

Construction Traffic and Access Management Plan (CTAMP)

COLLECTOR WIND FARM

Collector Wind Farm
Lerida Road South
Cullerin, NSW 2581
Australia

Vestas Australian Wind Technology Pty Ltd
Level 4, 312 St Kilda Rd
Melbourne
VIC 3004
ABN 8008 965 3878

**This is a sub-plan to be used in conjunction with the
Construction Environmental Management Plan**

Revision	Date	Details	Prepared By	Reviewed By:	Authorised By
2.2	05/10/2017				
3.0	12/12/2018				
3.1	17/12/2018				
4.1	26/02/2019	Updated to address comments from DPI&E (30.01.2019)	CRC (on behalf of Vestas)	David Hewitt Asst Project Manager	Ajay Pancholi Project Manager
5	13/05/2019	Updated to address comments from DPI&E (24.04.2019). Alignment with MOD2 Conditions	David Hewitt Asst Project Manager	David Hewitt Asst Project Manager	Ajay Pancholi Project Manager
6	21/05/2019	Further minor updates to align with MOD2	David Hewitt Asst Project Manager	David Hewitt Asst Project Manager	Ajay Pancholi Project Manager
7	26/06/2019	Annex B updated with timing requirements of Lerida Road South Upgrade, updated layout maps	David Hewitt Asst Project Manager	David Hewitt Asst Project Manager	Ajay Pancholi Project Manager
8	19/08/2019	Updates to align with MOD3	CRC	David Hewitt Asst Project Manager	Ajay Pancholi Project Manager
9	02/09/2019	Updates to address internal comments	David Hewitt Asst Project Manager	David Hewitt Asst Project Manager	Ajay Pancholi Project Manager
10	04/11/2019	Updated to include Port of Newcastle	David Hewitt Asst Project Manager	David Hewitt Asst Project Manager	Ajay Pancholi Project Manager

TABLE OF CONTENTS

DEFINITIONS	4
1 PURPOSE	5
2 DOCUMENT SCOPE	6
3 CEMP SUB-PLAN STRUCTURE	7
4 REFERENCED DOCUMENTS.....	8
5 STANDARDS AND LEGISLATION	9
5.1 Guidelines and Standards	9
5.2 Minister's Conditions of Approval	9
6 PROJECT ENVIRONMENT	13
6.1 Existing Traffic Conditions	13
6.1.1 Site Overview.....	13
6.1.2 Road Network	15
7 MITIGATION & CONTROL.....	17
8 MONITORING & INSPECTION.....	25
9 REVIEW AND IMPROVEMENT	26
9.1 Continuous Improvement	26
9.2 CTAMP Update and Amendment.....	26
ANNEX A – CONSTRUCTION TRAFFIC ACCESS.....	27
A.1 Construction Traffic Requirements for Proposed Works	27
A.1.1 Site Layout Plan	27
A.1.2 Vehicle Access.....	29
A.1.3 Vehicle Movement.....	30
A.1.4 Oversized Vehicle Movement within Wind Farm	32
A.1.5 Loading.....	32
A.1.6 Parking	32
A.1.7 Construction Vehicle Types	32
A.1.8 Construction Traffic Staging and Timings	33
A.2 Construction Traffic Routes	34
ANNEX B – CONSTRUCTION TRAFFIC IMPACTS	36
B.1 Construction Traffic Volumes	36
B.2 Impacts to Adjoining Roads and Intersections	37
B.3 Oversize Heavy Vehicles	38
B.4 Other Impacts and Issues.....	39
ANNEX C – MANAGEMENT OF UNPLANNED INCIDENTS.....	40
ANNEX D – ROUTE SURVEY (PORT KEMBLA)	42

ANNEX E – ROUTE SURVEY (PORT OF NEWCASTLE)	43
ANNEX F – LERIDA ROAD SOUTH SWEEP PATH ASSESSMENTS	44
ANNEX G – TRAFFIC CONTROL PLANS	45
ANNEX H – SITE COMPOUND LAYOUT	46
ANNEX I - CONSULTATION LOG	47
ANNEX J – DRIVER'S CODE OF CONDUCT	48
ANNEX K- CONCRETE BATCH PLANT LAYOUT	49

DEFINITIONS

The following terms are used in this document.

CEMP	Construction Environmental Management Plan
CTAMP	Construction Traffic and Access Management Plan
HML	High Mass Load
OSOM	Oversize and overmass
RMS	Roads and Maritime Services, NSW
SoC	Statement of Commitments
TCBP	Temporary Concrete Batching Plant

1 PURPOSE

The purpose of this plan is to describe how impacts associated with construction traffic and access are managed throughout the duration of the project. Works are implemented in accordance with the management measures and strategies contained in this plan.

The Plan addresses the agendas raised in Modification Application 3.

2 DOCUMENT SCOPE

This plan applies to all aspects of construction traffic and access management for the project.

This plan complies with the conditions for project approval, item D25 clause (c) for the management of construction traffic and access.

The target audiences for this sub-plan are Project Managers, Site Supervisors, Environmental Advisors, Contracting staff and any other relevant stakeholders. The plan forms part of the construction environmental management plan (CEMP). It describes applicable and relevant:

- Legislation and regulation
- Minister's Conditions of Approval (MCoA) issued by the NSW Minister of Planning and Environment
- Mitigation and management commitments contained in the following assessment and planning documentation:
 - o Collector Wind Farm Environmental Assessment, prepared for RATCH Australia Corporation Limited (APP Corporation, June 2012) (the EA).
 - o Revised Statement of Commitments (APP Corporation, March 2013)
 - o Collector Wind Farm Preferred Project and Submissions Report (APP Corporation, March 2013)
 - o Collector Wind Farm Modification Report (NGH Environmental, September 2015)
 - o Collector Wind Farm Submissions Report (NGH Environmental, December 2015)
 - o Revised Statement of Commitments (22 July 2016)
 - o Collector Wind Farm Second Modification Report (NGH Environmental, October 2018)
 - o Collector Wind Farm Submissions Report (NGH Environmental, March 2019)
 - o Collector Windfarm Third Modification Application Report dated July 2019

3 CEMP SUB-PLAN STRUCTURE

A series of environmental plans, as referenced in the project's Construction Environmental Management Plan (CEMP), aim to identify specific environmental risks and opportunities, and provide mitigation controls to manage those risks with an emphasis on the critical risks and controls.

As with the CEMP, plans can reference any documents (including but not limited to, procedures, work instructions, and forms), client specific requirements, and project specific documents required to execute the project.

Updates to plans are subject to the document review and approval process detailed in the CEMP.

- Construction Environmental Management Plan
- Construction Compound and Ancillary Facilities Management Plan
- Bushfire Risk Management Plan
- Cultural Heritage Management Plan
- Soil and Water Quality Management Plan
- Noise and Vibration Management Plan
- Flora and Fauna Management Plan

4 REFERENCED DOCUMENTS

Route Study: Collector Wind Farm, Ex Port Kembla, dated 14 December 2017, prepared by Rex J Andrews Pty Limited

Collector Wind Farm – Traffic and Transport Assessment, dated 15 February 2012 (including addendum letter dated 21 July 2015), prepared by AECOM

RMS Traffic control at Work Sites Manual Technical Manual 27 July 2018 Document №. | RMS.18.898 | Version №: 5.0

Roads and Maritime Services (NSW) Operating Conditions: Additional Access Conditions Oversize and overmass heavy vehicles and loads | November 2017

Route Study: Vestas Project: Collector Wind Farm, Ex Newcastle Port, dated 01 October 2019, prepared by Rex J Andrews Pty Limited

5 STANDARDS AND LEGISLATION

Construction traffic and access management is governed and provisioned by associated legislation, regulation and guidelines as well as the committed mitigation measures and relevant State conditions of approval. The CEMP contains details of the legislation, regulation, guidelines and standards that are relevant to this management plan.

5.1 Guidelines and Standards

Table 5-1 lists the non-statutory guidelines and standards that provide for construction traffic and access management.

Table 5-1 Guidelines and Standards

Guidelines and standards
Austroads Guide to Traffic Management parts 1–13
Australian Standard, Manual of Uniform Traffic Control Devices Part 3 – Traffic Control Devices for Works on Roads, AS1742.3 – 2009
Standards Australia, Field Guides for Traffic Control at Works on Roads Parts 1 to 9 inclusive (SAA HB81.1 to SAA HB81.9)
Roads and Maritime Services (NSW) Traffic control at work sites Technical Manual 27 July 2018 Document №. RMS.18.898 Version №: 5.0
Roads and Maritime Services (NSW) Operating Conditions: Additional Access Conditions Oversize and overmass heavy vehicles and loads November 2017

5.2 Minister's Conditions of Approval

The MCoA relevant to this CTAMP are listed Table 5-2. A cross reference is also included to indicate where the condition is addressed in this CTAMP or other project management documents.

Table 5-2 Relevant Minister's Conditions of Approval

MCoA	Condition requirements	Reference
A0	In addition to meeting the specific environmental performance criteria established under this approval, the Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or decommissioning of the project.	Section 7
A9	With the approval of the Secretary, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis. To ensure the strategies, plans or programs under the conditions of this approval are updated on a regular basis, the Proponent may at any time submit revised strategies, plans or programs to the Secretary for approval. With the agreement of the Secretary, the Proponent may prepare any revised strategy, plan or program without undertaking consultation with all the parties referred to under the relevant condition of this approval.	Section 9
D20	Designated Heavy and Over-Dimensional Vehicle Routes The Proponent shall ensure that all:	-
(a)	over-dimensional vehicle access to and from the site is via the Hume Highway and Lerida Road South;	Section 7 Annex A
(b)	other heavy vehicle access to the site is via the Hume Highway turning left onto Lerida Road South; and	
(c)	other heavy vehicle egress from Lerida Road South does not turn right onto the Hume Highway, unless the Secretary agrees otherwise.	
D20A	Road Upgrades The Applicant must:	-
(a)	implement the road upgrades identified in Attachment 3 (of MCoA) in accordance with the relevant timing requirements; and	Section 7 Annex B.2
(b)	upgrade or relocate cattle grids along the designated over-dimensional and heavy vehicle route, as necessary, prior to the use of Lerida Road South for any over-dimensional or heavy vehicle traffic associated with the construction of the development, to the standard and satisfaction of Council. If there is a dispute about the road upgrades to be implemented, or the implementation of these upgrades, then either party may refer the matter to the Secretary for resolution.	

Construction Traffic and Access Management Plan

Collector Wind Farm

D20B	Road Maintenance The Proponent must:	-
(a)	prepare a baseline survey of Lerida Road South (using a method agreed to by Council) upon completion of the road upgrades required by Condition D20A;	Section 7 Annex B.2
(b)	prepare a post-dilapidation survey of Lerida Road South within 1 month of the completion of construction works;	
(c)	rehabilitate and/or make good any project-related damage:	
i.	identified during the carrying out of the relevant construction works if it could endanger road safety, as soon as possible after the damage is identified, but within 7 days at the latest; and	
ii.	identified during any dilapidation survey carried out following the completion of the relevant construction works within 2 months of the completion of the survey, unless Council agrees otherwise, to the satisfaction of Council.	
D25(c)	(As part of the Construction Environmental Management Plan for the Project required under condition D24 the Proponent shall prepare and implement a:) Construction Traffic Management Plan for the project. The plan must be developed in consultation with the relevant road authority and must:	This Plan Annex I
i. a)	detail the measures that would be implemented to: minimise the traffic safety impacts of the project and disruption to local road users during construction of the project, including:	
i.	temporary traffic controls, including detours and signage;	Annex G
ii.	notifying the local community about project-related traffic impacts;	Section 7 (Annex J of CEMP)
iii.	minimising potential conflict between project-related traffic and school buses, in consultation with local schools;	Section 7
iv.	ensuring construction traffic is via the approved transport routes;	Section 7 Annex A
v.	implementing measures to minimise development-related traffic on the public road network outside of standard construction hours;	Section 7 Annex A
vi.	implementing measures to minimise dirt tracked onto the public road network from project-related traffic;	Section 7
vii.	ensuring vehicles loaded with loose materials entering or leaving the site have their loads covered or contained;	Section 7
viii.	providing sufficient parking on site for all project-related traffic;	Annex A.1.6
ix.	responding to any emergency repair requirements or maintenance during construction; and	Annex C
x.	a traffic management system for managing over-dimensional vehicles; and	Section 7 Annex A
b)	comply with the traffic conditions in this approval;	Section 7

Construction Traffic and Access Management Plan

Collector Wind Farm

ii. a)	include a drivers code of conduct that addresses: travelling speeds;	Section 7 Annex J
b)	procedures to ensure that drivers adhere to the approved transport routes including ensuring that no construction traffic accesses the site via Lerida Road South from a southerly direction, Collector Road and Marked Tree Road; and	
c)	procedures to ensure that drivers implement safe driving practices; and	
iii.	include a detailed program to monitor and report on the effectiveness of these measures and the code of conduct.	Section 8

6 PROJECT ENVIRONMENT

6.1 Existing Traffic Conditions

6.1.1 Site Overview

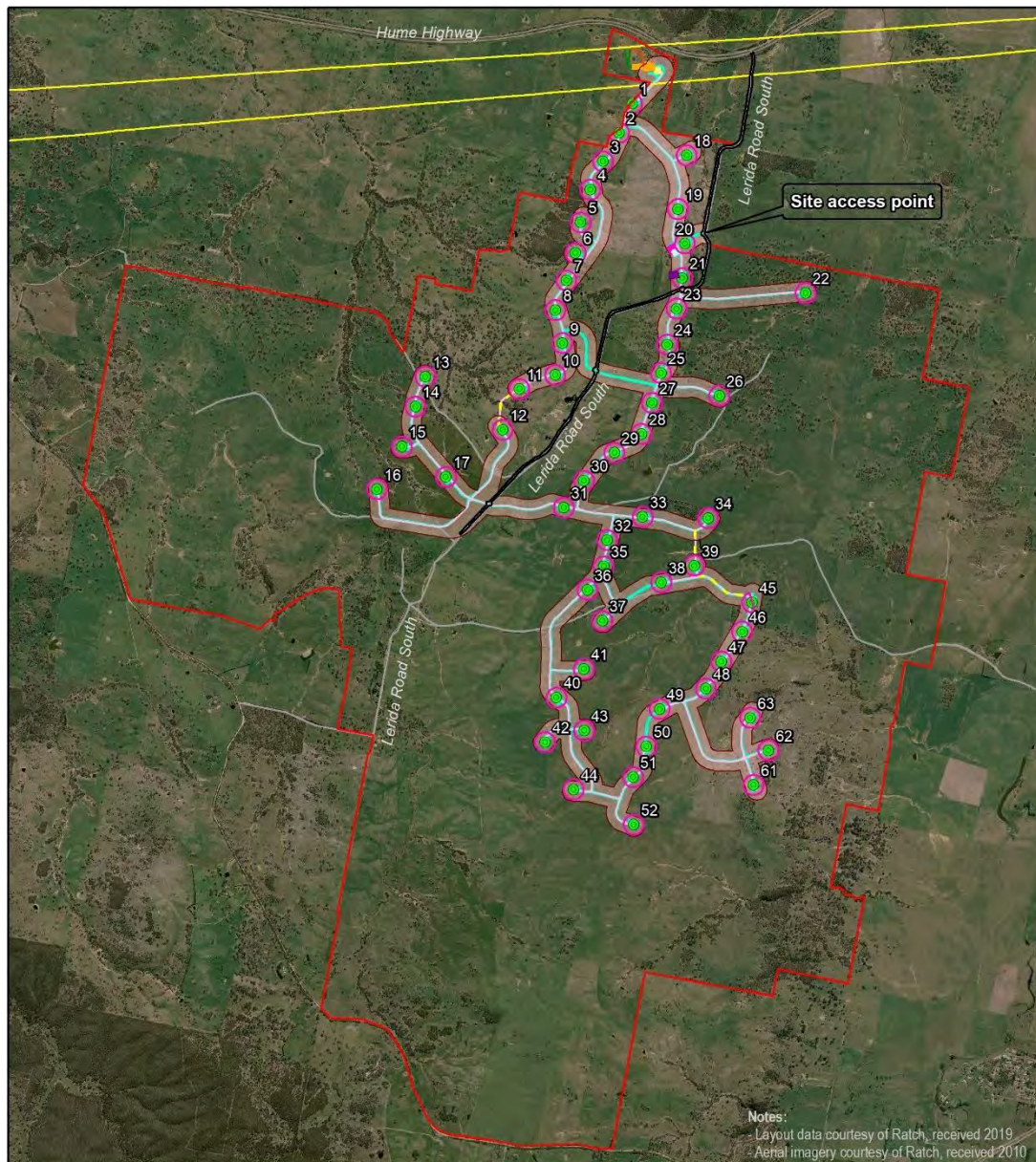
The site is located around 33 km west of Goulburn, on the southern side of the Hume Highway, northeast of Lerida and northwest of the village of Collector. It is located within the Upper Lachlan Shire Council and is currently occupied by farmland (grazing). It is accessed via Lerida Road South. Figure 1 shows the site location in the context of the surrounding road network features.



Figure 1 Site location and key road network features

As shown in Figure 1, the project area spans both sides of Lerida Road South for around 6 km. Whilst a large area, the works to be undertaken will only traverse a number of internal roadways spread throughout the project area.

The Approved Project Layout is provided in Figure 2.



MODIFIED PROJECT LAYOUT

Collector Wind Farm Modification Application

- | | |
|---|--|
| Site boundary | Temporary concrete batch plant |
| Lerida Road South upgrade boundary | Ancillary infrastructure |
| Existing transmission lines | Development envelope (roads) |
| Existing roads | Road layout |
| Wind turbines | Cabling trench |
| ● Approved turbine locations | Comms cable trench |
| Development envelope (turbines) | HV lines |
| Ancillary facilities | Potential overhead line |
| Transgrid laydown area | Substation |
| Temporary construction compound | O&M building & compound |

0 0.25 0.5 1 Kilometres

A4 @ 1:55000

Ref: 5541-7

Author: BH



Figure 2 Approved Project Layout

6.1.2 Road Network

Key roads and intersections

A summary of the key roads and intersections surrounding the site is provided in Table 6-1 and Table 6-2.

Table 6-1 Key roads surrounding the site

Road	Function	Alignment	Speed limit	Comment
Hume Highway	Interstate Highway	East-West	110 km/h	Dual-carriageway
Lerida Road South	Local Road	North-South	50 km/h ⁽¹⁾	Unsealed road ⁽²⁾
Collector Road	Local Road	Northwest-Southeast	100 km/hr	Unsealed road

- (1) No signed speed limit, therefore default speed limit of 50 km/h applies. Following completion of the upgrade works in accordance with Condition D20A, the speed limit will be up to 90km/h as sign-posted.
- (2) Following completion of the Upgrade works in accordance with Condition D20A, Lerida Road South will be a sealed road from the Hume Highway to a point 250m south of Intersection 3.

Table 6-2 Key intersections surrounding the site

Intersection	Intersection type
Hume Highway / Lerida Road South	Priority-controlled T-intersection

It is noted that Lerida Road South and Collector Road also intersect as a priority-controlled T-intersection. No construction traffic is permitted to access Lerida Road South from a southerly direction (i.e. from Collector Road).

Traffic and road environment

The road environment differs somewhat between the Hume Highway and other rural roads. The Hume Highway is a major national highway providing key interstate connectivity as well as connectivity between key regional centres. Given its dual-carriageway configuration and 110 km/h design speed, traffic travelling on the Hume Highway (in vicinity of the project area) are generally at high speeds, typically at 110 km/h.

The Hume Highway was reviewed in the Roads and Maritime online tool *Traffic Volume Viewer*, which shows that a count station (ID no. HHW006) is located on the Hume Highway, just east of Yass which is in general proximity of the project area. The review found that Average Annual Daily Traffic (AADT) on the Hume Highway near the site was 8,620 vehicles per day (both directions) in 2018, with heavy vehicles comprising around 42% of this traffic. It was further noted that traffic volumes on Hume Highway have been steadily increasing over the nine years from 2010 to 2018, with annual increases of up to 4.6% per year.

In contrast, prior to completion of the Upgrade Works, Lerida Road South is an unsealed road of 3m-4m width with a lightly winding horizontal alignment, and is understood to be used only by local residents / workers. It is expected to have very low traffic volumes, less than 300 vehicles per day (but likely substantially less). During site inspection, it was noted that traffic travelling on Lerida Road South travels at generally low speeds and adjust to conditions. For example, traffic slows down when approaching another vehicle. Collector Road is of a similar character to Lerida Road South.

Heavy vehicle access routes

Unrestricted operation of High Mass Load (HML) routes is allowed on certain designated routes, as determined by Roads and Maritime. Permits required for other roads by Roads and Maritime and/or the

relevant Council. A review of designated routes in the area was undertaken using RMS' [NSW Combined Higher Mass Limits \(HML\) and Restricted Access Vehicle \(RAV\) Map](#).

Figure 3 shows available HML routes (for up to B-Double heavy vehicles) connecting to the project area and connection to relevant ports; Port of Newcastle and Port Kembla.



Figure 3 NSW Freight Network Map

Figure 3 shows that the Hume Highway is a designated HML route for up to B-Double heavy vehicles and that there are additional routes connecting the Hume Highway to Port Kembla and Port of Newcastle. It is also noted that there are no HML Restricted Bridges on the designated freight route between either of the nominated Ports and the project area.

The construction traffic access requirements for the proposed works are provided in Annex A. Construction traffic impacts are assessed in Annex B.

7 MITIGATION & CONTROL

The following table outlines the management measures and mitigation strategies that are undertaken as far as practicable during the pre-construction, construction, and post-construction phases of the project to mitigate the potential impacts associated with construction traffic and access management, as identified in the Project Risk Register.

Table 7-1 – Management and mitigation measures for construction traffic access

Management Measures & Mitigation Strategies	Responsibility	Source of Requirement
Pre-Construction Phase		
Traffic Control Plans ▪ All Traffic Control Plans (TCPs) to be prepared by a person with the relevant qualifications from Roads and Maritime (e.g. completed the Implement Traffic Control Plans course; 'Red' or 'Orange' card). TCPs shall be developed with the aim to: - o warn of changes to usual conditions - o guide drivers through the work site - o ensure the safety for workers as well as public (motorists, pedestrians and cyclists) ▪ The TCPs will be designed to address the following issues where applicable: - o use of traffic control devices - o traffic diversion (as required) - o speed limit sign requirements - o environmental issues - o changes to the daily construction activities onsite - o key risks and control measures recorded on the Health Safety and Environment Risk Register - o provision for cyclists/pedestrians and their safety - o provision for vehicle and plant movements - o Upper Lachlan Shire Council requirements - o provision for trade vehicles and plant movements - o informing all site personnel of the high risk areas - o providing Emergency Services vehicles access and direction to the site if a need arises - o providing adequate signage within the construction site for safe access and egress	Principal Contractor / Sub-contractor	SoC 5.01 SoC 5.02

Management Measures & Mitigation Strategies	Responsibility	Source of Requirement
Material haulage: - Identify location for offsite waste to be transported to. - Confirm number of truck trips required to haul waste material offsite. - Prepare detailed haulage route to offsite locations, ensuring that routes are suitable for placarded loads (if relevant for waste type) and do not pass through sensitive land-uses (e.g. schools, local residential roads etc.). - The construction of a Temporary Concrete Batch Plant will reduce heavy vehicle traffic to and from the project which will improve traffic and road safety.	Principal Contractor / Sub-contractor	
Project staff training: - The construction contractor shall implement appropriate training and induction for the implementation of this CTAMP. All project staff including contractors are to complete site induction training. This induction training will cover: - the implementation of this CTAMP - recommended transport routes - travelling speeds along Lerida Road South and within the site. - Safe driving practices - hours of operation - reporting and recording of incidents relating to traffic - the implementation of traffic control measures. - As part of the site induction training, each inductee will be required to sign a Driver's Code of Conduct (Annex J) to confirm that the inductee has understood, and will abide by, the conditions set out in the CTAMP and any additional applicable site rules set out therein.	Principal Contractor / Sub-contractor	MCoA D25(c)ii.
Commission and independent, qualified person or team to review the proposed route and existing access provisions to the windfarm to determine whether the route or provisions allow for safe access with vehicles associated with project. The proponent shall implement the recommendations in consultation with the relevant road authority.	Principal Contractor	MCoA D20
Obtain relevant approvals and permits prior to works commencing on Main and Council roads (Section 138 permit)	Principal Contractor / Sub Contractor	NSW Roads Act 1993
Construction Phase		

Management Measures & Mitigation Strategies	Responsibility	Source of Requirement
Road surveys: - A baseline survey of Lerida Road South will be carried out upon completion of the road upgrades required by Condition D20A. - A post-dilapidation survey of Lerida Road South to be carried out within 1 month of the completion of the construction works. Regular road condition surveys will be conducted during construction and demobilisation stages.	Principal Contractor / Sub Contractor	MCoA D20B(a) MCoA D20B(b) SoC 5.03
Vehicle access: - Traffic controllers on Hume Highway will be provided to help assist oversize and over mass vehicles exiting the site from Lerida Road South and manage any safety risks - Heavy vehicle access to the project area will be via Lerida Road South – specifically, as a left-turn from Hume Highway (westbound) into Lerida Road South. (No construction traffic is permitted to access the project along Lerida Rd South from a southerly direction) - Heavy vehicle movements thorough Collector are prohibited during morning and afternoon school periods - Vehicles exiting the project area will be via the internal roadways network to Lerida Road South, then north towards the Hume Highway. - All heavy vehicles exiting the project area must turn left onto the Hume Highway (i.e. right-turns onto Hume Highway will be prohibited). Any heavy vehicle construction traffic leaving the site which would be ultimately travelling east must first turn left onto the Hume Highway and then undertake a U turn at the Hume Highway interchange with Collector Road. - No construction traffic is permitted to access the project site via Lerida road south form southerly direction, Collector Road and Marked Tree Road.	Principal Contractor / Sub-contractor	MCoA D20(a),(b),(c) MCoA, D25(c) i. a) i, iv, v, x SoC 5.02
Loading: No loading / unloading activities will take place on Hume Highway. Loading/Unloading activities on Lerida Road South will be limited to only those activities necessary to facilitate the upgrade works of Lerida Road South.	Principal Contractor / Sub-contractor	Annex A
Construction vehicle types: A licensed haulage contractor will be appointed for the transportation of wind turbine components. The licensed	Principal Contractor / Sub-contractor	Annex A

Management Measures & Mitigation Strategies	Responsibility	Source of Requirement
haulage contractor details would be provided prior to the commencement of any work.		
Construction traffic timings: - Deliveries by oversize vehicles shall be carried out within the allowable times set out in the applicable transport permits to be obtained by the contractor. - The transport of oversized vehicles would be undertaken outside of peak periods. Additional restrictions may be enforced by local Councils. - Attempts to reduce travel time both for project related vehicles and for other road users will be made, such as: - deliveries to operate to fixed schedules to minimise queuing on site - when driving through towns and residential centres, attempts will be made to avoid peak periods and school hours - where possible, workers to be provided with bus transport from their accommodation to the site to reduce the number of cars on the road. This is not compulsory, but on-site parties to manage this requirement for their own workforce	Principal Contractor / Sub-contractor	SoC 5.01 MCoA, D25(c) i. a) iii, v
Construction traffic routes – wind turbine components The route surveys in Annex D & E details the appropriate route for the oversize/overmass wind turbine components from Port Kembla & Port of Newcastle respectively, to the project area	Principal Contractor / Sub-contractor	Annex D & E
Construction traffic routes – additional requirements - Should articulated heavy vehicles be required to transport plant, the use of semi-trailers and articulated heavy vehicles on Lerida Road South to be separately approved from the Upper Lachlan Shire Council - In the event that the plant requires oversize/overmass transportation, these will be required to be transferred with escorts in accordance with Roads and Maritime requirements. Each Party is to manage their own oversize/over weight permits	Principal Contractor / Sub-contractor	SoC 5.01
Oversize heavy vehicles – specific permits Operators of oversize and overmass must carry the relevant General Class 1 Oversize Notice and also be required to apply to the RMS for a specific permit to allow them to travel in NSW when the height, width or length of a vehicle	Principal Contractor / Sub-contractor	SoC 5.01

Management Measures & Mitigation Strategies	Responsibility	Source of Requirement
exceeds any of the maximum dimension limits specified in Table B-2. Each Party is to manage their own over size/over weight permits The overmass permit is also required when the gross weight of a vehicle exceeds 42.5 tonnes in NSW.		
Oversize heavy vehicles – pilot vehicles - Pilot vehicles are required when delivery vehicle travel in NSW during the night time if: - a vehicle's width is less than or equal to 3.5 m and its length is less than or equal to 25 m, 2 pilot vehicles are required on restricted roads - a vehicle is wider than 3.5 m or longer than 25 m, 2 pilot vehicles are required for travel on all roads. - a vehicle is wider than 5.5 m or longer than 35 m, 2 pilot vehicles are required and the vehicle operator must notify police prior to travel.	Principal Contractor / Sub-contractor	SoC 5.01
Oversize heavy vehicles - Section 138 approvals would apply to works on Lerida Road South. The contractor would apply for the necessary permits and liaise with the relevant roads authority. - Should any works within the road reserve be required on Council roads, the contractor is to submit an application permit to Council. - Upper Lachlan Shire Council requires necessary permits to be submitted for any work on cattle grids or gates and would require consultation with the responsible landowners.	Principal Contractor / Sub-contractor	SoC 5.01
Noise: - Heavy vehicles driving through residential areas are to avoid the use of compression brakes. Compression brakes are loud and can disturb residents. - Council regulations on noise and curfews must be followed. - The following measures would be applied to minimise traffic noise impacts: - ensure a clearly defined access road is available and that the road surface is adequately maintained - ensure all contractor vehicles are fitted with adequate noise control equipment (e.g. mufflers) and are in good working order - ensure that drivers adhere to speed limits	Principal Contractor / Sub-contractor	SoC 2.06, 5.04

Management Measures & Mitigation Strategies	Responsibility	Source of Requirement
- o ensure that no parking or queuing of construction traffic occurs on residential streets. - o Ensure all construction activities (and therefore traffic movement within the wind farm) are limited to the hours of operation as set out in the MCoA. ▪ Residents and local community to be notified in advance of commencement of turbine components in accordance with the Community Information Plan (refer to Annex J of CEMP). - o For host landowners, consultation will be face-to-face initially, with ongoing emails and notifications as required. - o Establishment of a Project Hotline (1800 280 013) to allow affected residents to register noise concerns. Hotline details can be found in the Community Information Plan (Annex J of CEMP). The Hotline details are available publicly on the project website, among other sources. Complaints registered via this hotline are to managed according to the Complaints Handling Procedure.		MCoA, D25(c) i. a) ii SoC 2.04 SoC 2.07
Dust: ▪ Vehicles will drive at slower speeds when travelling on unsealed road. This can reduce the amount of dust created and the amount of dirt tracked onto the public road network. Standard mitigation measures such as a water trucks to dampen the roads and reduce the amount of dust in the air, can also be considered to reduce dust levels ▪ Vehicles entering/exiting the site loaded with loose materials shall be covered.	Principal Contractor / Sub-contractor	SoC 5.04 MCoA D25(c) i. a) vii.
Spread of weeds and mud: ▪ The spread of weeds and mud can be a potential issue with vehicles that have been required to leave constructed access routes before driving between properties, or upon being introduced on to site. A Weed Management Plan has been developed for the project to identify the control measures for managing spread of weeds. ▪ Rumble grids to be installed within the internal access roads at each intersection with Lerida Road South over which exiting vehicles will pass to minimise the amount of dirt/mud tracked onto public road network.	Principal Contractor / Sub-contractor	SoC 5.04 MCoA D25(c) i. a) vi.
Adverse conditions: ▪ Due to the location of the site, there is an inherent risk that adverse conditions may impact on the movement of transportation vehicles and transport of staff. Consideration for driving in the rain, fog, frost, icy conditions, bright sunlight and within/near a bush fire is required, especially during the	Principal Contractor / Sub-contractor	SoC 5.04

Management Measures & Mitigation Strategies	Responsibility	Source of Requirement
transportation of oversized vehicles. The following mitigation measures are to be considered when travelling in adverse conditions: - o Inspection of roads prior to use them to ensure that the road is safe. If there is black ice on the road, depending on the location, signage shall be installed and/or transportation movements will be stopped until it is safe to proceed - o ban or restrict vehicle movements during periods where adverse conditions may impact on the operation of the road and the safety of workers and other road users - o reduce the speed along the transportation route - o provide additional warning for drivers on the road network - o train and inform staff on how to drive in adverse conditions relevant to the site location - o ensure that vehicles are fitted with equipment to assist them during adverse conditions (first aid kit, fire extinguisher, chains if required) and that drivers are able to communicate to one another to either warn each other or call for assistance - o chains will not be permitted to be used on local roads for the commencement of a journey, for emergency use only.		
Internal access roads: ▪ The quality of internal access roads will deteriorate over time with the volume of heavy vehicles during the construction period. Strategies will be put in place to maintain the condition. ▪ A maintenance plan will be created to keep the roads at a consistent quality. It is of particular importance that, after wet weather, the road condition is reviewed to ensure the surface is still adequate to drive on.	Principal Contractor / Sub-contractor	Good Practice
Incident response: ▪ Response Plan to be in place to respond to any traffic, construction or other incident (refer Annex C)	Principal Contractor / Sub-contractor	Annex C MCoA D25(c) i. a) ix.
Lerida Road South ▪ Upgrade works for the length of road between the Hume Highway and a point approximately 250m beyond the southernmost intersection of the site roads with the Lerida Road South. ▪ The upgrade works will include widening and asphalt sealing for the length of public road between the Hume Highway and	Principal Contractor / Sub-contractor	SoC 5.05 MCoA D20A MCoA D20B

Management Measures & Mitigation Strategies	Responsibility	Source of Requirement
the main site entry / exit point (approximately 1.9 km along Lerida Rod South). The upgrade works will include asphalt sealing for the length of road beyond the main entry/exit point. - Rehabilitate and/or make good any project-related damage to Lerida Road South identified during the construction works: - As soon as possible after the damage is identified, but within 7 days at the latest if the damage to the road could endanger road safety; and - Within 2 months of the completion of the survey, unless Council agrees otherwise.		
Intersections - The design of the intersections will be finalised in consultation with ULSC. - Indented access at each of the site crossing points (ie. off-setting internal intersections away from Lerida Road South to minimise number of intersections with Lerida Road South).	Principal Contractor / Sub-contractor	SoC 5.06 SoC 5.08
Fencing New fencing (or maintenance of existing fencing) will be installed along both sides of Lerida Road South from the Hume Highway to a point approximately 250m south of the southern-most intersection between Lerida Road South and the site roads.	Principal Contractor / Sub-contractor	SoC 5.03 SoC 5.07
Parking - All parking to be provided within the confines of the site. - Sufficient car parking spaces to be made available at the Site Compound for the number of workers on site. - Short-term parking for heavy vehicles to be provided adjacent to Site Compound to accommodate vehicle inspections and deliveries.	Principal Contractor / Sub-contractor	MCoA D25(c) i. a) viii.

8 MONITORING & INSPECTION

In addition to the requirements outlined in the CEMP, the following table outlines the monitoring and reporting to be undertaken during the pre-construction, construction, and post-construction phases of the project relating to construction traffic and access management.

Monitoring & Reporting Requirements	Responsibility	Source
Pre-Construction Phase		
Pre-start and pre-closedown inspections of traffic control devices and signage and the condition of local access roads	Principal Contractor / Sub-contractor	Good practice
Construction Phase		
- Weekly inspections of traffic control devices and signage - Night inspections of the traffic control devices and signage (where required) - Baseline survey of Lerida Road South (using a method agreed to by Council) upon completion of the road upgrades required by Condition D20A - Ensure works are in accordance with the Noise and Vibration Management Plan, Dust Management Plan, and other relevant plans. - Regular visual inspections to assess vehicle movement and traffic flows to and from the project site to ensure compliance to CTAMP and Driver Code of Conduct.	Principal Contractor / Sub-contractor	Good practice MCoA D20B(a) MCoA D25(c)iii.
Post-Construction Phase		
- Inspect condition of local access roads - Post-dilapidation survey of Lerida Road South within 1 month of the completion of construction works	Principal Contractor / Sub-contractor	MCoA D20B(b)

9 REVIEW AND IMPROVEMENT

9.1 Continuous Improvement

Continuous improvement of the CTAMP will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement. The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance
- Determine the cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvement

9.2 CTAMP Update and Amendment

The processes described in section 11 of the CEMP will be followed for updating and amending this plan as per MCoA C6A.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure.

ANNEX A – CONSTRUCTION TRAFFIC ACCESS

A.1 Construction Traffic Requirements for Proposed Works

A.1.1 Site Layout Plan

A site layout plan for the works has been prepared and is shown in Figure 4.

The works will involve construction of a number of internal roadways in the project area, with the wind turbines constructed at set locations on the internal roadways. Each turbine location will include a hardstand area adjacent to the turbine structure.

The internal roadways will all link to each other and also intersect with Lerida Road South at four locations, configured as T-intersection in the case of the site access intersection and as a cross intersection in all other cases.

Where the northern-most internal roadways intersects with Lerida Road South, a preliminary site establishment area for the construction works will be formed (on the western side of Lerida Road South).

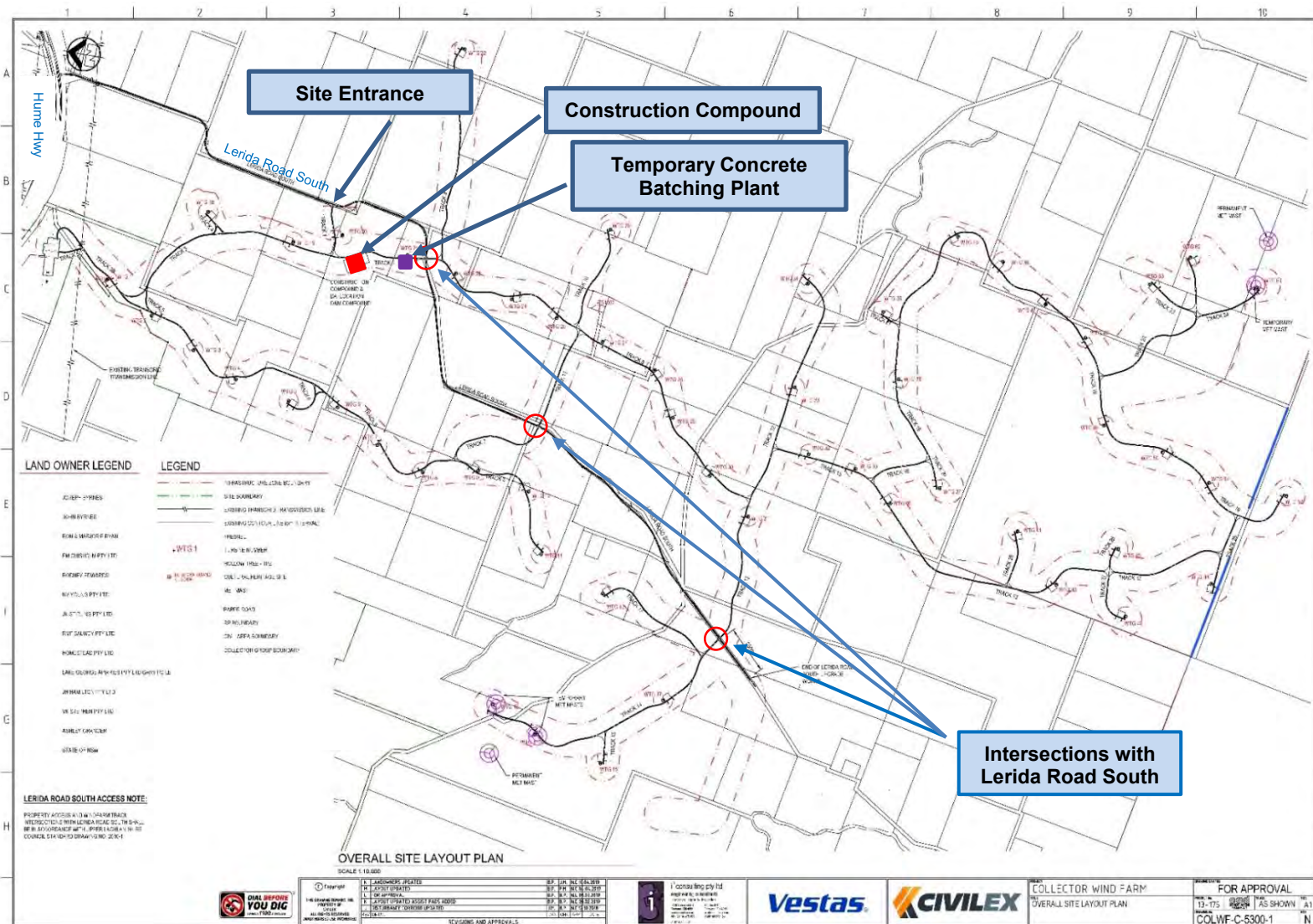
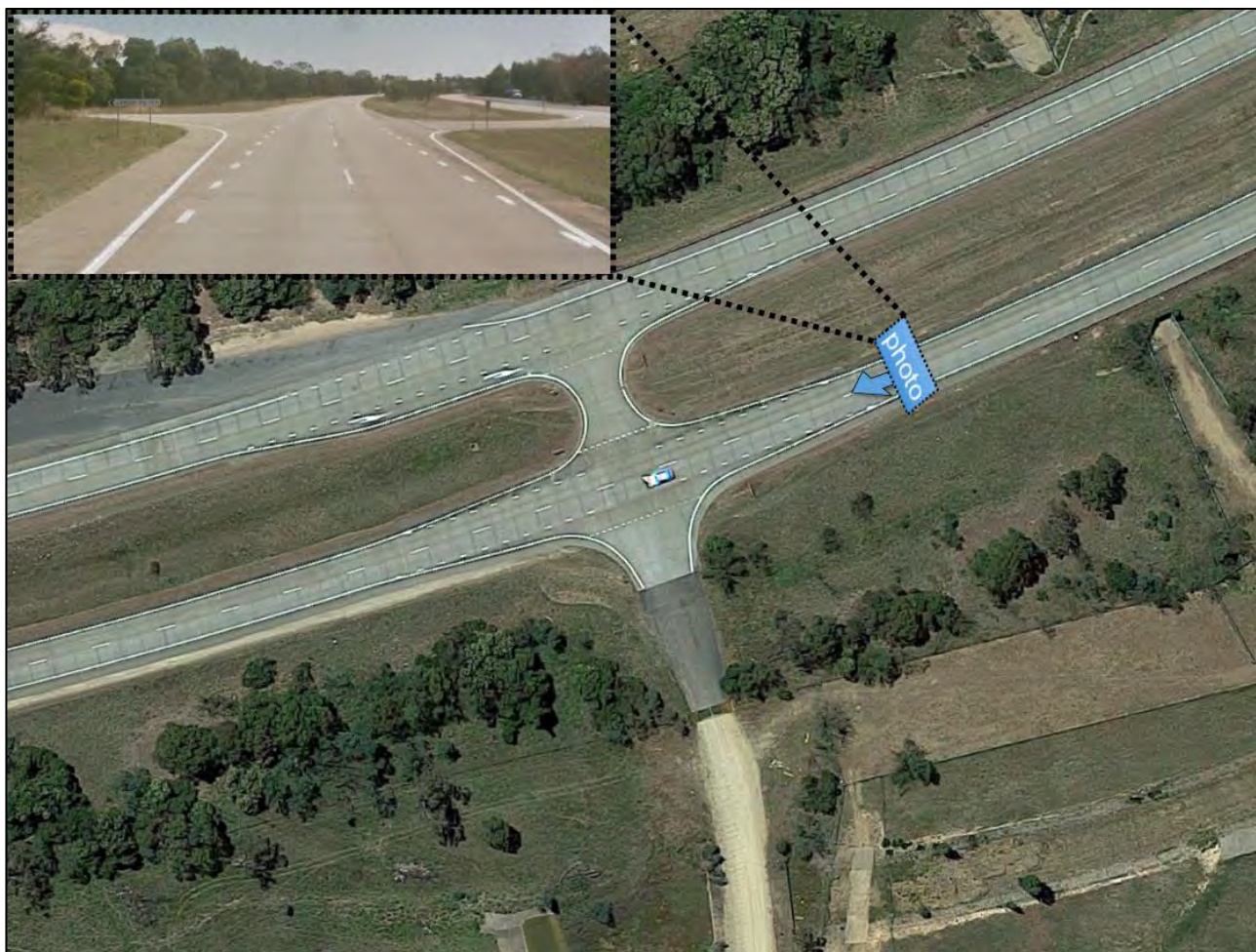


Figure 4 Detailed Site Layout

A.1.2 Vehicle Access

Heavy vehicle access to the project area would be via Lerida Road South – specifically, as a left-turn from Hume Highway (westbound) into Lerida Road South (Figure 5).

From there, vehicles will travel south down Lerida Road South and then via the constructed internal roadway network.



Source: Google Maps

Figure 5 Intersection of Hume Highway and Lerida Road South

At each turbine location, the hardstand area will enable light and heavy construction vehicles to turn around to exit. OSOM vehicles will, in most instances, deliver just in time to the hardstand requiring WTG components for installation. As such, the hardstand will be occupied by cranes and may require the unloaded OSOM vehicle to proceed or reverse to nearest available hardstand to turn around.

Vehicles exiting the project area would be via the internal roadway network to Lerida Road South, then north towards the Hume Highway.

Heavy vehicles exiting the project area must turn left onto Hume Highway (i.e. right-turns onto Hume Highway will be prohibited). Any heavy vehicle leaving the site which would be ultimately travelling east are still able to, by turning left onto Hume Highway and then undertaking a U-turn at the Hume Highway interchange with Collector Road, around 13 km west of the site.

No construction traffic is permitted to access the project site via Lerida road south from southerly direction, Collector Road and Marked Tree Road.

A.1.3 Vehicle Movement

Site access is as per the below vehicle movement plan, which highlights the requirements (D20) for all heavy vehicle to turn left onto the Hume highway and continue to Collector Road interchange and prior to completing a U-turn.

This plan is only indicative and will be revised once on site to reflect each work zone, waiting zones and safe turnaround areas.

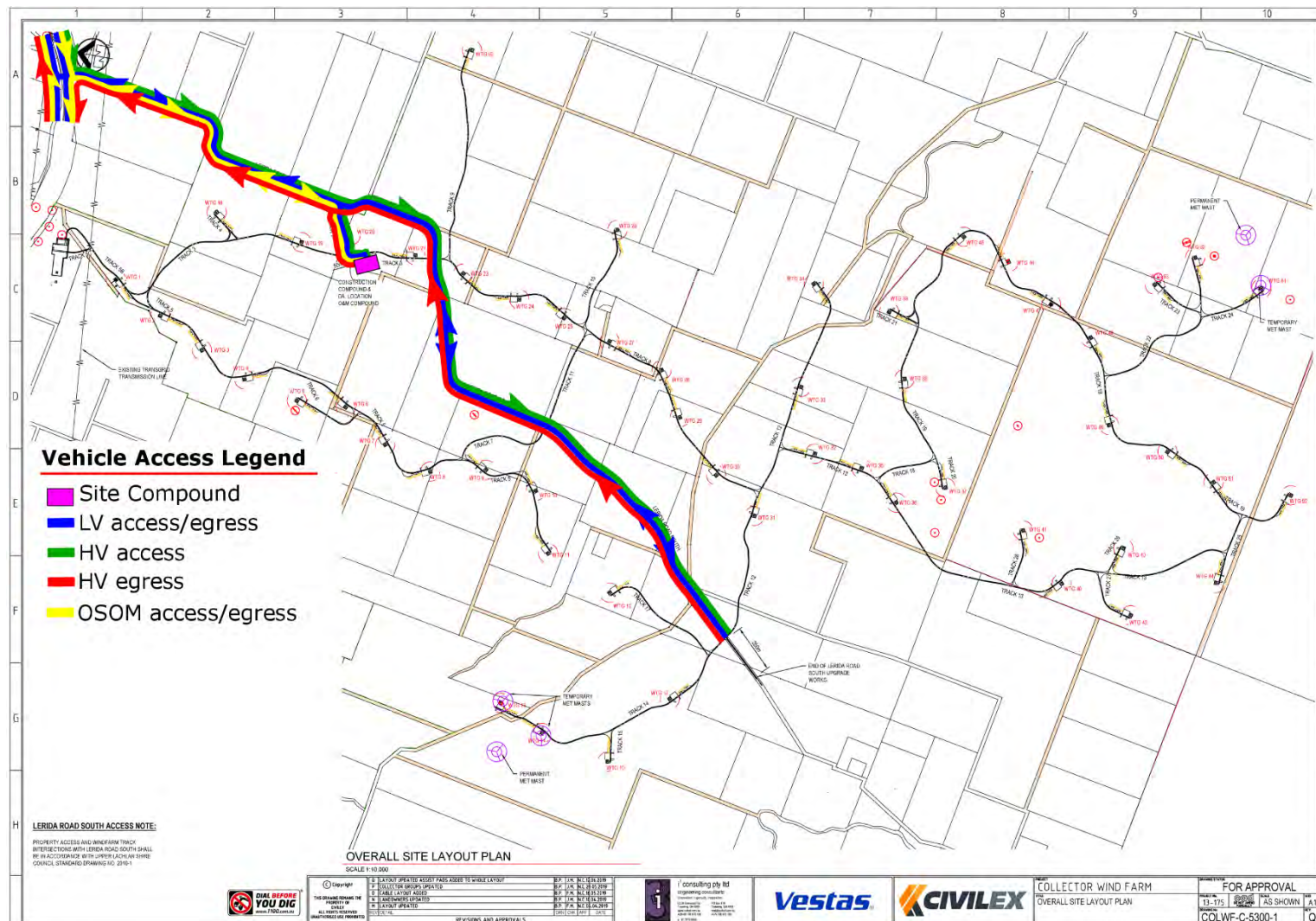


Figure 6 Vehicle Movement Plan

A.1.4 Oversized Vehicle Movement within Wind Farm

Prior to commencement of the delivery of wind turbine components to site, a workshop will be conducted on site to identify the site-specific risks and hazards involved. One of the key outcomes of this workshop will be to establish the internal oversized vehicle movement controls to be utilised. Typical controls for the management of oversized vehicles within the wind farm may include prioritising oversize vehicle movements over light/heavy vehicles, implementing one-way traffic routes within the wind farm (where possible) and ensuring all oversized vehicles have spotters/escorts to ensure safe passage through the internal road network.

A.1.5 Loading

The preliminary site establishment area will serve as the initial location for construction delivery to the site. Once construction is underway, delivery would proceed directly to the required location throughout the project area (e.g. to a turbine hardstand area for wind turbine components) without need for a site-wide loading area.

No loading / unloading activities will take place on Hume Highway. Loading/Unloading activities on Lerida Road South will be limited to only those activities necessary to facilitate the upgrade works of Lerida Road South.

A.1.6 Parking

All car parking will be provided within the confines of the site with no reliance on parking on the local road network. There will be sufficient area within the site during differing phases of construction to accommodate vehicle parking, including construction traffic deliveries and on-site maneuvering as and when required.

Depending on the phase of the project, at least 110 light vehicle parking spaces will be available at the Construction Compound, with possibility to expand up to approximately 170 parking spaces by utilizing the O&M hardstand area prior to construction of the O&M building. This number of parking spaces is consistent with the EA and updated resource planning by the Contractor. Additional parking for the operational activities of the TCBP will be available within that facility. The preliminary Site Compound layout and Concrete Batching Plant is provided in Annex H and Annex K respectively.

In addition to the light vehicle parking, a short-term parking area for heavy vehicles is to be constructed adjacent to the Construction Compound to accommodate heavy vehicle inspections and deliveries.

A.1.7 Construction Vehicle Types

The construction works are expected to involve the following vehicles (at various stages) within the project area:

- Material haulage trucks (e.g. heavy rigid vehicles, maximum length 12.5 metres, carrying capacity of 12 cubic metres and/or 25 tonne)
- Concrete-mixer heavy rigid vehicles
- Plant for roadworks, excavation etc. – to be transported to site via a transporter heavy vehicle (float) (type to be confirmed)
- Mobile crane for erection of the turbines
- Wind turbine-component transporter heavy vehicles

The transport of the wind turbine components from the nominated port to the project site will require a number of oversize / overmass vehicles trips, including the escort and associated support vehicles.

Vehicles that are over 19 m long, 2.5 m wide or 4.3 m high are considered oversize and those with a gross vehicle mass over 42.5 tonnes are considered overmass. Each Party is to manage their own over size/over weight permits.

The current dimension and weight for each component of the nominated wind turbine assembly is listed below in Table A-1

Table A-1 Weight and Dimensions of Components

Component	Weight (kg)	Length (mm)	Height (mm)	Width (mm)
Tower Section 1	67000	20500	3900	3900
Tower Section 2	66000	33600	3900	3900
Tower Section 3	47000	35000	3350	3350
Nacelle	123208	12823	4196	4004
Nacelle with Drivetrain				
Hub	35583	5469	3964	3773
Blade – Flat	16000	57150	2800	4000
Blade – Vertical			4000	2800

Note: Add 2000kg per Tower Section for internals.

A licensed haulage contractor will be appointed for the transportation of wind turbine components. The licensed haulage contractor details would be provided prior to the commencement of any work.

For this project, the largest components will be turbine blades (three blades on each wind turbine), which are 57.2 metres long and are shipped as pre-assembled blades.

A.1.8 Construction Traffic Staging and Timings

Whilst there are several stages of construction planned (as detailed in the main CEMP document), the construction traffic access arrangements will be consistent throughout, in terms of access points from the external road network.

Key stages with regards to construction traffic include:

- Construction of access roads and hardstands (e.g. earthworks, grading etc.)
- Turbine foundation construction (excavations, haulage, concrete batching and pouring etc.)
- Turbine tower/blade erection

Other stages would include light construction traffic as well such as service vehicles, workforce traffic etc.

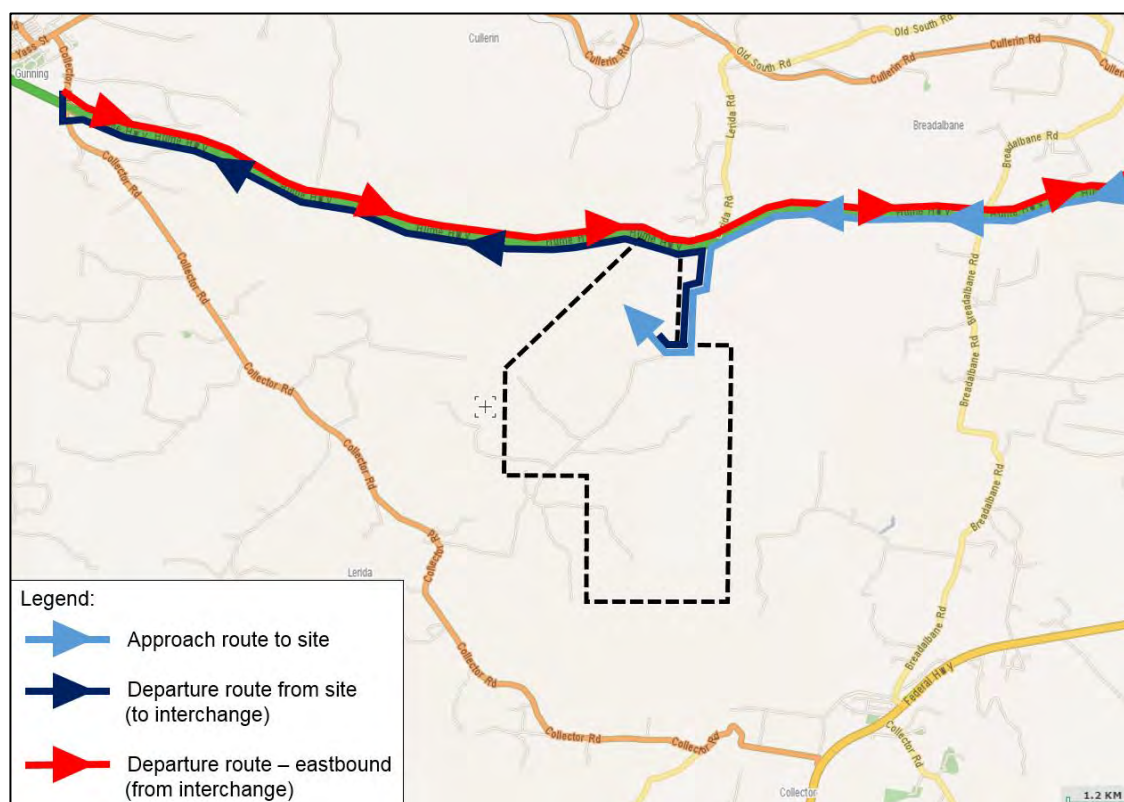
The construction program is expected to be around 24 months. Proposed hours of construction activities is detailed in the main CEMP document.

Deliveries by oversize vehicles shall be carried out within the allowable times set out in the applicable transport permits to be obtained by the contractor.

It is advised that the transport of oversized vehicles would be undertaken outside of peak periods. Additional restrictions may be enforced by local Councils.

A.2 Construction Traffic Routes

Construction traffic travelling to and from the site would travel via the arterial road network. On approach and departure from the site, the traffic route for heavy vehicle traffic will be as shown in Figure 7.



Source: Virtual Map (base-map)

Figure 7 Construction traffic routes to/from site

Figure 7 shows the following key features in relation to construction traffic routes:

- Lerida Road South is the only point of entering / leaving the site.
- Right-turns into the site from Hume Highway are not permitted for heavy vehicles.
- Right-turns out of Lerida Road South onto Hume Highway will not be permitted for heavy vehicles.
- Heavy vehicles departing the site to head eastbound will need to first head to the Hume Highway / Collector Road interchange and perform a U-turn.
- It will not be permitted to access the site from the south via Collector Road.
- No heavy vehicle movements through the village of Collector during morning and afternoon school periods

As noted earlier, the Hume Highway is a designated HML route for up to B-Double heavy vehicles. As such, construction traffic involving heavy rigid vehicles will be able to use the Hume Highway without restrictions. Oversize/overmass vehicles will have restrictions – details relating to this project are discussed further below.

Wind turbine components – oversize vehicle construction traffic routes

The wind turbine components will be pre-assembled overseas and shipped to Port Kembla or Port of Newcastle. From there, they will need to be transported to the project area to be erected at the site. As noted above, this transportation will be done by oversize/overmass vehicles.

Route surveys for the transportation has been undertaken by transport company Rex J Andrews Pty Limited, documented in the reports provided in Annexes D & E.

The route surveys determine the most appropriate route for the oversize/overmass wind turbine components from Port Kembla and Port of Newcastle to the project area to comprise the roads shown in Table A-2 and

Table A-3. The route surveys also discuss potential pinch points along the route, in terms of corners and bridges.

Table A-2 Route for wind turbine components oversize/overmass vehicles from Port Kembla

Route leg / road	Distance	Turn manoeuvre at end of leg
Tom Thumb Road	0.3 km	Left turn
Springhill Road (aka Grand Pacific Drive)	1.0 km	Right turn
Masters Road	1.2 km	Freeway entrance northbound
Southern Freeway	10.8 km	Freeway exit westbound
Picton Road (aka Mt Ousley Road)	27.7 km	Freeway entrance westbound
Hume Highway	148 km	Left turn
Lerida Road South	2.0 km	(arrive site)
TOTAL	191 km	

Source: *Vestas Collector Windfarm Proposal – Route Survey: Port Kembla to Collector*, dated 25 November 2013 prepared by Rex J Andrews Pty Limited

Table A-3 Route for wind turbine components oversize/overmass vehicles from Port of Newcastle

Route leg / road	Distance	Turn manoeuvre at end of leg
Selwyn Street	1.3 km	Right turn
Industrial Drive onto Maitland Road	4.2 km	Left turn
New England Highway	11.9 km	Left merge
John Renshaw Drive	1.1 km	Left hand bend
M1 Motorway	127.5 km	Left turn
Pennant Hills Rd	8.0 km	Right turn
M2 Motorway	9.0 km	Travel directly ahead
M7 Motorway	38.0 km	Travel directly ahead
M5 Motorway / Hume Highway	194.0 km	Left Turn
Lerida Road South	2.0km	(arrive site)
TOTAL	397 km	

Source: *Route Study: Vestas Project: Collector Wind Farm – Ex Newcastle Port*, dated 01 October 2019 prepared by Rex J Andrews Pty Limited

Additional heavy vehicle requirements

Plant associated with the construction works are expected to be transported on-site via a transporter heavy vehicle. In the event that larger plants are selected, there is a chance that these will require transportation via articulated heavy vehicle. Should this be the case, the use of semi-trailers and articulated heavy vehicles on Lerida Road South would require separate approval from the Upper Lachlan Shire Council.

In the event that the plant requires oversize/overmass transportation, these will be required to be transferred with escorts in accordance with Roads and Maritime requirements. Should this be the case, restrictions are likely to be placed on the time of day of travel. The most appropriate route for access through the network (i.e. to/from point of origin) would be determined in conjunction with Roads and Maritime once the details are known.

ANNEX B – CONSTRUCTION TRAFFIC IMPACTS

B.1 Construction Traffic Volumes

Estimates of the construction traffic volumes for the construction works have been sourced from the traffic and transport assessment undertaken by consultancy AECOM, documented in the report *Collector Wind Farm – Traffic and Transport Assessment*, dated 15 February 2012, including addendum letter dated 21 July 2015. These estimates have been further revised based on update pre-construction planning figures and included below.

A summary of the estimated total number of construction vehicles is shown in Table B-1.

Table B-1 Construction Traffic Volumes

Construction stage	Vehicle type	No. of vehicles
Site earthworks	Material haulage heavy rigid vehicle	6,000
Concrete pouring for turbine foundations	Concrete-mixer heavy rigid vehicle	3,929
Wind turbine components and tower deliveries	Transporter heavy vehicle (oversize)	440
Wind turbine crane mobilisation movements		16
Wind turbine ancillary components	heavy rigid vehicle	165
Wind turbine crane mobilisation movements		155
Sundry truck movements	heavy rigid vehicle	1,030
Sundry truck movements	Oversize heavy vehicle	50
TOTAL		11,735
Construction workforce vehicles (daily maximum)	Light vehicles	150

Source: Addendum to *Collector Wind Farm – Traffic and Transport Assessment*, dated 21 July 2015 prepared by AECOM. Also includes updated pre-construction planning estimates.

Table B-1 shows that the works are expected to involve 11,000 heavy vehicles over the course of the project. However, these volumes will be spread across the entire construction timeframe, which is around 24 months. Peak daily construction traffic volumes are expected to occur during the concrete pouring for the turbine foundations. On these days, it is estimated that the site would generate up to around 170 vehicles per day.

It should be noted that the above figures assume import of all concrete from off-site. With the implementation of an on-site concrete batch plant, the total number of vehicle movements will substantially decrease as described in Table B-2 below.

Table B-2 Construction Traffic Volumes with on-site concrete batch plant

Construction stage	Vehicle type	No. of vehicles
Site earthworks	Material haulage heavy rigid vehicle	6,000
Concrete pouring for turbine foundations	Concrete-mixer heavy rigid vehicle	NA
Concrete Material Trucks (Aggregate & Cement)	Heavy rigid vehicle	1,250
Wind turbine components and tower deliveries	Transporter heavy vehicle (oversize)	440
Wind turbine crane mobilisation movements		16
Wind turbine ancillary components	heavy rigid vehicle	165
Wind turbine crane mobilisation movements		155
Sundry truck movements	heavy rigid vehicle	1,030

Construction stage	Vehicle type	No. of vehicles
Sundry truck movements	Oversize heavy vehicle	50
TOTAL		9,106
Construction workforce vehicles (daily maximum)	Light vehicles	150

Note that the above figures for crane mobilisation movements do not include subsequent movements between turbines. Most of these movements will occur within the wind farm internal access track network, although it may be necessary to utilise Lerida Road South to facilitate crane movements between various sections of the Wind Farm. The extent of Lerida Road South utilisation for such purposes will be established during detailed construction planning.

B.2 Impacts to Adjoining Roads and Intersections

Hume Highway

As detailed in Section 6.1.2, the Hume Highway currently carries around 8,620 vehicles per day. The addition of a small volume of construction vehicles represents a negligible increase in traffic and is not anticipated to have any significant overall impacts on Hume Highway.

Construction traffic approaching the left turn into Lerida Road South would need to slow down within the kerbside lane and left-hand shoulder, as the ancillary lane is currently very short (as shown in Figure A-2) and is insufficient to enable sufficient deceleration to perform the left-turn manoeuvre. In addition, construction traffic turning left out of Lerida Road South have no acceleration space and so must accelerate within the kerbside lane.

To further understand the manoeuvrability of the oversize vehicles (wind turbine-component transportation) into Lerida Road South, swept-path assessments were undertaken. The results are shown in Annex F and show that the left-turn manoeuvre is possible however the turn must commence in the right-hand lane and shoulder.

Whilst there is good visibility at the intersection, the increase in vehicle turning movements at the intersection could result in speed disparities on Hume Highway. Mitigation measures will be required to facilitate decelerating, accelerating and weaving manoeuvres, such as a temporary (construction traffic management) decrease in speed limit on the Hume Highway on approach to and in vicinity of this intersection (refer to Section 8). Additional measures would include advisory and warning signage. Details of traffic management measures to be adopted are provided in the Traffic Control Plans in Annex G. The traffic control plan has been designed in accordance with the RMS *Traffic Control at Worksites* guidelines.

Lerida Road South

In considering impacts to Lerida Road South, it is worth noting that the overall project works include an upgrade of Lerida Road South. The upgrade details are outlined in Condition D20A of the MCoA and include:

- sealing and widening of Lerida Road South from the Hume Highway to the main site entry/exit point;
- sealing and widening the remainder of Lerida Road South to a point 250 metres south of the southernmost site crossing point;
- installing new fencing (or maintain the existing fencing) along both sides of Lerida Road South from the Hume Highway to a point approximately 250 m south of the southernmost crossing point to ensure safety; and
- Indented access at each of the site crossing points.

The Traffic Control Plans (Annex G) have been developed on the basis of minimising lane closures in both number and duration along Lerida Road South during road works. The preferred style of traffic management to be able to undertake the upgrade works is to be the use of lateral shift lane closures where 2-way traffic is permitted to use one lane under the control of portable traffic lights (alternating traffic).

Construction traffic will travel along Lerida Road South to the internal roadways. To further understand the manoeuvrability of the oversize vehicles (wind turbine-component transportation) on Lerida Road South, swept-path assessments were undertaken. The results are shown in Annex F and show that there is some

overhang where the road curves, however given the physical environment this is not expected to result in any significant impacts.

Upon completion of the upgrade works outlined in condition D20A, a baseline survey of Lerida Road South will be carried out. Within 1 month of completion of construction works, a dilapidation study will be undertaken to identify and make good any project-related damage of the upgraded road.

The timing requirements for completion of the upgrade works as set out in Attachment 3 to the project approval are described in Table B-3 below, along with the scheduled completion dates for the main aspects of the works:

Table B-3 Timing for Lerida Road South Upgrades

Road/Intersection	Start - End	Length (km)	Upgrade	Timing	Scheduled Completion
Lerida Road South	Hume Highway to main site access point	2	- Sealing and widening including a 7.0 m seal and 8.0 m formation width - Installation of new fencing (or maintain existing fencing) along both sides of the road	Prior to commencing the use of Lerida Road South for any over-dimensional or heavy vehicle traffic associated with the construction of the project	29 th July 2019
	Main site access point to intersection 1	0.75		Prior to commencing the use of Intersection 1 or within 6 months of the commencement of construction, whichever comes first	4 th September 2019
	Intersection 1 to intersection 2	1.3		Prior to commencing the use of Intersection 2 or within 6 months of the commencement of construction, whichever comes first	
	Intersection 2 to a point 250 m south of the intersection 3	2		Prior to commencing the use of Intersection 3 or within 6 months of the commencement of construction, whichever comes first	
Lerida Road South / Site Access Points Intersection	-	-	Indented access at each of the site crossing points	Prior to commencing the use of the site access point intersection for any traffic associated with the construction of the project	

Other roads

There is no intention for construction traffic to use the following roads as part of the proposed works:

- Collector Road (except at the Hume Highway interchange)
- Local roads within the village of Collector

B.3 Oversize Heavy Vehicles

During the construction stage, it is expected that many of the delivery vehicles would be oversize or overmass (or both) due to the size and weight of the wind turbine infrastructure components.

This section of the report identifies the permit and pilot vehicle requirements in order to transport the oversize/overmass construction components.

The transportation contractor is to obtain the necessary permits and notify Council and the RMS on behalf of the contractor when transportation movements would commence.

Specific Permits

The oversize transport vehicles would be regarded as Restricted Access Vehicles (RAVs). In accordance with RMS's Operating Conditions: Additional Access Conditions Oversize and overmass heavy vehicles and loads | November 2017, the operators of oversize and overmass must carry the relevant General Class 1 Oversize Notice and also be required to apply to the RMS for a specific permit to allow them to travel in NSW when the height, width or length of a vehicle exceeds any of the maximum dimension limits specified in Table B-2.

Table B-2 Statutory Dimension Limits for Oversize Load-Carrying Vehicle

Vehicle	Height	Width	Length
Loaded rigid motor vehicle	4.3 m	3.5 m	12.5 m
Loaded combination consisting of a prime mover and a semi-trailer	4.3 m	3.5 m	19.0 m
Loaded rigid vehicle and trailer combination	4.3 m	3.5 m	19.0 m
Unloaded articulated low loader	4.3 m	2.5 m	19.0 m
Unloaded articulated low loader with 8 tyres per axle	4.3 m	2.7 m	25.0 m

Source: Operating Conditions: 2008 Additional Access Conditions Oversize and overmass heavy vehicles and loads | November 2017

The overmass permit is also required when the gross weight of a vehicle exceeds 42.5 tonnes in NSW.

Pilot Vehicles

The responsibilities of a pilot vehicle are to provide advance warning to approaching traffic and to be positioned to give adequate warning to other road users.

Based on RMS's Operating Conditions, pilot vehicles are required when delivery vehicle travel in NSW during the night time if:

- a vehicle's width is less than or equal to 3.5 m and its length is less than or equal to 25 m, 2 pilot vehicles are required on restricted roads
- a vehicle is wider than 3.5 m or longer than 25 m, 2 pilot vehicles are required for travel on all roads.
- a vehicle is wider than 5.5 m or longer than 35 m, 2 pilot vehicles are required and the vehicle operator must notify police prior to travel.

Authority Approvals

Section 138 approvals would apply to works on Lerida Road South. The contractor would apply for the necessary permits and liaise with the relevant roads authority.

Should any works within the road reserve be required on Council roads, the contractor is to submit an application permit to Council.

Public Gates and Bypass (Grid) Policy

Upper Lachlan Shire Council requires necessary permits to be submitted for any work on cattle grids or gates and would require consultation with the responsible landowners.

B.4 Other Impacts and Issues

Traffic Signals

The construction traffic requirements for the works would not require alterations to traffic signal operations.

Emergency Services Access Requirements

The construction activities will not have any impacts on access requirements for emergency services vehicles.

Pedestrians and Cyclists

The construction activities will not impact any pedestrian footpaths or cycle paths.

Public Transport

The construction activities will not impact any Public transport.

ANNEX C – MANAGEMENT OF UNPLANNED INCIDENTS

The detailed management of large scale traffic and transport emergencies and incidents within the boundary of the site shall be in accordance with the State requirements as laid out in the State Disaster Plan as detailed below.

Notwithstanding this, should an incident occur within the boundary of any area subject to a TCP, the Principal Contractor / Sub-contractor is to assist the RMS or Emergency Services as required.

For non-emergency but disruptive incidents the Principal Contractor / Sub-contractor will attend the location of the incident and assess the course of action required and the level of involvement required of the Principal Contractor / Sub-contractor resources. This assessment and the course of action will be coordinated with the local emergency services if they are in attendance.

Should a works vehicle breakdown en-route or within the compound, it is the sub-contractors responsibility to arrange recovery. Should the breakdown cause congestion on the Hume Highway, the contractor Traffic Managers will be able to determine the level of assistance required.

Management of Emergencies in NSW

The Government of New South Wales acknowledges the inevitable nature of emergencies and their potentially significant social, economic and environmental consequences. Accordingly, the Government has enacted the State Emergency and Rescue Management Act, 1989. Emergencies may be controlled by combat agencies or emergency operations controllers as specified in the State Emergency and Rescue Management Act, 1989, which recognises the need for a coordinated response by all agencies having roles or responsibilities for such emergencies. Organisations have been identified in the State Disaster Plan as the agencies primarily responsible for controlling particular hazards/emergencies. Combat agencies particularly relating to the NSW are detailed in Table C-1.

Table C-1 Unplanned Incident Agency Responsibilities

Event	Agency	Contact Details
Law enforcement/Emergencies	NSW Police	131 444
Fire	NSW Fire Brigades/NSW Rural Fire Service	(02) 9265 2999/ (02) 8741 5555
Hazardous materials	NSW Fire Brigades	(02) 9265 2999
Flood	NSW State Emergency Service	(02) 4251 6111
Storm and tempest	NSW State Emergency Service	(02) 4251 6111

Roles and Responsibilities

The management of unplanned incidents within the project area is ultimately the responsibility of the Principal Contractor / Sub-contractor. Relevant personnel will determine the actions required in response to requests from emergency response agencies including the RMS and shall direct the Principal Contractor / Sub-contractor and subcontractor resources as required.

Management of Unplanned Incidents

The occurrence of unplanned incidents within the construction site could potentially have negative impacts on the operation of the road network. Similarly, incidents that occur on the surrounding road network can temporarily restrict construction activities.

In the event of an unplanned traffic incident, the Principal Contractor / Sub-contractor will:

- Determine the details of the incident and identify the likely impact on the road network.
- As appropriate, inform RMS' Traffic Management Centre (TMC) and appropriate emergency and support services immediately and continually co-ordinate activities for the duration of the incident.
- Establish a point of contact on site.
- Identify immediate action to prevent any further harm.
- If resources are available, provide initial response to unplanned incidents with the aim to make incident scene safe, and prevent further harm to persons or property.
- Provide close support to emergency services, including traffic control in the vicinity of the incident.
- During major incidents provide a senior construction representative on-site to liaise with the RMS and TMC, and emergency service agencies.
- Reschedule planned works that will interfere with the incident, or create additional delays to those road users already affected by the incident.
- Monitor and disseminate road condition information to the RMS' TMC and for their distribution to road users.
- Log all information received and actions taken.
- Monitor traffic incidents to identify a trend and in consultation with the RMS enhance traffic control measures where required.
- Note lessons learned.
- Ensure all actions specified in Section 9 of the RMS G10 Specification are undertaken.

On-Site Traffic Control Resources

Where available, the Principal Contractor / Sub-contractor will provide access to on-site traffic control resources to cater for unplanned incidents (if required).

Traffic Control

Where required, the temporary traffic management and control measures implemented during incidents within or adjacent to the construction site will be based on the requirements stipulated in the RMS 'Traffic Control at Worksites Manual', and where further reference is required, Australian Standard AS1742.3, and RMS G10 specification.

Variable Message Signs

During the construction of this project, the Principal Contractor / Sub-contractor will utilise portable Variable Message Signs on approach to each end of the site on the Hume Highway to enhance advanced warning sign posting and provide changed traffic condition information to road users.

When not required for construction activities, the Variable Message Sign can also be utilised to support the RMS incident management operations. The use of Variable Message Signs and the appropriate message will be incorporated within the site-specific TCPs.

Incident Response Plans

Incident planning, response and reporting is to be undertaken in accordance with the CEMP.

Within 3 months of submission, the Incident response plan shall be reviewed, and if necessary, revised.

Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted to the Secretary for approval.

ANNEX D – ROUTE SURVEY (PORT KEMBLA)

(prepared by Rex J Andrews Pty Limited)



ROUTE STUDY: COLLECTOR WINDFARM EX PORT KEMBLA.

14/12/2017 REV 00

Rev.	Date	Change	Responsible	Checked
00	04/08/17	Route Assessed	W Andrews	✓
00	14/12/17	Report compiled	W Andrews	✓
00	14/12/17	Report completed	W Andrews	✓

Index:

INDEX: 2

INDEX:..... 2

1.0 INTRODUCTION 3

2.0 EVALUATION..... 4

3.0 PROJECT DATA. 5

4.0 TRANSPORT COMBINATIONS AND REQUIREMENTS TO SITE. 6

5.0 SITE LOCATION. 7

6.0 TRANSPORT DRAWINGS (EXAMPLES). 8

7.0 PORT OF IMPORT. 13

8.0 ROUTE STUDY: PORT KEMBLA TO COLLECTOR. 14

9.0 CONCLUSION: 27

10.0 REFERENCES: 28

1.0 Introduction

This document describes observations and previous experience on sections of this route and explains the Transport of Wind turbine equipment from Port Kembla to Collector wind farm.

This Route survey took place on 04-08-17.

2.0 Evaluation

1	No Cost
2	Some Work
3	Urgent Modification
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	Trees	X			
E	Site Entrance			X	
F	Bridge Calculations	X			
G	Traffic Control	X			

3.0 Project data.

Date of latest Route Assessment. 04/08/2017

Survey undertaken by. (Rex J Andrews P/L)

Project name. Collector Windfarm

Location. Port Kembla (NSW) to Collector (NSW)

Turbine type.

55 x Vestas V117, 91.5 metre H/H

4.0 Transport combinations and requirements to site.

55 x Vestas V117 91.5 Metre H/H

55 x Nacelles (12.7l x 4.2w x 3.2h x 125T)

Configuration. Prime mover with 2X4-10x8 Platform trailer.

Overall length: 48.0l x 4.3w x 4.9h x 198T.

Escort requirements: (1 x Police escort, 3x accredited escorts)

55 x Hubs (3.9l x 3.7w x 3.7h x 40T)

Configuration. Prime mover with a 4x4 Low Loader.

Overall length: 19.0l x 4.0w x 4.9h x 59.5T.

Escort requirements: (1 x accredited escort)

165 x Blades (56.7l x 3.5w x 4.2h x 17T)

Configuration. Prime mover with 3x4 Extendable Blade trailers.

Overall length: 65.0l x 3.5w x 6.0h x 49.5T.

Escort requirements: (2 x Police escorts, 4x accredited escorts)

55 x Base Towers (15.5l x 4.3w x 4.0h x 75T)

Configuration. Prime mover with 10x8 platform trailer.

Overall length: 32.0l x 4.3w x 5.2h x 136.5T.

Escort requirements: (2x accredited escorts)

55 x First Mid Towers (17.0l x 4.0w x 4.0h x 56T)

Configuration. Prime mover with 8x8 platform trailer.

Overall length: 30.0l x 4.4w x 5.2h x 108.0T.

Escort requirements: (2x accredited escorts)

55 x Second Mid Towers (27.0l x 4.0w x 3.7h x 58T)

Configuration. Prime mover with 4x4 3x8 combo.

Overall length: 37.0l x 4.3w x 5.2h x 90.0T.

Escort requirements: (3 x accredited escorts)

55 x Top Towers (30.0l x 3.7w x 3.3h x 43T)

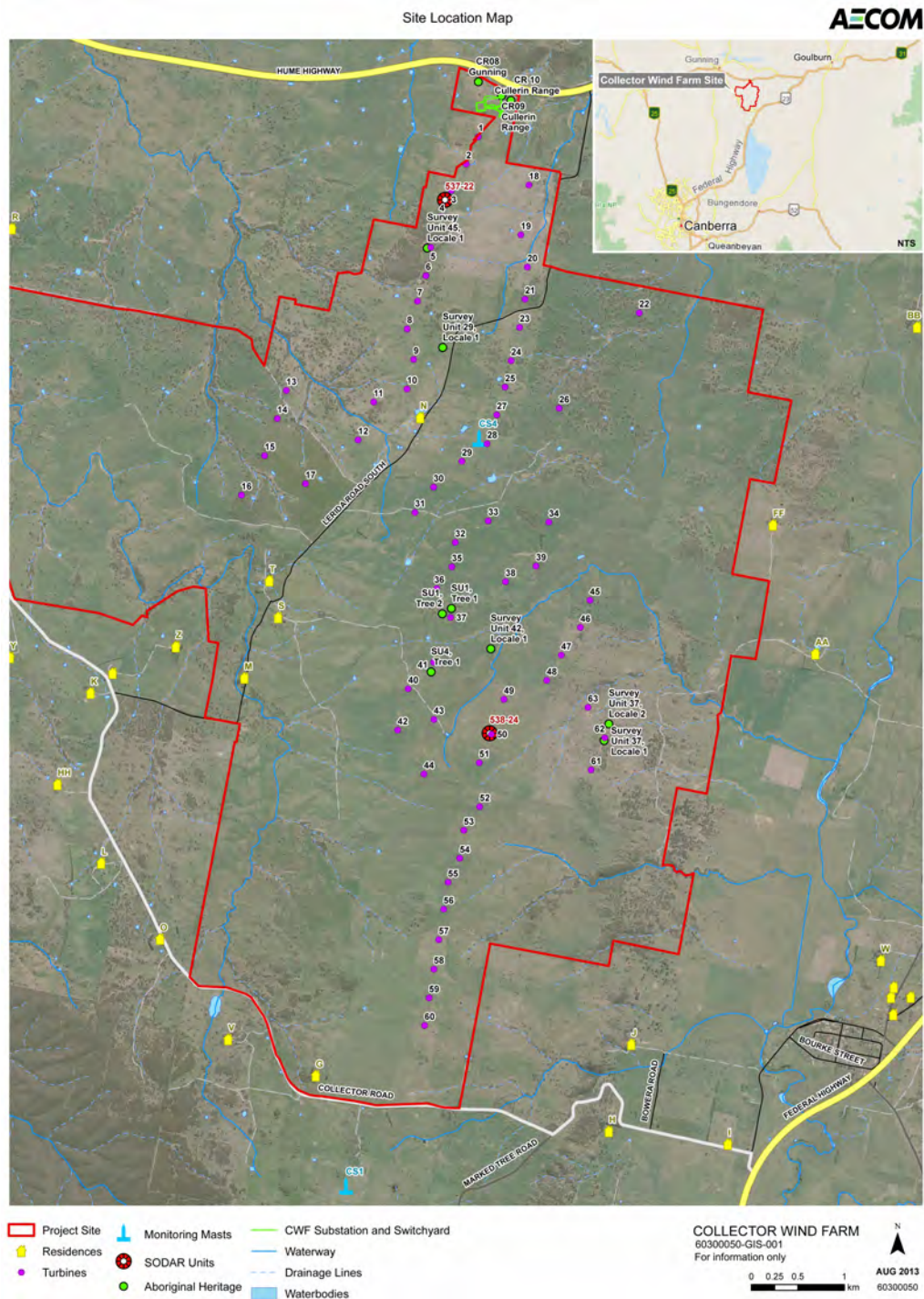
Configuration. Prime mover with 3x4 2x8 combo.

Overall length: 40.0l x 4.0w x 5.2h x 70.5T.

Escort requirements: (1 x Police escort, 3 x accredited escorts)

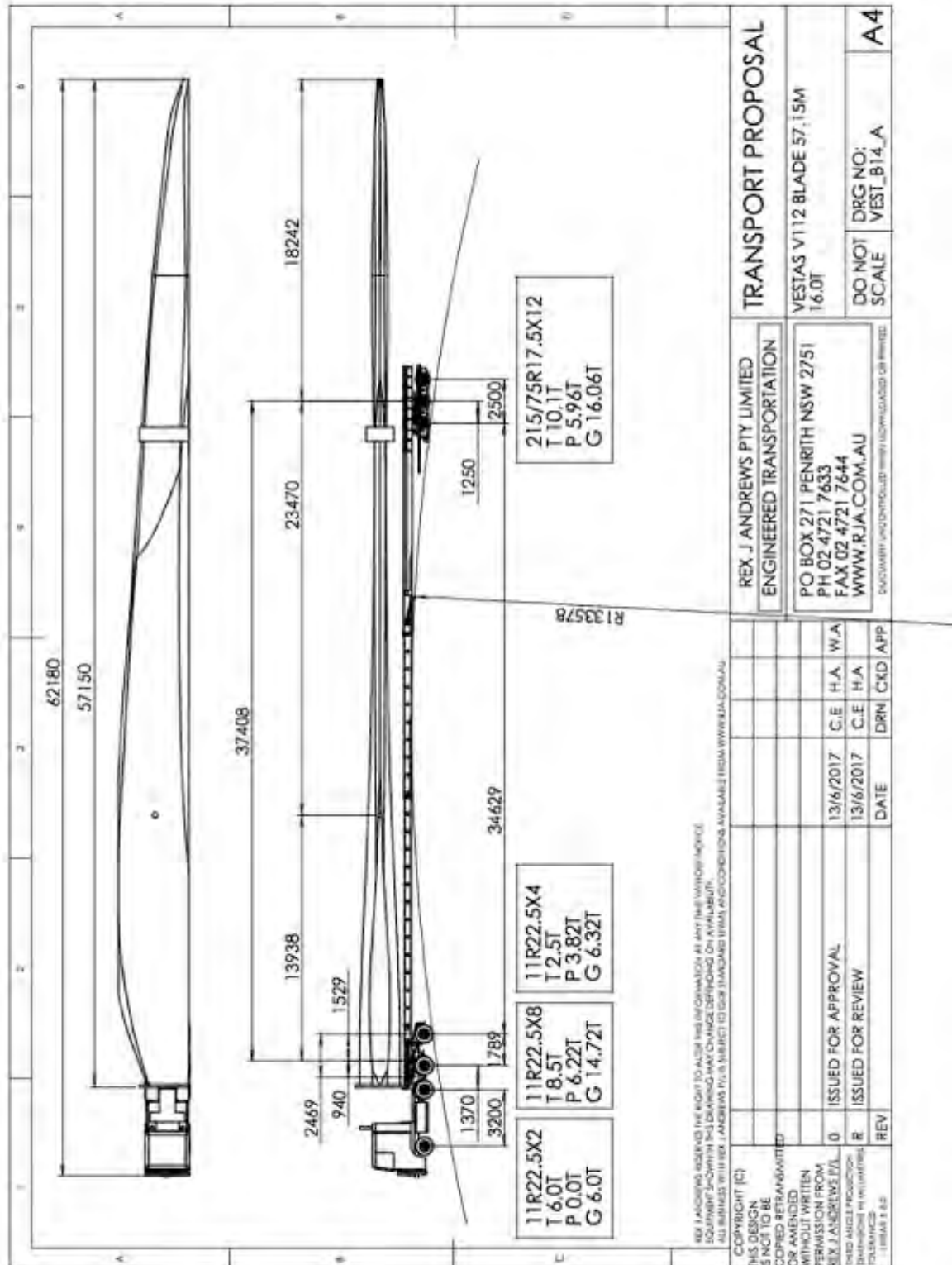
5.0 Site Location.

The Collector windfarm is located approx. 50 Km's North-East of Canberra.

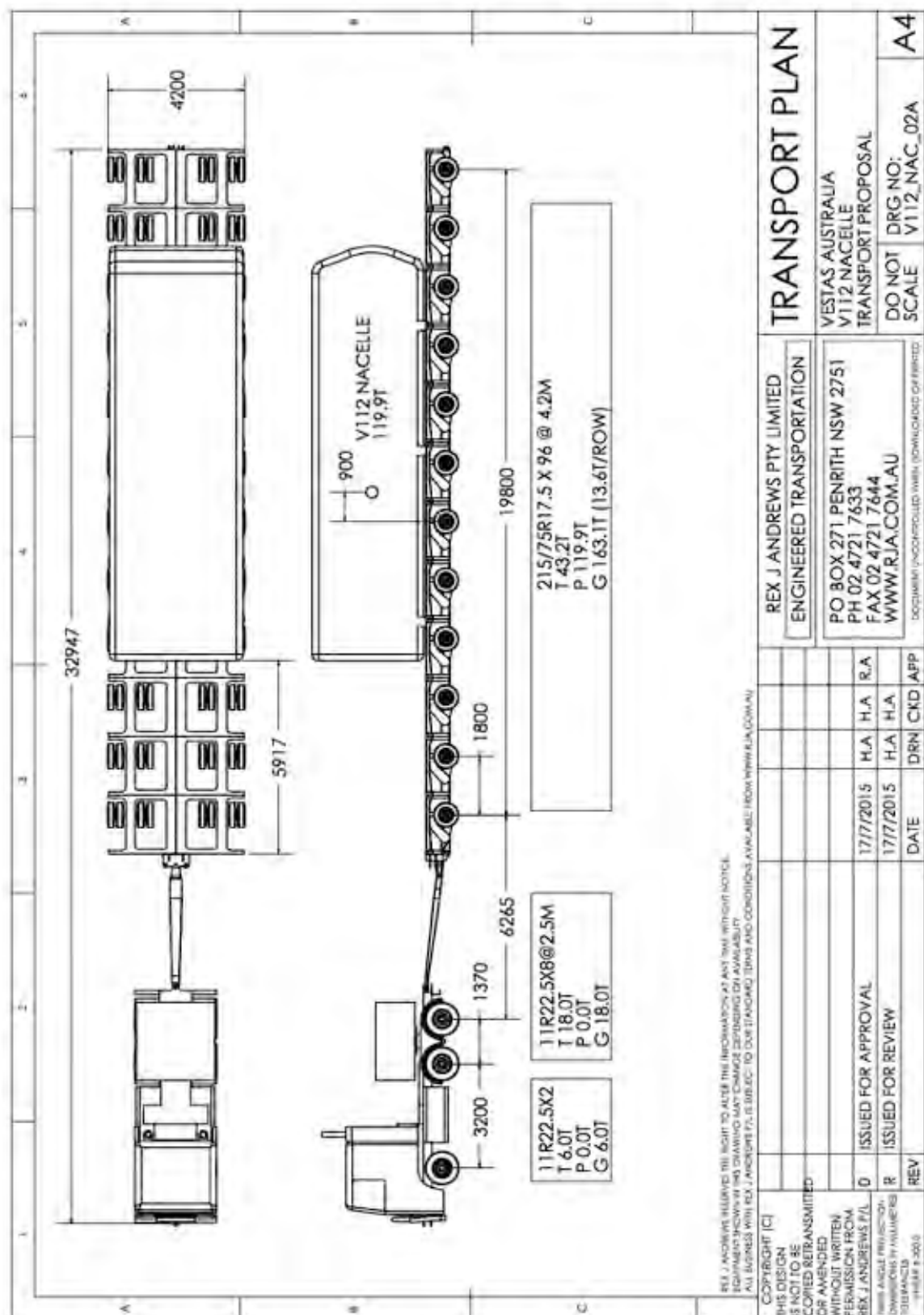


6.0 Transport drawings (Examples).

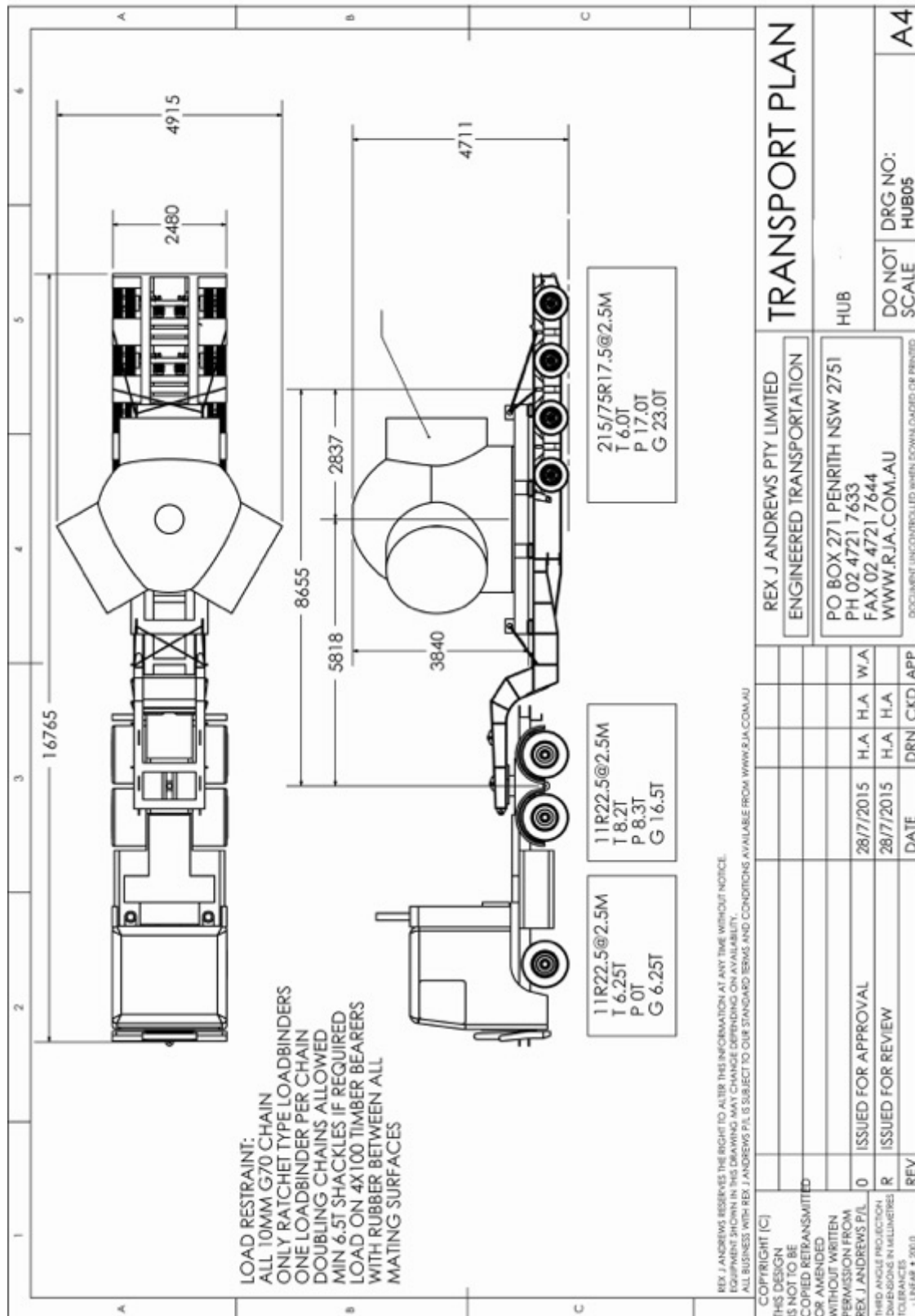
Blade example:



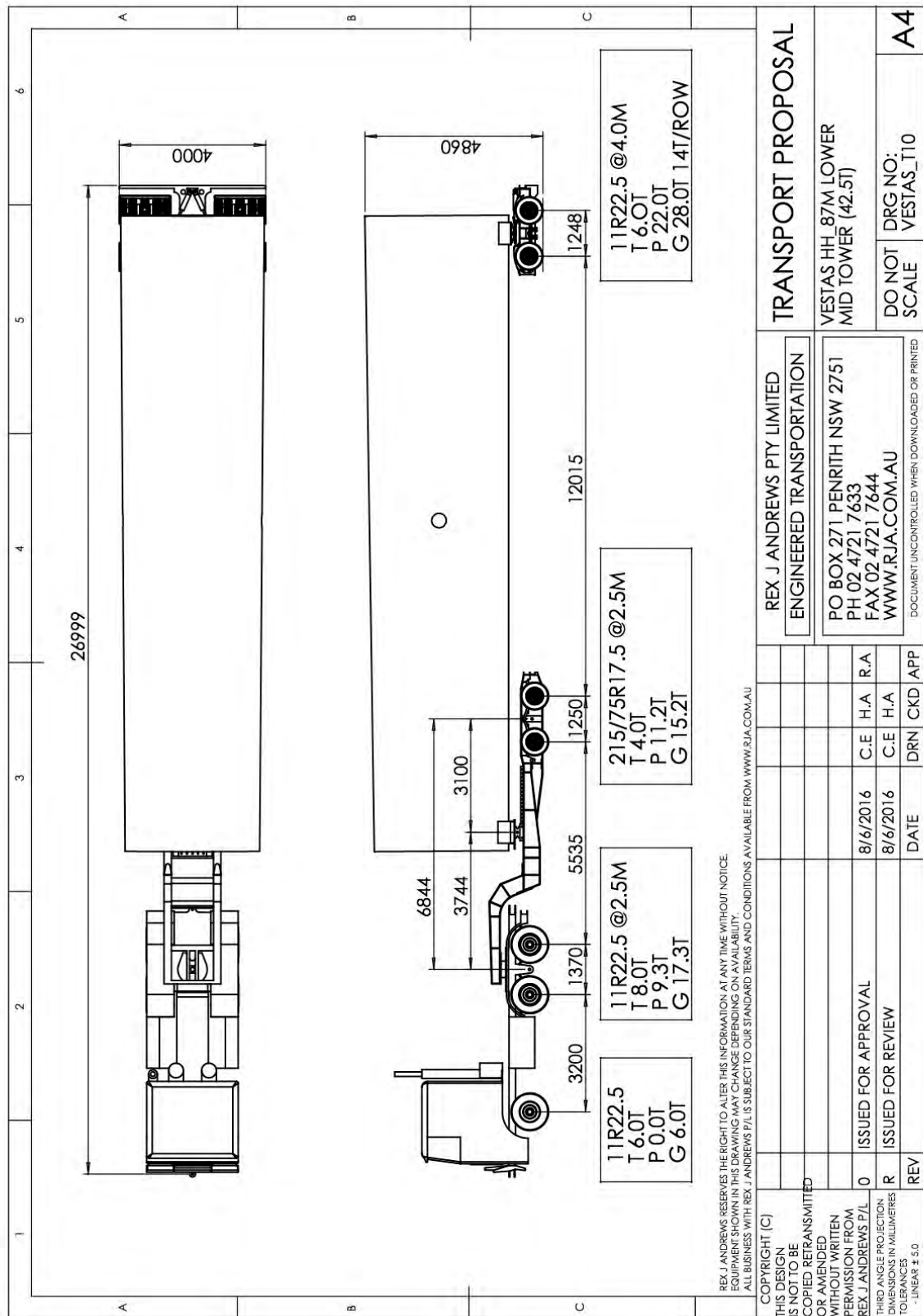
Nacelle example:

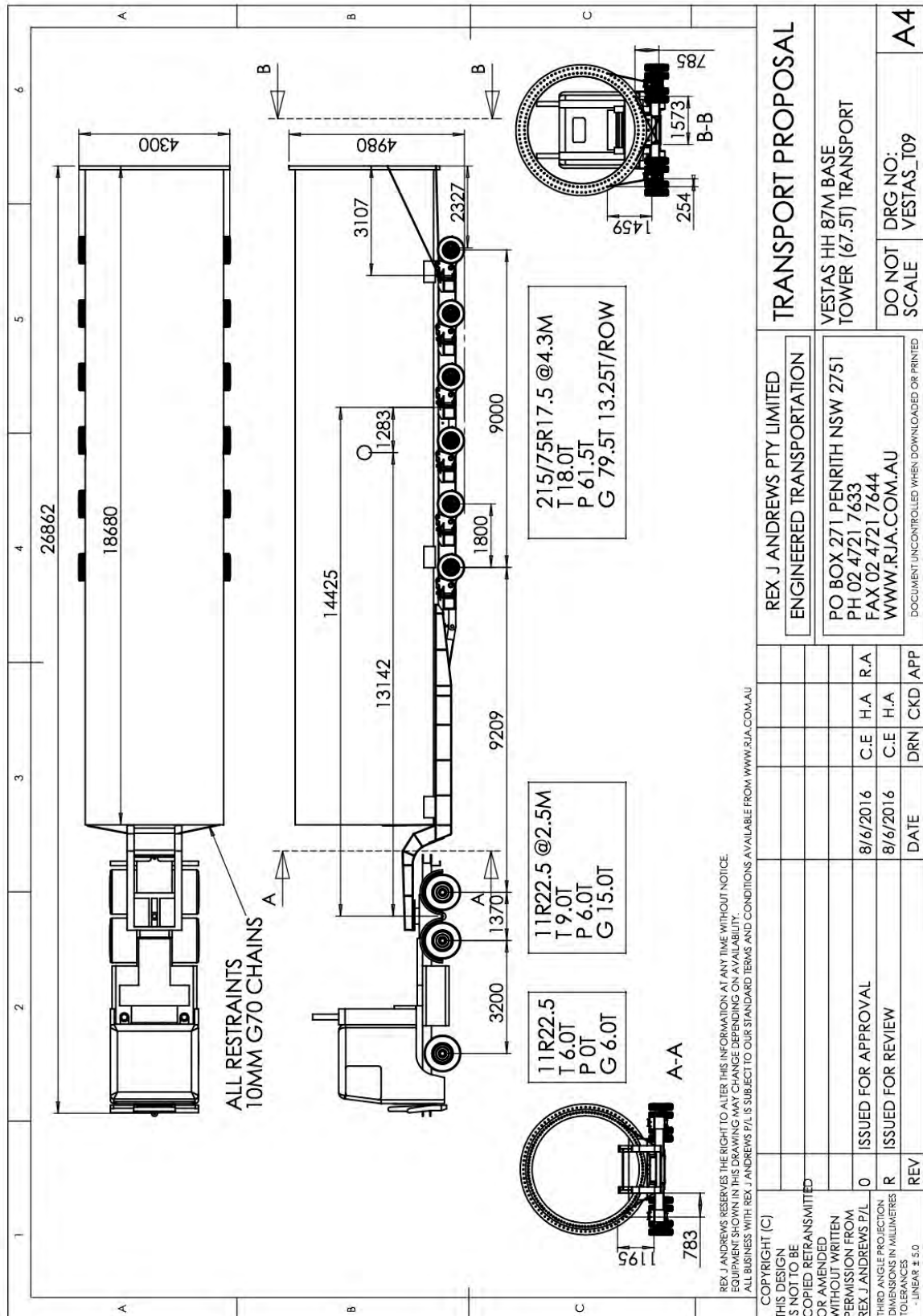


Hub example:



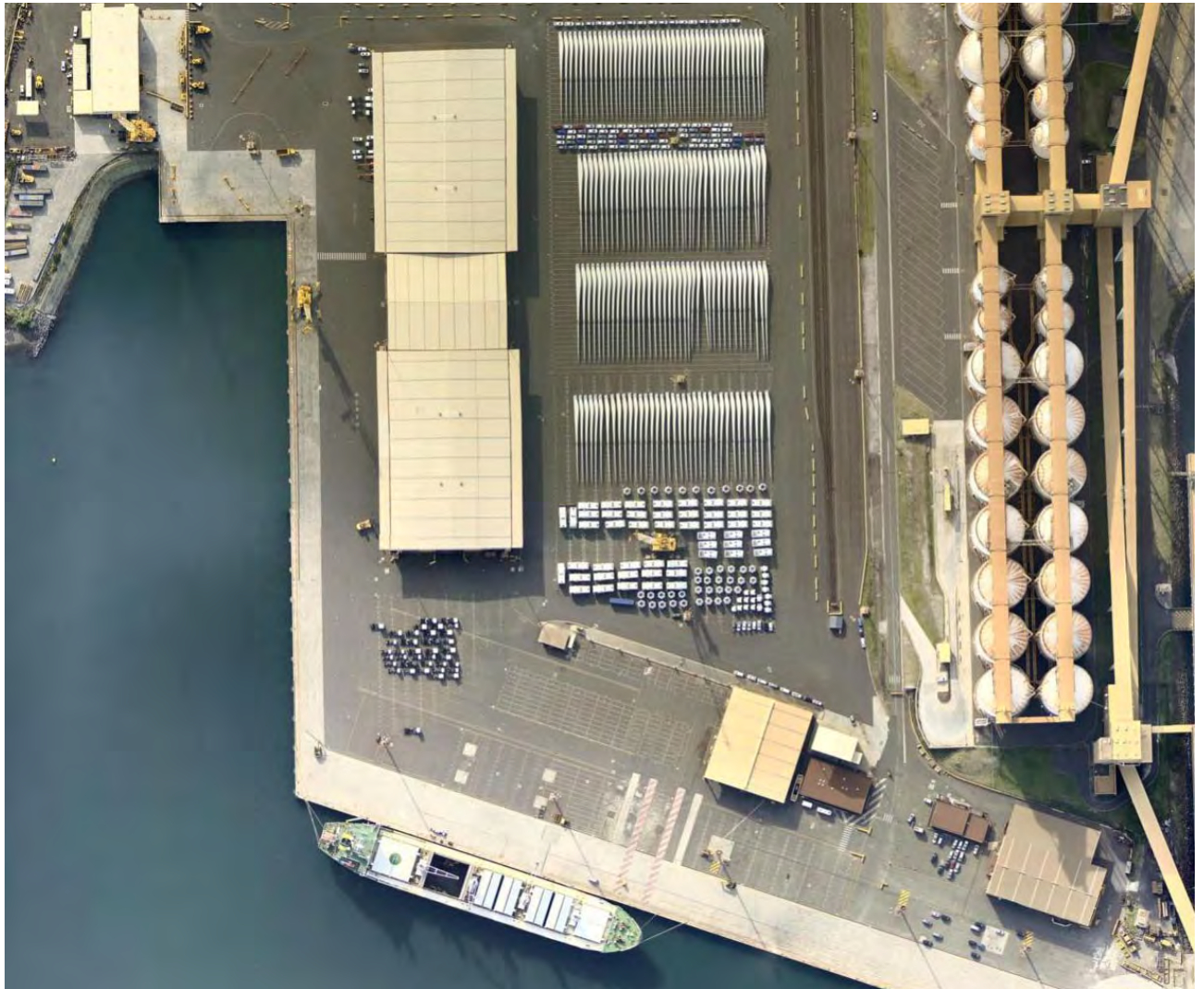
Tower examples:





7.0 Port of Import.

The wind turbine equipment will be imported from various countries, and will arrive on ships into Port Kembla. The client may also source local towers. The ideal berth for these shipments is the AAT terminal. The facility has a hardstand storage area of roughly 40,000 s/q metres.

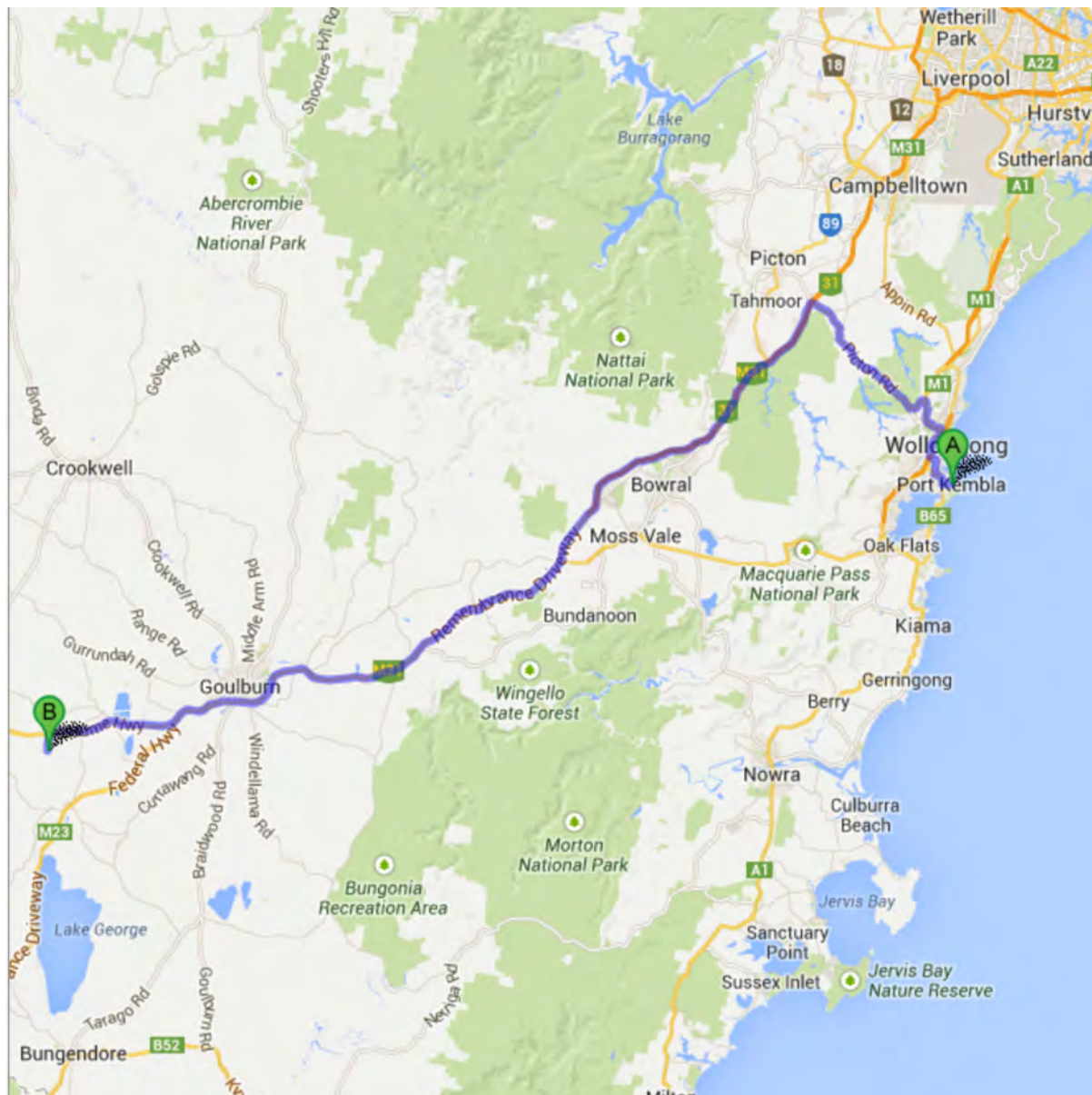


8.0 Route study: Port Kembla to Collector.

We have based this study on the turbine components, and all imported towers entering Australia via the AAT terminal at Port Kembla. After accessing a number of options, the following was selected as the most likely route.

ROUTE: Port Kembla to Biala 196.0 kilometres:

This route took us via Tom Thumb Road, Springhill Road, Masters Road, Southern Freeway, Mt Ousley Road, Picton-Wilton Road, Hume Highway, Lerida Road South.



Route Index

KEY	
CRITICAL	
CAUTION	
EMERGENCY PARKING	

KM index	Location	Section of road	Critical Measurement	Procedure	Notes
Route: Port Kembla to Collector wind farm					
0.0	Port Kembla	Exit port onto Tom Thumb Road	5.5 Metres width	Travel directly ahead	No problems with this section of road
0.2	Port Kembla	Tom Thumb Road onto Springhill Road	A clearance of 70 metres in length is required	Left hand turn	No problems with this section of road
1.4	Port Kembla	Springhill Road onto Masters Road	A clearance of 70 metres in length is required	Right hand turn	No problems with this section of road
2.6	Figtree	Masters Road onto Southern Freeway	70.0 Metres clearance	Right hand sweeping bend	No problems with this section of road
2.7	Figtree	Southern Freeway under The Avenue	5.4 Metres clearance	Travel directly ahead	Loads that exceed 5.3 metres will not be able to use this section of road.
6.4	Keiraville	Southern Freeway onto Mount Ousley Road	5.4 Metres clearance	Travel directly ahead	Loads that exceed 5.3 metres will not be able to use this section of road.
6.5	Keiraville	Mount Ousley Road under the University Bridge	5.0 Metres clearance	Travel directly ahead	Loads that exceed 5.0 metres will not be able to use this section of road. Detour for up to 5.3 metres high via the Princes Highway.
13.0	Mount Ousley	Mount Ousley Road onto Picton-Wilton Road	70.0 Metres clearance	Tight left hand turn	Care to be taken with this procedure. The guardrail on the left hand side will come close to the trailer. The prime mover will need to mount the existing median strip. Police will need to hold southbound traffic so the overhang can pass over the southbound lanes.
40.0	Wilton	Picton-Wilton Road onto the Hume Highway	70.0 Metres clearance	Long Sweeping left Hand Turn	No problems with this section of road
104.0	Sutton Forest	Hume Highway	150.0 long x 10.0 wide	Merge to left	Large parking area
153.0	Goulburn	Hume Highway	180.0 long x 15.0 wide	Merge to left	Large parking area

KM index	Location	Section of road	Critical Measurement	Procedure	Notes
196.0	Cullerin	Hume Highway onto Lerida Road South	40.0 Metres clearance	Left hand turn.	The trailers swept path will travel onto the inside nature strip on the Highway and over the tree on the inside of the turn. Some hardstand will be required on the nature strip and the tree on the inside will need to be removed. The overhang should pass over the signs on the outside of the turn.
196.0	Cullerin	Lerida Road South	70.0 Metres clearance	Travel directly ahead	This section of road will need to be made adequate to accommodate the longest, widest and heaviest loads.

0.0 Km's: Exiting Port Kembla.



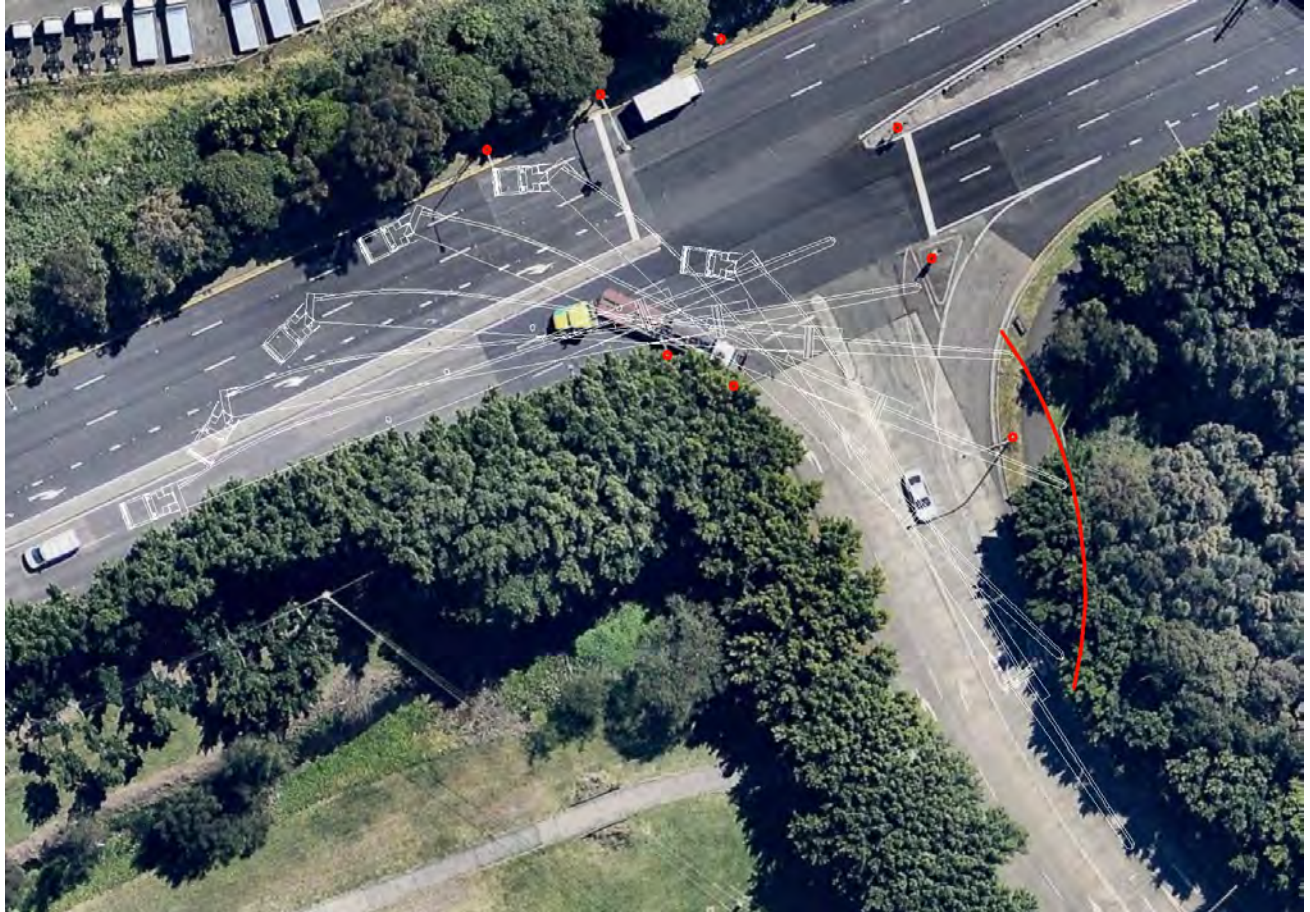
PROCEDURE: Exit port heading north through the security gate.

COMMENTS: Straight ahead. Contact must be made with security guard to ensure the boom remains open until the loads have passed through.

CONCLUSION: No problems with this section of road.

ROAD MODIFICATIONS: No works required.

0.2 Km's: Left turn from Tom Thumb Road onto Springhill Road at Port Kembla.



PROCEDURE: Tight left hand turn from Tom Thumb Road onto Springhill Road.

COMMENTS: The blades will need to cross from the incorrect side of Tom Thumb Road onto the incorrect side of Springhill Road, before returning to the correct side approx. 100 metres west of the intersection.

CONCLUSION: The light pole on the right hand side will need to be relocated to accommodate the tail swing. Some removal and trimming of trees will also be required.

ROAD MODIFICATIONS: No, these works will have been completed prior to the start of the project to accommodate the Crookwell 2 wind farm project.

1.4 Km's: Springhill Road onto Masters Road at Port Kembla.



PROCEDURE: Sweeping right hand corner.

COMMENTS: The blades will need to cross from the far left hand lane while entering the corner, and cross onto the verge while exiting the turn.

CONCLUSION: The swept path is suitable for these blades.

ROAD MODIFICATIONS: No works required.

2.6 Km's: Masters Road onto the Southern Freeway at Figtree.



PROCEDURE: Gentle right hand merge onto the Southern Freeway.

COMMENTS: This is a large turn with very little problems. The overhead bridge is 5.35 metres high at the lowest point.

CONCLUSION: No problems with this section of road.

ROAD MODIFICATIONS: No works required on this section of road.

6.4 Km's: The Southern Freeway onto Mount Ousley Road at Keiraville.



PROCEDURE: Gentle left hand sweeping bend.

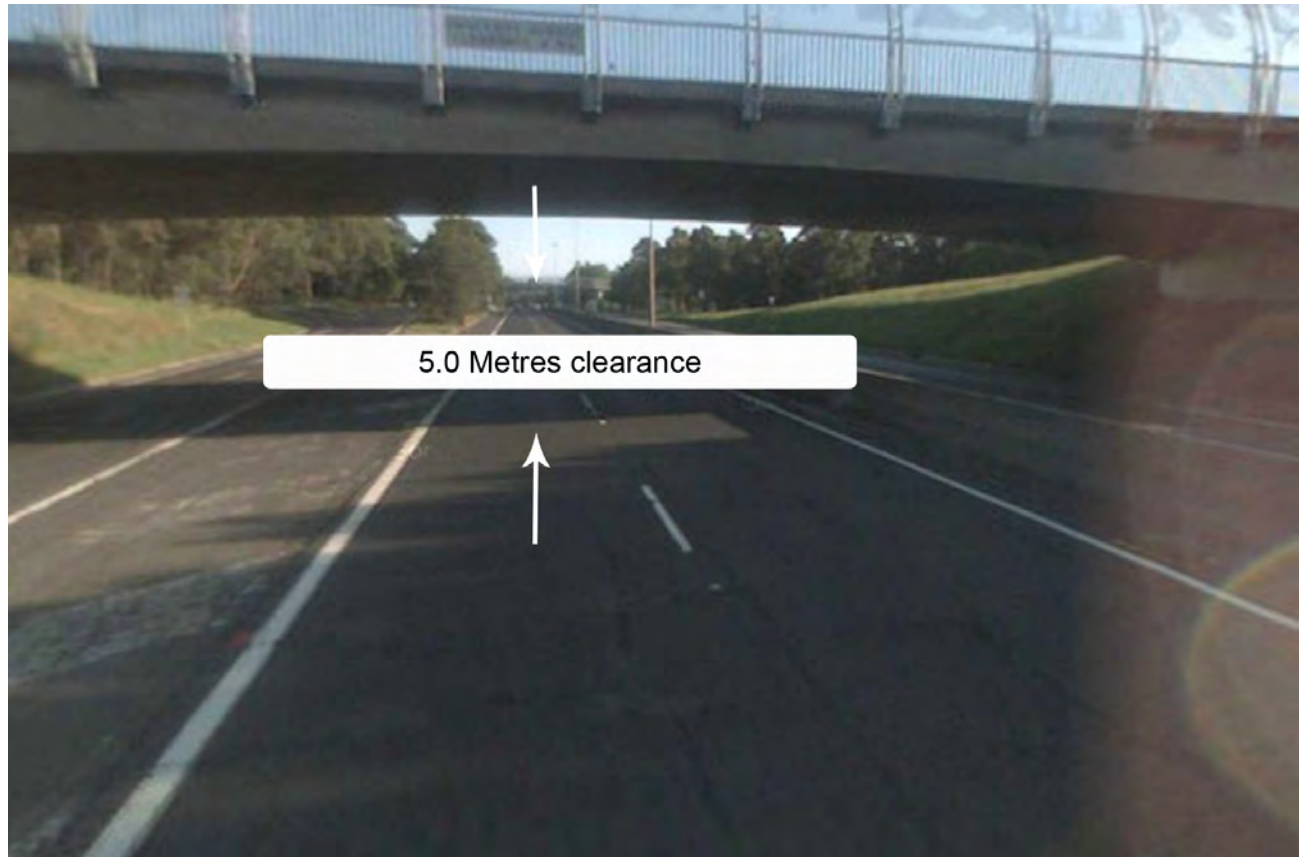
COMMENTS: Large section of road with plenty of room. However the lowest structure on route is on this section of road.

CONCLUSION: Loads over 5.0 metres high will need to take the high load detour.

ROAD MODIFICATIONS: No works required on this section of road.

6.5 Km's: University Overbridge on the Southern Freeway at Keiraville.

Image 1:



PROCEDURE: Travel under bridge in the left hand lane.

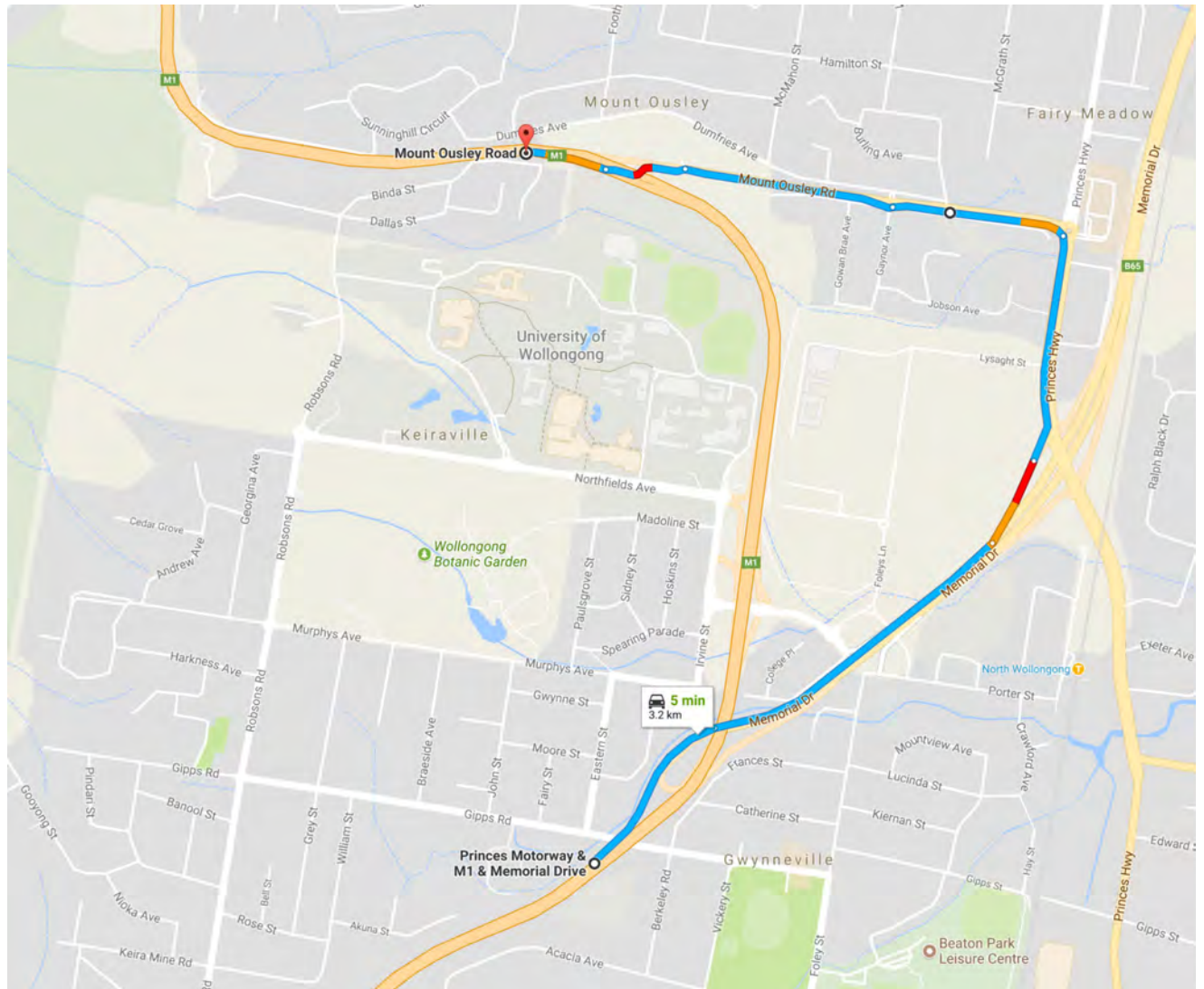
COMMENTS: No loads that exceed 5.0 metres to pass under this structure.

CONCLUSION: Loads that exceed 5.0 metres high will need to use the following detour.

ROAD MODIFICATIONS: No works required on this section of road.

Image 2: (High load detour)

VIA: Southern Freeway, Memorial Drive, Princes Highway, Mount Ousley Road.



13.1 Km's: Mt Ousley Road onto Picton-Wilton Road at Mt Ousley.



PROCEDURE: Tight left hand turn from Mt Ousley Road onto Picton-Wilton Road.

COMMENTS: The truck will need to stay as far to the right while exiting this turn.

CONCLUSION: Care to be taken with this procedure. The guardrail on the left hand side will come close to the trailer. The prime mover will also need to mount the existing median strip. Police may need to hold southbound traffic so the overhang can pass over the southbound lanes.

ROAD MODIFICATIONS: No works required on this section of road.

40.2 Km's: Picton-Wilton Road onto the Hume Highway at Wilton.



PROCEDURE: Moderate left hand turn from Picton-Wilton Road onto Hume Highway onramp.

COMMENTS: The truck will need to stay as far to the right while exiting this turn.

CONCLUSION: Care to be taken with this procedure. The pole on the inside of the corner will come close to the trailer. The overhang should pass over the signs on the outside of the turn.

ROAD MODIFICATIONS: No works required on this section of road.

196.0 Km's: Hume Highway onto Lerida Road South at Cullerin.



PROCEDURE: Tight left hand turn from the Hume Highway onto Lerida Road South.

COMMENTS: The truck will need to stay as far to the right before making this turn.

CONCLUSION: Care to be taken with this procedure. The trailers swept path will travel onto the inside nature strip on the Highway and over the tree on the inside of the turn. Some hardstand will be required on the nature strip and the tree on the inside will need to be removed. The overhang should pass over the signs on the outside of the turn.

ROAD MODIFICATIONS: Yes a moderate amount of works is required.

9.0 Conclusion:

After studying all options and undertaking a route survey, this route in its current condition will require a large amount of upgrades before it could be deemed suitable for transporting the proposed components.

The following are the key points that need to be taken into consideration, if the project moves forward with this route.

BRIDGES:

- All bridges should be adequate up to the intersection of Hume Highway and Lerida Road South. From this point on any of the structures will need to be assessed.

OVERHEAD STRUCTURES: (5.3 Maximum loaded height)

- There are a large number of overhead structures between Port Kembla and Lerida Road South. The lowest of these structures is the University Bridge at Keiraville. This bridge has a maximum safe clearance of 5.0 metres. All loads over 5.0 metres will need to take the high load detour via the Princes Highway. The high load detour will allow loads of up to 5.3 metres in height.

OVERHEAD UTILITIES:

- The route up to the intersection of Hume Highway and Lerida Road South is okay up to 5.3 metres high, from this point through to site will need to be checked by an authorised scoping company.

OVERHEAD TREES:

- This route will need to be checked for a clear passage of at least 5.3 metres for overhead branches from the corner of the Hume Highway and Lerida Road South. Some trimming is likely on this section of route.

PAVEMENT:

- The route up until Lerida Road south is highway grade asphalt and will be adequate for all loads. The pavement and road width from Lerida Road South through to site may need to be upgraded.

10.0 References:

Australian Load Restraint Guide
Rex J Andrews P/L Drawings
Rex J Andrews route survey # 217
Google Earth/Maps
Nearmaps
NHVR (OSOM)
NHVAS Maintenance Management (NHVAS21193)
NHVAS Basic Fatigue Management (NHVAS21193)

ANNEX E – ROUTE SURVEY (PORT OF NEWCASTLE)

(prepared by Rex J Andrews Pty Limited)

ROUTE STUDY: VESTAS

PROJECT: COLLECTOR WIND FARM:
EX NEWCASTLE PORT.

08/11/2019 REV 02

Rev.	Date	Change	Responsible	Checked
00	20/05/19	Route Assessed	W Andrews	✓
00	01/10/19	Report compiled	W Andrews	✓
00	01/10/19	Report completed	W Andrews	✓
01	01/10/19	Several edits	W Andrews	✓
02	08/11/19	Several edits	W Andrews	✓

Index:

INDEX: 2

INDEX:.....2

1.0 INTRODUCTION 3

2.0 EVALUATION 4

3.0 PROJECT DATA. 5

4.0 TRANSPORT COMBINATIONS AND ESCORT REQUIREMENTS. 6

5.0 TRANSPORT DRAWINGS. 7

6.0 PORT OF IMPORT..... 13

7.0 SITE LOCATION AND LAYOUT. 15

8.0 ROUTE STUDY: NEWCASTLE PORT TO COLLECTOR WIND FARM. 16

9.0 CONCLUSION: 30

10.0 REFERENCES: 31

1.0 Introduction

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

This Route survey took place on 20-05-19.

2.0 Evaluation

1	No work required
2	Some Work required
3	Moderate amount of works required
4	Large amount of works required

(Mark below boxes with an X)

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

3.0 Project data.

Date of latest Route Assessment. 20/05/2019
Survey undertaken by. (Rex J Andrews P/L)
Project name. Collector Windfarm
Location. Newcastle (NSW) to Collector (NSW)
Turbine type.
55 x V117, 91.5 metre H/H

4.0 Transport combinations and escort requirements.

55 x Nacelles (12.7l x 4.2w x 4.2h x 125T)

Configuration. Prime mover with 12x8 Platform trailer.

Overall length: 45.0l x 4.3w x 4.9h x 198T.

55 x Hubs (5.5l x 3.8w x 3.9h x 34.0T)

Configuration. Prime mover with 4x4 Low Loader.

Overall dimension: 19.0l x 4.0w x 4.9h x 54.5T.

165 x Blades (57.0l x 4.2w x 3.2h x 14T)

Configuration. Prime mover with 1x4 dolly 4x4 Extendable Blade trailers.

Overall dimension: 65.0l x 4.3w x 4.9h x 52.5T.

55 x Base Towers (24.0l x 4.0w x 3.7h x 80T)

Configuration. Prime mover with 4x8-4X8 Platform trailer.

Overall length: 35.0l x 4.3w x 5.0h x 144.5T.

55 x Mid Towers (30.0l x 3.7 x 3.4 x 62T)

Configuration. Prime mover with 4x4 Dolly 3x8 Jinker

Overall length: 40.0l x 4.3 x 5.0 x 102.5T.

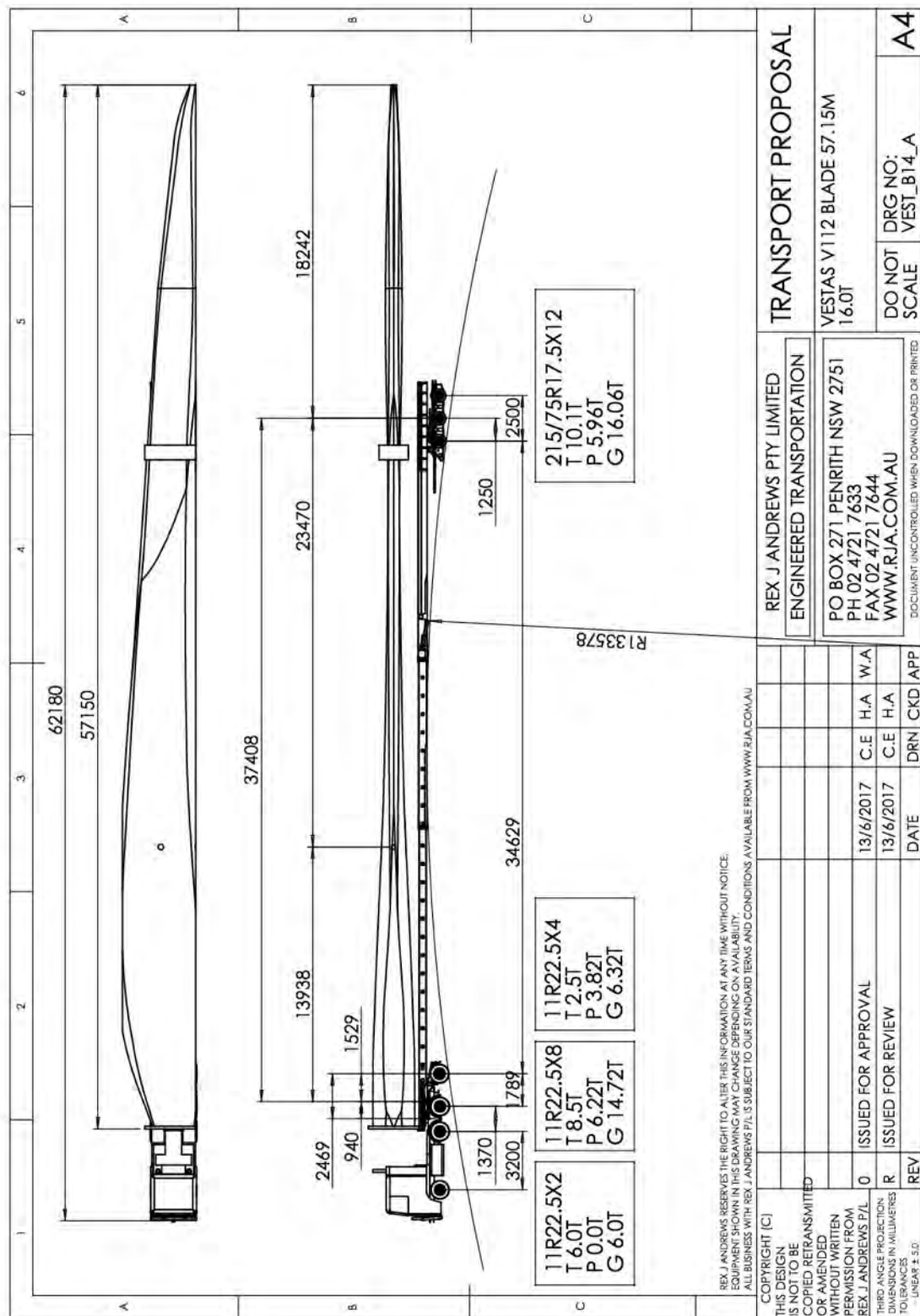
55 x Top Towers (35.0l x 3.4w x 3.3h x 50T)

Configuration. Prime mover with 2x8 Dolly 2x8 Jinker

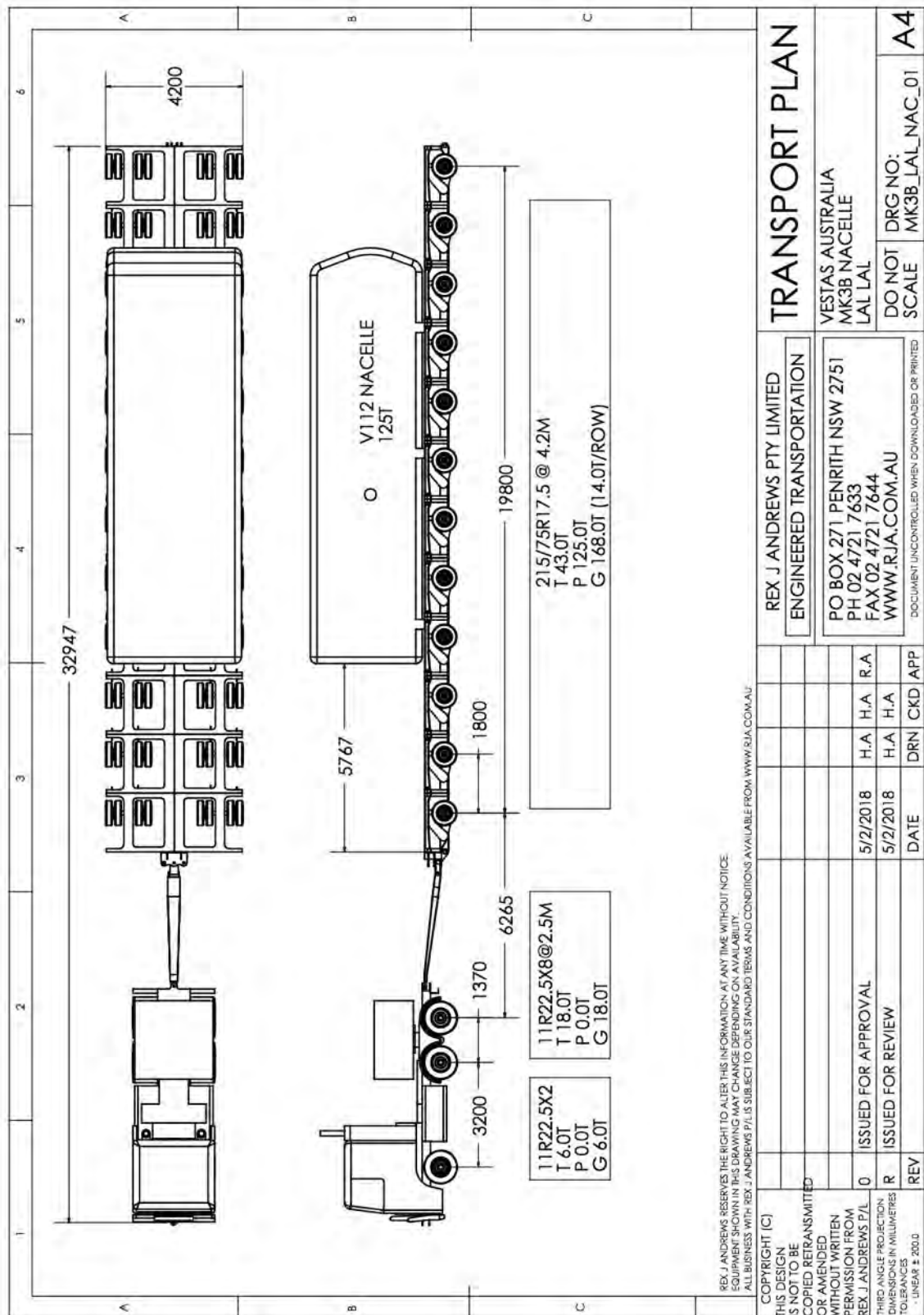
Overall length: 45.0l x 4.0w x 5.0h x 84.5T.

5.0 Transport drawings.

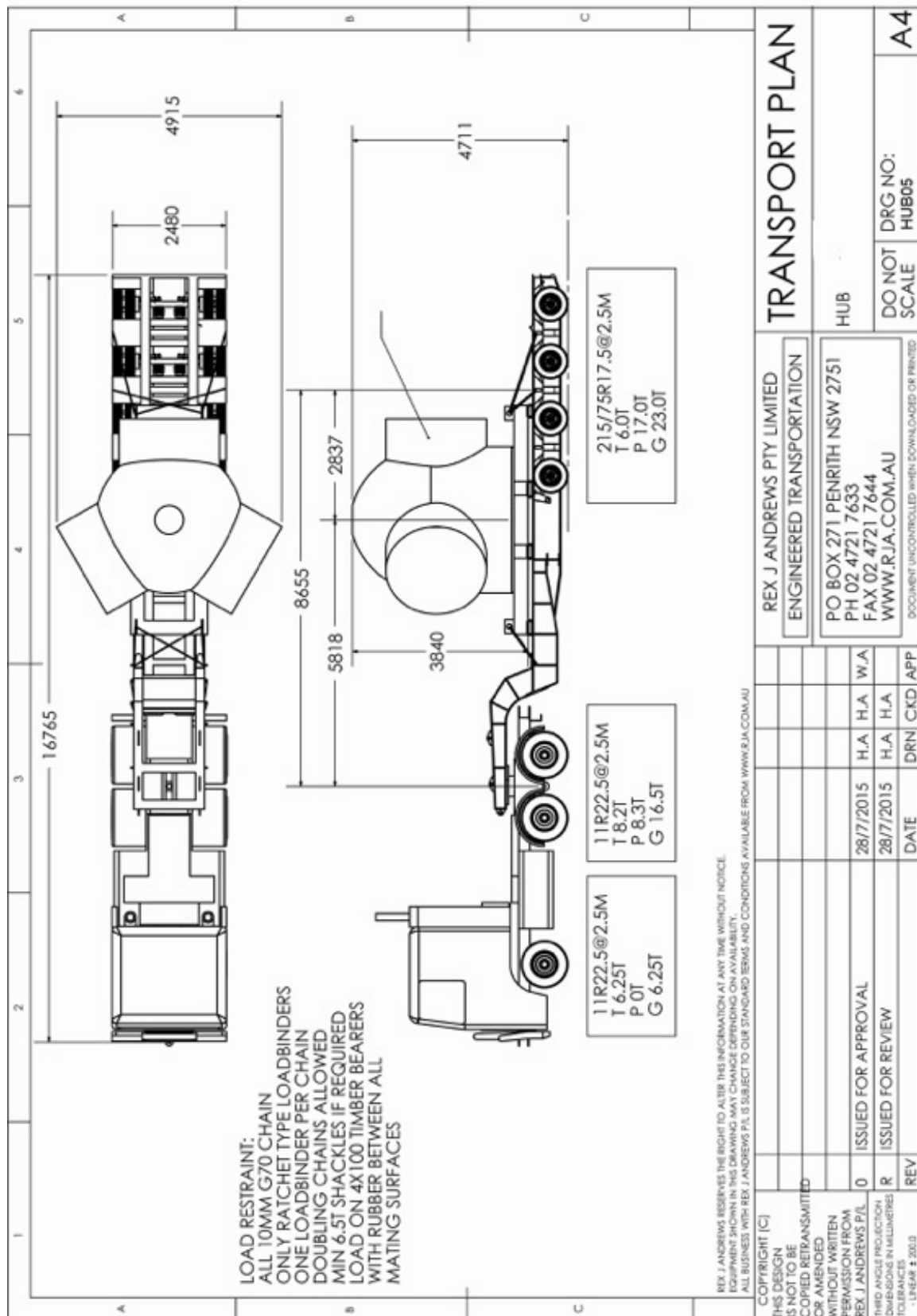
Blade diagram:



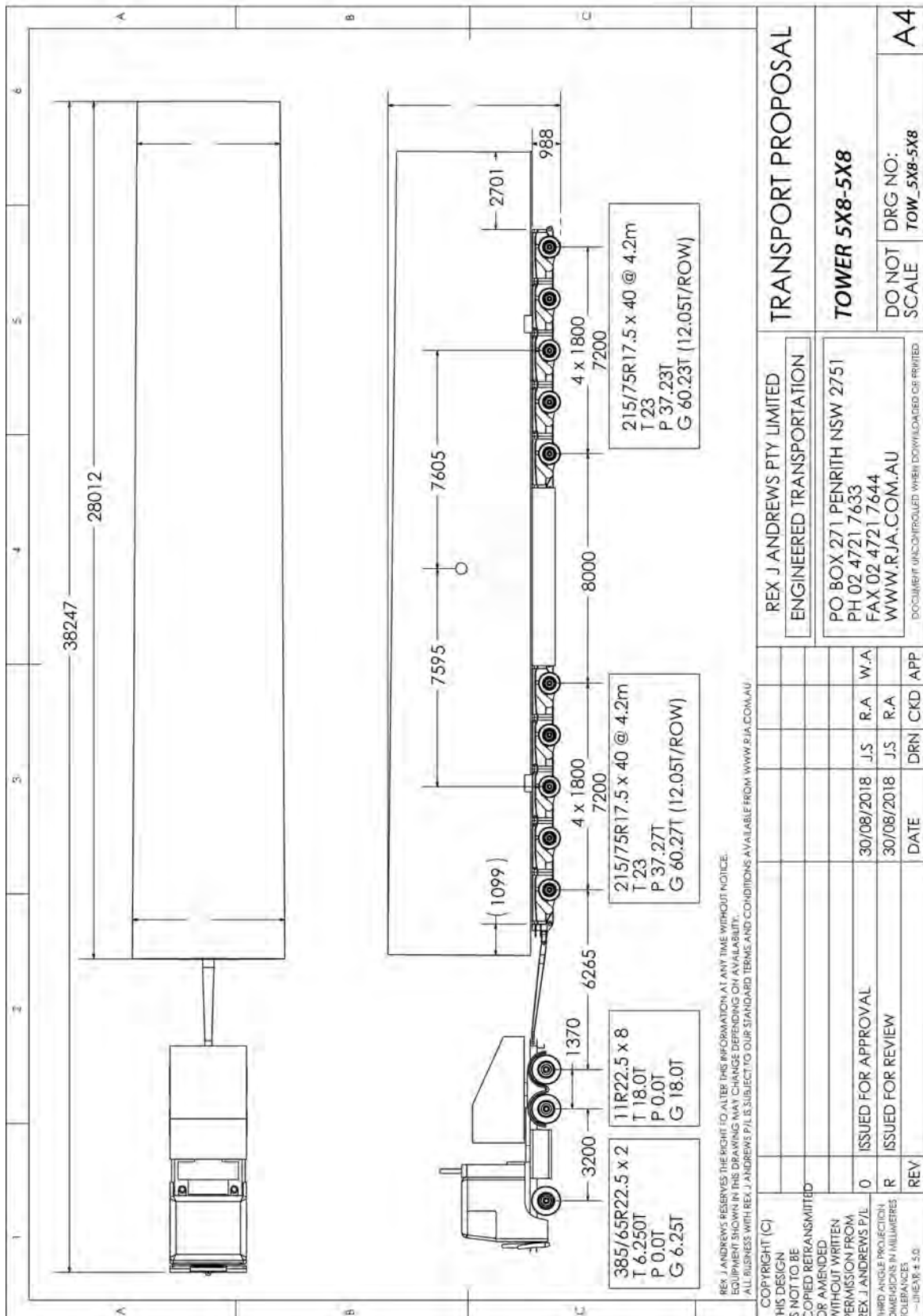
Nacelle diagram:



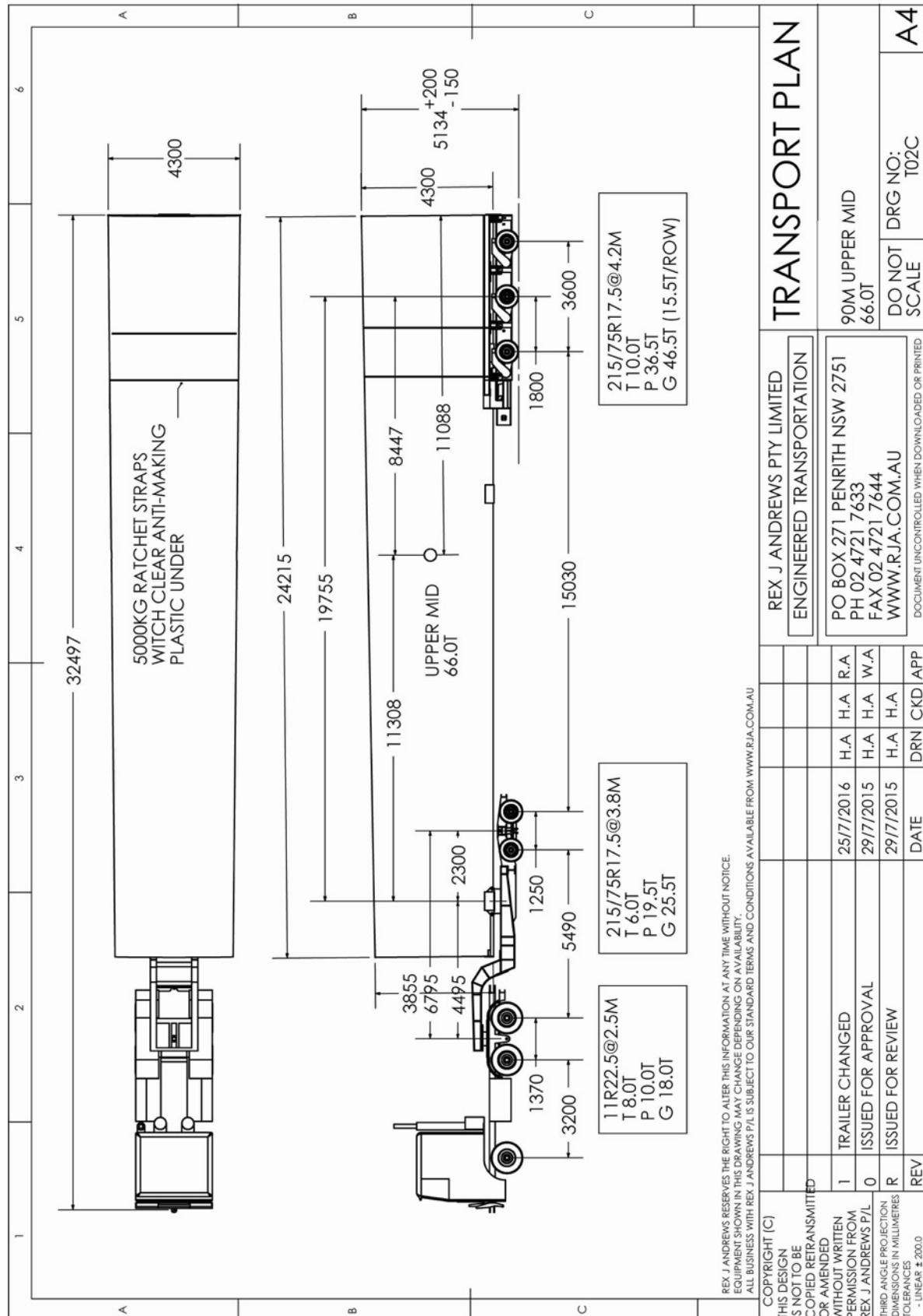
Hub diagram:



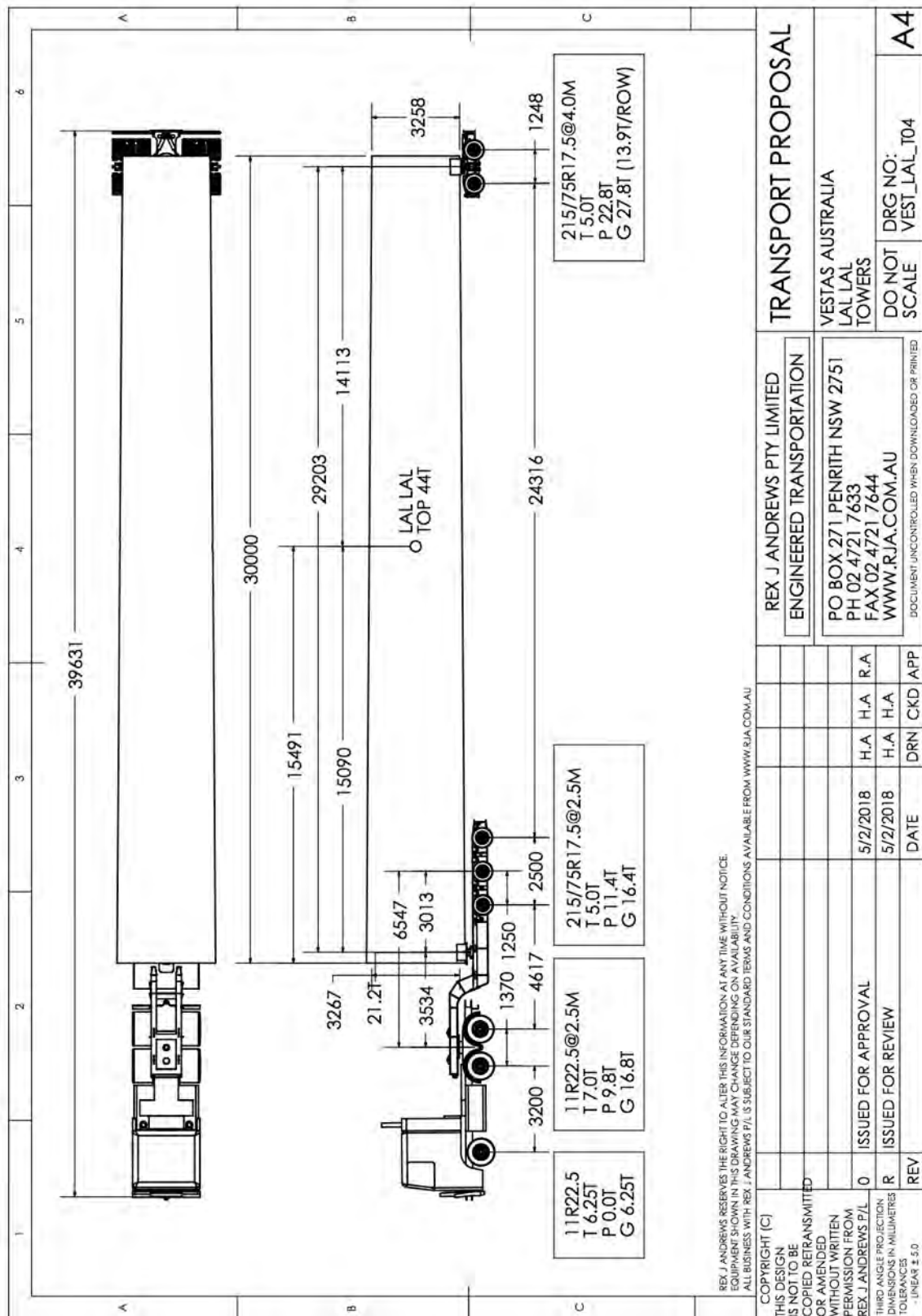
Base Tower:



Mid Tower:



Top Tower:



6.0 Port of Import.

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.

Image 1: Port overview.

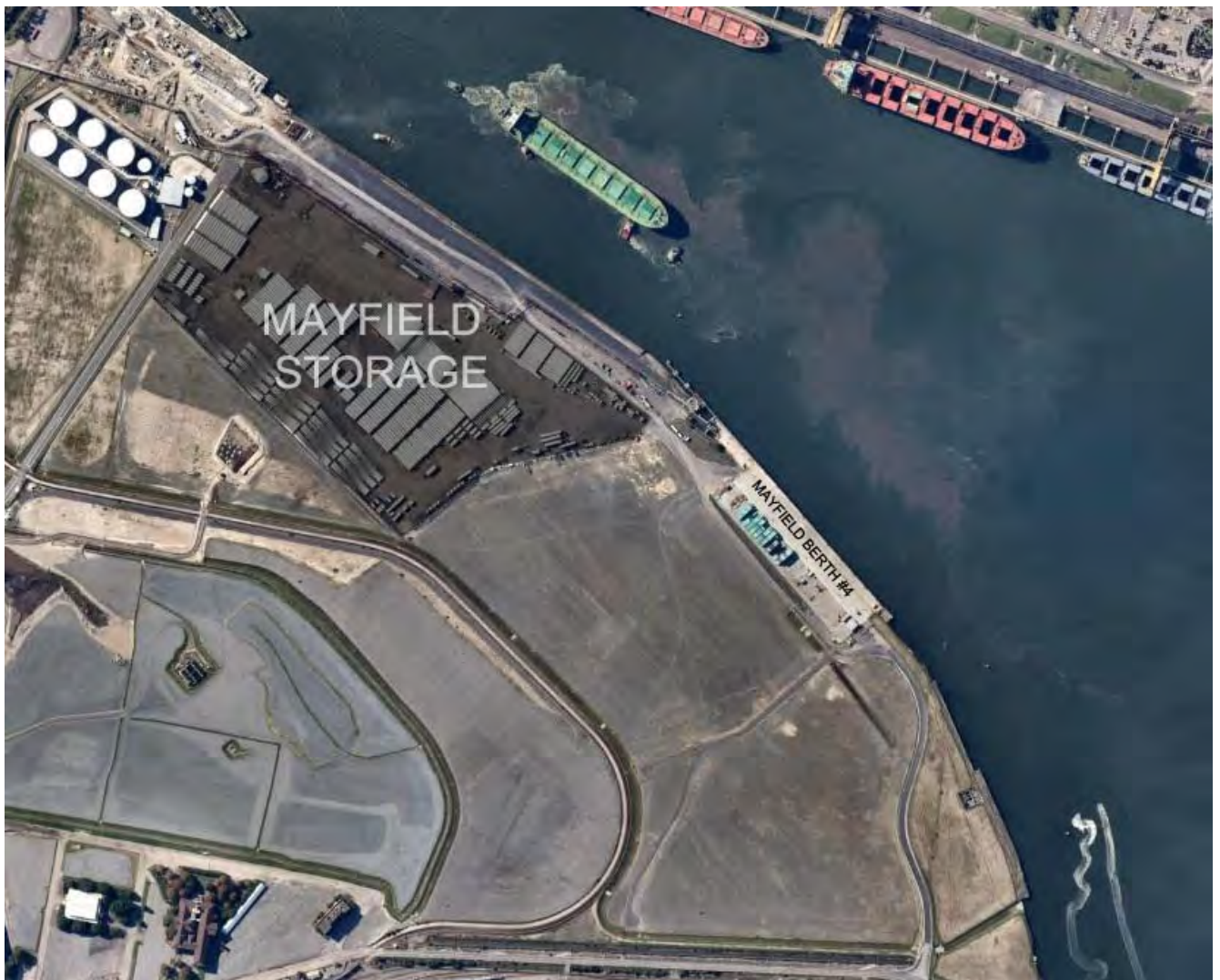
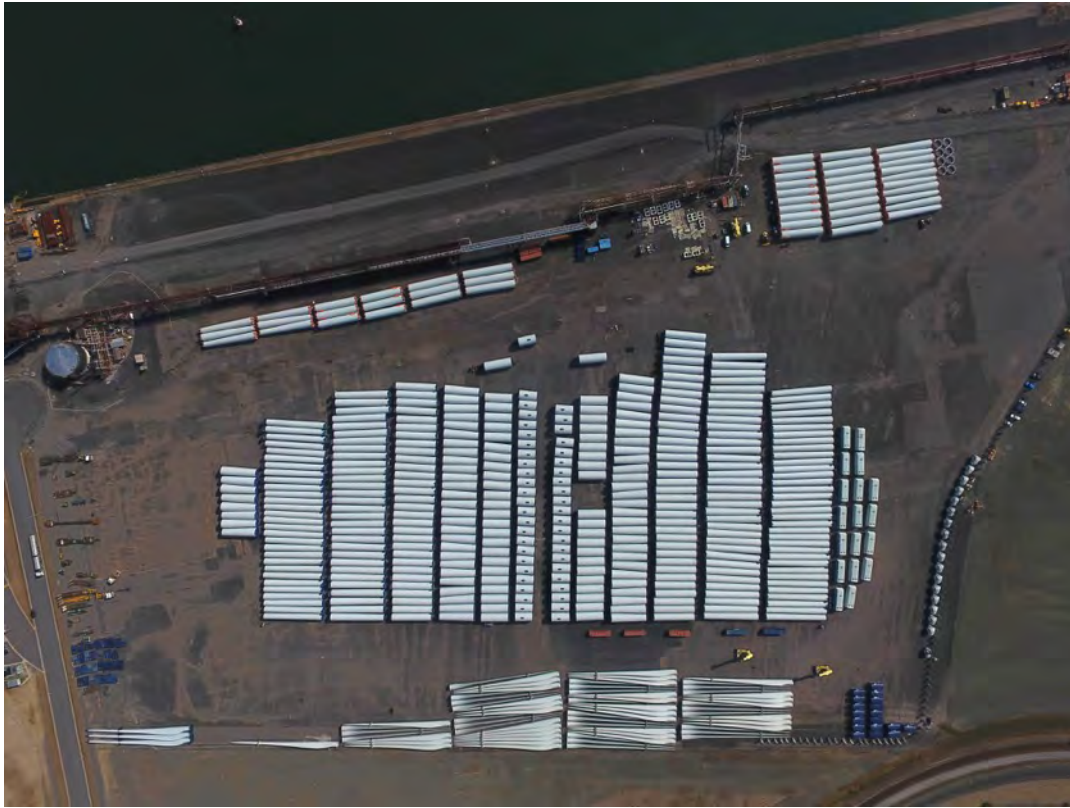
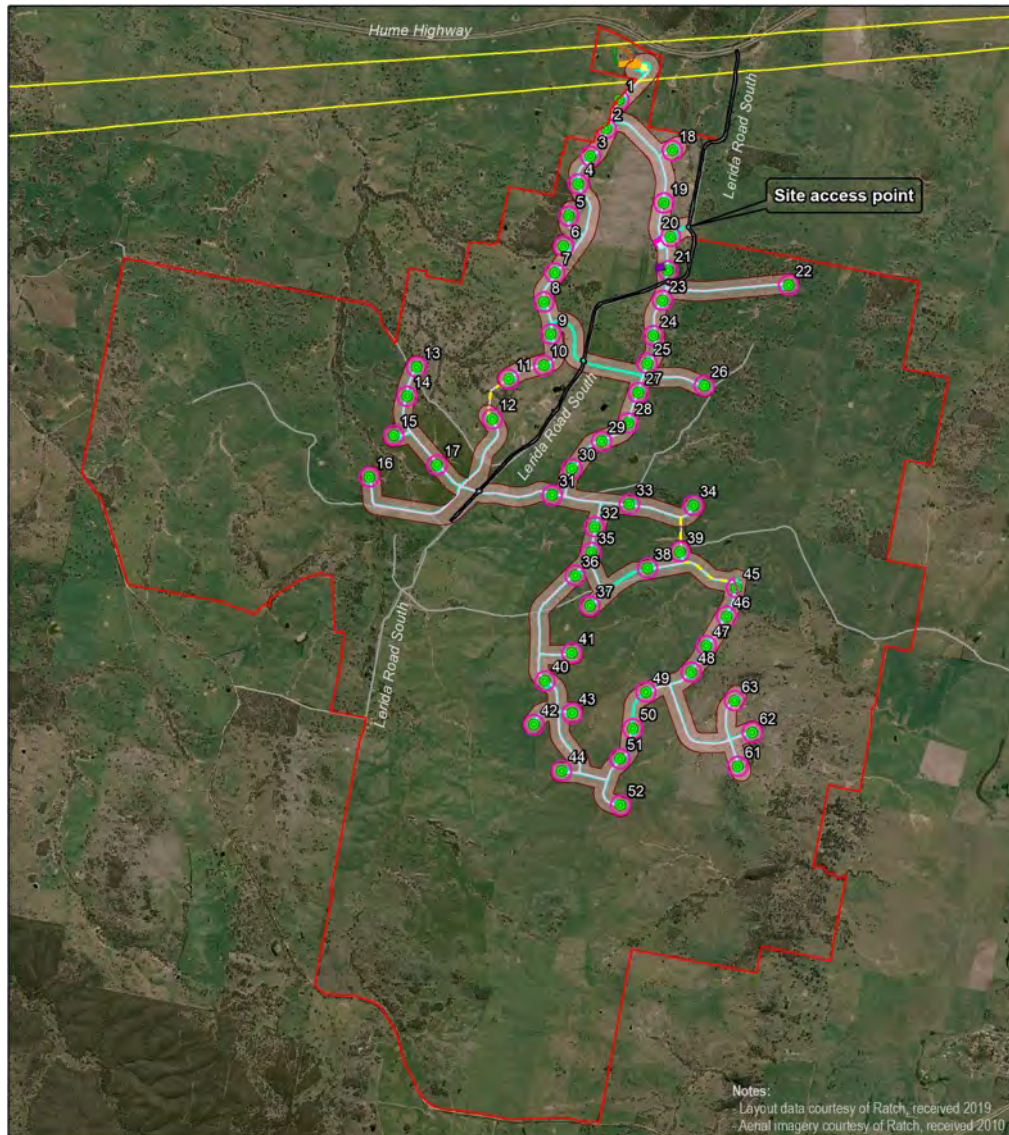


Image 2 & 3: Mayfield #4 Port storage area.



7.0 Site Location and layout.

The Collector windfarm is located approx. 50 Km's North-East of Canberra and 395 Kilometres by road from Port of Newcastle.



MODIFIED PROJECT LAYOUT

Collector Wind Farm Modification Application

- | | |
|---|--|
| Site boundary | Temporary concrete batch plant |
| Lerida Road South upgrade boundary | Ancillary infrastructure |
| Existing transmission lines | Development envelope (roads) |
| Existing roads | Road layout |
| Wind turbines | Cabling trench |
| ● Approved turbine locations | Comms cable trench |
| Development envelope (turbines) | HV lines |
| Ancillary facilities | Potential overhead line |
| Transgrid laydown area | Substation |
| Temporary construction compound | O&M building & compound |

0 0.25 0.5 1 Kilometres

A4 @ 1:55000
Ref: 5541-7
Author: BH

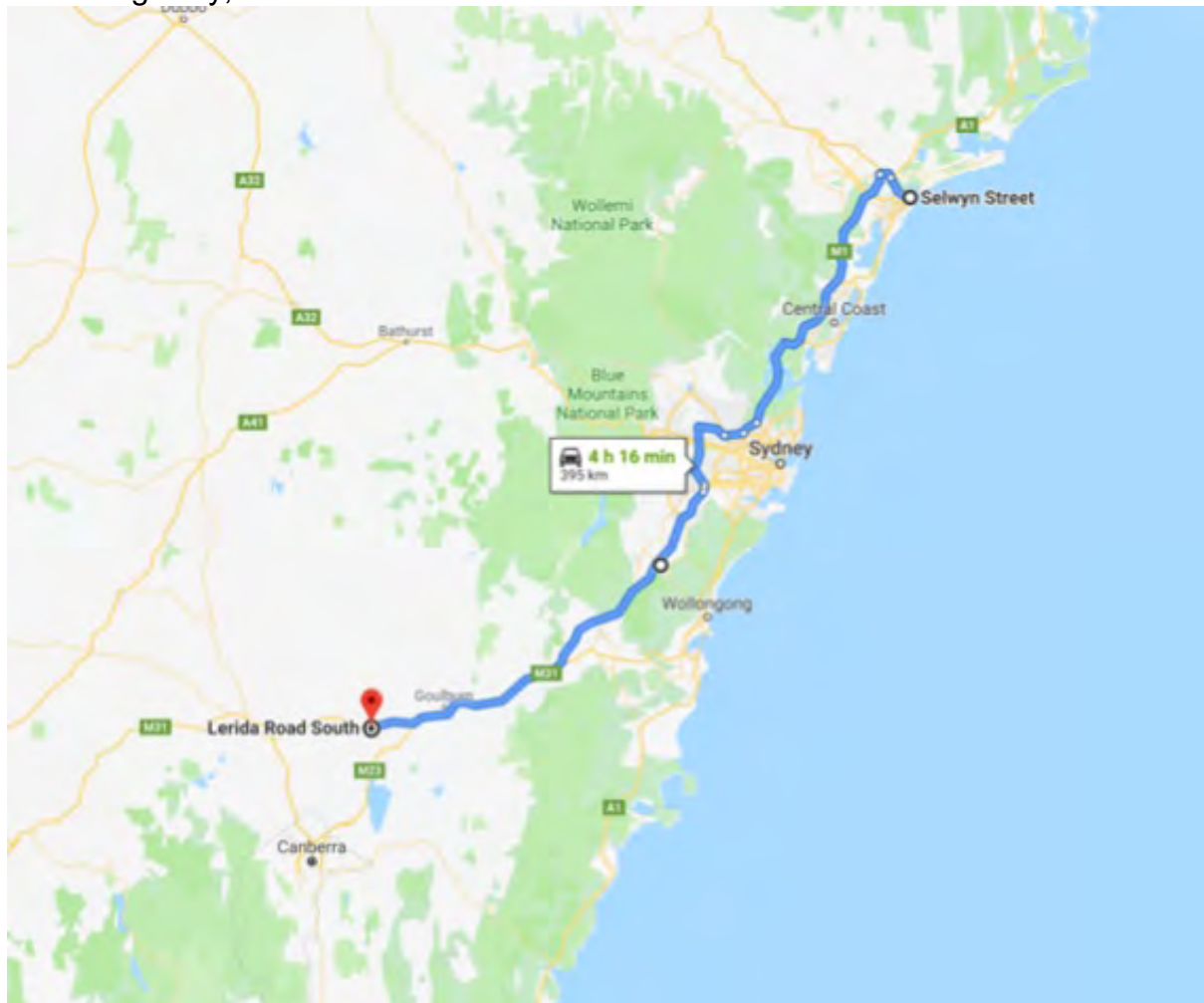


8.0 Route study: Newcastle port to Collector wind farm.

We have based this study on the turbine components, and all imported towers entering Australia via Port of Newcastle. After accessing a number of options, the following was selected as the most suitable routes.

ROUTE: Newcastle to Collector 395.0 kilometres:

This route took us via Selwyn street, George Street, Industrial Drive, Maitland Road, New England Highway, John Renshaw Drive, M1, Pennant Hills Road, M2, M7, M5, Hume Highway, Lerida Road south.



GPS Link: <https://goo.gl/maps/Q3jVkDWK1PTygPrAA>

KEY	
MODIFICATIONS REQUIRED	
PINCH POINT	
EMERGENCY PARKING	

KM index	Location	Section of road	Critical Measurement	Procedure	Notes
Newcastle port to Collector					
0.0	Mayfield	Mayfield #4 berth onto Selwyn Street GPS link: https://goo.gl/maps/aflwPYKuNdm	70.0 metres clearance	Right hand turn	No problems with this section of road.
0.4	Mayfield	Selwyn Street rail crossing GPS link: https://goo.gl/maps/AmohE54hKSz	9.0 Metres wide	Travel directly ahead	Loads to travel over the crossing in the center of the road. Approval required crossing this line, likely cross with caution.
1.3	Mayfield	Selwyn Street onto Industrial Drive via George Street GPS link: https://goo.gl/maps/gXeHvBtCp4D2	70.0 metres clearance	Right hand turn	Load to travel right from Selwyn Street onto George Street, before turning to the incorrect side of Industrial Drive. Once onto Industrial Drive the loads will travel over the centre median strip and back onto the correct side of the road. A spotter will need to guide the load through this intersection.
5.5	Mayfield West	Industrial Drive onto Maitland Road GPS link: https://goo.gl/maps/Kn49dhWG2qG2	70.0 metres clearance	Left hand bend	The loads will need to cross to the incorrect side of the road 150 metres prior to the corner, before crossing back over 200 metres after the corner.
15.9	Tarro	New England Highway over rail bridge GPS link: https://goo.gl/maps/xuekCsAvmsbmHm6P8	100.0 metres clearance	Left hand merge	Prime mover to travel around the bend in the centre lane. Spotter to guide the trailer throughout the procedure. Approval from CRN-JHG required to travel over this structure.
17.4	Tarro	New England Highway onto John Renshaw Drive GPS link: https://goo.gl/maps/SRDr5JigkBg	100.0 metres clearance	Left hand merge	No problems with this section of road.
18.5	Beresfield	John Renshaw Drive onto the M1 GPS link: https://goo.gl/maps/A34ihxCjM5wfRDdg6	100.0 metres clearance	Left hand bend	No problems with this section of road.
113.0	Mt White	M1 Motorway under Mt White overpass GPS link: https://goo.gl/maps/K3fPPe4fNx63xB3j7	Left Lane: 5.2 mtrs Centre Lane: 5.3 mtrs Right Lane: 5.4 mtrs	Travel directly ahead	Loads that exceed 5.3 metres high are not to travel under this structure. Loads over 5.2 metres high are to travel under the bridge in the far right lane, and at a speed of no more than 5 km's per hour. Spotter to guide load through this section of road.

KM index	Location	Section of road	Critical Measurement	Procedure	Notes
122.0	Hawkesbury River	M1 Motorway GPS link: https://goo.gl/maps/yDzjirEKLAbREE8B6	100.0 long x 6.0 wide	Merge to left	Large parking area
146.0	Wahroonga	M1 onto Pennant Hills Rd GPS link: https://goo.gl/maps/bskC8kD4CdW9xmwYA	75.0 metres clearance	Left hand turn	No problems with this section of road.
147.0	Normanhurst	Pennant Hills Road under Pedestrian overpass GPS link: https://goo.gl/maps/nYbjkf5AJ9D2xvUi7	Left Lane: 5.15 mtrs Centre Lane: 5.2 mtrs Right Lane: 5.3 mtrs	Travel directly ahead	Loads that exceed 5.25 metres high are not to travel under this structure. Loads over 5.2 metres high are to travel under the bridge in the far right lane, and at a speed of no more than 5 km's per hour. Spotter to guide load through this section of road.
151.0	Beecroft	Pennant Hills Road under Pedestrian overpass GPS link: https://goo.gl/maps/sinLQgYRudUSKqTQ8	Left Lane: 5.3 mtrs Centre Lane: 5.4 mtrs Right Lane: 5.5 mtrs	Travel directly ahead	Loads that exceed 5.3 metres high are not to travel under this structure. Loads over 5.2 metres high are to travel under the bridge in the centre lane, and at a speed of no more than 5 km's per hour. Spotter to guide load through this section of road.
154.0	West Pennant Hills	Pennant Hills Rd onto M2 Motorway GPS link: https://goo.gl/maps/cCsJwSt1NsRi5cSs6	75.0 metres clearance	Right hand turn	No problems with this section of road.
163.0	Winston Hills	M2 Motorway onto M7 Motorway GPS link: https://goo.gl/maps/PC96cBq2xqtW85vG7	75.0 metres clearance	Travel directly ahead	No problems with this section of road.
167.0	Kings Park	M7 Motorway GPS link: https://goo.gl/maps/T8WcbR9T84Zs7WpF7	100.0 long x 6.0 wide	Merge to left	Large parking area
201.0	Prestons	M7 Motorway onto M5 Motorway GPS link: https://goo.gl/maps/FA2mF7PxZkxrRDTR9	75.0 metres clearance	Travel directly ahead	No problems with this section of road.
229.0	Menangle	Hume Highway https://goo.gl/maps/KPMdLS1XuRWHRcyb6	200.0 long x 8.0 wide	Merge to left	Large parking area for towers and motors, no blades to enter this parking bay.

KM index	Location	Section of road	Critical Measurement	Procedure	Notes
238.0	Wilton	Hume Highway under Farm access overpass GPS link: https://goo.gl/maps/2ZsVqYJ9i9qPTGqa9	Left Lane: 5.5 mtrs Centre Lane: 5.4 mtrs Right Lane: 5.3 mtrs	Travel directly ahead	Loads that exceed 5.3 metres high are not to travel under this structure. Loads over 5.2 metres high are to travel under the bridge in the left lane, and at a speed of no more than 5 km's per hour. Spotter to guide load through this section of road.
303.0	Sutton Forest	Hume Highway https://goo.gl/maps/uT1ubtSuawS2	150.0 long x 10.0 wide	Merge to left	Large parking area
352.0	Goulburn	Hume Highway https://goo.gl/maps/7HvwRcjZiJy	180.0 long x 15.0 wide	Merge to left	Large parking area
380.0	Breadalbane	Hume Highway https://goo.gl/maps/UWix3XndLejWG1UD9	140.0 long x 14.0 wide	Merge to left	Large parking area
395.0	Breadalbane	Hume Highway onto Lerida Road south https://goo.gl/maps/gAJPvEcF2m			Lerida Road S has been made suitable to meet the planning permit requirements.

0.0 Km's: Mayfield #4 onto Selwyn Street at Mayfield.

Image 1:



PROCEDURE: Right hand turn.

GPS LINK FOR SECTION OF ROAD: <https://goo.gl/maps/afLwPYKuNdm>

COMMENTS: Trucks to turn from the correct side to the correct side.

A spotter will need to keep the driver informed throughout the procedure. Police and escorts to control local traffic either side of the intersection.

ROAD MODIFICATIONS: No works required.

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



PROCEDURE: Travel directly ahead over the crossing.

GPS LINK FOR SECTION OF ROAD: <https://goo.gl/maps/864FhMSaF9P2>

COMMENTS: Large width clearance and good ground clearance over this crossing.

Police and escorts to control local traffic either side of the crossing. ARTC approval will need to be obtained to travel over this crossing. Likely to cross with caution, no escort required.

ROAD MODIFICATIONS: No works required.

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

Image 1:



PROCEDURE: Right hand turn from Selwyn Street through George Street and onto Industrial Drive.

GPS LINK FOR SECTION OF ROAD: <https://goo.gl/maps/brPRAckLr572>

COMMENTS: Load to travel right from Selwyn Street onto George Street, before turning to the incorrect side of Industrial Drive. Once onto Industrial Drive the loads will travel over the centre median strip and back onto the correct side of the road. A spotter will need to guide the load through this intersection.

ROAD MODIFICATIONS: No works required.

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

Image 1:



PROCEDURE: Right hand turn from Industrial Drive onto Maitland Road.

GPS LINK FOR SECTION OF ROAD: <https://goo.gl/maps/Kn49dhWG2qG2>

COMMENTS: The loads will need to cross to the incorrect side of the road 150 metres prior to the corner, before crossing back over 200 metres after the corner.

Spotter to keep the driver informed throughout the procedure.

ROAD MODIFICATIONS: No works required.

15.9 Km's: New England Highway at Tarro.

Image 1:



PROCEDURE: Left hand bend over rail bridge.

GPS LINK FOR SECTION OF ROAD: <https://goo.gl/maps/xuekCsAvmsbmHm6P8>

COMMENTS: Prime mover to travel around the bend in the centre lane. Spotter to guide the trailer throughout the procedure.

Approval from CRN-JHG required to travel over this structure.

ROAD MODIFICATIONS: No modifications required.

17.4 Km's: New England Highway onto John Renshaw Drive at Tarro.

Image 1:



PROCEDURE: Left hand merge.

GPS LINK FOR SECTION OF ROAD: <https://goo.gl/maps/SRDr5JigkBp>

COMMENTS: Prime mover to travel around the bend in the centre lane. Spotter to guide the trailer throughout the procedure.

ROAD MODIFICATIONS: No modifications required.

18.5 Km's: Intersection of John Renshaw Drive and M1 at Beresfield.

Image 1:



PROCEDURE: Merge to the left and travel around a left hand bend before merging to the right onto the M1 Motorway.

GPS LINK FOR SECTION OF ROAD: <https://goo.gl/maps/A34ihxCjM5wfRDdq6>

COMMENTS: Loads to turn left onto the slip lane. Spotter to guide the load through the corner.

ROAD MODIFICATIONS: No modifications required.

146.0 Km's: M1 Motorway onto Pennant Hills Road at Wahroonga.

Image 1:



PROCEDURE: Left hand turn from the M1 Motorway onto Pennant Hills Road.

GPS LINK FOR SECTION OF ROAD: <https://goo.gl/maps/bskC8kD4CdW9xmWYA>

COMMENTS: Blade loads are to turn from the correct side to the correct side of the road.
Spotter to guide the load through the corner.

ROAD MODIFICATIONS: No works required.

154.0 Km's: Pennant Hills Road onto the M2 Motorway at West Pennant Hills.

Image 1:



PROCEDURE: Right hand turn from Pennant Hills Road onto the M2 Motorway.

GPS LINK FOR SECTION OF ROAD: <https://goo.gl/maps/cCsJwSt1NsRi5cSs6>

COMMENTS: Blade loads are to turn from the correct side to the correct side of the road. The prime mover will need to turn from the far-left lane on Pennant Hills Road and enter the on ramp as wide as possible. Spotter to guide the load through the corner.

ROAD MODIFICATIONS: No modifications required.

395.0 Km's: Hume Highway onto Lerida Road South at Breadalbane.



PROCEDURE: Left hand turn from the Hume Highway onto Lerida Road South.

COMMENTS: Care to be taken with this procedure. The trailers swept path will travel onto the inside edge of the Highway with the swept path remaining on the road pavement. The overhang will pass over the signs on the outside of the turn.

ROAD MODIFICATIONS: No works required.

GPS LINK FOR SECTION OF ROAD: <https://goo.gl/maps/gQ7jYFZvbBK2>

9.0 Conclusion:

After studying all options and undertaking a route survey, this route in its current condition will accommodate the swept path of the largest loads been the blades. The following are the key points that need to be taken into consideration, if the project moves forward with this route.

BRIDGES:

- All bridges should be adequate up to the intersection of Hume Highway and Lerida Road South. From this point on any of the structures will need to be assessed.

OVERHEAD STRUCTURES: (5.3 Maximum loaded height)

- There are a large number of overhead structures between Newcastle and Collector. The lowest of these structures is the pedestrian bridge over Pennant Hills Road at Normanhurst. There are a number of other structures noted as pinch points in the survey. Each of these pinch points will show the height clearance in each lane.
- The clearance on this route is clear for the components in this study.

OVERHEAD UTILITIES:

- The route up to the intersection of Hume Highway and Lerida Road South is okay up to 5.3 metres high, from this point through to site will need to be checked by an authorised scoping company.

OVERHEAD TREES:

- This route will need to be checked for a clear passage of at least 5.3 metres for overhead branches from the corner of the Hume Highway and Lerida Road South. Some trimming may be required on this section of route.

PAVEMENT:

- The route up until Lerida Road S is highway grade asphalt and will be adequate for all loads. Lerida Road S has been upgraded as per the development approval.

WIDTH:

- The clearance on this route is clear for the components in this study.

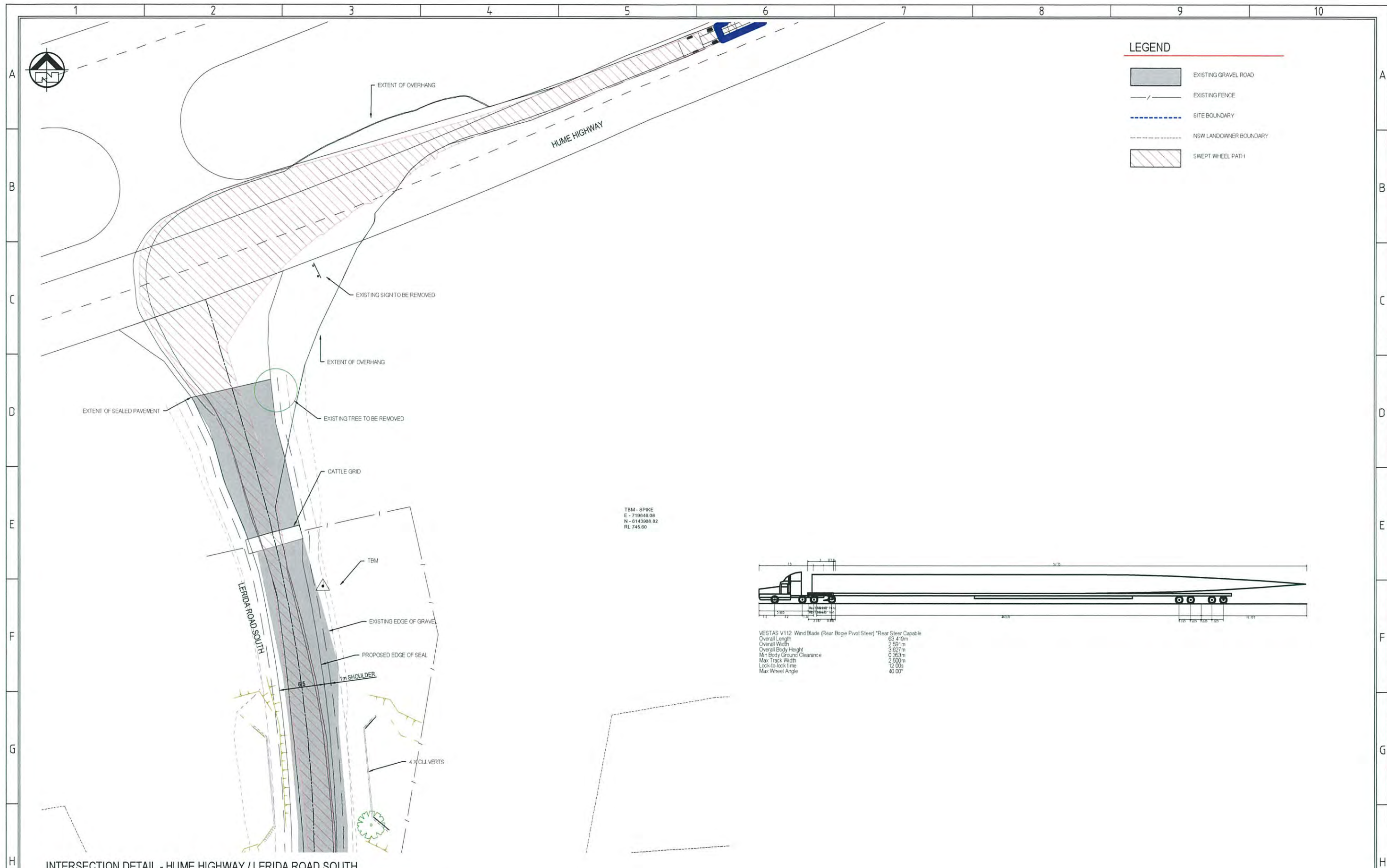
10.0 References:

Australian Load Restraint Guide
Rex J Andrews P/L Drawings
Collector Windfarm
Rex J Andrews route survey # 257
Google Earth/Maps
Nearmaps
NHVR (OSOM)
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.

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.

ANNEX F – LERIDA ROAD SOUTH SWEPT PATH ASSESSMENTS



INTERSECTION DETAIL - HUME HIGHWAY / LERIDA ROAD SOUTH

SCALE 1:250

TO BE PRINTED
IN COLOUR



© Copyright
THIS DRAWING REMAINS THE
PROPERTY OF
POWNER EX ENGINEERING
POWER PTY LTD
ALL RIGHTS RESERVED
UNAUTHORISED USE PROHIBITED

C	MINOR AMENDMENTS					B.P.	R.H.	N.C.	9.03.2016
B	MINOR AMENDMENTS					B.P.	R.H.	N.C.	15.02.2016
A	FOR DISCUSSION					B.P.	R.H.	N.C.	11.02.2015
REV	DETAIL					DRN	CHK	APP	DATE
REVISIONS AND APPROVALS									

i consulting pty ltd
engineering consultants
precision, integrity, inspiration
12 St Remond Rd
Tasmania, 6840
www.i-consulting.com.au
601 515 515
p 07 3010 0000

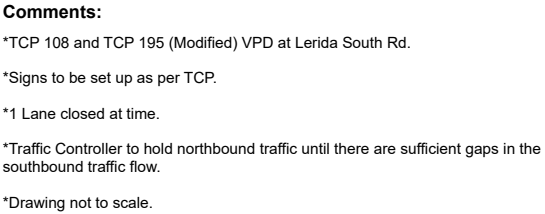


PROJECT
COLLECTOR WIND FARM
TITLE
EXTERNAL INTERSECTION DETAIL
HUME HIGHWAY / LERIDA ROAD SOUTH

DRAWING STATUS
FOR DISCUSSION
PROJECT No.
13-175
SCALE
1:250
SHEET
A1
REV.
C
COL WF-C-5392

ANNEX G – TRAFFIC CONTROL PLANS

Reference Document: Traffic Management Plan – Collector Wind Farm, Altus Traffic Pty Ltd
(ALT191011NSW)



LEGEND

Cones	
Work Zone	
C Class Arrow Board	
Traffic Controller	
Traffic Vehicle	


N


MAP REF

				CLIENT: CIVILEX 		NOTES: - THIS TRAFFIC GUIDANCE SCHEME WAS DEVELOPED BY COMPETENT AND EXPERIENCED PERSONS AND IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN AUSTRALIAN STANDARD - AS1742.3 AND THE ROAD MANAGEMENT ACT 2004. BEFORE THE COMMENCEMENT OF ROUTINE SERVICES OR ANY ORDERED WORKS, ALTUS WILL CARRY OUT A RISK ASSESSMENT AND DEVELOP CONTROLS, MEASURES AND PLANS TO IDENTIFY, ELIMINATE OR MITIGATE ANY HAZARDS. - THIS PLAN WAS DEVELOPED TO ALLOW FOR THE SAFE MOVEMENT OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE WORKSITE, THE PROTECTION OF WORKERS FROM PASSING TRAFFIC, THE PROVISION FOR ACCESS TO PROPERTIES LOCATED WITHIN THE LIMITS OF THE WORKSITE, THE IMPLEMENTATION, MAINTENANCE AND REMOVAL OF ANY NECESSARY TEMPORARY ROADWAYS AND DETOURS, THE PROVISION OF TRAFFIC CONTROLLERS, THE INSTALLATION OF TEMPORARY SIGNS, TEMPORARY ROAD DELINEATION, AND ANY OTHER SAFETY MEASURES OR CONTROLS SUCH AS SAFETY BARRIERS WHEN REQUIRED. - ALTUS TRAFFIC DOES NOT ACCEPT RESPONSIBILITY FOR COMPLIANCE OF THIS PLAN WHEN IMPLEMENTED OR MONITORED BY EXTERNAL PARTIES. - THIS PLAN IS NOT TO SCALE AND IS A REPRESENTATION ONLY AFTER A JOB SAFETY ANALYSIS IS COMPLETED ON SITE. CHANGES MAY BE MADE BY ACCREDITED PERSONS. ALL AMENDMENTS WILL BE OUTLINED AND RECORDED IN A WORKSITE DIARY / SWMS FORM.		SCALE: NOT TO SCALE DESIGNED: ASHLEY KELLY DATE: MAR-15-2019 APPROVED: JUSTIN CHEETHAM DRAWING NUMBER: TCP-CVILEX-LERIDA RD STH-001 SHEET NO: 1 OF 1		PROJECT: COLLECTOR WIND FARM LERIDA RD S, BREADALBANE DIVISION OF HUME TITLE: TRAFFIC MANAGEMENT PLAN		 Call Altus Traffic Toll Free (Australia) 1300 TRAFFIC (872 334) ABN 84 102 768 061 	
ISSUE	DESG	APPD	DATE	AMMENDMENT DESCRIPTION									

*Drawing not to scale.

NOTES:

THE TRAFFIC GUIDANCE SCHEME WAS DEVELOPED BY COMPETENT AND EXPERIENCED PERSONS AND IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN AUSTRALIAN STANDARD, AS1742.3. ANY ORDERED WORKS, ALTUS WILL CARRY OUT A RISK ASSESSMENT AND DEVELOP CONTROLS, MEASURES AND PLANS TO IDENTIFY, ELIMINATE OR MITIGATE ANY HAZARDS.

THESE MEASURES AND PLANS WILL BE MONITORED BY ALTUS TO ENSURE THE SAFETY OF VEHICULAR AND PEDESTRIAN TRAFFIC ALONG THE WORKSITE, THE PROTECTION OF WORKERS FROM PASSING TRAFFIC AND TO DETECT THE PRESENCE OF TRAFFIC CONTROLLERS. THE LIMITS OF THE WORKSITE, THE IMPLEMENTATION, MAINTENANCE AND REMOVAL OF ANY NECESSARY TEMPORARY TRAFFIC CONTROLS AND DETECTION OF THE PRESENCE OF TRAFFIC CONTROLLERS, THE INSTALLATION OF TEMPORARY SIGNS, TEMPORARY ROAD DELINEATION, AND ANY OTHER SAFETY MEASURES OR CONTROLS SUCH AS SAFETY BARRIERS WHEN REQUIRED.

THESE MEASURES AND PLANS WILL BE MONITORED FOR COMPLIANCE WITH THIS PLAN WHEN IMPLEMENTED OR MONITORED BY EXTERNAL PARTIES.

THESE MEASURES AND PLANS WILL BE MONITORED ONLY AFTER A JOB SAFETY ANALYSIS HAS BEEN COMPLETED ON SITE. CHANGES MAY BE MADE BY ACCREDITED PERSONNEL. ALL AGREEMENTS WILL BE OBTAINED AND RECORDED IN A WORKSITE DAIRY / SWMS FORM.

LEGEND

Cones ● ● ● ●

Work Zone

C Class Arrow Board →

Traffic Controller 

Traffic Vehicle 



ALTUS
TRAFFIC

Safely Managing Risk

Call Altus Traffic
Toll Free (Australia)
1300 Traffic (872 334)
ABN 84 102 768 061



N

MAP REF



SCI QUAL



SCI QUAL

*Drawing not to scale.



TCP DRAWN BY: Ashley Kelly LEVEL 3 TICKET NUMBER (NSW): 0032737318 SIGNATURE:  LEVEL 3 EXP DATE: 10th July 2019	TCP APPROVED BY: Justin Cheetham LEVEL 3 TICKET NUMBER (NSW): 0032441530 SIGNATURE:  LEVEL 3 EXP DATE: 15th July 2019	COMMENTS: - This is a short term TCP - Cones to be min 700mm high & installed 500mm from edge and lane lines - Where required adjust sign spacing to account for crests, curves & corners - Cover conflicting signs - One truck to do regular sign/maintenance after ensuring workers are in a safe location - Traffic control vehicle to be parked behind worker location and move with workers. - Signs behind concrete/wire rope barriers are to be installed on adjustable legs and secured with sand bags. Ensure sign is higher than barrier and visible to vehicles. - All staff to have white overalls with reflective strips on night - All staff to have reflective safety vests - All vehicles to have flashing orange lights - Maintain daily logs of ALL activities - All signs to be Class 1 and reflective - This TCP drawn in accordance with AS1742.3 & the RTA's CTAWS Manual
--	--	---

LEGEND

Cones	
Work Zone	
C Class Arrow Board	
Traffic Controller	
Traffic Vehicle	


N

MAD REF

				CLIENT:	CIVILEX	NOTES:	SCALE:	PROJECT:			
						THIS TRAFFIC GUIDANCE SCHEME WAS DEVELOPED BY COMPETENT AND EXPERIENCED PERSONS AND IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN AUSTRALIAN STANDARD: AS1742.3 AND THE ROAD MANAGEMENT ACT 2004. BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR FOR ANY ORDERED WORKS, ACTUALLY WILL CARRY OUT A RISK ASSESSMENT AND DEVELOP OF CONTROLS, MEASURES AND PLANS TO IDENTIFY, ELIMINATE OR MITIGATE ANY HAZARDS. THIS PLAN WAS DEVELOPED TO ALLOW FOR THE SAFE MOVEMENT OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE WORKSITE, THE PROTECTION OF WORKERS FROM PASSING TRAFFIC, THE PROVISION FOR ACCESS TO PROPERTIES LOCATED WITHIN THE LIMITS OF THE WORKSITE, THE IMPLEMENTATION, MAINTENANCE AND REMOVAL OF ANY NECESSARY TEMPORARY ROADWAYS AND DETAILS, THE PROVISION OF TRAFFIC CONTROLLERS, THE INSTALLATION OF TEMPORARY SIGNS, TEMPORARY ROAD DELINEATION, AND ANY OTHER SAFETY MEASURES OR CONTROLS SUCH AS SAFETY BARRIERS WHEN REQUIRED. - ALTUS TRAFFIC DOES NOT ACCEPT RESPONSIBILITY FOR COMPLIANCE OF THIS PLAN WHEN IMPLEMENTED OR MONITORED BY EXTERNAL PARTIES. - THIS PLAN IS NOT TO SCALE AND IS A REPRESENTATION ONLY AFTER A JOB SAFETY ANALYSIS IS COMPLETED ON SITE. CHANGES MAY BE MADE BY ACCREDITED PERSONS. ALL ALIGNMENTS WILL BE OUTLINED AND RECORDED IN A WORKSITE DIARY (DWMR) FORM.	NOT TO SCALE DESIGNED: ASHLEY KELLY DATE: MAR-15-2019 APPROVED: JUSTIN CHEETHAM DRAWING NUMBER: TCP-CIVILEX-LERIDA RD STN-0028 SHEET NO: 1 OF 1	COLLECTOR WIND FARM LERIDA RD S, BREADALBANE DIVISION OF HUME TITLE: TRAFFIC MANAGEMENT PLAN Call Altus (Australia) Toll Free (Australia) 1300 TRAFFIC (872 334) ABN 94 102 768 061	 		
ISSUE	DESC	APPD	DATE	AMENDMENT DESCRIPTION							

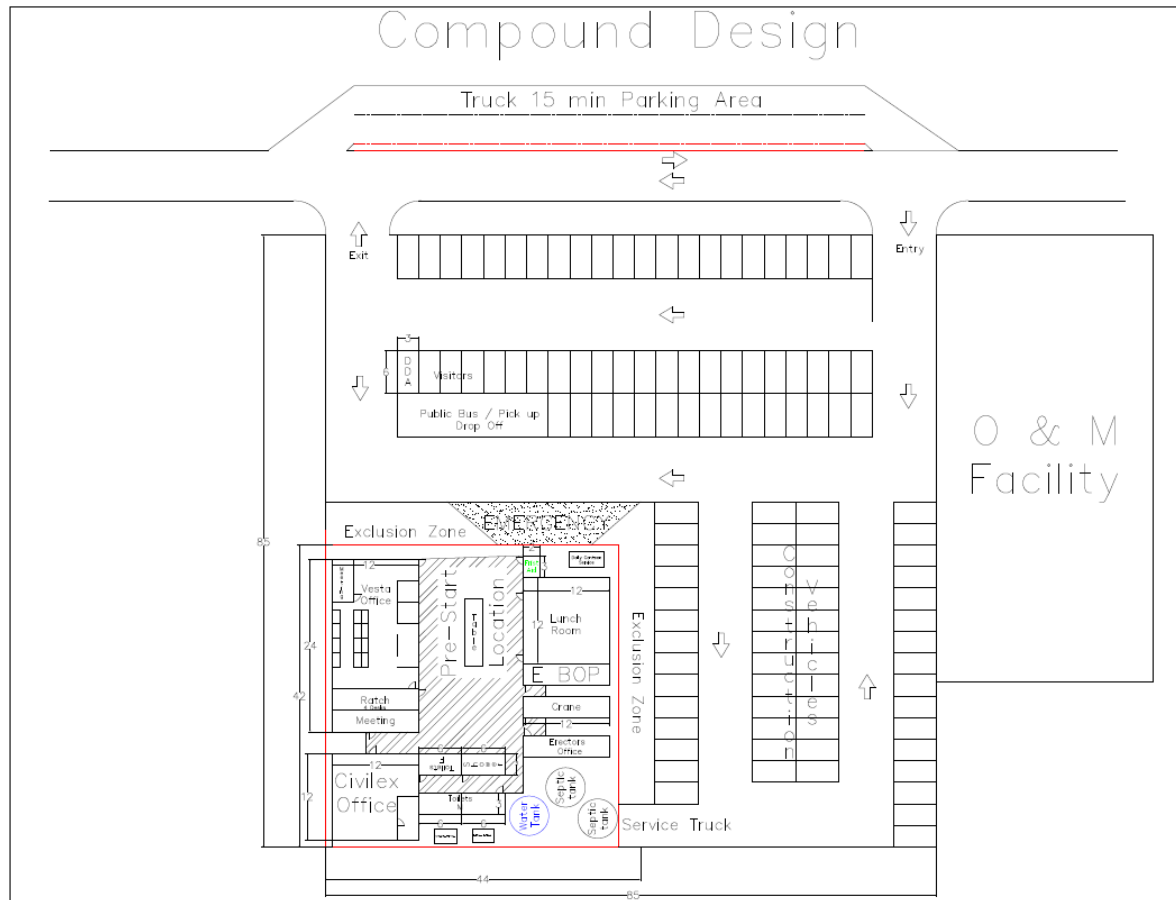
*Drawing not to scale.

LEGEND

- Cones 
- Work Zone 
- C Class Arrow Board 
- Traffic Controller 
- Traffic Vehicle 

[illegible]

ANNEX H – SITE COMPOUND LAYOUT



ANNEX I - CONSULTATION LOG

Consultation relevant to the development of this plan is provided below.

Plan Name	Version	Agency	Date	Comment
Construction Traffic & Access MP (CTAMP)	2.2	RMS	3/10/2018	CTAMP submitted to RMS via email for comment
	2.2	ULSC	3/10/2018	CTAMP submitted to ULSC via email for comment
	2.2	RMS	19/10/2018	RMS comments on CTAMP received
	2.2	ULSC	13/11/2018	ULSC followed up via phone and email for comments on the CTAMP
	2.2	ULSC	6/12/2018	ULSC indicated that they have no comments on the CTAMP
	3.2	DoPE	21/12/2018	Submitted to DoPE for approval
	3.2	DoPE	30/01/2019	DoPE comments received in relation to CTAMP
	4.1	DoPE	1/03/2019	Submitted to DoPE for approval
	4.1	DoPE	24/04/2019	DoPE comments received in relation to CTAMP

ANNEX J – DRIVER’S CODE OF CONDUCT

	Driver Code of Conduct Collector Wind Farm	Document Number: COLWF-PM-PLN-0026
		Rev:01 Page 1 of 7

Revision History

Revision	Changes	Date	Responsible
A_DRAFT	Initial DRAFT for review	13/05/2019	GLLOC
B_DRAFT	Addition of 1.3.1 – Chain of responsibility Update to 2.2 – Speed Restrictions Update to 2.4 – Approved Routes Update to 2.5 – Parking Update to 2.6 – Reversing Update to 3 – Raw Materials Haulage	28/05/2019	KJADA
01	IFC – No revision	12/09/2019	TOGRI

1	Introduction.....	2
1.1	General	2
1.2	Penalties and Disciplinary Action	2
1.3	Motor Traffic Act.....	2
1.3.1	Chain of Responsibility	3
1.4	Driving Licence	3
1.5	Vehicle Minimum Maintenance and Operating Condition	3
1.6	Environment.....	3
1.7	Noise Control	3
2	Driving Practices	4
2.1	Highway Courtesy	4
2.2	Collector Wind Farm Works Speed Restrictions	4
2.3	Defensive Driving	4
2.4	Approved Routes	4
2.5	Parking.....	5
2.6	Reversing.....	5
3	Raw Materials and Equipment Haulage	6
4	Marulan Heavy Vehicle Checking Station.....	6
5	Times Of Operation	6
6	Residents' Complaint Hotline (1800 280 013)	6
	Appendix 1	7

1 Introduction

1.1 General

This driver code of conduct applies to all Vestas personnel and any other person conducting business for on behalf of the Collector Wind Farm, or any works associated with the Collector Wind Farm, whether a direct employee or a contractor or sub-contractor of Vestas.

We are all members of the general community, so you are expected to comply with all the relevant legal requirements and accepted community standards whilst conducting your business. Whether you are an employee of Vestas or operate any service to the company, your behaviour on the road reflects upon the community reputation of Vestas and in this regard your full compliance with this Driver Code of Conduct is required.

1.2 Penalties and Disciplinary Action

Failure to comply with this Driver Code of Conduct will lead to either the issue of a "warning notice" or "disciplinary action" if the offender is an employee of Vestas. If the offending party represents another company then "disciplinary action" may be treated as suspension or cancellation of a service contract or arrangement with that company.

A warning notice may be issued for several reasons, which may include, but is not limited to:

- Driving at excessive speed;
- Use roads contrary to that described in the approved transport routes;
- Abuse other road users or customers;
- Do not carry out instructions as advised;
- Do not report incidents/accidents

Examples of behaviour that may result in disciplinary action are if you:

- Consume or are under the influence of alcohol or drugs whilst on duty;
- Fight or commit acts of violence towards any person whatsoever, whether employee of Vestas or otherwise;
- Are charged and found guilty of a serious offence causing an accident.
- Have received multiple warning notices for breaches of this Code of Conduct, or any other site rules or policies.

1.3 Motor Traffic Act

As a driver you are required to know and comply with all road rules pertaining to your vehicle (whether standard passenger car, utility or heavy transport vehicle).

	Driver Code of Conduct Collector Wind Farm	Document Number: COLWF-PM-PLN-0026 Rev:01 Page 3 of 7
--	---	--

1.3.1 Chain of Responsibility

Chain of responsibility (COR) recognises the on-road effects of actions, inactions and demands of off-road parties in the transport and supply chain, and provides for their accountability.

COR laws aim to ensure that any off-road party in a position to control, influence or encourage particular on-road behaviour is identified and held appropriately accountable - keeping our drivers and community safe and making sure our transport networks remain productive.

1.4 Driving Licence

You must hold a current and valid driving licence for the class of vehicle that you operate. Additionally, you must always carry your current driver's licence with you while you are on duty.

If your licence is cancelled or suspended, you must let your supervisor know immediately.

1.5 Vehicle Minimum Maintenance and Operating Condition

All vehicles must be maintained and operated in accordance with the vehicle manufacturers recommended standards (refer to vehicle manufacturer's handbook).

1.6 Environment

Vestas is committed to protecting the environment and preventing air, water, noxious weeds and noise pollution. As the operator of your vehicle, you are subject to environmental regulations relating to vehicle emission and product spill.

You must understand and appreciate the seriousness of polluting the environment, damaging farming land by carrying contaminated soil and the consequences of this. If you are careless or neglect your responsibilities, you can cause personal injury, loss of life, property damage, substantial fines, and adverse publicity for the company.

1.7 Noise Control

Using engine brakes can be extremely noisy. If possible, you should not use engine brakes near residences and built up areas.

All vehicles must be fitted with audible reversing alarms. These are essential for the safety of all personnel. Reversing alarms are however the source of potential noise complaints from neighbouring residents so all drivers should be aware of this and try to minimise reversing when possible.

Generating excessive noise is governed by legislation and is an offence.

2 Driving Practices

2.1 Highway Courtesy

The on-going reputation of the company depends very much on the way you drive your vehicle and courtesy that you extend to the community.

The road is there to share and therefore, it is a company requirement that you display courtesy and restraint towards other road users.

2.2 Collector Wind Farm Works Speed Restrictions

The Collector Wind Farm site has a general speed limit of 40 km/h with 10 km/h limits in designated areas or as otherwise signposted. These limits are to ensure the interaction between personnel and vehicles are managed to minimise the risk of injury to all personnel.

Farm speed limits also include the following restrictions:

- On farm roads 30 km/h
- On pasture 30 km/h
- During lambing 20 km/h
- Near houses, sheds and water points 20 km/h

Drivers are always required to observe the posted speed limits and other traffic signage. All incidents where drivers do not observe speed limits and other traffic instructions will be logged and investigated and, where appropriate, disciplinary action will be taken. Always follow posted signs as they provide vital clues to road conditions and characteristics. You should always apply the following rules:

- Always reduce your speed in wet conditions;
- Drive cautiously in fog or heavy rain;
- Descend hills at sign-posted truck speeds, or in the lowest gear to suit the conditions;
- Always observe the special limits that apply for road works etc;

2.3 Defensive Driving

You should always drive in a manner that will help you to avoid an accident, despite incorrect/inappropriate actions of others or poor driving conditions. Defensive driving requires a high degree of anticipation.

2.4 Approved Routes

All vehicles must enter the Collector Wind Farm site from Lerida Road South via the Hume Highway only. No access to site is permitted via any other local roads.

	Driver Code of Conduct Collector Wind Farm	Document Number: COLWF-PM-PLN-0026
		Rev:01 Page 5 of 7

The routes for heavy vehicle access to and egress from the Collector Wind Farm are listed below (refer to Local Area Map in Appendix 1):

- Access to Lerida Rd South via Goulburn is the Hume Highway, caution must be exercised when slowing to enter Lerida Rd South.
- All heavy vehicles must only exit Lerida Rd South in a westerly direction toward Gunning.
- **Heavy vehicles are NOT permitted to cross the Hume Highway.**
- **The Lerida Rd South access and egress is monitored by a real-time camera to enforce to Ministers' Project Condition of Approval.**

You must stick to the defined routes laid down unless advised otherwise in exceptional circumstances. Such exceptional circumstances may be:

- Normal route blocked e.g. flooded;
- A revised route agreed in writing.

Trucks and heavy vehicles must not use local residential streets.

2.5 Parking

All vehicle parking will be provided within the confines of the site with no reliance on parking on the local road network. There will be sufficient area within the site during differing phases of construction to accommodate vehicle parking, including construction traffic deliveries and on-site manoeuvring as and when required.

Short-term parking area for heavy vehicles is available adjacent to the Construction Compound to accommodate heavy vehicle inspections and deliveries.

Avoid parking on or within one metre of the roadway. If this is not possible, make sure that you use portable warning signs.

Always park your vehicle in a safe position. Make sure it can be seen and that it is as far away from the moving traffic as possible. If in doubt leave your hazard lights on.

If you are transporting dangerous goods, there are additional restrictions that affect you. Refer to the "Parking with Dangerous Goods" section of your manual.

All vehicular parking must be done within the site boundary, no parking shall be conducted on public roads i.e. Lerida Rd South.

2.6 Reversing

Try to avoid reversing whenever possible. If you cannot avoid it, use extreme caution.

If you need to reverse:

- Get out of your vehicle and check the rear surrounding area;
- Check clearances at sides, top and bottom;

	Driver Code of Conduct Collector Wind Farm	Document Number: COLWF-PM-PLN-0026 Rev:01 Page 6 of 7
--	---	--

- Constantly monitor mirrors for pedestrians or other traffic when reversing.
- Engage the use a spotter if practicable.

3 Raw Materials and Equipment Haulage

Drivers are responsible for ensuring that all tailgates are properly closed and that there is no excessive leakage of water, dust, mud or loose materials from the vehicle to the road surface.

All loads must be secured and covered.

Drivers of trucks hauling raw materials to and from the works will ensure adequate separation between vehicles. No tailgating or formation of rolling convoys shall be permitted.

Drivers are responsible for ensuring that all loads are properly covered and that there is no spillage or leakage of the load from the vehicle to the road surface.

4 Marulan Heavy Vehicle Checking Station

Drivers should be aware that a heavy vehicle inspection station is located at Marulan approximately 27km north of Goulburn.

5 Times of Operation

This Transport Code of Conduct is applicable 24 hours per day, 7 days per week.

The Collector Wind Farm operating hours are:

- 7am-6pm Monday to Friday
- 8am-1pm Saturday
- At no time on Sundays or NSW Public Holidays unless approved.

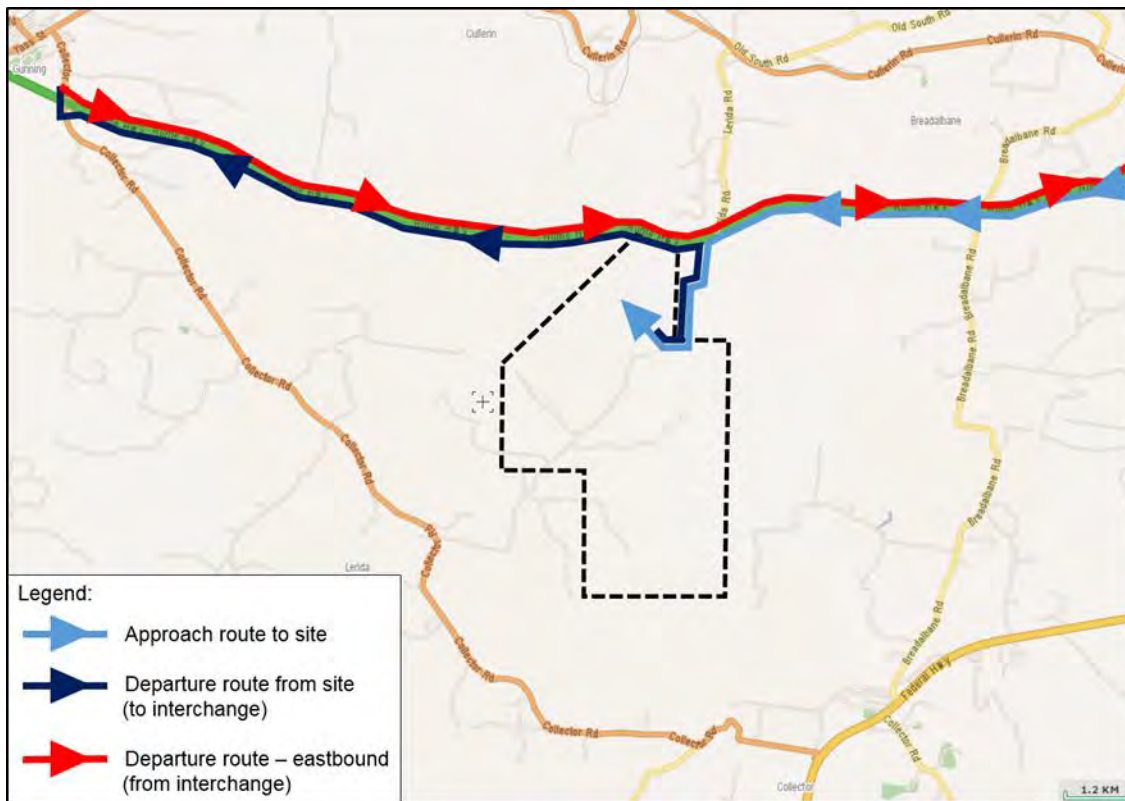
6 Residents' Complaint Hotline (1800 280 013)

Drivers should be aware that a complaints telephone number is available to the public to lodge complaints against any driver contravening this Code of Conduct.

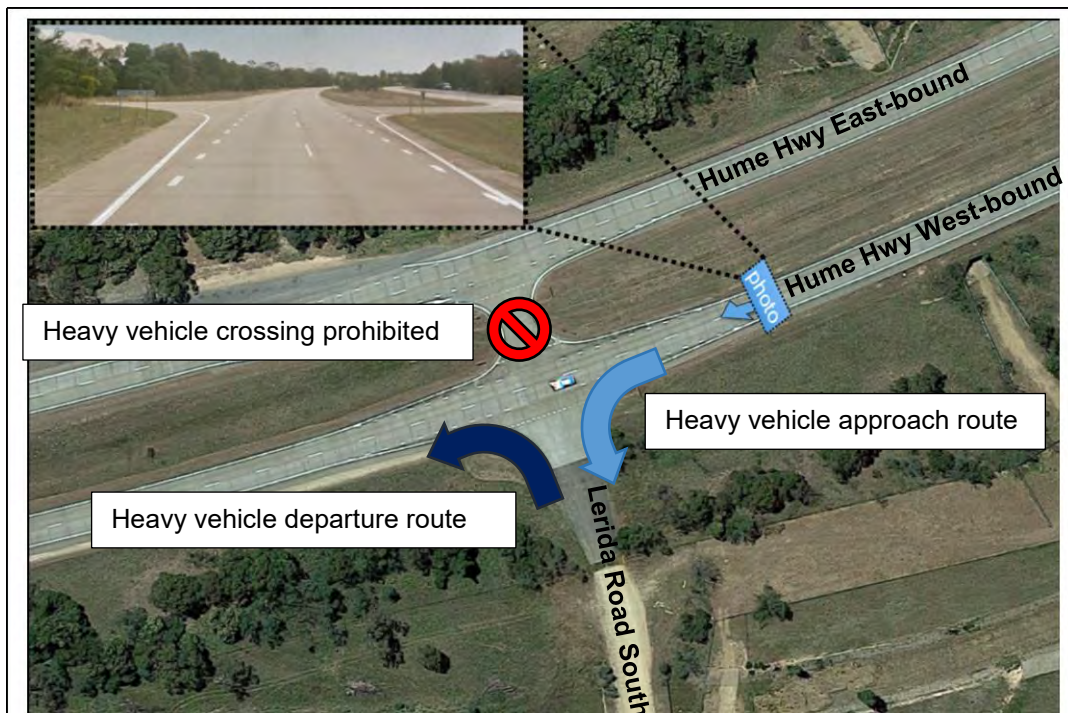
All complaints will be logged and investigated and, where appropriate, disciplinary action will be taken.

Appendix 1

Heavy Vehicle Access and Egress Map



Heavy Vehicle access and egress detail



ANNEX K- CONCRETE BATCH PLANT LAYOUT

