

For: Bluesfest Byron Bay Pty Ltd

Report no: 23000-TMP-D

Date: 27-Feb-23





Contact Information

D . DI (0000

43 Main St

Project name Bluesfest 2023

Document Information

Clunes NSW 2480

Telephone: 02 6629 1552 Reference 23000-TMP-D

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

Key Personnel

Andrew Booth BE Eng (Civil) (Hons)

SafeWork NSW PWZTMP Card no: TCT1012855

Allan Evans BE Eng (Civil)

SafeWork NSW PWZTMP Card no: TCT1007605

Document Control

Rev	Description	Prepared by:			Reviewed by:		
0	For information	AB	27/02/2023	ABL	AE	27/02/2023	AR

[©] 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.

TABLE OF CONTENTS

1.0 Int	roduction	7
1.1	Event Description & Calendar	7
1.2	Scope of Works	7
1.3	Site Locality	7
1.4	Standards, Specifications & Guidelines	9
1.5	Summary of Key Performance Indicators (KPIs)	10
1.6	Definitions	11
2.0 Tro	affic Control at Tyagarah Interchange & Bluesfest Southbound Off-ramp	12
2.1	Main Purpose	12
2.2	General Layout	12
2.3	Grays Lane Intersection	13
2.4	Traffic Controllers on Off-ramps	13
2.5	Traffic Controllers	13
2.6	Traffic Guidance Scheme (TGS)	14
2.7	Traffic Control Implementation	14
2.7	7.1 Wednesday 29 th March	15
2.7	7.2 Thursday 30 th March to Friday 1 st April	15
2.7	7.3 Monday 3 rd April to Tuesday 4 th April	15
2.7	7.4 Wednesday 5 ^h April	15
2.7	7.5 Thursday 6th April	16
2.7	7.6 Thursday 6 th April to Monday 10 th April	16
2.7	7.7 Tuesday 11 th April	16
3.0 Tro	affic Control at Site Gates	1 <i>7</i>
3.1	Main Purpose	1 <i>7</i>
3.2	Camper Arrival	1 <i>7</i>

	3.3	Day Patron Arrival	. 1 <i>7</i>
	3.4	Buses	. 18
	3.5	Departure	. 18
4.	.0 Traf	fic Control On-site	. 19
	4.1	Main Purpose	. 19
	4.2	Car Parks	. 19
	4.3	North-South Internal Road	. 19
	4.4	Bus and Taxi Ranks	. 19
	4.5	Role of Traffic Engineer	. 20
5.	.0 Con	tingencies	. 21
6.	.O Eme	rgency Evacuation	. 23
7.	.0 Traf	fic Monitoring	. 24
8.	.O Paic	l Parking	. 25
	8.1	Paid Parking Contingency Plan	. 25
9.	.O Prov	risions for Other Road Users	. 26
	9.1	Pedestrians & Bicycles	. 26
	9.2	Emergency Services	. 26
	9.3	Special Vehicle Requirements	. 26
1	0.0	Traffic Management Methodology	. 27
	10.1	Set Out, Signage, Delineation & Detours	. 27
	10.2	Safety of Workers	. 27
	10.3	Record Keeping & Monitoring	. 27
	10.4	Incident Reporting	. 27
	10.	4.1 Incidents at Worksites or Roadworks	. 28
	10.	4.2 Action to be Taken	. 28
	10.	4.3 Serious Incidents	. 28

10.	4.4 Incident Records	28
10.	4.5 Incident Requiring Further Investigation	29
10.5	Advertising	29
11.0	Contact Details	30
12.0	2022 Traffic Data Overview	32
12.1	2022 Traffic Arrival/Departure Profiles	32
12.2	2022 Estimated Number of Vehicles On-site	37
13.0	Risk Assessment	38
14.0	Copies of the Traffic Management Plan	39
15.0	TGS Checklist	40
16.0	Chain of Command	43
1 <i>7</i> .0	Conclusion	44
Appendi	x A – Bluesfest 2023 Site Plan	45
Appendi	x B - Traffic Guidance Scheme (TGS)	46
Appendi	x C - Risk Assessment Register	47
Appendi	x D - Organisational Structure for Traffic Management	48
D.1	Organisational Structure for Traffic Management	48
D 1	1 Hierarchy Flow Chart	1 2

LIST OF FIGURES

Figure 1 - Site locality (SIX Maps, 2023)	8
Figure 2 - Site access plan	9
Figure 3 – Southbound Off-ramp (GAA, 2019)	16
Figure 4 - Access 1 inbound traffic (GAA, 2022)	32
Figure 5 - Access 1 outbound traffic (GAA, 2022)	32
Figure 6 - Access 3 inbound traffic (GAA, 2022)	33
Figure 7 - Pick-up/Drop-off area southbound traffic (one way) (GAA, 2022)	33
Figure 8 - Access 4 inbound traffic (GAA, 2022)	34
Figure 9 - Access 4 outbound traffic (GAA, 2022)	34
Figure 10 - Yarun Road southbound traffic (GAA, 2022)	35
Figure 11 - Yarun Road northbound traffic (GAA, 2022)	35
Figure 12 - Combined inbound traffic (GAA, 2022)	36
Figure 13 - Combined outbound traffic (GAA, 2022)	36
Figure 14 - Estimated number of vehicles on site at Bluesfest 2022	37
LIST OF TABLES	
Table 1 – Contingency number, measures, implementation triggers and reasoning	22
Table 2 - TGS checklist	40

1.0 Introduction

1.1 Event Description & Calendar

Bluesfest is a 5-day blues and roots Australian music festival that is held at the Byron Events Farm in Byron Bay region of NSW. Bluesfest is held over the Easter long weekend. Although the actual music portion of the festival spans from Thursday to Monday, campers are allowed to arrive at the festival on Wednesday prior and leave the site on Tuesday following the festival.

The 2023 Bluesfest event calendar can be summarised as follows:

\A/	
Wednesday 5 th April 2023	Camparounds open/camper arrivals
Troundad, o Tipin 2020	campgicanas apany campai anni ais

Thursday 6th April 2023 Event Day 1

Friday 7th April 2023 Event Day 2

Saturday 8th April 2023 Event Day 3

Sunday 9th April 2023 Event Day 4

Monday 10th April 2023 Event Day 5

Tuesday 11th April 2023 Campgrounds close/camper departure

1.2 Scope of Works

Greg Alderson & Associates (GAA) have been engaged by Bluesfest Byron Bay Pty Ltd to provide a Traffic Management Plan (TMP) for the 2023 Bluesfest event at the Byron Events Farm in Tyagarah, NSW.

The primary function of this TMP is to prescribe traffic management and control procedures, including a Traffic Guidance Scheme (TGS) for Bluesfest 2023 to ensure the safety of both the general public and staff throughout the event and to satisfy the conditions of consent for the festival. This TMP will focus on the main aspects of the project that will affect public road users.

Specific community consultation, communication, publicity, heritage, environmental, cultural, and social impact reports have been prepared for the event separate to this report. This report takes into consideration and is in line with these reports.

1.3 Site Locality

The subject site is formally known as Lots 103, 104, 105 DP 1023126, Tanner Lane, Tyagarah. The location of the site with respect to its locality is shown in Figure 1, while the site access plan is shown in Figure 2.

As seen in Figure 2, the site has two main entries: Access 1, which is the northernmost entry typically for vehicles travelling southbound on the Pacific Motorway; and Access 3, which is the southernmost entry typically reserved for vehicles travelling northbound on the Pacific Motorway. Access 1 is also used as an exit for vehicles on the north of the site while Access 4 is used as an exit for vehicles on the south of the site. Access 2 is reserved for emergency vehicles and festival organisers.

As also indicated in Figure 2, a special off-ramp from the Pacific Motorway onto Tanner Lane is used throughout the festival to minimise conflict points and streamline traffic entering the site.

The Bluesfest 2023 site plan is included as Appendix A of this report while the TGS for the event is included as Appendix B of this report.

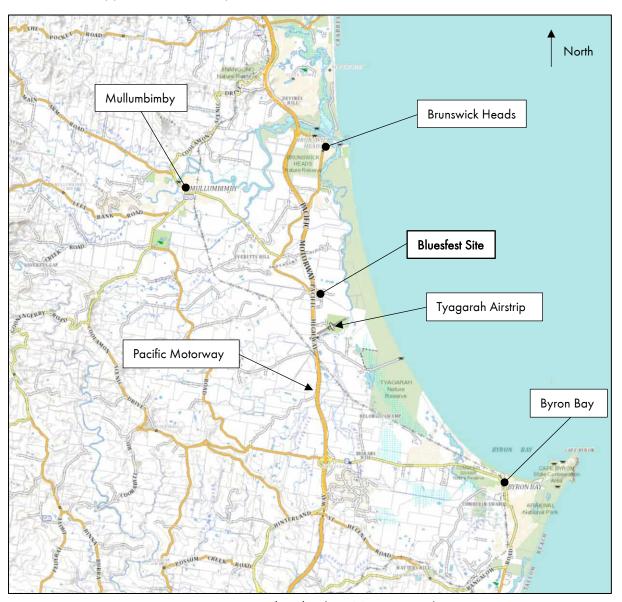


Figure 1 - Site locality (SIX Maps, 2023)



Figure 2 - Site access plan

1.4 Standards, Specifications & Guidelines

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 (TMC in conjunction with other NSW state agencies);

- 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.

1.5 Summary of Key Performance Indicators (KPIs)

The modified consent DA 10.2014.753.7 provides a set of Key Performance Indicators (KPIs) that were created to ensure acceptable traffic conditions on the public road during the event. The consent condition from this modified consent stipulating the traffic KPIs is shown below in consent condition 61:

Consent Condition 61

- b) The Traffic Control Plan (TCP) [also known as TGS] must address the following matters:
 - v. There is to be no impact on through travel times on the Pacific Highway.
 - xiii. The TCP is to factor in that local roads are to operate a Level of Service (LoS) D or better between the hours of 8am and 8pm on event days. The ramps of the Tyagarah Interchange with the Pacific Highway to operate at Level of Service C or better at event times (See Figure 3.1 Levels of Service Flow rates Austroads Guide to Traffic Management Part 3 and Highway Capacity Manual).
 - xiv. The TCP is to include provision so that traffic queuing on the Gulgan Road offramps do not exceed stopping sight distances for 110 km/h speeds (see RMS supplements and Austroads Guide to road Design Part 3 Section 5.3.1 for stopping sight distances).

Based on consent condition 61 shown above, the KPIs for the Bluesfest 2023 event are summarised as follows:

- 1. No queuing or impact in through travel times on the Pacific Motorway.
- 2. The requirement for local roads to operate a LoS D or better between the hours of 8am and 8pm on event days can be measured by ensuring traffic flow rates do not exceed the following flow rates:
 - a. 800 vehicles per hour per lane when 40 km/h special event speed limits apply
 - b. 1,260 vehicles per hour per lane when 60 km/h special event speed limits apply
- 3. The requirement for the Gulgan Road off-ramps to operate at LoS C or better at event times can be satisfied by ensuring the average delay on the off-ramps is less than or equal to 42 seconds.
- 4. Traffic queuing on the Tyagarah Interchange off-ramps must not exceed stopping sight distance for 110 km/h speeds as follows:

- a. Maximum back of queue location on northbound off-ramp: 200 metres from start of diverge taper.
- b. Maximum back of queue location on southbound off-ramp: 210 metres from start of diverge taper.

Any traffic incidents resulting in non-compliance with any of the above conditions will have serious consequences for future events at this site. It is important that at all times, sufficient qualified staff is available to implement the traffic management plan including any contingencies. It is required that all traffic controllers are properly briefed giving them an appreciation of the bigger picture of the traffic management plan and an understanding of the impact that their specific role may have on the overall performance of the festival.

Of equal importance in the compliance with the above specifications is that there are no restrictions within the site which cause a queue of traffic back out the entrance gates onto Tanner Lane or Yarun Road.

1.6 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

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

Level of Service; Service level of roads based on certain traffic statistics as

defined in other documents

Peak Flow Rate Hourly volume of vehicles during busiest part of assessment period

TfNSW Transport for NSW (formerly known as RMS)

TGS Traffic Guidance Scheme

TMP Traffic Management Plan

2.0 Traffic Control at Tyagarah Interchange & Bluesfest Southbound Off-ramp

2.1 Main Purpose

The main priorities of the traffic control measures at the Tyagarah Interchange are:

- No queuing onto the Pacific Highway off-ramps;
- No interruption of through traffic on the Pacific Highway;
- Limit delay for local traffic on local roads.

The TGS detailing the required traffic control measures are prepared by Altus Road Services and adopted by Council. These plans form the statutory controls for traffic management on the public roads adjacent to the event site and along with the Road Occupancy License issued by the TfNSW serve to give the necessary authority to the traffic controllers to implement traffic management on and off the site. A set of the approved TGS will be issued to all stakeholders.

2.2 General Layout

The TGS shows signage, barriers and other traffic control measures to offer a managed environment around the Bluesfest site.

Southbound motorway traffic seeking to attend the festival will be directed by signage to take the off-ramp, completed by Bluesfest, and proceed directly without interruption to their parking areas, situated in the north of the event site.

Event traffic from the south will be directed by signage to exit the Pacific Highway at the existing Mullumbimby off-ramp. This traffic will cross the motorway using the existing Tyagarah Interchange overpass. Then they travel south to the site entrance gate and park in the southern car parking areas. Event traffic from the north will use the newly constructed off-ramp which will lead them straight into the site to park in the northern car parks. Thus, vehicles from either direction will be kept separate to reduce on-site congestion during both arrival and departure times.

Observers will be required at the Tyagarah Interchange overpass and the Pacific Motorway southbound off-ramp during peak arrival periods throughout the festival. These observers will be required to give advice to the traffic controllers as to the length of any significant queue. Adjustments may then be necessary on the site to give increased priority and avoid queues back to the highway.

The relevant parties shall be notified immediately of any risk of queueing impacting the highway. Refer to Appendix D for the chain of command during the event.

2.3 Grays Lane Intersection

It is proposed to open the Grays Lane intersection for the duration of the event starting the morning of Thursday 6th April until the evening on Monday 10th April. This intersection will only be opened to local traffic and buses during peak departure periods on event days.

To minimise potential safety concerns over the usage of this intersection, buses will only use this intersection during peak departure periods on event nights. These peak departure periods are approximately as follows:

8pm until final departures (approx. 2am).

The TGS in Appendix B of this report shows how traffic will be managed at the Grays Lane intersection during peak departures. Refer to Section 3.4 of this report for details regarding bus use throughout the event.

It is noted that three options have been provided to manage bus departures through the Grays Lane intersection. The Grays Lane intersection TGS to be implemented is to be determined by the LTC (pending approval). TfNSW support all three options and have given the following order of preference: TCP-23-11, TCP-23-12, TCP-...-23-01.

2.4 Traffic Controllers on Off-ramps

Traffic controllers will not be placed on the off-ramps. These ramps are intended to operate without the need for traffic controllers. It is noted that the requirements above to monitor traffic at off-ramps and across the interchange remains necessary.

2.5 Traffic Controllers

Traffic controllers shall be implemented as shown on the approved TGS and as directed by the traffic supervisor. Generally, traffic controllers are provided:

- At the north and south site entrances/ exits to direct traffic into/ out of the site;
- At the service station intersection at peak times to manage traffic flow at the intersection so
 that Level of Service is maintained for vehicle flow/ delay control and to maintain road
 safety;
- At the interchange to observe and provide immediate feedback regarding any queuing incidents.

All traffic controllers (TCs) shall hold all relevant and current qualifications that provides the necessary certification to control traffic with a prescribed traffic control device. This qualification is currently noted as "Traffic Controller" in TfNSW TCWS Technical Manual Version 6.1.

TCs are to be provided two-way radios and use them as required. Traffic controllers are not to verbally communicate with drivers of vehicles other than to move them through quickly. Any traffic

controllers found causing delays by having conversations with drivers are to be replaced immediately after reasonable warning.

The traffic control supervisor and parking supervisor are to liaise closely with each other before and during the festival. The traffic engineer will also liaise with these two supervisors and other parties (such as TfNSW, Council, Bluesfest Management, NSW Police Force, the public, etc.) as required to ensure efficient operation overall. The operation of the traffic management is a team effort and regular coordination meetings will be held with all relevant stakeholder personnel.

The Traffic Controllers shall be responsible for the following:

- Reviewing the TMP and being familiar with the requirements of the festival.
- Keeping up to date with any amendments to the TMP or TGS.
- Review and amend the SWMS to ensure that it is relevant to the project.
- Retain and ensure that copies are readily available of the current TfNSW TCWS Technical Manual.
- Erecting and removal all traffic control signage at the beginning and end of works, or whenever the Traffic Controller is not controlling or in a position to control traffic.
- Ensuring that provisions are made to evacuate their area in the event that control is lost.
- Regulate traffic and maintain traffic flow as per TMP requirements.
- To record location of all signs and times (up and down), any changes and rest breaks using the Daily Traffic Control Log.
- Taking meal and rest breaks as per the approved procedure
- Ensuring there are sufficient relief personnel available to allow for breaks in a shaded area.
- Ensuring that they attend Site Communications, such as Pre-Start and Toolbox Meetings.

2.6 Traffic Guidance Scheme (TGS)

The TGS aims to minimise the impact of traffic control on all road users and encourage patrons to enter and exit the site in a safe and efficient manner.

The implementation of traffic management arrangements shall be done in accordance with the TfNSW Traffic Control at Worksites Technical Manual (TCWS) Version 6.1, AS1742.3 and traffic control sub-contractor safe work procedures. Only those personnel who are competent for the task shall be engaged in the implementation of traffic management arrangements. The approved TGS to be implemented in this event are included in the Event Management Plan.

2.7 Traffic Control Implementation

The Bluesfest 2023 event is from Thursday 6^h April to Monday 10th April 2023. The traffic management for the event including pre-event site establishment and site close down will be as per the approved TGS (see Appendix B of this report) as follows:

2.7.1 Wednesday 29th March

- Installation of "No Stopping" signs at 75m maximum spacing along Gulgan Rd to Mullumbimby Rd;
- Installation of static signage on Gulgan Rd roundabout directing people to festival entrance.

2.7.2 Thursday 30th March to Friday 1st April

- VMS boards to be installed on the Pacific Highway for northbound and southbound approaches stating "Bluesfest Exit 4 kms on left". This is to give advance notification to the public. These VMS will be deployed using the TGS approved by the traffic control supervisor such as VMS truck as a shadow vehicle displaying "Road Plant Ahead", "Reduce Speed" and a tow vehicle with the VMS boards. The tow vehicle is to display flashing amber lights;
- Installation of static signage on Gulgan Rd roundabout directing people to festival entrance. Under a shoulder closure;
- Commence internal signage erection;
- Hazard Mesh Fencing to be installed in Fox Lane area to prevent illegal parking and camping. No stopping signs and no camping signs also to be erected in this area at approx. 50m segments. Closure of gravel access track in Fox Lane to help prevent illegal camping;
- The erection of "No Stopping" to be placed at 75m maximum spacings along both sides of Tanner Lane and Yarun Road and the erection of "40km/h" speed signs every 100m on both sides of Tanner Lane and Yarun Road. This sign installation is undertaken pre-festival as Tanner Lane and Yarun Road experiences a higher volume of traffic during this time due to the arrival of equipment that is needed for the event and which can be managed.

2.7.3 Monday 3rd April to Tuesday 4th April

- Installation of no stopping signs at 75m maximum spacing along Grays Lane to the intersection of Grays Lane and Prestons Lane. Erected under a speed reduction with a shoulder closure;
- Detailed signage as per approved TGS to be erected under shoulder closures;
- Remaining VMS boards for the highway to be installed;
- Light towers deployed ready for light check on Wednesday night;
- Water-filled barriers to be put in place at service station intersection but still allowing normal traffic flow.

2.7.4 Wednesday 5th April

 Traffic control on site for the commencement of the camper arrivals at approximately 8am.

2.7.5 Thursday 6th April

- Opening of the Bluesfest off-ramp and closure of the current Mullumbimby exit at 6:00am. This is performed under a rolling blockade mobile traffic control arrangement to minimise impact on the Pacific Highway and to avoid having traffic control on foot exposed to live traffic.
- Traffic control on site from 8am for the first day of festival.



Figure 3 - Southbound Off-ramp (GAA, 2019)

2.7.6 Thursday 6th April to Monday 10th April

- Traffic Control Day Shift Hours 8:00 am 5:00 pm;
- Day Shift Supervisor: Matt Adams (Altus);
- Traffic Control Night Shift Hours 5:00 pm 1:30 am (or until all cars have left the site);
- Night Shift Supervisor: Matt Adams (Altus);
- Traffic Control Supervisor (whole event): Matt Adams (Altus).

2.7.7 Tuesday 11th April

• Traffic control crews begin pack-up of event using the same methodology as the implementation of set-up. The Mullumbimby off-ramp is to be re-opened and the Bluesfest off-ramp is to be closed by 6 am Tuesday morning.

3.0 Traffic Control at Site Gates

3.1 Main Purpose

The main priorities of traffic control at the entries to the site are:

- 1. Quick entry to the site for event traffic;
- 2. Safe and efficient site entry and egress;
- 3. Traffic Controllers monitor for any internal queuing with the potential to cause queueing from the site onto Yarun Road;
- 4. Traffic Control Supervisor to implement contingency strategy if required to overflow cars into Access 4 (in addition to Access 3), during heavy arrival traffic flows from the south;
- Traffic Control Supervisor to implement contingency strategy if required to overflow cars
 from the north into southern entries if required via Tanner Lane, during heavy arrival
 traffic flows from the north;
- 6. The Traffic Control Supervisor must be prepared to implement these strategies as required.

3.2 Camper Arrival

Most campers are expected to arrive at the site on Wednesday, Thursday and Friday morning. Campers that arrive on Wednesday, either from the north or south, will be entering through the main southern gate. The new off-ramp access from the north does not open until Thursday morning at 6 am.

From Thursday morning, campers approaching from the north will arrive at the site via the new offramp, and will be directed by signage, to the camping accreditation area. These campers will be directed by signage to continue along to enter via the southern main gate. If campers ignore the signage, an enter via the north gate an internal VMS board will direct them over the one lane bridge and to the campers check in station. This internal direction will be supported by traffic control located at key positions within the event site.

Campers from the south will access the site during the festival via the southern main gate similar to general patrons and will be directed by traffic control and VMS boards on how to proceed to the campers check in area.

3.3 Day Patron Arrival

Day patrons will enter the site either from the north gate or the southern gate depending on their point of origin. Normally the majority of day patrons for the Bluesfest begin arriving about 1 hour before the festival gates open.

Traffic controllers and the whole traffic control plan will be set up and in operation from the Wednesday before the first festival gates opening. The traffic plan would remain operative until Wednesday morning, after the festival has finished.

Arrival profiles included in this TMP from the 2022 event traffic data. These profiles indicate peak traffic times that can be expected for Bluesfest events. Generally, the busiest arrival times for patrons is from 2pm-5pm. Traffic controllers should be in place before festival doors open.

3.4 Buses

All buses and taxis are to use the southern main entry and exit. There will be no kiss & ride facility in the northern area of the event site. Buses from the north exit the festival site via the southbound off-ramp throughout the duration of the festival. Buses will only access the Motorway southbound via the Grays Lane intersection on event days during peak departure periods as follows:

8pm until final departures (approx. 2am).

Using the Grays Lane intersection will reduce the queuing during peak departure periods at the Gulgan Road overpass. Buses are made aware of this process prior to the festival and are to comply accordingly.

3.5 Departure

The departure of vehicles is to be divided as per the parking area. Those in the north parking areas will leave the site and join the highway via the service station intersection and the Tyagarah Interchange bridge and travel north on the Pacific Highway. The departure for the northern car park patrons to exit to the north will be supported by variable message signs, static signage and traffic control. Any motorists that need to travel south from this point will be directed to turn around at the Gulgan Road north interchange.

Vehicles parking in the southern parking area will leave the site and turn left and travel south on the Pacific Highway. The departure for the southern car park patrons to exit to the north will be supported by variable message signs, static signage and traffic control. Any motorists that need to travel north from this point will be directed to turn around at the Ewingsdale Road interchange.

Exiting buses are to exit using the southern gate and then proceed to the service station, prior to entering the Pacific Highway. Traffic control will be required to manage the exit from the site and the service station intersection to ensure no significant obstruction of northbound or southbound traffic. The peak bump-out period will be managed by physically separating the traffic from the south and north carparks at the service station intersection with water-filled barriers located in the middle of the road. This will allow traffic exiting the site to the north and south without any conflict. Traffic control will manage the conflict with traffic coming from the Tyagarah overbridge to enter the site precinct and traffic exiting the north carpark.

4.0 Traffic Control On-site

4.1 Main Purpose

Traffic control outside the event site can only operate effectively for incoming traffic, if the internal traffic and parking is managed properly. Any congestion on-site in the parking area or internal road network may result in queuing on Tanner Lane and Yarun Road and then onto the Pacific Highway.

The traffic control plans therefore require TfNSW certified traffic controllers at various key locations on site.

4.2 Car Parks

The traffic controllers depicted on the TGS at the entries and internal roads are there to assist festival guests. Internal/Entry signage and VMS boards are also used to provide direction.

It is essential that the traffic controller does not engage in a discussion with the driver of the vehicle but gets the driver off the road, after which the driver is dealt with by festival parking staff. Any congestion at this point would quickly result in queuing onto the public road system, which is undesirable, with significant risk.

4.3 North-South Internal Road

There are traffic controllers on this road, to provide the opportunity for a relief route, if issues arise at other locations.

Potentially, and based on previous festivals at this site, this road service to relieve the overflow of traffic, if one car park becomes full.

It is likely that south bound campers will be required to use this road along with bus and taxi, to get to the existing and taxi bays. Also, for campers to get to the camp check out area. This will be required if no northern facilities for campers check in or bus and taxi set down and pick up are provided.

This traffic control of the north-south road does also affect the back-of-house operation and must be managed well to keep the function of the festival and ensure that these traffic conflicts are managed such that no queuing appears onto the public road network.

4.4 Bus and Taxi Ranks

Traffic controllers at the bus and taxi ranks are not required other than to get buses and taxi in and out of the traffic line to ensure that these ranks are operated safely and congestion is prevented both in the ranks as well as on the internal road system.

4.5 Role of Traffic Engineer

The Traffic Engineer shall primarily monitor and review the TGS and traffic flow during the festival.

The Traffic Engineer may consult with the traffic, parking, and camping controllers, as required, to implement any improvements identified during monitoring and reviewing the TGS. This may include measures to improve the efficiency of traffic entering and exiting the site.

5.0 Contingencies

Contingency plans have been designed to manage the flow of traffic in the event of an incident or if traffic queues appear as though they may breach KPIs. These contingency plans have been designed with the intent of increase traffic flow from the public roads onto the site before any of the KPIs are breached. These contingency plans are to be implemented by festival management, with notification of any contingency implemented to be given to the relevant parties (traffic control supervisor, police, safety advisor, traffic engineer, etc.) as per the hierarchy of command for traffic management. This organisational structure for traffic management is included as Appendix D of this report.

The contingency plans prepared for the 2023 event along with the triggers to implement these contingencies and reasoning behind the contingencies are documented in Table 1 of this report on the following page.

Bluesfest has machinery available to tow vehicles which may have broken down on the internal road system. Bluesfest 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 is 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.

Table 1 - Contingency number, measures, implementation triggers and reasoning

Contingency No.	Implementation Triggers	Contingency Measures	Reasoning
1	Internal queue approaching southern access during peak arrival period (queue within 600m of Gate 3)	This internal queueing at the southern access (via Gate 3) is most likely to be breached during peak camper arrival periods. TC to notify traffic control supervisor of trigger being reached. Traffic control supervisor to increase no. of lanes processing camper arrivals from 1 lane to 2 lanes. If not already the case, all check in bays to be opened to process vehicles through the site. TC to direct buses to avoid the 2-lane queue of camper arrivals and exit the site through Gate 4 (as per TGS-23-04). Police are to be notified if contingency is implemented. If the 2-lane queue of camper arrivals gets within 400m of Gate 3, police are to be notified and override the TGS as they see fit.	This will increase the capacity at which cars are processed through the site, reducing the risk of queueing on the public roads.
2	Internal queue approaching northern access during peak arrival period (queue within 180m of end of southbound off-ramp)	This internal queueing at the northern access (via Gate 1) is most likely to be breached during peak arrival periods. TC to notify traffic control supervisor of trigger being reached. Traffic control supervisor and parking control supervisor to open 'Overflow Parking E' and direct traffic to this parking area (as per <i>TCP-23-02</i>). Police are to be notified if contingency is implemented. If, following the opening of 'Overflow Parking E', the queue does not dissipate and reaches within 100m of the end of the southbound off-ramp, police are to be notified and override the TGS as they see fit.	This overflow parking acts as a pressure release and will effectively dissipate queueing that is approaching the southbound off-ramp.

23000-TMP-D 22 February 2023

6.0 Emergency Evacuation

As part of the traffic management principles being followed in the operation of this festival, it is necessary that all relevant staff be adequately briefed on the possibility of the need to evacuate the site in the event of an emergency. Festival management are responsible for monitoring situations that would require emergency evacuation of the site and making sure emergency evacuation plans are made available to key staff and relevant authorities prior to the event.

In the event of bushfire and flooding, the police will have access to some level of advanced warning to give them the opportunity to begin to evacuate the site. Festival management are to assist the police in evacuating the site in the event of an emergency.

Should there be an emergency situation (i.e., bushfire, flooding, pandemic, etc.) in the weeks and days leading up to the festival, festival management are responsible for collaborating with the relevant emergency and government authorities to determine whether the event can safely proceed or whether the event is to be postponed or cancelled.

As shown on the Bluesfest 2023 site plan in Appendix A of this report, the emergency exit points are Gate 1 (on the northern end of the site) and Gate 4 (on the southern end of the site). 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. It is noted that Bluesfest has constructed roads within the site which are above various flood levels.

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 vehicles have direct access to the site through Gate 2. Additionally, the Grays Lane intersection will be available for emergency services use as required throughout the festival.

7.0 Traffic Monitoring

The Traffic Engineer will undertake site monitoring in consultation and co-ordination with traffic control resources during the event to:

- Inspect traffic management arrangements to verify they have been installed in accordance with the approved TGS;
- Observe driver behaviour on the external road network and internal car park access to assess the suitability of the traffic management arrangements associated with the event and recommend changes as necessary;
- Monitor compliance with DA conditions including end of queue management and traffic flow rates on local roads;
- Review any recommend improvements to the TGS (if any).

Traffic control observers will be utilised at key locations to monitor queue lengths against known markers and undertake spot traffic counts to measure traffic flows during peak traffic flow periods.

A traffic evaluation report will be prepared following the event to assess the traffic management performance against the relevant standards and guidelines and key performance indicators.

8.0 Paid Parking

Bluesfest has previously introduced paid parking for the event. Paid parking has been demonstrated to assist with reducing traffic impacts by increasing carpooling, bus usage and drop-off.

As per previous years, communication regarding paid parking shall be in place prior to, during ticket sales, and during the event.

Paid parking shall not affect Sections 1.0 through 5.0 of this TMP.

Patrons must pre-purchase their parking tickets online and staff will be employed to scan and check patrons parking tickets for the correct days. Patron tickets will be scanned by hand held devices. The parking team shall only approach cars for their pre-paid ticket once they have been directed to a parking bay. For any patrons that have not pre-purchased a ticket before they arrive, the method of collection shall not affect traffic flow.

Staff and contractors will be supplied with a sticker and or identification pass that will allow them to park straight away and not incur the paid parking fee.

The Payment collection team shall be under the direction of the experienced North and South Car Park Supervisors who will be monitoring queue lines and flow rates of traffic within the car parks. At any point during a peak flow period if the Paid Parking initiative impacts on the traffic flow it will be suspended until it is deemed practical to continue.

The safety of Bluesfest staff, patrons and traffic flow on the Pacific Highway is of the highest importance and must be always considered first.

8.1 Paid Parking Contingency Plan

If the level of queuing due to the introduction of paid parking does not meet KPI requirements, Bluesfest car park marshals will cease scanning of pre-paid car parking tickets and will park cars as they arrive.

9.0 Provisions for Other Road Users

9.1 Pedestrians & Bicycles

Pedestrians and bicycles shall be managed to avoid conflict with vehicular traffic. Pedestrian traffic flows from and to the carparks shall be managed by appropriate walkways, signage and barriers.

9.2 Emergency Services

A separate emergency management plan is in place and takes precedence over this TMP. Emergency vehicles have direct access to the site through Gate 2. Additionally, the Grays Lane intersection will be available for emergency services use as required throughout the festival.

9.3 Special Vehicle Requirements

Over-dimensioned vehicles (also known as "big rigs") have a separate area that has been designated on site. Refer to the festival site plan for details.

10.0 Traffic Management Methodology

10.1 Set Out, Signage, Delineation & Detours

The set out and implementation of the TGS shall be completed by those holding all relevant and current qualifications that allows for qualified personnel to set up and work with TGSs at a work site. This qualification is currently noted as one who can "Implement Traffic Control Plans Controller" in TfNSW TCWS Technical Manual Version 6.1.

It is the responsibility of the Traffic Control Supervisor to ensure a safe work method and risk assessment is completed, implemented, and regularly reviewed for the implementation and removal of the TGS.

The signage, delineation, and detours (if any) shall be set up in accordance with the approved TGS.

10.2 Safety of Workers

All workers are to undertake a site safety induction before working on the site. This induction outlines the safety procedures that workers are to abide by while working on the site.

10.3 Record Keeping & Monitoring

All records shall be made and retained on Daily Traffic Control Log, each time there is any interaction with the signage or traffic management.

The work zone shall be inspected daily to ensure that all signs are correctly positioned as per the TMP drawings located in Appendix A. Where changes are required to be made to the TMP and related diagrams, due to a change in works, the variations and updated drawings shall be recorded on the Traffic Guidance Scheme Register (Diagrams), retained in Appendix A, with the date and the revision letter on the line of the applicable diagram.

A register shall be maintained, recording all complaints. The record shall include:

- The time and date the complaint was lodged;
- The name of the person lodging the complaint;
- Details of complaint;
- Action taken to rectify the issue;
- Date the action was taken.

10.4 Incident Reporting

Incident reporting to be in accordance with the Traffic Controller Accreditation Scheme Approved Procedure.

10.4.1 Incidents at Worksites or Roadworks

An incident is an occurrence that in the opinion of the traffic controller affects the operational safety and/or effectiveness of a traffic controller at a worksite or at road works and may include:

- Accidents occurring within the designated worksite or road works;
- Verbal (abusive/insulting/threatening language) or physical assault directed towards traffic controller by road users;
- Unsafe or dangerous actions of other road users within a worksite or at road works;
- Road users disobeying a direction or signal given by a traffic controller at a designated worksite;
- Difficulties experienced with stopping certain vehicle types (for example excess dimension vehicles).

10.4.2 Action to be Taken

A traffic controller must take the following action if a minor accident/crash occurs within their designated worksite or traffic control operational area:

- Call for assistance if needed;
- Notify (verbally or in writing) the worksite supervisor;
- Maintain effective traffic control;
- Move the traffic control station to a suitable location that includes the accident site within the traffic control operational area;
- Record sufficient notes of the incident, including their observations, in order to complete an incident report.

10.4.3 Serious Incidents

If the situation is more serious or poses further risk of injury to persons or damage to property, the traffic controller must:

- Notify the worksite supervisor immediately;
- If the situation requires evacuation of the area, inform vehicle drivers of the situation and direct them to turn around and find an alternative route;
- Relocate the traffic control station to a safe position clear of any real or potential danger;
- Record sufficient notes of the incident, including their observations, in order to complete an incident report.

10.4.4 Incident Records

All incidents must be reported immediately to the Supervisor, with an Incident Notification email sent within 30 minutes of the incident.

An Incident or Injury Report shall be completed in full for all incidents. Precise details of the Incident must be recorded, including:

- Vehicle type and colour;
- Vehicle registration number including registered state or territory;
- Direction of travel;
- Description of driver, other road user and occupants;
- Full and accurate description of the incident;
- Witness details.

All incidents shall be recorded into the Incident register and retained on the project files.

10.4.5 Incident Requiring Further Investigation

Traffic controllers must ensure that details of incidents requiring further investigation or attention by a Police Officer or TfNSW Transport Inspector are reported and forwarded to their supervisor or employer.

Written reports must be completed and submitted to their worksite supervisor at the conclusion of their shift or at the resumption of duty on the following day.

10.5 Advertising

Advertising of Traffic Arrangements for the event will be carried out in accordance with the requirements of Byron Shire Council.

11.0 Contact Details

Email:

Festival General Manager: Peter Noble 02 6639 9800 Phone: Chief Operating Officer: Nadja Konietzko Mobile: 0412 028 048 Nadja.konietzko@bluesfest.com.au Email: Site Manager: Mark Arch 0450 515 510 Mobile: Email: events.arch@gmail.com Byron Shire Council (BSC): Evan Elford, Team Leader Infrastructure Planning 02 6626 7000 Phone: evan.elford@byron.nsw.gov.au Email: TfNSW: Ben Buckland Ryan Farrell Phone: 02 6640 1318 Ben - 0439 868 564 Mobile: Ryan - 0476 802 987 Email: ben.buckland@transport.nsw.gov.au Ryan.M.FARRELL@transport.nsw.gov.au Customer Coordinator & Operations Team: operations.planning@transport.nsw.gov.au Matt Adams Traffic Control Supervisor: Mobile: 0408 315 865

matt.adams@altustraffic.com.au

Traffic Engineer: Greg Alderson & Associates (GAA)

Andrew Booth

Phone: 02 6629 1552

Email: office@aldersonassociates.com.au

Parking Control Supervisor: Rex Butler

Mobile: 0412 814 823

Pick-up/Drop-off & Bus Stop Supervisor: David Noferi (Bus Stop)

Dalae La Boeuf (Pick-up/Drop-off)

Mobile: David - 0401 421 792

Dalae - 0403 524 657

Camping Control Supervisor: Tanya Bensley

Mobile: 0409 423 259

12.0 2022 Traffic Data Overview

12.1 2022 Traffic Arrival/Departure Profiles

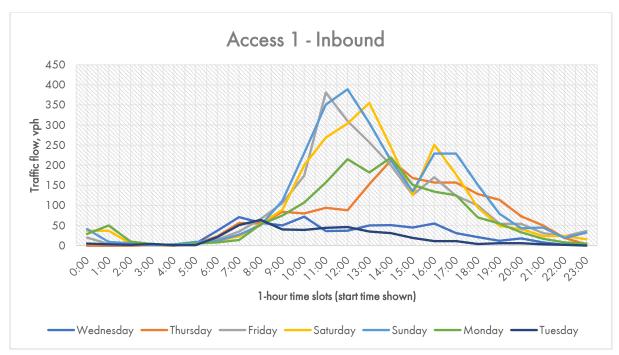


Figure 4 - Access 1 inbound traffic (GAA, 2022)

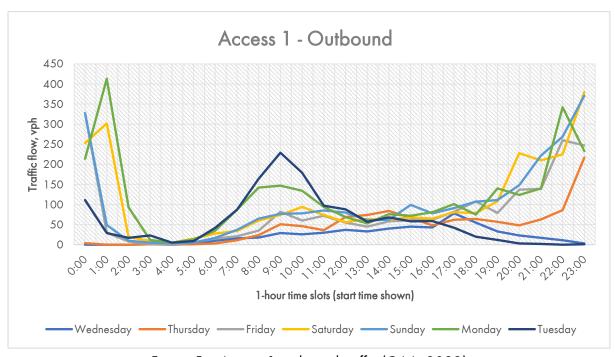


Figure 5 - Access 1 outbound traffic (GAA, 2022)

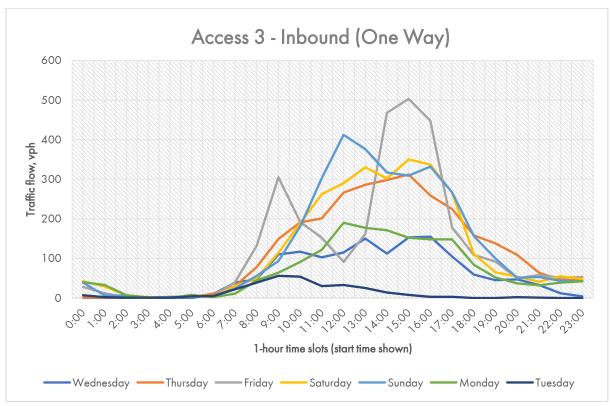


Figure 6 - Access 3 inbound traffic (GAA, 2022)

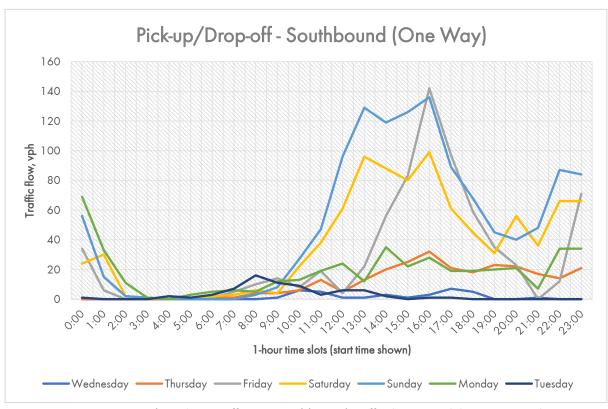


Figure 7 - Pick-up/Drop-off area southbound traffic (one way) (GAA, 2022)

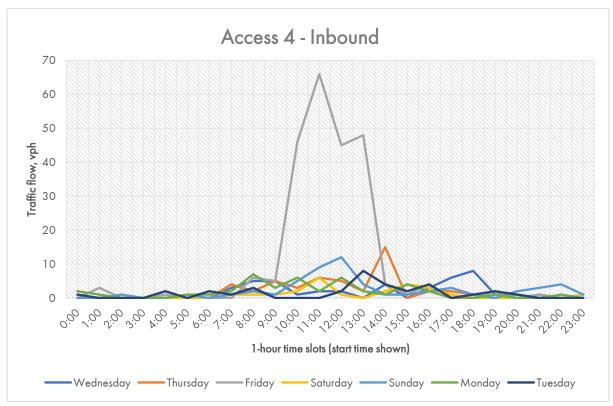


Figure 8 - Access 4 inbound traffic (GAA, 2022)

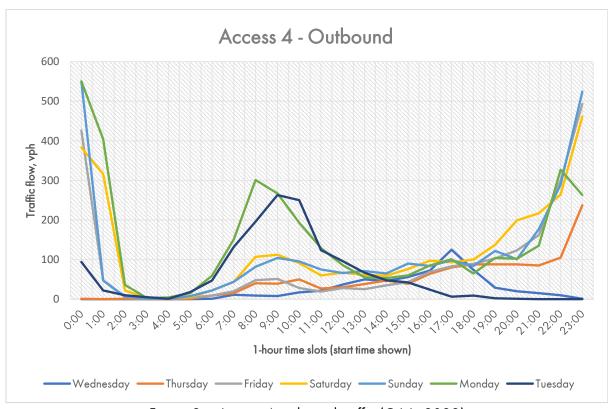


Figure 9 - Access 4 outbound traffic (GAA, 2022)

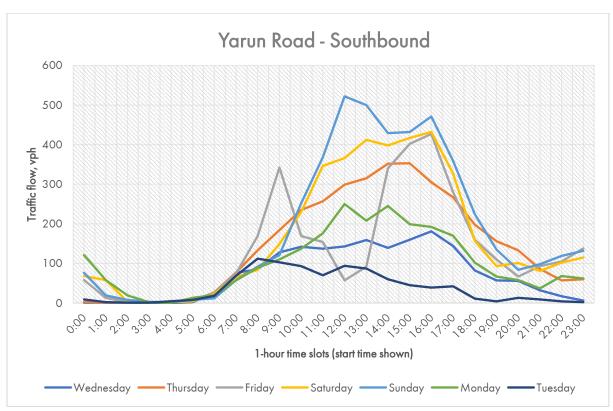


Figure 10 - Yarun Road southbound traffic (GAA, 2022)

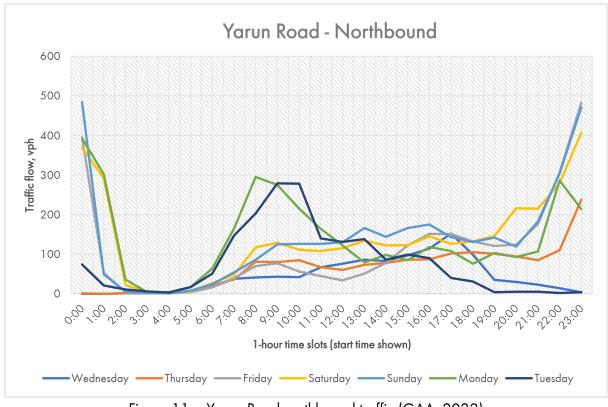


Figure 11 - Yarun Road northbound traffic (GAA, 2022)

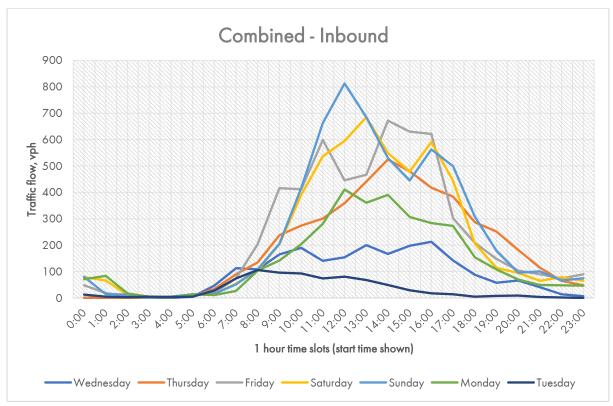


Figure 12 - Combined inbound traffic (GAA, 2022)

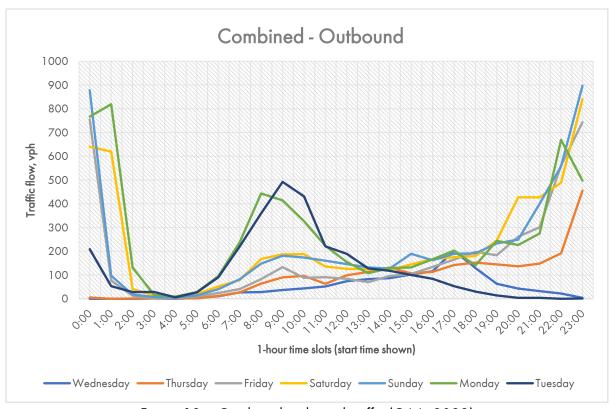


Figure 13 - Combined outbound traffic (GAA, 2022)

12.2 2022 Estimated Number of Vehicles On-site

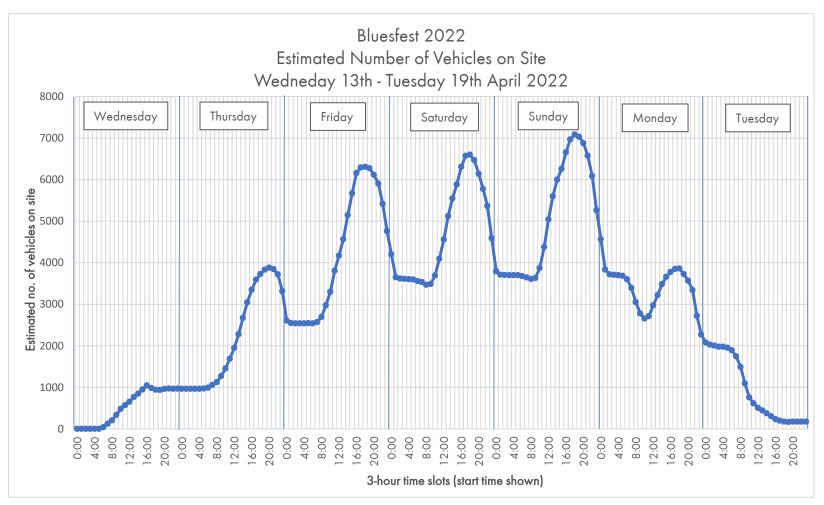


Figure 14 - Estimated number of vehicles on site at Bluesfest 2022

13.0 Risk Assessment

A risk assessment for the traffic operation of the 2023 Bluesfest event 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 creating temporary low-speed environments at high-risk locations are part of the traffic management tools recommended in this TMP.

There are risks from hazards that might occur that are outside the control of the festival management or traffic controllers. These hazards would include extreme weather conditions and crashes on the public road. 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. Bluesfest 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 festival management manual. This risk management meeting shall include:

- Bluesfest Event Manager;
- Event Traffic Manager;
- Traffic Engineer;
- Traffic Control Supervisor;
- Police representative;
- Ambulance representative;
- Rural Fire Service (RFS) representative;
- TfNSW representative;
- Council representatives (BSC).

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

14.0 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;

15.0 TGS Checklist

Traffic controllers shall complete the TGS 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 TGS checklist is to ensure that all the requirements of the TGS have been in place for the full duration of the event.

Table 2 - TGS checklist

TGS CHECKLIST							
Date: Time:			Auditor:				
Office,	/Company:		Site Superviso	or:			
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 bee	en provided?					
2	Implementation						
2.1	Are all signs & devices instaccordance with TGS?						
2.2	Are there any contradictor superfluous signs or marking	_					
2.3	Are signs suitably placed v	vith regard to:					
2.3.1	Sight distance						
2.3.2	Motorists approaching at h						
2.3.3	Queue lengths						
2.3.4	Visibility, shade, light glare						
2.4	Are all signs displayed appointment conditions?						

2.5	Are there any damaged or defective signs?		
2.6	Have the needs of pedestrians been considered?		
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- TfNSW Controllers operation as specified on the TC Plan?		
Comm	ents/Findings:	<u>.</u>	

Recommendations/Corrective Action:					
Auditor (signed):	Site Supervisor:				

16.0 Chain of Command

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

The responsibilities of the traffic engineer are:

- Certification of the installation and proper implementation of TMP and TGS;
- Liaison with Bluesfest management and site manager as required;
- Liaison with traffic control supervisor as required;
- Undertake traffic monitoring activities;
- Provide Traffic Evaluation Report (TER) following each event;
- Design and modification of existing approved TGS prior to each event;
- Certification of new TGS prior to each event.

The traffic control supervisor 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 traffic control supervisor include:

- Liaison with Bluesfest management and site manager;
- Liaison with traffic control staff;
- Liaison with camping manager;
- Liaison with parking manager;
- Liaison with traffic engineer;
- Liaison with Council and TfNSW;
- Liaison with NSW Police.

Changes to the TGS 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 traffic engineer or the traffic control supervisor. The traffic control supervisor 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 traffic engineer will report any significant issues observed to the traffic control supervisor as required.

The festival management would be expected to contact the traffic engineer or traffic control supervisor to discuss any traffic matters as per the hierarchy flow chart in Appendix D. The success of the implementation of this TMP depends on a coordinated managed traffic approach which will be achieved by following a chain of command protocol. This is also to be reinforced in the protocol issued to the contracted traffic control company.

17.0 Conclusion

This TMP has been prepared by GAA for Bluesfest 2023 festival at Tyagarah, NSW.

It is anticipated that the 2023 Bluesfest event will be managed such that festival traffic does not adversely impact the Pacific Motorway or the local road network outside the levels nominated in the development consent. This will be achieved by implementing the traffic management procedures as outlined in this TMP.

A risk assessment has been undertaken to identify potential risks to public health as a result of the festival traffic operations. Compliance with the KPIs outlined in this TMP will reduce the likelihood of occurrence by requiring management of traffic queue growth and Level of Service (LoS).

An appropriately qualified traffic engineer should be present during peak times to enable effective evaluation of the implementation of the TMP and TGS and make adjustments where required.

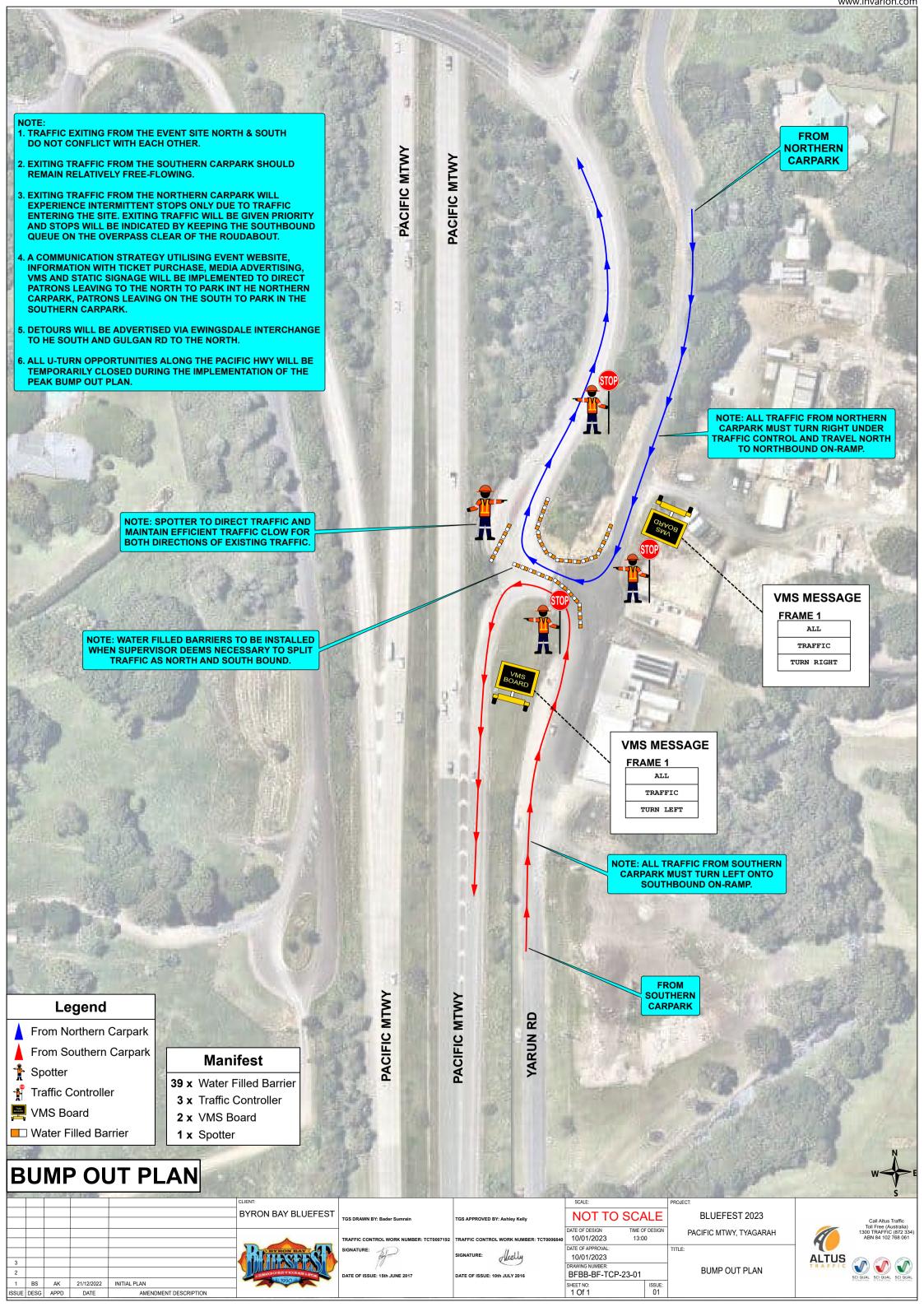
Traffic counters will be installed to monitor traffic flows both for rate and volume. Monitoring of the operation of the carparks, in particular the operation of the car parks for ingress and egress, is to be performed by festival staff to ensure effective operation of the car parks.

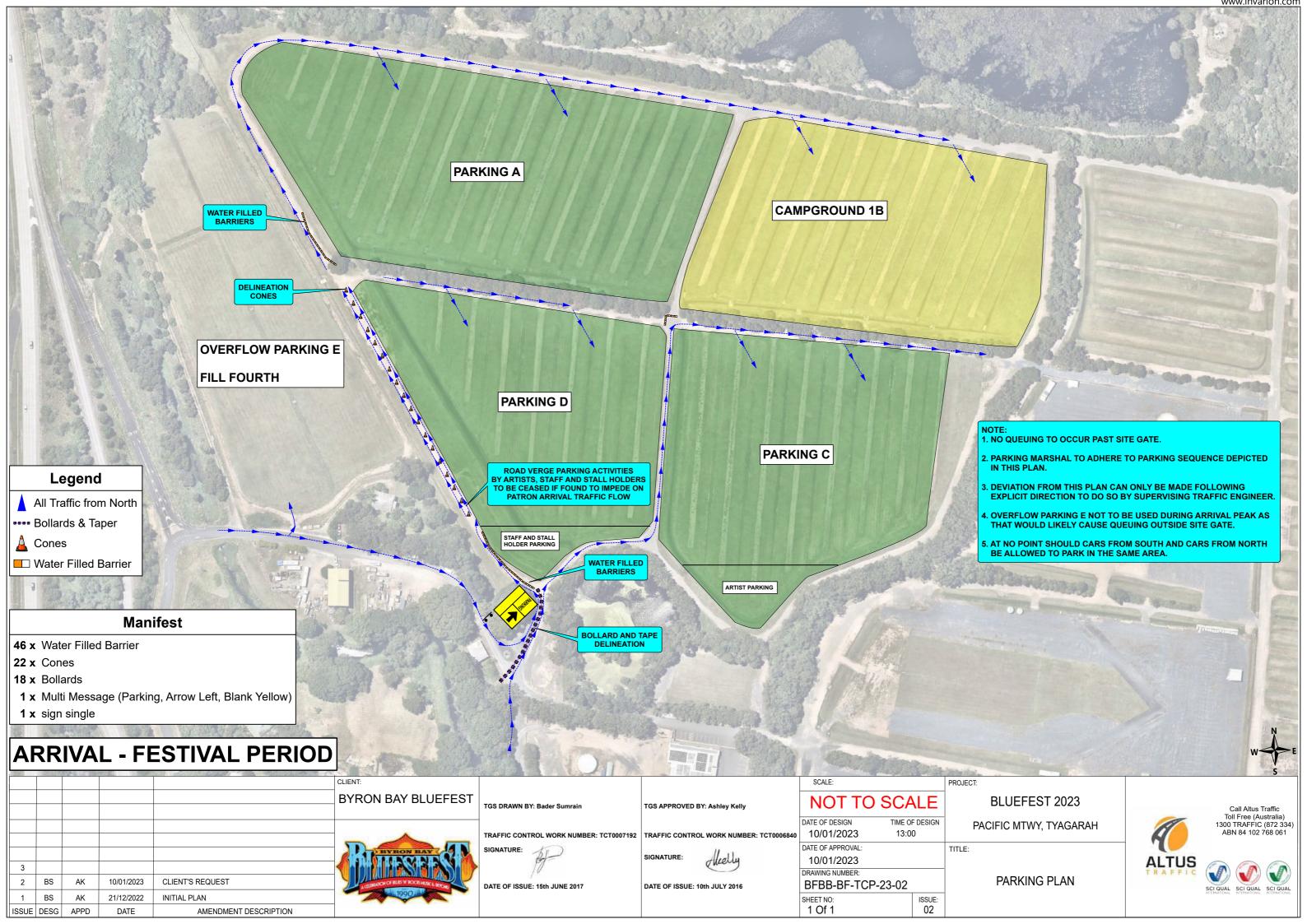
Appendix A — Bluesfest 2023 Site Plan





Appendix B — Traffic Guidance Scheme (TGS)

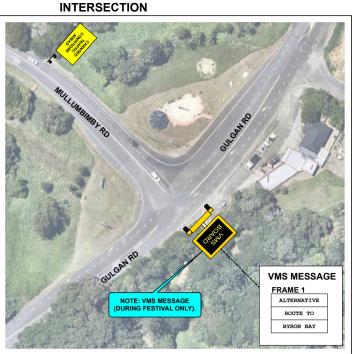


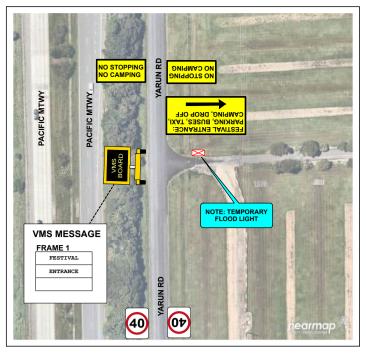


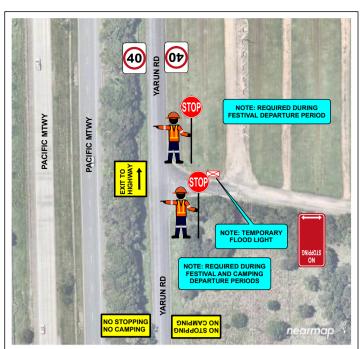
DETAIL 1 - GULGAN / MULLUMBIMBY RD INTERSECTION

DETAIL 2 - ACCESS 3

DETAIL 3 - ACCESS 4

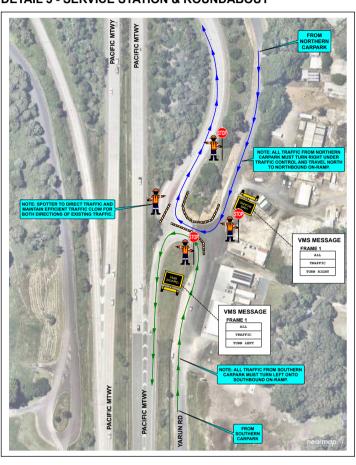




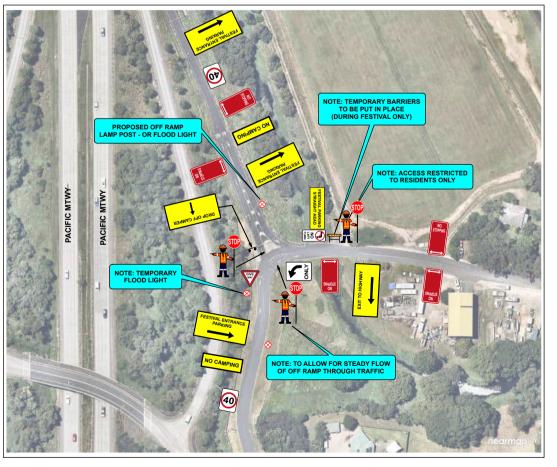




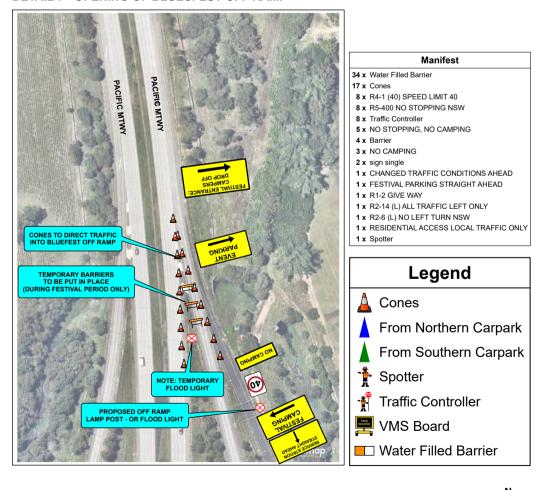
DETAIL 5 - SERVICE STATION & ROUNDABOUT



DETAIL 6 - ACCESS 1 SOUTH OFF RAMP



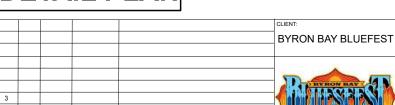
DETAIL 7 - OPENING OF BLUESFEST OFF RAMP



DETAIL PLAN

21/12/2022

1 BS AK
ISSUE DESG APPD



AMENDMENT DESCRIPTION

INITIAL PLAN

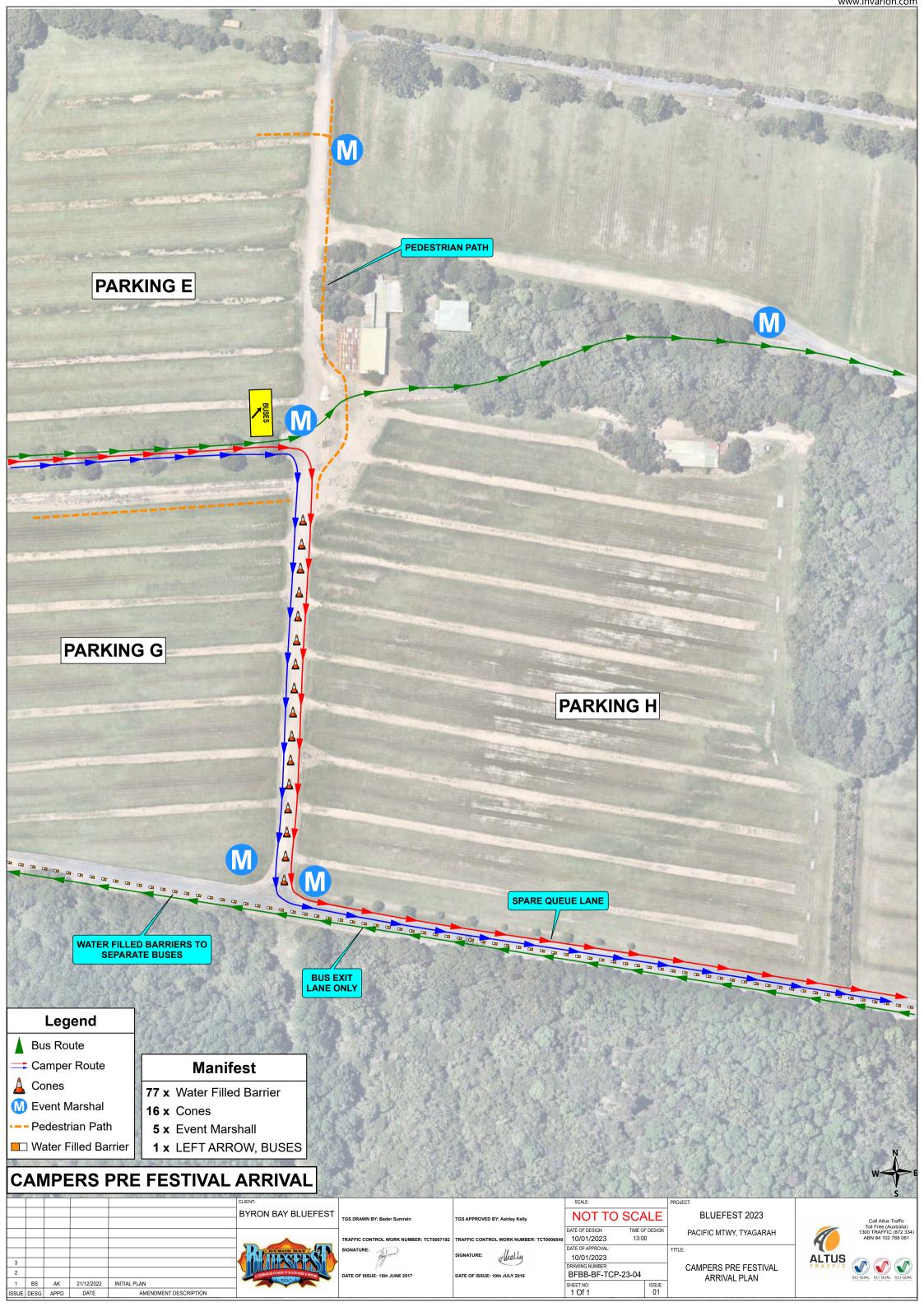


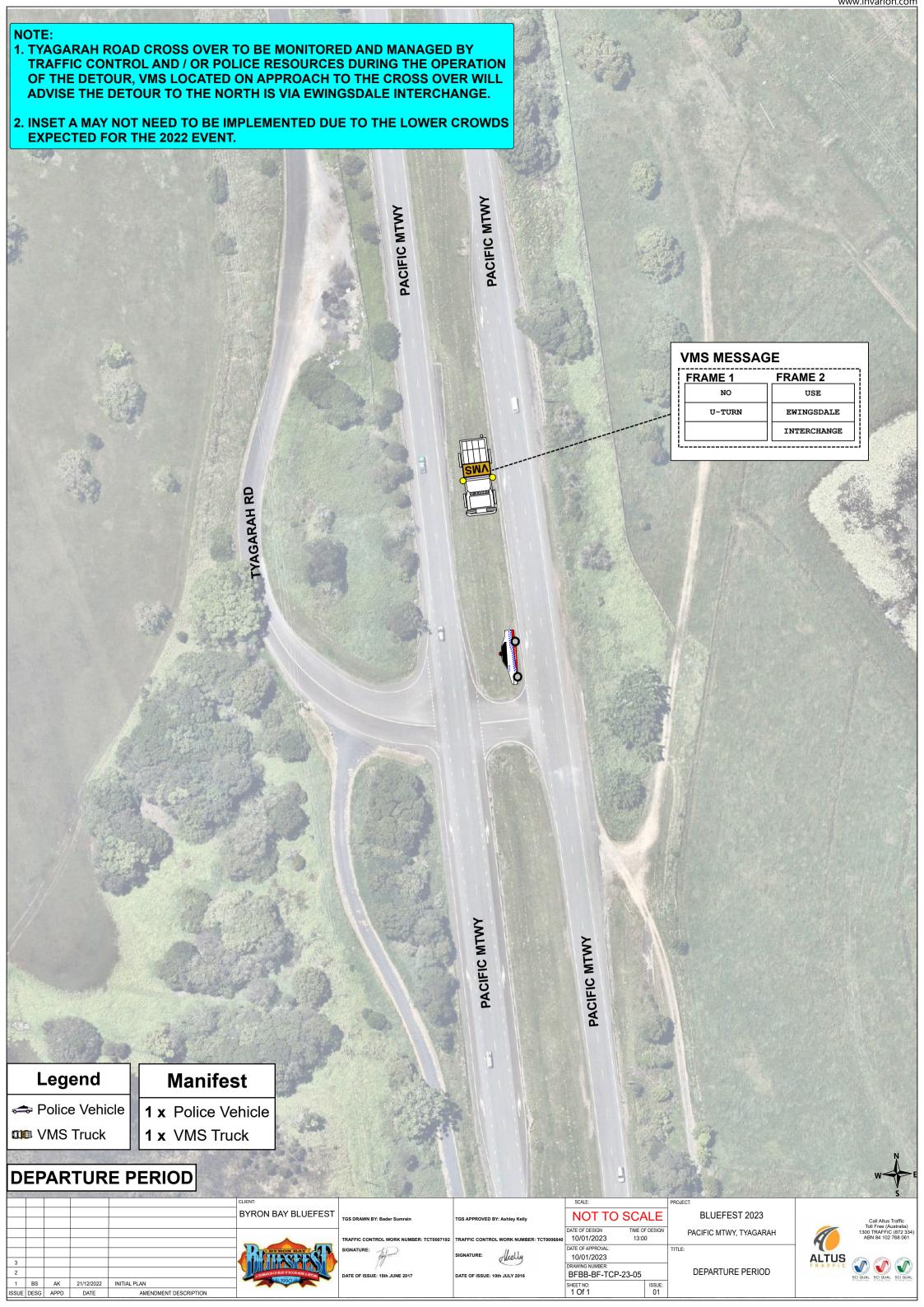


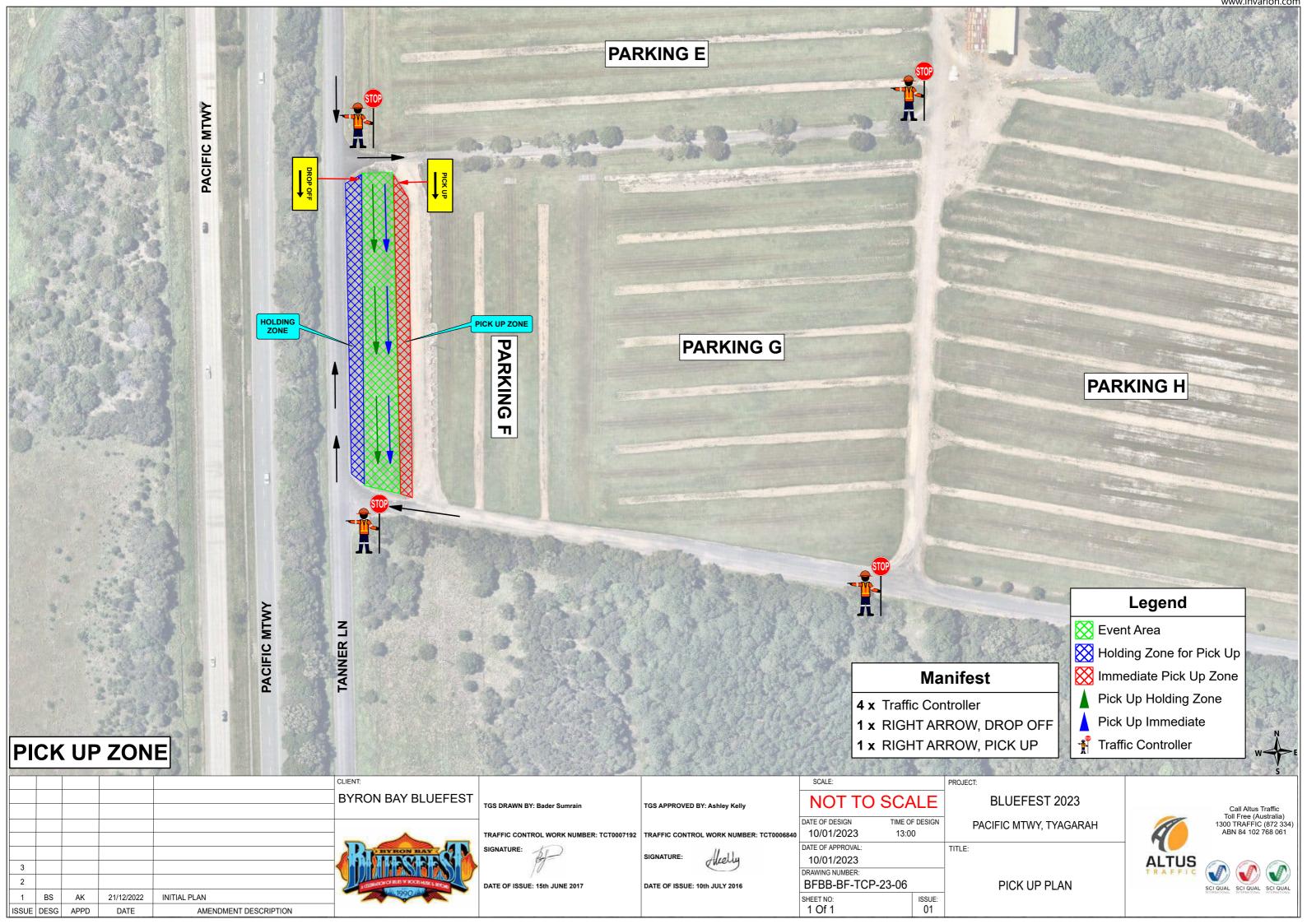
SHEET NO: 1 Of 1

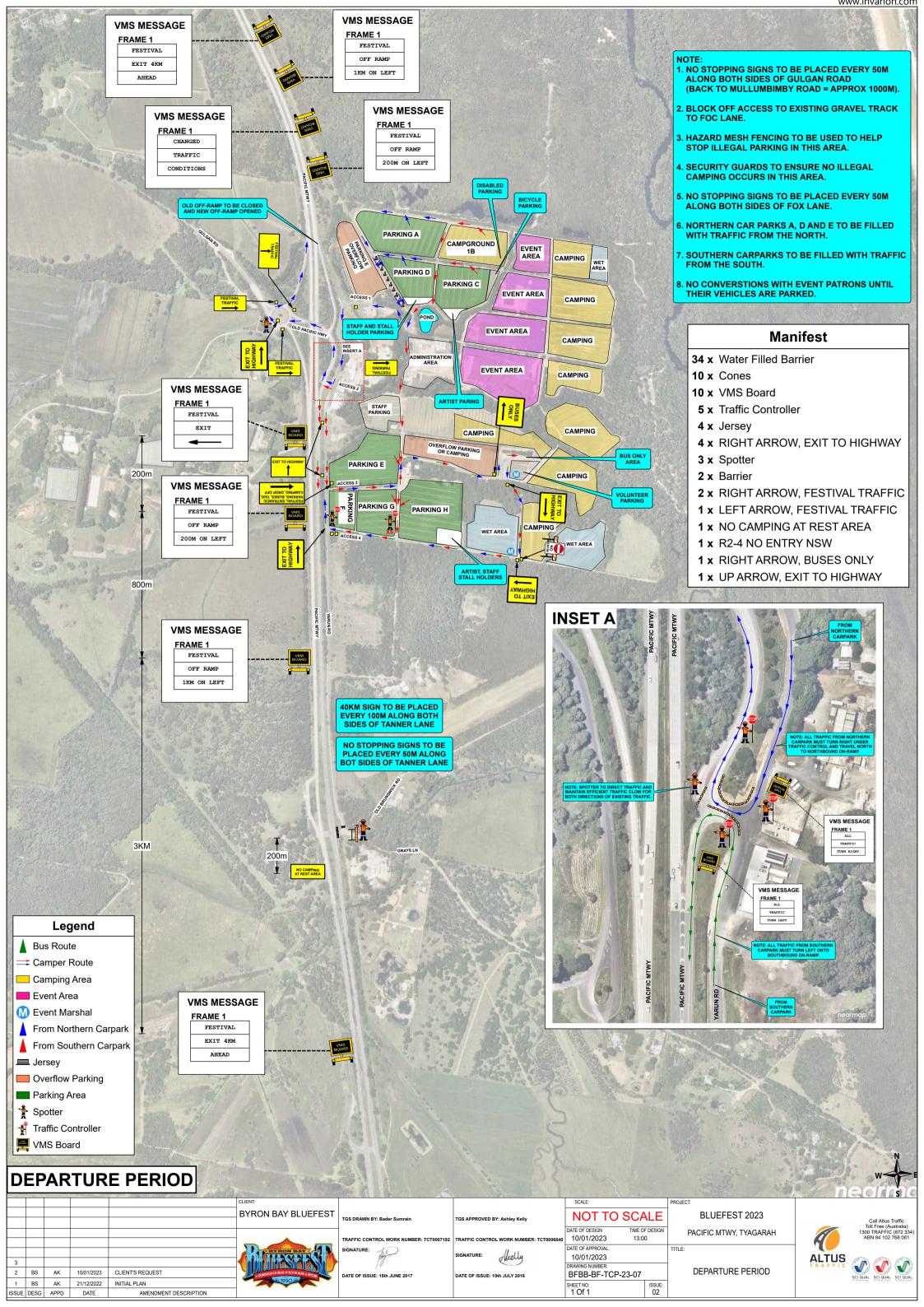


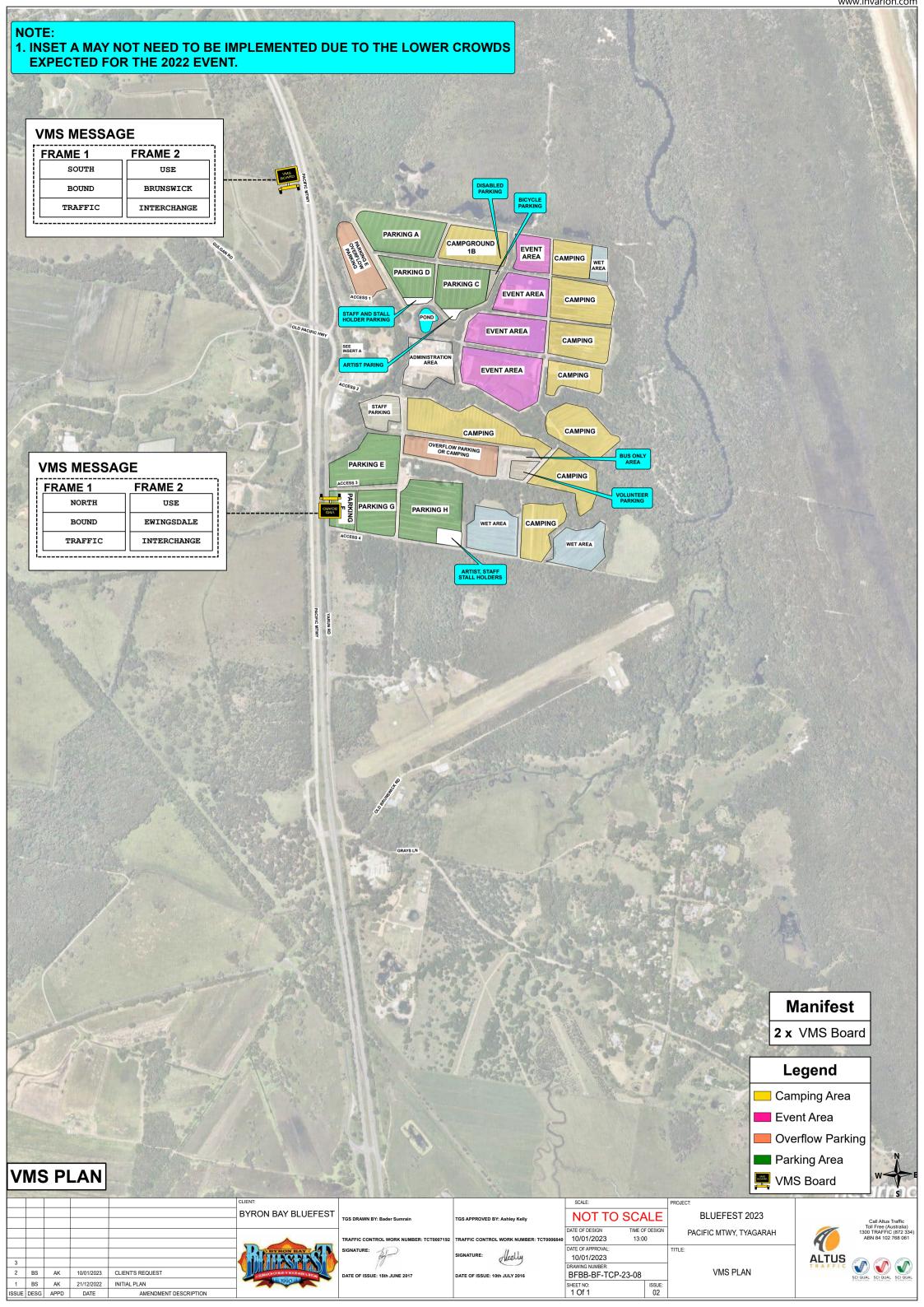
ALTUS

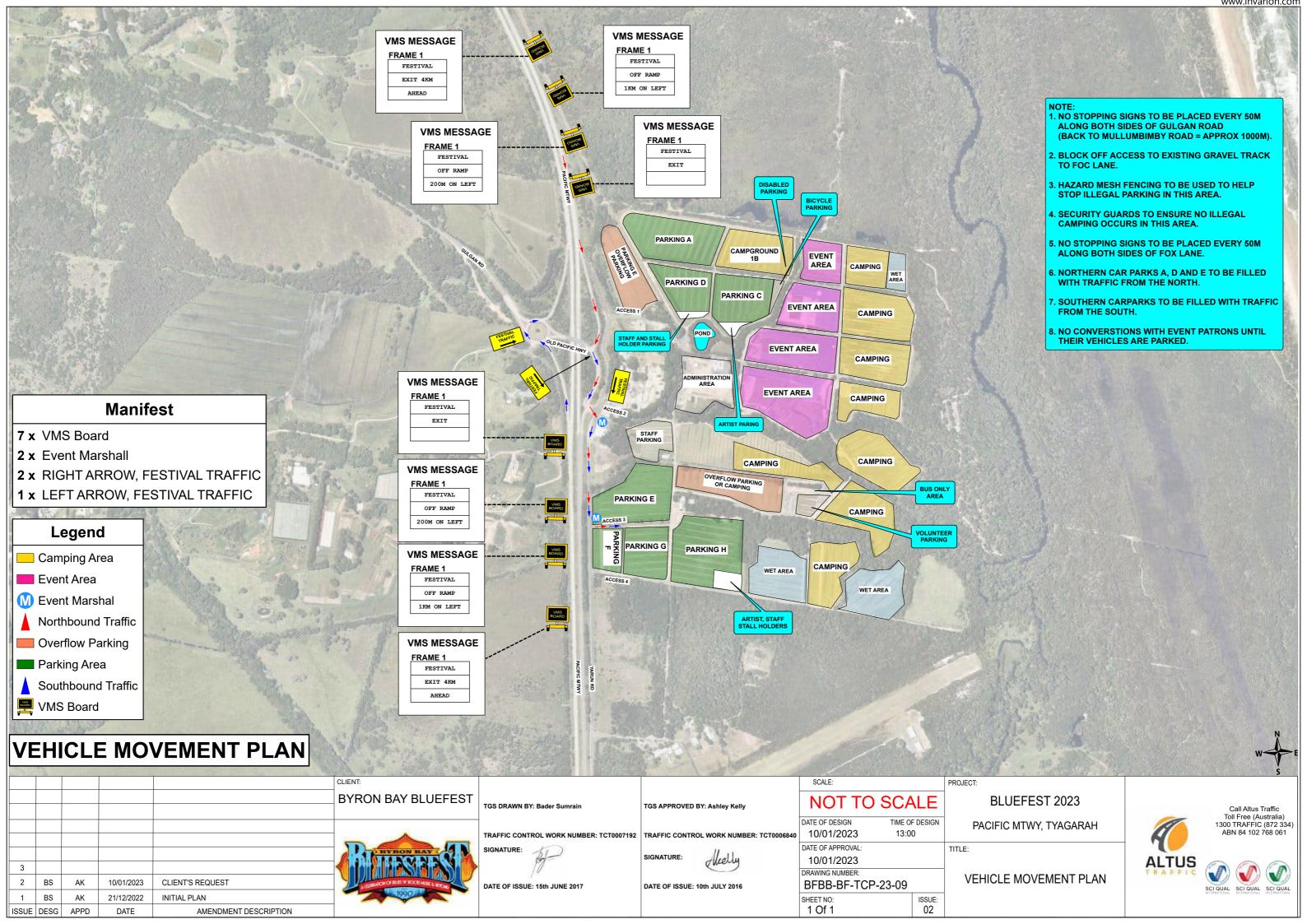


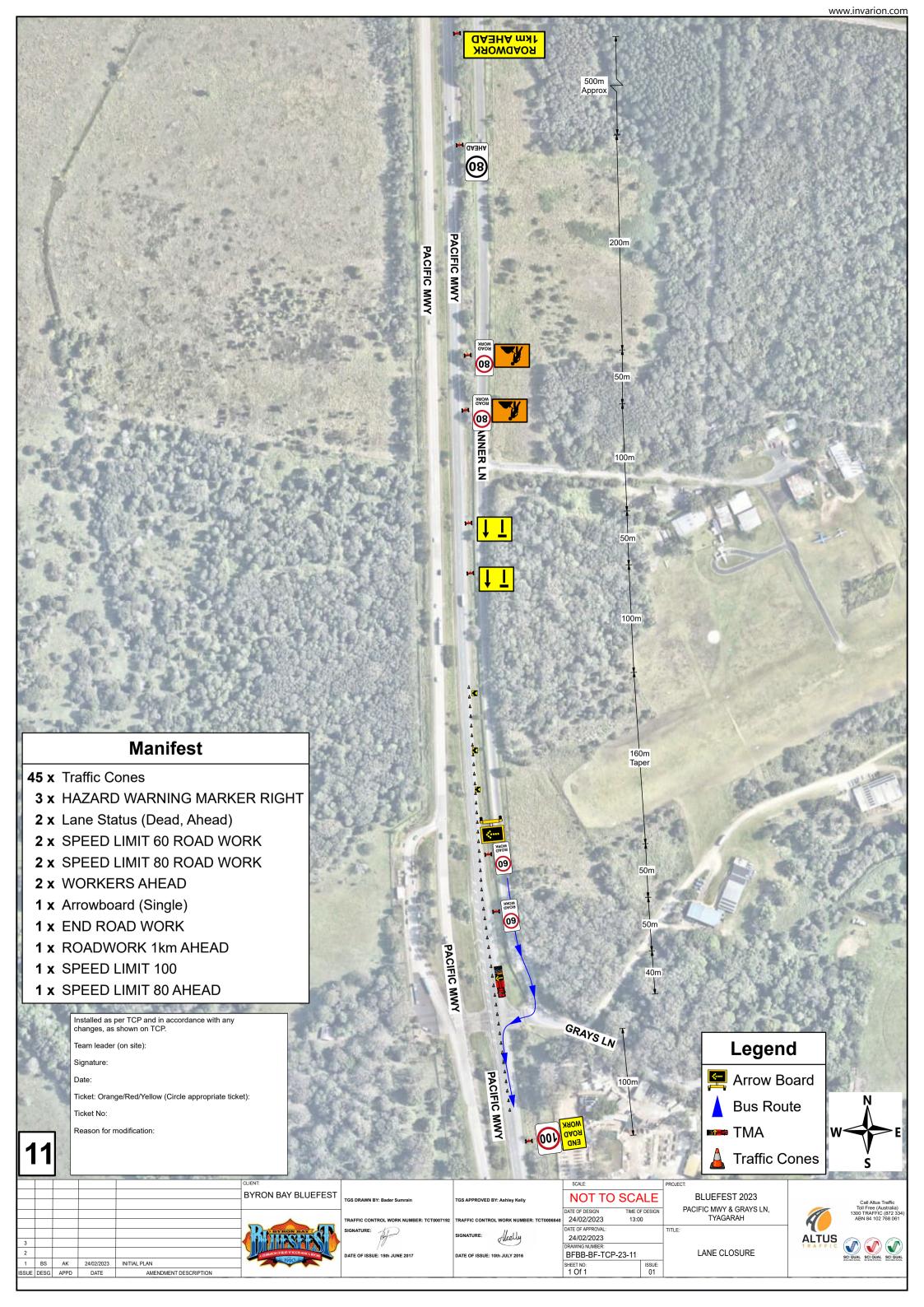


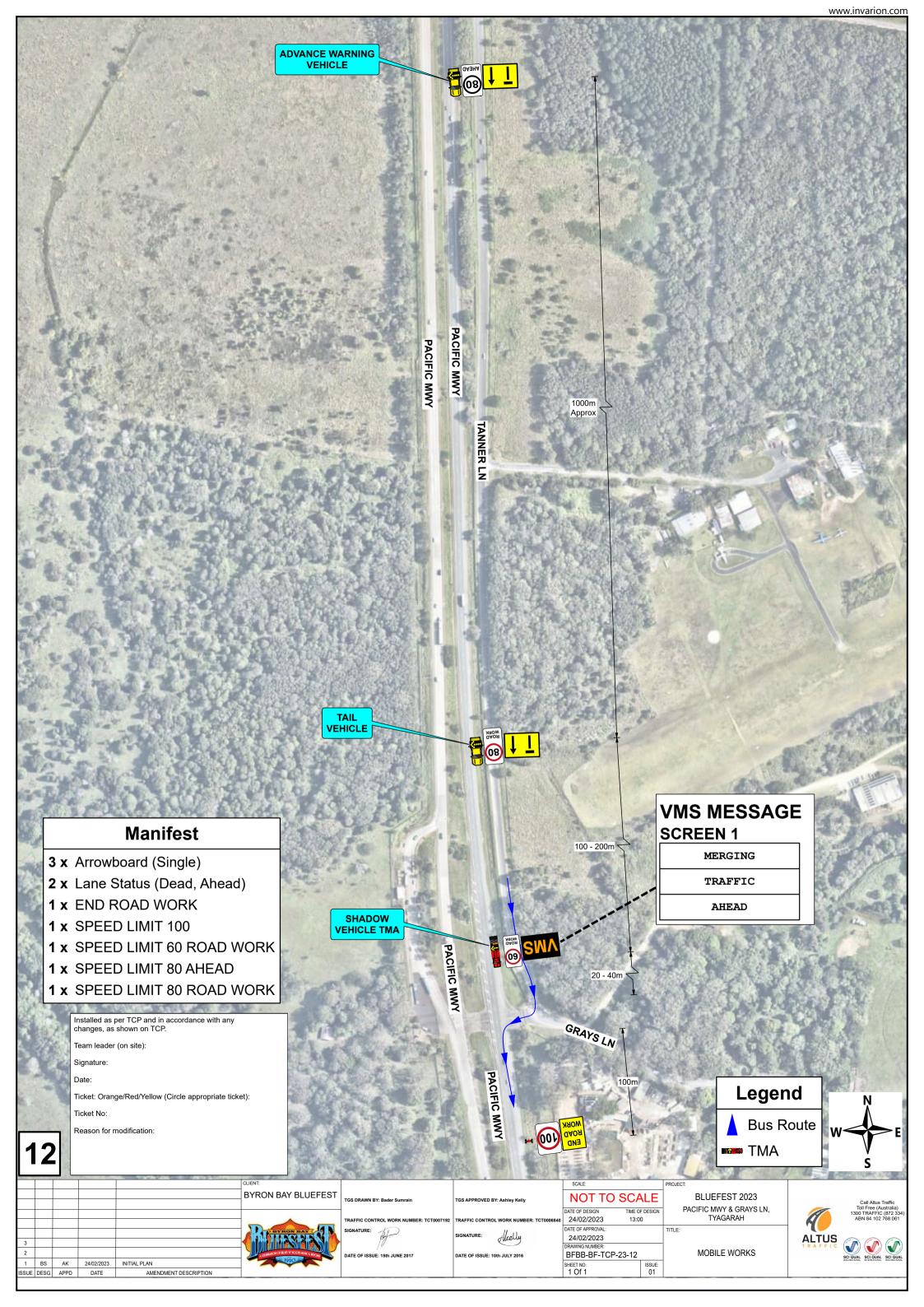


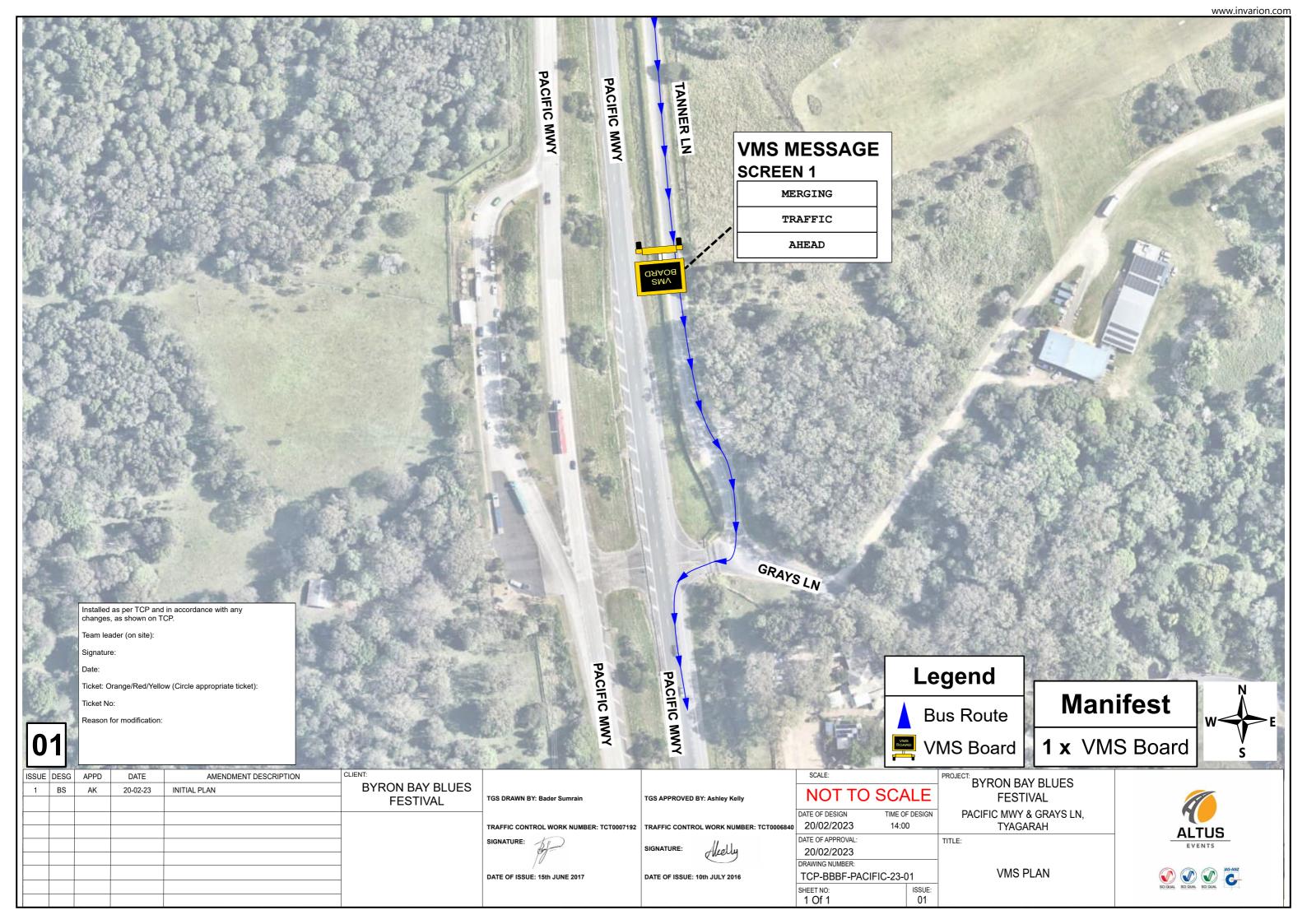












Appendix C — Risk Assessment Register

			RIS	SK ASS	ESSME	:NT						
				Initial Risk Rating				Responsible person for	Person responsible for		sidual I	Risk Rating
Activity Hazard Description Direc		Direct Consequence	Potential Indirect 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 by car	Injury or death	Traffic congestion and queue growth	3	А	2	Ensure traffic control measures installed in accordance with TMP and TGS Ensure TC staff compliance with WHS	Traffic Control Supervisor	Festival General Manager	- 5	А	3
							regulations and other relevant legislation	Traffic Control Supervisor	Festival General Manager			
	Insufficient rate at which vehicles are processed	cles Traffic congestion and queue growth	Collision on public road				Ensure eufficient staff for vehicle processing Ensure adequate equipment to enable staff to	Parking Manager Parking Manager	Festival General Manager Festival General Manager			
				2	A	1	process vehicles safely and efficiently Implementation of contingency measures (including "snake" in southern carpark) to create	Chief Operating Officer	Festival General Manager	5	А	3
							additional vehicle storage on-site Traffic controllers on public road to control back	Tariffa Cartal Survey in a	5 5 10 111			
On-site vehicle processing							of queue	Traffic Control Supervisor	Festival General Manager			
On-site vehicle processing	Government agencies (including						Coordination with government agencies	Chief Operating Officer	Festival General Manager			
	police) slowing down vehicle processing (e.g., during vehicle searches, etc.)	Traffic congestion and queue growth	Collision on public road		A	1	Sufficient processing bays and areas for vehicle searches to occur	Chief Operating Officer	Festival General Manager	5	А	3
							Traffic management plan to allow for sufficient contingency	Traffic Control Supervisor	Festival General Manager			
	Higher patron arrival flow than anticipated	Traffic congestion	Collision on public road	2	A	1	Contingency plans available for enactment if	Traffic Control Supervisor	Festival General Manager	5	Α	3
	·						needed Queue warning vehicle implementation	Traffic Control Supervisor	Festival General Manager			
	More concentrated arrival peak than anticipated	Traffic congestion	Collision on public road				Traffic management plan to allow for sufficient contingency	Traffic Control Supervisor	Festival General Manager			
				2	А	1	Contingency plans available for enactment if needed	Traffic Control Supervisor	Festival General Manager	5	Α	3
							Queue warning vehicle implementation	Traffic Control Supervisor	Festival General Manager			
	Crash on critical intersection or traffic lane	Injury or death	Traffic congestion and queue growth	3	A		Secure crash site	NSW Police Force	NSW Police Force			
						2	Provide first aid to persons involved	NSW Ambulance Service	NSW Ambulance Service	5	Α	3
							Manage traffic at crash site	NSW Police Force	NSW Police Force			
			Traffic congestion and queue growth				Manage back of queue Ensure adequate on-site road network	Traffic Control Supervisor Chief Operating Officer	Festival General Manager Festival General Manager			
							Ensure sufficient visibility through corners	Chief Operating Officer	Festival General Manager			
	On-site crash	Injury or death					Ensure low-speed environment	Chief Operating Officer	Festival General Manager			
				2	A	1	Prevent occurrence of sudden stopping Secure crash site	Chief Operating Officer NSW Police Force	Festival General Manager NSW Police Force	3	С	3
							Provide first aid to persons involved	NSW Ambulance Service	NSW Ambulance Service	i		
Patron arrival, departure and							Manage traffic at crash site	NSW Police Force	NSW Police Force	1		
ditional festival traffic generation							Manage back of queue	Traffic Control Supervisor	Traffic Control Supervisor			
throughout event							Remove vehicle from traffic lane	Chief Operating Officer	Festival General Manager			
	On-site vehicle breakdown (including vehicles running out of fuel or battery)	f Traffic congestion and queue growth	Collision on public road			1	Implementation of contingency measures (including "snake" in southern carpark) to create additional vehicle storage on-site	Chief Operating Officer	Festival General Manager			
				2	A		Low-speed zones in high-risk areas as shown in TMP and TGS	Traffic Control Supervisor	Festival General Manager	3	С	3
	,						Identify areas broken down vehicles can be safely moved to for further assistance.	Traffic Control Supervisor	Festival General Manager			
							Traffic controllers on public road to control back of queue	Traffic Control Supervisor	Festival General Manager			
	Queueing on motorway, motorway	Traffic congestion and queue growth	Potential back of queue crash	3	A	2	Contingency plans available for enactment if needed	Traffic Control Supervisor	Festival General Manager	4	A 3	
	off-ramp or arterial road	0 1 0	Sack of quote crash				Queue warning vehicle implementation	Traffic Control Supervisor	Festival General Manager			
	On-site fire or bush fire	Panic by drivers	Potential collisions on site and public road		A	1	Fire prevention by site planning, vegetation maintenance, and crowd control	Chief Operating Officer	Festival General Manager	3	D	3
							Fire identification and firefighting	RFS & Chief Operating Officer	RFS & Festival General Manager			
		Sudden stop of traffic flow and uncontrolled stopping of vehicles on traffic lane and shoulder	Collision	2			Monitor weather and issue severe weather warnings to staff, contractors and patrons if required	Chief Operating Officer	Festival General Manager			
							Queue warning vehicle implementation	Traffic Control Supervisor	Festival General Manager		_	
	Severe wind, rain and/or hail				A	1	VMS text to be changed to warn drivers of severe weather and traffic congestion	Traffic Control Supervisor	Festival General Manager	3	D	3
		Bogging of vehicles	Traffic congestion and queue growth				All weather internal roads to be provided	Chief Operating Officer	Festival General Manager			

	RISK ASSESSMENT MATRIX								
		CONSEQUENCE							
		MINOR	MINOR MAJOR SEVERE CRITICAL		CRITICAL	CATASTROPHIC			
LIKELIHOOD Rank		E	D	СВ		А			
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			

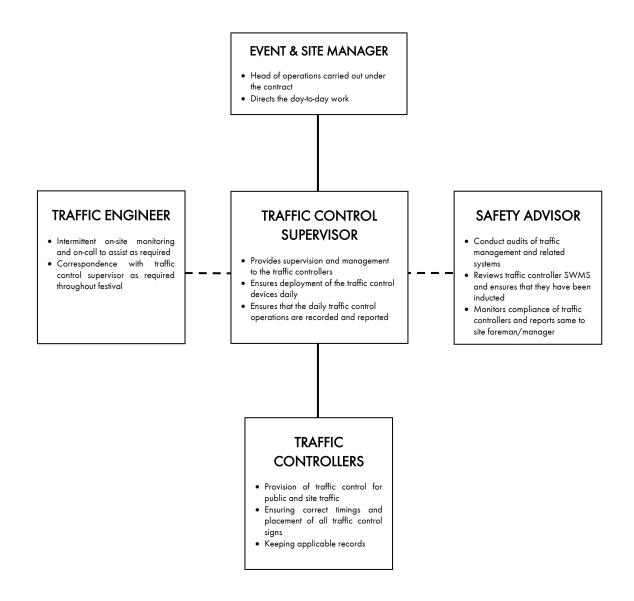
RESIDUAL RISK IMPLICATION					
Residual Risk	Action				
Low	Low Implement control measures where required and proceed with work task.				
	Consider and implement all practical controls to reduce risk prior to proceeding with work task. Actively				
Medium manage risk as task proceeds.					
Implement all practical control measures to reduce risk prior to proceeding with work task. Actively					
High 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	Α	Basic first aid administered			
MAJOR B		Injury requiring medical treatment			
SEVERE	С	Lost time injury			
CRITICAL	D	Irreversible health effects, imparement or illness			

Appendix D — Organisational Structure for Traffic Management

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



• The key contact personnel and contact details can be found in Section 11.0 of the TMP.



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