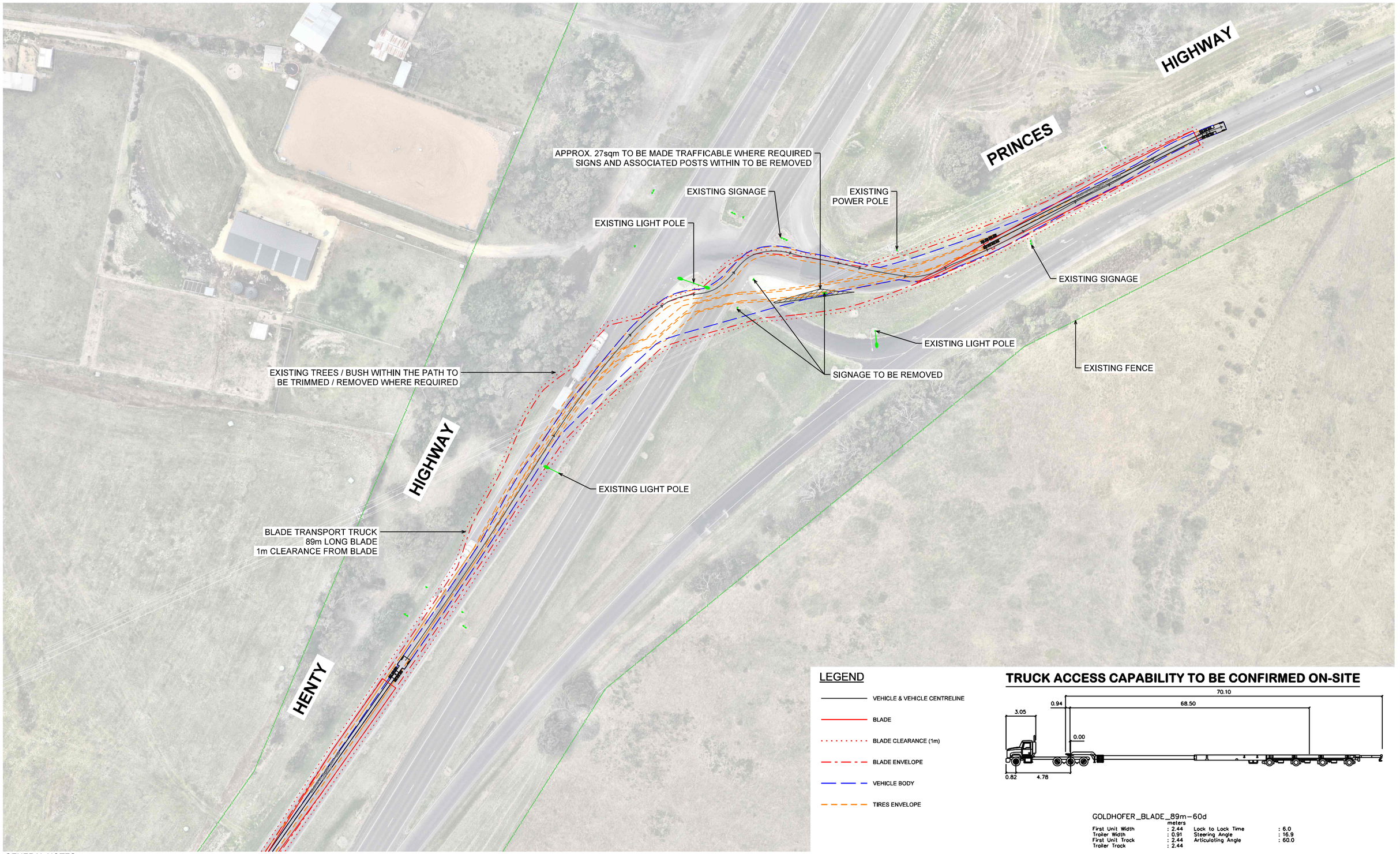

LEGEND

- VEHICLE & VEHICLE CENTRELINE
- BLADE
- BLADE CLEARANCE (1m)
- BLADE ENVELOPE
- VEHICLE BODY
- TIRES ENVELOPE

TRUCK ACCESS CAPABILITY TO BE CONFIRMED ON-SITE

GOLDHOFER_BLADE_89m-60d

meters

First Unit Width	: 2.44	Lock to Lock Time	: 6.0
Trailer Width	: 0.91	Steering Angle	: 16.9
First Unit Track	: 2.44	Articulating Angle	: 60.0
Trailer Track	: 2.44		

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROAD - HENTY HIGHWAY (SPEED ZONE 80KM/H).
   - PRINCES HIGHWAY (SPEED ZONE 80KM/H).
3. BASE INFORMATION NEARMAP AERIAL PHOTOGRAPHY DATED 08.03.2025

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RE FUTURE PTY LTD

Date **2025-05-16**
Drawn / Approved **TD / ES**

Project
OSOM ASSESSMENT - SWANSONS LANE WIND FARM
SISTERS-GARVOC ROAD, GARVOC VIC
MOYNE SHIRE COUNCIL
PORTLAND - SITE ACCESS ROUTE

Title
SWEPT PATH ANALYSIS - 89m TURBINE BLADE
HENTY HIGHWAY ONTO HENTY HIGHWAY
PORTLAND VIC

Status
PRELIMINARY

Drawing Number
IMP2503035 - DRG-01-06

Revision
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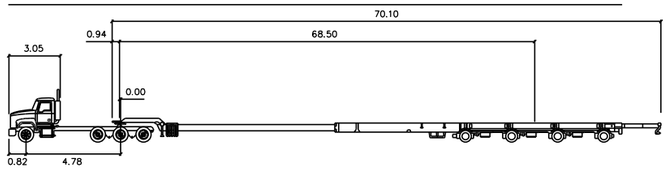
LEGEND

- VEHICLE & VEHICLE CENTRELINE
- BLADE
- BLADE CLEARANCE (1m)
- BLADE ENVELOPE
- VEHICLE BODY
- TIRES ENVELOPE

TRUCK ACCESS CAPABILITY TO BE CONFIRMED ON-SITE



GOLDHOFER_BLADE_89m-60d
meters

First Unit Width	: 2.44	Lock to Lock Time	: 6.0
Trailer Width	: 0.91	Steering Angle	: 16.9
First Unit Track	: 2.44	Articulating Angle	: 60.0
Trailer Track	: 2.44		

OCCUPATION LANE

PRINCES HIGHWAY

APPROX. 260sqm TO BE MADE TRAFFICABLE WHERE REQUIRED
SIGNS AND ASSOCIATED POSTS WITHIN TO BE REMOVED

BUS SHELTER

EXISTING POWER POLE

EXISTING TREES / BUSH WITHIN THE PATH TO BE TRIMMED / REMOVED WHERE REQUIRED

EXISTING SIGNAGE

EXISTING FENCE

POWER POLE STAY TO BE REMOVED

BLADE TRANSPORT TRUCK
89m LONG BLADE
1m CLEARANCE FROM BLADE SHOWN

SIGNAGE TO BE REMOVED

SIGNAGE TO BE REMOVED

POWER POLE TO BE RELOCATED

APPROX. 1536sqm TO BE MADE TRAFFICABLE WHERE REQUIRED
SIGNS AND ASSOCIATED POSTS WITHIN TO BE REMOVED

EXISTING TREES / BUSH WITHIN THE PATH TO BE TRIMMED / REMOVED WHERE REQUIRED

GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROADS - PRINCES HIGHWAY (SPEED ZONE 100KM/H).
   - OCCUPATION LANE (SPEED ZONE 100KM/H).
3. BASE INFORMATION NEARMAP AERIAL PHOTOGRAPHY DATED 22.03.2018

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Client
RE FUTURE PTY LTD

Date **2025-05-16**
Drawn / Approved **TD / ES**

Project
OSOM ASSESSMENT - SWANSONS LANE WIND FARM
SISTERS-GARVOC ROAD, GARVOC VIC
MOYNE SHIRE COUNCIL
PORTLAND - SITE ACCESS ROUTE

Title
SWEPT PATH ANALYSIS - 89m TURBINE BLADE
PRINCES HIGHWAY ONTO OCCUPATION LANE
GARVOC VIC

Status
PRELIMINARY

Drawing Number
IMP2503035 - DRG-01-07

Revision
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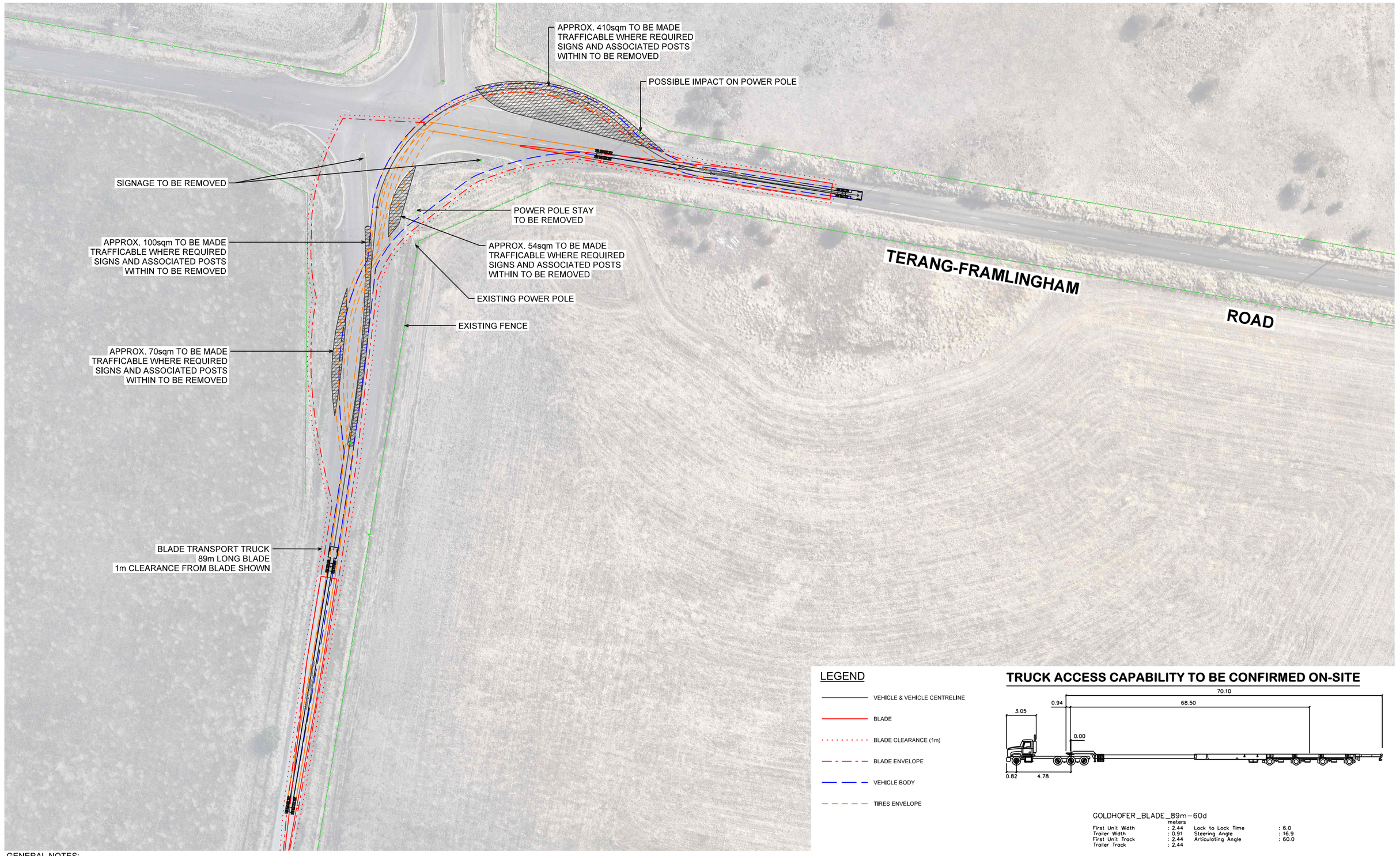

LEGEND

- VEHICLE & VEHICLE CENTRELINE
- BLADE
- BLADE CLEARANCE (1m)
- BLADE ENVELOPE
- VEHICLE BODY
- TIRES ENVELOPE

TRUCK ACCESS CAPABILITY TO BE CONFIRMED ON-SITE

GOLDHOFER_BLADE_89m-60d

meters

First Unit Width	: 2.44	Lock to Lock Time	: 6.0
Trailer Width	: 0.91	Steering Angle	: 16.9
First Unit Track	: 2.44	Articulating Angle	: 60.0
Trailer Track	: 2.44		

GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROADS - OCCUPATION LANE (SPEED ZONE 100KM/H).
   - TERANG-FRAMLINGHAM ROAD (SPEED ZONE 100KM/H).
3. BASE INFORMATION NEARMAP AERIAL PHOTOGRAPHY DATED 22.03.2018

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Client
RE FUTURE PTY LTD

Date **2025-05-16**
Drawn / Approved **TD / ES**

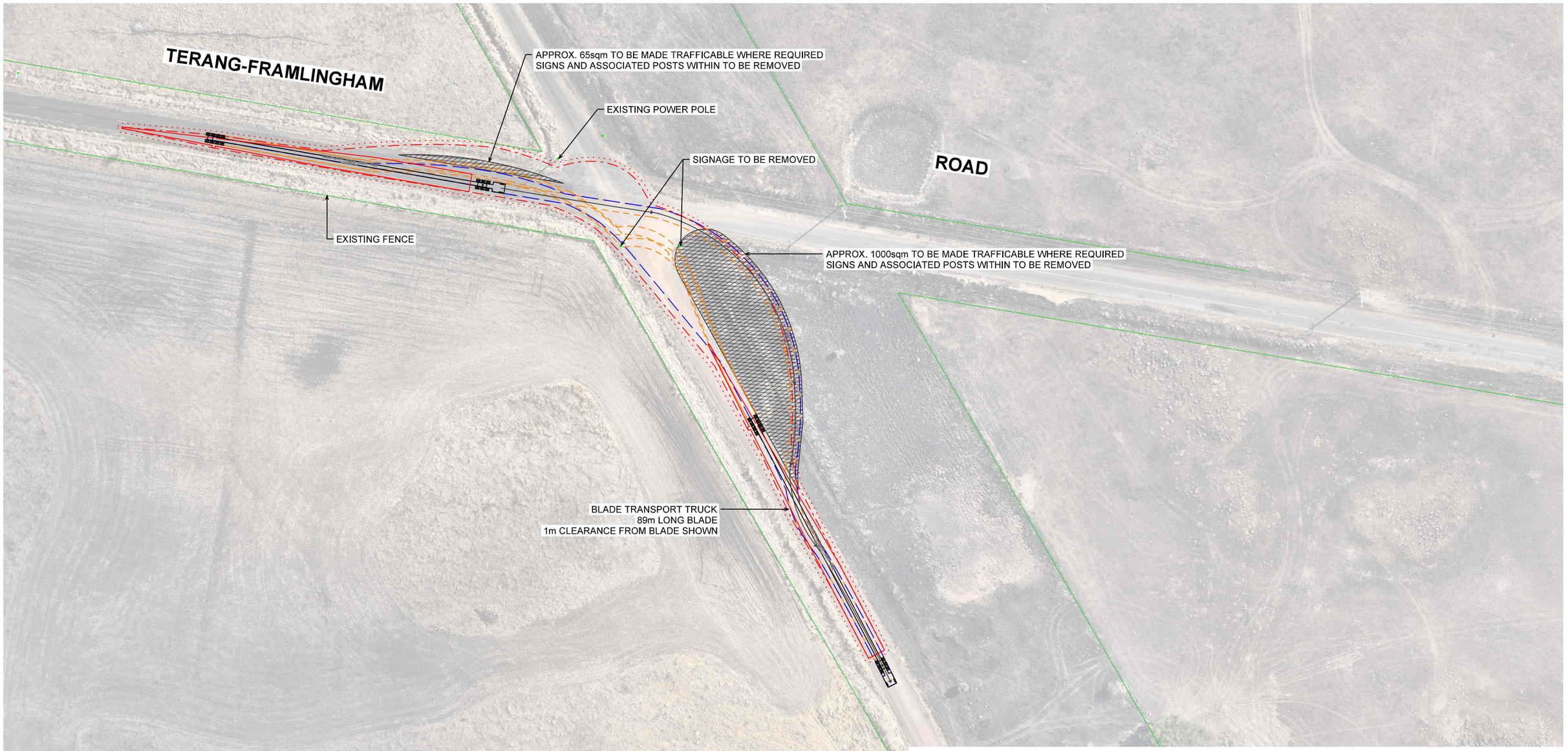
Project
OSOM ASSESSMENT - SWANSONS LANE WIND FARM
SISTERS-GARVOC ROAD, GARVOC VIC
MOYNE SHIRE COUNCIL
PORTLAND - SITE ACCESS ROUTE

Title
SWEPT PATH ANALYSIS - 89m TURBINE BLADE
OCCUPATION LN ONTO TERANG-FRAMLINGHAM RD
GARVOC VIC

Status
PRELIMINARY

Drawing Number
IMP2503035 - DRG-01-08

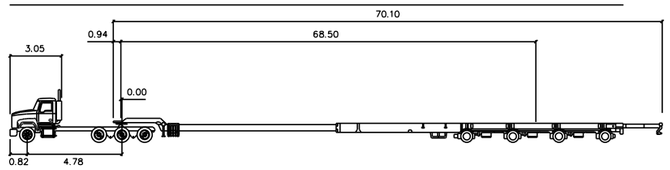
Revision
C



LEGEND

- VEHICLE & VEHICLE CENTRELINE
- BLADE
- BLADE CLEARANCE (1m)
- BLADE ENVELOPE
- VEHICLE BODY
- TIRES ENVELOPE

TRUCK ACCESS CAPABILITY TO BE CONFIRMED ON-SITE



GOLDHOFER_BLADE_89m-60d

	meters		
First Unit Width	: 2.44	Lock to Lock Time	: 6.0
Trailer Width	: 0.91	Steering Angle	: 16.9
First Unit Track	: 2.44	Articulating Angle	: 60.0
Trailer Track	: 2.44		

GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROADS - OCCUPATION LANE (SPEED ZONE 100KM/H).
   - SISTERS-GARVOC ROAD (SPEED ZONE 100KM/H).
3. BASE INFORMATION NEARMAP AERIAL PHOTOGRAPHY DATED 22.03.2018

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Client
RE FUTURE PTY LTD

Date **2025-05-16**
Drawn / Approved **TD / ES**

Project
OSOM ASSESSMENT - SWANSONS LANE WIND FARM
SISTERS-GARVOC ROAD, GARVOC VIC
MOYNE SHIRE COUNCIL
PORTLAND - SITE ACCESS ROUTE

Title
SWEPT PATH ANALYSIS - 89m TURBINE BLADE
TERANG-FRAMLINGHAM RD ONTO SISTERS-GARVOC RD
GARVOC VIC

Status
PRELIMINARY

Drawing Number
IMP2503035 - DRG-01-09

Revision
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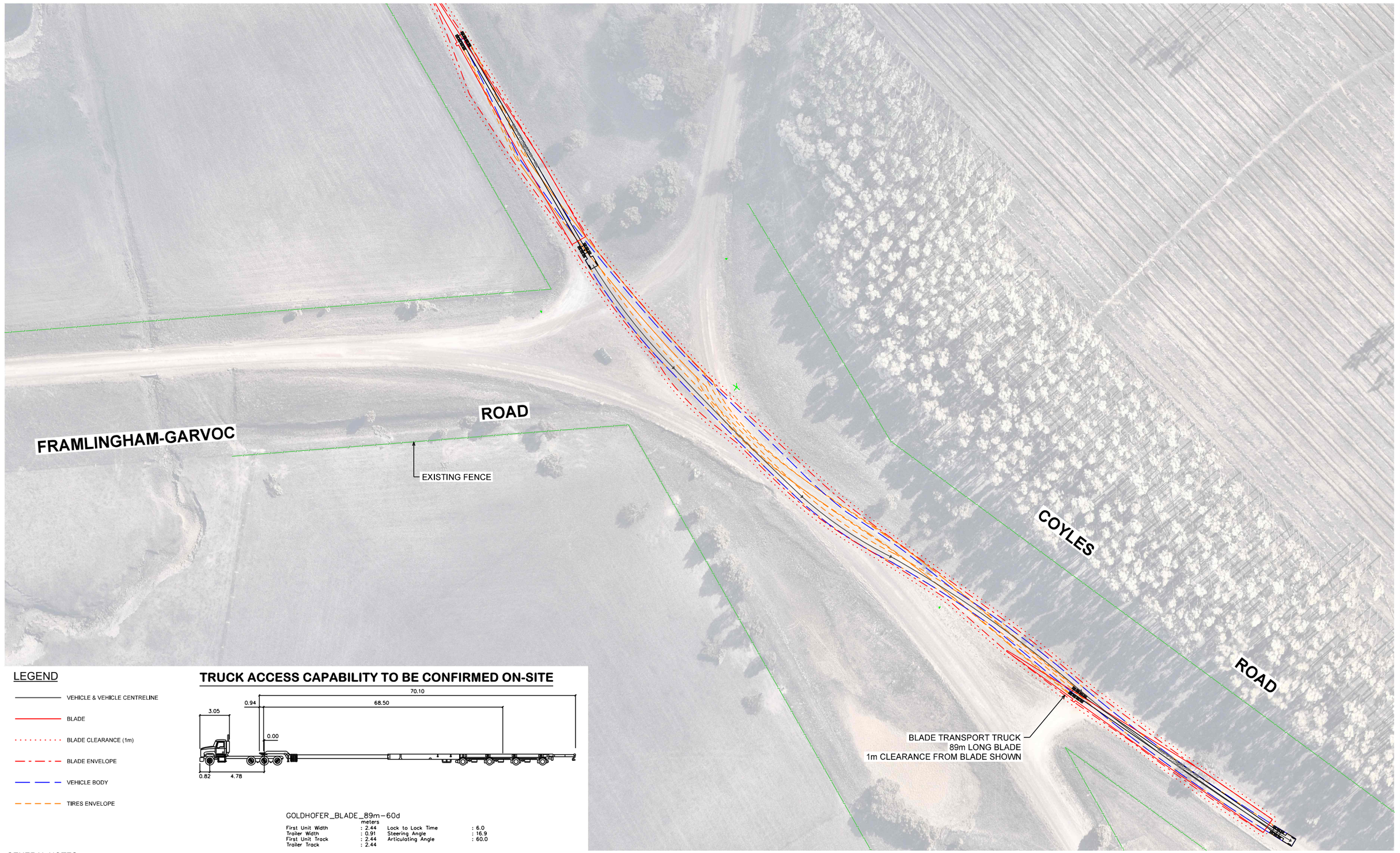

LEGEND

- VEHICLE & VEHICLE CENTRELINE
- BLADE
- BLADE CLEARANCE (1m)
- BLADE ENVELOPE
- VEHICLE BODY
- TIRES ENVELOPE

TRUCK ACCESS CAPABILITY TO BE CONFIRMED ON-SITE

GOLDHOFER_BLADE_89m-60d

	meters		
First Unit Width	: 2.44	Lock to Lock Time	: 6.0
Trailer Width	: 0.91	Steering Angle	: 16.9
First Unit Track	: 2.44	Articulating Angle	: 60.0
Trailer Track	: 2.44		

GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROADS - SISTERS-GARVOC ROAD (SPEED ZONE 100KM/H).
   - COYES ROAD (SPEED ZONE 100KM/H).
3. BASE INFORMATION NEARMAP AERIAL PHOTOGRAPHY DATED 22.03.2018

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RE Future

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Client
RE FUTURE PTY LTD

Date **2025-05-16**
Drawn / Approved **TD / ES**

Project
OSOM ASSESSMENT - SWANSONS LANE WIND FARM
SISTERS-GARVOC ROAD, GARVOC VIC
MOYNE SHIRE COUNCIL
PORTLAND - SITE ACCESS ROUTE

Title
SWEPT PATH ANALYSIS - 89m TURBINE BLADE
SISTERS-GARVOC ROAD ONTO COYES ROAD
GARVOC VIC

Status
PRELIMINARY

Drawing Number
IMP2503035 - DRG-01-10

Revision
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COYLES ROAD

EXISTING TREES / BUSH WITHIN THE PATH
TO BE TRIMMED / REMOVED WHERE REQUIRED

EXISTING TREES / BUSH WITHIN THE PATH
TO BE TRIMMED / REMOVED WHERE REQUIRED

APPROX. 765sqm TO BE MADE TRAFFICABLE WHERE REQUIRED
SIGNS AND ASSOCIATED POSTS WITHIN TO BE REMOVED

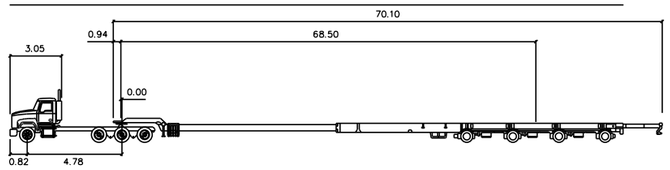
EXISTING FENCE

BLADE TRANSPORT TRUCK
89m LONG BLADE
1m CLEARANCE FROM BLADE SHOWN

LEGEND

- VEHICLE & VEHICLE CENTRELINE
- BLADE
- BLADE CLEARANCE (1m)
- BLADE ENVELOPE
- VEHICLE BODY
- TIRES ENVELOPE

TRUCK ACCESS CAPABILITY TO BE CONFIRMED ON-SITE



GOLDHOFER_BLADE_89m-60d

	meters		
First Unit Width	: 2.44	Lock to Lock Time	: 6.0
Trailer Width	: 0.91	Steering Angle	: 16.9
First Unit Track	: 2.44	Articulating Angle	: 60.0
Trailer Track	: 2.44		

GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROADS - COYLES ROAD (SPEED ZONE 100KM/H).
3. BASE INFORMATION NEARMAP AERIAL PHOTOGRAPHY DATED 22.03.2018

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Client
RE FUTURE PTY LTD

Date **2025-05-16**
Drawn / Approved **TD / ES**

Project
OSOM ASSESSMENT - SWANSONS LANE WIND FARM
SISTERS-GARVOC ROAD, GARVOC VIC
MOYNE SHIRE COUNCIL
PORTLAND - SITE ACCESS ROUTE

Title
SWEPT PATH ANALYSIS - 89m TURBINE BLADE
COYLES ROAD ONTO SITE ACCESS
TERANG VIC

Status
PRELIMINARY

Drawing Number
IMP2503035 - DRG-01-11

Revision
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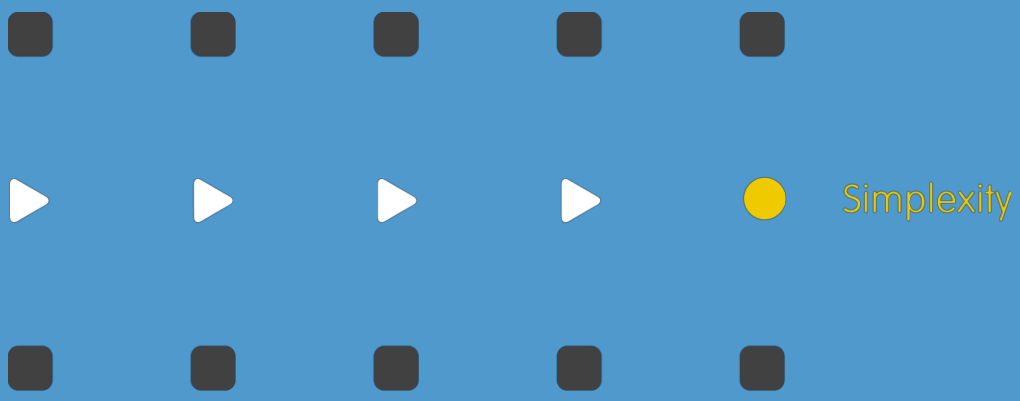
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