# TRAFFIC MANAGEMENT PLAN

IIIII

Falls Festival 2022/23 North Byron Parklands Yelgun NSW 2483

For: Report no: Date:

111

Look Up and Live Pty Ltd 22521-TMP-A 20-Sep-22



Greg Alderson Associates



#### Contact Information

43 Main St Clunes NSW 2480

#### **Document Information**

Project name Falls Festival 2022/23 TMP

Telephone: 02 6629 1552

Reference 22521-TMP-A

office@aldersonassociates.com.au www.aldersonassociates.com.au Revision A

#### **Key Personnel**

Andrew Booth BE Eng (Civil) (Hons) SafeWork NSW PWZTMP Card no: TCT 1012855

Allan Evans BE Eng (Civil) SafeWork NSW PWZTMP Card no: TCT1007605

© Greg Alderson & Associates. Copyright in the whole and every part of the document belongs to Greg Alderson & Associates and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form in or on any media to any person other than by agreement with Greg Alderson & Associates. This document is produced by Greg Alderson & Associates solely for the benefit and use by the client in accordance with the terms of the engagement. Greg Alderson & Associates does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by any third party on the content of this document.

22521-TMP-A

#### **TABLE OF CONTENTS**

1.0 Introduction	5
1.1 Event Description	5
1.2 Event Calendar	6
1.3 Scope of Works	7
1.4 Definitions	8
1.5 Site Locality	8
1.6 Conditions of Consent	9
2.0 Large Event	12
2.1 Observations from Previous FFB Events	12
2.2 Traffic Management Approach for the Falls Festival 2022/23	12
2.3 Temporary Bus Bay Brunswick Heads	14
2.4 Stacked Parking and Camping	14
3.0 Traffic Impact Modelling	
4.0 Contingencies and Emergency Evacuation	19
5.0 Monitoring for Traffic Management During the Festival	20
6.0 Risk Assessment	21
7.0 Copies of the Traffic Management Plan	22
8.0 Key Personnel Contact Details	23
9.0 Audit Checklist	24
10.0 Approval Condition Compliance Summary Table	26
11.0 Chain of Command	27
12.0 Conclusions and Recommendations	
Appendix A - Traffic Guidance Scheme (TGS)	
Appendix B – Risk Assessment Register	
Appendix C - Organisational Structure for Traffic Management	
C.1 Organisational Structure for Traffic Management	
C.1.1 Hierarchy Flow Chart	

#### LIST OF FIGURES

Figure 1 – Site locality	9
Figure 2 – Key performance indicators consent condition	10
Figure 3 – TMP consent conditions	10
Figure 4 – TCP (TGS) consent conditions	
Figure 5 – Stacked camping and parking	15
Figure 6 – Stacked parking/camping marked in blue	

#### LIST OF TABLES

Table 1 - Overview of ticket types	6
Table 2 – KPI compliance summary	11
Table 3 – TGS audit checklist	24
Table 4 - Condition compliance summary table	26

#### 1.0 Introduction

#### 1.1 Event Description

Falls Festival Byron (FFB) 2022/23 is a music and arts festival that will be held from Saturday 31<sup>st</sup> December 2022 to Monday 2<sup>nd</sup> January 2023.

Falls Festival operates in such a way that it is held at other locations in the same period, so that artists can be transported between event locations. Falls Festival has been held successfully in this format at Marion Bay in Tasmania and Lorne in Victoria for over 25 years.

Falls Festival was held at North Byron Parklands for the first time during the 2013/14 New Year's Eve period and has been held there each year since that date except for during the 2020/21 and 2021/22 New Year's Eve period due to the restrictions in place related to COVID-19. All previous FFB events have been a success from a traffic engineering perspective, with no major impacts on the public roads during peak arrival periods.

Although the event days are 31<sup>st</sup> December 2022 until 2<sup>nd</sup> January 2023, the campgrounds will open on Friday 30<sup>th</sup> December 2022 and close on Tuesday 3<sup>rd</sup> January 2023, allowing camping patrons to arrive a day before the festival begins if they choose to purchase the appropriate ticket.

Opening the site for early camper arrivals on Thursday 29<sup>th</sup> December 2022 is an option that may be implemented if the number of patrons is expected to exceed 20,000 per day. This early camper ingress period is expected to be an effective measure to reduce the likelihood of any significant queuing incidents on Tweed Valley Way during ingress.

Smaller events are unlikely to have peak arrival periods causing queueing external to the site and therefore will not require an additional camper arrival day. In addition to camping tickets which are sold separately, three types of tickets will be sold for this event and are summarised in Table 1. The anticipated number of each ticket is also included in Table 1.

It is anticipated that the number of patrons attending the festival will be less than 20,000 patrons per day. Festival management will monitor sales of camping tickets to confirm this assumption remains true. If it appears as though the number of campers will exceed that in previous years, contingency plans will be implemented.

It is anticipated that camping vehicles arriving to the site will not likely breach any key performance indicators (KPIs) for the event. Based on previous festivals and the anticipated number of tickets for this year's event, the estimated camper arrival profile is as follows:

- Friday 30<sup>th</sup> December 70% of camping patrons
- Saturday 31<sup>st</sup> December, Sunday 1<sup>st</sup> & Monday 2<sup>nd</sup> January 30% of camping patrons
- Tuesday 3<sup>rd</sup> January Egress

22521-TMP-A

Ticket name	Arrival dates	Festival entry dates	Departure date	Anticipated number of tickets
3-day Festival Ticket	29, 30 and 31 Dec	31 Dec - 2 Jan	3 Jan	15,000
2-day Festival Ticket 31 Dec or 1 Jan		31 Dec – 1 Jan or 1 Jan – 2 Jan	2 or 3 Jan	2,500
1-day Festival Ticket	31 Dec or 1 Jan or 2 Jan	31 Dec or 1 Jan or 2 Jan	1, 2 or 3 Jan	1,500
Camping Ticket	Applies as additional ticket to all above			

#### Table 1 - Overview of ticket types

FFB will function as an approved 'Large Event' under the current approvals, with an anticipated maximum patronage being less than the 35,000 people with additional staff, stallholders, contractors and guests.

Validity of this TMP and associated traffic guidance scheme (TGS) is subject to compliance with these predicted attendance numbers. If the camping and also providing the additional camping arrival day on 29<sup>th</sup> December to reduce peak arrivals of camping vehicles.

#### 1.2 Event Calendar

The festival schedule can be summarised as follows:

Wednesday 30 <sup>th</sup> December 2022	Campgrounds open day 1
Thursday 31 <sup>#</sup> December 2022	Event Day 1
Friday 1ª January 2023	Event Day 2
Saturday 2 <sup>nd</sup> January 2023	Event Day 3
Sunday 3 <sup>rd</sup> January 2023	Campground closure, camper departure

Car pass sales are used to control arrival days of patrons who bought a camping ticket for the event. In previous years, typically 60% of car passes are sold for campers to arrive on 30<sup>th</sup> December, with the remaining 40% for 31<sup>st</sup> December. For the 2022/23 event, festival management will monitor sales of camping tickets to confirm the distribution of camping tickets remains similarly distributed or is better distributed than previous events across camper arrival period. With the anticipated number of patrons being less than previous events, it is expected that equally distributing camper arrivals across 30<sup>th</sup> December and 31<sup>st</sup> December will not be as critical as in previous events.

Some campers may depart on night of the 2<sup>nd</sup> January but it is believed that the majority of campers would leave the site on the 3<sup>rd</sup> January, the day that the camping area will close.

#### 1.3 Scope of Works

Greg Alderson & Associates (GAA) have been engaged by Look Up and Live Pty Ltd to provide a Traffic Management Plan (TMP) for Falls Festival 2022/23 at North Byron Parklands, Yelgun, NSW.

The primary function of this TMP is to prescribe traffic management and control procedures for Falls Festival 2022/23 at North Byron Parklands to ensure the safety of both the general public and staff throughout the event and to satisfy the conditions of consent as set out in the Development Approval from the Independent Planning Commission, dated 13<sup>th</sup> March 2019.

This TMP will focus on the main aspects of the project that will affect public road users including temporary and permanent lane closure/road closure to undertake various repairs to road infrastructure.

This TMP has been prepared in accordance with the following standards, specifications and guidelines:

- Guide to Traffic and Transport Management for Special Events Version 3.5
- Transport for NSW (TfNSW) Traffic Control at Worksites Technical Manual (TCWS) Version 6.1
- Australian Standards (AS1742 in particular)
- Quality Assurance specifications
- Austroads Guide to Traffic Management

It is noted that GAA have also developed a Traffic Monitoring Plan (TMoP) for the Falls Festival 2022/23 event in conjunction with this TMP. The TMoP is a separate document which sets out data collection methods to ensure accurate data is collected throughout the festival. This festival traffic data will be used to assess the performance of past events and assist in the planning of future events at North Byron Parklands.

#### 1.4 Definitions

AADT	Average Annual Daily Traffic; average traffic volume per day after application of correction factors			
ADT	Average Daily Traffic; average traffic volume per day, based on a limited survey period, typically 1 week			
Background Traffic	Traffic composition as would typically exist without superposition of event traffic			
BEF	Byron Events Farm			
BSC	Byron Shire Council			
BVW	Brunswick Valley Way			
FFB	Falls Festival Byron			
Heavy Vehicle	For the purposes of this report; anything other than a pedestrian, cyclist, motorbike or car			
KPI	Key Performance Indicator; as defined in the conditions of consent for the development			
LOS	Level of Service; Service level of roads based on certain traffic statistics as defined in other documents			
NBP	North Byron Parklands			
Peak Flow Rate	Hourly volume of vehicles during busiest part of assessment period			
PER	Performance Evaluation Report			
TGS	Traffic Guidance Scheme			
ТМР	Traffic Management Plan			
TSC	Tweed Shire Council			
TVW	Tweed Valley Way			

#### 1.5 Site Locality

The subject site is formally known as Lots 46, 402-404, 410 DP 755687; Lots 10, 12, 14 DP 875112; Lots 2, 12 DP 848618; Lot 101 DP 856767; Lots 30-31 DP 880376; Lots 101-102, 107 DP 1001878; Lot 1 DP 1145020, Tweed Valley Way and Jones Road, Yelgun. The southernmost entry to the site is located at approximately 1km to the North from the Yelgun Interchange and Yelgun Rest Area. Figure 1 depicts the location of the site with respect to its locality.

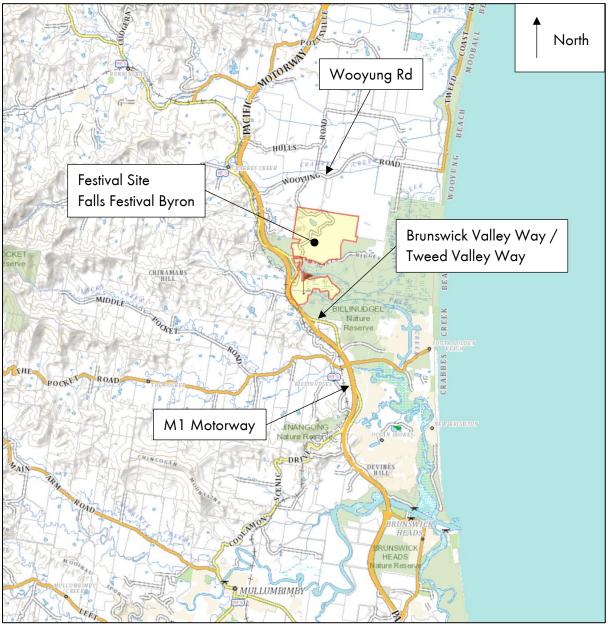


Figure 1 - Site locality

#### 1.6 Conditions of Consent

Figure 2 to Figure 4 provide an overview of the consent conditions that have been provided to this office detailing the various conditions and key performance indicators (KPIs) that are relevant to the festival traffic operation and are thus relevant to this TMP. This TMP is therefore formally responding to those conditions. A KPI compliance summary table is provided in Table 2 following Figures 2 to 4. The KPI compliance from the 2019/20 FFB event are shown in Table 2, with the event complying with all KPIs.

#### KEY PERFORMANCE INDICATORS

D16. The Applicant must address the KPIs in Table 6 in a PER required under Condition D17. The Planning Secretary may amend the KPIs identified in Table 6 for future events after considering the results of the PER required in Condition D17.

Issue	Key Performance Indicators
Traffic Management	<ul> <li>A minimum level of service (LoS) C is to be maintained at the Yelgun interchang including merges and diverges.</li> </ul>
	<ul> <li>The level of service for local traffic and through traffic on the Tweed Valley Way shoul not fall below a LoS D, with a maximum of LoS E for no more than 4 hours a day.</li> </ul>
	<ul> <li>Queue lengths on the link road between Tweed Valley Way and the Yelgun interchang must be limited to a maximum of 60 metres.</li> </ul>
	<ul> <li>Queue lengths on the interchange ramps must not be within 210 metres of the start the ramp.</li> </ul>
	<ul> <li>On-site queuing is not to extend onto the Pacific Highway or the Tweed Valley Way any time.</li> </ul>

Figure 2 - Key performance indicators consent condition

TRAF	FIC M	ANAGEMENT	
Traffi	c Man	agement Plan	
D27.	<ol> <li>The Applicant must prepare a Traffic Management Plan for the development to the satisfaction of the Plan Secretary. The Plan must:</li> </ol>		
	(a)	be prepared by a suitably qualified and experienced person(s);	
	(b)	be prepared in consultation with BSC, TSC and RMS;	
	(c)	detail the measures to be implemented to ensure road safety and network efficiency, including:	
		<ol> <li>ensuring no queuing on Tweed Valley Way and Yelgun Interchange off-ramps;</li> </ol>	
		ii. details of traffic diversion strategies;	
		<li>ensuring Gate A is only used by trucks or other heavy vehicles (including buses) on event days and shoulder days associated with large and medium events; and</li>	
		<li>ensuring local traffic movements, including residents of Jones Road and Yelgun Road, are given priority and can access their properties;</li>	
	(d) include demand management strategies to reduce private car use while promoting alternatives forms transport; and		
	(e)	(e) contain a Traffic Monitoring Program to monitor the impact of increased traffic generation on the amenity of the area and the effectiveness of the traffic management measures implemented, including but not limited to	
		<ul> <li>data collection of vehicle arrival and departure times, occupancy rates and directions of travel for staff, campers and day patrons;</li> </ul>	
		ii. patronage of bus services, including bus occupancy rates, arrival and departure times	
		<li>iii. modal share by vehicle type, including comparison with the modal share as described in the EIS and RTS;</li>	
		<li>iv. queue monitoring, background travel counts on the Pacific Highway and Tweed Valley Way and vehicle volumes on the Yelgun Interchange; and</li>	
		v. procedures and protocols for monitoring, including frequency.	

Figure 3 - TMP consent conditions

Traffic Control Plan				
D29.	<ul> <li>At least two months prior to any medium or large event, the Applicant must prepare a Traffic Control Plan (TCP) for the development. The Plan must:</li> </ul>			
	(a) be prepared by a suitably qualified and RMS accredited Work Site Traffic Controller;			
	<ul> <li>(b) be submitted to the Byron and Tweed Local Traffic Committees for endorsement and submitted to BSC and TSC for approval on roads under their control;</li> </ul>			
	(c) be designed in accordance with the requirements of the RMS's Manual, Traffic Control at Work Sites Versio 2, and the current Australian Standards, Manual of Uniform Traffic Control Devices Part 3, 'Traffic Contro Devices for Works on Roads';			
	<ul> <li>(d) include details on reduced speed zones and special event clearways and signage to prohibit parking in the surrounding road network and in the Yelgun rest area;</li> </ul>			
	(e) include a Traffic Incident Management Plan that details a range of approved contingency measures capable of avoiding significant impacts on the level of service. The contingency plan must be fully documented and include emergency contact names and phone numbers; and			
	(f)	be designed to achieve the traffic key performance indicators under Condition D16.		
	Following approval of the TCP, a copy of the TCP must be submitted to RMS and the Planning Secretary.			

Figure 4 - TCP (TGS) consent conditions

#### Table 2 - KPI compliance summary

		KPI met (Y/N)				
Description	Criterion	29 <sup></sup> Dec	30 <sup></sup> Dec	31ª Dec	1# Jan	2 <sup>™</sup> Jan
Maximum queue length on northbound off-ramp	210 m from start of diverge	Y	Y	Y	Y	Y
Maximum queue length on southbound off-ramp	210 m from start of diverge	Y	Y	Y	Y	Y
Minimum Level of Service on Yelgun Interchange	Y	Y	Y	Y	Y	
Minimum Level of Service D (E up to 4 along Tweed Valley Way hours daily)		Y	Y	Y	Y	Y
Maximum queue length on Link Road 60 m		Y	Y	Y	Y	Y
On site queuing not to extend to Pacific Hwy		Y	Y	Y	Y	Y
On site queuing not to extend to Tweed Valley Way	0 m	Y	Y	Y	Y	Y

#### 2.0 Large Event

The Independent Planning Commission gave development approval for the site on the 13<sup>th</sup> of March 2019 for a variety of events including "Large" events such as the proposed Falls Festival Byron 2022/23 event.

This is the first year in which Falls Festival will be operating under a "Large" event profile. Previous Splendour in the Grass (SITG) events have been successfully run at this scale or larger at the site. As such, lessons learned from previous SITG events may be directly applicable to the upcoming event.

The event manager can familiarise themselves with previous SITG Traffic Evaluation Reports and TMPs for additional relevant information, noting that SITG is a different type of festival that has significantly higher attendance by day patrons.

#### 2.1 Observations from Previous FFB Events

From a traffic engineering perspective, Falls Festival Byron 2018/19 and 2019/20 had many successes, with highlights including reductions in illegal parking at the Yelgun Rest Area and fewer pedestrian movements on the Tweed Valley Way. Two minor failures from the previous 2017/18 event in regard to the given KPIs were rectified and traffic movements were greatly improved. No KPI breaches were observed during the 19/20 event.

As recommended previously, contingency traffic guidance schemes (TGSs) will also be required to ensure safe traffic management in the event of KPI breaches.

The adopted Traffic Management Plan SSD 8169 (under the issued consent), recommends bump trucks be available for contingency measures on the Pacific Highway and that mobile VMS vehicles are used for end of queue warning along Tweed Valley Way/ Brunswick Valley Way. These shall be available on standby if required.

#### 2.2 Traffic Management Approach for the Falls Festival 2022/23

During previous Falls Festivals, it was observed that during the holiday period, background traffic volumes on Tweed Valley Way and Brunswick Valley Way did not increase significantly. Although traffic volume increases on the Pacific Motorway were monitored, correlation with increases on Tweed Valley Way and Brunswick Valley Way was minimal.

During previous events, traffic controllers were placed on standby to manage any congestion that may have occurred during arrival periods. Generally, no issues have been observed, however contingency traffic management was implemented on Tweed Valley Way during the queuing incident on Saturday 30<sup>th</sup> December 2017, along with internal traffic contingency measures including on site queuing utilising a carpark "snake".

It is expected that the queueing observed in 2017 is likely to be prevented by opening the site on 29<sup>th</sup> December for camping arrivals if patronage is in excess of 20,000. If any incident occurs, there is a documented contingency TGS that would be implemented. In addition to this, the Transport for NSW (TfNSW) traffic operations centre stationed at St Helena would be contacted to implement electronic warning signage on the permanent signs on the motorway and at Ewingsdale Road to warn motorists approaching the area on the motorway.

Mobile VMS vehicles will be used to warn motorists of end-of queue approaches.

Traffic controllers are implemented at Gate C during the camping departure day with the successfully trialled 2-lane departure. Traffic controllers will be on standby to implement TGSs at Gate E and Tweed Valley Way/ Wooyung Road intersections during camping departure day as required.

At the 2019/20 event, the Levels of Service on Tweed Valley Way were satisfactory during departures, particularly for northbound vehicles there is capacity for a higher departure rate. This will be monitored again this year including during the departures from Gate E.

This year, traffic controllers are proposed to be used on the public roads as required:

- Gate C during the 2-lane camping departure;
- Jones Road for managing heavy vehicle arrivals;
- Gate E to manage camping departures;
- Wooyung Road/Tweed Valley Way intersection during camping departures.

A reduced speed zone on Tweed Valley Way is proposed from approximately 540m south-east of Yelgun Road to 100m north of Jones Road. Free flow vehicle speeds on Tweed Valley Way are relatively high, in particular on the downhill section from Jones Road towards Gate B. Reducing the speed limit at the site frontage will improve safety with respect to traffic leaving the site as well as traffic queued in the right turn lane on Tweed Valley Way. This reduced speed zone is continued to Jones Road similarly as was done during previous festivals for service vehicles entering and exiting Jones Road.

A no stopping zone is proposed on Tweed Valley Way and Brunswick Valley Way from Shara Boulevarde in the south to the Byron Shire boundary in the north. The purpose of this is two-fold:

- Eliminate parking by patrons not familiar with the area on Tweed Valley Way which is a high-speed road;
- Improve tools to manage trespassers, in particular from the north.

Similar to recent Splendour in the Grass and Falls events at North Byron Parklands, patrons travelling along the Pacific Motorway will be encouraged to exit the Motorway at Pottsville and at Brunswick Heads to alleviate pressure on Yelgun Interchange. Experience with previous events has

shown that this method is particularly effective for campers who are not as familiar with the local road network as local day patrons.

#### 2.3 Temporary Bus Bay Brunswick Heads

The Traffic Control Plan, includes a plan for Temporary Bus Bay Park Street, Brunswick Heads. The purpose of this plan is to provide a safer bus stop for the expected increase in bus patronage due to the Falls Festival.

It is proposed that the Park Street bus stop will also be utilised by the Falls Shuttle bus service. The implementation of the temporary bus bay plan includes:

- 1. Falls Festival intends to provide a security guard at this bus stop to ensure crowd control and to keep the footpath adjacent to the bus stop passable.
- 2. Falls Festival will also provide a clean-up team to service this area. This would ensure that the bus stop area remains clean and tidy so that the Brunswick Community and Council are not left with a clean-up problem as a result of the additional bus patronage due to the festival.
- 3. Water filled barriers, as per the Temporary Bus Bay Plan, are proposed to provide added safety for patrons. The need for these barriers is because the footpath at the location of the bus stop is raised and there is a garden bed, both of which reduce the available footpath space for persons waiting for buses.

This plan has been prepared to address a request from local shop keepers in Park Street that sought to have additional facilities for the increased bus patronage as a result of the similar festivals in the past.

#### 2.4 Stacked Parking and Camping

It is proposed to carry out stacked camping and parking at the Falls Festival Byron. This method has been tried and tested at the Falls & Splendour festivals in Byron. A schematic figure of this arrangement is depicted in Figure 5.



Figure 5 – Stacked camping and parking

The process of stacked parking and camping is as follows.

As camper vehicles arrive, they are directed to a certain area, where they will be parked behind the car in front of them and parallel to vehicles besides them. The patrons then set up their tent next to their car. An aisle is kept free between two rows of tents for pedestrian and firefighting purposes.

After the patrons have parked their car, it will not be physically possible to leave the campgrounds in their own car before the car in front of them has done so. Thus, there will be no private car traffic generation by 2- and 3-day campers during event days. Private car traffic generation by campers resulted in significant traffic volumes during the festival days of a previous Falls Festival. This issue has thus been resolved.

Charter buses will be sourced by festival management to ensure sufficient transport capabilities are available during the festival, in particular for day trippers to Pottsville, Brunswick Heads and Byron Bay. We understand that in recent years, additional bus trips are scheduled for Brunswick Heads and less trips for Byron Bay to alleviate the congestion at Byron Bay and improve the economic benefits to local business in Brunswick Heads.

Internally, as the separation between car parking and camping has been removed (as is depicted in Figure 6), there is increased flexibility for directing traffic flows through the site. Any congestion due to ticketing issues or wet weather can thus be more easily negated.

It should be noted that this system of stacked parking and camping fundamentally differs from the combined parking and camping that caused the congestion during SITG 2013. During that festival, there was insufficient infrastructure in place to direct traffic flows and also the camping and parking was ad-hoc, not structured. The proposed structured parking/camping system for the coming Falls Festival at Byron has been tried and proven at the Falls festival in Lorne for years and also for recent Falls Festival Byron and Splendour in the Grass events.

Festival management will liaise with the NSW Police to encourage vehicle searches to occur after vehicles have been parked in order to prevent any delays during peak arrival periods. Ticketing by mobile ticketing stations also occurs after vehicles have been parked.

Lastly, we have been informed that the stacked parking/camping system is likely to improve patron experience on the camper's departure day. Patrons will better understand that they cannot leave the site until the vehicle in front of them has left, thus enhancing acceptance of delays.

In summary the benefits of the structured stacked parking/camping system are as follows:

- Elimination of private vehicle traffic generation by day trippers during the festival;
- More efficient use of space;
- Improved convenience for campers, having the tent set up next to their car;
- Improved patron experience during the departure day.

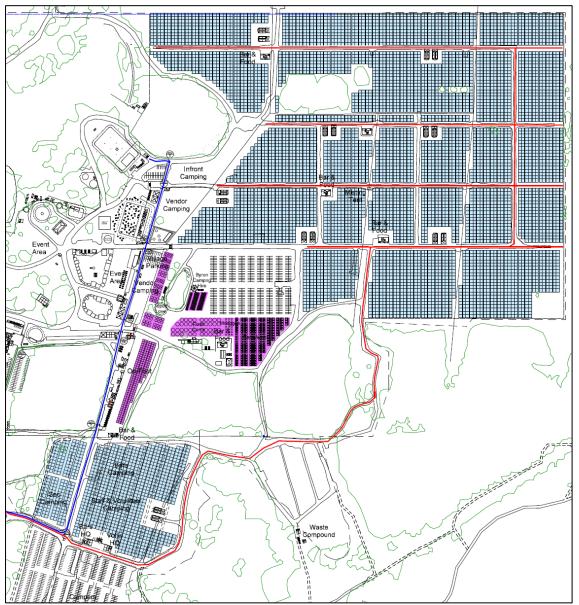


Figure 6 - Stacked parking/camping marked in blue

#### 3.0 Traffic Impact Modelling

No traffic impact modelling is proposed to be undertaken for the 2022/23 event.

The upgrading of the Link Road intersection during 2016 has relieved the major bottleneck for traffic arriving at the festival site. Falls Festival events since the upgrade have resulted in no known traffic KPI breaches or traffic safety issues around the Link Road, and therefore no impacts on the Pacific Highway.

Observations during camping arrivals at the 17/18 Falls Festival resulted in some concerns regarding the peak arrival period impacts on TVW. With an additional day for camping arrivals, the existing intersection arrangements and TGS are considered sufficient. In addition, there is a documented contingency TGS included.

If due to the traffic volumes the Spine Road would experience congestion, the following mitigation measures could be employed:

- Use southern car park for a snake or for temporary parking during a peak;
- Close southbound traffic on Spine Road and create a 2-lane one-way northbound situation during peak ingress using cones or bollards. Sufficient staff and material are to be present on site to instigate this if required.
- Direct outbound traffic to Gate E to separate inbound and outbound traffic streams if required.

Based on the previous modelling carried out for this event, the public road network has the capacity to cope with the traffic scenarios modelled for this event. The Spine Road would need to be monitored closely during the peak ingress period to be able to enact mitigation measures if the Spine Road reaches capacity.

#### 4.0 Contingencies and Emergency Evacuation

North Byron Parklands has constructed roads within the site which are above various flood levels. North Byron Parklands has machinery to tow vehicles which may have broken down on the internal road system. Falls Festival staff will be trained to keep the internal roads clear, and if necessary, arrange a contra flow situation, to temporarily pass a broken-down vehicle.

Any contingency measures carried out by relevant authorities are to ensure the safety of all persons associated with the contingency measures implemented as well as the efficient operation of the road network. It is paramount that queuing on the Pacific Motorway, Tweed Valley Way and Brunswick Valley Way be prevented at all times. As the police have the authority to take control of the site in an emergency, the TGS will be overridden as the police see fit.

As part of good management in the operation of this TGS, it is necessary that all relevant staffed be adequately briefed on the possibility of the need to evacuate the site in the event of an emergency. In the case of bushfire and flooding, the Police will have access to some level of advanced warning to give them the opportunity begin to evacuate the site.

With the formalisation of Gate E, the site now has major entry and exit points both to the north and south. It will be necessary for the appointed traffic control staff to be on duty during an emergency evacuation, to quickly and efficiently move patrons through the site to the exit points.

The evacuation strategy by the Police is to take into account time of day, site occupancy and suitability of access roads. If the site is full and the call for evacuation is made by the Police, orderly egress commencing with the day patrons, followed by the campers, will be necessary.

The draft emergency evacuation plan for fire, nominates that patrons congregate in "assembly points" and from there the whole site would then be evacuated. This would be at the discretion of the LEMO Police Controller.

The draft emergency evacuation plan for fire addresses different evacuation scenarios. In instances where evacuation by vehicle is available, evacuation is to various entry/exit points. In instances where vehicle evacuation of the site is not appropriate, emergency assembly locations within and adjoining the site are nominated for site occupants to assemble under supervision.

Emergency vehicle access is available from Gate C, Gate D, Jones Road (Gate A) and Wooyung Road (Gate E).

Although no traffic controllers are required to manage traffic under normal conditions, traffic controllers would need to be on call to assist in managing queues during any queuing on the public road that may occur as a result of unforeseen circumstances. Back of queue warning vehicles would need to be available to warn inbound vehicles on the public road of any queues ahead. It is the responsibility of the festival management to ensure the public road is monitored and potential queuing is predicted in advance of any queuing appearing.

#### 5.0 Monitoring for Traffic Management During the Festival

Traffic monitoring is required to provide input for the Traffic Evaluation Report (TER) under the current approval for the site.

It is proposed to install classified traffic counters at the locations listed below, at least two weeks before the festival. These counters will be used to gain a confirmation of the background traffic levels, and then the increase that can be attributed to the festival.

- North bound off-ramp at Yelgun;
- South bound off-ramp at Yelgun;
- North bound on-ramp at Yelgun;
- South bound on-ramp at Yelgun;
- Tweed Valley Way to the North of Jones Road;
- Tweed Valley Way between Yelgun Road and Billinudgel Road;
- Brunswick Valley Way opposite the Yelgun Rest Area;
- Spine Road (2 counters each lane);
- Wooyung Rd east of Gate E;
- Wooyung Rd west of Gate E.

On-site surveys will need to be carried out to estimate the vehicle occupancy for camper vehicles. Data on the use of any bus services is to be provided by festival management after the event so that mode-share calculations can be carried out.

#### 6.0 Risk Assessment

A risk assessment for the traffic operation of the 2022/23 Falls Festival is described in this section. The risk assessment is set up such to identify potential risks to public health as a result of the festival traffic operations. The key performance indicators (KPIs) as defined by the development approval are aimed to reduce the likelihood of occurrence by requiring management of traffic queue growth and Level of Service (LoS).

Additional risk reducing measures such as contingency plans and creating temporary low-speed environments at high-risk locations are part of the traffic management tools recommended in this TMP.

Lastly, there are risks from hazards that might occur that are outside the control of the event management or traffic controllers. These hazards would include extreme weather conditions and crashes on the public road due to drivers' negligence. In order to reduce the risk of these hazards, risk mitigating strategies are recommended in this risk assessment.

It is noted that it is the combined responsibility of festival management and government authorities to ensure that there is sufficient funding available and personnel in place for adequate implementation of the traffic control plans, infrastructure and risk mitigation measures.

The risk assessment proposed in this report is provided as a guide. We recommend that after all relevant staff, consultants and contractors have been engaged, that a risk management meeting is held prior to the event. During this risk management meeting, a final risk assessment shall be established which would be included in the event management manual. This risk management meeting shall include:

- NBP General Manager
- Falls Byron General Manager
- Event Traffic Manager
- Traffic Engineer
- Traffic Control Manager
- Police representative
- Ambulance representative
- RFS representative
- RMS representative
- Council representatives (BSC and TSC)

The risk assessment along with classification of risks and definitions are provided in Appendix B of this TMP.

#### 7.0 Copies of the Traffic Management Plan

Copies of the Traffic Management Plan, after signature by the relevant persons nominated in the plan, shall be forwarded to the following authorities as a reference should there be any need for contact, such as in the case of an emergency.

- NSW Police Force
- TfNSW
- NSW Ambulance Service
- Rural Fire Service
- Byron Shire Council
- Tweed Shire Council

## 8.0 Key Personnel Contact Details

Event and Site Manager:	Shane Porter
<u>Mobile</u> :	0450 500 999
Email:	<u>shane@theeventsagency.com.au</u>
Traffic Control Supervisor:	Altus Road Services
	Matt Adams
<u>Mobile</u> :	0408 315 865
<u>Email</u> :	<u>matt.adams@altustraffic.com.au</u>
Supervising Traffic Engineer:	Greg Alderson & Associates (GAA)
	Andrew Booth
Mobile (during festival only):	0422 323 043
<u>Email</u> :	andrew@aldersonassociates.com.au
	Jacob Blucher
Phone (all other times):	(02) 6629 1552
<u>Email</u> :	jacob@aldersonassociates.com.au

#### 9.0 Audit Checklist

Any Traffic Controllers shall complete the TGS Audit Checklist as included in this report, before the start of the festival and immediately prior to the closure of the festival. The aim of this audit is to ensure that all the requirements of the TGS have been in place for the full duration of the event.

AUDI	I CHECKLIST				
Date:		Time:	Auditor:		
Office,	/Company:		Site Supe	ervisor:	
Locatio	on:				
Nature	e of Activity:				
Duratio	on of Activity:				
Road (	Configuration:				
			YES	NO	N/A
1	Provision for Activity				
1.1	Has an approved TGS be	en provided?			
2	Implementation				
2.1	Are all signs & devices inst accordance with TGS?	alled in			
2.2	Are there any contradictor superfluous signs or markir				
2.3	Are signs suitably placed v	with regard to:			
2.3.1	Sight distance				
2.3.2	Motorists approaching at l	nigh speed			
2.3.3	Queue lengths				
2.3.4	Visibility, shade, light glare	Ş			
2.4	Are all signs displayed ap current conditions?	propriate for the			
2.5	Are there any damaged of signs?	r defective			
2.6	Have the needs of pedestr considered?	ians been			

Table 3 - TGS audit checklist

2.7	Have the needs of cyclists been considered?					
2.8	Are safety barriers required?					
2.9	Are safety barriers installed correctly?					
2.10	Has access to the site been provided?					
3	Documentation Sighted					
3.1	TGS, including details & modifications					
3.2	Direction to Restrict (DTR)					
3.3	Traffic controllers' certification					
4	Has the Signage been covered for non- RTA Controllers operation as specified on the TC Plan?					
	mendations/Corrective Action:	Site Supervisor:				
Audito	r (signed):	Site Supervisor:				

25

#### 10.0 Approval Condition Compliance Summary Table

This TMP has been prepared in accordance with the TfNSW Guide to Traffic and Transport Management for Special Events. Table 4 below summarises the compliance with the conditions of approval as listed in chapter 1.

Condition	Compliance Achieved (Y/N)	Location
B4 – Traffic management and parking	Y	Chapter 2 and 3
C9 – Transport Management Plan	Y	Chapters 2 and 3
C10 - Traffic Guidance Scheme	Y	Appendix A
C45 – Car Parking Management	Y	Chapter 2
C46 - Access for Emergency Vehicles	Y	Chapter 8
C47 – Pedestrian Access from Day Parking Area	Y	Appendix A
C48 - Disabled Access	Y	Appendix A
C51 – Emergency Evacuation plans	Y	Chapter 8

Table 4 - Condition compliance summary table

#### 11.0 Chain of Command

The traffic engineer (TE) will be present at the site or the surrounding road network generally at the times of peak event traffic activity undertaking traffic monitoring and observations.

The responsibilities of the TE are:

- Certification of the installation and proper implementation of TMP and TGS
- Liaison with Falls Festival management and site manager
- Liaison with traffic control supervisor
- Undertake traffic monitoring activities
- Provide Traffic Evaluation Report (TER) following each event
- Design and modification of existing approved Traffic Guidance Scheme (TGS) when required
- Certification of new TGS when required

The Traffic Control Manager (TCM) will be present at the site or surrounding road network during peak arrival and departure periods, and be available at all times to implement contingency measures.

The responsibilities of the TCM include:

- Liaison with Falls Festival management and site manager
- Liaison with camping manager
- Liaison with parking manager
- Liaison with traffic engineer
- Liaison with Council and TfNSW
- Liaison with NSW Police

Changes to Traffic Control Plans can only be made by a TfNSW accredited person with a Prepare a Work Zone Traffic Management Plan card. This would normally be either the TE or the TCM. The TCM will supervise the operation of the TMP and TGS and ensure that the Traffic Controllers are advised of their roles in the traffic management. The TE will report any significant issues observed to the TCM as required.

The Event Management would be expected to contact the TE or TCM to discuss any traffic matters. The success of the implementation this TMP depends on a coordinated managed traffic approach and this will be achieved by following a chain of command protocol. This will also be reinforced in the Protocol issued to the contracted traffic control company.

#### **12.0** Conclusions and Recommendations

With demand management and close supervision of the traffic and parking, it is possible to manage the 2022/23 Falls Festival Byron such that it does not adversely impact on the Pacific Motorway or the local road network, outside the levels nominated in the development consent.

The KPIs nominated in the project approval can be met when the festival is managed as per this TMP.

An appropriately qualified traffic engineer should be present at critical times to enable effective evaluation of the implementation of the TMP and traffic control plans and make adjustments where required.

A designated person from festival management should also be the point of contact, with respect to traffic, camping patron entry and day parking issues, buses and taxis, and for the liaison between traffic controllers, parking attendants and camping operators, TfNSW, Police, Byron Shire Council and festival management.

Traffic counters will be installed to monitor traffic flows both for rate and volume. Monitoring of the operation of the car parks, in particular the operation of the car parks for ingress and egress, is to be performed to ensure effective operation of the car parks.

## Appendix A — Traffic Guidance Scheme (TGS)

#### INDEX OF SHEETS

SHEET NO.	DRAWING NUMBER	TITLE	
1	22521-TGS-01	GENERAL ARRANGEMENT, DRAWING INDEX & NOTES	
2	22613-TGS-02	NO STOPPING PLAN	
3	22613-TGS-03	SPEED ZONE PLAN	
4	22613-TGS-04	SITE FRONTAGE PLAN	
5	22613-TGS-05	BRUNSWICK VALLEY WAY & YELGUN INTERCHANGE PLAN	
6	22613-TGS-06	BRUNSWICK VALLEY WAY PLAN	
7	22613-TGS-07	MOOBALL & WOOYUNG RD PLAN	
8	22613-TGS-08	POTTSVILLE RD PLAN	
9	22613-TGS-09	CUDGERA CREEK RD PLAN	
10	22613-TGS-10	WOOYUNG RD EGRESS PLAN	
11	22613-TGS-11	TEMPORARY BUS BAY - PARK ST, BRUNSWICK HEADS	
12	22613-TGS-12	CONTINGENCY – QUEUEING ON TWEED VALLEY WAY	



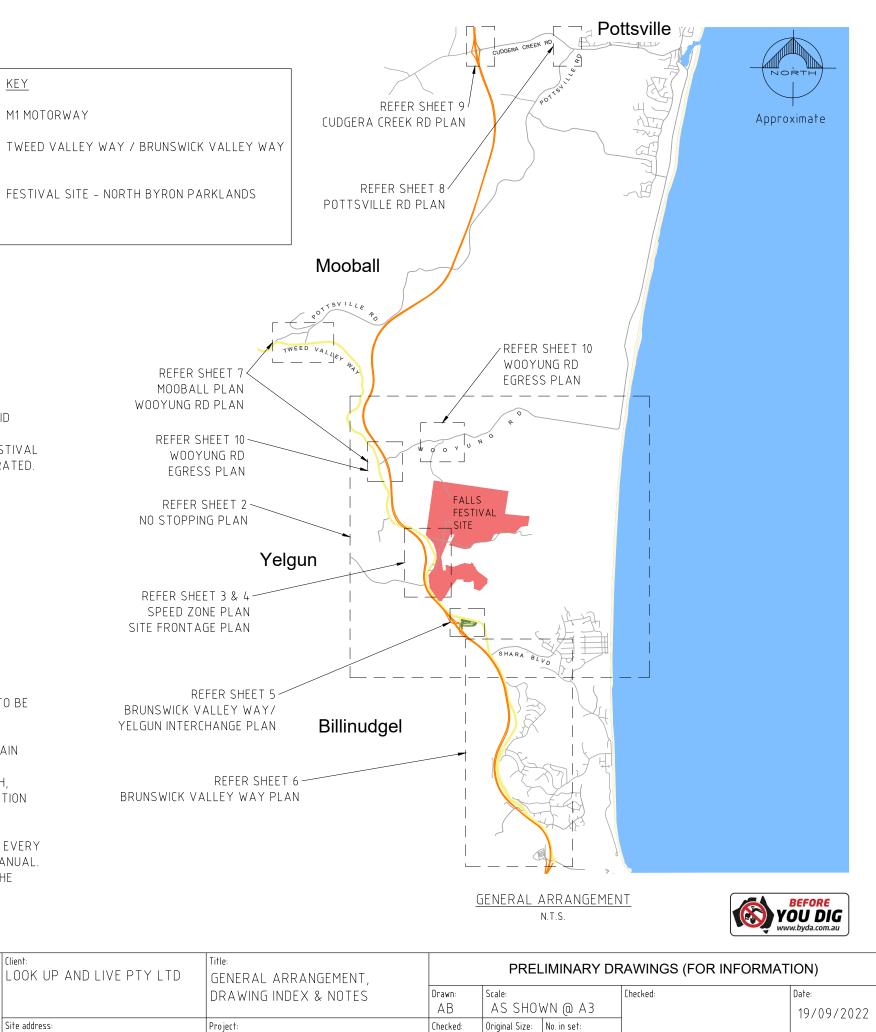
5

- 1. THIS PLAN HAS BEEN PREPARED FOR FALLS FESTIVAL 2022/2023 AT NORTH BYRON PARKLANDS AND IS VALID FROM 30TH DECEMBER 2022 TO 3RD JANUARY 2023.
- 2. THESE PLANS ARE TO BE READ ALONGSIDE THE TRAFFIC MANAGEMENT PLAN (TMP) PREPARED FOR FALLS FESTIVAL 2022/2023.THESE PLANS ARE TO BE READ IN CONJUNCTION WITH ONE ANOTHER AND SHALL NOT TO BE SEPARATED.
- 3. INSTALLATION OF ALL NO-STOPPING SIGNS TO COMPLY WITH THE REQUIREMENTS OF AS1742.11-1999, IN
  - PARTICULAR, THE HEIGHT CLEARANCE TO THE BOTTOM EDGE OF THE SIGN TO BE:
    - A MINIMUM OF 2.0 METRES ABOVE A FOOTPATH;
    - A MINIMUM OF 2.2 METRES ABOVE THE ROAD SURFACE;
    - UNLESS STATED OTHERWISE, ALL SIGNS TO BE STANDARD AS PER AS1742.1.
  - SIGN SIZE DENOTED BY LETTER AT END OF SIGN SPECIFICATION E.G.

R4-1-40A = A SIZE SIGN

- R4-1-40B = B SIZE SIGN
- 6. ENSURE ACCESS TO PROPERTIES NEIGHBOURING THE SITE ARE MAINTAINED
- 7. TRAFFIC CONTROL SIGNAGE IS TO BE LOCATED SUCH THAT IT IS VISIBLE TO TRAFFIC AND CLEAR OF THROUGH TRAFFIC LANES.
- 8. THIS PLAN IS TO BE IMPLEMENTED BY AUTHORISED PERSONS AS OUTLINED IN THE CURRENT VERSION OF THE TRANSPORT FOR NSW (TFNSW) TRAFFIC CONTROL AT WORK SITES MANUAL.
- 9. IF IN DOUBT ABOUT ANY OF THE DETAILS ON THIS PLAN, PLEASE CONTACT OUR OFFICE.
- 10. SIGNAGE DISTANCES/SPACING HAS BEEN CHOSEN TO SUIT SITE SPECIFIC CONDITIONS. DISTANCE D MAY NEED TO BE REDUCED ON SITE FROM TFNSW GUIDELINES IN ACCORDANCE WITH TABLE 4.2 OF AS1742.3 WHERE DISTANCE D CANNOT BE ACHIEVED DUE TO SITE CONSTRAINTS.
- 11. THIS TGS IS FOR A SHORT TERM SITE, SO UNTIL WORK IS FINISHED RELEVANT SIGNS AND DEVICES SHALL REMAIN NIGHT AND DAY.
- 12. THE NEEDS OF PEDESTRIANS (INCLUDING PEOPLE WITH DISABILITIES OR VISUAL IMPAIRMENT) MOVING THROUGH, PAST, OR AROUND TRAFFIC CONTROL ARE TO BE MET THROUGH COMPLIANCE WITH THE REQUIREMENTS OF SECTION 2.3.8 OF AS1742.3 AND BE IN ACCORDANCE WITH SECTION 4.4.2 OF TENSW TRAFFIC CONTROL AT WORK SITES MANUAL.
- 13. SHIFT TEMPORARY TRAFFIC MANAGEMENT (TTM) INSPECTIONS ARE TO BE UNDERTAKEN AT THE BEGINNING OF EVERY SHIFT, EVERY TWO HOURS FOLLOWING AND AS OUTLINED IN THE TENSW TRAFFIC CONTROL AT WORK SITES MANUAL.
- 14. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PREPARE SWMS FOR ALL ON SITE ACTIVITIES INCLUDING THE INSTALLATION AND REMOVAL ORDER OF TEMPORARY SIGNS AND TRAFFIC CONTROL DEVICES.

REV	REVISION DESCRIPTION	BY	DATE	THIS DRAWING IS CONFIDENTIAL AND IS THE			Title:		PRE
A	FOR INFORMATION	AB	19/09/2022	PROPERTY OF GREG ALDERSON AND ASSOCIATES.	<b>GREG ALDERSON &amp; ASSOCIATES</b>	LOOK UP AND LIVE PTY LTD	GENERAL ARRANGEMENT,		
				IT MUST NOT BE DISCLOSED TO A THIRD PARTY,			DRAWING INDEX & NOTES	Drawn:	Scale:
				REPRODUCED, COPIED, OR LENT WITHOUT THE WRITTEN CONSENT OF THE PROPRIETOR.	ABN 58 594 160 789 43 Main Street CLUNES NSW 2480			AB	AS SHO
				WRITTEN CONSENT OF THE FROFRIETOR.	Ph: 02 6629 1552	Site address:	Project:	Checked:	Original Size:
				DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS	E: office@aldersonassociates.com.au	<b>North Byron</b>	FÁLLS FESTIVAL 2022/2023	AE	Â3
				REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE	Web: aldersonassociates.com.au	Parklands		Job Number:	Drawing Numl
Z:\JOBS	\22\22521 - Falls Festival 2022-2023\CI	VIL\TMP, T	GS & TMoP\TGS\2252	-TGS-A - Falls Festival 2022-2023 Traffic Guidance Scheme - 2022-09-19.dwg				22521	

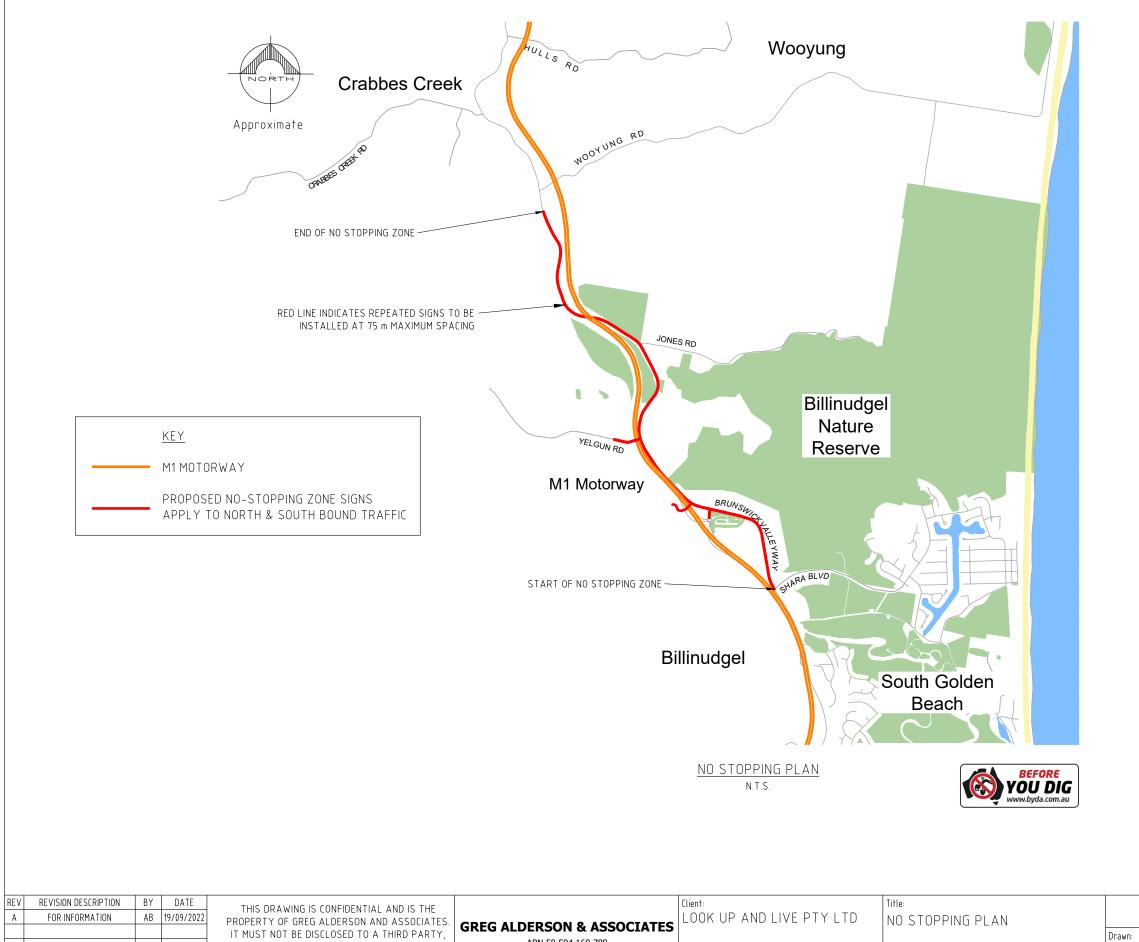


Number: 1-TGS-01	
1-TGS-01	Number:
1 - 1(1S - 0)	
	1 - 1(1S - 0)

01 of 12

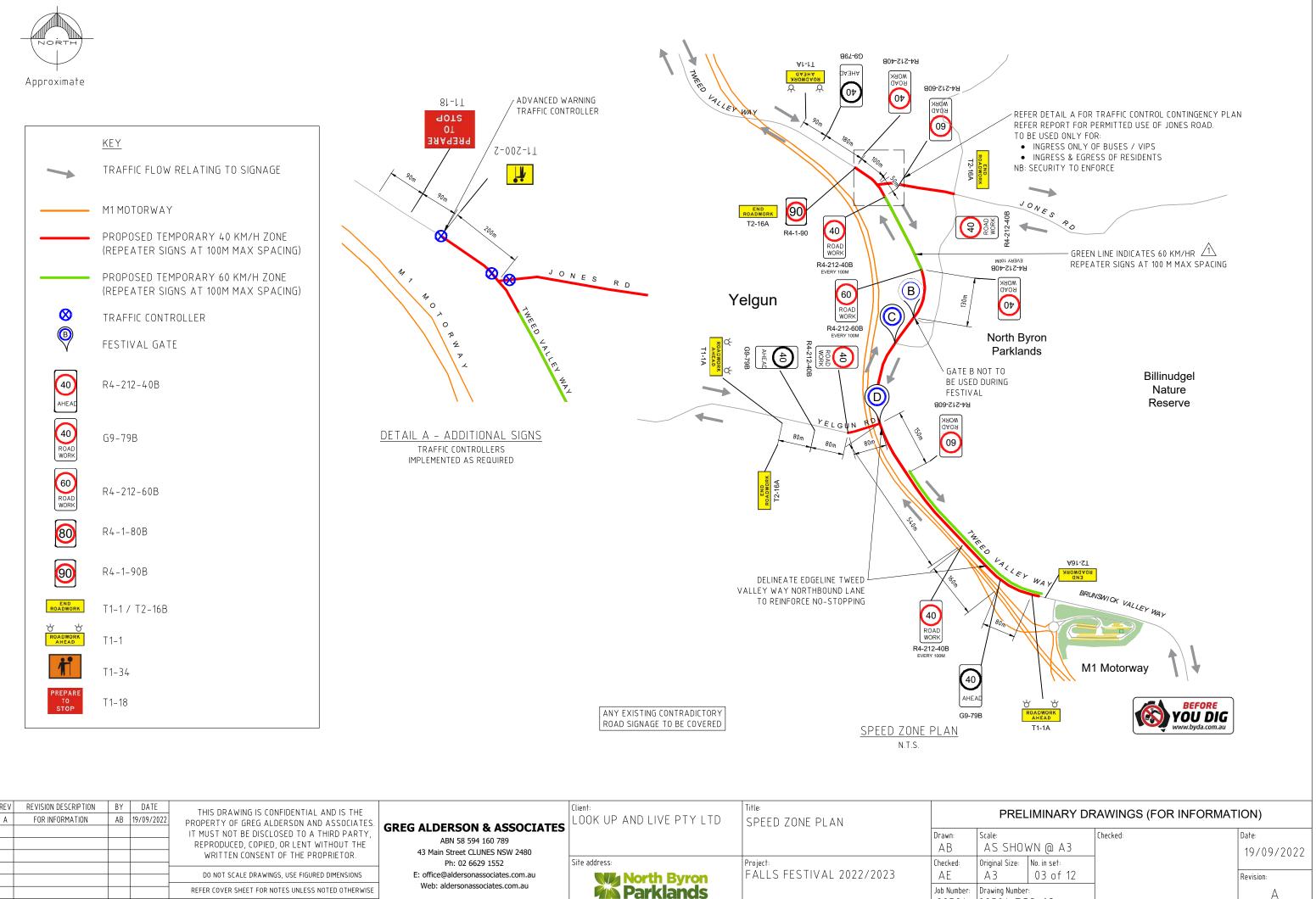
Revision:

А



	A FOR INF	ORMATION	AB	19/09/2022	PROPERTY OF GREG ALDERSON AND ASSOCIATES. IT MUST NOT BE DISCLOSED TO A THIRD PARTY, REPRODUCED, COPIED, OR LENT WITHOUT THE WRITTEN CONSENT OF THE PROPRIETOR.	GREG ALDERSON & ASSOCIATES ABN 58 594 160 789 43 Main Street CLUNES NSW 2480	LOOK UP AND LIVE PTY LTD	NO STOPPING PLAN
					DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE	Ph: 02 6629 1552 E: office@aldersonassociates.com.au Web: aldersonassociates.com.au		Project: FALLS FESTIVAL 2022/2023
-	Z:\JOBS\22\22521 - Falls	s Festival 2022-2023\CIV	IL\TMP, T	TGS & TMoP\TGS\225	21-TGS-A - Falls Festival 2022-2023 Traffic Guidance Scheme - 2022-09-19.dwg		<b>Pin Farkidi ius</b>	

	NO STOPPING
NO STOPPING R5-400	NO STOPPING C R5-400
	<u>O STOPPING ZONE</u> N.T.S.
PRELIMINARY DR         Drawn:       Scale:         AB       AS SHOWN @ A3         Checked:       Original Size:         AE       A3         Job Number:       Drawing Number:         22521       22521-TGS-02	Checked: Checked: Checked: Date: 19/09/2022 Revision: A

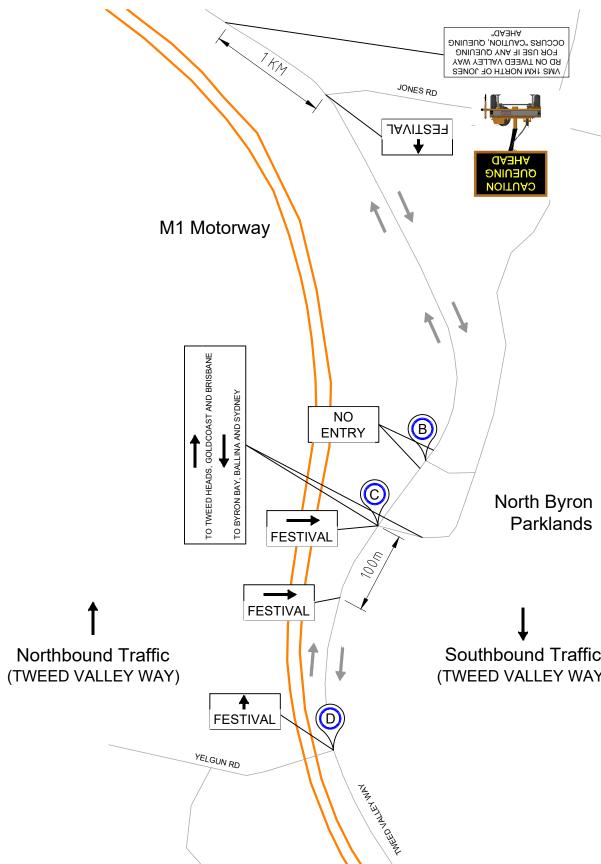


RE V A	REVISION DESCRIPTION FOR INFORMATION	BY         DATE           AB         19/09/2022	THIS DRAWING IS CONFIDENTIAL AND IS THE PROPERTY OF GREG ALDERSON AND ASSOCIATES.	GREG ALDERSON & ASSOCIATES	Client: LOOK UP AND LIVE PTY LTD	Title: SPEED ZONE PLAN		PREI	LIMINAF
			IT MUST NOT BE DISCLOSED TO A THIRD PARTY, REPRODUCED, COPIED, OR LENT WITHOUT THE WRITTEN CONSENT OF THE PROPRIETOR.	ABN 58 594 160 789 43 Main Street CLUNES NSW 2480			Drawn: AB	Scale: AS SHO	
			DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS	Ph: 02 6629 1552 E: office@aldersonassociates.com.au	Site address: North Byron	Project: FALLS FESTIVAL 2022/2023	Checked: A E	Original Size: A 3	No. in set: 03 of
Z:\J(	DBS\22\22521 - Falls Festival 2022-2023\(	CIVIL\TMP, TGS & TMoP\TGS\225	REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE	Web: aldersonassociates.com.au	<b>Parklands</b>		Job Number: 22521	Drawing Numbe	





VMS TO BE LOCATED TYPICALLY 3 M CLEAR OF EDGE OF TRAFFIC LANE. LOCATE BEHIND TRAFFIC BARRIERS WHERE POSSIBLE. IF IN OPEN PLACE REFLECTIVE CONES IN FRONT.  $\triangle$ 



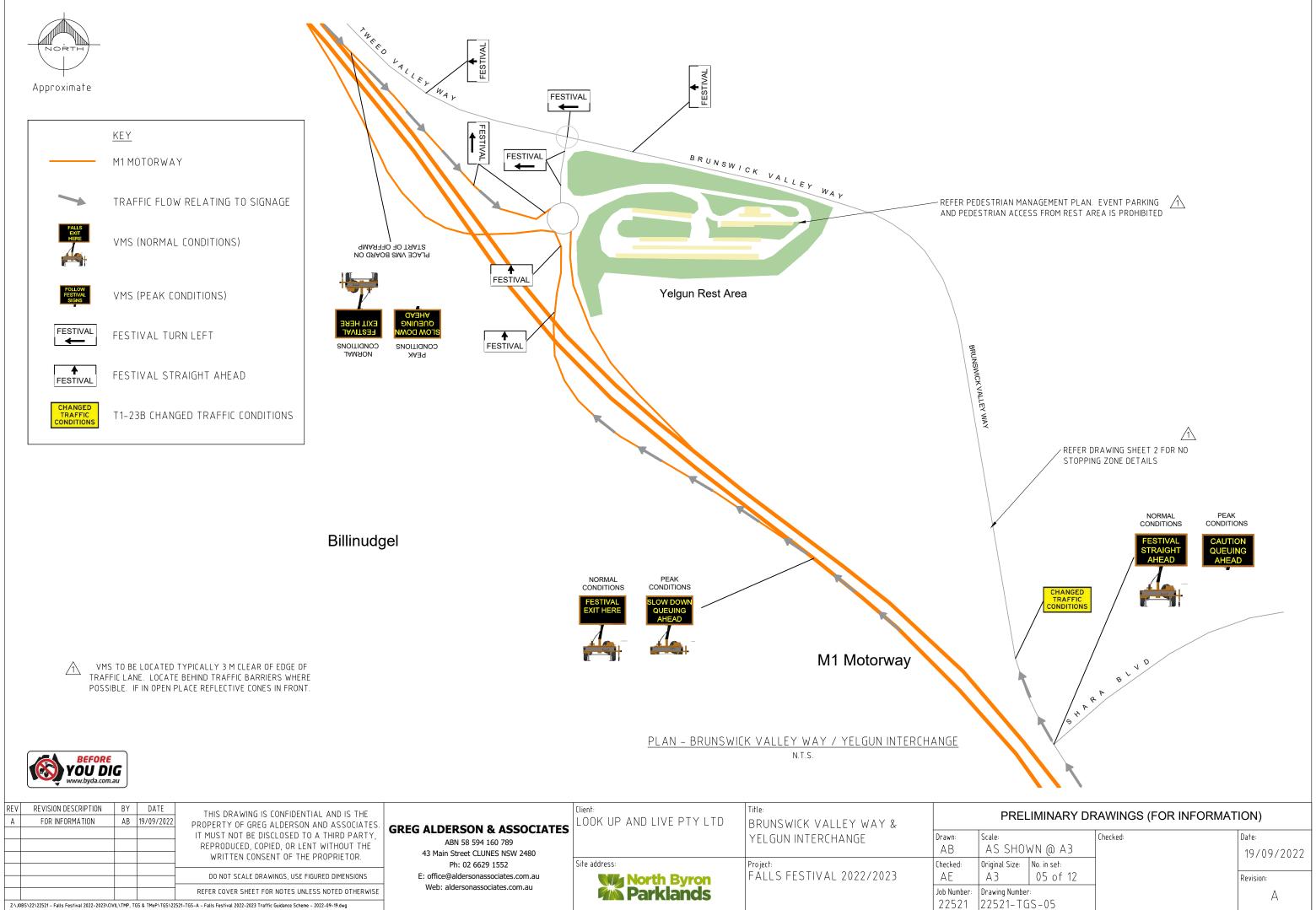


RE V A	REVISION DESCRIPTION FOR INFORMATION	BY         DATE           AB         19/09/2022	THIS DRAWING IS CONFIDENTIAL AND IS THE PROPERTY OF GREG ALDERSON AND ASSOCIATES.	GREG ALDERSON & ASSOCIATES	Client: LOOK UP AND LIVE PTY LTD	Title: SITE FRONTAGE PLAN		PI
			IT MUST NOT BE DISCLOSED TO A THIRD PARTY, REPRODUCED, COPIED, OR LENT WITHOUT THE WRITTEN CONSENT OF THE PROPRIETOR.	ABN 58 594 160 789 43 Main Street CLUNES NSW 2480 Ph: 02 6629 1552	Site address:	Project:	Drawn: A B Checked:	Scale: ASS Original S
			DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS	E: office@aldersonassociates.com.au		AE	A3	
Z:\JO	35\22\22521 - Falls Festival 2022-2023\(	IVIL\TMP, TGS & TMoP\TGS\2252	REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE 1-TGS-A - Falls Festival 2022-2023 Traffic Guidance Scheme - 2022-09-19.dwg	Web: aldersonassociates.com.au	<b>Parklands</b>		Job Number: 22521	Drawing N 22521

## Southbound Traffic (TWEED VALLEY WAY)

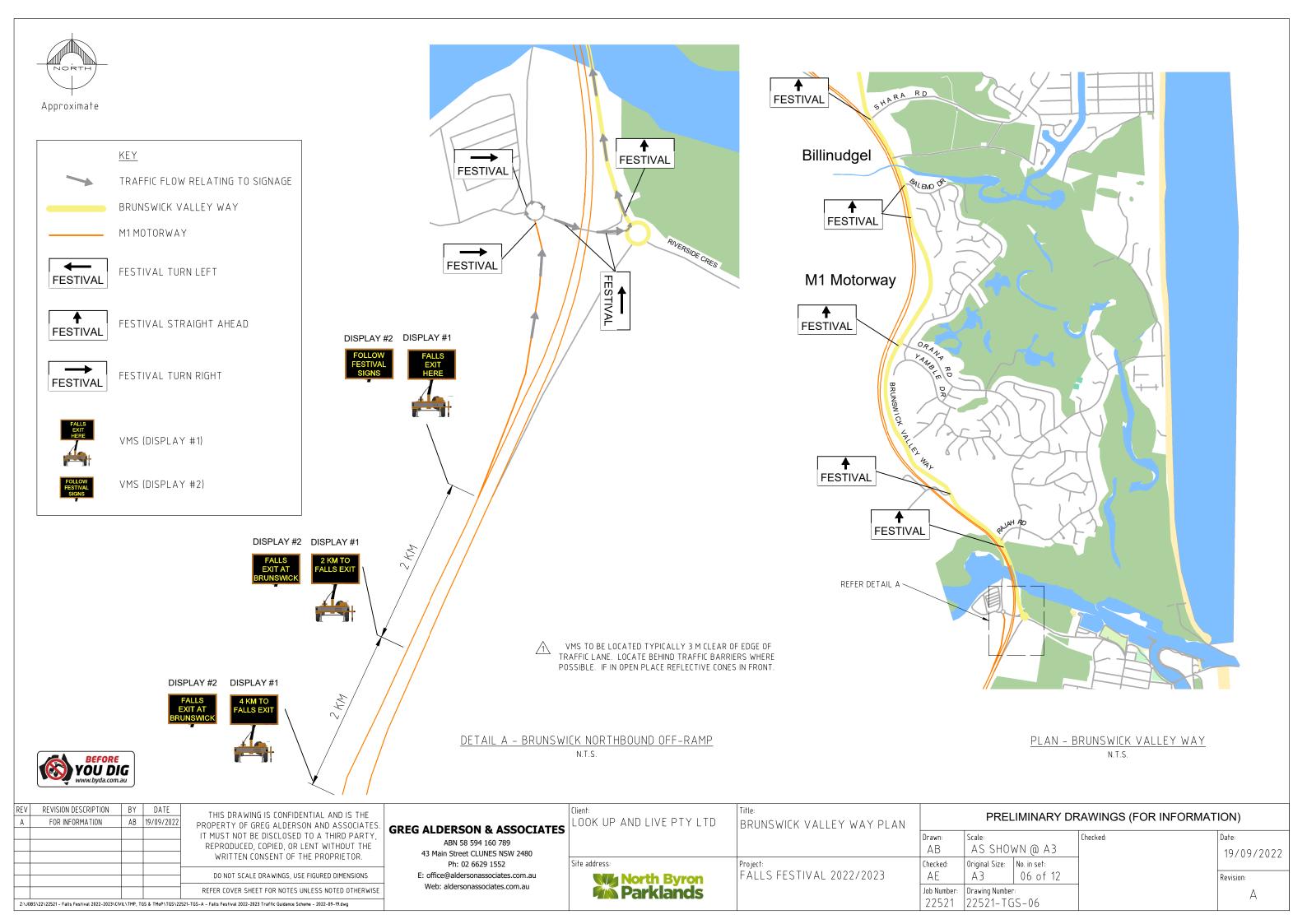
# PRELIMINARY DRAWINGS (FOR INFORMATION)

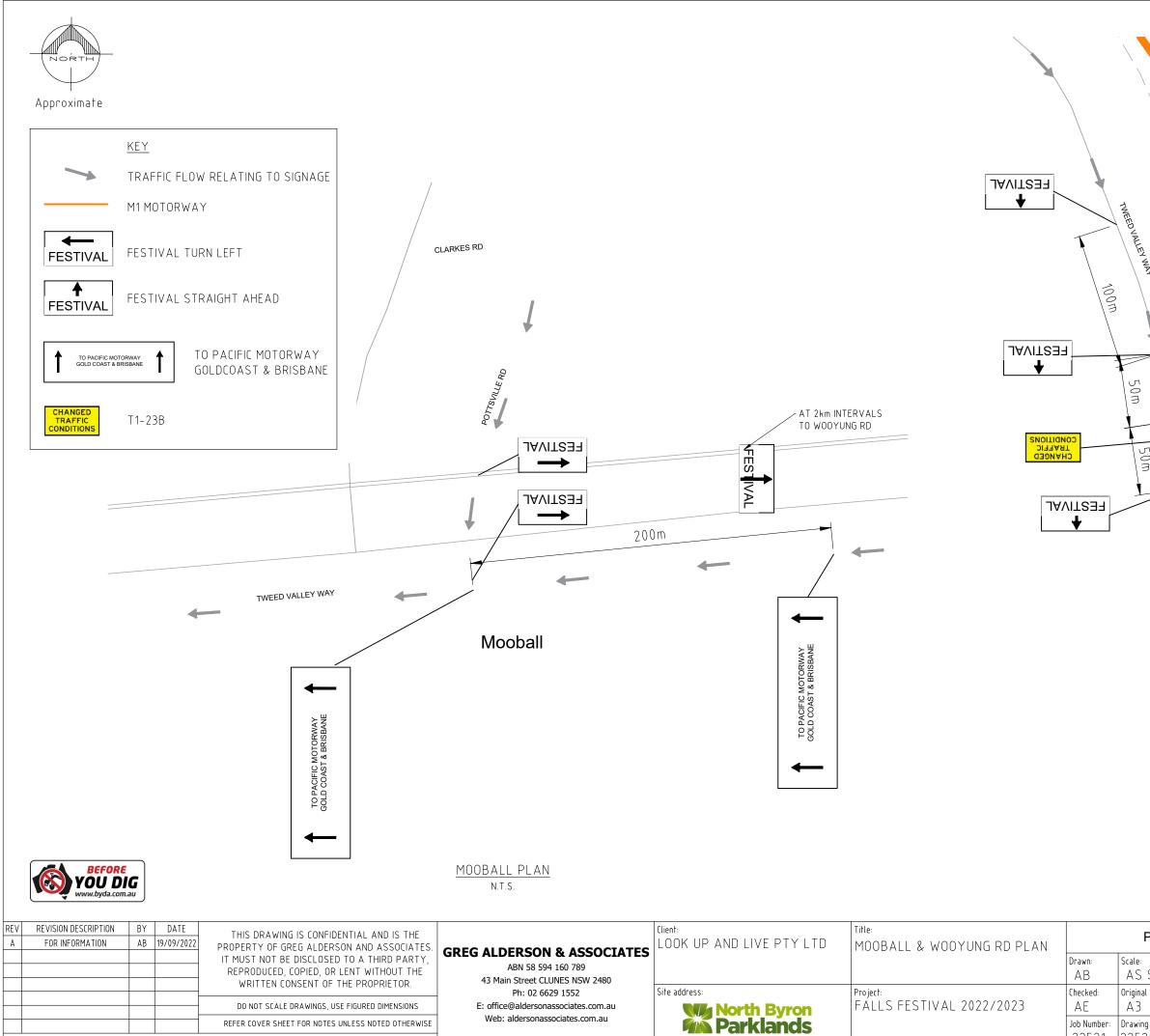
	Lhecked:	Date:
SHOWN@A3		19/09/2022
al Size: No. in set: 04 of 12		Revision:
ng Number: 21-TGS-04		A



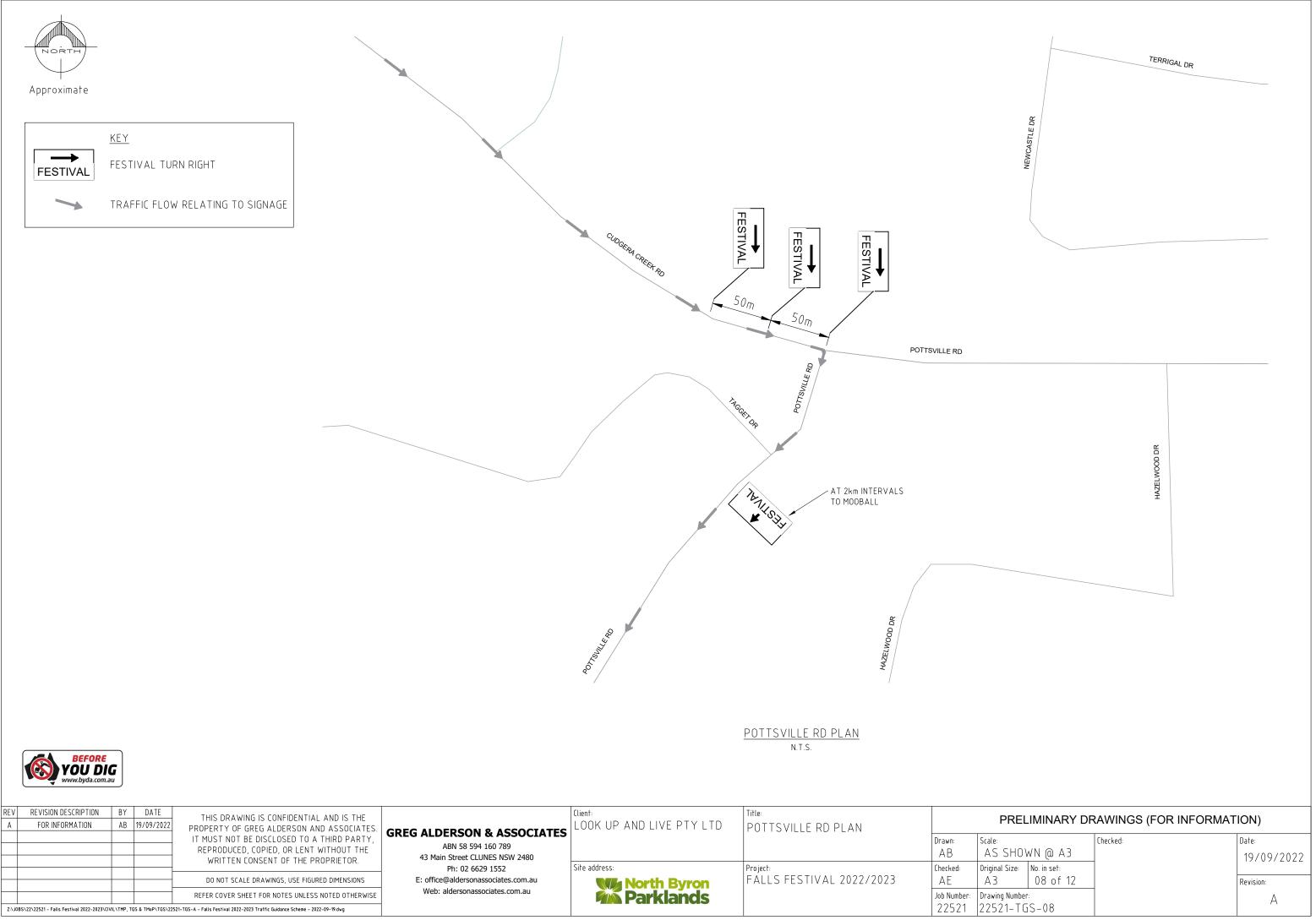
	THIS DRAWING IS CONFIDENTIAL AND IS THE	DATE	DI	REVISION DESCRIPTION	REV
		19/09/2022	AB	FOR INFORMATION	Α
GREG ALDERSON & ASSOCI	IT MUST NOT BE DISCLOSED TO A THIRD PARTY.				
ABN 58 594 160 789	REPRODUCED, COPIED, OR LENT WITHOUT THE				
43 Main Street CLUNES NSW 2480	WRITTEN CONSENT OF THE PROPRIETOR.				
Ph: 02 6629 1552		<u> </u>			
E: office@aldersonassociates.com.au	DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS				
Web: aldersonassociates.com.au	REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE				

	North Byron Parklands		Job Number: 22521	Drawin 2252
	Site address:	Project: FALLS FESTIVAL 2022/2023	Checked: A E	Origina A 3
>		YELGUN INTERCHANGE	Drawn: AB	Scale: A S
	LOOK UP AND LIVE PTY LTD	BRUNSWICK VALLEY WAY &		

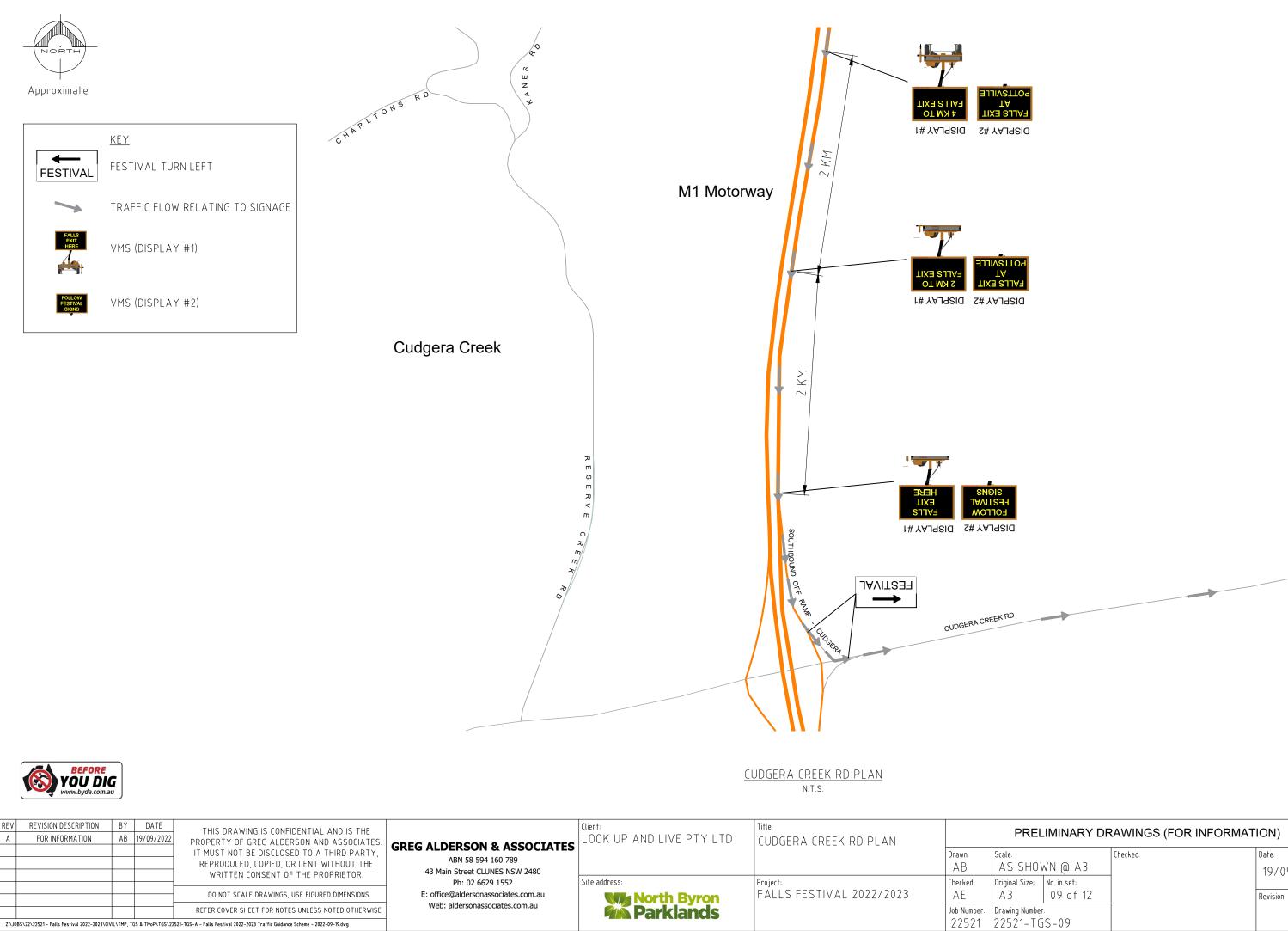




M1 Motorway	
WOOYUNG RD PLAN N.T.S.	
PRELIMINARY DRAWINGS (FOR INFORMAT	
SHOWN @ A3 al Size: No. in set: 07 of 12 ng Number: 21-TGS-07	Date: 19/09/2022 Revision: A



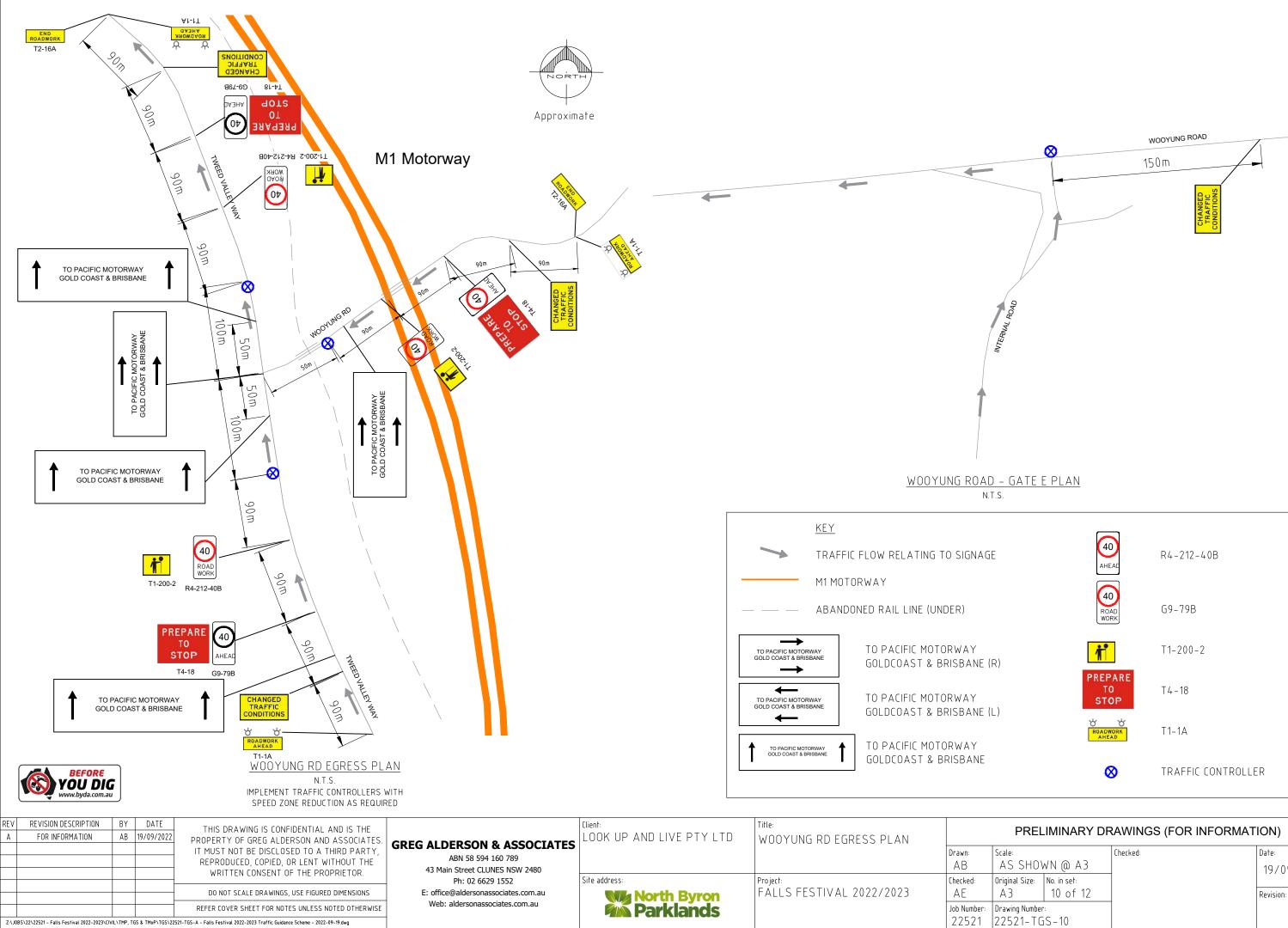




Z:\JDBS\22\22521 - Falls Festival 2022-2023\ClVIL\TMP, TGS & TMoP\TGS\22521-TGS-A - Falls Festival 2022-2023 Traffic Guidance Scheme - 2022-09-19.dwg

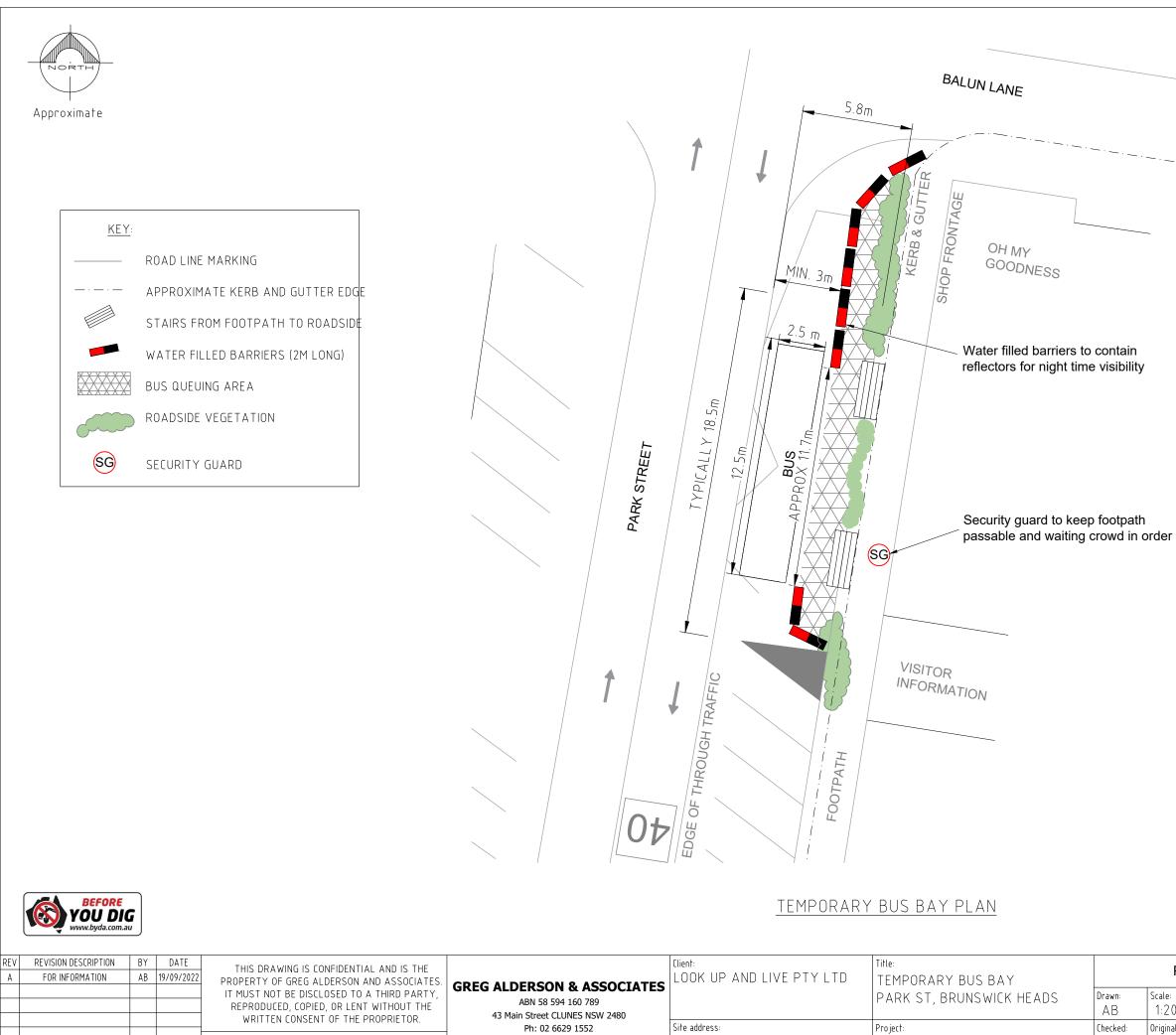
22521

:		Checked:	Date:
S SHOV	√N @ A3		19/09/2022
nal Size: }	No. in set: 09 of 12		Revision:
ing Number: 021-TGS-09			А



	R4-212-40B	
40 ROAD WORK	G9-79B	
<b>†</b>	T1-200-2	
PREPARE TO STOP	T 4 – 18	
Boadwork     Roadwork     AHEAD	T1-1A	
8	TRAFFIC CONTROLLER	

PRELIMINARY DRAWINGS (FOR INFORMATION)							
	Checked:	Date:					
SHOWN @ A3		19/09/2022					
al Size: No. in set:							
10 of 12		Revision:					
ng Number: 21-TGS-10		А					



E: office@aldersonassociates.com.au

Web: aldersonassociates.com.au

DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS

REFER COVER SHEET FOR NOTES UNLESS NOTED OTHERWISE

Z:\JOBS\22\22521 - Falls Festival 2022-2023\ClVIL\TMP, TGS & TMOP\TGS\22521-TGS-A - Falls Festival 2022-2023 Traffic Guidance Scheme - 2022-09-19.dwg

#### PRELIMINARY DRAWINGS (FOR INFORMATION)

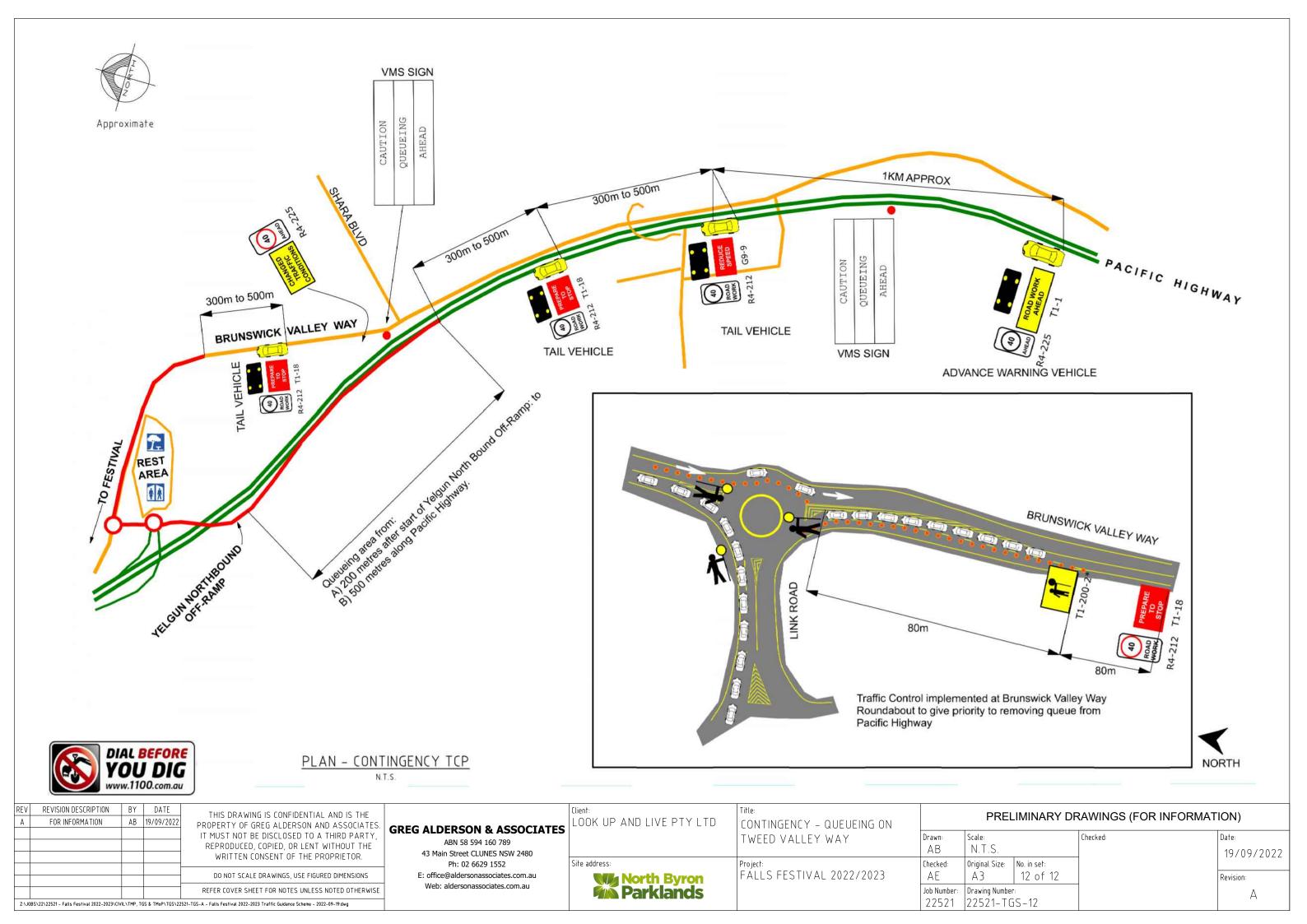
FALLS FESTIVAL 2022/2023

АE

Job Number: 22521

North Byron Parklands

Scale: 1:200		Checked:	Date: 19/09/2022
Original Size: A 3	No. in set: 11 of 12		Revision:
Drawing Number: 22521–TGS–11			А



## Appendix B — Risk Assessment Register

	RISK ASSESSMENT																
					Initial R	isk Rating		Responsible person for	for Person responsible for	Re	sidual F	Risk Rating					
Activity	Hazard Description	Direct Consequence			с	Risk Class	Method for risk mitigation	mitigation implementation	ensuring sufficient funding to enact mitigation	L	с	Risk Class					
Traffic control on public road	Traffic controller hit	Injury or death	Traffic congestion and queue growth	3	А	2	Ensure installation in accordance with TMP traffic control plan	Traffic control manager	Festival general manager	5	A	3					
	by car	, , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , ,				Ensure TC staff compliance with WHS regulations and other relevant legislation	Supervisors and overseers	Festival general manager								
							Ensure eufficient staff for vehicle processing	Parking manager	Festival general manager								
	Insufficient rate at which	Traffic congestion and queue					Ensure adequate equipment to enable staff to process vehicles safely and efficiently	Parking manager	Festival general manager								
On-site vehicle processing	vehicles are processed	growth	Collision on public road	2	A	1	Implementation of contingency measures (including "snake" in southern carpark) to create additional vehicle storage on-site	Event traffic manager	Festival general manager	5	А	3					
							Traffic controllers on public road to control back of queue	Traffic control manager	Festival general manager								
							Traffic management plan to allow for sufficient contingency	Traffic control manager	Festival general manager								
	Higher patron arrival flow than anticipated	Traffic congestion	Collision on public road	2	А	A 1	Contingency plans available for enactment if needed	Traffic control manager	Festival general manager	5	А	3					
							Queue warning vehicle implementation	Traffic control manager	Festival general manager								
							Traffic management plan to allow for sufficient contingency	Traffic control manager	Festival general manager		А						
	More concentrated arrival peak than anticipated	Traffic congestion	Collision on public road	2	А	1	Contingency plans available for enactment if needed	Traffic control manager	Festival general manager	5		3					
							Queue warning vehicle implementation	Traffic control manager	Festival general manager								
	Crash on critical intersection or traffic lane Injury or death			2			Secure crash site	NSW Police Force	NSW Police Force		_	3					
		Iniun ( or doath	T		,	2	Provide first aid to persons involved	NSW Ambulance Service	NSW Ambulance Service								
		Traffic congestion and queue growth	3	A	2	Manage traffic at crash site	NSW Police Force	NSW Police Force	5	А	3						
						Manage back of queue	Traffic control manager	Festival general manager									
							Ensure adequate on-site road network	NBP general manager	NBP shareholders								
							Ensure sufficient visibility through corners	NBP general manager & event traffic manager	NBP shareholders & festival general manager								
		On-site crash Injury or death			А		4	4	A					Ensure low-speed environment	Event traffic manager	Festival general manager	
	On-site crash		Traffic congestion and queue growth	2								Prevent occurrence of sudden stopping	Event traffic manager	Festival general manager	3	с	3
	Offshe crush		Traine congesiion and queue growin	-			Secure crash site	NSW Police Force	NSW Police Force		C	Ŭ					
Patron arrival, departure and							Provide first aid to persons involved	NSW Ambulance Service	NSW Ambulance Service								
additional festival traffic							Manage traffic at crash site	NSW Police Force	NSW Police Force								
generation throughout event							Manage back of queue	Traffic control manager	Traffic control manager								
						А	A	А		Remove vehicle from traffic lane	Event traffic manager	Festival general manager					
	On-site vehicle breakdown	Traffic congestion and queue growth	Collision on public road	2	2				А	А	. 1	Implementation of contingency measures (including "snake" in southern carpark) to create additional vehicle storage on-site	Event traffic manager	Festival general manager	3	С	3
		g. <b>.</b>					Low-speed zones in high-risk areas as shown in TMP and TGS	Traffic control manager	Festival general manager								
							Traffic controllers on public road to control back of queue	Traffic control manager	Festival general manager								
	Queueing on motorway, motorway off-ramp or arterial	Traffic congestion and queue	Potential back of queue crash	3	А	2	Contingency plans available for enactment if needed	Traffic control manager	Festival general manager	4	А	3					
	road	growth	rolenilar back of queue crash	5		2		Festival general manager	4	<	5						
							Fire prevention by site planning, vegetation	NBP general manager &	NBP shareholders & festival								
	On-site fire or bush fire Panic by drivers	Potential collisions on site and public	2	А	1	maintenance, and crowd control	event traffic manager	general manager	3	D	3						
		,	road				Fire identification and firefighting	RFS & event manager	RFS & festival general manager		-						
		Sudden stop of traffic flow and					Monitor weather and issue severe weather warnings to staff, contractors and pastrons if required	Event traffic manager	Festival general manager								
	Severe wind, rain and/or hail	uncontrolled stopping of vehicles on	n Collision	2	А	1	Queue warning vehicle implementation	Traffic control manager	Festival general manager	3	D	3					
		traffic lane and shoujlder					VMS text to be changed to warn drivers of severe weather and traffic congestion	Traffic control manager	Festival general manager								

RISK ASSESSMENT MATRIX								
			CONSEQUENCE					
		MINOR	MINOR MAJOR SEVERE CRITICAL CATASTROPH					
LIKELIHOOD	Rank	Е	D	с	В	A		
VERY UNLIKELY	5	Low	Low	Low	Medium	Medium		
UNLIKELY	4	Low	Low	Medium	Medium	High		
POSSIBLE	3	Low	Medium	Medium	High	High		
LIKELY	2	Medium	Medium	High	High	Extreme		
ALMOST CERTAIN	1	Medium	High	High	Extreme	Extreme		

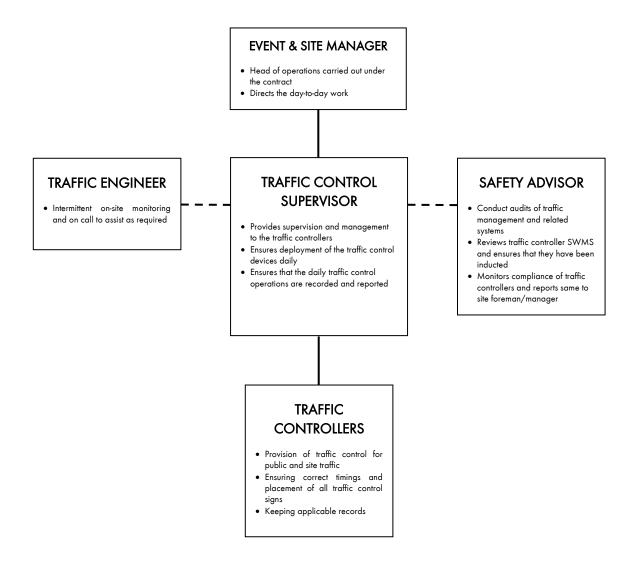
	RESIDUAL RISK IMPLICATION						
Residual Risk	Residual Risk Action						
Low	Low Implement control measures where required and proceed with work task.						
Medium	Consider and implement all practical controls to reduce risk prior to proceeding with work task. Actively manage risk as task proceeds.						
High	Implement all practical control measures to reduce risk prior to proceeding with work task. Actively manage risk as task proceeds.						
Extreme	Do not commence work task; notify festival general manager immediately.						

LIKELIHOOD DEFINITION						
LIKELIHOOD	Rank	Definition				
VERY UNLIKELY	1	Occurs < 1 in 100 projects				
UNLIKELY	2	Occurs in 1 in 100 projects				
POSSIBLE	3	Occurs in 1 in 10 projects				
LIKELY	4	Possible in every project				
ALMOST CERTAIN	5	Possible more than once in evey project				

CONSEQUENCE DEFINITION						
CONSEQUENCE Rank Definition						
MINOR	A	Basic first aid administered				
MAJOR	В	Injury requiring medical treatment				
SEVERE	С	Lost time injury				
CRITICAL	D	Irreversible health effects, imparement or illness				

#### Appendix C — Organisational Structure for Traffic Management

- C.1 Organisational Structure for Traffic Management
- C.1.1 Hierarchy Flow Chart



• The key contact personnel and contact details can be found in Section 7.0 of the TMP.

Greg Alderson and Associates ABN 58 594 160 789

43 Main Street Clunes NSW 2480

T +61 2 6629 1552 office@aldersonassociates.com.au



#### **Civil Engineering**

Roads Driveways Stormwater Flooding Traffic Earthworks



#### Structural Engineering

New Structures Additions and Alterations Foundations Wind Bracing & Tie Down Framing Retaining Walls

> House Plan Drafting BASIX Certificates



Environmental

Contaminated Land (SEPP 55) Acoustics & Noise Wastewater Management Acid Sulfate Soil Water Quality Ecology