REX J ANDREWS
ENGINEERED TRANSPORTATION

TRANSPORT MANAGEMENT PLAN

CLIENT: GE

PROJECT: UUNGULA WINDFARM

PORT OF IMPORT: NEWCASTLE (MAYFIELD #4)

TURBINE TYPE: GE164, 148 MTR H/H

VERSION: REV08 (20-08-2024)

Rev.	Date	Change	Responsible	Checked
01	13/07/22	Route Assessed	J Stokes	✓
00	30/08/22	Report compiled	W Andrews	✓
00	21/11/22	Report completed	W Andrews	✓
01	19/01/23	Revisions	W Andrews	✓
02	22/02/23	Revisions	W Andrews	✓
03	28/03/23	Revisions	W Andrews	✓
04	29/03/23	Revisions	W Andrews	✓
05	03/07/23	Revisions	W Andrews	✓
06	12/09/23	Revisions	W Andrews	✓
07	15/02/24	Revisions	W Andrews	✓
08	20/08/24	Revisions	W Andrews	✓

Index:

1.0 Introduction

This document describes observations and previous experience on route and explains the Transport of Wind turbine equipment from Newcastle to Uungula wind farm.

This Route survey took place on 13-07-22.

2.0 Evaluation

1	No Cost
2	Some Work
3	Moderate Amount of Work
4	Extreme Amount of Work

(Mark below boxes with an X)

		1	2	3	4
A	Harbour		X		
B	Road Modification			X	
C	Road Furnishings			X	
D	Vegetation			X	
E	Site Entrance			X	
F	Bridge Calculations		X		
G	Traffic Control		X		

3.0 Project Data

Date of latest Route Assessment: 13/07/2022
Survey undertaken by. (Rex J Andrews P/L)
Project name. Uungula Windfarm
Location. Newcastle Port (NSW) to Uungula (NSW)
Wind turbine type:
69 off GE164 Metre rotor, 148 metre H/H

4.0 Transport Combinations and Escort Requirements

Machine Head (13.4l x 4.8w x 4.2h x 98.0T)
Transport configuration. Prime mover with 10x8 platform trailer and backup truck.
Overall Dimension: 39.9l x 4.8w x 5.3h x 222.0T.
Escort requirements: 3 x Company pilots.

Drivetrain (7.4l x 3.3w x 3.2h x 82.0T)
Transport configuration. Prime mover with 8x8 platform trailer.
Overall Dimension: 28.0l x 4.2w x 4.8h x 134.5T.
Escort requirements: 2 x Company pilots.

Hubs (4.6l x 4.1w x 3.8h x 50.0T)
Transport configuration. Prime mover with 2x8 4x8 Low Loader.
Overall Dimension: 26.0l x 4.2w x 5.0h x 88.5T.
Escort requirements: 1 x Company pilot.

Blades (80.491l x 4.5w x 3.4h x 26T)
Transport configuration. Prime mover with 3x8-3x8 Extending blade trailer.
Overall Dimension: 91.865l x 4.5w x 5.2h x 84.5T.
Escort requirements: 2 x NSW Police, 4 x Company pilots.

Door tower section (12.1l x 5.5 x 0.0 x 80T)
Transport configuration. Prime mover with 4x8-4x8 Bookend
Overall Dimension: 39.9l x 5.6w x 5.6h x 144.5T.
Escort requirements: 3 x Company pilots.

Mid Tower E (15.1l x 5.0 x 5.0 x 80.0T)
Transport configuration. Prime mover with 9x8 low platform
Overall Dimension: 35.0l x 5.2w x 5.6h x 144.5T.
Escort requirements: 3 x Company pilots.

Mid Tower D (18.3l x 5.0 x 4.6 x 79T)
Transport configuration. Prime mover with 4x8-5x8 low platform
Overall Dimension: 35.0l x 5.2w x 5.5h x 144.5T.
Escort requirements: 3 x Company pilots.

Mid Tower C (19.1l x 4.6 x 4.3 x 75T)
Transport configuration. Prime mover with 4x8-5x8 low platform
Overall Dimension: 35.0l x 5.2w x 5.5h x 144.5T.
Escort requirements: 3 x Company pilots.

Mid Tower B (20.8 x 4.3 x 4.3 x 74T)
Transport configuration. Prime mover with 4x8-5x8 platform
Overall Dimension: 37.0l x 4.3w x 5.5h x 138.5T.
Escort requirements: 3 x Company pilots.

Mid Tower A (28.9 X 4.3 X 4.3 X 77.0T)
Transport configuration. Prime mover with 3x8 Dolly 4x8 Jinker
Overall Dimension: 39.9l x 4.3w x 5.5h x 136.5T.
Escort requirements: 3 x Company pilots.

Top Towers (36.8l x 4.3w x 4.0h x 67T)
Transport configuration. Prime mover with 4x4 Dolly 3x8 Jinker
Overall Dimension: 49.0l x 4.3w x 5.5h x 102.5T.
Escort requirements: 1 x NSW Police, 3 x Company pilots.

5.0 Windfarm Site Location and Turbine Layout

The Uungula windfarm is located approx. 14 Kilometres East of Wellington in NSW and is 400 Kilometres by road from the Port of Newcastle NSW.

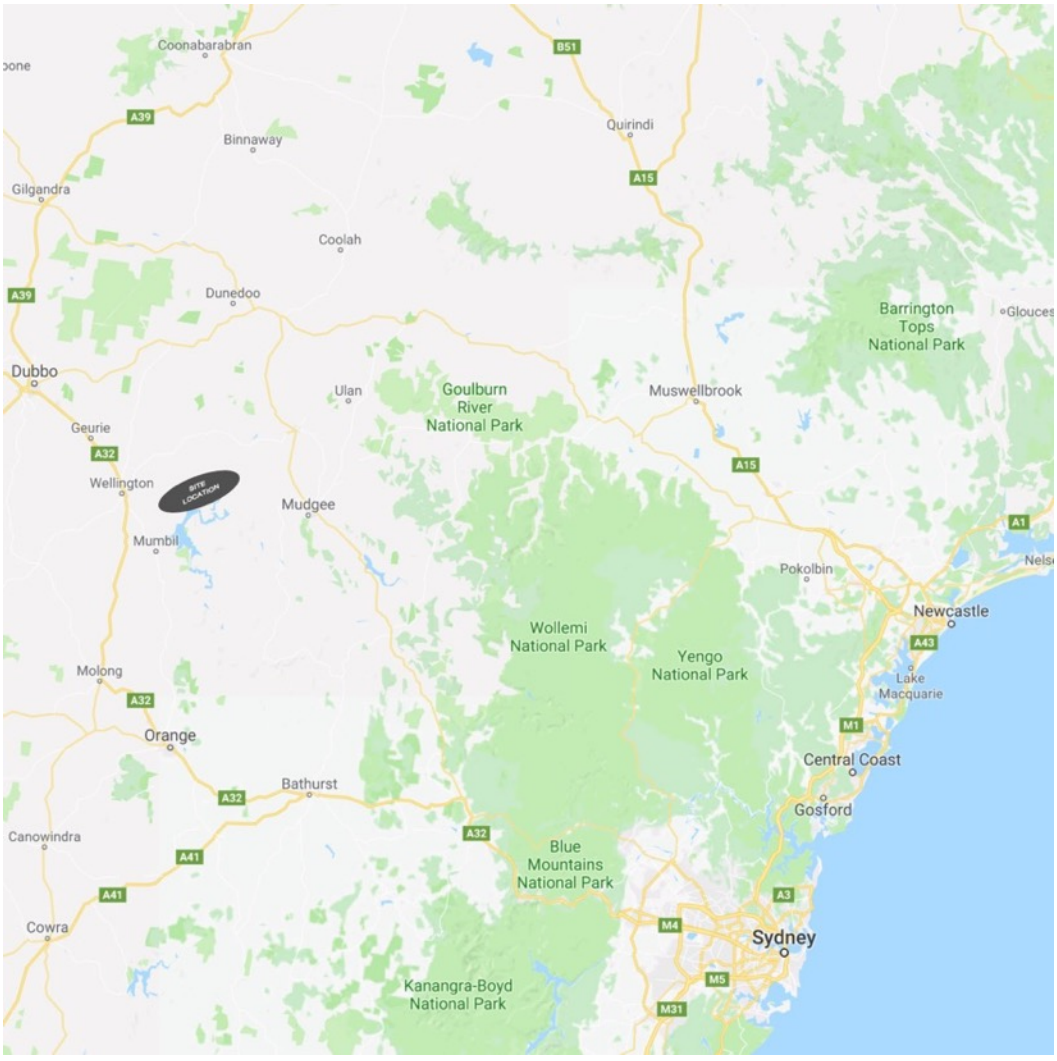


Figure 1 - Site Location

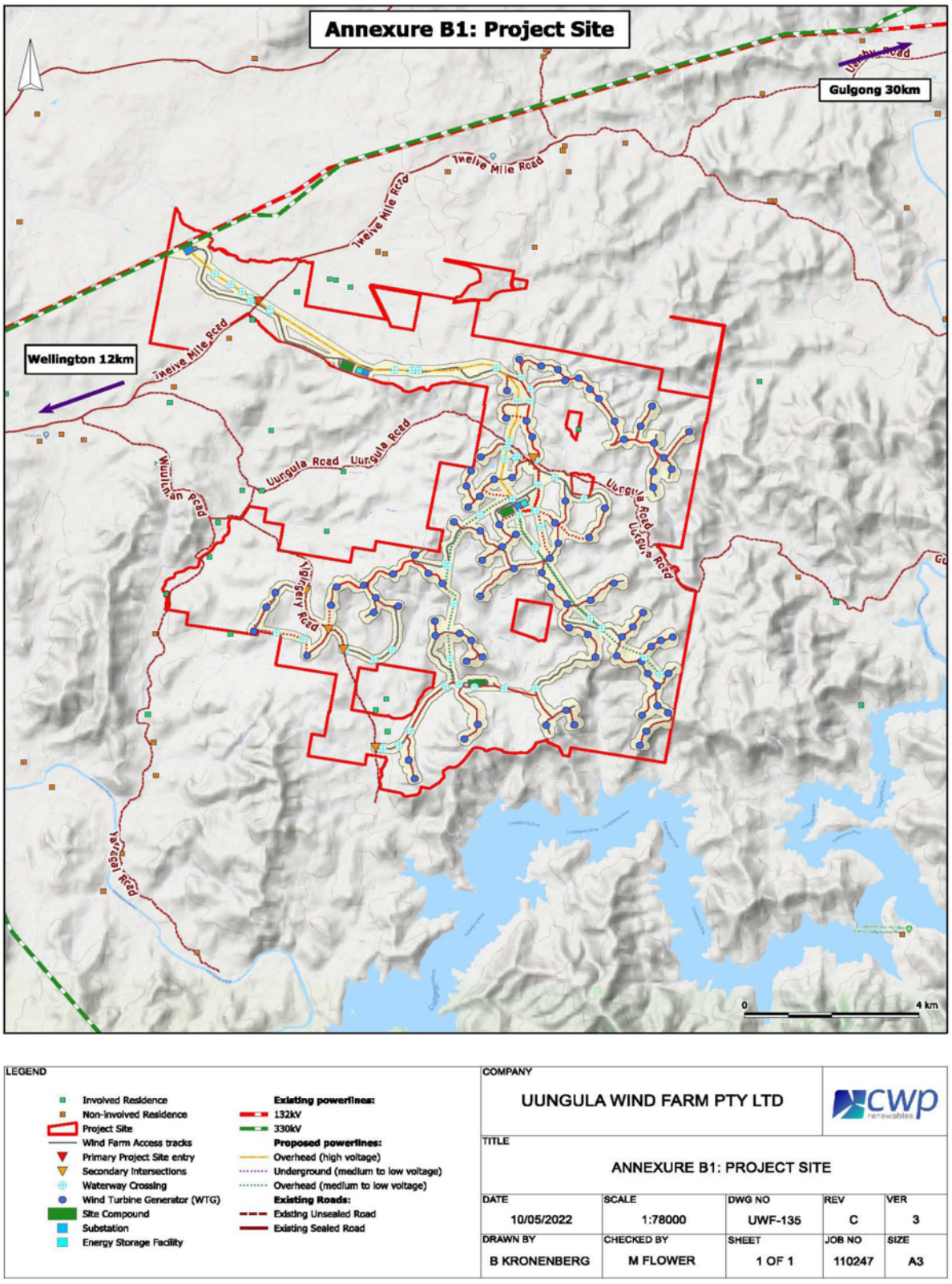


Figure 2 - Wind Farm Layout

6.0 Port of Import: Newcastle

The wind turbine equipment will be imported from various countries and will arrive on ships into the Port of Newcastle. The client may alternately source local towers. The ideal berth for these shipments is the Mayfield #4 Berth. This facility has a hardstand storage area of roughly 100,000 s/q meters, adjacent to the berth.

Access from the storage to the public roads, is via a port operated road onto Selwyn Street. There will need to be a small amount of road modifications within the port.

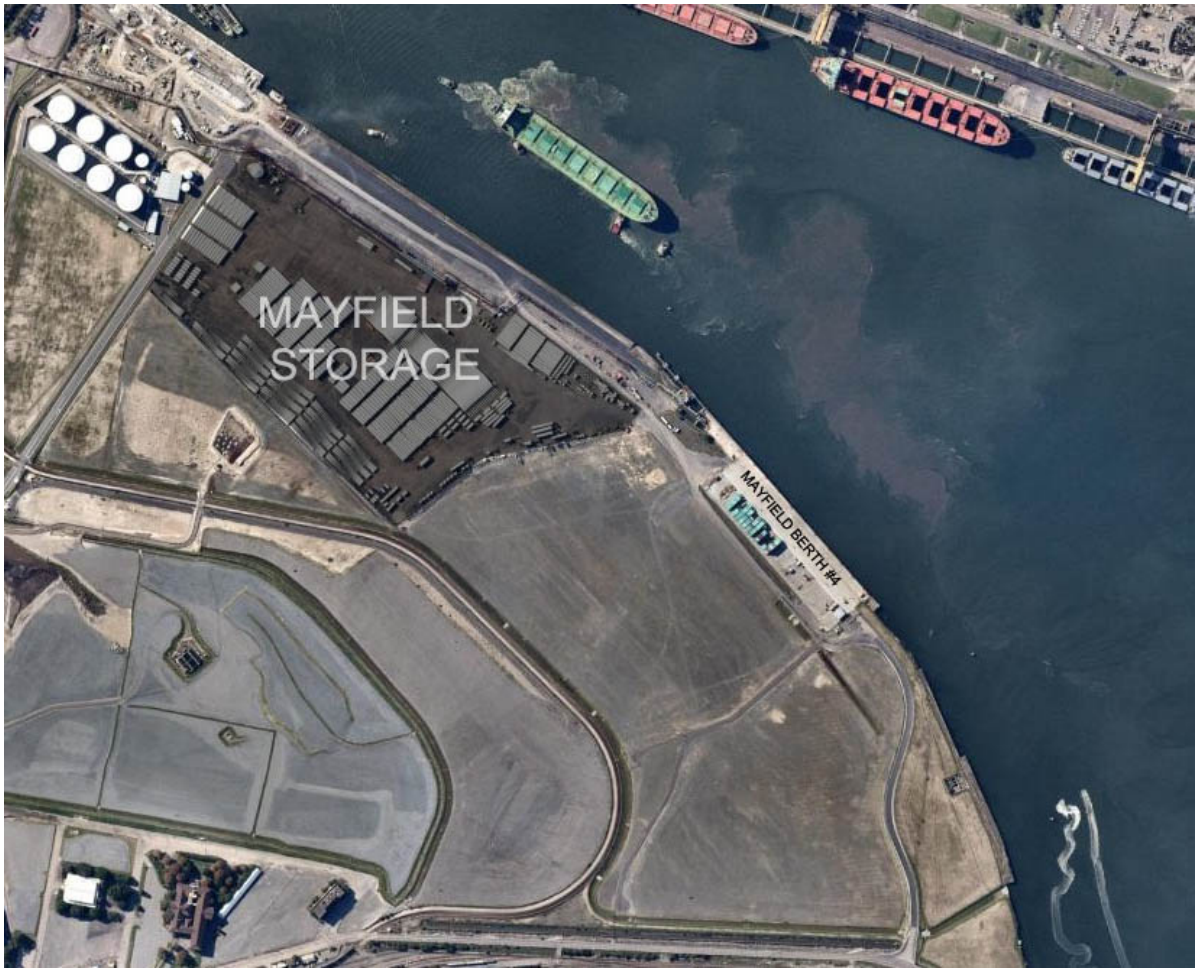


Figure 3 - Port Overview

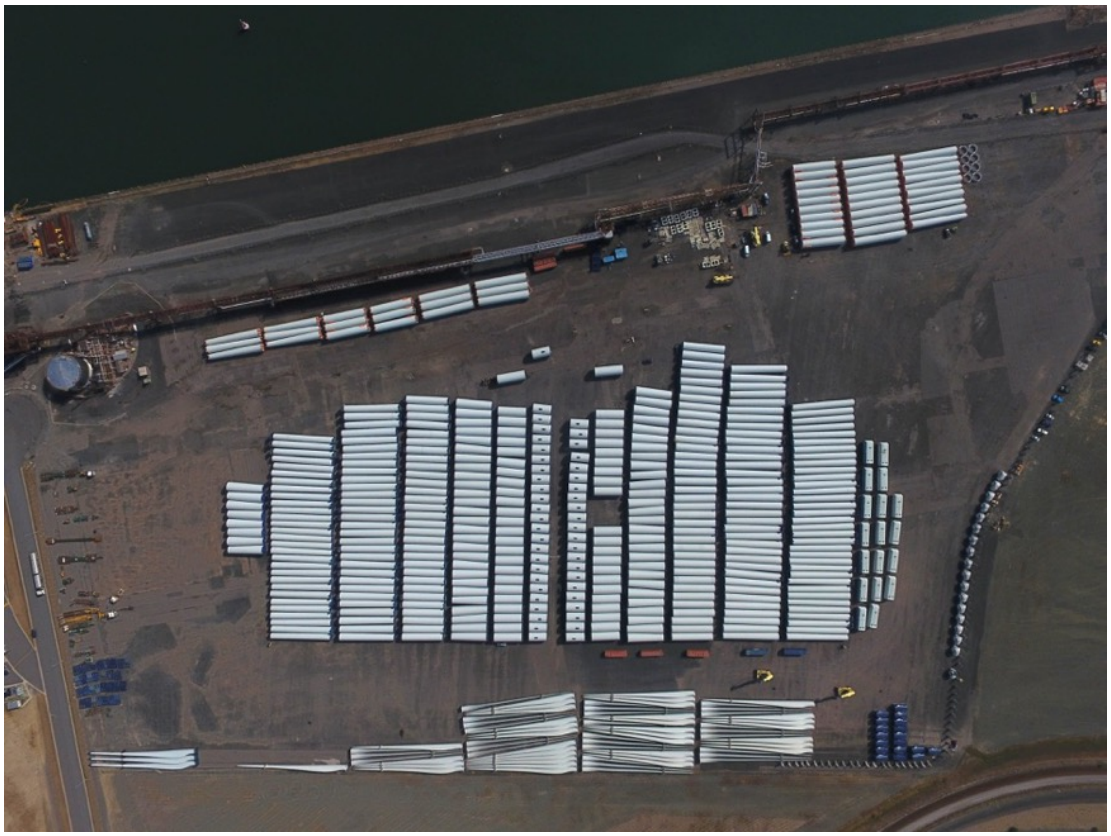


Figure 4 - Mayfield No.4 Port Storage Area

Figure 5 - Mayfield No.4 Port Storage Area

7.0 Transport Route: Newcastle Port to Uungula Windfarm

The study is based on the turbine components, and towers entering Australia via the Port of Newcastle. The transport plan and pinchpoints will show all pinchpoints and procedures as well as any modifications required on this route.

COMPONENTS: All components
DISTANCE: 395 kilometres
GPS LINK: https://goo.gl/maps/gwfURhh6hjxUo6Jm6
VIA: Selwyn Street, George Street, Industrial Drive, Maitland Road, New England Highway, John Renshaw Drive, Hunter Expressway, New England Highway, Golden Highway, Saxa Rd, Mitchell Highway, Goolma Road, Twelve Mile Road.

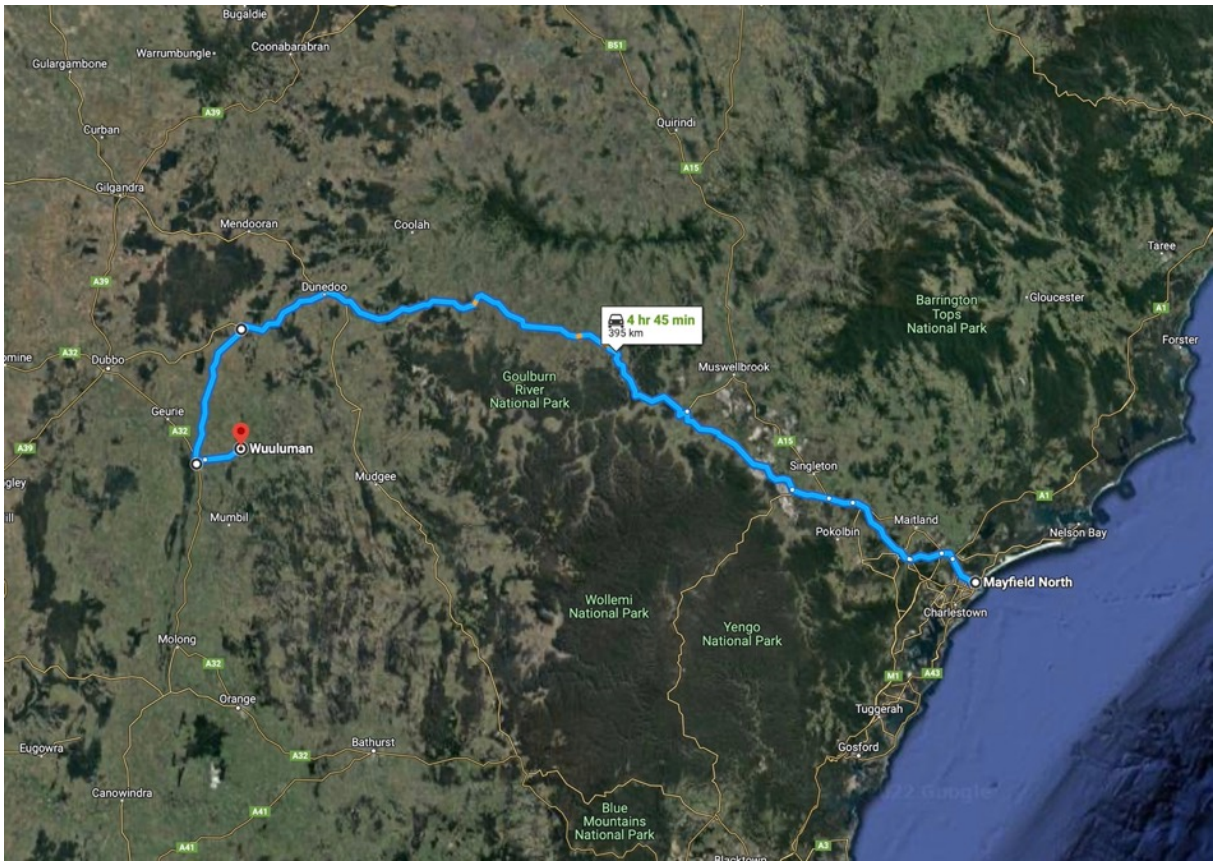


Figure 6 – Transport Route

8.0 Transport Approvals Required

Approvals will need to be sought from the following stakeholders and authourities.

- NHVR
- TfNSW
- TMC
- NSW Police
- ARTC
- UGL regional linx
- Newcastle council
- Dubbo regional council
- Ausgrid
- Essential Energy
- Telstra

9.0 Transport Conditions

The following are the conditions for these routes:

- Request approval from TfNSW and NSW Police for all OSOM loads that have police escorts to travel as far West as practical at night.
- Prior notice to be given to all road stakeholders who may have roadworks on route. This includes but not limited to current road work projects on the route such as, Hexham Straight Project, M1RTBH2T & Golden Highway Corridor Project.
- No unnecessary noise to be made before 7.00am.
- A prestart meeting to be held between the truck driver, police & pilots before load departs.
- If for any reason communications fail between any of the pilot, escort of load vehicle occurs, the load is to cease until such time as it can be re-established.
- Blades are to undertake the Hunter Expressway crossover as per the TGS in Appendix B of this report.
- All loads over 5.5 meters are to undertake the crossing of the Denman Bridge as per the TGS in Appendix C of this report.
- Approval to be sought from rail authorities to travel across any rail crossing/structure on this route.
- Approval to be sought from Local councils to access their networks.
- Approval to be sought from Electrical/Communication authorities to pass under their networks.
- Site must have suitable areas available to safely park all loads once inside the windfarm boundary, if they cannot travel direct to the pads.
- All drivers and pilots are to follow procedures listed in the Transport plan including pinch point procedures and travel restrictions.

10.0 Emergency contacts

EMERGENCY CONTACTS:

- Main emergency number (000)
- Rex J Andrews operations (02 47217633)
- NSW Police Traffic operations (02 88821219)
- TMC operations room (1800 679782)
- NSW Police Newcastle command (02 49290999)

ASSET OWNERS ON ROUTE:

- RMS Assets (02 66401345)
- Newcastle council infrastructure (02 49742664)
- Ausgrid Newcastle/Hunter (131388)
- Essential energy (132391)
- Telstra (1802244)
- ARTC (02 49029410)
- UGL Regional linx (heavyvehicle@uglregionallinx.com.au)
- Newcastle council (02 49742000)
- Dubbo regional council (02 68014000)

HEAVY TOWING OPERATORS ON ROUTE:

- Newcastle: Oneill's Truck and Trailer Repairs, (02 49672999)
- Dubbo: Dubbo heavy towing and salvage, (0408 003595)

11.0 Emergency Procedures

ROUTE SUITABILTY CHECK

- RJA to monitor weather conditions daily. If road conditions are likely to cause a risk to transport (Heavy rain, Fog, Bushfires,Snow, blocked route etc), then the decision is to be made the evening prior to allow or delay the movement of loads to site.
- If loads are in transit and the road is blocked ahead, then the loads are to find the closest suitable parking area and wait until the road has reopened.
- All vehicles on the movement are to be made aware of possible poor road conditions due to any of the above causes.
- Movements to be checked with **TfNSW and NSW Police, and local councils** where there is a likelihood of a major event on a section of road that will affect deliveries. These may include Local community events that have road closures, or heavy holiday traffic periods, i.e. the Christmas curfew period from Sunset 18/12/24 until sunrise 04/01/25.

CRITICAL INJURY

- In the event of an emergency situation, such as an accident and injury NSW Police are to undertake suitable traffic management to secure the section of road.
- If there is serious injury or death than 000 will need to be notified immediately of the situation, if there is no phone reception than **NSW Police / Pilots** will travel to the next area of reception to make an emergency call to 000. The load is to remain in place until emergency services have approved the load to move.

EMERGENCY VEHICLE INTERACTION:

- If an emergency vehicle is travelling towards the load, then the load is to slow down and pull over far enough to the left-hand side of the road to allow the emergency vehicle room to continue past the load.
- If an emergency vehicle is approaching from behind the load, then the load is to pull over to the left-hand side, and the **NSW Police** and **Pilots** are to hold all oncoming traffic until the emergency vehicle has passed the load on the incorrect side of the road.

BREAKDOWN

- In the event of an emergency situation, such as breakdown, the load is to find the closest safe place to park. If the unit cannot move to a safe place than the closest heavy tow operator is to be notified to travel to the load immediately. In such instances **TfNSW/NSW Police** should be promptly advised so that all necessary warnings can be made.
- Alternatively, if another load is close by with a like for like truck and they can find a parking bay, they would then be able to unhook from there load and travel to the breakdown to assist in moving the load off the road network and into a safe location.

UNSUITABLE ROAD CONDITIONS:
(POOR WEATHER OR ROAD CLOSURE ON SECTIONS OF ROUTE)

- In the event of bad weather i.e. fog, heavy rain or Bush Fires. Operations in conjunction with **TfNSW/NSW Police** will need to monitor local road and weather conditions to assess if the road is suitable for the load to depart and safely travel through to site. This decision would me made prior to departing.
- If the route is blocked between the pickup location and drop off location, then the load is not to depart. RJA to refer daily to **TfNSW Live traffic website** prior to departure. These can be accessed from the following link https://www.livetraffic.com
- If the load is on route and either weather or road conditions make the load unsafe, then the load is to find the next suitable place to safely park and wait for conditions to improve.

LOAD HITS FAUNA:

- Driver to be briefed prior to departure on the potential for wildlife interaction during the journey
- Load may not be able to halt due to blocking key section of road. Load should continue to the next safe area to assess damage to vehicle.
- **Pilot** vehicle driver to park safely off the road, exit vehicle safely then assess the injured wildlife condition, if deceased the animal should be moved off the road if possible, check the animal's pouch for any babies.
- **Pilot** to contact Wildlife hotline on 1300130372 to advise of injured wildlife giving location if the animal is still alive.

12.0 Emergency Stopping / Pulling Up for Rest Areas

In the event of an emergency or scheduled rest break, establish positive communications with all pilots and driver and identify the next suitable area to halt the wind turbine, rear pilot should remain 200 metres behind the load to warn approaching traffic.
Ensure the wind turbine is as far left as possible so as to not impede any traffic from passing.
If the breakdown is major and requires a mechanic to attend, contact the TMC and advise them of the disruption to traffic. Minor repairs that can be rectified in a short time do not require the TMC to be advised.
In the event that road works are encountered on route lead pilot is to call in on the nominated UHF channel and advise the local traffic control of the inbound load and await approval to enter the work zone.
Follow normal traffic management procedures as out lined in: SOP_030 Traffic Management Procedures.
The suggested rest areas are an indication only and dependant on the local traffic movements and occupancy of these rest areas it may not be possible to get off the road.
In this instance the lead pilot should travel ahead to identify the next suitable area.
This methodology can also be adopted to allow built up traffic to pass by slowing the wind turbine down and easing into break down areas to allow traffic to pass before continuing on.
Listed in the route index are Emergency parking areas on route showing the suitability, size, location including a kilometre mark and GPS coordinates.

13.0 Communication Procedures

- RJA to supply a weekly schedule with driver contact details to all road stakeholders, Emergency departments, Bus companies and heavy vehicle operators who regularly use this route.
- Loads will communicate locally within the convoy using UHF radio.
- Sections of this route have dark areas and will not have phone reception. If an emergency call is to be made, then either **NSW Police/Pilots** will travel to the next area of reception and make the emergency call.
- Trucks are fitted with GPS tracking and their movements are alerted on our web-based program via Fleet Logix. These reports give truck locations, and send information through such as speed alerts, heavy braking and accelerations, as well as a number of other components. This GPS system relies on Mobile phone repeaters to supply real time movements.
- RJA to refer daily to TfNSW **Live traffic site.** https://www.livetraffic.com

WEEKLY SCHEDULES TO BE SENT TO THE FOLLOWING: (This will be updated closer to the start of the project with all parties that require on going communication)

- development.west@transport.nsw.gov.au
- kell3mic@police.nsw.gov.au
- WESTLOAD@police.nsw.gov.au

14.0 Interacting With Roadwork and Other OSOM Loads on the Network

There is high likelihood that there will be roadwork along the route.
Typically, road crews are operating on UHF channel 29.
The lead pilot will make contact with the road crews to advise of the nature of the load, size, dimensions, to establish if the load is ok to enter the work zone.
In this instance the convoy will work with all reasonable instructions from the road crew to coordinate the safe passage of the load through the affected areas.
Pilots and local traffic controllers will work together to facilitate the necessary actions required to travel through the work zone.
Some of the potential roadwork projects are listed in section 9.0.
To avoid potential conflicts with other OSOM operators we believe the following measures should take place.

- Loads up to 5.99 metres in width: The current road network is suitable for both our loads and a load up until 5.99 metres with communications taking place live on the network on the day. The loads will have UHF communications and pilots/police far enough ahead to communicate between the loads and to find a safe section of road for either our OSOM load or the other OSOM load to pull over to allow the loads to pass.
- Loads over 6.0 metres require police escorts and a TMP. Our schedules will be sent weekly to Newcastle, Hunter and Western Police commands weekly, which will allow any potential conflict with another OSOM movement to be planned prior to the loads departing. This may be at a minimum a change of times for one of the loads, parking up in a layover area with agreed times etc…

15.0 Roadworks: Potential Conflicts with Tfnsw Projects

The Uungula windfarm project is currently planning to deliver the OSOM loads along the proposed routes between Q4 2024 and Q4 2025. There are several road projects that may conflict with our movements during this period. Several of these projects are known and are listed below. If new projects come to light, then they will be added to the list once known.
Transport operations are to check with these worksites daily to manage the transport movements through each of the worksites.

TfNSW Project	**Project's Website:**	**Other relevant Weblink/s:**	**Plans available:**
Hexham Straight Widening Project*(HSW)*	Project Website link here https://www.transport.nsw.gov.au/projects/current-projects/pacific-highway-improvements-at-hexham	Project's interactive portal link here	Plans available for use can be found at https://www.transport.nsw.gov.au/sites/default/files/media/documents/rww/projects/01documents/hexham/hexham-straight-appendix-a-concept-design-drawngs.pdf *Note: Further consultation is required with TfNSW to address the Ironbark Bridge upgrade, which has changed from this available plan set.*
M1 to Raymond Terrace Project *(M12RT)*	Project Website link here https://www.transport.nsw.gov.au/projects/current-projects/m1-pacific-motorway-extension-to-raymond-terrace	Project's interactive portal link here https://caportal.com.au/tfnsw/m1rt	Refer to website / portal
Singleton Bypass Project	Project Website link here https://www.transport.nsw.gov.au/projects/current-projects/singleton-bypass-new-england-highway	Project's interactive portal link here https://caportal.com.au/rms/singleton-bypass	Refer to website / portal
Belford to Golden Highway Project *(B2GH)*	Project Website link here https://www.transport.nsw.gov.au/projects/current-projects/belford-to-golden-highway-new-england-highway	Project's interactive portal link here https://www.transport.nsw.gov.au/sites/default/files/media/documents/rww/projects/01documents/new-england-	

		highway/belford-golden-highway/neh-upgrade-belford-golden-hwy-project-overview-diagram.pdf	
Golden Highway upgrades	Project Website link here https://www.transport.nsw.gov.au/projects/current-projects/golden-highway-upgrades	Project's interactive portal link here	Road rebuilding, shoulder widening, and clear zone work along 45 kilometres of the Golden Highway Intersection improvements Acceleration lanes to improve the efficiency of through movements on the Golden Highway at Putty Road and Denman Road Flood immunity work at Mudies Creek and Uarbry Creek Railway level crossing upgrade at Denman New heavy vehicle enforcement stations New overtaking lanes Program of improvements to heavy vehicle rest areas and stopping bays.

16.0 Pinch Points

The following are the pinch points on these routes:

- **REGULAR ROUTE ASSESMENTS:** Throughout the project Rex J Andrews P/L is to keep in constant contact with the RMS and local councils regarding roadwork's and any upcoming road modifications that would take place on the route during the project. Drivers are to have full contact details and communicate regularly with these roadwork's managers while on route.

- **RAIL CROSSINGS:** The following rail crossing locations will need approval before the loads can cross. Procedures to be updated once rail operators advise on the exact requirement for the loads.
  MAYFIELD: Selwyn Street
  DENMAN: Golden Highway.
  DUNEDOO: Golden Highway.
  WELLINGTON: Saxa Road.

- **TGS:** The OSOM deliveries will require 2 TGS procedures.
  The first TGS takes place at the Hunter Expressway at Buchanan.
  The Second TGS takes place at Denman Bridge.

- **SPOTTER/STEERER:** Blades are to travel around all corners under the guidance of a spotter. Spotter to monitor any structures/Road furnishings that may come in contact with the load and advise the driver throughout the procedure.

- **NEWCASTLE CITY:** Blades are to travel around all corners under the guidance of a spotter. Spotter to monitor any structures/Road furnishings that may come in contact with the load and advise the driver throughout the procedure.

- **HEXHAM STRAIGHT WIDENING PROJECT (HSW):** RJA to supply a weekly schedule to the HSW project. Any changes to the schedule are to be sent through to the HSW project. On the night of each movement, the load is to call the night supervisor at the HSW project and advise that the load is departing. When nearing the project, the load is to either radio the site via UHF or call the HSW project supervisor for clearance to continue through the work zone. This procedure is to be refreshed with contacts 3 months prior to the start of deliveries.

- **HUNTER EXPRESSWAY:** Blades are to undertake the Hunter Expressway crossover as per the TGS in Appendix B of this report.

- **BELFORD TO GOLDEN HIGHWAY PROJECT B2GH):** As part of the B2GH project there is a roundabout under construction at Whittingham. This roundabout will be completed prior to the start of the project. We have reviewed the final design for the roundabout and there will be a conflict with at least one light pole on the tail swing. This will need to be relocated prior to loads travelling through this pinchpoint.

- **HUNTER VALLEY:** Some road modifications are required at Jerrys Plains and Denman. Once these works have been completed the route will be suitable for the swept path of these loads.
- **GOLDEN HIGHWAY UPGRADES (GHU):** Several projects will be taking place on the Golden Highway over the next few years. Some of these projects may be underway while the deliveries to Uungula are scheduled. Some of the projects that may conflict with Uungula are as follows.
    - Road rebuilding, shoulder widening, and clear zone work along 45 kilometres of the Golden Highway
    - Intersection improvements
    - Acceleration lanes to improve the efficiency of through movements on the Golden Highway at Putty Road and Denman Road
    - Flood immunity work at Mudies Creek and Uarbry Creek
    - Railway level crossing upgrade at Denman
    - New heavy vehicle enforcement stations
    - New overtaking lanes
    - Program of improvements to heavy vehicle rest areas and stopping bays.

  Once the conflicts are known, RJA will implement procedures similar to the HSW project.

- **DENMAN BRIDGE:** All loads over 5.5 meters are to undertake the crossing of the Denman Bridge as per the TGS in Appendix C of this report.

- **ELONG ELONG:** Some road modifications are required at the intersection of Saxa road and the Golden Highway. Once these works have been completed the route will be suitable for the swept path of these loads.

- **SAXA ROAD:** Saxa Road is currently closed to OSOM traffic while Dubbo Regional council (DRC) undertake emergency repair works on the pavement and floodways caused by the extreme weather event that affected large portion of NSW in late 2022. DRC don't see any concerns with our proposal to use Saxa Road for the deliveries once these works are completed. DRC estimate that the works will start in Q1 2023 and should be completed by Q3 2023.

- **WELLINGTON:** Some road modifications are required at the intersection of Goolma road and the Mitchell Highway. Once these works have been completed the route will be suitable for the swept path of these loads.

- **TWELVE MILE ROAD:** Design works are currently underway by the developer of the windfarm to upgrade the intersection of Goolma Road and Twelve Mile Road. Additionally, Twelve Mile Road has been upgraded to accommodate the largest loads to be delivered through to the windfarm project.

- **SITE:** All drivers once onsite MUST check the current site road conditions before proceeding. From this point a call will be made whether additional pulling power is required, and that the road ahead is clear ahead.

PINCHPOINT PROCEDURES

Whilst some pinch points are known along the route demonstrating a method of negotiating each individual hazard would be flawed as traffic conditions are constantly changing.

It is crucial that appropriate measures are applied to avoid impact to road users and road infrastructure, the chosen route has been assessed and the load is capable of navigating the route, however local traffic conditions can create pinch points.

A pinch point is an area identified by the lead pilot and relayed to the convoy as having the potential to interfere with the swept path of the load, pinch points can be created by road furnishings, roundabouts, narrow sections of road, road kill, corners, road works, parked vehicles, damaged pavement, this list is not exhaustive.

For the purposes of this traffic management plan identified pinch points will follow the following protocol.

The lead pilot must travel a sufficient distance in front of the load so as to survey the swept path required for the Wind turbine, this will to allow sufficient time to relay back road conditions or choke points to allow the driver to halt the load before causing congestion to other road users.

In the event of parked vehicles or local traffic conditions preventing the load from safely navigating the permitted route, the load cannot proceed until it is safe to do so. The lead pilot will warn all oncoming traffic of the impending load, when the way forward for the transporter is established as being clear the load may proceed.
If built up queued traffic is behind the load, ensure that an opportunity to allow this traffic to pass is taken at the first safe opportunity.

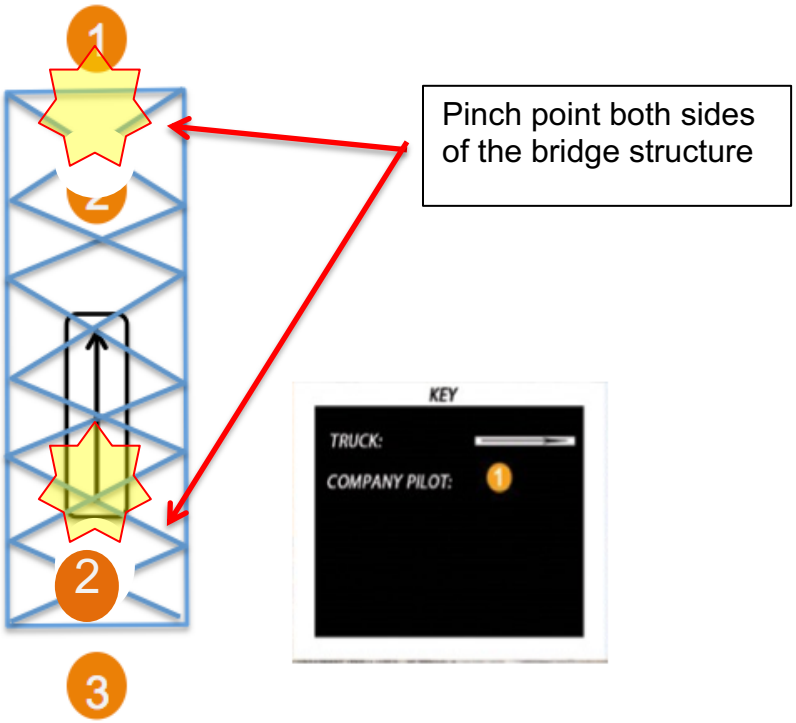
The procedure for crossing bridges is reliant on only the Wind turbine being on the bridge during the crossing, this will require a concentrated effort from the escort team to ensure that all vehicular traffic both in front of and behind the load are warned of the hazard.

It is crucial that pinch points are discussed at the toolbox briefing and that all parties are aware of the protocols in place. Drivers should familiarise themselves with the route including nominated bypasses for heavy vehicles along the route.

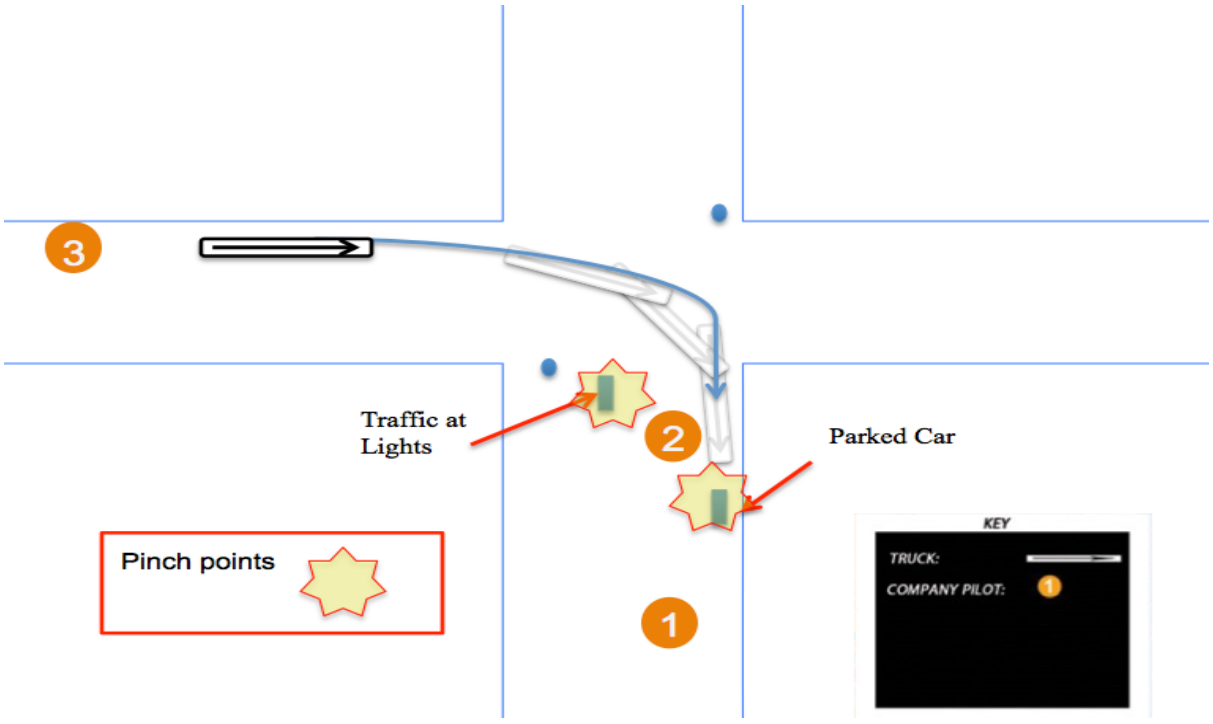
If there is any doubt as to the viability of accessing the permitted route the load must not continue until the way forward has been deemed appropriate.
For more detail analysis of coping with roadwork refer to section 11.

Examples Of Pinch Points

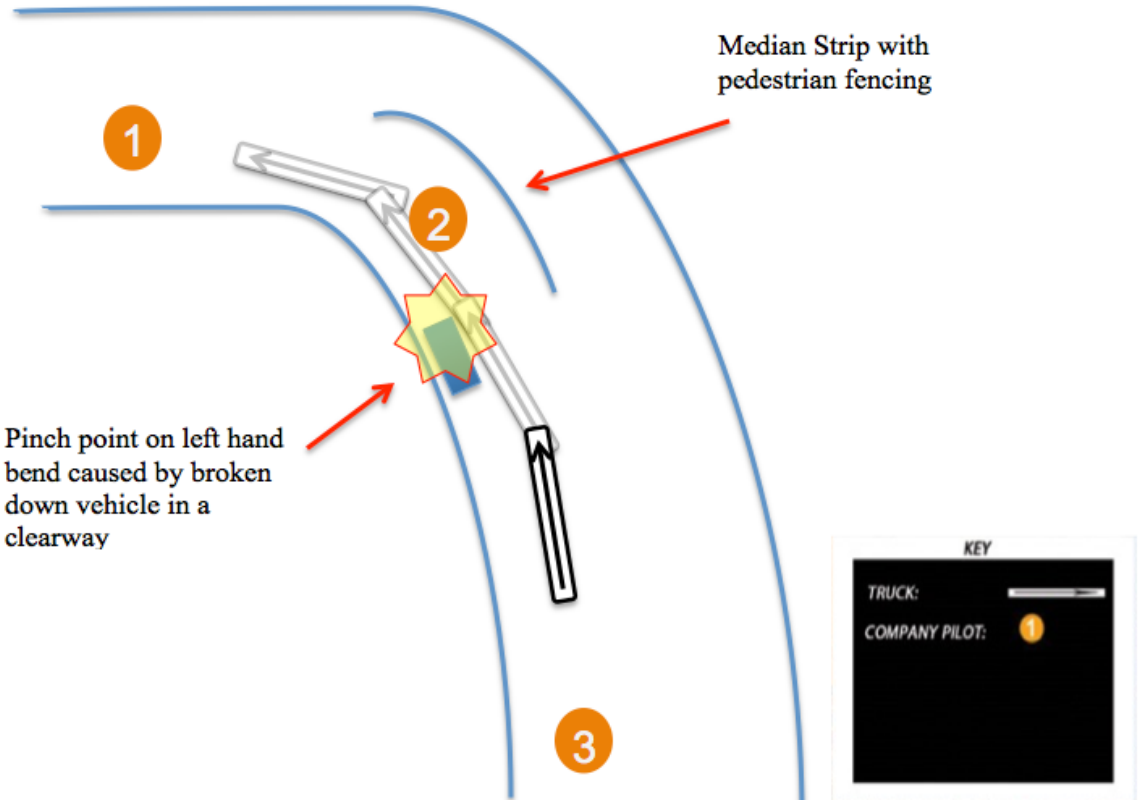
Bridge Crossings



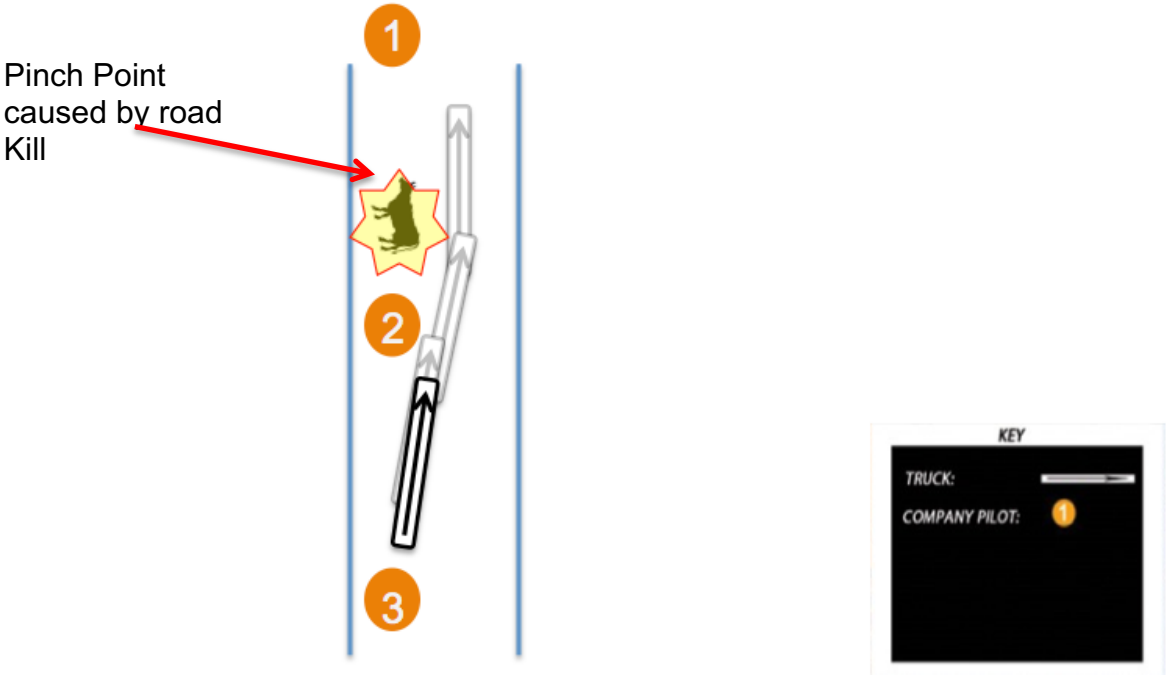
Intersections



Bends



Road Kill



17.0 Managing Queued Traffic Behind the Load

During the journey the interaction with other road users will require management of queued traffic.

The protocol to provide queued traffic an opportunity to pass the load will be reliant on the rear pilot constantly monitoring the queue of traffic and relaying this information back to the convoy, the lead pilot in conjunction with the driver will identify suitable areas that allow a safe passing point for the passing vehicles.

The lead escort will also determine safe areas to halt the load to allow backed up vehicles to pass. Safe pull over areas can include turn off into Private Roads and/or other roads, pull over on the shoulder during over taking lanes, designated pull over/ rest stop areas or service stations, these areas will be a hardstand area, or an area wide enough for the escort to direct vehicles around the combination.

The load MUST pull over or slow to allow the backed-up vehicles to pass. Rear pilot will inform all other pilots and driver when there has been a lag from last pull over and if other cars have been following for a short distance, in this instance apply the passing protocol again, this will continue throughout the journey as required to ensure queued traffic do not experience excessive delays. The driver and pilots will also allow vehicles to pass at any opportunity that allows a safe area for this vehicle and its load to pull over safely and will.

18.0 Schedule of Movements

PROJECT START DATE: Q2 2025 TILL Q2 2026
At this stage the project is looking at delivering up to 2 complete turbines per week. This is a total of 22 OSOM movements per week. Over a 6-day week this would average 4-5 movements per day.

UUNGULA WINDFARM TURBINE DELIVERIES:

TURBINE DELIVERY SCHEDULE REV01

SECTION:	TRUCK	ESCORT REQUIREMENT	DEPART NEWCASTLE	DEPART CASSILIS	ARRIVE UUNGULA	NOTES:
MONDAY						
BLADE (92l x 4.5w x 5.2h x 84.5T)	TRUCK 1	2 X POLICE, 4 X PILOTS	3.00AM	9.30AM	12.00PM	
BLADE (92l x 4.5w x 5.2h x 84.5T)	TRUCK 2	2 X POLICE, 4 X PILOTS	3.15AM	9.45AM	12.45PM	
MID A (39.9l x 4.3w x 5.5h x 136.5T)	TRUCK 3	3 X PILOTS	3.30AM	10.30AM	1.30PM	
MID B (37.0l x 4.3w x 5.5h x 138.5T)	TRUCK 4	3 X PILOTS	3.45AM	10.45AM	1.45PM	
TUESDAY						
SECTION:	**TRUCK**	**ESCORT REQUIREMENT**	**DEPART NEWCASTLE**	**DEPART CASSILIS**	**ARRIVE UUNGULA**	**NOTES**
TOP (49.0l x 4.5w x 5.5h x 102.5T)	TRUCK 5	1 X POLICE, 3 X PILOTS	3.00AM	9.30AM	12.00PM	
MID C (35.0l x 5.2w x 5.5h x 144.5T)	TRUCK 6	3 X PILOTS	3.15AM	9.45AM	12.45PM	
MID D (35.0l x 5.2w x 5.5h x 144.5T)	TRUCK 7	3 X PILOTS	3.30AM	10.30AM	1.30PM	
DRIVE TRAIN (28.0l x 4.2w 4.8h x 134.5T)	TRUCK 8	3 X PILOTS	3.45AM	10.45AM	1.45PM	
HUB (26l x 4.2w x 5.0h x 88.5T)	TRUCK 9	1 X PILOT	6.00AM	11.00AM	1.00PM	
WEDNESDAY						
SECTION:	**TRUCK**	**ESCORT REQUIREMENT**	**DEPART NEWCASTLE**	**DEPART CASSILIS**	**ARRIVE UUNGULA**	**NOTES**
BLADE (92l x 4.5w x 5.2h x 84.5T)	TRUCK 1	2 X POLICE, 4 X PILOTS	3.00AM	9.30AM	12.00PM	
BLADE (92l x 4.5w x 5.2h x 84.5T)	TRUCK 2	2 X POLICE, 4 X PILOTS	3.15AM	9.45AM	12.45PM	
MID E (35.0l x 5.2w x 5.6h x 144.5T)	TRUCK 10	3 X PILOTS	3.30AM	10.30AM	1.30PM	
BASE (39.9l x 5.6w x 5.6h x 144.5T)	TRUCK 11	3 X PILOTS	3.45AM	10.45AM	1.45PM	
MACHINE HEAD (39.9l x 4.8w x 5.3h x 222.0T)	TRUCK 12	3 X PILOTS	9.00AM	1.00PM	3.00PM	
THURSDAY						
SECTION:	**TRUCK**	**ESCORT REQUIREMENT**	**DEPART NEWCASTLE**	**DEPART CASSILIS**	**ARRIVE UUNGULA**	**NOTES**
MID A (39.9l x 4.3w x 5.5h x 136.5T)	TRUCK 3	3 X PILOTS	3.30AM	9.30AM	2.30PM	
MID B (37.0l x 4.3w x 5.5h x 138.5T)	TRUCK 4	3 X PILOTS	3.45AM	9.45AM	2.45PM	
HUB (26l x 4.2w x 5.0h x 88.5T)	TRUCK 9	1 X PILOT	6.00AM	11.00AM	1.00PM	
TOP (49.0l x 4.5w x 5.5h x 102.5T)	TRUCK 5	1 X POLICE, 3 X PILOTS	3.00AM	8.30AM	1.30PM	
FRIDAY						
SECTION:	**TRUCK**	**ESCORT REQUIREMENT**	**DEPART NEWCASTLE**	**DEPART CASSILIS**	**ARRIVE UUNGULA**	**NOTES**
BLADE (92l x 4.5w x 5.2h x 84.5T)	TRUCK 1	2 X POLICE, 4 X PILOTS	3.00AM	9.30AM	12.00PM	
BLADE (92l x 4.5w x 5.2h x 84.5T)	TRUCK 2	2 X POLICE, 4 X PILOTS	3.15AM	9.45AM	12.45PM	
MID C (35.0l x 5.2w x 5.5h x 144.5T)	TRUCK 6	3 X PILOTS	3.30AM	10.30AM	1.30PM	
MID D (35.0l x 5.2w x 5.5h x 144.5T)	TRUCK 7	3 X PILOTS	3.45AM	10.45AM	1.45PM	
DRIVE TRAIN (28.0l x 4.2w 4.8h x 134.5T)	TRUCK 8	3 X PILOTS	4.00AM	11.00AM	2.00PM	
SATURDAY						
SECTION:	**TRUCK**	**ESCORT REQUIREMENT**	**DEPART NEWCASTLE**	**DEPART CASSILIS**	**ARRIVE UUNGULA**	**NOTES**
MID E (35.0l x 5.2w x 5.6h x 144.5T)	TRUCK 10	3 X PILOTS	3.30AM	9.00AM	2.00PM	
BASE (39.9l x 5.6w x 5.6h x 144.5T)	TRUCK 11	3 X PILOTS	3.45AM	9.15AM	2.15PM	
MACHINE HEAD (39.9l x 4.8w x 5.3h x 222.0T)	TRUCK 12	3 X PILOTS	3.30AM	10.30AM	1.30PM	

Figure 7 - Delivery Schedule

19.0 Fatigue Scheduling and parking

REX J ANDREWS PTY LTD
ENGINEERED TRANSPORTATION

Sydney
PO Box 271, Penrith NSW 2751
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Adelaide
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Newcastle
16 Yilen Close, Beresfield NSW 2322
Ph: 02 4966 1788 Fx: 02 4966 1744
Em: newcastle@rja.com.au

Trip Schedule

Schedule Details Uungula Windfarm
Blade transport

Sch No SCH07264
Date 16/07/2021 11:49:16 am
Written By Warrick Andrews
Consulted Mark Sciberras

Schedule Notes:
-This Schedule has been written based on values known at the time for good driving conditions and no known fatigue related issues prior to starting the trip.
- Do not drive to the schedule if you fell tired. Stop revive survive
- No attempt should be made to make up for lost time on a schedule.
- Please modify all times according to your real start time.
- You must still fill in your Logbook, exactly as the hours you have worked.

Please work with the Scheduler who wrote this to make the schedule better for all.

Start	End	Hr	Day	Km	avg	Type	Location	Notes
12:01am	2:45am	2.73	1	0	0	Rest	Mayfield	Rest break
2:45am	3:00am	0.25	1	0	0	Working	Mayfield	Toolbox and prestart
3:00am	8:00am	5.00	1	234	47	Driving	Mayfield to Cassilis	Loaded travel
8:00am	8:30am	0.50	1	0	0	Paid Rest	Cassilis	Fatigue break
8:30am	1:30pm	5.00	1	161	32	Driving	Cassilis to Uungula	Loaded travel
1:30pm	2:00pm	0.50	1	0	0	Paid Rest	Uungula	Fatigue break
2:00pm	3:00pm	1.00	1	0	0	Working	Uungula	Unloading
3:00pm	11:59pm	8.98	1	0	0	Rest	Uungula	Rest break
12:01am	6:45am	6.73	2	0	0	Rest	Uungula	Rest break
6:45am	7:00am	0.25	2	0	0	Working	Uungula	Toolbox and prestart
7:00am	9:00am	2.00	2	0	0	Working	Uungula	Unloading
9:00am	12:00pm	3.00	2	211	70	Driving	Uungula to Merriwa	Empty travel
12:00pm	12:30pm	0.50	2	0	0	Paid Rest	Merriwa	Fatigue break
12:30pm	3:30pm	3.00	2	184	61	Driving	Merriwa to Mayfield	Empty travel
3:30pm	5:30pm	2.00	2	0	0	Working	Mayfield	Loading
5:30pm	11:59pm	6.48	2	0	0	Rest	Mayfield	Rest break

Stop, Revive, Survive

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Figure 8 - Fatigue Schedule Blades

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Newcastle
16 Yilen Close, Beresfield NSW 2322
Ph: 02 4966 1788 Fx: 02 4966 1744
Em: newcastle@rja.com.au

Trip Schedule

Schedule Details Uungula Windfarm
Towers and motors

Sch No SCH07263
Date 14/02/2024 2:15:16 pm
Written By Warrick Andrews
Consulted Mark Sciberras

Schedule Notes:
-This Schedule has been written based on values known at the time for good driving conditions and no known fatigue related issues prior to starting the trip.
- Do not drive to the schedule if you fell tired. Stop revive survive
- No attempt should be made to make up for lost time on a schedule.
- Please modify all times according to your real start time.
- You must still fill in your Logbook, exactly as the hours you have worked.

Please work with the Scheduler who wrote this to make the schedule better for all.

Start	End	Hr	Day	Km	avg	Type	Location	Notes
12:01am	3:30am	3.48	1	0	0	Rest	Mayfield	Rest break
3:30am	8:30am	5.00	1	234	47	Driving	Mayfield to Cassilis	Loaded travel
8:30am	9:00am	0.50	1	0	0	Paid Rest	Cassilis	Fatigue break
9:00am	1:30pm	4.50	1	161	36	Driving	Cassilis to Uungula	Loaded travel
1:30pm	2:00pm	0.50	1	0	0	Paid Rest	Uungula	Fatigue break
2:00pm	3:30pm	1.50	1	0	0	Working	Uungula	Unloading
3:30pm	11:59pm	8.48	1	0	0	Rest	Uungula	Rest break
12:01am	6:45am	6.73	2	0	0	Rest	Uungula	Rest break
6:45am	7:00am	0.25	2	0	0	Working	Uungula	Prestart
7:00am	10:00am	3.00	2	0	0	Working	Uungula	Unloading
10:00am	11:30am	1.50	2	100	67	Driving	Uungula to Gulgong	Empty travel
11:30am	12:00pm	0.50	2	0	0	Paid Rest	Gulgong	Fatigue break
12:00pm	5:00pm	5.00	2	305	61	Driving	Gulgong to Mayfield	Empty travel
5:00pm	11:59pm	6.98	2	0	0	Rest	Mayfield	Rest break
12:01am	6:45am	6.73	3	0	0	Rest	Mayfield	Rest break
6:45am	7:00am	0.25	3	0	0	Working	Mayfield	Prestart
7:00am	12:00pm	5.00	3	0	0	Working	Mayfield	Loading
12:00pm	11:59pm	11.98	3	0	0	Rest	Mayfield	Rest break

Stop, Revive, Survive

Figure 9 - Fatigue Schedule Towers & Motors

FATIGUE PARKING LOCATION #1: Golden Highway at Hollydeen.
Components: All components.
Road modifications required: Nil.
GPS link: https://maps.app.goo.gl/gje81kM6rFtqfEpt6

FATIGUE PARKING LOCATION #2: Golden Highway at Cassilis.
Components: All components.
Road modifications required: No entry sign to be relocated or made removable.
GPS link: https://goo.gl/maps/vs6YMT6TxCA2

20.0 Transport Plan & Pinch Points: Newcastle Port to Uungula Windfarm

COMPONENTS: All components
DISTANCE: 395 kilometres
GPS LINK: https://goo.gl/maps/gwfURhh6hjxUo6Jm6
VIA: Selwyn Street, George Street, Industrial Drive, Maitland Road, New England Highway, John Renshaw Drive, Hunter Expressway, New England Highway, Golden Highway, Saxa Rd, Mitchell Highway, Goolma Road, Twelve Mile Road.

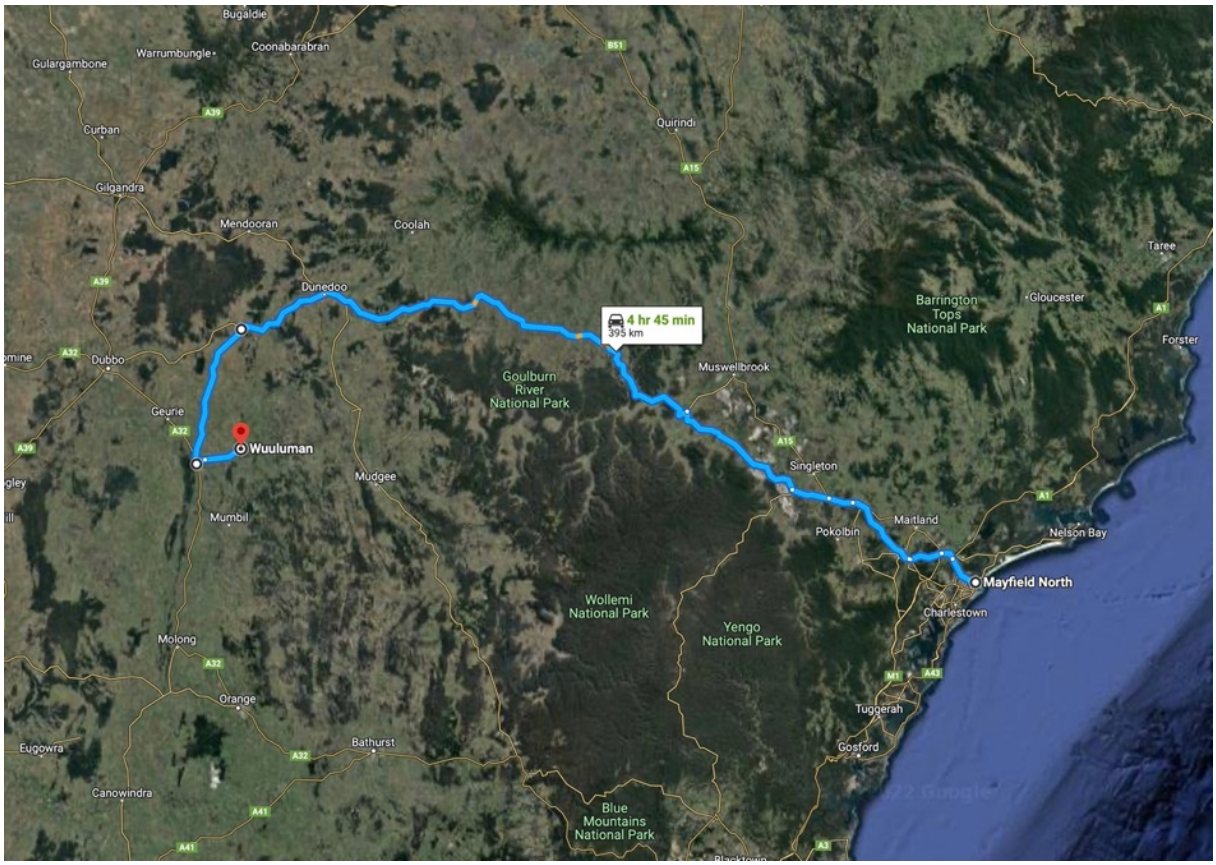

Figure 10 – Transport Route

KEY	
MODIFICATIONS REQUIRED	
CAUTION	
PARKING/PULLOVER BAYS	

KM index	Location	Section of road	Current Measurement	Procedure	Notes
0.0	Mayfield	Mayfield #4 berth onto Selwyn Street https://goo.gl/maps/afLwPYKuNdm	Length: 70.0m Width: 8.0m	Right hand turn	Hardstand will need to be added to the left entry of the corner. The existing culvert will need to be widened. Some signs will need to be relocated and a section of fence will need to be relocated. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
0.4	Mayfield	Selwyn Street rail crossing https://goo.gl/maps/864FhMSaF9P2	Width: 9.0m	Travel directly ahead	Loads to travel over the crossing in the center of the road. Approval required before crossing this rail line.
1.3	Mayfield	Selwyn Street onto Industrial Drive via George Street https://goo.gl/maps/brPRAckLr572	Length: 70.0m Width: 8.0m	Right hand turn	The first right hand turn through George Street will need a sign made removable and a disused pole on the overhang removed. Entering Industrial Drive, the prime mover will cross from the correct side to the correct side with the trailer cutting the corner and travelling over the centre median strip. Some hardstand will need to be placed on the inside of the first corner. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
4.9	Mayfield	Industrial Drive under traffic signals https://goo.gl/maps/5DpD3b7KnT72	Clearance: Height: 5.4m	Travel directly ahead	The lowest traffic signal on route is at the intersection of Steel River Blvd. Trucks that exceed 5.3 metres will need to travel in the right-hand lane.
5.5	Mayfield West	Industrial Drive onto Maitland Road https://goo.gl/maps/Kn49dhWG2qG2	Length: 70.0m Width: 8.0m	Right hand turn	The blades will need to cross to the incorrect side of the intersection 200 metres prior, before crossing back over to the correct side 120 metres to the north of the intersection. Two signs will need to be made removable or relocated. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
14.8	Tarro	New England Highway https://goo.gl/maps/aED5Y4ccdW3A47x37	Length: 90.0m Width: 8.0m	Left hand bend	No problems with this section of road.
17.4	Tarro	New England Highway onto John Renshaw Drive https://goo.gl/maps/SRDr5JigkBp	Length: 100.0m Width: 12.0m	Left hand merge	No problems with this section of road.
29.0	Buchanan	John Renshaw Drive onto the Hunter Expressway GPS link: https://goo.gl/maps/1STJ1PfQt9E2	Length: 65m Width: 6.0m	Right hand turn	Blades are to undertake the Hunter Crossover TGS at this location. All other loads are to travel around the roundabout on the correct side.

KM index	Location	Section of road	Current Measurement	Procedure	Notes
59.0	Branxton	The Hunter Expressway onto The New England Highway GPS link: https://goo.gl/maps/7rauNuxzqjq	Length: 100m Width: 12.0m	Travel directly ahead	No problems with this section of road.
67.0	Whittingham	The New England Highway onto the Golden Highway GPS link: https://goo.gl/maps/nAnfkYfeUn42	Length: 70m Width: 7.0m	Left Hand turn	Signs to be made removable. Prime mover is to travel over center median strips. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
67.5	Whittingham	Golden Highway through roundabout GPS link: https://goo.gl/maps/9SYNJo4bTu7qPYfW6	Length: 50m Width: 7.0m	Travel directly ahead on the correct side of the road	Signs to be made removable. Vehicle is to travel over center median strip. A light pole needs to be relocated.
68.0	Whittingham	Golden Highway over rail bridge GPS link: https://goo.gl/maps/5NwDQofandvvMKfY9	Width: 9.0m	Travel directly ahead in the centre of the road.	Approval from Rail company required to cross this structure. Travel over this structure may have specific conditions.
77.3	Mount Thorley	Golden Highway over rail bridge GPS link: https://goo.gl/maps/qTxSbkxPu87L5hx4A	Width: 9.0m	Travel directly ahead in the centre of the road.	Approval from Rail company required to cross this structure. Travel over this structure may have specific conditions.
77.4	Whittingham	Golden Highway intersection with the Putty Road GPS link: https://goo.gl/maps/7hQdEmK1EqE2	Length: 50.0m Width: 7.0m	Left hand turn	Blades to cross from the incorrect side to the incorrect side. Some signs will need to be made removable. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
80.6	Mount Thorley	Golden Highway over rail bridge GPS link: https://goo.gl/maps/ipGU4USXmWZ8GkJs6	Width: 9.0m	Travel directly ahead in the centre of the road.	Approval from Rail company required to cross this structure. Travel over this structure may have specific conditions.
80.8	Mount Thorley	Golden Highway intersection with the Putty Road GPS link: https://goo.gl/maps/VyA42n1CqZx	Length: 85.0m Width: 7.0m	Right hand turn	Blades to cross from the incorrect side and cross back to the correct side approx. 500 metres west of the intersection. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
98.0	Warkworth	Golden Highway GPS link: https://goo.gl/maps/Y6V6EXaCwxq	200.0 x 8.5 metres	Parking Bay	Suitable parking for Fatigue breaks for all loads.
107.0	Jerrys Plains	Golden Highway through Jerrys Plains village GPS link: https://goo.gl/maps/WoSCRsJ9ZGt	Length: 70m Width: 7.0m	Left hand than right hand turn	Blades to cross from the incorrect side to the incorrect side. Some signs will need to be made removable and some hardstand added. Additionally, some trees will need to be Trimmed/Removed. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
126.0	Ogilvy	Golden Highway GPS link: https://goo.gl/maps/58Tj9ojs7CC2	6% gradient	Travel directly ahead	This section of road has a steep mountain range that will require additional pull trucks to assists loads that exceed 80T gross weight.

KM index	Location	Section of road	Current Measurement	Procedure	Notes
131.9	Denman	Golden Highway onto Denman Road GPS link: https://goo.gl/maps/sf4PNnvcxB32	Length: 65.0m Width: 7.0m	Left hand turn	The blades will travel around the corner from incorrect side onto the incorrect side. The existing corner will require hardstand to be added and signs made removable. Additionally, some trees will need to be trimmed/removed inside a property owner's boundaries. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
132.8	Denman	Golden Highway over Denman Bridge GPS link: https://goo.gl/maps/UToXvFe3QKu	5.8 Metres height clearance 6.9 Metres width clearance	Travel directly ahead in the centre of the lane	All loads over 5.5 meters are to undertake the crossing of the Denman Bridge as per the TGS in Appendix C of this report.
134.0	Denman	Golden Highway GPS link: https://goo.gl/maps/WFGzzyByugeKghuo8	Length: 90.0m Width: 7.0m	Right hand bend	No problems with this section of road. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
135.0	Denman	Golden Highway GPS link: https://goo.gl/maps/Npm1Ut7bP6Pmq9qe7	Length: 90.0m Width: 7.0m	Right hand bend	No problems with this section of road. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
137.9	Denman	Golden Highway rail crossing GPS link: https://goo.gl/maps/r7x7Qc685d82	Width: 9.0m	Travel directly ahead	Loads to travel over the crossing in the center of the road. Approval required before crossing this rail line.
143.9	Hollydeen	Golden Highway GPS link: https://maps.app.goo.gl/gje81kM6rFtqfEpt6	170.0 x 7.5 metres	Parking Bay	Suitable parking for Fatigue breaks for all loads
186.0	Merriwa	Golden Highway GPS link: https://goo.gl/maps/RW9gwfRzgr6MLA1H8	Length: 90.0m Width: 7.0m	Left hand bend	No problems with this section of road. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
234.0	Cassilis	Golden Highway GPS link: https://goo.gl/maps/vs6YMT6TxCA2	200.0 x 15 metres	Parking Bay	Suitable parking for Fatigue breaks for all loads.
253.0	Uarbry	Golden Highway GPS link: https://maps.app.goo.gl/MVGVFcf5FdDtr3ZaA	160.0 x 7.0 metres	Parking Bay	Suitable parking for Fatigue breaks for all loads.
282.0	Leadville	Golden Highway merge with the Castlereagh Highway GPS link: https://goo.gl/maps/aJMXknfMmuH2	Width: 9.0m	Merge directly ahead	No problems with this section of road.
290.0	Dunedoo	Golden Highway GPS link: https://goo.gl/maps/nQ38396ugk1FQN4P6	Length: 90.0m Width: 7.0m	Left hand bend	No problems with this section of road.
291.0	Dunedoo	Golden Highway rail crossing GPS link: https://goo.gl/maps/wsyNKfcoAij3SosY9	8.0 metres in width	Travel directly ahead	Loads to travel over the crossing in the center of the road. Approval required before crossing this rail line.

KM index	Location	Section of road	Current Measurement	Procedure	Notes
291.1	Dunedoo	Golden Highway intersection with Wargundy Street GPS link: https://goo.gl/maps/WzACUHev3iYadj1K7	Length: 75.0m Width: 7.0m	Right hand bend	The blades will travel around the corner from correct side onto the correct side. The sign on the inside of the corner will need to be relocated. The blades tail swing will need to travel over the top of the existing signals. If these signals are changed than the height will need to be rechecked. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
325.0	Elong Elong	Golden Highway onto Saxa Road GPS link: https://goo.gl/maps/XSoTDVA8TZwNsGo47	Length: 60.0m Width: 7.0m	Left hand turn	Hardstand is required on both sides of the road. Drainage works are required on the outside of the corner. Some side markers will need to be relocated, and 2 signs made removable. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
375.7	Wellington	Saxa Road rail crossing GPS link: https://goo.gl/maps/oPmj2bbBpPTHJYtF6	8.0 metres in width	Travel directly ahead	Loads to travel over the crossing in the center of the road. Approval required before crossing this rail line.
375.8	Wellington	Saxa Road onto Mitchell Highway GPS link: https://goo.gl/maps/Y9WRnEdpCEsfWPHBA	70.0 metres clearance	Left hand turn	Spotter to guide load through this pinchpoint. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
378.3	Wellington	Mitchell Highway onto Goolma Road GPS link: https://goo.gl/maps/nWHNN3pzCvpzp7ag8	78.0 metres clearance	Left hand turn	Blades to turn from the incorrect side to the incorrect side. No parking area will need to be placed on the right-hand side prior to the intersection. Some hardstand is required on the exit of the corner and some signs need to be made removable. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
381.5	Wellington	Goolma Road onto Twelve Mile Road GPS link: https://goo.gl/maps/Ajjk5pVCQCn	85.0 metres clearance	Right hand turn from the correct side to the correct side.	This corner is currently being modified to suit the swept path of the largest loads. Traffic control to be undertaken as per the procedure listed below for this pinchpoint.
381.5 to 395.0	Wellington to Uungula	Twelve Mile Road GPS link: https://goo.gl/maps/6eF9vF51JYvr6taA8	65.0 Length 5.0 Pavement width 5.5 Overall width 4.6 Height clearance	Travel directly ahead through winding sections of road with several moderate inclines and declines	Twelve Mile Road is asphalt pavement up until the proposed site entrance. The pavement is in fair condition with a surface width of generally 5.0 metres. Sections of this road will require tree trimming/removal for the swept path of the blade, and the height of the towers. A survey is recommended on this section of road for vertical clearance and swept path.

KM index	Location	Section of road	Current Measurement	Procedure	Notes
395.0	Uungula	Twelve Mile Road into Primary site entrance GPS Location: https://goo.gl/maps/VW6Np4Vhtwo		Right hand turn	Site entrance to be made suitable for the swept path of the largest loads.

0.0 Km's: Mayfield No.4 onto Selwyn Street at Mayfield

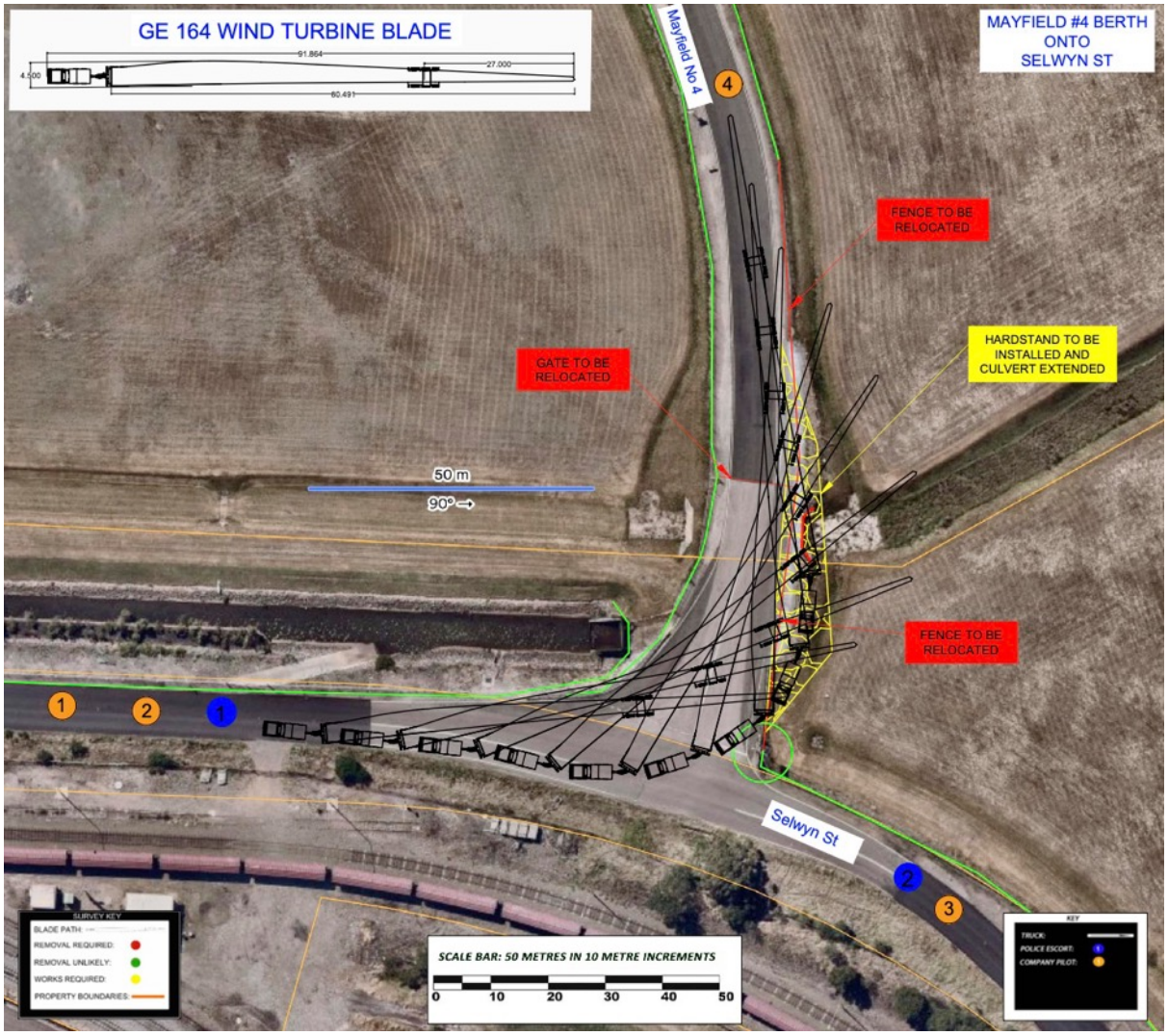

Figure 11 - Mayfield No.4 onto Selwyn Street

GPS LINK FOR THIS LOCATION: https://goo.gl/maps/afLwPYKuNdm
PINCHPOINT PROCEDURE: Right hand turn from port access road onto Selwyn Street. Spotter to watch the rear of blade as the load turns the corner. Spotter to guide load through this pinch point. Police and pilots to warn local traffic. Over sail to travel over the port fence.
POLICE ESCORT 1: Stay 100 metres in front of the load and hold all oncoming traffic.
POLICE ESCORT 2: Hold all westbound traffic on Selwyn Street at the intersection.
COMPANY PILOT 1: Stay 300 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 2: Stay 200 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 3: Warn all westbound traffic on Selwyn Street.
COMPANY PILOT 4: Stay 100 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: Yes, moderate amounts of work are required.

0.4 Km's: Rail crossing over Selwyn Street at Mayfield

Figure 12 - Rail crossing over Selwyn Street

GPS LINK FOR THIS LOCATION: https://goo.gl/maps/864FhMSaF9P2
PROCEDURE: Travel directly ahead over the crossing.
COMMENTS: Large width clearance and good ground clearance over this crossing. Police and escorts to control local traffic either side of the crossing. Loads to travel over the crossing in the center of the road. Approval required before crossing this rail line.
ROAD MODIFICATIONS: No works are required.

1.3 Km's: Selwyn Street onto Industrial Drive, via George Street at Mayfield

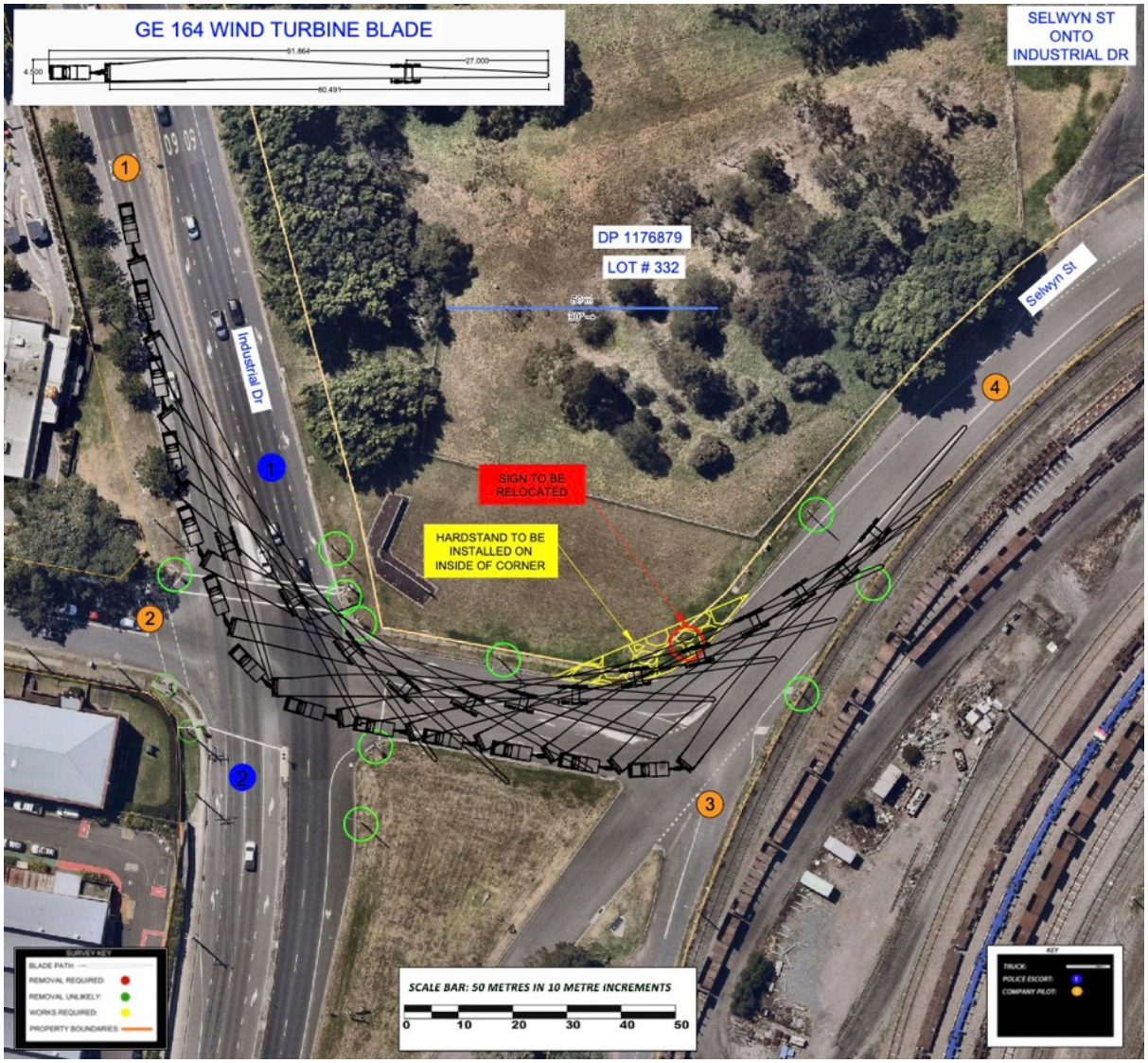

Figure 13 - Selwyn Street onto Industrial Drive, via George

GPS LINK FOR THIS LOCATION: https://goo.gl/maps/brPRAckLr572
PROCEDURE: Right hand turn from Selwyn Street through George Street and onto Industrial Drive. The first right hand turn through George Street will need a sign made removable and some hardstand added to the inside of the corner. A spotter would need to assist the load through this intersection.
POLICE ESCORT 1: Hold all southbound traffic on Industrial Drive.
POLICE ESCORT 2: Hold all northbound traffic on Industrial Drive.
COMPANY PILOT 1: Stay 200 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 2: Warn all eastbound traffic on George Street.
COMPANY PILOT 3: Warn all eastbound traffic on Selwyn Street.
COMPANY PILOT 4: Stay 100 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: Yes, moderate amounts of work are required.

4.9 Km's: Standard Overhanging Traffic Signals Mayfield to Hunter Expressway

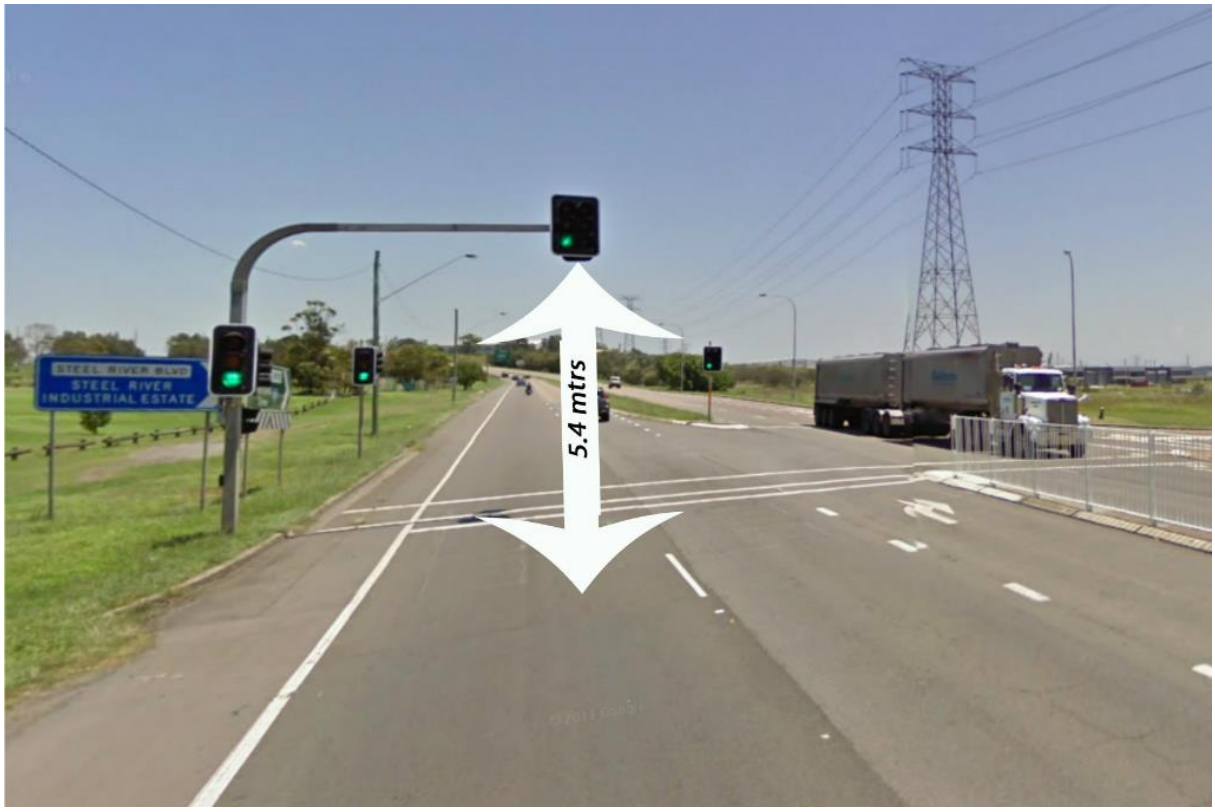

Figure 14 - Standard Overhanging Traffic Signals

GPS LINK FOR THIS LOCATION: https://goo.gl/maps/5DpD3b7KnT72
PROCEDURE: Overhanging signals while travelling through the intersection.
COMMENTS: The lowest traffic signal on route has 5.4 metres clearance. This signal is on the corner of Steel River Blvd at Mayfield West. Loads with an overall height of 5.3 or higher, can avoid this signal by travelling in the centre lane. Loads to slow down while doing this manoeuvre. All other signals exceed 5.6 metres high on this section of road.
ROAD MODIFICATIONS: No works are required.

5.5 Km's: Industrial Drive onto Maitland Road at Mayfield West

Figure 15 - Industrial Drive onto Maitland Road

GPS LINK FOR THIS LOCATION: https://goo.gl/maps/Kn49dhWG2qG2
PROCEDURE: Right hand turn from Industrial Drive onto Maitland Road. The blades will need to cross to the incorrect side of the intersection 200 metres prior, before crossing back over to the correct side 120 metres to the north of the intersection. Two signs will need to be made removable or relocated. Spotter to keep the driver informed throughout the procedure.
POLICE ESCORT 1: Hold all southbound traffic on Maitland road.
POLICE ESCORT 2: Hold all northbound traffic on Maitland road.
COMPANY PILOT 1: Stay 300 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 2: Stay 200 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: A small amount of work is required.

14.8 Km's: New England Highway at Tarro

Figure 16 - New England Highway at Tarro

GPS LINK FOR THIS LOCATION: https://goo.gl/maps/aED5Y4ccdW3A47x37
PROCEDURE: Left hand bend on the New England Highway. Prime mover to travel around the corner in the right-hand lane. Spotter to keep the driver informed throughout the procedure.
POLICE ESCORT 1: Warn all southbound traffic on the New England Highway.
POLICE ESCORT 2: Stay 50 metres behind the load and hold all traffic.
COMPANY PILOT 1: Stay 300 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 2: Stay 200 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: No works required.

29.0 Km's: John Renshaw Drive onto the Hunter Expressway at Buchanan

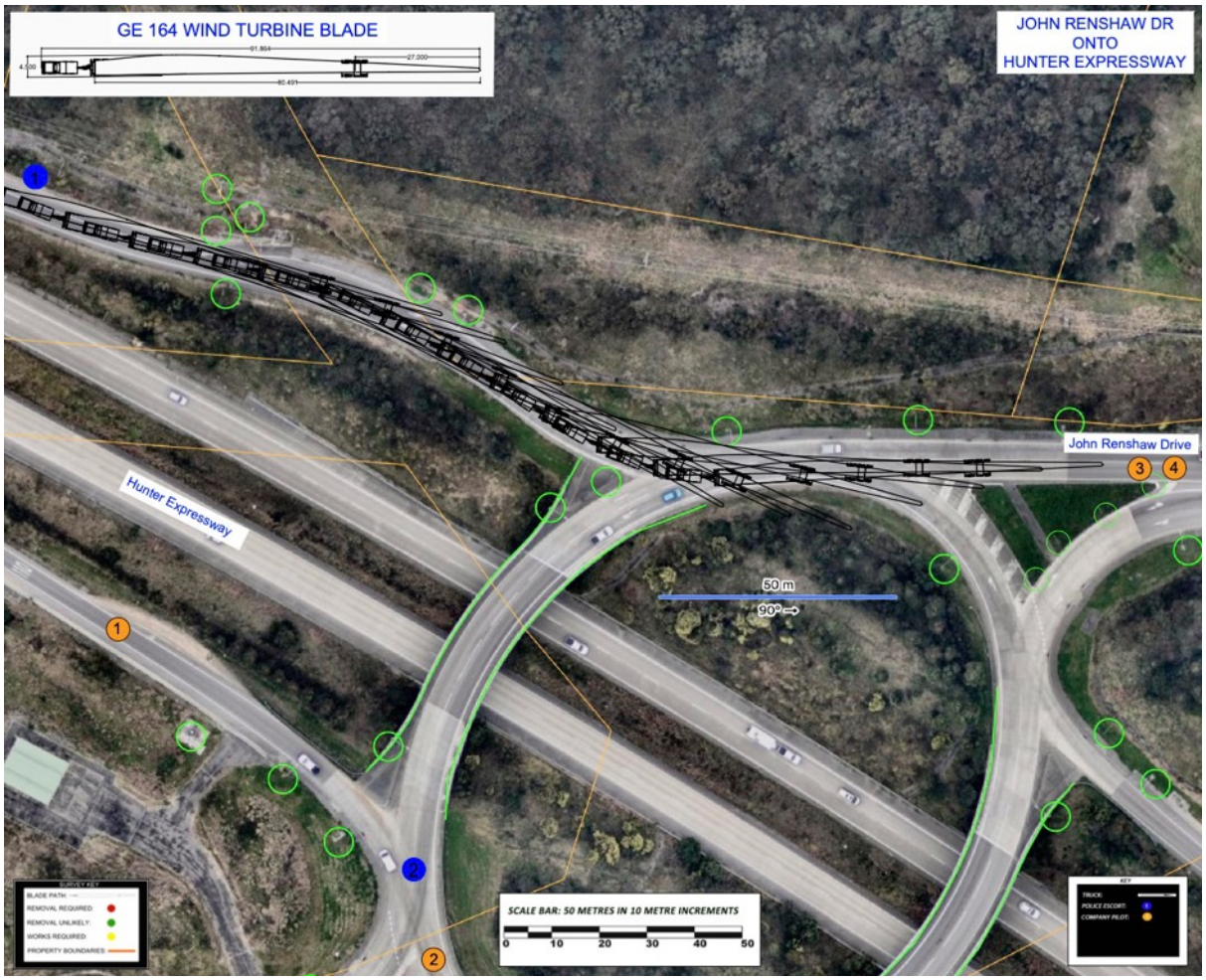

Figure 17 - John Renshaw Drive onto the Hunter Expressway

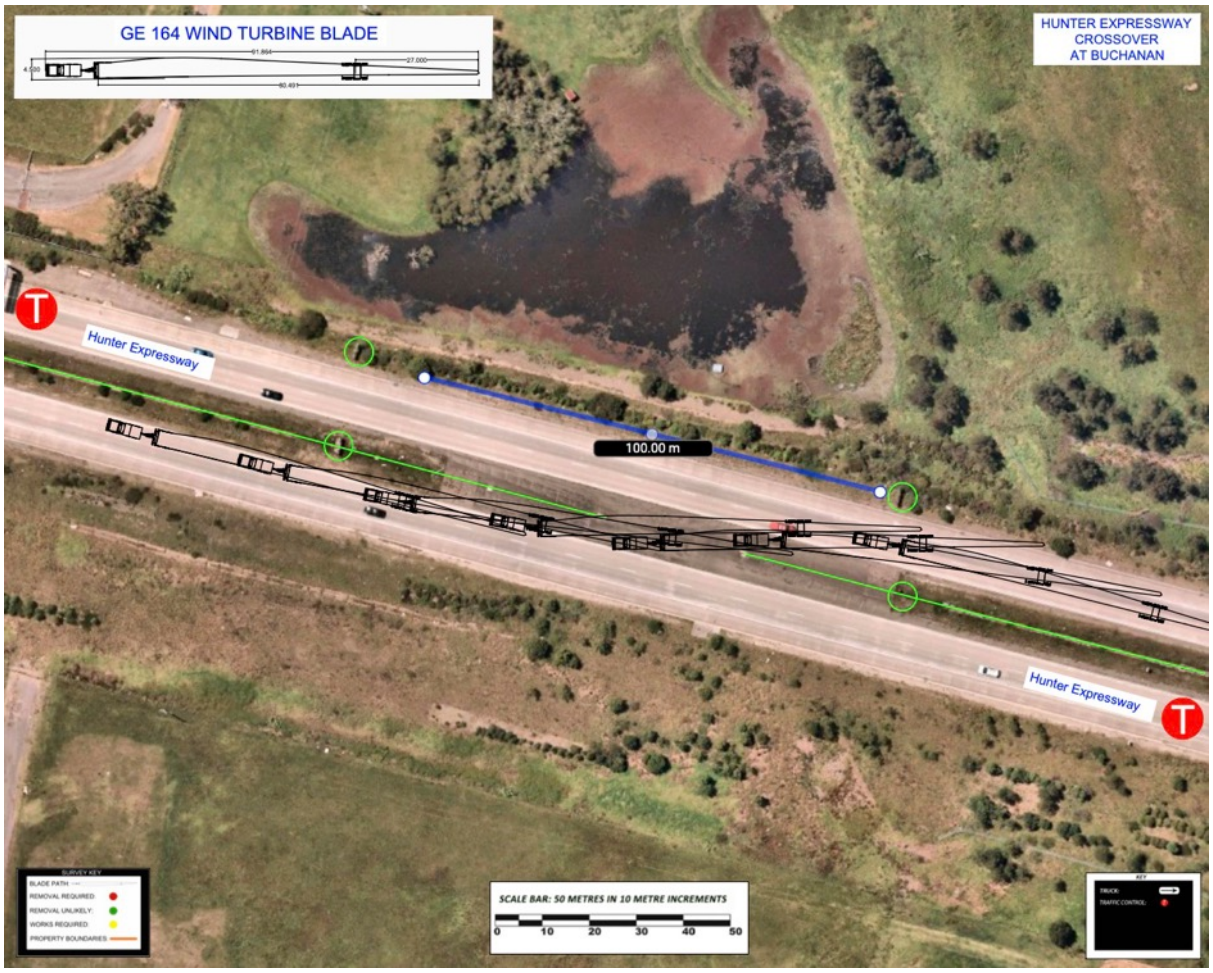

Figure 18 - John Renshaw Drive onto the Hunter Expressway Crossover

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/cEnuC5th1p52
PROCEDURE: Blades are to undertake the Hunter Crossover TGS at this location, as per TGS in Appendix B of this report.
The blades are to cross to the incorrect side than down the off-ramp onto the incorrect side of the expressway. Approx. 600 metres along the expressway there is a break in the road, which will allow the blades to cross back to the correct side of the expressway.
Spotter to keep the driver informed throughout the procedure.
All other loads are to travel around the roundabout on the correct side.
TRAFFIC CONTROL: Hold all eastbound and westbound traffic on the Hunter Expressway for 5 minutes as per the Hunter Crossover TGS.
POLICE ESCORT 1: Assist Traffic control as per TGS for this section of road.
POLICE ESCORT 2: Assist Traffic control as per TGS for this section of road.
COMPANY PILOT 1: Assist Traffic control as per TGS for this section of road.
COMPANY PILOT 2: Assist Traffic control as per TGS for this section of road.
COMPANY PILOT 3: Assist Traffic control as per TGS for this section of road.
COMPANY PILOT 4: Assist Traffic control as per TGS for this section of road.
ROAD MODIFICATIONS: No works required.

67.0 Km's: New England Highway onto Golden Highway at Whittingham

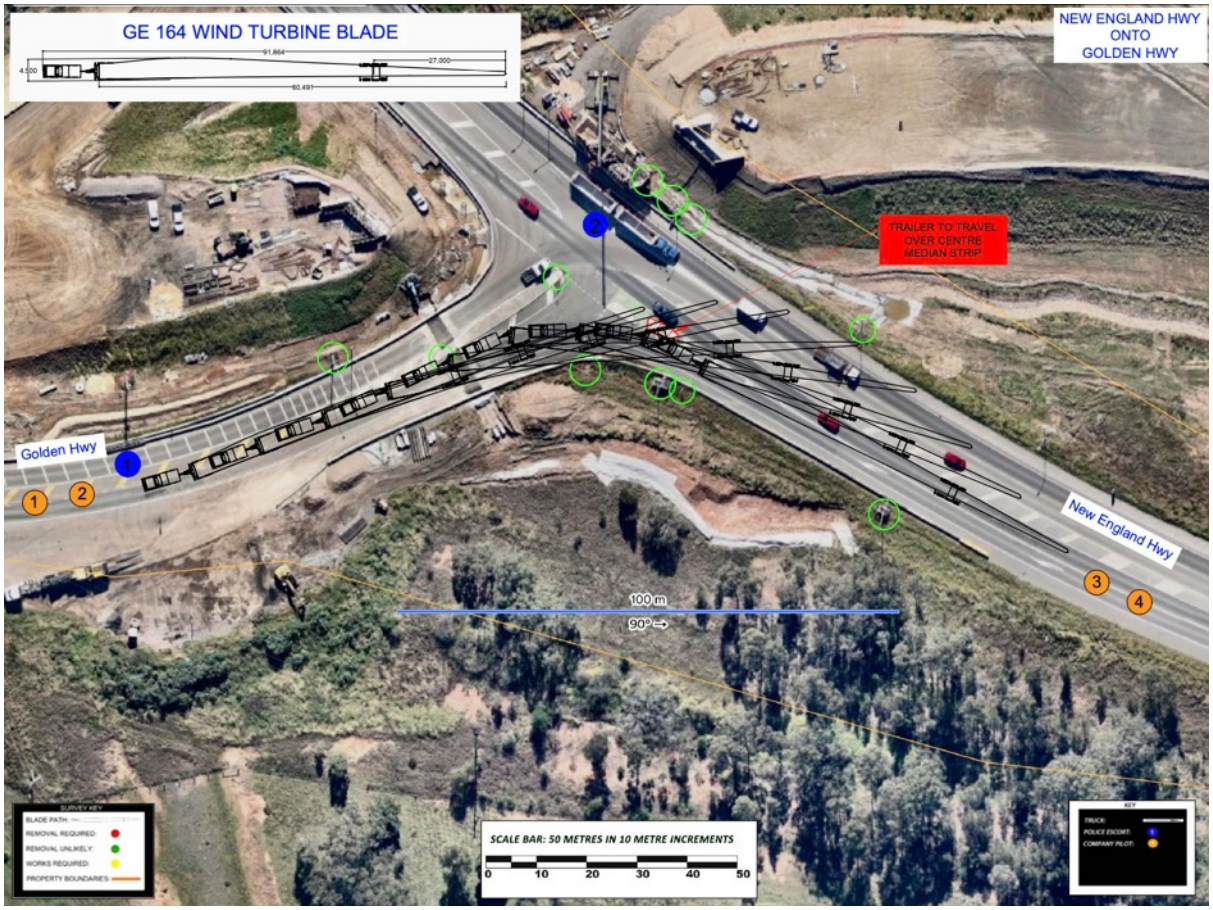

Figure 19 - New England Highway onto Golden Highway

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/GZ3VbkLrKf42
PROCEDURE: Left hand turn from the New England Highway onto the Golden Highway.
Loads to turn from the incorrect side to the incorrect side. The signs in the center median will need to be made removable. Spotter to keep the driver informed throughout the procedure.
Police and escorts to control local traffic either side of the intersection.
POLICE ESCORT 1: Hold all eastbound traffic on the New England Highway.
POLICE ESCORT 2: Hold all eastbound traffic on the Golden Highway.
COMPANY PILOT 1: Stay 300 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 2: Stay 200 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: Yes, a small amount of works is required.

67.5 Km's: Golden Highway through roundabout at Whittingham

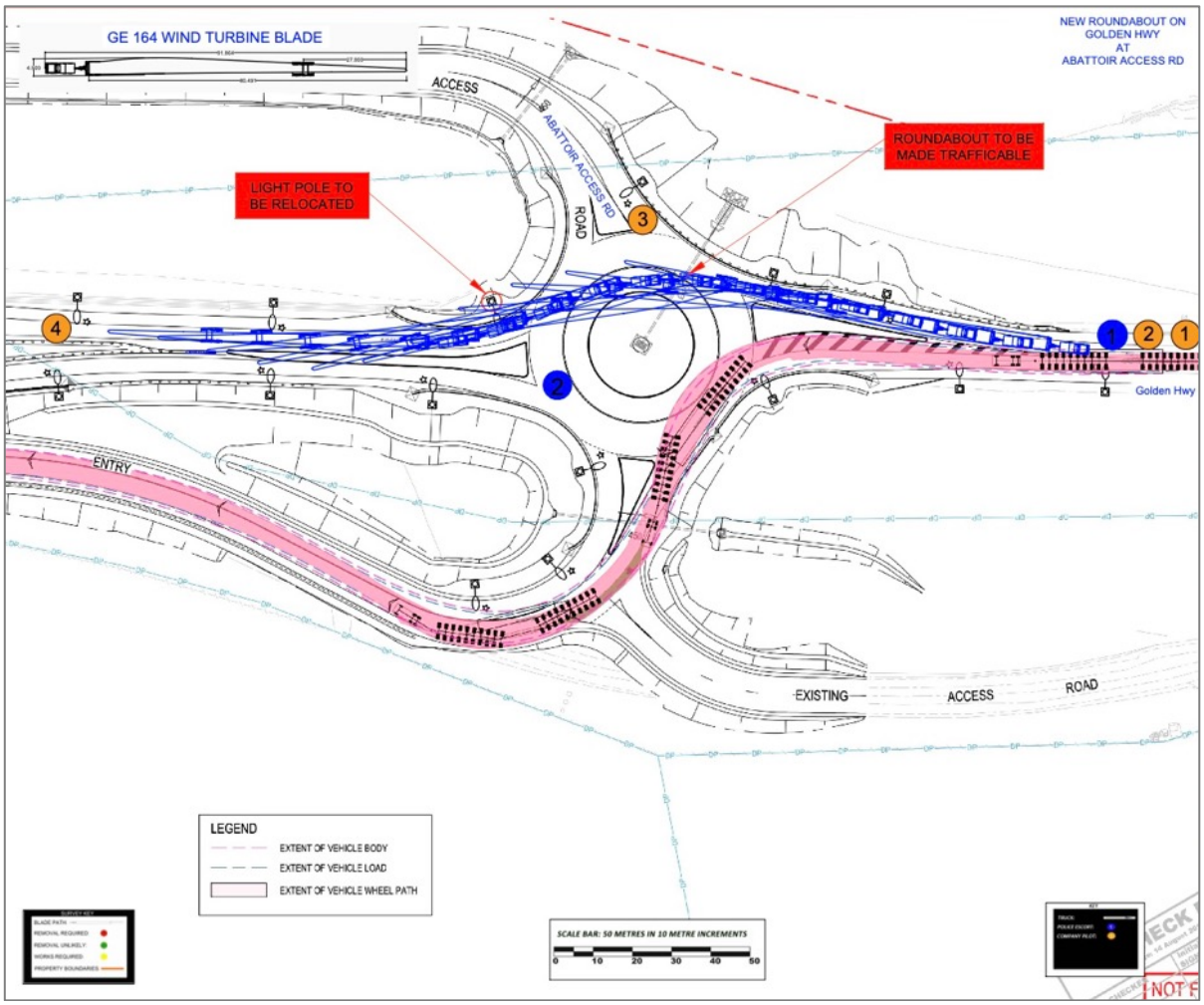

Figure 20 - Golden Highway through roundabout at Whittingham

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/9SYNJo4bTu7qPYfW6
PROCEDURE: Travel directly ahead through the roundabout on the correct side of the road. The vehicle will need to travel over the apron of the roundabout, and a light pole will need to be relocated. Spotter to keep the driver informed throughout the procedure.
Police and escorts to control local traffic either side of the intersection.
POLICE ESCORT 1: Hold all eastbound traffic on the Golden Highway.
POLICE ESCORT 2: Hold all traffic in the roundabout.
COMPANY PILOT 1: Stay 300 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 2: Stay 200 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 3: Warn all traffic on the side road.
COMPANY PILOT 4: Stay 50 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: Yes, a moderate amount of works is required.

77.4 Km's: Golden Highway intersection with Putty Road at Whittingham

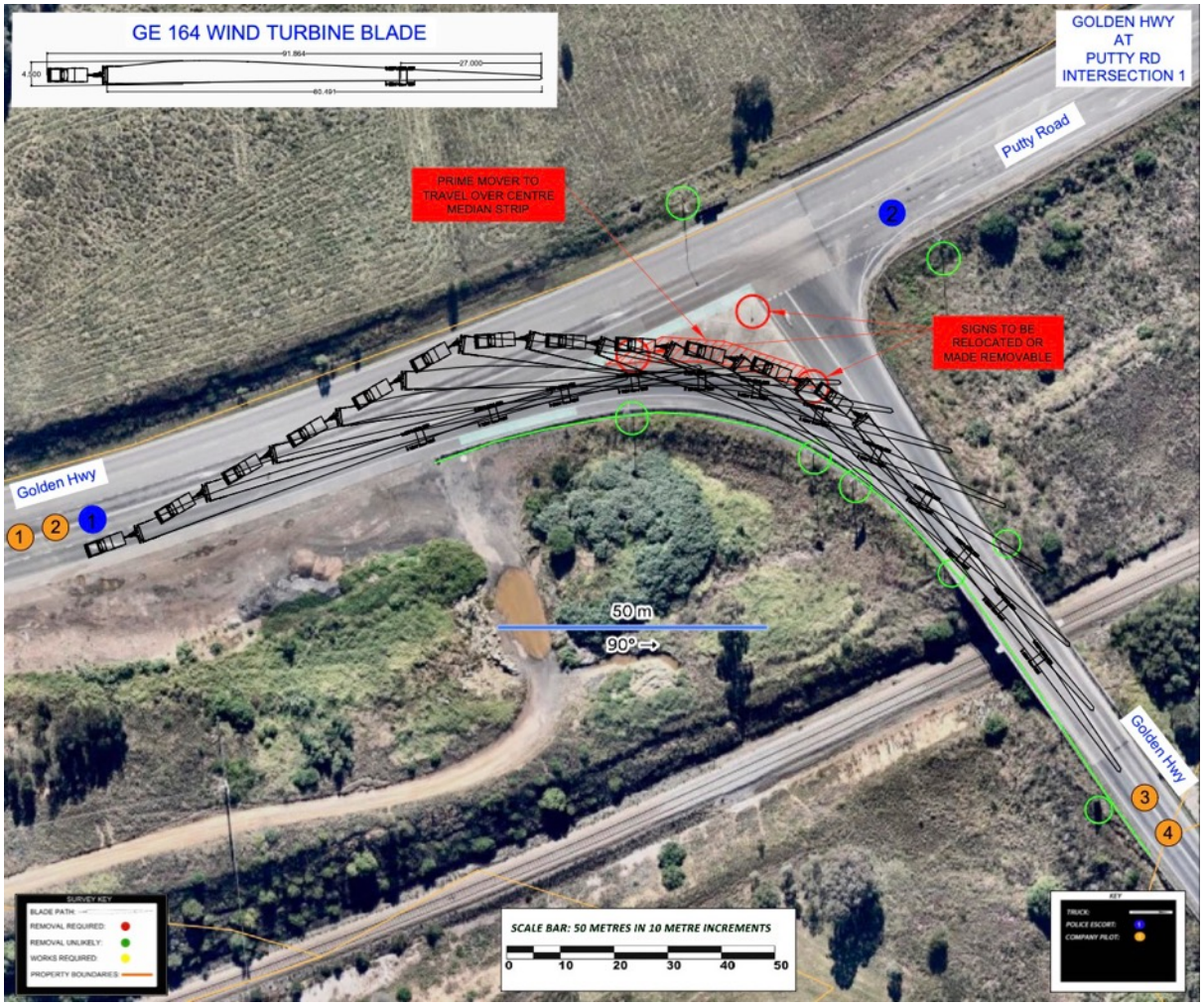

Figure 21 - Golden Highway intersection with Putty Road at Whittingham

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/esuS6TUUwQ92
PROCEDURE: Left hand turn from the Golden Highway at the intersection of the Putty Road. Loads to turn from the incorrect side to the incorrect side. Spotter to keep the driver informed throughout the procedure. Spotter to keep the driver informed throughout the procedure. Police and escorts to control local traffic either side of the intersection.
POLICE ESCORT 1: Hold all eastbound traffic on the Golden Highway.
POLICE ESCORT 2: Hold all southbound traffic on the Putty Road.
COMPANY PILOT 1: Stay 300 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 2: Stay 200 metres in front of the load and warn all oncoming traffic.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: Yes, a small amount of works is required.

80.8 Km's: Jerrys Plains Road intersection with Putty Road at Mount Thorley

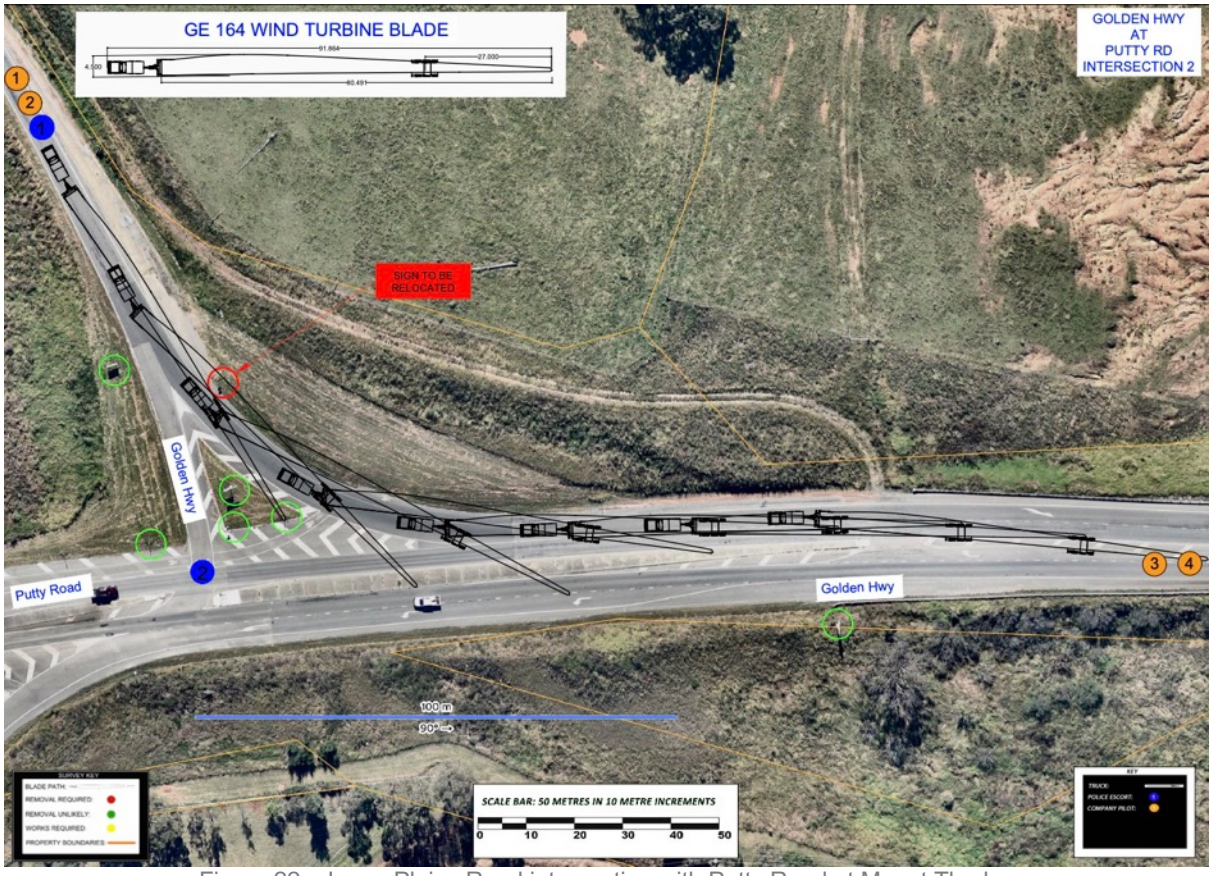

Figure 22 - Jerrys Plains Road intersection with Putty Road at Mount Thorley

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/Qj4tjSSjN932
PROCEDURE: Right hand turn from the Putty Road onto Jerry's Plains Road. Loads to turn from the incorrect side to the incorrect side. Blade loads are to cross to the incorrect side prior to the intersection and return to the correct side when the lanes remerge. Spotter to keep the driver informed throughout the procedure.Police and escorts to control local traffic either side of the intersection.
NOTE: Towers and general loads up to 5.6 metres in overall height can stay on the correct side of the highway and will travel under the overpass. The overpass is 5.6 in the center of the road. Loads that exceed 5.6 high will need to take the blade detour.
POLICE ESCORT 1: Hold all eastbound traffic on the Golden Highway.
POLICE ESCORT 2: Hold all northbound traffic on the Putty Road.
COMPANY PILOT 1: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 2: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: No works required.

107.0 Km's: Golden Highway through Jerrys Plains

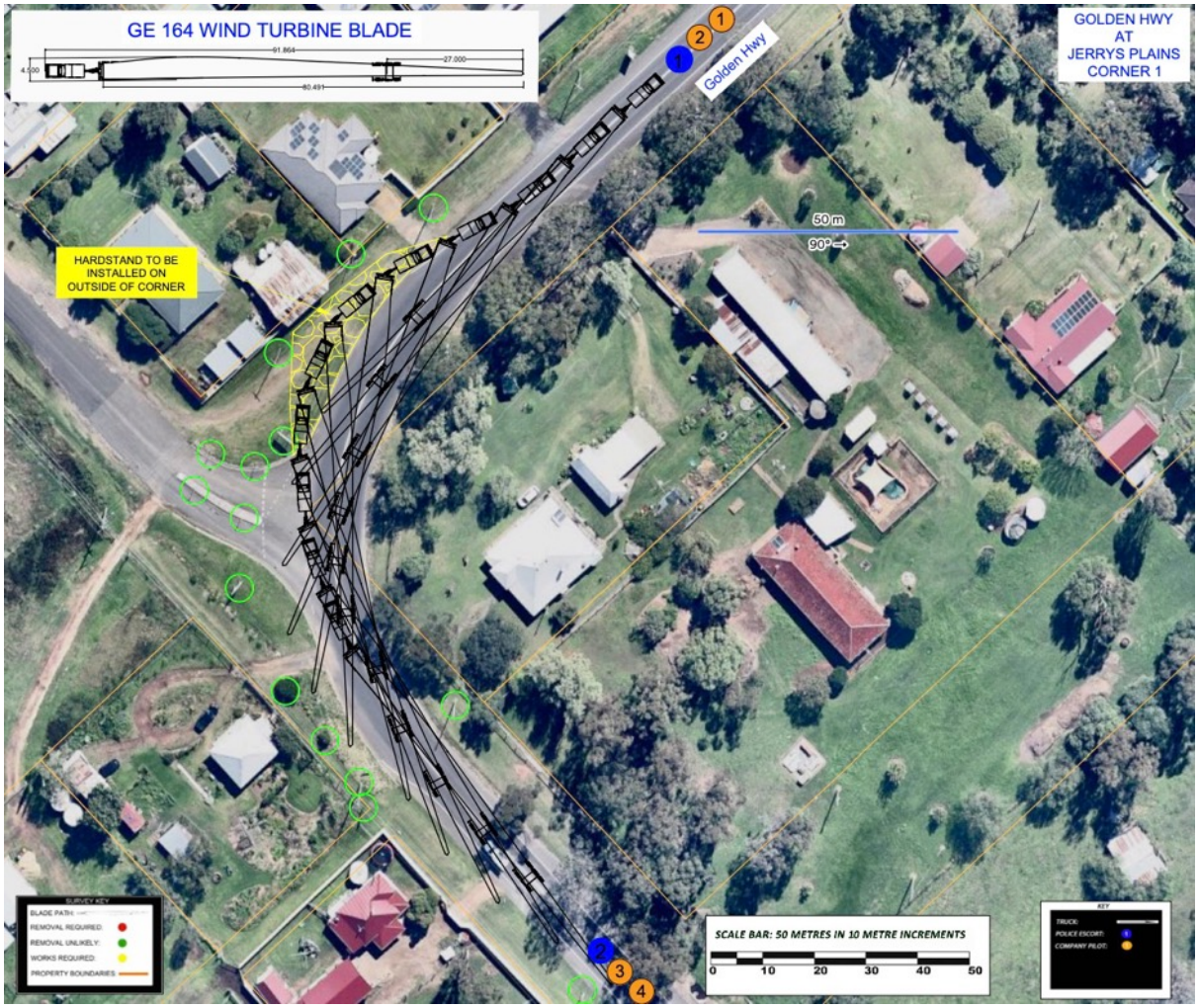

Figure 23 - Golden Highway Through Jerrys Plains Right Hand Turn

Figure 24 - Golden Highway Through Jerrys Plains Left Hand Turn

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/Ys3yKZ6vQs62
PROCEDURE: Right and left hand turn through the village. Blades to cross from the incorrect side to the incorrect side. Some signs will need to be relocated and some hardstand added. Spotter to keep the driver informed throughout the procedure. Police and escorts to control local traffic either side of the intersection.
POLICE ESCORT 1: Hold all eastbound traffic on the Golden Highway on the west side of the village.
POLICE ESCORT 2: Stay 50 metres behind the load and hold all traffic.
COMPANY PILOT 1: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 2: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: A moderate amount of work is required.

131.9 Km's: Golden Highway intersection with Denman Road at Denman

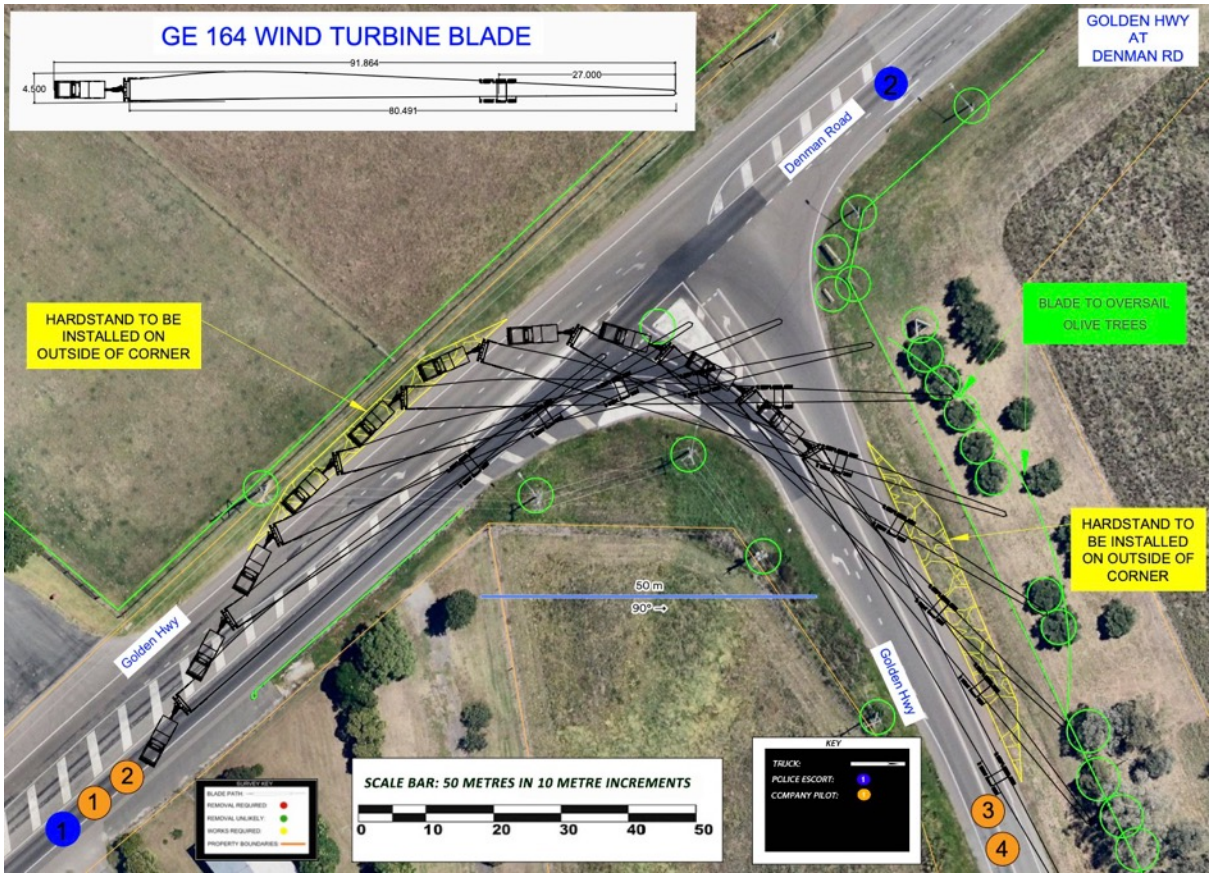

Figure 25 - Golden Highway intersection with Denman Road

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/T4m46bBNuro
PROCEDURE: Left hand turn from the Golden Highway at the intersection of Denman Road. Blades to cross from the incorrect side to the incorrect side. Some signs will need to be made removable and some hardstand added to the outside of the corner. The blade tip will overhang trees in the property to the right of the intersection, so the height of these trees will need to be monitored. Spotter to keep the driver informed throughout the procedure. Police and escorts to control local traffic either side of the intersection.
POLICE ESCORT 1: Hold all eastbound traffic on the Golden Highway on the west side of the intersection.
POLICE ESCORT 2: Hold all southbound traffic on Denman Road.
COMPANY PILOT 1: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 2: Warn all south traffic on Denman Road.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: A large amount of works are required.

132.8 Km's: Denman Bridge

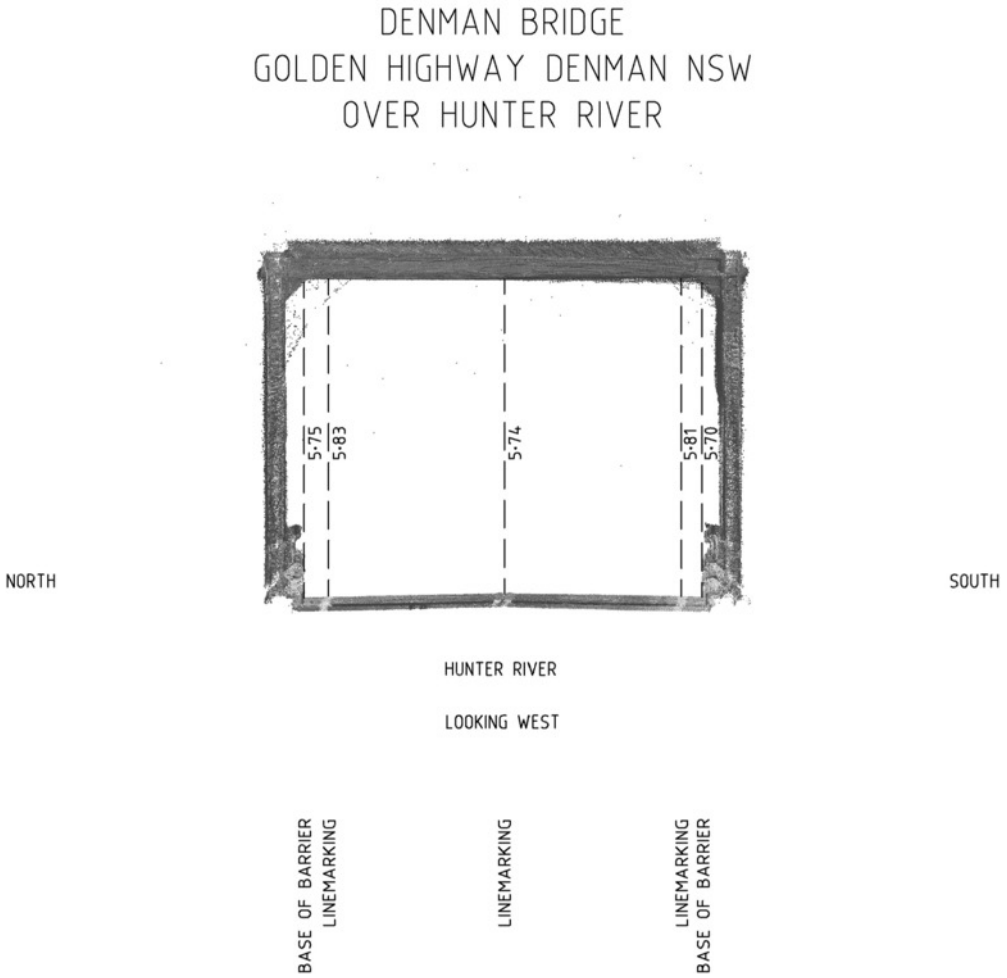

Figure 26 - Denman Bridge

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/UToXyFe3QKu

PROCEDURE: All loads over 5.5 meters are to undertake the crossing of the Denman Bridge as per the TGS in Appendix C of this report.

POLICE ESCORT 1: Assist Traffic control as per TGS for this section of road.
POLICE ESCORT 2: Assist Traffic control as per TGS for this section of road.
COMPANY PILOT 1: Assist Traffic control as per TGS for this section of road.
COMPANY PILOT 2: Assist Traffic control as per TGS for this section of road.
COMPANY PILOT 3: Assist Traffic control as per TGS for this section of road.
COMPANY PILOT 4: Assist Traffic control as per TGS for this section of road.
ROAD MODIFICATIONS: No works required.

134.0 Km's: Golden Highway at Denman

Figure 27 -Golden Highway at Denman

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/WFGzzyByugeKghuo8
PROCEDURE: Right hand bend on the Golden Highway. Prime mover to travel around this corner on the far-left side of the road. Spotter to keep the driver informed throughout the procedure. Police and escorts to control local traffic either side of the intersection.
POLICE ESCORT 1: Hold all eastbound traffic on the Golden Highway on the west side of the corner.
POLICE ESCORT 2: Stay 50 metres behind the load and hold all traffic.
COMPANY PILOT 1: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 2: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: No works required.

135.0 Km's: Golden Highway at Denman

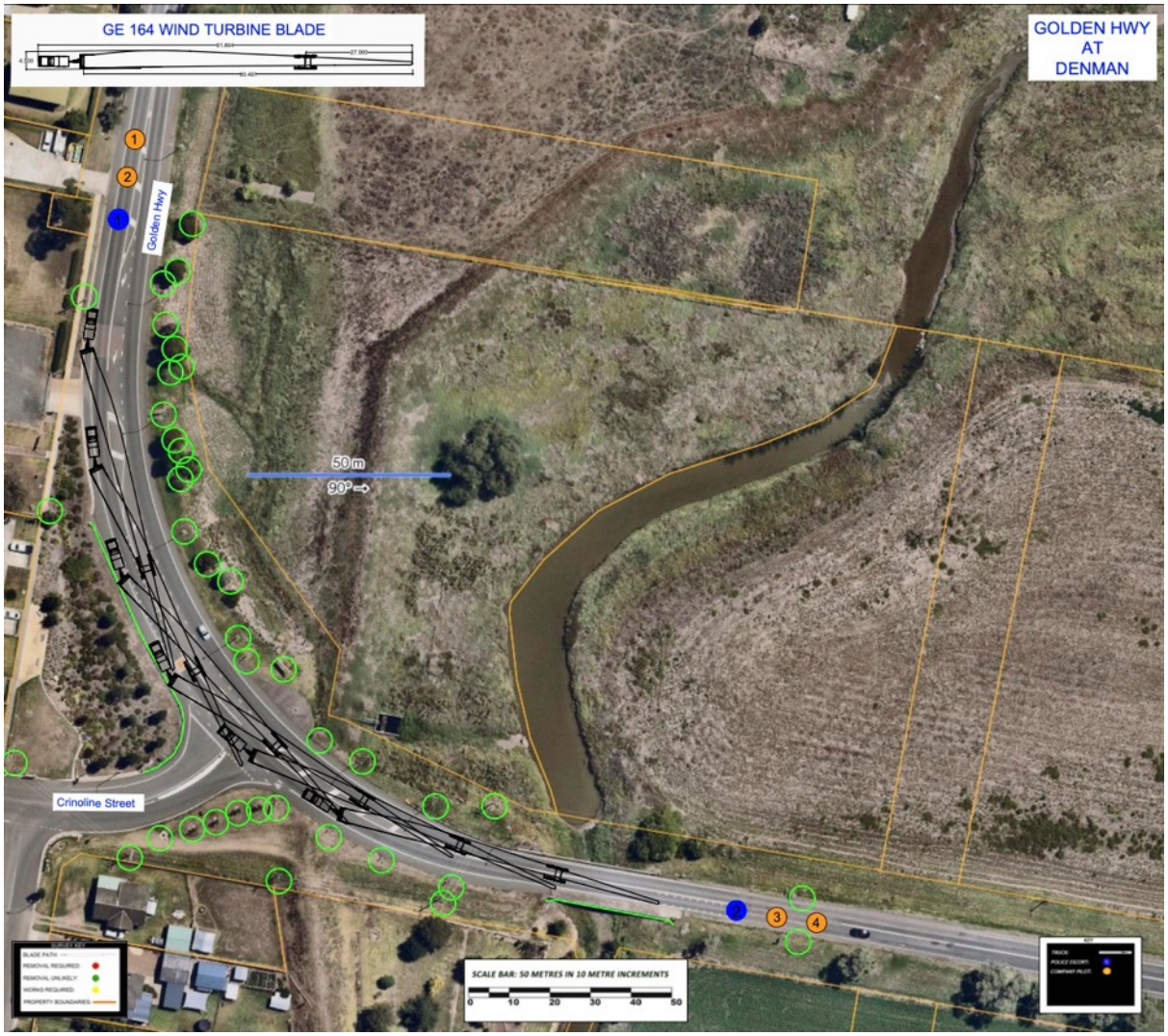

Figure 28 - Golden Highway at Denman

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/Npm1Ut7bP6Pmq9qe7
PROCEDURE: Right hand bend on the Golden Highway. Prime mover to travel around this corner on the far-left side of the road. Spotter to keep the driver informed throughout the procedure. Police and escorts to control local traffic either side of the intersection.
POLICE ESCORT 1: Hold all eastbound traffic on the Golden Highway on the west side of the corner.
POLICE ESCORT 2: Stay 50 metres behind the load and hold all traffic.
COMPANY PILOT 1: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 2: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: No works required.

137.9 Km's: Denman Rail Crossing

Figure 29 - Denman Rail Crossing

PROCEDURE: Travel over crossing.
GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/r7x7Qc685d82
COMMENTS: Large width clearance and good ground clearance over this crossing. Police and escorts to control local traffic either side of the crossing. Loads to travel over the crossing in the center of the road. Approval required before crossing this rail line.
ROAD MODIFICATIONS: No works are required.

186.0 Km's: Golden Highway at Merriwa

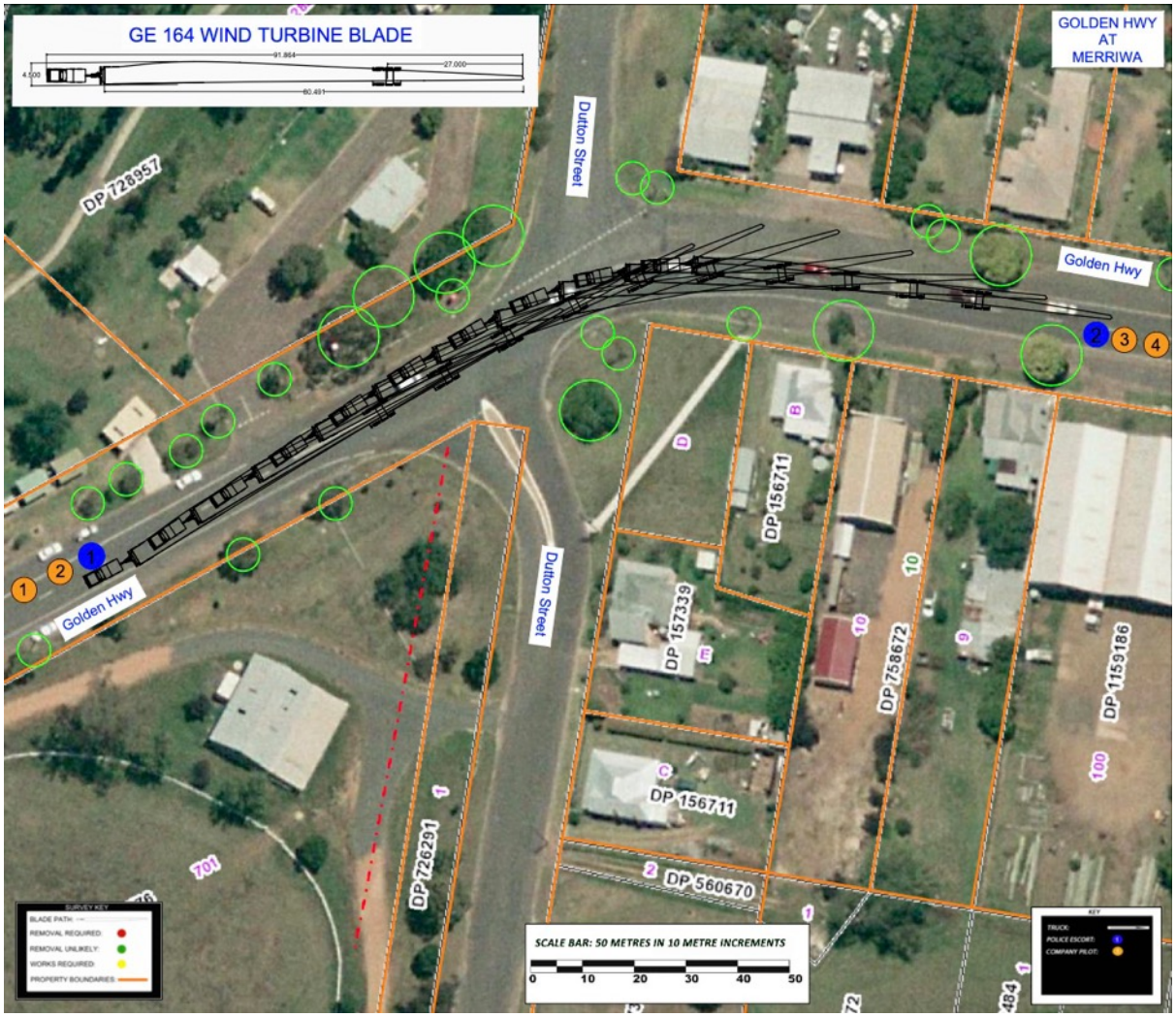

Figure 30 - Golden Highway at Merriwa

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/RW9gwfRzgr6MLA1H8
PROCEDURE: Left hand bend on the Golden Highway. Prime mover to travel around this corner on the far-right side of the road. Spotter to keep the driver informed throughout the procedure. Police and escorts to control local traffic either side of the intersection.
POLICE ESCORT 1: Hold all eastbound traffic on the Golden Highway on the west side of the corner.
POLICE ESCORT 2: Stay 50 metres behind the load and hold all traffic.
COMPANY PILOT 1: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 2: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: No works required.

290.0 Km's: Golden Highway at Dunedoo

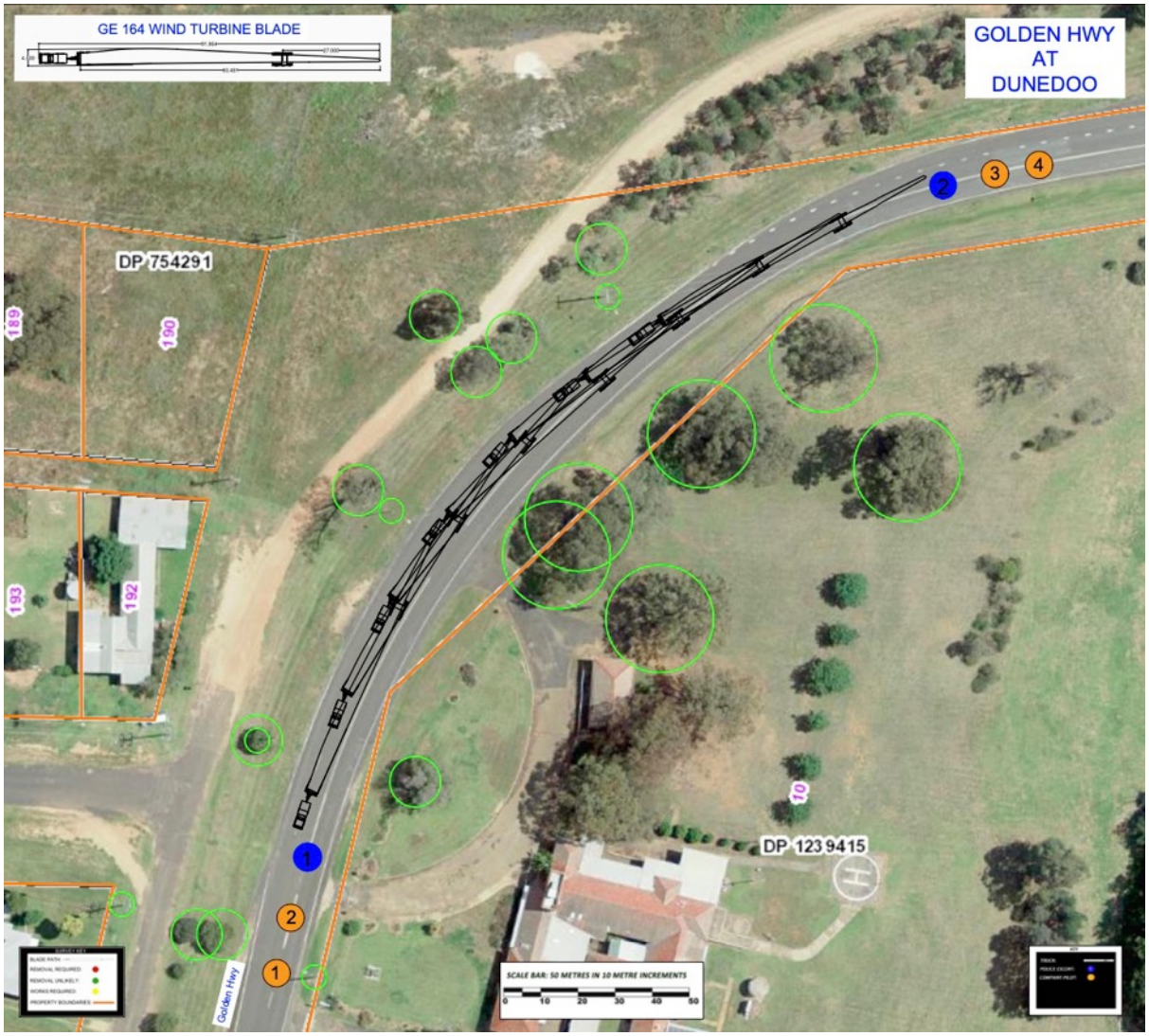

Figure 31 - Golden Highway at Dunedoo

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/nQ38396uqk1FQN4P6
PROCEDURE: Left hand bend on the Golden Highway. Prime mover to travel around this corner on the far-right side of the road. Spotter to keep the driver informed throughout the procedure. Police and escorts to control local traffic either side of the intersection.
POLICE ESCORT 1: Hold all eastbound traffic on the Golden Highway on the west side of the corner.
POLICE ESCORT 2: Stay 50 metres behind the load and hold all traffic.
COMPANY PILOT 1: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 2: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: No works required.

291.0 Km's: Golden Highway rail crossing at Dunedoo

Figure 32 - Golden Highway rail crossing at Dunedoo

PROCEDURE: Travel over crossing.
GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/wsyNKfcoAij3SosY9
COMMENTS: Large width clearance and good ground clearance over this crossing. Police and escorts to control local traffic either side of the crossing. Loads to travel over the crossing in the center of the road. Approval required before crossing this rail line.
ROAD MODIFICATIONS: No works are required.

291.1 Km's: Golden Highway intersection with Wargundy Street at Dunedoo

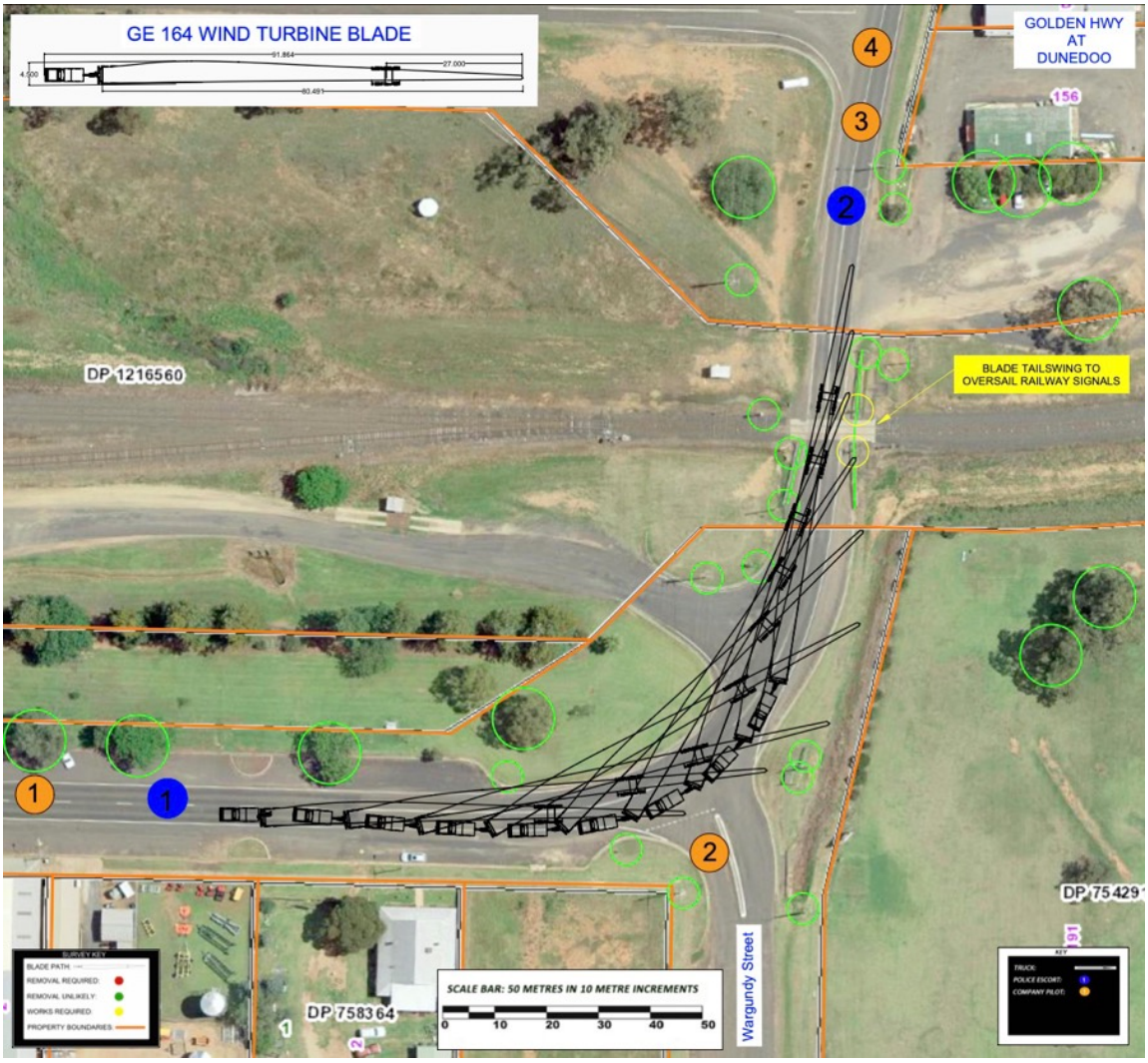

Figure 33 - Golden Highway intersection with Wargundy Street

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/WzACUHey3jYadj1K7
PROCEDURE: Right hand bend on the Golden Highway at the intersection of Wargundy Street. The blades will travel around the corner from correct side onto the correct side. The sign on the inside of the corner will need to be relocated. The blades tail swing will need to travel over the top of the existing signals. If these signals are changed than the height will need to be rechecked. Spotter to keep the driver informed throughout the procedure. Police and escorts to control local traffic either side of the intersection.
POLICE ESCORT 1: Hold all eastbound traffic on the Golden Highway on the west side of the corner.
POLICE ESCORT 2: Stay 50 metres behind the load and hold all traffic.
COMPANY PILOT 1: Warn all eastbound traffic on the Golden Highway.
COMPANY PILOT 2: Warn all northbound traffic on the Wargundy Street.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: No works required.

325.0 Km's: Golden Highway onto Saxa Road at Elong Elong

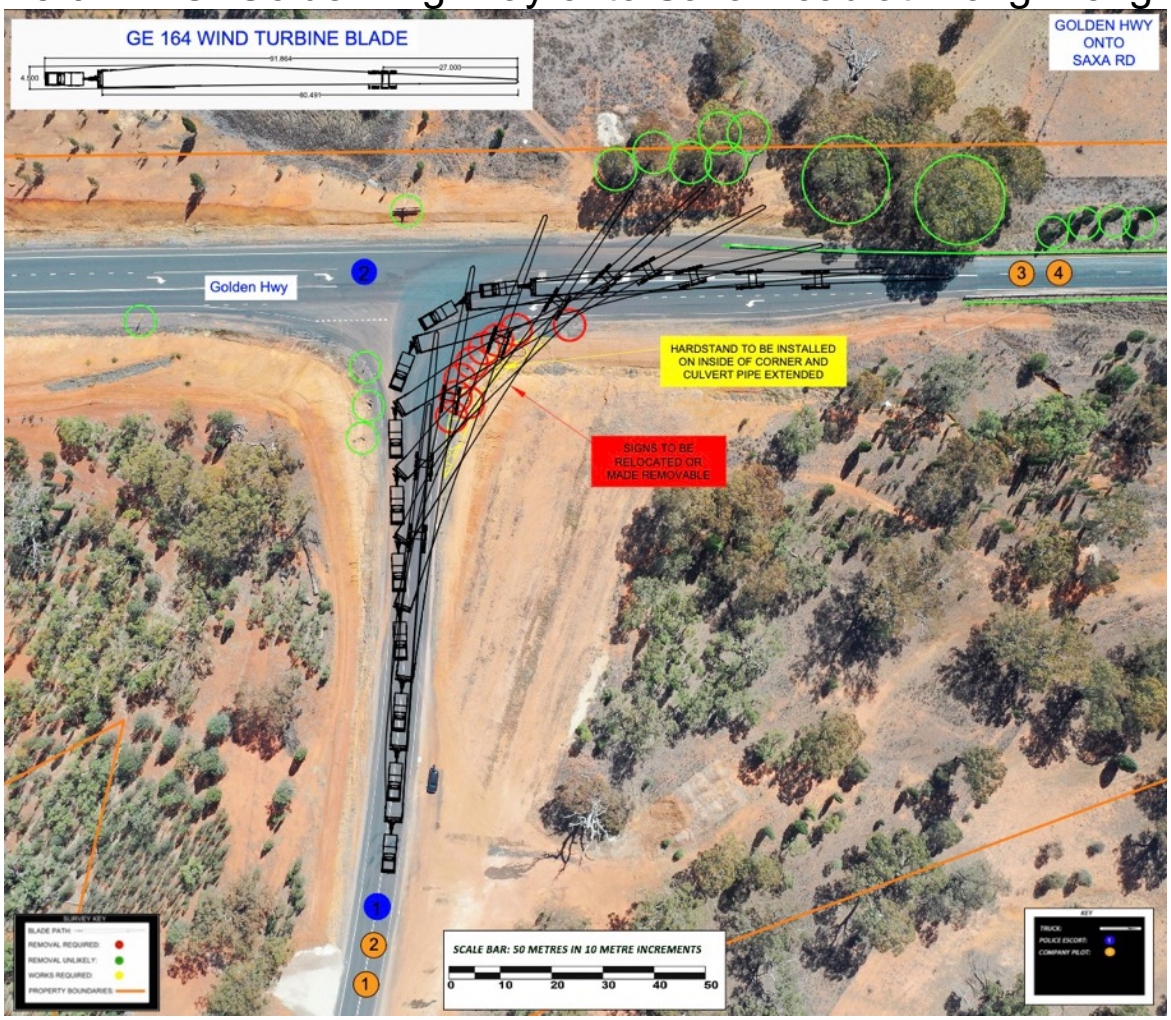

Figure 34 - Golden Highway onto Saxa Road

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/XSoTDVA8TZwNsGo47
PROCEDURE: Left hand turn from the Golden Highway onto Saxa Road. Blades to turn from the incorrect side to the incorrect side. Hardstand is required on both sides of the road. Drainage works are required on the outside of the corner. Some side markers will need to be relocated, and 2 signs made removable. Spotter to keep the driver informed throughout the procedure. Police and escorts to control local traffic either side of the intersection.
POLICE ESCORT 1: Hold all northbound traffic on Saxa Road 200 metres south of the intersection.
POLICE ESCORT 2: Hold all eastbound traffic on the Golden Highway on the west side of the intersection.
COMPANY PILOT 1: Warn all northbound traffic on Saxa Road 200 metres south of the intersection.
COMPANY PILOT 2: Warn all eastbound traffic on the Golden Highway on the west side of the intersection.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: A large amount of work is required.

375.7 Km's: Saxa Road Rail crossing at Wellington

Figure 35 - Saxa Road Rail crossing at Wellington

PROCEDURE: Travel over crossing.
GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/oPmj2bbBpPTHJYtF6
COMMENTS: Large width clearance and good ground clearance over this crossing. Police and escorts to control local traffic either side of the crossing. Loads to travel over the crossing in the center of the road. Approval required before crossing this rail line.
ROAD MODIFICATIONS: No works are required.

375.8 Km's: Saxa Road onto Mitchell Highway at Wellington

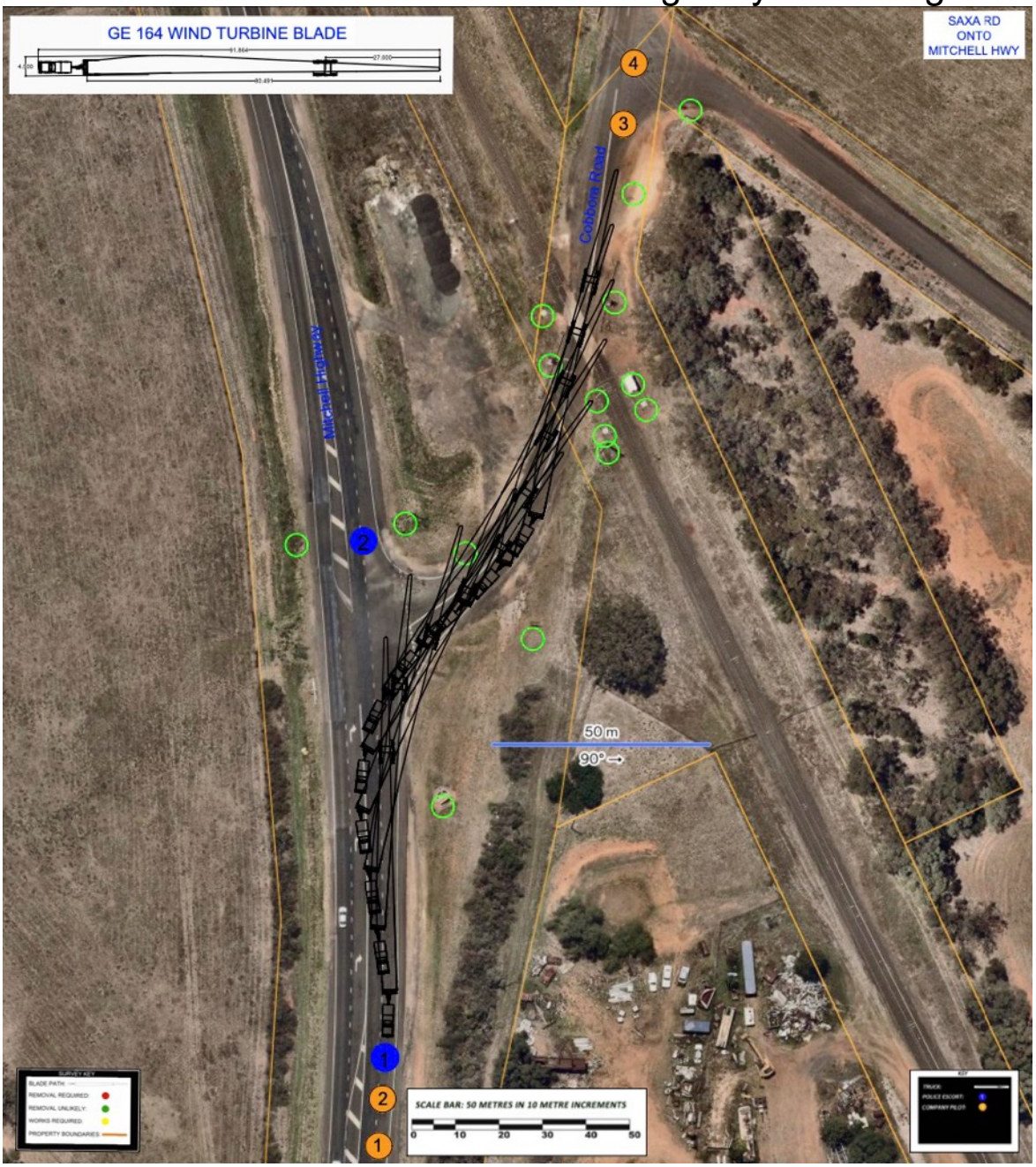

Figure 36 - Saxa Road onto Mitchell Highway

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/Y9WRnEdpCEsfWPHBA
PROCEDURE: Left hand turn from Saxa Road onto the Mitchell Highway.
Blades to turn from the incorrect side to the incorrect side.
POLICE ESCORT 1: Hold all northbound traffic on the Mitchell Highway.
POLICE ESCORT 2: Hold all southbound traffic on the Mitchell Highway.
COMPANY PILOT 1: Warn all northbound traffic on the Mitchell Highway.
COMPANY PILOT 2: Warn all southbound traffic on the Mitchell Highway.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.

ROAD MODIFICATIONS: No works required.

378.3 Km's: Mitchell Highway onto Goolma Road at Wellington

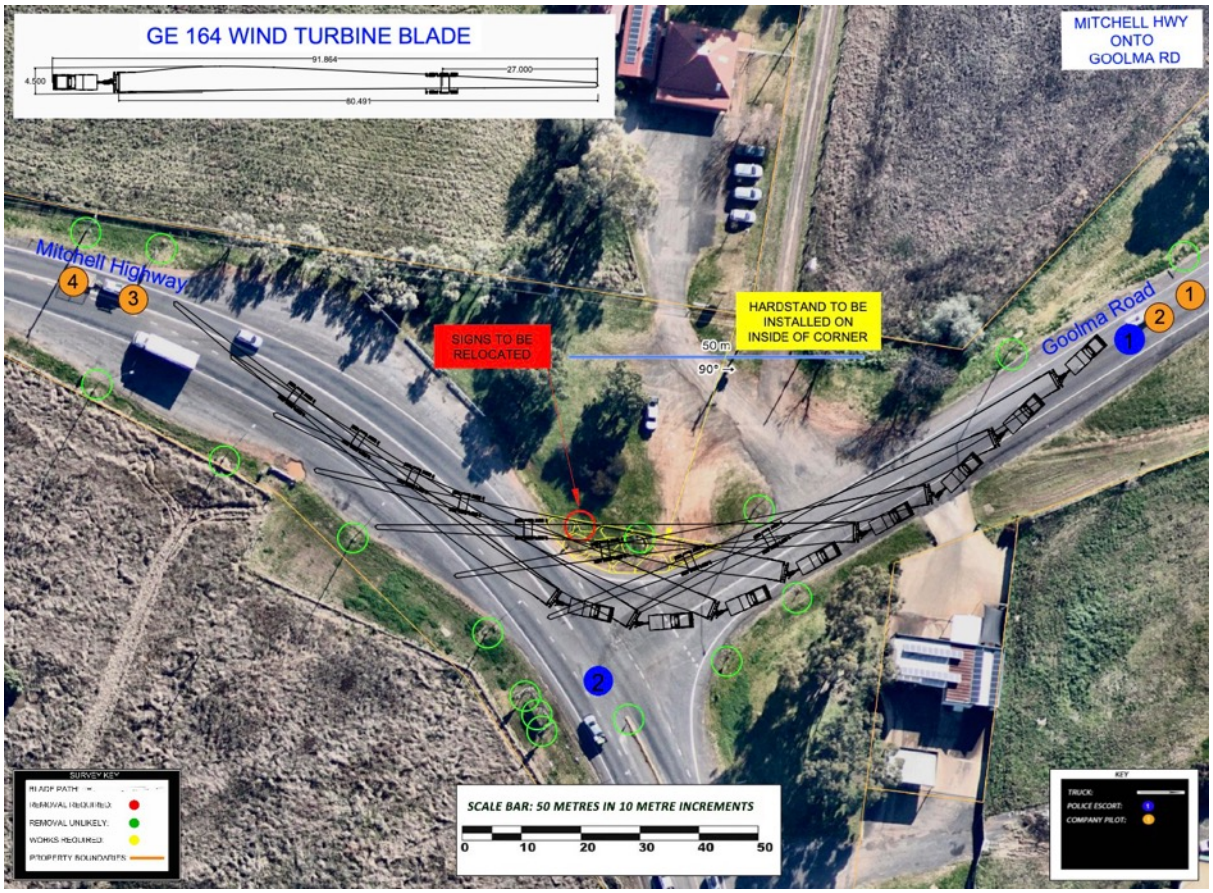

Figure 37 - Mitchell Highway onto Goolma Road

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/nWHNN3pzCvpzp7ag8
PROCEDURE: Left hand turn from the Mitchell Highway onto Goolma Road. Blades to turn from the incorrect side to the incorrect side. No parking area will need to be placed on the right-hand side prior to the intersection. Some hardstand is required on the exit of the corner and some signs need to be made removable.
POLICE ESCORT 1: Hold all westbound traffic on Goolma Road.
POLICE ESCORT 2: Hold all northbound traffic on the Mitchell Highway.
COMPANY PILOT 1: Warn all westbound traffic on Goolma Road.
COMPANY PILOT 2: Warn all westbound traffic on Goolma Road.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: A moderate amount of work is required.

381.5 Km's: Goolma Road onto Twelve Mile Road at Wellington

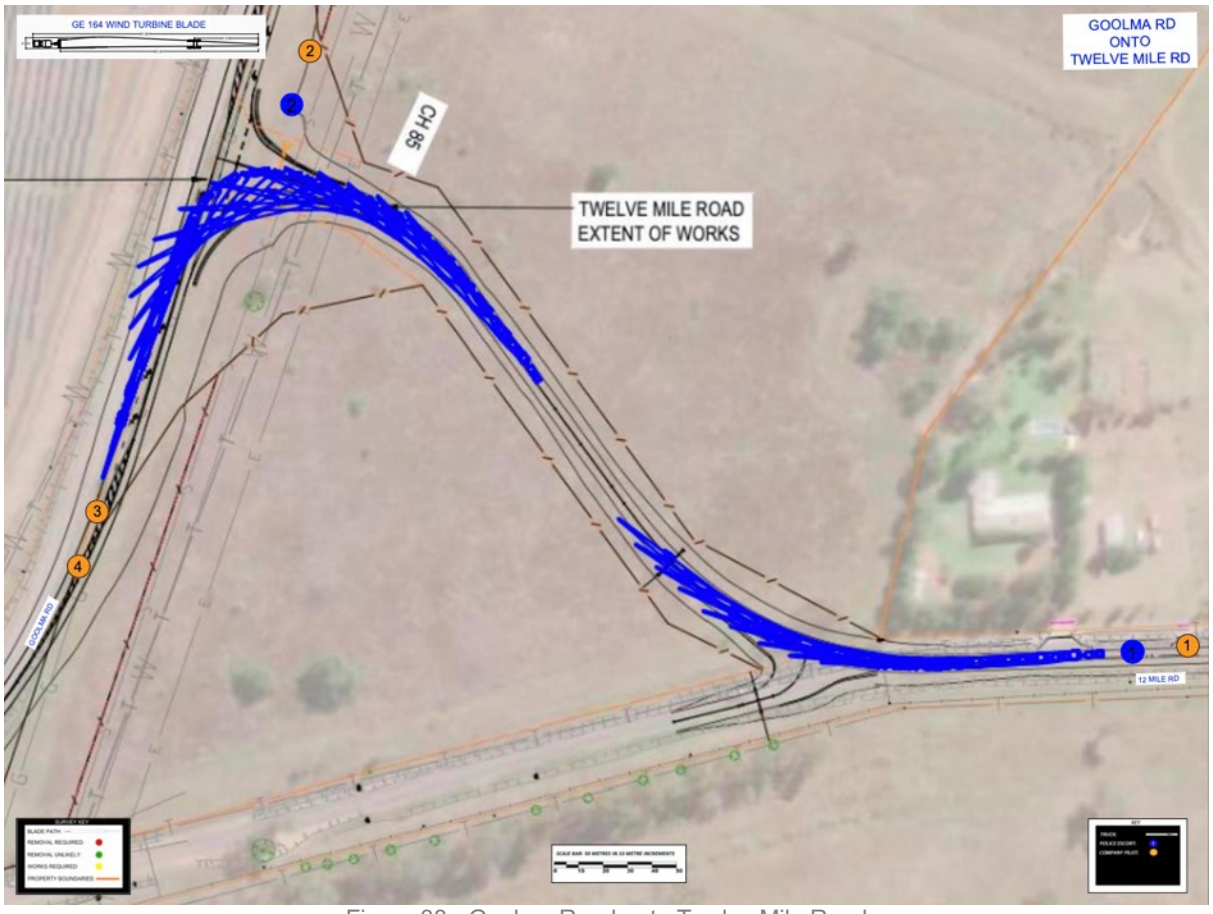

Figure 38 - Goolma Road onto Twelve Mile Road

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/Ajjk5pVCQCn
PROCEDURE: Right hand turn from Goolma Road onto Twelve Mile Road. The blades will need to travel from the correct side to the correct side. Police and pilots to control traffic.
POLICE ESCORT 1: Hold all westbound traffic on Twelve Mile Road.
POLICE ESCORT 2: Hold all westbound traffic on Goolma Road.
COMPANY PILOT 1: Warn all westbound traffic on Twelve Mile Road.
COMPANY PILOT 2: Warn all westbound traffic on Goolma Road.
COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.
COMPANY PILOT 4: Stay 200 metres behind the load and warn all traffic.
ROAD MODIFICATIONS: This corner is currently being redesigned. This corner needs to be made suitable for the swept path of the largest loads.

395.0 Km's: Twelve Mile Road into Primary site entrance at Uungula.

Figure 39 - (Looking south from Twelve Mile Road)

PROCEDURE: Right hand turn from Twelve Mile Road into Primary site entrance.
GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/VW6Np4Vhtwo
COMMENTS: Site entrances to be made suitable for the swept path of the largest loads.
ROAD MODIFICATIONS: Large amounts of works are required.

21.0 Road Modifications

The following are the locations that will require road modifications.

LOCATION	STREET/ROAD	ROAD STAKEHOLDER	TYPE OF WORKS	COMMENTS
0.0 KM'S MAYFIELD	NEWCASTLE PORT ONTO SELWYN STREET	PORT OF NEWCASTLE	* HARDSTAND * FENCE REALIGNMENT	RJA/GE/SQE TO UNDERTAKE THE WORKS
1.3 KM'S MAYFIELD	SELWYN STREET ONTO INDUSTRIAL DRIVE	CITY OF NEWCASTLE	* HARDSTAND * SIGN MODIFICATION	ENERGY CO TO UNDERTAKE WORKS.
5.5 KM'S MAYFIELD WEST	INDUSTRIAL DRIVE ONTO MAITLAND ROAD	TFNSW	* SIGN MODIFICATION	ENERGY CO TO UNDERTAKE WORKS.
67.0 KM'S WHITTINGHAM	NEW ENGLAND HWY ONTO GOLDEN HWY	TFNSW	* SIGN MODIFICATION	ENERGY CO TO UNDERTAKE WORKS.
67.5 KM'S WHITTINGHAM	GOLDEN HWY	TFNSW	* LIGHTPOLE RELOCATION	ENERGY CO TO UNDERTAKE WORKS.
77.4 KM'S WHITTINGHAM	GOLDEN HWY AT PUTTY ROAD	TFNSW	* SIGN MODIFICATION	ENERGY CO TO UNDERTAKE WORKS.
80.8 KM'S MT THORLEY	GOLDEN HWY AT PUTTY ROAD	TFNSW	* SIGN MODIFICATION	ENERGY CO TO UNDERTAKE WORKS.
107.0 KM'S JERRYS PLAINS	GOLDEN HIGHWAY	TFNSW	* HARDSTAND	ENERGY CO TO UNDERTAKE WORKS.
131.9 KM'S DENMAN	GOLDEN HIGHWAY AT DENMAN ROAD	TFNSW	* HARDSTAND	ENERGY CO TO UNDERTAKE WORKS.
325.0 KM'S ELONG ELONG	GOLDEN HWY ONTO SAXA ROAD	DUBBO REGIONAL COUNCIL	* HARDSTAND * SIGN MODIFICATION	RJA/GE/SQE TO UNDERTAKE THE WORKS
378.3 KM'S WELLINGTON	MITCHELL HWY ONTO GOOLMA ROAD	TFNSW	* HARDSTAND * SIGN MODIFICATION	RJA/GE/SQE TO UNDERTAKE THE WORKS

22.0 Appendix A: Transport Drawings

23.0 Appendix B: Hunter Expressway TGS

24.0 Appendix C: Denman Bridge TGS

25.0 Appendix D: Overhead Utility Survey

26.0 Appendix E: Corner Modification Drawings

27.0 TMP Revisions:

Revision number	Revision Date	Author	Description of changes
01	19/01/23	WA	15.0 Saxa rd edited
02	22/02/23	WA	Denman Bridge procedure updated
03	28/03/23	WA	Appendix A, B, C, D & E added
04	29/03/23	WA	Layout updated
05	03/07/23	WA	13.0 Communications added.
05	03/07/23	WA	14.0 Interaction with roadwork and other OSOM loads on the network
05	03/07/23	WA	15.0 Roadworks: Potential conflicts with TfNSW projects
05	03/07/23	WA	16.0 Rail added to pinchpoint procedures.
05	03/07/23	WA	21.0 Road modifications added
06	12/09/23	WA	15.0 Project information updated
06	12/09/23	WA	16.0 Pinchpoint procedures updated
06	12/09/23	WA	21.0 Road modifications added
07	15/02/24	WA	4.0 Updated component and transport dimensions
07	15/02/24	WA	9.0 Updated Road stakeholders that require notification before departure.
07	15/02/24	WA	15.0 Updated Road stakeholder information.
07	15/02/24	WA	18.0 Updated delivery schedule.
07	15/02/24	WA	19.0 Updated Fatigue schedules and added fatigue parking locations with swept path.
07	15/02/24	WA	20.0 Updated all swept paths to show the blade to scale that is assessed at each pinchpoint.
07	15/02/24	WA	Appendix A, Updated blade drawing to show blade overhang on the trailer, and also shows support for the tip frame sitting on the trailer. This frame was updated so TfNSW does not assume that the blade is hinged and can lift, which it doesn't.
08	20/08/24	WA	Updated the report with the Hunter expressway and Denman bridge TGS in multiple sections. Also renamed Appendix B and Appendix C.

28.0 TMP Review:

Final Review	Name	Signature	Date
TMP Checked by:	Warrick Andrews		

Sign On: **I confirm that I have received a hard copy of this TMP, I have read and understood the contents; by signing this document I acknowledge that I am now familiar with the identified pinch points, the route and the conditions relating to time of travel. I understand that prior to travel a supervisor may ask me questions specific to this TMP, in the event that I can not demonstrate awareness of the conditions of the TMP I must delay my departure until I have reviewed its content.**

Name	Role	Signature	Date	Company

29.0 References:

Rex J Andrews Route Survey LL260 REV01
Squadron Energy
GE Renewables
Google Earth/Maps
Six Maps
Nearmaps
NHVR
NHVAS Maintenance Management (NHVAS21193)
NHVAS Basic Fatigue Management (NHVAS21193)

Disclaimer: This route study is a guide only; government approvals would be required before these routes could be deemed suitable for transporting the components over the listed routes.

Any, and all parties using information contained this submission do so at own risk.

RJA accept no responsibility for the use of all information contained within this report.

Actual approved routes may differ from those surveyed.

Proposed routes may change subject to approvals from authorities.

This study was undertaken using data supplied by Rex J Andrews P/L. Equipment and swept paths might vary if using transport methodology other than the data supplied by Rex J Andrews.