

11 April 2022

P1844 Bylong Park additional information

Gyde Consulting
Suite 2, Level
Origin
P O Box 5044
NSW 2264

Attn: Belinda Barrie

Dear Belinda,

Review of Council RFI for proposed Bylong Park Greyhound Farmstay facility

Further to your emails and the public consultation meeting held for the above project in Denman, we have reviewed the RFI provided by Council and have discussed the specific requirements requested by Council with the relevant officer. We have also re-visited the site to reviewed the specific issues raised by Council and provide the following responses / details with regard to these issues.

1. **Martindale Road Intersection** – Council Officers have inspected the site and the T intersection between the sealed roadway of Martindale Road and the gravel Crown road to the proposed site. Council Roads and Drainage Officers and Engineers have concerns with the sight distances around this intersection and the risk presented by additional light and heavy vehicle movements using this intersection as an outcome of the proposed development. It is Council's view that this intersection will require upgrade works as part of the development. Accordingly, it is requested that a further evaluation of this intersection is undertaken and a concept design put forward for an upgraded intersection. Any design should include
 - a bitumen seal to the extent of the road reserve in accordance with the Rural Road driveway standard plus suitable sealed apron to prevent gravel entering the roadway,
 - Appropriate concealed driveway signage along the Martindale Rd in each direction
 - Appropriate widening of Martindale Road to provide safe acceleration/passing lane for vehicles turning right when exiting the T intersection of the Crown Road into Martindale Road

Response

As acknowledged in the traffic impact assessment completed for the application, the sight lines for drivers exiting the subject site are restricted, particularly to the right. There is potentially a minor impact created by the vegetation along the road verge as well as an impact created by the slight brow present on Martindale Road.

The available sight distance has been measured on site in accordance with the requirements of Figure 3.2 of Part 4A of Austroads Guidelines. For the posted speed limit of 100 km/h this Austroads Guideline requires a minimum safe intersection sight distance of 234 metres.

Available safe intersection sight distances have been measured at:

124 metres to the left

300 metres to the right

Whilst the sight distance to the right is acceptable, it can be seen that to the left the sight distance is below the requirement and the distance available equates to a vehicle speed of 60 km/h. The major risk associated with the reduced sight distance relates to a driver exiting the site and a driver on Martindale Road colliding with the turning vehicles in the intersection or running into the rear of this vehicle. To assess the potential for this collision to occur, the stopping sight distance available from the RTA Road Design Guide has been reviewed. For the posted speed limit of 100 km/h the stopping sight distance requirement is 150 metres minimum and 175 metres desirable.

The available stopping sight distance for a car driver is 124 metres, which equates to a vehicle speed of 90 km/h (120 metres).

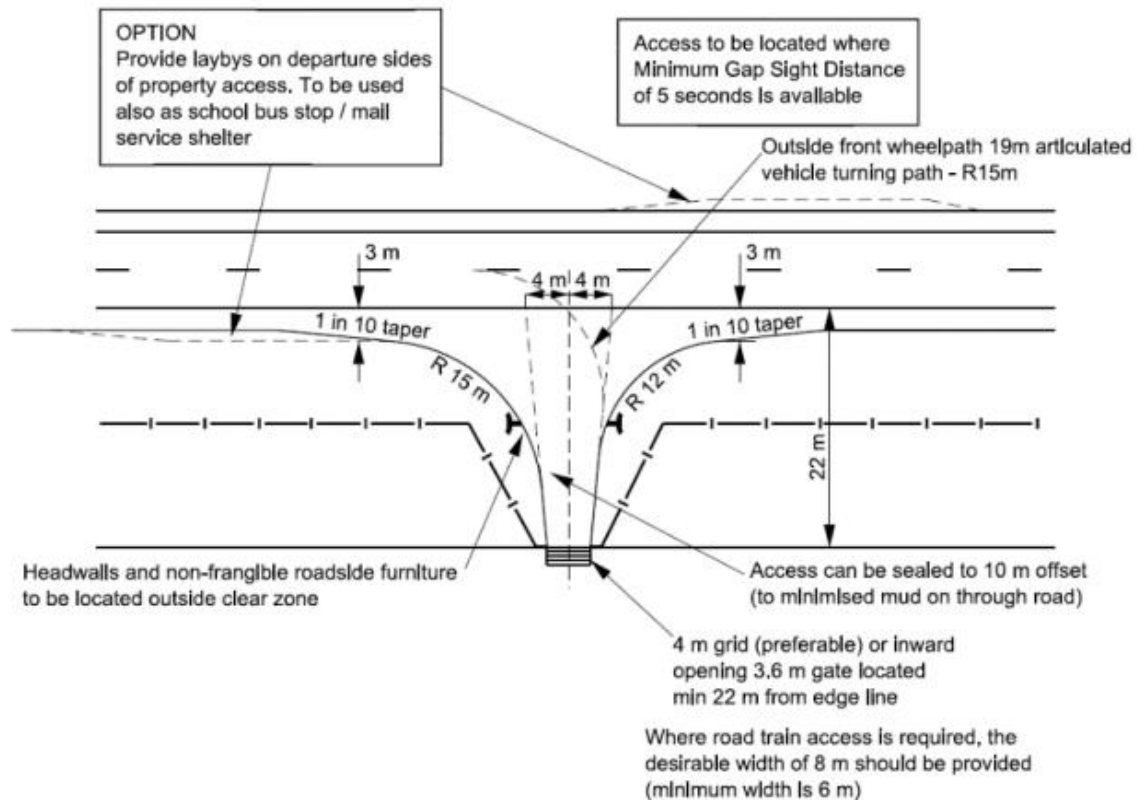
It is noted that for a driver of a heavy vehicle exiting the site, the sight line is improved as the brow is not severe. From the site work, allowing for the driver eye height of 2.4 metres, the driver shall be able to observe a vehicle approaching on Martindale Road for a distance exceeding 200 metres. This ensures a driver of a truck exiting the site will have visibility exceeding the 175 km/h requirement from Austroads.

To mitigate the safety associated with vehicles exiting the site, the following design elements are proposed to be installed:

- Provision of advanced warning signs to indicate hidden driveway and trucks turning.
- Removal of trees / vegetation in the road reserve to the immediate south of the site access for approximately 40 metres to allow the site access to be highlighted for drivers on Martindale Road.
- As part of the site induction, advise drivers of the reduced sight lines when exiting the site and to exit the site cautiously as appropriate.
- Provision of a STOP sign at the exit to ensure drivers stop prior to entering Martindale Road and ensure a driver can observe any vehicle on Martindale Road and especially a truck driver exiting the site

It is proposed that the driveway connection to the site is upgrade in accordance with the requirements of Austroads Guide to Road Design Part 4: Intersections and Crossings. Figure 7.4 of this design guide (reproduced below) provides the requirements for the rural property access design layout which can be used as a basis for the upgrade of this access. This layout includes the access being sealed to minimise dirt being carried from the Crown Road onto Martindale Road.

Figure 7.4: Example of a rural property access specifically designed for articulated vehicles



- 2 Traffic Impact Assessment** – an updated traffic impact should be prepared in relation to the proposed development which gives further consideration staff requiring parking arrangements on the opposite side of the creek from the proposed development due to creek flow and impeded access for a range of vehicles including deliveries.

In the event of flooding, the site will generally not be accessible along Martindale Road and / or within the property due to the creek flow. It will not be permissible for staff to park on the western side of the creek to then walk through / across the creek to access the site. As part of the management of the site and staff, when there is a flood event prohibiting staff from accessing the site due to this creek flooding staff will be advised via text (or similar) that they should not access the site.

- 3 Road Safety Assessment** – a more detailed analysis of the safety of Martindale Road is required to that included in the Traffic Impact Assessment submitted. It is requested that a detailed safety assessment of the roadway be provided in relation to the proposed development including a condition assessment/dilapidation survey of the road of between the bridge to the north of the site on Martindale Rd (over Martindale Creek in the vicinity of its connection with Gungalwa Creek) and to the Crown access Road plus a minimum 300m further south. This assessment should identify existing road safety requirements and propose any additional measures required to support the safety of light and heavy traffic movements related to the proposed development

The extent of the Road Safety Assessment has been confirmed with Council staff and is to allow for a distance 300 metres south of the site access through to the first creek crossing on Martindale Road, a distance of approximately 2500 metres. The safety review has been completed by Sean Morgan, an accredited road safety auditor (RSA-02-0067). The following points are made with regards to road safety along Martindale Road:

- The posted speed limit for the majority of the length is 100 km/h. Given the width and nature of the road verge, consideration could be given to lowering this limit. During the site visit, the comfortable speed was in the order of 80-90 km/h however it was noted that drivers who were probably familiar / local to the area drove quicker and appeared to be travelling at 100 km/h or more in some locations.
- The existing traffic flows are very low on this road. During the site visit, less than 10 cars were observed on this section of the road near the project site over a 1.5-2 hour timeframe.
- The vehicles observed were cars together with the afternoon school bus run. This bus runs along Martindale Road, past the site and then returns back along Martindale Road. The width of the sealed road pavement requires the opposing vehicles to slow and place two wheels onto the verge to pass.
- The vegetation to the side of the road in places is well maintained with the grass cut short to both sides. In these locations, the road appears wider and if a driver needs to place two wheels on the verge it is much easier to judge where to drive.

To improve road safety for all users on Martindale Road for the 2500 metres nominated by Council the following safety improvements are suggested. Note the chainages commence at the bridge over Martindale Creek in a southerly direction:

Table 1 – Suggested road safety improvements

Chainage (approximate)	Suggested upgrade	Benefit
From bridge to subject site access (2500 metres)	Maintain vegetation to both sides to low level	Allows drivers to use the verges in a safe manner but noted this could encourage drivers to pass each other at higher speeds
Left hand curve at 600 m	Seal shoulder to inside of curve to allow for running width of 6 metres for 100 metres including tapers	Allows vehicles to pass each other in opposing directions on the curve
1400 metres	Seal shoulder to both sides of road to provide a width of 6 metres over 50 metres including tapers	Allows a spot for a vehicle to pull over to allow an opposing vehicle to pass
1900 metres	Seal shoulder to both sides of road to provide a width of 6 metres over 50 metres including tapers	Allows a spot for a vehicle to pull over to allow an opposing vehicle to pass
2100 metres	Seal shoulder to both sides of road to provide a width of 6 metres over 50 metres including tapers	Allows a spot for a vehicle to pull over to allow an opposing vehicle to pass
Site access plus 40 metres south	Remove vegetation on left hand side of road along site boundary	Highlights site access
Prior to site access for northbound traffic	Provide advanced warning sign for the presence of the site access	Highlights site access
At site access	Upgrade site access in accordance with Figure 7.4 from Austroads Guide to Road Design Part 4: Intersections and Crossings.	Highlights site access, allows for safe entry / exit movement for truck

4 Preliminary Construction Traffic Management Plan – while Council recognises that it may be difficult for a comprehensive Construction Management Plan (CTMP) to be prepared at this stage of the development design the ability for construction traffic (particularly heavy vehicles) to safely access the site and avoid conflict with other Martindale Road traffic is an important assessment issue for this development. Accordingly, it is recommended that preliminary details of construction traffic are provided to Council to inform their assessment of the proposed development along with a preliminary Management Plan providing a high level overview of any measures proposed to ensure the safe management of construction traffic to and from the site

The Construction Traffic Management Plan would include the following items:

- Confirm the school bus operational times and ban any construction associated vehicles from entering or exiting the at these times and not to travel between the site and Denman. This would allow for construction staff to arrive in the morning prior to the school bus run and then leave after the school bus run.
- All material delivery trucks would access the site after the morning bus run and prior to the school bus run. NO access for delivery trucks would be permitted during the operational times for the school bus along Martindale Road.
- Construction staff would be encouraged and supported to car share to the site to reduce the number of vehicles having to access the site. This could be managed via shared trips from Denman and a nominated parking area in this town. All construction staff would be provided with the Drivers Code of Conduct for access to the site.
- The access route to the site for delivery vehicles would be nominated and documented as part of the material / supplies procurement process. This access route and a Drivers Code of Conduct (attachment A provides an outline Drivers Code of Conduct) would be provided as part of the procurement process to ensure delivery drivers adhere to the CTMP.
- The nominated access route to the site is provided below in Figure 1, for both light and heavy vehicles.
- Provide written communication to all landowners and properties along the access route to advise of upcoming work and any impacts upon Martindale Road. This communication would include the contact details (email and telephone) for the construction site manager.
- IF any over size over mass vehicles require access to the site, these would travel outside of the travel times for the school bus and would include escort vehicles as per TfNSW requirements. All landowners and residents along Martindale Road would be provided with specific details with regards to time and dates for any of these vehicles.

The Construction Traffic Management Plan would be prepared and agreed in consultation with Council.

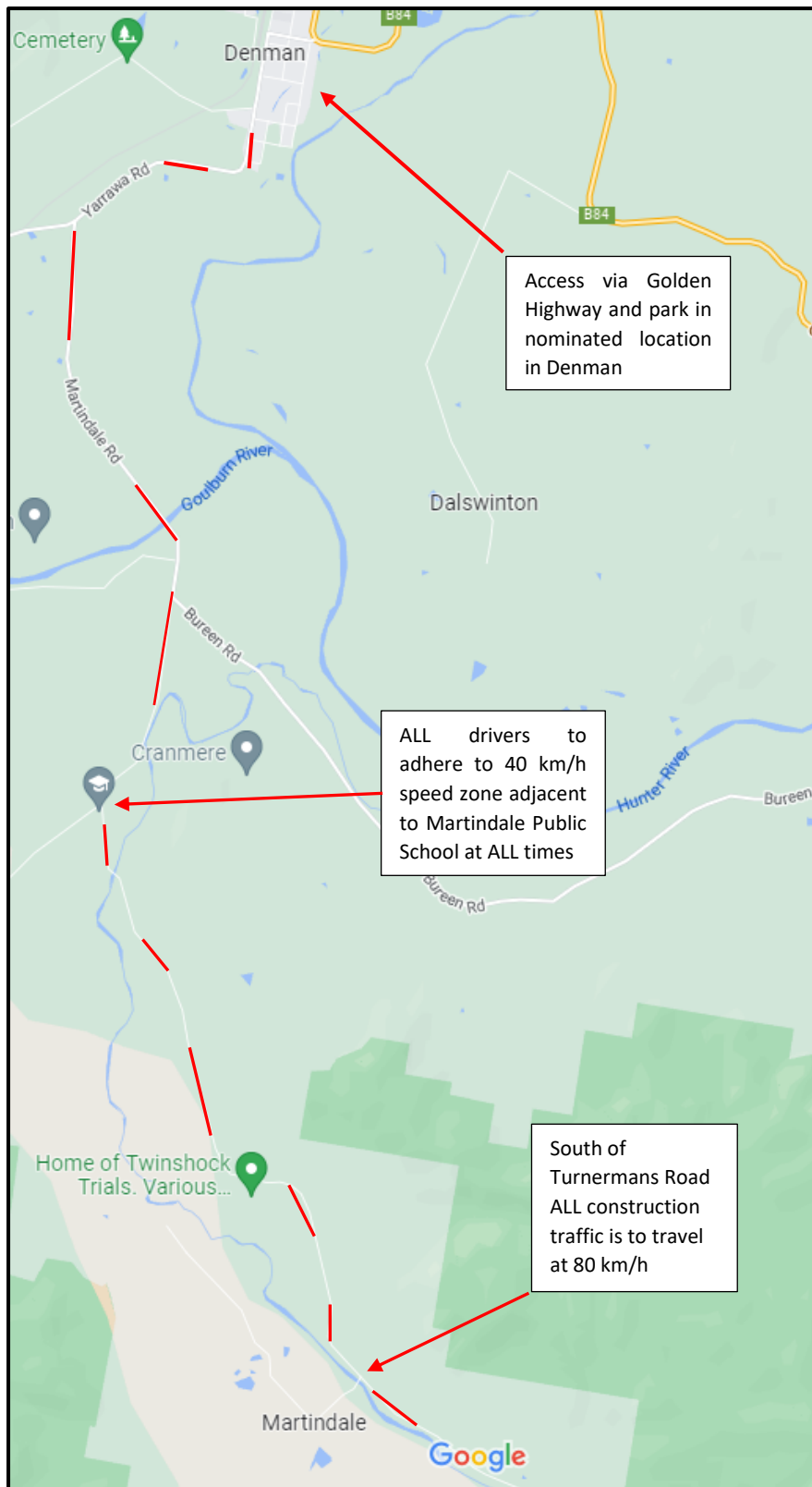


Figure 1 – Nominated vehicle access route to site (light and heavy vehicles)



Photo 1 – nominated location (chainage 2100) for formal sealing of shoulders to allow for passing vehicles



Photo 2 – View north along Martindale Road to immediate south of site access (car parked in access). Removal of the trees / vegetation to the left will highlight the presence of the access and improved visibility.



Photo 3 – Visibility to the right for driver exceeds 300 metres



Photo 4 – Visibility for a car driver to the left is 124 metres. Distance exceeds 200 metres for truck driver line of sight when exiting the subject site



Photo 5 – Section of Martindale Road to south of the bridge crossing over Martin Dale creek, showing straight alignment and clear advanced visibility for drivers travelling in both directions.

Separate to the above responses to the Council RFI, the internal crown road was reviewed with regards to alignment and width to cater for increased traffic volumes. The existing gravel road provides a width in the order of 3-3.5 metres requiring opposing traffic movements to place two wheels on the verge to pass. An inspection of this road indicates that the current alignment and shoulders is adequate to cater for the additional traffic associated with the construction of the project and the operational traffic movements.



Photo 6 – View along Crown Road showing typical cross section.

Yours sincerely,

Sean Morgan
Director

Attachment A – Drivers Code of conduct (sample)

1.1 General Requirements

All vehicles / drivers accessing the site must:

- i) Be registered and hold a valid driver's licence for the class of vehicle being operated;
- ii) Operate the vehicle in a safe and appropriate manner whilst travelling to / from the site or when operating within the site. This includes obeying all New South Wales state road rules.
- iii) ALL heavy vehicles must adhere to the designated heavy vehicle routes as far as practical;
- iv) Comply with the directions of authorised personnel when operating within the site and obey any relevant signage installed along the internal roads.
- v) Not use a mobile phone while operating any vehicle.
- vi) Must always wear a seatbelt when operating any vehicle.
- vii) NO vehicles shall enter or exit the site between XXX and XXX AM or XXXX and XXXX PM when the school bus run operates along Martindale Road.

1.2 Vehicle Speeds

Drivers shall observe the posted speed limit along the designated transport route and adjust their vehicle speed as required to suit the road environment and prevailing weather conditions. Vehicle speeds must be appropriate to ensure the safe movements of the vehicle with consideration to the vehicle configuration.

ALL drivers shall adhere to 40 km/h speed zone adjacent to the Martindale Public school

Maximum speeds limits within the project site shall be as follows:

- i) 40 km/hr along formed roads.
- ii) 20 km/hr during foggy / dusty conditions. Headlights must be on.
- iii) 10 km/hr when passing pedestrians or any plant equipment.

1.3 Driver Fatigue

Drivers shall not be permitted to operate a vehicle or plant equipment when impaired by fatigue. If you suspect that you or someone else is experiencing fatigue, please inform your supervisor.

Operators of heavy vehicles shall be aware of the requirements relating to fatigue as outlined in the Heavy Vehicle National Law. Drivers shall also be aware of their adopted fatigue management scheme (shown below) and ensure that they are operating within its requirements.

- i) Standard Hours of Operation
- ii) Basic Fatigue Management (BFM)
- iii) Advanced Fatigue Management (AFM)

Basic Fatigue Management (single driver)

Time	Work	Rest
In any period of...	A driver must not work for more than a maximum of...	And must have the rest of that period off work with at least a minimum rest break of...
6 ¼ hours	6 hours work time	15 continuous minutes rest time
9 hours	8 1/2 hours work time	30 minutes rest time in blocks of 15 continuous minutes
12 hours	11 hours work time	60 minutes rest time in blocks of 15 continuous minutes
24 hours	14 hours work time	7 continuous hours stationary rest time*
7 days	36 hours long/night work time**	No limit has been set
14 days	144 hours work time	24 continuous hours stationary rest time taken after no more than 84 hours work time and 24 continuous hours stationary rest time and 2 x night rest breaks# and 2 x night rest breaks taken on consecutive days.

Advanced Fatigue management:

The seven principles are grouped into three categories:

Work-related rest breaks (such as short rest breaks):

1. Reduce the time spent continuously working in the work opportunity
2. The more frequent breaks from driving, the better

Recovery breaks (such as major rest breaks):

1. Ensure an adequate sleep opportunity in order to obtain sufficient sleep
2. Maximise adequate night sleep
3. Minimise shifts ending between 00:00-06:00
4. Minimise extended shifts

Reset breaks (such as long periods of rest or extended leave):

1. Prevent accumulation of fatigue with reset breaks of at least 30hrs (and include two night periods, 00:00 – 06:00) between work sequences

ALL details relating to fatigue management for delivery vehicles are covered by the National Heavy Vehicle Regulator

1.4 Operating Hours

Construction

Construction is to be completed in accordance with the *Interim Construction Noise Guideline* (DECC 2009) which defined standard construction work hours as:

- Monday to Friday: 7am to 6pm
- Saturday: 8am to 1pm
- Sunday and Public holidays: No work

The following construction, upgrading and decommissioning activities may be undertaken outside these hours without the approval of the secretary:

- The delivery of materials as requested by the NSW Police Force or other authorities for safety reasons; or
- Emergency work to avoid loss of life, property and / or material harm to the environment.

Vehicle movements shall be undertaken during standard construction hours (or just before to allow workers to get to site). Oversize vehicles up to 26 metres long may require access to the site after hours however this would be subject to the requirements of Transport for NSW, Muswellbrook Shire Council or NSW Police.

Normal Operations

Daily operations and maintenance by site staff would be undertaken during standard working hours:

- Monday to Friday: 7am to 6pm
- Saturday: 8am to 1pm
- Sunday and Public holidays: No work

During normal operations, all vehicle movements shall be undertaken during the standard operating hours (or just before to allow workers to get to site). There may be a requirement for vehicles to access the site after hours during an emergency however these would be infrequent.

Vehicles which arrive at the site prior to commencement of working hours shall have the engine turned off to minimise noise impacts on surrounding residences.

1.5 Transport Routes

All vehicles must travel to and from the project site via the route as shown below (Figure 1).

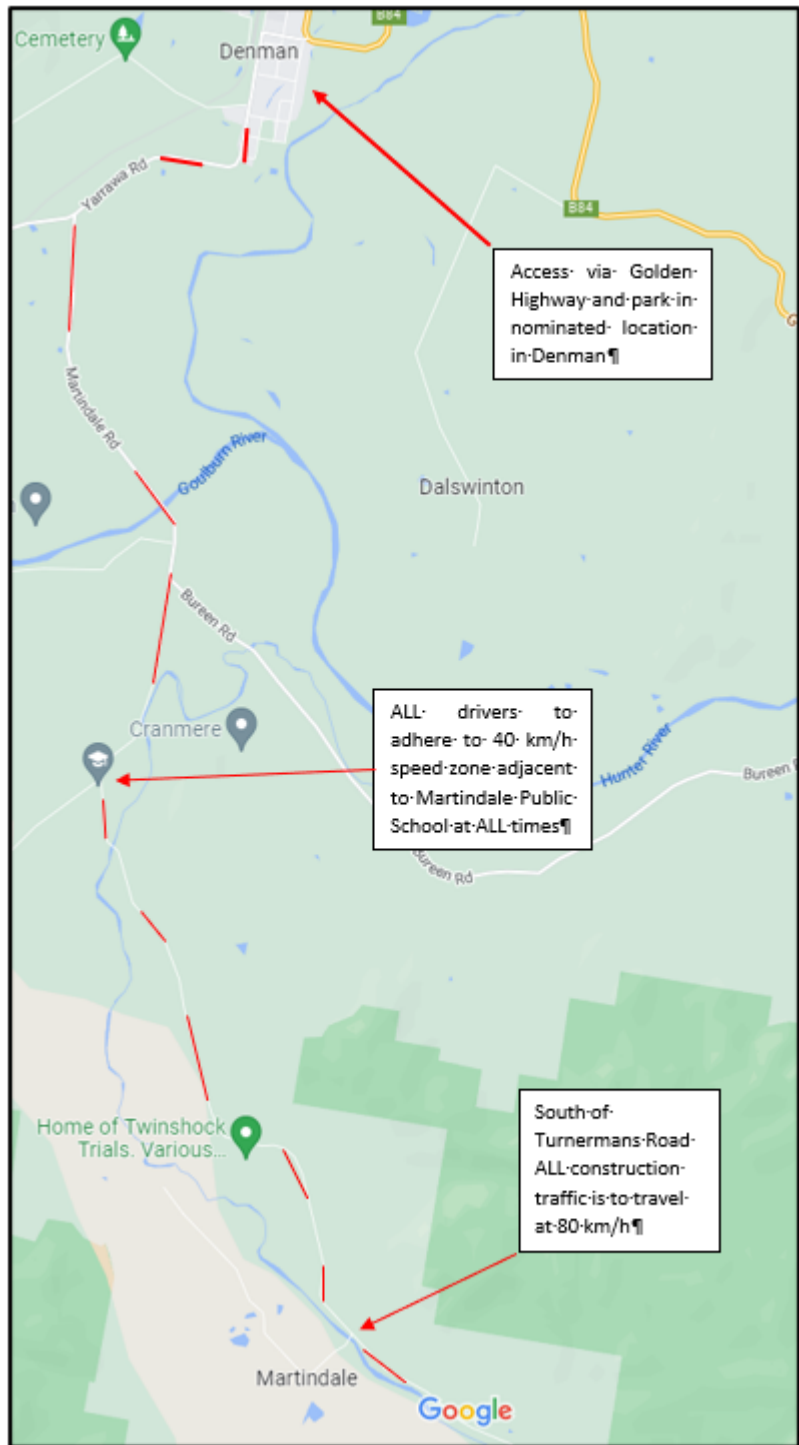


Figure 1 - Transport route to/from the site for ALL

1.6 Vehicle Departure and Arrival

Heavy vehicles departing the site shall have a minimum 15 minute separation to reduce the impacts upon the local road network.

Always maintain a minimum separation of at least 100 metres between vehicles when travelling within the site.

Heavy vehicle drivers must contact the site supervisor upon arrival and await further instructions or direction before proceeding.

Heavy vehicle drivers must also report to the site supervisor prior to departure.

All vehicles must enter and exit the site in a forward direction. Vehicles are to be washed down and in a clean condition upon exiting the site to prevent dirt being tracked onto the public road network.

1.7 Overtaking

Overtaking shall not be permitted within the site unless the intention to overtake has been communicated to the driver of the leading vehicle and consent to overtake granted.

1.8 Breakdowns and Incidents

Heavy Vehicles

In the case of a breakdown, the vehicle must be towed to the nearest breakdown point as soon as possible. All breakdowns must be reported to the TfNSW Transport Management Centre on 131 700 and the vehicle protected in accordance with the Heavy Vehicle Drivers Handbook. The manager on site shall also be notified.

If a breakdown occurs on-site please remain inside your vehicle, notify the shift manager of your location and await further instruction.

If you are involved in an accident, please notify the shift manager immediately and contact emergency services if required.

Light Vehicles

In the case of a breakdown, ensure that the vehicle is secure, notify the shift manager of your location and await further instruction.

If you are involved in an accident, please notify the shift manager immediately and contact emergency services if required.

1.9 Penalties and Disciplinary Action

Any driver who fails to comply with the above requirements will have their details recorded and is subject to disciplinary action.

1.10 Emergency Contact Numbers

- | | | |
|------|---------------------------------|----------------|
| i) | RMS Transport Management Centre | 131 700 |
| ii) | Muswellbrook Shire Council | (02) 6549 3700 |
| iii) | NSW Police Service (Denman) | (02) 6544 6300 |
| iv) | Site Office | _____ |
| v) | Shift Manager on Duty | _____ |

1.11 Driver Declaration

I, the undersigned, hereby agree to abide by this Driver Code of Conduct for the transport of equipment or personnel to / from Bylong Park, located off Martindale Road, south of Denman, NSW. I have read and understand the requirements outlined in the attached document and will, to the best of my ability, comply and assist with their implementation, requirements or ongoing administration.

The subject document to which this declaration relates is included as part of this overall document and signing of this declaration confirms that the signee has read and understood their requirements as outlined throughout.

Driver Details

Full Name	
Organisation	
Signature	
Date	

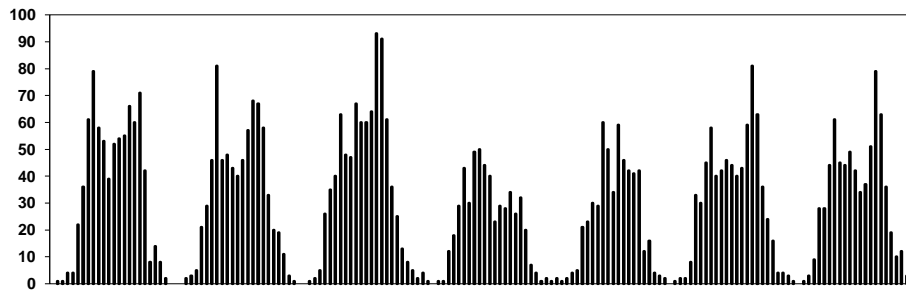
Representative of:

Full Name	
Signature	
Date	

Hourly Volume By Day (Speed and Classification)

Martindale Rd South of Yarrawa Rd Denman Northbound and Southbound - Two Way Traffic

Site Number: denman-nb-sb-st01
Client: Seca Solution
LGA: Muswellbrook
Count Type: Classification/Speed By Hour
Coordinates: -32.4053 150.663



Posted Speed Limit

Day Time	Wed 09/02/22	Thu 10/02/22	Fri 11/02/22	Sat 12/02/22	Sun 13/02/22	Mon 14/02/22	Tue 15/02/22	7 Day Avg	Week Day Avg	SITE DETAILS Two Way Traffic	
0:00	0	0	0	4	2	0	1	1	0	Speed Distribution	
1:00	1	0	0	1	1	1	0	1	0		
2:00	1	2	1	0	2	2	1	1	1		
3:00	4	3	2	1	1	2	3	2	3		
4:00	4	5	5	1	2	8	9	5	6		
5:00	22	21	26	12	4	33	28	21	26		
6:00	36	29	35	18	5	30	28	26	32		
7:00	61	46	40	29	21	45	44	41	47	> 40 km/hr	99.5%
8:00	79	81	63	43	23	58	61	58	68	> 50 km/hr	98.1%
9:00	58	46	48	30	30	40	45	42	47	> 60 km/hr	92.3%
10:00	53	48	47	49	29	42	44	45	47	> 70 km/hr	70.7%
11:00	39	43	67	50	60	46	49	51	49	> 80 km/hr	31.61%
12:00	52	40	60	44	50	44	42	47	48	> 90 km/hr	6.67%
13:00	54	46	60	40	34	40	34	44	47	> 100 km/hr	0.924%
14:00	55	57	64	23	59	43	37	48	51	Peak Survey Results	
15:00	66	68	93	29	46	59	51	59	67		
16:00	60	67	91	28	42	81	79	64	76		
17:00	71	58	61	34	41	63	63	56	63		
18:00	42	33	36	26	42	36	36	36	37		
19:00	8	20	25	32	12	24	19	20	19		
20:00	14	19	13	20	16	16	10	15	14		
21:00	8	11	8	7	4	4	12	8	9	AM 8:00 81	
22:00	2	3	5	4	3	4	3	3	3	PM 15:00 93	
23:00	0	1	2	1	2	3	0	1	1	24 Hr Volume 852	
7am-7pm	690	633	730	425	477	597	585	591	647	Cars 706	
24 Hr Total	790	747	852	526	531	724	699	696	762	Trucks 172	
Cars	597	600	706	437	442	598	568	564	618	Articulated 21	
Trucks	172	131	135	76	81	121	110	118	129	7AM to 7PM Vol. 730	
Artic.	21	15	10	10	11	7	21	14	15	Avg Traffic Composition	
										Avg Speed Data	
										85th Percentile 85.4	
										Mean Speed 74.4	
										Min. Speed 16.0	
										Max. Speed 135.0	
										Std. Deviation 10.8	

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