MITCHELL DAYSH

FESTIVAL ONE LTD

FESTIVAL ONE CHRISTIAN FESTIVAL, 209 WHITEHALL ROAD, KARAPIRO

Application and Assessment of Environmental Effects

22 June 2020

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REPORT INFORMATION

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EXECUTIVE SUMMARY

This application seeks resource consent to operate a drug and alcohol free four-night, three-day Christian festival on a 208-hectare, rural zoned property at 209 Whitehall Road, Karapiro.

The applicant, a Christian charitable trust, is an experienced event manager with an established track record running the current Festival One Christian music festival at Mystery Creek. This track record demonstrates that the company can organise and run such events, is familiar with its obligations under the Resource Management Act 1991 and other legislation. Past events have operated to fully comply with the conditions of resource consent issued by the Waipa District Council.

The company is well aware of its duty to be a good neighbour and the Assessment of Environmental Effects (**AEE**) prepared in support of the application has considered the potential effects on the locality, such as: traffic effects, noise effects, lighting and glare effects, health, safety and sanitation effects, cultural effects, and visual and amenity effects.

A comprehensive set of conditions is suggested to ensure that the short-term effects of the festival are going to be acceptable with maintaining the amenity of the locality.

The festival will run over the Auckland Anniversary long weekend from 2021. The festival size is to be capped at 10,000 patrons and up to 2,000 support staff and volunteers. This is to maintain the family friendly focus of the festival. In the first few years it is expected that perhaps 6-,7000 patrons may attend. Monitoring is proposed to assess the effects of the proposal in terms of traffic management and noise, with adaptations being made over successive years as attendance figures increase.

While consultation has occurred with many neighbours, it has not been possible to see and obtain the written approval of all neighbouring landowners and occupiers prior to lodging the application.

The event is expected to generate noise in excess of the standards anticipated within the zone. For this reason, the applicant requests that the application is notified to those parties in close proximity that have not already provided their written approval.

1. INTRODUCTION

Festival One Limited, the applicant, runs a drug and alcohol-free Christian festival annually at Mystery Creek. Festival One is a continuation of the long running and successful 'Parachute Music Festival'. Festival One is seeking to relocate the event to a new venue at a 280-hectare rural property (Hartford Farm - previously known as 'Dunwold') at 209 Whitehall Road, Karapiro. A copy of the Record of Title is attached as Appendix A.

The venue is centred around the river flats on the property that nestle within a natural amphitheatre provided by the encircling hills which provide a forested backdrop, screening all elements of the festival from public view.

1.1 THE APPLICANT

Festival One is run by a Christian charitable trust – Summer Festival Charitable Trust, and the Board wishes to refresh the festival by locating to a site more in keeping with the relaxed and community feel of the festival. The Board also wishes to 'cap' attendance at 10,000 fee-paying patrons so that the family friendly atmosphere is retained. The Trust therefore seeks resource consent for a Discretionary Activity to commence the first scheduled annual event on Auckland Anniversary weekend 2021.

A pre-application meeting was held with Waipa District Council staff in June 2018 to discuss the festival proposal in general terms. A copy of the meeting record is attached as Appendix B. A copy of the proposed Site Layout Plan is attached as Appendix C.

1.2 ACTIVITY STATUS

Based on the range of activity elements that will comprise the 'event' then the activity as a whole is to be assessed as a Discretionary Activity, being for a Temporary Event (as defined in Definitions section *(an activity involving people engaged in recreational, leisure or meetings... carnivals, concerts, craft and trade fairs, displays...)* as it fails to comply with Rules 4.4.2.51 and 4.4.2.53 of the Waipa Operative District Plan. In addition, the proposal will be unable to comply with the District Plan noise standards for the Rural Zone (Rule 4.4.2.15).

1.3 TECHNICAL REPORTS PREPARED

The applicant has commissioned independent advice to understand the nature of the potential environmental effects resulting from the proposal and to advise on operational and management arrangements to avoid, remedy or mitigate those potential adverse effects from the new site at Karapiro. The following technical reports are attached as **Appendices D - G**

- Lindsay Hannah. Preliminary Acoustic Monitoring Results and Contours. April 2020 (Appendix D)

- Gray Matter. Integrated Transport Assessment. April 2020 (Appendix E)

These technical assessments that form part of the Appendices are relied on to inform on the potential environmental effects and the proposed mitigation measures to address amenity generally.

2. DESCRIPTION OF SITE AND LOCALITY

2.1 THE VENUE: HARTFORD OR "DUNWOLD"

"Dunwold", the 280-hectare rural property at 209 Whitehall Road is the venue for the proposed annual festival. The property comprises approximately 156 hectares in forestry (predominantly radiata pine with some areas now being harvesting), 53 hectares of flat to rolling pastoral land and 70 hectares kanuka. Karapiro Stream bisects property and the Waiaroa Stream defines the northern boundary. Both streams are within vegetated gullies and fencing is in place along the entire margins to prevent access to the gully slopes. For convenience in terms of defining the 'application site' these stream corridors have been adopted as the north-western and northern boundaries of the site respectively.

The property is legally described as Lot 1, Lot 2 DPS 77613 and Lot 1 DP 411145. **Appendix A** refers.

The property is located on the west side of Whitehall Road, approximately 2.5 kilometres north of the intersection with Karapiro Road and 4.2 kilometres from SH1 Tirau Road. The site has three existing vehicle crossings along the property road frontage.

The property is partly nestled in a valley and is naturally sheltered from the prevailing westerly and southerly winds by the planted radiata pine forest estate and the kanuka plantings. The festival 'site' is indicated on the Site Layout Plan in **Appendix C**. As illustrated, the festival 'site' will utilise the alluvial grassed flats and the concert stages will 'nestle' into the natural amphitheatre of the treed backdrops around these flats. All associated structures, camping and parking areas and ablution facilities will occur on these flat areas.

Access to the road network is provided via three gates (as described in Section 3.5 of Appendix D). The property is crossed by tracks, and key tracks will be improved to assist with the farming and forestry operation as well as to serve for patron and service vehicle access associated with the festival.

Bore water is reticulated to most of the paddocks and drinking water for the festival will be supplied by temporary upstands. A bore has been drilled to provide for a farm water supply and supplementary supply for use during the festival.

Farm buildings are on the property but there is no dwelling.

2.2 THE LOCALITY

As noted, the property is accessed from Whitehall Road that connects to State Highway 1 (SH1, Tirau Road) via Karapiro Road.

The Whitehall quarry is operated to the north of the property. Taotaoroa Quarry is located to the east, on Taotaoroa Road.

Neighbouring properties are a mix of farming operations and rural-residential /lifestyle blocks with some also supporting farm stay or bed and breakfast accommodation services. The nearest properties are 1/207 and 2/207 Whitehall Road, both of which are encircled by the subject site. An intensive kiwifruit production and packhouse operation (also in the same ownership as the application site) adjoins the site to the south-east which provides a degree of physical and visual separation to the associated dwelling at 2/159 Whitehall Road. Additional lifestyle block development is located further to the south-east whilst larger scale rural activities are located to the north and west.

Although dwellings are generally sited in elevated locations, no residences have a direct line of sight into the festival area, as this part of the property is situated on lower lying river flats that are screened from neighbouring viewpoints by rolling topography and existing vegetation, including commercial forestry on the subject site.

Karapiro School (90 students, 2016 roll) is located on Karapiro Road, adjacent to SH1. The Karapiro Mobil service station sited on the corner of SH1-Karapiro Road and the Community Hall is adjacent. Also adjacent to the school is an accommodation facility. A private tour coach business (Roigards) operates from 137 Karaprio Road.

The geographical features and topographical characteristics of the property contribute significantly to the containment of the effects of the proposed Festival. Nevertheless, as explained within the AEE, traffic and noise effects have the potential to extend beyond the site and affect other persons. The Applicant has undertaken consultation with these parties, the results of which are explained in Section 7. Copies of written approvals are attached as **Appendix F**.

3. DESCRIPTION OF THE FESTIVAL

Festival One has held the resource consent to "run" (organise, operate and overall manage) an annual Christian music festival at Mystery Creek. The annual event has run since 2005 and Festival One has managed that festival since 2015.

Festival One is a very experienced events operator running this type and scale of festival. This experience and track record should ensure that this event can be managed to mitigate potential adverse effects during the set-up, running and dis-establishment phases of the festival.

In summary, Festival One describes itself as a festival of music, art and community. It brings together people from across NZ, with a focus on the mid to upper North Island, who come and camp in their communities, contributing to being part of a larger temporary community. Festival One supports and provides an important outlet for a wide number of musicians, songwriters, poets, writers, visual artists, electronic artists, new media participants, photographers and film makers. Festival One has also provided seminars on disability, biculturalism, the prevalence of pornography, social action and social enterprise, deafness awareness, as well many aspects of art and creativity.

Festival One now wishes to 'refresh' the music and entertainment festival to make it more appealing to the Christian community generally.

3.1 ELEMENTS OF THE FESTIVAL

The key elements or features of the proposed annual festival 'event' are:

1. The festival will be held annually over the Auckland Anniversary long weekend – the last weekend in January (commencing 2021).
2. The festival will run over three nights and four consecutive days – 10am Friday until midday Monday.
3. The festival is outside the school year.
4. The inaugural event has b een voluntarily capped at 5,000 visitors (plus 1,200 volunteers, acts and crew) which will grow over successive years to an eventual capacity of 10,000 paying patrons, with support from up to 2,000 support crew.
5. The festival is a multi-faceted music, community and art event, with seminars and keynote sessions, art installations, and reflective spaces being as important as music and concerts on the stages. The festival is designed to be suitable and appealing for people of all ages – toddler care is provided, a children's programme, dedicated spaces for those with disabilities, and care taken to provide support for the elderly. The festival is largely 'residential' with people arriving on the Friday and setting up camping communities (largely tents), as well as caravans and camper

vans. Food and beverages are provided by a variety of food trucks, and all support services – toilets, showers, general store, etc are provided as self-contained pop up units. Power will be supplied from generators on-site.

6. The festival will be an alcohol and drug-free event.

7. Festival One has a self-imposed night-time curfew of midnight, where amplified sound is turned off, and traffic movement to and from the venue is restricted other than for emergency medical needs.

8. Festival One provides a free mobile phone App. This is interactive and provides real time updates and is used before, during and after the festival as well as to manage the travel demand peaks, and patterns of travel on the road network by directing patrons to the preferred alternative routes.

9. Special guests, overseas artists for example, are accommodated off-site in local B&Bs, homestays, motels and hotels. A shuttle service run by volunteers will provide transport.

10. Site access is only available from Whitehall Road, between Dunning Road and the Whitehall Quarry. Traffic will be directed to two or three security-controlled entranceways to the property. Management of traffic from the state highway and local roads will be guided using a Temporary Traffic Management Plan developed in conjunction with the NZ Transport Agency and the District Council.

11. Temporary traffic management will be used to manage traffic at the entrance of Whitehall Road and temporary speed restrictions of 50kph will apply, and temporary traffic management signage will be provided from the north and south (SH1-Karapiro Road), from Tauranga and east (SH29-Taoataoroa Road), from the east (SH1-Karapiro Road), and Cambridge-Auckland (SH1B-Victoria Road);

12. Temporary lighting will be used throughout the site and if required, temporary lighting may be installed at the entranceway to Gate 1 (the main entrance) for the duration of the festival.

13. A new building is to be used for equipment storage purposes. At this stage, final details of the building are not available but proposed consent conditions will restrict the building to being located to the two potential locations as indicated on the Site Layout Plan, with a maximum footprint of 360m^2, maximum height of 12m and a finished treatment to achieve compliance with British Standard BS5252.

In summary, the festival will be a multi-faceted music and entertainment event and will provide services, facilities and entertainment for all ages along with areas for parking, accommodation, play areas, recreational activities and entertainment activities/concerts supported by temporary structures (stages, falsework to create a mock streetscene, administration facilities, ablutions - showers, water, toilets for example) and food and beverage stalls.

3.2 LAYOUT OF THE FESTIVAL

Appendix C provides a Site Layout Plan for the venue. The site plan illustrates:

- The controlled entranceways (Gates 1, 2 and 3) with Gate 1 providing the main controlled vehicle entrance for patrons attending the festival, and with Gates 2 and 3 being used primarily by staff, volunteers and guests (arriving by shuttle vans) to access separate drop-off and parking areas;
- Vehicle queues will be formed on-site in prepared stacking lanes from Gate 1, for up to 1 kilometre, and therefore not be reliant on the public roadway;
- The internal 'farm' tracks have been graded and widened to provide passing bays and/or two-way vehicle movement on the site;
- The parking and pre-registration areas are delineated to ensure efficient use is made of available space – over 80% of patrons currently pre-register allowing for ease of entry and parking for patrons;
- The accommodation precincts will also provide for camping, caravans, motor homes and family cars to park;
- An on-site shuttle service will operate to transport campers and their equipment from parking areas to the designated camping sites/areas
- 'One Arena', 'The Music Box' and 'Market Stage' will provide concert venues spread over the site; and
- The market and administration precincts – the heart of the festival, will be where the food trucks, stalls and festival office will be located.

There will be no permanent changes required or made to the landform or farming and forestry landscape as a result of running the festival. All activity will be fenced from the two gullies defining the northern and north-western boundaries of the site, being the Karapiro Stream gully and Waiaroa Stream gully. Additional fencing will restrict access to the gully arms extending into the south-western area of the site.

3.3 MANAGEMENT OF THE FESTIVAL

The effects expected from running the festival can be described in terms of:

- the pre-event setup phase: this includes the arrival of the small crew of about 20 volunteers a week prior to the Friday start who build and assemble the facilities, the arrival of the various hire suppliers - marquees, toilet and shower blocks, audio and sound equipment, and food trucks and caravans. Building activity will take place on site from the Friday prior to the Friday start on the Auckland Anniversary long weekend.

- The event itself: these effects are summarised more fully in section 5 – Assessment of Effects; and
- The post-event packdown: this includes the hire companies returning to pick up their gear and facilities, and the build crew disassembling the temporary structures for a period of 3-4 days.
- A new building is proposed that will provide a permanent storage facility for equipment and materials that will be reused for successive events. As full details of the building are not known at this stage, proposed consent conditions define the proposed building envelope, potential alternative locations and finished treatment.

In summary, the event brings increased activity to the property and the neighbourhood over a three weekend, two-week period with no permanent features being discernible beyond the site.

Festival One management aims to be a good neighbour and ahead of each annual festival proposes to consult with neighbours in the following way:

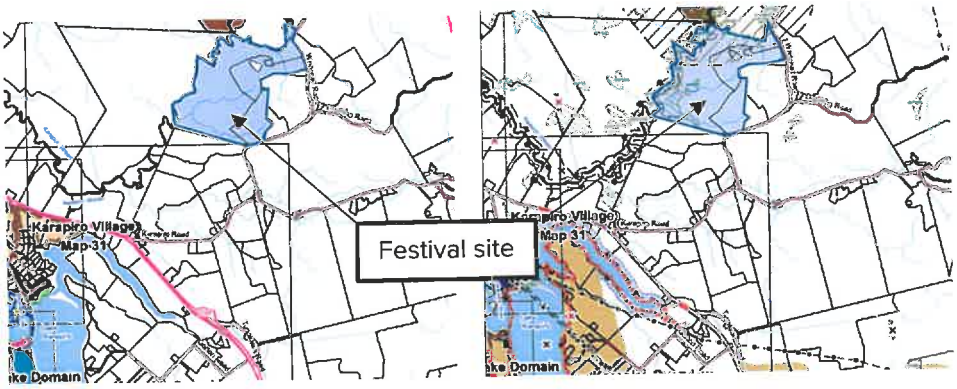
- During December: Complete a letter drop to all near neighbours, outlining the latest plans for the Festival, artists coming, and provide a general overview of progress to date, while providing the opportunity for feedback.
- During January: Complete a second letter drop with more specifics, traffic management expectations, the programme for Festival, offer for complimentary family passes and again invite an opportunity for feedback.
- Late January: Make door to door visits to say hello and hear any further feedback, and to ensure that the invitations to attend/observe had been received.
- Festival One will also provide a dedicated neighbour phone line - a line that neighbours can call day and night for the duration of festival.

Festival One also proposes to operate an 0800 or 0805 freephone number for neighbours to contact festival organisers if there are concerns raise during the festival itself, so the management can promptly respond to any neighbour concerns.

4. CONSENTING FRAMEWORK UNDER THE WAIPA OPERATIVE DISTRICT PLAN

4.1 SITE ZONING

Under the operative Waipa District Plan the property within which the Festival will occur is zoned Rural and a Cultural Landscape Alert applies to a 50-metre margin to the Karapiro Stream. The wider property is identified below. The Festival itself, and associated access, parking, camping areas, stages and arena are all located to the east of the Karapiro Stream and south of the Waiaroa Stream as indicated below on the extracts from the District Plan Planning Maps. While this indicates the full spatial extent, the Festival site is to managed on the basis of Precincts of activity, interconnected by protected paths. The detailed site layout is attached in Appendix C. The following diagrams therefore relate to the broad spatial extent rather than the detailed site layout.



Extracts from the Planning Maps (Zones and Policies)

Significant Natural Areas (SNAs) WP533 and WP533a apply to the site, notably the confines of the Karapiro Stream gully and the gully arms extending from this corridor into the south-western corner of the site.

The sites are referenced as part of Appendix N5 to the District Plan that records areas of 'local' ecological significance where protection, maintenance and enhancement is desirable.

Appendix N5 records those values as being:

> *WP533 – Karāpiro Stream, mid-stream unprotected scrub, Local Significance, Unprotected.*
>
> *WP 533a - Karāpiro Stream, mid-stream protected scrub, Local Significance, Over half unprotected.*

These areas adjoining the stream margins are already secured by fencing to prevent access. As indicated on the Site Layout Plan (SNA shown as close hatched area) Festival One will not be affecting these scheduled areas. No earthworks or vegetation clearance will be undertaken within these areas.

Proposed consent conditions will require that no structures or storage of materials or camping shall occur within the 50m wide Cultural Alert layer associated with the Karapiro Stream.

A Quarry Buffer Area extends over part of the northern area of the site, affecting an area identified on the Site Layout Plan for car parking purposes. This alert layer provides for neighbouring properties to be identified that may, through their activities in the future, adversely affect the established mineral extraction activity – i.e. it is a planning control to manage reverse sensitivity.

4.2 HAIL ACTIVITY ENQUIRY AND RESPONSES

Enquiries have been made with the Waipa District Council and Waikato Regional Council as to whether the site is a HAIL (Hazardous Activities and Industry List) site to gauge whether parts of the site intended for use for the festival may be subject to contamination. This assessment is required under the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations, 2011 (NES-Soil). The legislation's purpose is to ensure that activities which might disturb potentially contaminated soils are appropriately managed to avoid the release of contaminants to the environment.

Waikato Regional Council and Waipa District Council have both advised that "this property does not currently appear on the Land Use Information Register". Accordingly, as there is no record indicating or suggesting potential contamination at the property, there is no requirement for further assessment of the NES.

4.3 ACTIVITY STATUS

Based on the range of activity elements that **will** comprise the 'Festival' then the activity as a whole is to be assessed as a Temporary Event (as defined in Definitions section - *an activity involving people engaged in recreational, leisure or meetings... carnivals, concerts, craft and trade fairs, displays...*).

The application site has a Rural zoning. A "Temporary Event" under Rule 4.4.1.1 is provided for subject to the following performance standards being met:

All temporary buildings and works associated with a temporary event shall be removed and the site returned to its original condition within five working days of the temporary event ceasing (Rule 4.4.2.51 refers) – this standard can be compiled with except in respect of the construction of a permanent building to be used for the storage of equipment and materials required for successive events. Full details of the proposed building are not yet known although proposed consent conditions intend to fix the general location, building envelope and finish.

A temporary event that is likely to attract more than 200 vehicles will require a Traffic Management Plan. The Traffic Management Plan (TMP) shall be submitted to, and approved by the relevant road controlling authority no less than one month prior to the event commencing (Rule 4.4.2.52 refers) – the trip generation threshold cannot be met and therefore a TMP has been prepared and is included within the ITA set out in Appendix E.

And

Temporary events shall not:

(a) Occur more than two times per calendar year in total on any one site or holding – the festival can comply with this standard*; and*

(b) Exceed the following durations individually or consecutively:

(i) Motorised sport or amplified outdoor musical events or concerts - one day's duration (excluding preparation time) – the festival cannot comply with this standard, being held over 4 nights and three consecutive days on an annual basis*; or*

(ii) Other activities two days duration (excluding preparation time) – the festival cannot comply with this standard, being held over 4 nights and three consecutive days on an annual basis*; and*

(c) Occur outside of the hours of 7.00am to 10.00pm – the festival cannot comply with this standard as the proposed curfew for concerts and all events is 12midnight*; and*

(d) Exceed 500 attendees – the festival cannot comply with this standard as the applicant seeks to cap patrons to 10,000 and with up to 2,000 volunteer and support staff and acts*; and*

(e) Occur on a site within 500m of a Residential Zone or Large Lot Residential Zone boundary – the festival can comply as the site adjoins Rural zoned land.

There is a Note that follows to record:

> *Refer to the New Zealand Building Code – G1 – Personal Hygiene for the minimum number of toilets that should be provided, and for rubbish disposal provisions.*

The Rule then concludes, stating:

> *Activities that fail to comply with Rule 4.4.2.51 to 4.4.2.53 will require a resource consent for a discretionary activity.*

The proposal fails to comply with Rules 4.4.2.51 and 4.4.2.53.

In addition, Temporary Events are required to comply with all other applicable performance standards. In this respect, the proposal is subject to proposed consent conditions regarding the location of buildings within the Festival site that will ensure compliance with:

- Setback requirements from all identified sensitive environments (road boundaries (Rule 4.4.2.1), internal site boundaries (Rule 4.4.21.2), significant natural areas (Rule 4.4.2.7), commercial forestry (Rule 4.4.2.8)),

- Building height (Rule 4.4.2.9);
- Building coverage (Rule 4.4.2.10).

However, for the reasons explained in the Acoustic Assessment attached as Appendix D, the proposal is unable to comply with the requirements of Rule 4.4.2.15 in respect of noise. The Plan explains that proposals that infringe this standard are to be assessed as a Discretionary Activity.

In summary, based on the above assessment, the application is to be assessed as a **Discretionary Activity**.

4.4 ASSESSMENT CRITERIA

While Council's discretion is unrestricted, relevant assessment criteria are set out under Section 21.1.1.1 (General) and Rule 21.1.4 (Rural). Specifically, 21.1.4.39 (Temporary Events), identifies the following matters that are to be considered:

(a) Duration, frequency and scale and potential noise, odour, vibration, traffic effects on adjacent properties;

(b) Mitigation measures proposed and likelihood of success;

(c) Ability to service potential water supply, stormwater and waste disposal; and

(d) Benefits to community.

In addition, Section 21.1.1 Assessment Criteria for all Discretionary Activities, requires consideration be given to the following relevant criteria, and a cross reference in *italics* is added to record the relevant discussion in the subsequent sections of the AEE:

- Waikato River Vision and Strategy (21.1.1.1);
- Settlement pattern and reverse sensitivity (21.1.1.2);
- Visual (21.1.1.3); *and Section 5.1.7 of AEE refers.*
- Amenity Values (21.1.1.4); *and Section 5.1.8 of AEE refers.*
- Traffic (21.1.1.6); *and Section 5.1.1 of AEE refers.*
- Noise and vibration (21.1.1.7); *and Section 5.1.2 of AEE refers.*
- Signs (21.1.1.8); *and Section 5.1.5 of AEE refers.*
- Servicing (21.1.1.9); *and Section 5.1.4 of AEE refers.*
- Crime prevention (21.1.1.11); *and Section 5.1.6 of AEE refers.*
- Risk management (21.1.1.12); *and Section 5.1.6 of AEE refers.*
- Cultural (21.1.1.14); *and Section 5.1.9 of AEE refers.*

Section 21.1.16.5 then presents criteria related the consideration of an Integrated Transportation Assessment. These are addressed in Section 5.1.1 of the AEE.

Section 21.1.20.1 presents health and general amenity assessment criteria relating to light and glare.

Specifically,

(a) *Whether the light spill and glare will adversely affect the amenity of the environment or create nuisance, particularly on adjoining residents.*

(b) *Whether the light spill and glare will adversely affect traffic or road safety.*

(c) *Whether the location and orientation of the lights minimises the spill onto neighbours' properties. (d) Whether the duration and operating hours of activity and the extent of lighting is reasonable and appropriate within the receiving environment.*

(e) *Whether screening, orientation or design can avoid, remedying or mitigate adverse effects.*

(f) *Whether the lighting is necessary for reasons of providing for safety and/or security.*

(g) *Whether the activity requiring the lighting results in benefits and positive effects.*

Again, with reference to subsequent sections, Section 5.1.3 of the AEE considers the effects from lighting and glare during the event. Section 5.1.8 of the AEE considers the effects on the general amenity of the neighbours and the community.

As cross referenced above, these criteria have been assessed both as part of the assessment of environmental effects in Section 5 and against the relevant objective and policy framework in Section 6 of the AEE.

5. ASSESSMENT OF ENVIRONMENTAL EFFECTS

Section 88 and Schedule 4 of the Act requires an applicant to assess the effects that the proposed activity may have on the environment and the ways in which those effects may be mitigated. The assessment is to correspond with the scale and significance of those anticipated effects.

Following is an assessment of the potential environmental effects from the proposed activity as required under section 104(1)(a). The assessment relies on the description of the festival as outlined in section 2 with commentary provided from the Executive Director and technical experts where relevant. That expert opinion based, as it is, on running past events such as the Parachute festival is directly relevant, based on practical experience and a proven track record of reliable and competent event management.

5.1 SUMMARY OF ENVIRONMENTAL EFFECTS

The environmental baseline for the consideration of potential environmental effects is as previously described, a rural production landscape where the surrounding land uses are predominantly farming and forestry operations, an intensive kiwifruit production and packhouse operation and a dispersed pattern of dwellings and farming buildings in an undulating landform.

The effects assessment is grouped under two broad headings with the first relating to those effects resulting from the operation of the festival and the second group being the more general but equally important environmental effects.

These potential environmental effects are summarised in the following table along with their cross reference as to where those matters are further discussed.

Table 1 Summary of Environmental Effects:

Section Reference	Effects associated with the Operation (Setup phase, festival phase, dis-establishment/packdown phase) of the Festival
5.1.1	Effects from traffic going to and from the festival
5.1.2	Effects from noise and vibration during the festival
5.1.3	Effects from lighting and glare during the festival
5.1.4	Effects from providing and managing water, waste water and rubbish during the festival

5.1.5	Effects from signs and advertising on and beyond the site before and during the festival
	General effects on people and the community
5.1.6	Effects on health (medical, hazard management) and safety (crime prevention) of people attending the festival
5.1.7	Effects on the visual amenity of neighbours and community
5.1.8	Effects on the general amenity of neighbours and the community
5.1.9	Effects on cultural values of people and the community
5.1.10	Effects (benefits) to the district

The actual and potential adverse environmental effects are assessed as follows, drawing on the expert technical assessments that form part of the Appendices:

5.1.1 Effects from traffic going to and from the festival

The Integrated Transport Assessment (ITA) prepared by Gray Matter Ltd is attached as Appendix E. The report provides a Broad ITA as required under Rule 16.4.25 of the Waipa Operative District Plan. The effects of the location and scale of the festival on the functioning of the road network are examined including site access, on-site parking capacity and queuing, and consultation with the District Council and NZ Transport Agency.

The key points and conclusions are:

- Traffic volumes on the road network are within the capacity of the network and currently there are no efficiency issues in the area (Section 3.1 refers);
- The three existing site accesses provide adequate sight distances dependant on speed management in the immediate vicinity (Section 3.5 refers);
- The transport routes, classification, traffic volumes and proportion of heavy vehicles from all possible directions are identified (section 3.1 refers);
- While the inaugural event is expected to attract approximately 5,000 visitors and 1,200 support crew, the maximum future attendance numbers of 10,000 visitors plus 2,000 support crew and acts have been modelled for trip generation purposes along with vehicle mix (car, campervans for example), patron profiles (multi-ticket, one-day ticket holders, special guests for example), trip origins to establish estimated arrival and departure trips and timeframes;
- 'Incentivising trips' are considered using the Festival One app;

Critically, the ITA and the assessment of effects is based on the maximum event size planned for the future. Therefore, the effects are likely to be less for the initial festival event in 2021, growing over time to the level of effects as discussed here.

The ITA concludes at section 8.1:

The effects on the transport network arising from the festival are related to an increase in trip generation that coincides with Auckland Anniversary weekend. The likely transport effects relate to:

- Potential increase in vehicle conflict and delays associated with vehicles turning at the SH1/Karapiro Road intersection;
- Potential increase in vehicle-cyclist conflict on local roads;
- Potential increase in loss-of-control type crashes due to drivers on unfamiliar local roads;
- Potential inadequate parking area for festival event greater than 6,500 tickets;
- Vehicle queues at intersections or the event gates impeding through traffic;
- Delays to local through traffic on the local road network.

In terms of safety effects, the ITA reports:

> *There are no significant safety problems evident with existing traffic conditions on the road network. Potential adverse safety effects relating to the increase in traffic result in a low probability of an increase in vehicular conflict, or loss of control type crashes.*

It identifies the most likely locations for potential conflict and explains that

> *These potential effects may be able to be mitigated through the use of a Temporary Traffic Management Plan (**TTM**) with a temporary speed restriction at the intersection. It may also be possible to improve sight distance by trimming the roadside vegetation.*

Recognising that the majority of visitors to the event may be unfamiliar with local roads, the ITA provides recommendations regarding additional mitigation measures such as safety and directional signage and sets out, as Appendix E, an indicative signage plan. The ITA goes on to recommend advisory signage in respect of the potential for encountering cyclists and the curving alignment of particular stretches of road.

In terms of efficiency effects, at section 8.1.3:

> *Potential efficiency effects relate to the increase in traffic flows on the local roads and turning volumes at the State Highway intersections.*
>
> *The existing facilities on the State Highways (left turn lane and right turn bay into Karapiro Road, and similarly at SH29), mean that the effects on through traffic are likely to be minor or less. Those that are affected would face a few seconds extra delay, which happens already from time to time and is generally expected during holiday period traffic.*

There are no changes to, or adverse effects on, connectivity.... The local roads and intersections have sufficient reserve capacity to accommodate the traffic with minor efficiency effects. The use of Temporary Traffic Management (TTM) at the identified locations on Whitehall Road and Karapiro Road/Whitehall Road intersection along with public notices and signage prior to the event will mean the effects should be minor or less. (Refer Appendix E and F for recommended signage).

Recognising that Festival related traffic is anticipated to grow from its start up year in 2021, the ITA recommends that:

Monitoring traffic on local roads throughout the duration of the event would provide event specific data to determine the effectiveness of the proposed mitigation and if further, or different, mitigation is required. The roads recommended for monitoring are Karapiro Road (west of Whitehall Road), Taotaoroa Road, Whitehall Road (south of Gate 3), French Pass Road, Robinson Street, and Thornton Road (to assess the effectiveness of the alternate route north through Cambridge urban area).

In respect of the effects associated with parking for the Festival, the ITA identifies a potential parking shortfall of 1% in 2021, increasing over the years to a shortfall of 36% once the maximum attendance figure is reached. In assessing the significance of this, the ITA explains that the shortfall is a projection based on a number of variables, rather than a prediction of what will occur. Accordingly, it recommends that the Applicant use vehicle counters on the main access road to monitor vehicle movements at various times during the Festival and provide a basis for managing travel and parking demand as the size of the Festival increases.

Nevertheless, noting the extent of additional space within the application site and the large separation distances from the road, the ITA concludes that any adverse effects arising from parking demand or queueing to find a space are very unlikely to occur for an event of up to 6,500 tickets.

In summary, at section 8.2 of the ITA it is recorded:

The adverse effects of the proposed activity relate mainly to the additional traffic using the local roads and are likely to be no more than minor provided that the suggested mitigation measures are implemented. The effects are likely to be focussed at the Karapiro Road/Whitehall Road intersection and along Whitehall Road for the arrival trips. For the departure trips, the most noticeable effects are likely to be focussed on the French Pass/Thornton Road route into the Cambridge urban area.

The people likely to be affected will be residents and businesses on Whitehall Road, Karapiro Road, Taotaoroa Road, and French Pass Road. Local road users are likely to notice the additional activity with the effects likely to be delays in access and egress from their properties, slowing for turning traffic, or delays in turning at intersections.

State Highway users are unlikely to notice the additional activity due to the usual holiday traffic activity expected on Auckland Anniversary weekend, but the effects are likely to be slowing for turning traffic, or minor delays in turning at intersections.

With mitigation provided through TTM, event signage and public notices, the effects of the proposal relating to transport are likely to be no more than minor.

A range of mitigation measures have been suggested and these have been included in the draft set of consent conditions proposed so overall, the traffic effects likely to arise from the festival can be managed pro-actively to be minor and therefore acceptable. Significantly, and recognising that the Festival is expected to grow, the mitigation measures reflect the use of adaptive management techniques which are entirely appropriate in circumstances where the effects of a proposal may be uncertain and may change over time.

The ITA and proposed consent conditions have been the subject of consultation with the New Zealand Transport Agency. As recorded in Section 7 below, the Agency has confirmed that, subject to these proposed conditions, it is not opposed to the development.

5.1.2 Effects from noise and vibration during the festival

The Assessment of Environmental Noise Effects prepared by Cardno is attached as Appendix D. The report describes the potential noise effects associated with the music event and specifically assesses the 'worse case' scenario operational sound levels (at maximum capacity) against the permitted noise (and vibration) standards for the Rural Zone under the Waipa Operative District Plan. The 'worst case' scenario consists of each of the proposed sound stages operating simultaneously, using sound systems typically used by live bands for rock style music performance. In reality, such a situation will not occur.

The assessment has also considered the potential effects of the proposal in respect of Section 17 of the Resource Management Act which imposes a requirement to avoid unreasonable noise.

Festival One and the same production team has managed the Parachute Festival at Mystery Creek and will operate the live sound and sound monitoring systems along with the specialist acoustic consultants. The team's experience and approach to acoustic management has meant that there have been no breaches to consent conditions from the running of the Parachute festivals. The proposed approach to event acoustic management could therefore be considered to be 'best practice' and will be applied for this event.

The assessment has been prepared by specialist acoustic consultants with substantial experience with major international sporting and festival events across a wide range of rural and urban environments. Assessment of the potential effects of the proposed Festival has taken specific account of the rural environment and rolling topography, noting that the event itself will occupy an area of approximately 53ha within a wider property extending to approximately 279ha. Recognising the separation of the Festival site itself from external site boundaries, the focus of the assessment is on the effects associated with amplified sound from the use each of the proposed sound stages although assessment is also made of other potential sound sources (e.g. generators, vehicle movement). Adjustments have been made for special audible characteristics, as recommended by NZ Standard 6802:2008.

The key findings are summarised below:

- The noise modelling confirms high levels of sound levels will be received within the immediate area on site at times namely during the operation of the Main Stage (Arena One) which will occur at night time;

- The worst-case levels of up to 68 dB $L_{Aeq\ (5\ minutes)}$ will only occur at night time. Based on past events these levels generally occur only for a few hours with programming between 7.30pm onwards each evening.

- Based on maximum festival noise levels, the closest dwellings not located on the site, who have not provided written approval at the time of finalising the report, will receive amplified sound at levels between 40 to 68 dB $L_{Aeq(5\ minutes)}$. This will be for the limited nosiest periods under enhanced sound propagating conditions.

- The locations of affected dwellings indicate the majority will receive festival sound at levels between 40 to 50 dB $L_{Aeq(5\ minutes)}$.

- Two dwellings only (IP3 and IP4) are predicted to receive levels above 50 dB $L_{Aeq(5\ minutes)}$. All other dwellings shown in the modelling will be less than 45 dB $L_{Aeq(5\ minutes)}$.

- The District Plan also sets L_{AFMax} limits for sleep protection purposes that apply during night time. L_{AFMax} sound levels are controlled by short-duration sound events such as bangs and crashes which would unlikely occur from an event of this nature when suitable managed as being proposed. Monitoring of music events has shown the L_{Amax} to be within 5 dBA of the measured L_{Aeq} levels in the far field and within 1-2 dB with the near field. Thus, L_{AFMax} levels of up to L_{AFMax} 70 dB are predicted for the worst-case assessment location (IP3). The District Plan permitted L_{AFMax} level of L_{AFMax} 70 dB will be complied with at all sites.

- Currently the District Plan permits a level of 50 dB $L_{Aeq(5\ minutes)}$ for day time and 40 dB $L_{Aeq(5\ minutes)}$ / L_{AFmax} 70 dB night at the notional boundary of any rural dwelling. Clearly the event will exceed these limits at certain times, by up to 13 dB $L_{Aeq(5\ minutes)}$ daytime and 23 dB $L_{Aeq(5\ minutes)}$ after 10.00pm, for a limited period of time being approx. two hours.

- In addition to amplified sound there will be auxiliary sounds generated from vehicles, people-based sounds, camping, vendors and generators. These localised sources are predicted to have little or no noise impact on the surrounding environment or off site. People based sound from crowd noise may occasionally be audible in the immediate area but this sound source along with all other auxiliary sound sources are predicted to

be fully complaint with the District Plan noise limits for both day and night time operations.

- The Applicant is an experienced operator and is proposing a range of noise control conditions and measures which have been proven to be effective in managing noise emissions (including a Noise Control Line, noise monitoring and reporting and a Noise Management Plan to be in operation during all stages of the Festival))

Overall, with the mitigation proposed and based on the established 'best management practices" with similar events, then the adverse noise effects are considered to be reasonable.

5.1.3 Effects from lighting and glare during the festival

Lighting effects need to be managed to comply with the District Plan standards under Rule 20.4.2.2 which establish a limit of 10 lux light spill at or within the boundary of any other site or road. Notwithstanding that any potential effects will be temporary, the separation distances between the Festival activity and the external site boundaries will ensure compliance with the Plan.

In summary, while it is possible that some neighbouring residents will directly view night lighting as it operates at the main entrance (Gate 1) to the festival and also will experience night glow associated with the evening events generally, this will be a short-term inconvenience to the closest residential neighbours and will, nevertheless, be compliant with the Plan.

5.1.4 Effects from providing and managing water, waste water and rubbish during the festival

Portable facilities will be bought on site to provide fully self-contained services for patrons. These will be positioned adjacent to the internal access tracks to facilitate servicing and no facilities will discharge waste water onto the ground. All wastewater will be transported off site and disposed of in an approved fashion. Water taps will provide patrons with potable drinking water from a mix of bore and tanker supply.

These facilities will be set up prior to the festival commencing and be sited to be accessible for patrons in the accommodation precincts and concert venues

5.1.5 Effects from signs and advertising on and beyond the site before and during the festival

Signage associated with the festival will serve two functions:

- Provide traffic management information to drivers regarding directions, temporary speed environment on the local road network and State Highways and is set out in the Temporary Traffic Management Plan appended to the Gray Matter ITA in Appendix E. The signage will be dis-established at night during curfew hours when public access to the site is closed.
- Provide signage at the three entranceways to the property on Whitehall Road directing drivers to the appropriate entranceways and outlining the event itself.

Signage is proposed to be branded to clearly associate with the specific Festival. None of the signage will be lit although the entranceways may/will be lit for general safety and security purposes. There will be no lit signage during the curfew hours.

In summary, the visual effects of the signage will be transitory and will not result in distraction or confusion for road users or adversely affect the visual amenity of neighbouring properties.

5.1.6 Effects on health (medical, hazards management) and safety (crime prevention) of people attending the festival

Under this broad heading can be considered personal safety and security of patrons, artists, guests, contractors, suppliers and support crew at the festival. Festival One runs a comprehensive and iterative Health and Safety Plan in conjunction with their H&S consultants. There are daily H&S meetings, and events and incidents are recorded and practices amended as needed.

The company AllaboutPeople is a Health and Safety consultancy who have substantial experience with festivals organised at the current Mystery Creek venue.

In assessing these effects reliance is placed on the Event Safety Plan the primary purpose of which is to ensure the event runs smoothly throughout the 4 nights and 3 days and that workplace health and safety is implemented and managed effectively. Systems and procedures are outlined to maintain the safety of the public at all times:

- Prior to the event (the set-up phase);
- Beginning and conclusion of the event (induction of personnel to the site and during the dis-establishment or 'pack down' phase);
- Hazard management and reporting, and emergency procedures during the event; and
- Performance Review.

Daily management meetings will occur and liaison will be maintained with Waipa District Council as necessary, all contractors and suppliers.

Festival One will also run an on-site triage medical team 24/7, comprised of doctors, nurse practitioners, and nurses. Serious medical events are referred to Waikato Hospital. In its four-year history, Festival One has not had a serious medical emergency, rather it has had to deal largely abrasions and strains.

Festival One invites NZ Police to be present at each Festival. Because of the lack of incidents, the Police have reduced their presence down to one officer on duty at any given time. Festival One also runs its own security team - comprised of volunteers, and managed, as a volunteer, by a currently serving Police officer. This team operates 24/7 and is used to ensure security at gates, entrances, back stage areas, etc. and to direct patrons.

In a holistic sense, these effects can be described as people and communities providing for their social wellbeing and their health and safety as espoused under section 5 RMA.

Overall, well established and updated plans adopted by Festival One management will ensure people's health and safety are maintained at all times as to have effects that are less than minor and acceptable.

5.1.7 Effects on the visual amenity of neighbours and community

Visual effects are assessed reliant on viewpoints from public vantage points namely the carriageway and neighbouring properties.

As described in Section 2 the proposed Festival is to occur on the river flats located at a general elevation of RL90m. The landform creates a natural amphitheatre that is not apparent from the surrounding roads which generally follow the contour of the surrounding ridges. As such, apart from the designated entry points to the site, the proposals will have no visible presence from the roads and will have no adverse effects on their associated visual amenity values.

The nearest neighbours that have not signed the Potentially Affected Persons Forms are:

- 1/207 Whitehall Road;
- 2/207 Whitehall Road;
- 2/159 Whitehall Road;
- 178 Whitehall Road;
- 178A Whitehall Road;
- 15 Dunning Road

1/207 and 2/207 Whitehall Road are situated on 'island sites' encircled by the wider property within which the Festival activities will occur. An access road is to be used to the north of these properties and will provide access to the administration gate and parking areas. The

local topography and vegetation provides physical separation between both properties and the activity and performance areas within the Festival site. As views of the Festival activity areas will be screened from view, the visual amenity effects of the temporary event will not be more than minor.

2/159 Whitehall Road occupies an elevated site that is separated from the Festival site and key activity areas by a significant ridgeline feature, extensive packhouse buildings and shelter belt tree planting associated with the kiwifruit orchard. The ridgeline feature marks a change in elevation of approximately 40m with the Festival activity areas located on the river flats. The nearest activity area, being the Arena and stage, is at a straight line distance of over 700m within which there is a significant change in elevation and an intervening tree plantation. As such, the proposal will have no adverse effects on the visual amenity values of this property.

All other properties are located further to the east and benefit from increased separation as well as the screening effect of 2/159 Whitehall Road itself. The proposals will, therefore, have no effects on the visual amenity values of these properties.

5.1.8 Effects on the general amenity of neighbours and the community

Amenity values are described under the Act as "those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes".

This broad-based description of amenity relates to neighbours' wellbeing generally. The 'immediately affected community" consists of those neighbouring properties identified in Section 5.1.7 above.

The effects arising from the festival will be noticeable during the festival itself as patrons arrive and enjoy themselves. The effects on amenity will be noticeable with the 'peace and tranquillity' of the rural area being altered for a short period during the Festival. These effects will be minimal during the set-up and 'pack down' or dis-establishment phases but may be more discernible during the Festival itself as a result of increased traffic on local roads, additional noise and the potential for night glow associated with lighting.

Traffic movements are likely to be concentrated into arrival and departure flows rather than throughout the day and a large proportion of patrons will be resident on site for the duration of the event. Overall, traffic volumes and flows will result in temporary and short term peaks that might result in some delay in normal travel times but will be managed to ensure that they do not cause or exacerbate safety concerns or the operation of any existing accesses.

The natural environment of the amphitheatre will in part mitigate the effects of noise and the intrusion in to the neighbours' existing rural environment. There will be a temporary change to existing ambient noise levels but the adoption of the curfew hours will ensure minimal additional night time disturbance or nuisance to sleep and rest during the festival.

The applicant proposes a wide range of controls and measures to minimise the adverse effects on the local community, including pre-Festival community consultation to identify measures that would be particularly effective in addressing the concerns of individuals and a clear process for identifying and responding to concerns during the Festival.

In summary, there will be temporary changes in people's daily living patterns during the festival itself. The programme of communications proposed with neighbours will provide the most effective way to maintain timely communications with the festival organisers. Use of the 'hot line' if required, will further provide the most responsive way to address any immediate concerns neighbours might have.

The mitigation proposed collectively will address the potential adverse effects on amenity to the extent possible and practicable by the festival organisers.

5.1.9 Effects on cultural values of people and the community

The application site is located within the Statutory Acknowledgement area of Ngati Kahukura and Taumatiwiwi Trust. This includes the Whitehall Estate Site (OTS-180-15) which consists of the corridors associated with the Karapiro Stream and Waiaora Stream, and the Waikato River and its Tributaries (OTS-180-27). The two streams define the northern and north-western extremities of the site. Access to the streams is prevented by existing fencing in place along the top of the gullies. Proposed consent conditions will also ensure that all structures, camping or ablution facilities are located well beyond the 50m Cultural Landscape Alert layer associated with the Karapiro Stream margin.

From its inception, Festival One sought the approval of local Iwi to hold the event. Festival One remains closely associated with Ngāti Haua, and Rukumoana Marae, holding planning meetings and times of Karakia on the Marae during the year.

Festival One has consulted with Ngāti Haua on the selection of the proposed Whitehall Road site, and has made preliminary arrangements for a site blessing closer to the start of preparations for the 2021 event. An assessment of the Ngati Haua Environmental Management Plan is set out in Section 6.3 below, demonstrating that the proposal will have no adverse effects on any interests of significance to Maori.

5.1.10 Positive Effects

The Festival will generate a range of benefits to the district generally and particularly to Cambridge and the local area by providing accommodation, petrol and food to patrons before, during and after the three-day festival. The Karapiro service station will benefit from increasing passing traffic and with providing a convenient stop for food.

Neighbouring accommodation services will also benefit either from patron bookings or from the festival organisers using these places themselves because of their convenience to the event.

These benefits have not been quantified but are suggested to be considerable when viewed over say a five-year period or longer.

6. RELEVANT OBJECTIVES AND POLICIES

Section 104 of the RMA 1991 requires applicants and consent authorities consider the relevant provisions of various statutory plans and policy statements and national standards. In this case, those documents are:

- Operative Waikato Regional Policy Statement (2016);
- Operative Waipa District Plan (2016); and
- The Ngati Haua Environmental Management Plan

As discussed in Section 4.2 above, the proposal does not require assessment under the NES soils and there are no other National Policy Statements or Environmental Standards having relevance.

6.1 WAIKATO REGIONAL POLICY STATEMENT

The Regional Policy Statement (RPS) became largely operative on 1 October 2016. The RPS provides an overview of the significant resource management issues of the Waikato region and puts in place objectives, policies and methods to achieve integrated management of the natural and physical resources of the whole region.

One key issue is:

Tangata whenua exercising and maintaining kaitiakitanga with the environment.

Policy 4.3 goes on to state:

Tangata whenua are provided appropriate opportunities to express, maintain and enhance the relationship with their rohe through resource management and other local authority processes.

The applicant has undertaken consultation with Ngāti Haua on the selection of the proposed Whitehall Road site, and has made preliminary arrangements for a site blessing closer to the start of preparations for the 2021 event. The stream margins are already secured by fencing and proposed conditions will ensure that all structures, camping and ablution facilities are located well beyond the Cultural Landscape Alert associated with the Karapiro Stream. With these provisions in place, the proposed site and nature of the activity will have no effect on any matters of significance to tangata whenua.

The vision for the Waikato River is set out in section 2.5.1 of the WRPS. Section 2.5.2 of the WRPS (Objectives for the Waikato River), sets out the relevant objectives to achieve the above vision. None of the objectives and policies are challenged by this proposal.

The nature and scale of this temporary activity (an annual four-day festival) is consistent with the provisions of the RPS.

6.2 WAIPA OPERATIVE DISTRICT PLAN

A review of section 1 – Strategic Policy Framework, suggests this proposal does not challenge any of those strategic considerations given the site's characteristics, the temporary nature of the annual event and the management/mitigation proposed to operate the festival. In particular, the Vision and Strategy for the Waikato River is not compromised by the proposal as the proposal is for a temporary activity with all required services being contracted in and subsequently removed for the site, with no associated discharges.

With respect to the site's Rural zoning, the site will remain a pastoral and forestry farming enterprise for a substantial part of the year and the established rural character therefore is unlikely to be undermined in any permanent and adverse way by the 4-day festival. Moreover, effects that are temporary or transitory as a result of temporary events are contemplated in the Rural Zone by virtue of the activity being a Discretionary activity.

Section 4.2 Resource Management Issues records the following commentary:

Rural community

> *4.2.20 Temporary events and activities contribute to community social and cultural well-being and occur in the rural area on an irregular basis.*

Several key objectives and policies in this regard are:

Objective - Rural activities: farming

> *4.3.2 The capacity of rural areas and rural resources to support farming activities and lawfully established rural based activities is maintained.*

Policy - Management of rural resources

> *4.3.2.1 Manage rural resources so that farming activities can continue to establish and operate.*

Policy - Rural environment

> *4.3.2.2 Recognise and protect the continued operation of the Rural Zone as a pastoral working environment.*

Objective - Rural character

> *4.3.7 Rural character and amenity is maintained.*

Policies - Rural character

> *4.3.7.1 Land use activities should be at a density, scale, intensity and location to maintain rural character.*
>
> *4.3.7.2 Rural character and associated amenity values shall be maintained by ensuring rural land uses predominate in the Rural Zone, and buildings are of an appropriate scale and location.*

Policy - Temporary events

4.3.7.10 Temporary events associated with rural character are enabled subject to control of potential and actual adverse effects.

The festival is proposed at this location to take advantage of the extensive flat and sheltered land amidst forested hillsides on the property and will not have any adverse impacts on the farming operation outside of the short period from start up to close down. As discussed, site access is to be improved that will also benefit the farming and forestry activities on the property. All ablution activities will be provided onsite in self-contained facilities and taken off site for disposal after the event so there will not be any discharges to land or water from festival patrons.

Given the unique topographical characteristics of the venue location set in an amphitheatre on the property there will be no significant visual impacts or viewpoints into the site observable from neighbouring properties. Noise and vibration effects will be continuously monitored and a comprehensive suite of conditions is proposed to manage noise levels as well as the characteristics of the noise emissions. These measures go beyond the range of controls anticipated by the District Plan and reflect the 'best practice' approach established by the Applicant in respect of the current Festival One operation at Mystery Creek.

So, while the effects of the temporary activity exceed those anticipated by the Plan for a short time, they are to be subject to stringent management, applying adaptive management approaches to ensure that subsequent Festivals are able to address increased levels of effects as the number of patrons increases. While a number of immediate neighbours may experience a heightened level of disturbance during the Festival, the timing coincides with the Auckland Anniversary weekend, being a time when it is reasonable to assume some neighbouring residents will be on vacation.

Objective - Non-farming activities

4.3.12 Only non-farming activities that have a functional and compelling requirement to locate in the Rural Zone should be enabled to locate in the Rural Zone.

Policies - Non-farming activities

4.3.12.1 To limit non-farming activities in rural areas except for activities that:

(a) Have a functional and compelling reason to establish in a rural area; and

(b) Do not result in any further loss of land from primary production purposes; and

(c) Maintain rural character.

Activities that do not meet these criteria should be accommodated in urban areas.

The proposal seeks consent to utilise land for setting up, operating and dismantling a temporary event over a period of approximately 2-3 weeks. As such, the proposal will not result in any permanent loss of production land or reduce the capability of the land for

supporting rural production activity. Although the scale and nature of the Festival could not be accommodated within an urban area, the potential effects can be managed to ensure that rural activities and rural amenity values are maintained.

In summary, rural character will not be adversely affected in any permanent way.

In relation to Transportation, the Plan states:

Objective - Ensuring sustainable, integrated, safe, efficient and affordable multi-modal land transport systems

> *16.3.1 All new development, subdivision and transport infrastructure shall be designed and developed to contribute to a sustainable, safe, integrated, efficient (including energy efficient network design) and affordable multi-modal land transport system.*

Policy - Safe roads

> *16.3.2.3 Development and subdivision design and construction shall contribute to a safe road environment, by:*
>
> *(a) Providing safe and appropriate locations for vehicle entrances, driveways, pedestrian and cycle routes; and*
>
> *(b) Designing and locating transport networks, lighting, street furniture and landscaping to minimise conflict, maintain visibility, and provide for maintenance activities.*

Policy - Managing effects on character and amenity

> *16.3.2.4 Development, subdivision and transport infrastructure shall be located, designed and managed to:*
>
> *(a) Avoid, remedy, or mitigate adverse effects of transport on character and amenity; and*
>
> *(b) Facilitate opportunities to enhance character and amenity; and .....*

Objective - Provision of vehicle entrances, parking, loading and manoeuvring areas

> *16.3.4 The provision of adequate and well located vehicle entrances and parking, loading and manoeuvring areas that contribute to both the efficient functioning of the site and the adjacent transport network.*

Policy - Location of vehicle entrances

> *16.3.4.1 To maintain the safe and efficient functioning of adjoining roads and railways, vehicle entrances to all activities shall be located and formed to achieve safe sight lines and entry and egress from the site. .....*

The Transportation report set out within Appendix E of the application provides a thorough assessment of the effects of the proposals on the safe and efficient operation of the surrounding road network, including approach roads from further afield and existing access arrangements in the immediate vicinity of the site. The analysis has taken account of the character of the road network, which includes state highways as well as narrow, curving rural roads and demonstrates that adequate capacity exists to ensure that travel demand can be met without adversely affecting the efficiency of the network and, subject to traffic management measures, will ensure safety for road users. These measures include use of an innovative travel app which will direct patrons to appropriate routes according to traffic conditions and travel times. A clear signage strategy is proposed that will ensure that visitors that are unfamiliar with local roads will be aware of potential hazards and use by other travel modes, in particular by cyclists. Direct traffic management and signage at the proposed site entrances will ensure that flows into and out of the site are managed safely and will not inconvenience the operation of existing access in proximity.

Proposed consent conditions capture these proposals through a requirement for a Traffic Management Plan that will need to be monitored, reviewed and amended to ensure that it remains relevant to the demands of the event as it expands and also responds to changing conditions on the local road network.

The proposals therefore adopt an innovative and thoughtful response to the management of peak travel demand that will occur over the short duration of the event, over successive years.

In relation to artificial lighting and reflective glare, the Plan says, at 20.3.2.1:

Policy - Artificial lighting

> *20.3.2.1 To ensure that artificial lighting is installed and utilised so as to avoid, remedy or mitigate adverse effects on adjoining and adjacent properties and roads.*

To achieve this, Rule 20.4.2.2 sets out standards restricting the maximum light spill from artificial lighting onto any other site or road. The site forms a natural amphitheatre situated on low lying flats surrounded by hills. The extent of the site and the separation of all activity areas from the site boundaries, as indicated on the site layout plan will ensure that the proposal will achieve full compliance with these standards (maximum 10 lux).

6.3 NGATI HAUA ENVIRONMENTAL MANAGEMENT PLAN

Part 3 of the Environmental Plan sets out the objectives and policies across a broad range of themes. Of relevance to the current proposal are those set out in Section 9.2. These objectives (paraphrased) aim to achieve:

- An integrated, holistic and collective approach;
- The restoration and enhance of the mauri of land and sopils; and
- The recognition of Ngati Haua values and interests.

To achieve this, Policy 9B7 has direct relevance, stating:

Ensure that land use planning and urban development within our rohe:

a) Recognises and provides for Ngati Haua values.

b) Considers landscaping that utilises locally sourced native plants.

c) Adheres to Low Impact Design and Development principles.

d) Encourages water and energy use efficiency measures.

e) Encourages public transport use and reduces reliance on motor vehicles.

f) Promotes street lighting which reduces light pollution.

g) Promotes the use of Maori Design Principles, such as:

(i) Celebrating traditional place names.

(ii) Capturing and expressing iwi/hapu narratives creatively and appropriately.

(iii) Acknowledging significant sites and cultural landmarks.

The proposal is designed to enable a temporary event to be held within a natural amphitheatre, enabling the retention of all existing topographical features and vegetation cover. All margins to the Karapiro Stream, Waiaroa Stream and gully arms located to the south-west of the property are already protected by fencing. Proposed areas of activity will be located on the level farmland areas outside of the Cultural Landscape Alert layer associated with the Karapiro Stream. Following the event, all farmed and forestry areas will be quickly restored to primary productive use.

Attendance at the Festival will be a combination of day visits and weekend tickets, with a large proportion of visitors camping on-site for the duration of the event. This will reduce overall travel demand and a travel demand management App has been developed to provide advice to visitors on the optimal routes or methods for travel. All services required to support the Festival will be imported for use over the long weekend. They will be located adjacent to the internal tracks to facilitate servicing and will be removed from the site at its closure. The only permanent feature of the Festival will be a rural building to be used for storage of equipment and materials for reuse in successive festivals. The location, size and finish of this building is to be subject to consent conditions to provide certainty.

Overall, the proposal will be consistent with the achievement of the objectives of the Environmental Management Plan.

7. CONSULTATION

The following consultation has been completed by the Applicant during preparation of the application:

- Waipa District Council;

  A pre application meeting was held on 12 June 2018. The notes of that meeting are attached as Appendix B.

- NZ Transport Agency;

  Discussions with the Agency have occurred successively since mid-2018. Out of initial discussion regarding potential effects on the State Highway 1/Karapiro Road intersection, a further meeting occurred in early 2018 which provided the opportunity for the applicant to explain the benefits of use of a travel management app as a technique for managing peak travel demand. Details of the proposed software and a copy of the draft ITA were provided in advance of the meeting held on 17 January 2020.

  Review of the draft ITA identified a need to clearly state the need for traffic management measures and a robust communications strategy to ensure that festival traffic could be appropriately managed through state highway intersections. A list of matters that would need to be addressed through consent conditions was provided.

  These matters have been addressed and incorporated into the finalised ITA, a copy of which was provided to the Agency on 3 April 2020. The Agency responded with proposed consent conditions in respect of potential effects on the state highway network, confirming that, subject to these conditions, the Agency was not opposed to the proposal. A copy of that letter is included in Appendix J of the ITA supporting the application and also in Appendix F of the application. These conditions have been the subject of further minor drafting amendment to ensure that they also address the wider roading network beyond the state highways and are now included within the proposed conditions set out in Section 9.

- Neighbours;

  The application site is extensive and shares boundaries with a number of properties of varying sizes within a rural environment. A Consultation Note with supporting plans was prepared and discussed with as many of the neighbouring property owners as was possible in the time available.

  A copy of the consultation material and written approvals received is attached as Appendix F. While some amendments have been made to the internal site layout plan since the approvals were provided, none of these amendments will result in any changes to the potential effects on these neighbouring parties.

- Iwi Consultation;

The applicant has met with iwi representatives on a number of occasions and the written support for the proposal is provided in Appendix F. An assessment of the proposal against the provisions of the Ngati Haua Environmental Management Plan is provided in Section 6.3 and arrangements have been made for a site blessing to be undertaken by iwi representatives prior to the inaugural event.

8. STATUTORY CONSIDERATIONS UNDER THE RMA

8.1 STATUTORY CONSIDERATIONS

Section 104 identifies the matters that are required to be assessed as:

> *(1) When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to–*
>
> *(a) any actual and potential effects on the environment of allowing the activity; and*
>
> *(b) any relevant provisions of—*
>
> *(i) a national environmental standard:*
>
> *(ii) other regulations:*
>
> *(iii) a national policy statement:*
>
> *(iv) a New Zealand coastal policy statement:*
>
> *(v) a regional policy statement or proposed regional policy statement:*
>
> *(vi) a plan or proposed plan; and*
>
> *any other matter the consent authority considers relevant and reasonably necessary to determine the application.*
>
> *(2) When forming an opinion for the purposes of subsection (1)(a), a consent authority may disregard an adverse effect of the activity on the environment if a national environmental standard or the plan permits an activity with that effect.*
>
> *(2A) When considering an application affected by section 124 or 165ZH(1)(c), the consent authority must have regard to the value of the investment of the existing consent holder.*

Section 104B outlines the manner in which a discretionary activity can be determined, and states:

> *After considering an application for a resource consent for a discretionary activity or non-complying activity, a consent authority—*
>
> *(a) may grant or refuse the application; and*
>
> *(b) if it grants the application, may impose conditions under section 108.*

In summary, the application as a Discretionary activity must be considered in accordance with sections 104, 104B, and Part 2 of the RMA.

Considering each matter in turn:

- The actual and potential effects on the environment of allowing the activity – *Section 5 of the AEE refers;*
- The relevant provisions of the Operative District Plan – *Sections 4 and 6.2 of the AEE refer;*
- The relevant National Policy Statements and National Environmental Standards – *The proposal is not affected by any NPS or NES*;
- The relevant provisions of the Operative Regional Policy Statement - *Section 6.1 of the AEE refers; and*
- Any other matter relevant to and reasonably necessary to determine the application – *Section 6.3 of the AEE addresses the provisions of the Ngati Haua Environmental Management Plan.*

The final consideration concerns Part 2 Matters

Section 5 Purpose

Section 5 details the purpose of the Act which is to achieve sustainable management of resources whilst enabling people to provide for their social, economic and cultural wellbeing as well as health and safety.

The proposal is to enable the operation of a temporary event that does not comply with the District Plan requirements in respect of the total duration, number of attendees and hours of operation. The event is a relocation of a long established festival from Mystery Creek and is to be managed using established and successful measures in respect of site management, traffic and noise. The Festival is an holistic experience of music, study, art and spiritual observance. As such, the effects of the proposal will be managed appropriately whilst also enabling the wider community to provide for their social and cultural well-being.

Consequently, it will promote the sustainable management of resources and will achieve the purpose of the Act.

Section 6 Matters of National Importance

Section 6 identifies the matters of national importance that need to be recognised and provided for in any consent proposal.

Of relevance to the proposed Temporary Event are:

> *(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:*
>
> *(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:*

(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:

While the Karapiro Stream and Waiaroa Stream corridors define the northern and north-western application site boundaries, these corridors and the associated gully arms to the south-west of the site are protected by existing fencing. As illustrated on the Site Layout Plan, the festival activity and all associated structures will be contained on the level farmland areas located outside of the Cultural Landscape Alert Layer and Significant Natural Areas. The proposals do not involve any earthworks or vegetation removal. As such, the proposals will safeguard the natural and cultural significance of the identified features.

The proposal does not affect any other matter of national importance.

Section 7 Other Matters

Section 7 details other matters which decision makers must have regard to in order to achieve the purpose of the Act. These other matters include:

(b) The efficient use and development of natural and physical resources:

(c) The maintenance and enhancement of amenity values:

(f) Maintenance and enhancement of the quality of the environment

The proposal provides for the temporary use of a site in a manner that recognises and retains its rural character and use. The proposed site layout provides for precincts of activity accommodated on low lying open areas separated by topographical features or established vegetation. The layout is achieved without requiring any modification of the landform or vegetation clearance. Connectivity between areas is to be achieved using existing tracks which are to be protected by a removable surface following the closure of the event.

The natural amphitheatre setting is such that there are no external views of the Festival activity areas and no light spill beyond the site. Noise modelling of the Festival has considered a worst case scenario of all stages operating at maximum volume simultaneously for the duration of the event. In reality, the Festival will not operate in that manner but, in any event, noise levels will have only a temporary effect on the immediate local environment for a short period.

Consequently, the activity will have no permanent or enduring adverse effects on natural and physical resources and will maintain amenity values.

Section 8 Treaty of Waitangi

The principles of the Treaty of Waitangi are not compromised as a result of this proposal.

The AEE concludes that overall, the temporary event will not have more than minor effects on the environment with the mitigation measures proposed and offered as part of the conditions of resource consent. Section 5 of the AEE affirms that the temporary event activity will not be contrary to the objectives and policies reviewed in section 6 of this AEE.

9. RECOMMENDED CONDITIONS

General

1. The activity shall be undertaken in general accordance with the application and supporting material received on (date).

Storage Building

2. The proposed permanent storage building shall have a maximum gross floor area of 360m^2, a maximum height of 12m and shall have an external finish in a colour or combination of colours which comply with British Standard 5252 neutral colour palette groups 'A' and 'B' and must have low reflectivity.

3. Plans and details of the building shall be provided to the Council's Regulatory Consent Team Leader for certification that the location, dimensions and finish are consistent with Conditions 1 and 2 prior to commencement of the structure.

Site Layout

4. No building, structure, materials storage, camping activity or associated ablution facilities shall be located or any vegetation removed within 50m of the margins of the Karapiro Stream, or within any Significant Natural Area identified in the Waipa District Plan at 22 June 2020.

Parking and Traffic Management

5. The consent holder shall present for approval by Waipa District Council no less than four weeks prior to construction the detailed design of vehicle crossings, parking areas, vehicle camping areas and on-site roads. The vehicle crossings are to be constructed in accordance with Regional Infrastructure Technical Specification D3.3.4 for Rural Entranceways.

6. The consent holder shall ensure that vehicle parking areas on the site are sufficient to accommodate up to 3000 cars. Access roads and entry points shall be all-weather and provide for two-way movement. Access roads shall be treated with sand, matting, geotextile or some similar method to increase weather resistance. The car parks shall include pedestrian routes segregated from access roads and circulation aisles between the car parks to the main event arena.

7. The consent holder shall take measures to ensure debris or mud is not tracked onto Whitehall Road as a result of events. Should debris or mud be tracked onto Whitehall Road, the consent holder shall ensure that the roads adjoining the site and/or affected by event traffic are cleaned, to their pre-event state, within two hours of the end of the Event.

8. A Corridor Access Request (CAR) application shall be submitted to both Waipa District

Council and NZ Transport Agency no less than 45 working days prior to any event taking place. Approval will be subject to temporary traffic management (TTM) proposed by the applicant which shall include the following as a minimum:
a) An event specific traffic management plan (TMP) that has been undertaken by a suitably qualified person experienced in major events and is in accordance with the latest version of CoPTTM. The TMP shall include an approval from a suitable and independent CoPTTM qualified person prior to lodgement with the Transport Agency. The TMP shall include, but is not limited to the following:

i. Signage on preferred routes. Which are to be erected no more than 24 hours prior to the commencement of the event and removed no more than 24 hours following the event. Berm reinstatement following removal of any stands or posts;
ii. Installation of pre-event signage and public notices on local roads prior to the event;
iii. Installation of event direction signage, including variable message signs, and event cursory signage prior to the event. NZ Transport Agency approval will be required for any signs on the state highway network;
iv. Use of variable message signs;
v. Details of any non-standard signs;
vi. Details of any lighting proposed, and arrangements for arrivals or departures in dark, overcast or foggy conditions;
vii. Contingency measures to minimise traffic impacts in the event of weather and road incidents on the state highway and/or local roads;
viii. Role of manual traffic controllers;
ix. Method of communication across the TTM extents and with the STMS and backup;
x. How contingency responses such as traffic controllers, site traffic management supervisors and security staff will be able to access the full extent of the traffic management area even if congestion takes place;
xi. How delays and the extent of queuing will be monitored so that traffic management arrangements can be modified; and
xii. Requirements for vehicles exiting the site travelling towards Auckland and Hamilton to turn left and use the local road network to the State Highway 1/Victoria Road Interchange until such time that the State Highway 1/Karapiro Road intersection is upgraded by the Transport Agency to either have a roundabout or grade separation.

9. The consent holder shall complete a review of traffic and parking demand during the first festival event. The purpose of the review is to confirm that the actual trip generation and parking demand are broadly aligned with the ITA, and that the mitigation is effective. The review should be developed using the recommendations in the ITA and in consultation with Waipa DC and NZ Transport Agency and be presented to Waipa District Council two months after the event. Any recommended remedial works or mitigation agreed by Waipa District Council in consultation with NZTA shall be implemented prior to the following festival event.

10. The content of the review report shall include but not be limited to:
a) The event size and type;
b) The number of ticket sales and associated staff/acts/crew for the event;
c) The origin (where possible) of the ticket sales for the event;

d) An overview of the temporary traffic management measures employed on site and the approach road network;
e) Traffic count information data relating to the number of vehicles entering and departing the site per 15min period and a summary of the volume profile by hour;
f) Average delays for turning movements at the SH1/ Karapiro Road intersection for peak festival periods;
g) Maximum queue length for turning movements at the SH1/Karapiro Road intersection for peak festival periods;
h) Traffic or traffic management related complaints;
i) Details of any reported network disruptions that occurred on the recommended routes to Festival One and the traffic management response;
j) Review of the traffic management;
k) Any overall recommendations pertaining to the traffic planning and temporary traffic management of future events;
l) Any remedial works and mitigation required prior to the next Festival One; and
m) Appendix of raw data.

11. Prior to any increase over 8,000 attendees, an assessment of the monitoring and count data and effectiveness of the transport mitigation as per Condition 5 shall be prepared by a suitably qualified traffic engineer and presented to the NZ Transport Agency and Waipa District Council within two months after the event taking place. Any required changes shall be implemented prior to the following festival event.

12. Prior to any increase over 10,000 attendees, there shall be a review of the consent conditions to identify any additional mitigation measures required to avoid or remedy adverse effects on the state highway network.

Noise Management

13. The Consent Holder shall ensure that Festival One operations including all amplified sound sources are managed so that cumulative sound from the site do not exceed the following noise limits when assessed over any 5-minute period at any of the two nominated noise compliance measurement locations (MP-1 and MP-2) shown in Appendix C of the Noise Assessment submitted with the application.
    55 dB $L_{Aeq\ (5\ minutes)}$
    75 dB $L_{eq\ (5\ minutes)}$ at 63 Hz
    70 dB $L_{eq\ (5\ minutes)}$ at 125 Hz
    65 dB L_{AFmax}

14. The Consent Holder shall ensure noise shall be measured in accordance with NZS 6801:2008 Acoustics – Environmental Sound and assessed in accordance with NZS 6802:2008 Acoustics – Environmental Noise, except that Section 6.3.1 of NZS6802 shall not apply i.e. measured levels shall not be adjusted for special audible characteristics for comparison with the above limits in Condition 13.

15. The Consent Holder shall ensure measured sound pressure levels shall be sampled over a 5 minute period.

16. The Consent Holder shall ensure all acoustic sound level monitoring and reporting shall be undertaken by a suitable qualified and experienced (SQAE) acoustic consultant suitable to Council.

17. The Consent Holder shall ensure no amplified sound stages shall operate between the hours of 12.00 midnight and 9.00am daily.

18. The Consent Holder shall forward to Waipa Council a written detailed noise compliance report within 2 weeks following completion of the festival. For avoidance of doubt all acoustic monitoring and reporting shall be undertaken by an experienced acoustic consultant suitable to Council.

19. The Consent Holder shall forward to Waipa District Council a draft Noise Management Plan for approval no less than 45 days prior to the event. The plan shall set out the managerial and physical noise mitigation methods to be employed during the event to ensure cumulative noise from the site does not exceed the limits set out in Condition A. This plan shall be prepared by a qualified and experienced acoustic consultant suitable to Council. For avoidance of doubt a new management plan shall be provided for each individual festival event.

20. The Consent Holder shall forward to Waipa Council a draft Noise Monitoring Plan for approval no less than 45 days prior to the event. This plan shall be prepared by a qualified and experienced acoustic consultant suitable to Council and shall set out the proposed method and frequency of readings to be taken at the approved monitoring locations by the approved acoustic consultant during the festival program. For avoidance of doubt a new monitoring plan shall be provided for each individual festival event.

21. The Consent Holder shall forward to Waipa Council a draft Construction Noise Management Plan for set up and take down for approval no less than 30 days prior to the event. This plan shall be prepared by a qualified and experienced acoustic consultant suitable to Council. For avoidance of doubt a new construction plan shall be provided for each individual festival event.

22. The Consent Holder shall ensure all activities authorised by this Consent are undertaken in accordance with the final approved noise management, noise monitoring and construction noise plans approved by Waipa District Council.

23. The Consent Holder shall ensure that during the entire event and no less than 10 working days prior to the day of the event that a free call 0800 or 0508 number is set up to allow direct contact by the community and council. The contact number should be provided via a physical letter drop and if able via email to the dwellings noted in Map 1. The Consent Holder shall ensure the free call number if answered by a person and be available between 8.00am and 12.00 midnight daily.

24. The contact number should be provided via a physical letter drop and if able via email to the dwellings in the surrounding community within 1km of the site. The Consent Holder shall ensure as far as practical the free call number if answered by an actual person at all times and responded to within a short period but no longer than a 30 minute period.

25. The Consent Holder shall ensure that, with the exception of activities provided for under Condition 26, no fireworks or pyrotechnical displays are associated with the consented Festival One event.

26. Pyrotechnical displays forming part of performance acts shall be contained within the confines of the sides, floor and roof of the One Area, Music Box and Market performance stages.

27. The Consent Holder shall ensure that helicopter movements such as rides are not provided to festival goers as an entertainment activity at any time. For avoidance of doubt, this condition does not prohibit helicopter operations not directly associated with the Festival (for example, helicopters used by the media) or helicopters used for emergency purposes such as fire or medics.

10. NOTIFICATION

Section 7 above provides details of the material provided to neighbours within the wider locality and copies of written approvals are set out within Appendix F. Additional work has been undertaken since the original consultation material was prepared, particularly in respect of traffic management and internal site layout to manage potential noise effects. The overall envelope of potential adverse effects is therefore lower than that originally consulted on.

The assessment set out within Section 5 has demonstrated that, in terms of the wider environment, the potential adverse effects arising from this temporary activity will be no more than minor and will be for the short duration of the event on an annual basis. As such, public notification under s.95A of the RMA is not required or requested.

Notwithstanding the level of support and written approvals provided by neighbours within the local area, there are some parties that have not provided such approval. Even taking account of the short term duration of the activity and the range of controls that will be in place through the proposed conditions, some of those neighbouring parties will experience a level of effects that could be potentially minor or more than minor, thus triggering a requirement for limited notification under s.95B of the RMA.

As described in Section 5, the principal activity will be contained within a natural amphitheatre that will not be visible beyond the site. Rigorous traffic management measures will be in place to manage traffic volumes and flows and the ITA provided in Appendix E demonstrates that the surrounding network has the capacity to accommodate anticipated volumes, even with the event operating at full capacity. Localised traffic management at the location of each entry/exit gate will ensure that the operation of neighbouring property access is unaffected.

Appendix D identifies the anticipated noise contour for noise generation from performance stages operating simultaneously at maximum output (which is unlikely). Non-compliance with the District Plan noise standards is expected mainly during the period 7.30pm to 12.00pm when the main entertainment acts will be on stage. The assessment identifies that noise levels exceeding the District Plan standards will be received at six neighbouring properties identified in Table 11-1 and Figure 11-2 of the Acoustic Assessment, these being:

- 2/207 Whitehall Road,
- 1/207 Whitehall Road,
- 2/159 Whitehall Road,
- 196 and 178 Whitehall Road Cottage Accommodation,
- 178 Whitehall Road,
- 15 Dunning Road.

The owners and occupiers of 2/159 have now provided written approval (included in Appendix F). Accordingly, any adverse effects on those parties can be disregarded and the Applicant requests that the application is notified on a limited basis to the remaining owners and occupiers of the above properties.

APPENDIX A

Records of Title

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**SA58B/748**
Land Registration District	**South Auckland**
Date Issued	10 April 1997

Prior References
SA34B/401

Estate	Fee Simple
Area	260.2386 hectares more or less
Legal Description	Lot 1-2 Deposited Plan South Auckland 77613

Registered Owners
Whitehall Fruitpackers Holdings Limited

Interests

Subject to Section 308 (4) Local Government Act 1974

B408579.2 Conservation Covenant pursuant to Section 77 Reserves Act 1977 by The Waipa District Council - 10.4.1997 at 3.16 pm

Appurtenant hereto is a right of way and rights to convey electricity, telecommunications and computer media created by Easement Instrument 6440545.10 - 31.5.2005 at 9:00 am

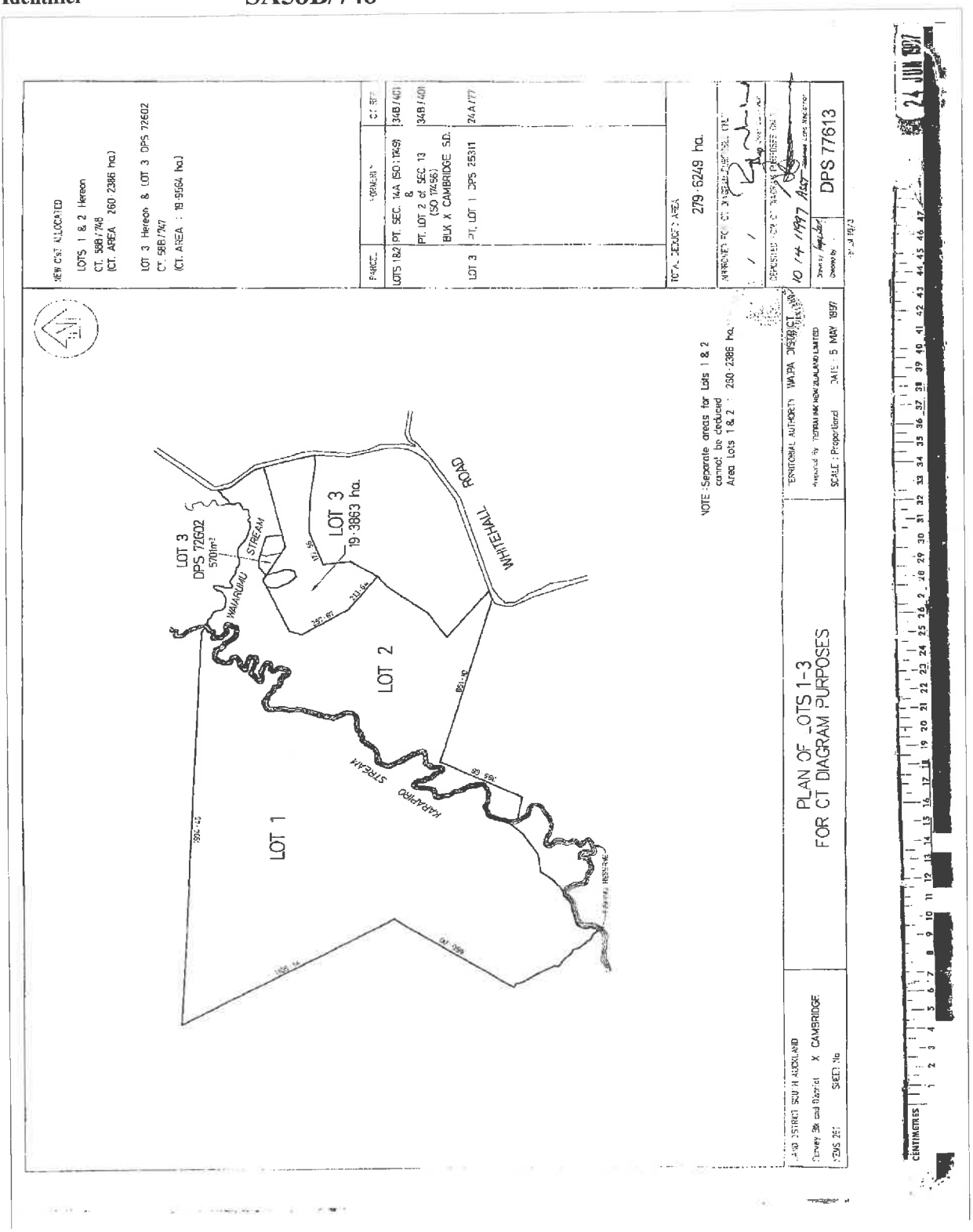
The easements created by Easement Instrument 6440545.10 are subject to Section 243(a) Resource Management Act 1991

Land Covenant in Easement Instrument 6522820.3 - 5.8.2005 at 9:00 am

Land Covenant in Easement Instrument 6536397.2 - 17.8.2005 at 9:00 am

11398708.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 29.3.2019 at 12:51 pm

11578519.4 Mortgage to Bank of New Zealand - 30.10.2019 at 3:27 pm


NEW CST ALLOCATED
LOTS 1 & 2 Hereon
CT. 58B/748
(CT. AREA 260 2386 ha.)
LOT 3 Hereon & LOT 3 DPS 72602
CT. 58B/747
(CT. AREA : 19 9564 ha.)
PARCEL
OWNER
CT. REF
LOTS 1&2 PT. SEC. 14A ISO; 1439 & PT. LOT 2 of SEC 13 (SO 17456) BLK X CAMBRIDGE S.D.
348/401
LOT 3 PT. LOT 1 DPS 25311
24A/177
TOTAL REDUCED AREA
279-6249 ha.
LOT 3
DPS 72602
570m²
STREAM
WAIHARUMO
LOT 3
19-3863 ha.
ROAD
WHITEHALL
LOT 2
LOT 1
KARAPIPO
STREAM
NOTE: Separate areas for Lots 1 & 2
cannot be deduced
Area Lots 1 & 2 : 260-2386 ha.
TERRITORIAL AUTHORITY WAIPA DISTRICT
Prepared by TOPRAN MAK NEW ZEALAND LIMITED
SCALE: Proportional
DATE: 5 MAY 1997
LAND DISTRICT SOUTH AUCKLAND
Survey Office Plan X CAMBRIDGE
SHEET No
PLAN OF LOTS 1-3
FOR CT DIAGRAM PURPOSES
DPS 77613
10/4/1997
24 JUN 1997
CENTIMETRES

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**848498**
Land Registration District	**South Auckland**
Date Issued	17 October 2018

Prior References
441629 SA17B/926

Estate	Fee Simple
Area	34.5051 hectares more or less
Legal Description	Lot 1 Deposited Plan 527164 and Lot 1 Deposited Plan 411145

Registered Owners
Whitehall Fruitpackers Holdings Limited

Interests

Subject to a right of way over Lot 1 DP 411145 marked B,C, E, H & J and a right to convey water over Lot 1 DP 411145 marked B & C and a right to convey electricity, telecommunications and computer media over Lot 1 DP 411145 marked B,C & D on DP 411145 created by Easement Instrument 6440545.10 - 31.5.2005 at 9:00 am

Appurtenant to Lot 1 DP 411145 is a right to convey electricity, telecommunications and computer media created by Easement Instrument 6440545.10 - 31.5.2005 at 9:00 am

The easements created by Easement Instrument 6440545.10 are subject to Section 243(a) Resource Management Act 1991

Subject to a right to transmit electricity (in gross) over Lot 1 DP 411145 marked G, H & I on DP 411145 in favour of Waipa Networks Limited created by Easement Instrument 6440545.11 - 31.5.2005 at 9:00 am

The easement created by Easement Instrument 6440545.11 is subject to Section 243(a) Resource Management Act 1991

Land Covenant in Easement Instrument 6522820.3 - 5.8.2005 at 9:00 am (affects Lot 1 DP 411145)

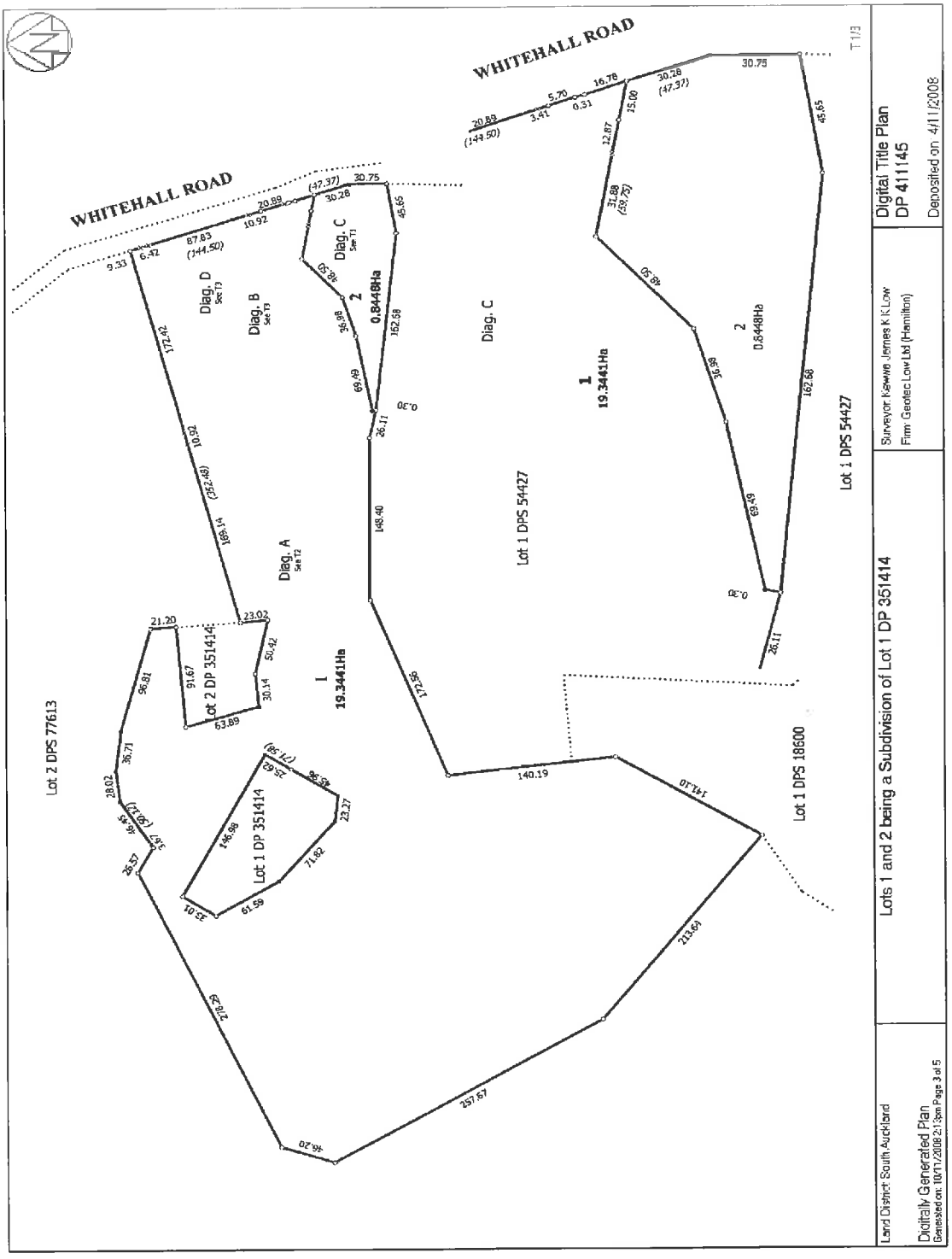
Land Covenant in Easement Instrument 6536397.2 - 17.8.2005 at 9:00 am (affects Lot 1 DP 411145)

Subject to a right of way and a right to convey electricity, telecommunications and computer media over Lot 1 DP 411145 marked B on DP 411145 created by Easement Instrument 7986252.4 - 4.11.2008 at 9:00 am

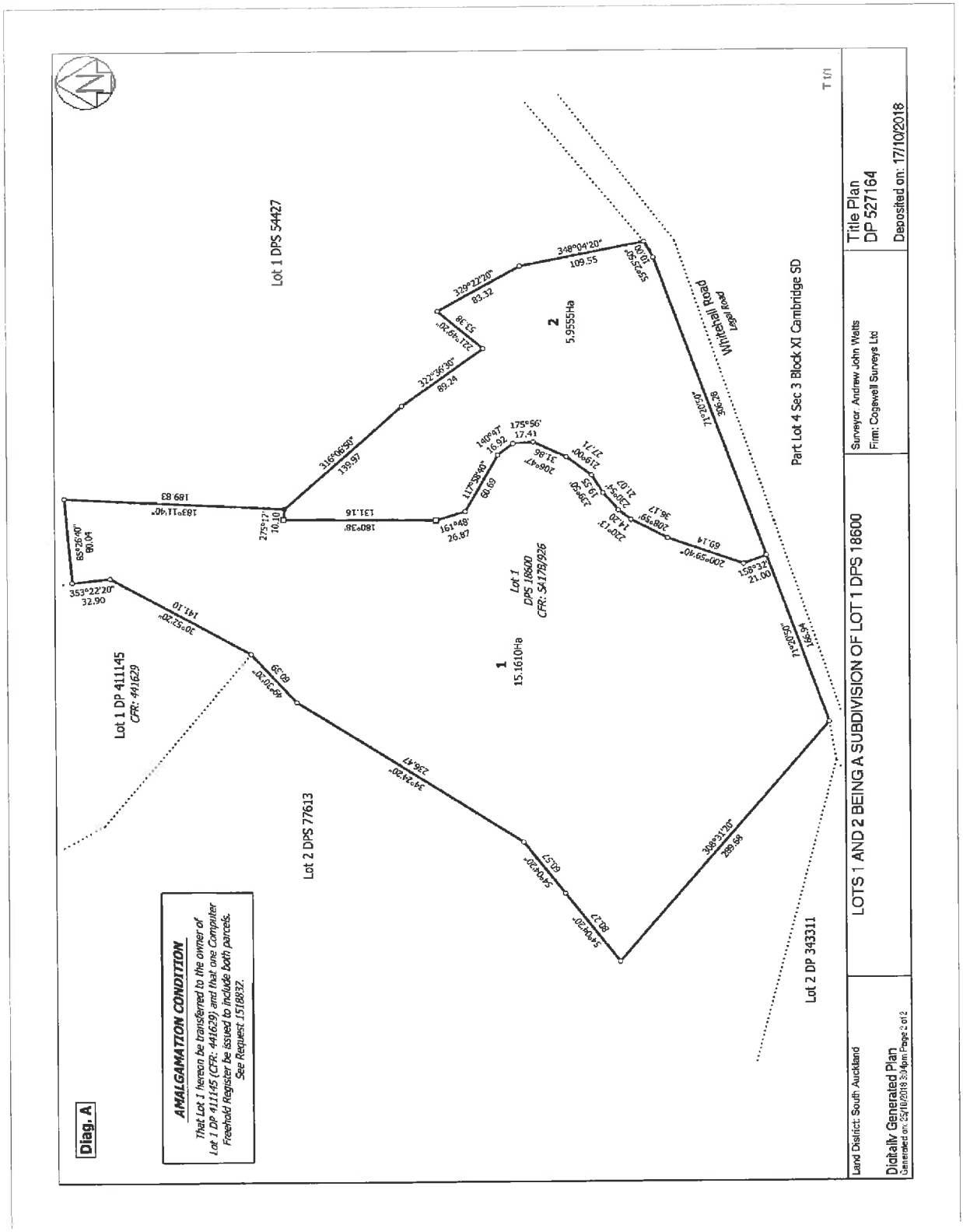
The easements created by Easement Instrument 7986252.4 are subject to Section 243 (a) Resource Management Act 1991

Subject to Section 241(2) and Sections 242(1) Resource Management Act 1991 (see DP 527164)

11578519.4 Mortgage to Bank of New Zealand - 30.10.2019 at 3:27 pm


WHITEHALL ROAD
WHITEHALL ROAD
Diag. A
Diag. B
Diag. C
Diag. D
Diag. C
Lot 2 DPS 77613
Lot 2 DP 351414
Lot 1 DP 351414
Lot 1 DPS 54427
Lot 1 DPS 54427
Lot 1 DPS 18600
1
19.3441Ha
2
0.8448Ha
1
19.3441Ha
2
0.8448Ha
Lots 1 and 2 being a Subdivision of Lot 1 DP 351414
Digital Title Plan
DP 411145
Deposited on 4/11/2008
Surveyor Kerwyn James K K Low
Firm Geotec Low Ltd (Hamilton)
Land District South Auckland
Digitally Generated Plan
Generated on 10/11/2008 2:13pm Page 3 of 5

Identifier **848498**



B

APPENDIX B

Pre Application Meeting

18 June 2018

Pre-Application Meeting Notes

Festival.1 Ltd proposal: 4-day, three-night Christian festival, 209 Whitehall Road, Karapiro

Cambridge offices: 11am-1pm, Tuesday 12 June 2018

Council Attendees:

- Gareth Moran
- Karl Tutty
- Murray James

Applicant's Representatives

- Graham Burt – Festival.1 Executive Director
- Paul Samuels - Festival.1 Board member
- Sony Karena – Kaumatua, Ngati Haua
- Melanie Parsons – Transportation Engineer
- Murray Kivell – Resource Management Consultant

Topics Discussed

Discussions commenced with a karakia.

1. Project description
   Applicant is seeking to relocate the long-established Parachute festival from its current venue at Mystery Creek to a rural /farming location at 209 Whitehall Road. Looking to 'refresh' the festival at this new location and 'cap' attendance at 10,000 patrons.
   Hope the new venue can operate from January 2019. Important to know this by about August. Is this achievable possible?

2. Potential Effects
   Effects identified and discussed were:
   - Noise/acoustics – draft assessment by Malcolm Hunt and Associates indicate potential adverse effects on fourteen neighbouring properties, while Council is generally comfortable that a well-established noise monitoring programme has operated for Parachute and a similar approach could work well at the new location;
   - Traffic and traffic management on and off the State highway and effects on the local roading network is important to understand;
   - Lighting and health and safety – intellectual knowledge and practice from running Parachute will be transferable to the new venue and those best practices should be adopted;
   - Cultural-alert layer on planning maps indicates that the applicant needs to and intends to involve Nga Iwi Toopu o Waipa in seeking clarity on any potential issues associated with the use of the property and appropriate mitigation.

   Key considerations focused on:
   - Level of traffic on local roads and the impacts on landowners in the area;
   - Consulting with iwi and gaining their support;
   - Consulting with the local community including the school about the festival and its operation including event and traffic management;

- Gaining NZTA support for traffic management approach settled on.

3. Consultation
   Suggested consultation with Nga Iwi Toopu of Waipa is necessary.
   Suggested consultation with local community desirable given there is a current state highway re-alignment project underway and the community has concerns about this.

4. Council key contacts
   Confirmed that Council's three representatives were key people to liaise with as the proposal is firmed up prior to lodgement.

5. Activity status and Timeframes
   Proposal likely to be a Discretionary activity.

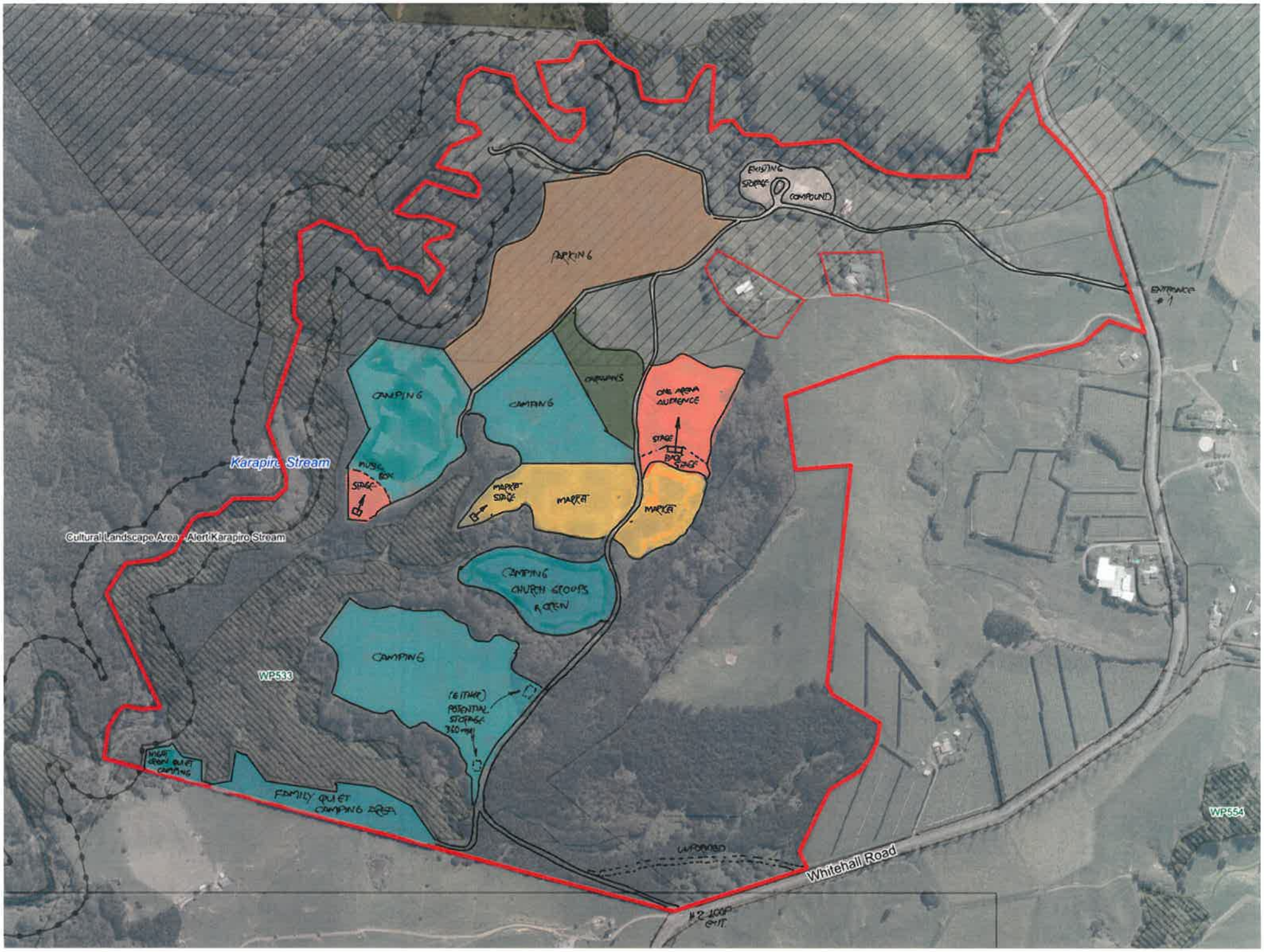
   Unlikely that Council would consider the proposal as a non-notified application on the basis of the discussion of potential effects above.
   Possibility for limited notification would only occur after the application is lodged and could take possibly one month for assessment and a determination.
   Public notification more likely and may provide a quicker consenting process although a hearing will be required if submissions in opposition are received.

   If an application is received by Council during August there could be a decision prior to Xmas to enable advertising of the new venue at the 2019 event at Mystery Creek.

C

APPENDIX C

Site Layout Plan


EXISTING STORAGE COMPOUND
PARKING
ENTRANCE #1
CAMPING
CAMPING
CARAVANS
ONE ARENA AUDIENCE
STAGE
BIG STAGE
Karapiro Stream
MUSIC BOX STAGE
MARKET STAGE
MARKET
MARKET
Cultural Landscape Area - Alert Karapiro Stream
CAMPING CHURCH GROUPS & OPEN
CAMPING
WP533
(EITHER) POTENTIAL STORAGE 360 m²
HIGH ENERGY QUIET CAMPING
FAMILY QUIET CAMPING AREA
UNFORMED
Whitehall Road
WP554
#2 100P EXIT

D

APPENDIX D

Assessment of Environmental Noise

15 June 2020

Assessment of Environmental Noise Effects (AEE: Noise)

Festival One Whitehall Road
Karapiro Waipa District 2021

NZ0119058-FA

Prepared for
Festival One Limited T/A Festival One

15 June 2020

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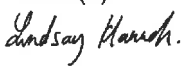

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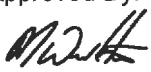

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Glossary of Terms

Operational Sound Level	Sound associated with the activity being a composite of sounds from all sources.
Background Sound Level	The average of the lowest levels of the sound levels measured in an affected area in the absence of noise from occupants and from unwanted external ambient noise sources.
Decibel, dB	Unit of acoustic measurement. Measurements of power, pressure and intensity may be expressed in dB relative to standard reference levels.
L_n - L_{90}, L_{10} etc.	A statistical measurement giving the sound pressure level which is exceeded for the given percentile of an observation period, i.e. L_{90} is the level which is exceeded for 90 percent of an observation period. L_{90} is commonly referred to as a basis for measuring the background sound level.
$L_{Abg, T}$	The A-weighted background sound level measured over a time interval T.
$L_{Aeq, T}$	Equivalent continuous A-weighted sound pressure level. This is the value of the A-weighted sound pressure level of a continuous steady sound that, within a measurement time interval T, has the same A-weighted sound energy as the actual time-varying sound.
NZS6801 and NZS6802	NZS 6801: NZ Standard **'Measurement of Environmental Noise'** NZS 6802: NZ Standard **'Assessment of Environmental Noise'**
Special Audible Character (SAC)	SACs is an acronym for Special Audible Characteristics which are qualities of environmental sound which make the sound additionally annoying. Sound that has special audible characteristics, such as tonality or impulsiveness, is likely to cause adverse community response at lower sound levels, than sound without such characteristics.
Sound **Pressure** Level, L_p, dB, of a sound	A measurement obtained directly obtained using a microphone and sound level meter. Sound pressure level varies with distance from a source and with changes to the measuring environment. Sound pressure level equals 20 times the logarithm to the base 10 of the ratio of the r.m.s. sound pressure to the reference sound pressure of 20 microPascals.
Sound **Power** Level, Lw, dB of a source	Sound power level is a measure of the sound energy emitted by a source, does not change with distance, and cannot be directly measured. Sound power level of a machine may vary depending on the actual operating load and is calculated from sound pressure level measurements with appropriate corrections for distance and/or environmental conditions. Sound power level is equal to 10 times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power of 1 picoWatt.

1 Introduction

Festival One is a multi-day Christian Festival historically held at Mystery Creek, Hamilton over Auckland and Waikato Anniversary Weekend. In 2018 the existing Resource Consent at the Mystery Creek site expired[i] and the Applicant (**Festival One Limited**) are now proposing to operate from a new festival site located in the rural zone at Whitehall Road, Karapiro, north of Cambridge in the Waipa District starting in the year 2021. Cardno New Zealand Limited (**Cardno**) has been commissioned by Festival One Limited (the Applicant) to prepare this Assessment of Environmental Noise Effects (noise impact report) relating to the proposed new Festival One Karapiro site.

2 Background

Festival One is applying for Resource Consent for the Festival One Music and Arts Festivals to be held at the application site in Karapiro starting from 2021 onwards. This Assessment of Environmental Noise Effects describes the potential noise effects associated with the festival, specifically assessing **"worst case"** operational sound levels (at maximum capacity) against the relevant Waipa District Plan (the District Plan) permitted activity noise standards for the Rural Zone.

The objective of this assessment is to describe, in accordance with the Fourth Schedule of the Resource Management Act 1991 (the Act), potential noise effects arising from the proposed operation as may potentially affect the surrounding environment, together with identifying mitigation measures (both physical and managerial) that will be applied to minimise noise effects on the environment. Effects of noise generated on-site and received within the surrounding environment have been compared to the noise criteria set out within the Waipa District Plan, including potential effects associated with permitted activities for the area. This noise impact assessment contains:

- *An outline of the noise related aspects of the activity and subject site;*
- *A description of the Waipa District Plan noise emission rules for operational noise;*
- *A description of the Waipa District Plan noise emission rules for temporary event noise i.e. construction noise (set up and take down);*
- *An assessment of noise effects (including cumulative worst-case effects) as received within the surrounding environment (at applicable existing adjacent noise sensitive rural residential sites);*
- *Noise mitigation measures that will be carried out by the Applicant to ensure existing noise sensitive sites in the area do not experience unreasonable noise at any time over the entire event including control of low frequency sound (LFS).*

Our assessment is in part based on information gathered during measurements of previous music events of similar nature and scale in rural areas, including the historic Parachute Music and Festival One events held at Mystery Creek Hamilton. The assessment is also based on our knowledge of the subject site and surrounding area. A site visit was undertaken by the author (**Lindsay Hannah**) in January 2019. Information on the nature and scale of the event, including written approvals have been provided by the Applicant including information pertaining to the intended design and placement of the sound systems and key noise sources. This information has formed the basis of predictions from the proposed event. This information together with our knowledge and experience with noise effects associated with other outdoor music events has led to the identification of recommended mitigation measures outlined below which the Applicant will follow in order to management noise to a reasonable level at all times. Our assessment has relied upon site plans and information provided by the Applicant including stage locations, orientations, written approvals and sound system details. We have relied on all information supplied to us to be true and accurate. All information provided within this report has been reviewed by the Applicant. Drawings and maps provided in this acoustic report are schematic only and are not to scale. This noise report should be read in conjunction with the Applicants Resource Consent Application and related planning information.

3 Author's Experience and Background

The author of this report (Lindsay Hannah) has experience with numerous large-scale, outdoor entertainment and festival events including (but not limited to) Parachute Music Festival, Festival One, Homegrown Music Festival, Bay Dreams, Festival 121, ZM's Flochella, British and Irish Lions Tour, NZ Rugby World Cup, Coastella International Music Festival, Wellington Wine and Food Festival and many more. The author has also undertaken assessments and measurements at numerous music events and concerts held in rural and urban areas at stadiums nationwide such as Trafalgar Park, Saxton Oval, Basin Reserve and Westpac Stadium, now known as Sky Stadium. Assessment and measurements and compliance reports have included work for events such as Eminem, Guns N Roses, Keith Urban, Carrie Underwood, Royal Edinburgh Military Tattoo, Sir Elton John, AC/DC, Bon Jovi, David Bowie, Neil Diamond and The Police to name just a few.

The author's work has included preparation of noise impact reports, peer review work, noise modelling, preparation of noise management and monitoring plans as well as many years of real time field compliance monitoring and technical compliance reporting. The author also has published work on festival acoustics. The author has experience working with community groups, councils, productions managers and chief audio engineers including design, calibration and set up of sound systems. Overall the author has over 20 years *direct* experience working at entrainment and music events for both applicants and councils nationwide. Importantly the author has worked directly with the Festival One team since the inception of the festival at Mystery Creek.

4 Application Site

The application site is located at 209 Whitehall Road which is located on the northern side of Lake Karapiro Road, Cambridge, approximately 2km from the township of Karapiro itself. The site is bounded to the north and west by a large forestry block which has no development or dwellings. Some rural residential locations are found to the north, east and south of the site with Whitehall Road being located east of the site.

A large Winstones quarry operates to the north of the site. Access to the site is via Whitehall Road which links to Karapiro Road via State Highway One (SH1) Tirau Road. The topography of the surrounding area comprises of hilly and undulating terrain which has been taken into account with the acoustic modelling and predictions outlined below.

The application site has a total area of approximately 279 hectares, however the festival will operate from a much smaller portion of the total site area. The site and all surrounding sites are zoned Rural under the Waipa District Plan. The site is known locally as 'Dunwold' of which approximately 156 hectares is a Pinus Radiata forest.

The site of the festival is located within the approximately 53 hectares of flat to rolling pastoral land. **Figure 4-1** illustrates an aerial photo of the site and surrounds indicating the approximate site boundary (red hatch) and approximate area where the festival will operate (blue hatch). The blue is the approx. application site boundary.

Please refer to the Applicants Resource Consent Application and related planning information for further details of the site layout and plans.

Figure 4-1 Aerial photo of location and site map. Source: Applicant. Not to Scale.

Figure 4-2 illustrates the site layout and proposed activity areas. This layout shows the stages being a Main Stage (Arena One) where headline acts are located. The main stage is shown on **Figure 4-2** as 'One Arena'. There is also a 'secondary' stage shown on **Figure 4-2**. **Figure 4-2** indicates where car parking areas and people will be located, also indicating where the market area will be located with its associated lighting generator and sound associated with food and market vendors. **Figure 4-2** indicates camping areas on the festival site. **Figure 4-2** also shows tracks allowing vehicle movements on and off the site.

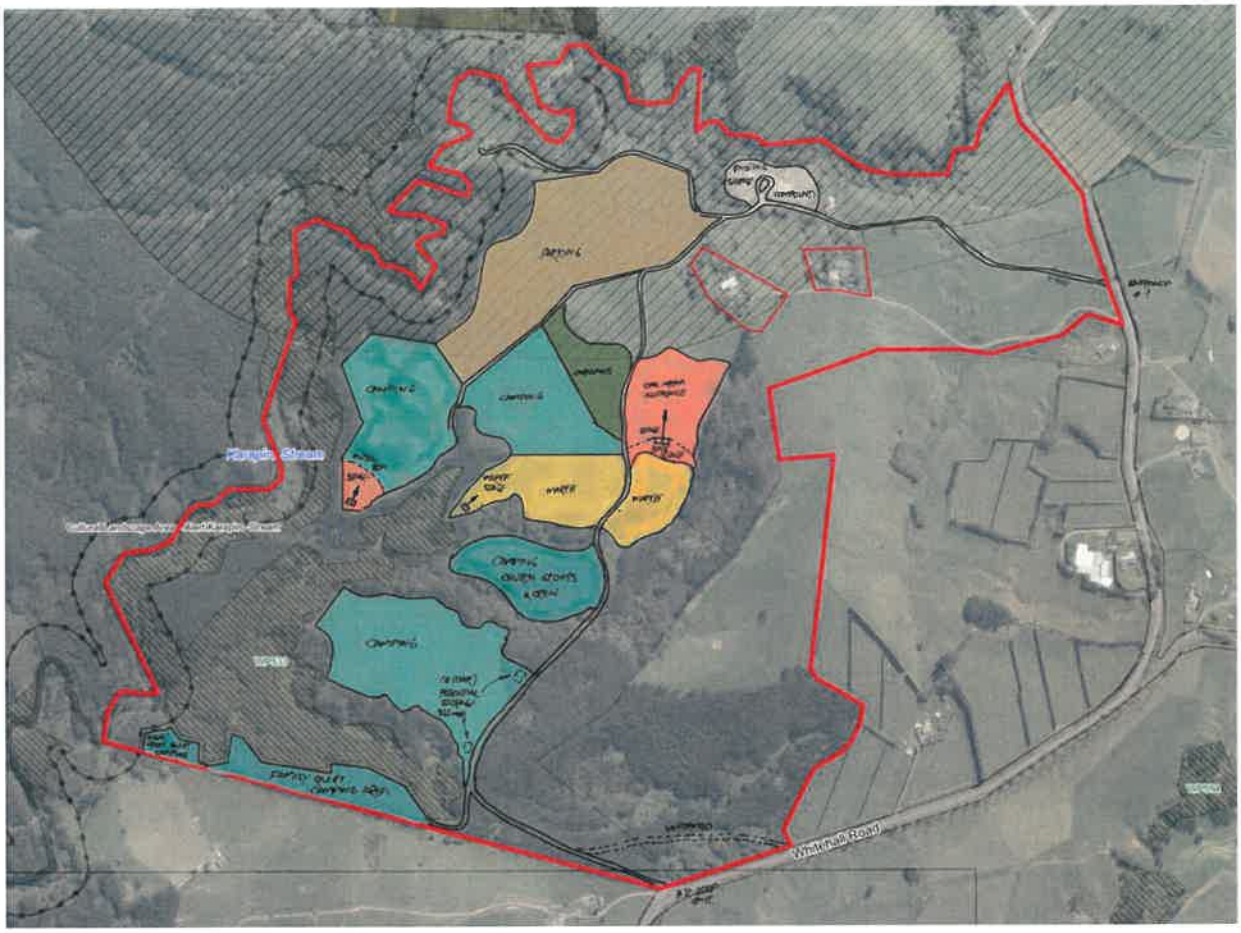

Figure 4-2 Schematic of event site map. Source Applicant. Not to Scale.

5 Proposed Activity

The Applicant's Resource Consent Application (prepared by Mitchell Daysh) provides full details of the site and surrounds, we provide the following summary. The festival is called the Festival One. The festival has operated for many years at a site in Mystery Creek and has an experienced board and festival team who operate the festival every year. The festival will be open to the public over three days on Auckland Anniversary, the augural event will run from Friday 29th January to Mondays 1st February 2021.

Although the event includes music in part, it is important to understand that the festival is purely not just a music event and has a wide range of other events and entertainment. The activity will provide camping, parking, vendors and markets among other things. In fact it should be noted the festival has a high majority of non-music events with main stage music generally only occurring late afternoon through to night time. The proposal is to set up and operate all stages shown in **Figure 4-2**, all of which have good buffer distances to the site boundary and adjacent rural residential sites.

Not all stages would be expected to operate at the same time or operate continuously, although the modelling has assumed each stage would run at the same time to provide a worst case review. The duration of operation of each stage will also be limited with the main stage generally only operating in the evening and night time period. In general, as shown below, the main stages will operate in the late afternoon to evening hours, with the smaller stages operating during the day time and night time. All stages are open air outdoors. In total there may be up to a total of 10,000 patrons on site at any one time as well as a large contingency of trained staff to manage the event include the on-going management of noise, traffic and security.

5.1 Camping/Glamping, People and Car Parking

Camping will take place on site at the camp ground which forms part of the application site. **Figure 4-2** indicates the areas where camping will be undertaken. Based on our past experience from Festival One and other events, camping areas and on-site traffic, when suitably managed (as being proposed here) are very unlikely to generate any appreciable noise detectable off site at applicable receiver locations. Areas such as the camping or parking may also have localised noise ranging from people sound through to power generators for light or power. In regards to car movements on site, this source is also a genuine low-level noise with engine, tire and gear noise. Due to health and safety and the fact that vehicles are driving on gravel unformed roads, with undulating surfaces, vehicles while on site will be required to operate at low speeds while on the site. In summary, in all cases of camping, people sound and traffic when suitably managed these sound sources are genuinely low-level noise sources which are localised within the site boundary of the application site itself.

5.2 Set Up, Take Down and Auxiliary

The activity will require set up and pack down of stages and key infrastructure before and after the event. In summary, pack up and set up, when suitably managed (as proposed) is a localised sound source. Technically set up and take down is a temporary construction activity.

6 Noise Sources

The activity will involve the use of amplified sound systems which will amplify speech, vocal sounds and live amplified instruments. In addition to the festival sound emissions, the site will emit minor sounds associated with vendor equipment, entertainment rides, people sounds, camping, vehicles, generators and sounds from the crowd and spectators themselves (which are localised to within the site boundary). The following range of noise sources is considered likely to be associated with the activity;

- *Amplified sound systems (open air outdoor stages) – this is the chief noise source that will be audible off site at times in the surrounding environment;*
- *Crowd noise from people talking, crowd yelling, clapping and socialising;*
- *On-site activities and service noise related to food vendors, side shows and entertainment;*
- *Low level sounds (temporary, daytime) set-up and pack-down activities which will occur before and after the event – technically set up and take down are construction activities as assessed as such;*
- *Equipment & people sounds setting up and dismantling (vehicle reversing alarms, crew noise, waste management activities (rubbish/recycling), mobile plant i.e. forklift and pallet jacks). Sound from mechanical services and plant associated with venues, including fixed and mobile plant such as power generators; and*
- *Vehicle movements on site from people travelling to and from the site;*

So cumulative noise emissions from the proposed activities can be predicted appropriate sound power levels are adopted within established acoustic prediction techniques to estimate the sound levels at the closest applicable sensitive rural receiver sites.

To ensure these predictions are as accurate as possible, we have utilised sound power levels of modern, outdoor sound systems used by live bands for the louder rock style of music performance. These systems employ separate bass speakers which are traditionally located at or near ground levels. Mid and high frequency range speakers are usually located adjacent to each side of the stage and are 'flown' above head height and are angled so that they spread the sound evenly across the audience area.

Sound system location and orientation has been taken into account, assuming a worst case. **Figure 6-1** is sample of the mapping for low frequency bass at 63 Hz (left) and rear projection mapping (right). With modern concert sound system design and set up both graphics illustrate show how sound levels can be described to drop rapidly with distance and with correct design minimising spillage beyond the site so as to ensure off site noise levels (especially from LFS) can be controlled to assist in minimising sound received off site. We understand these specific system will be employed for the main stage to minimise and localise sound spill.

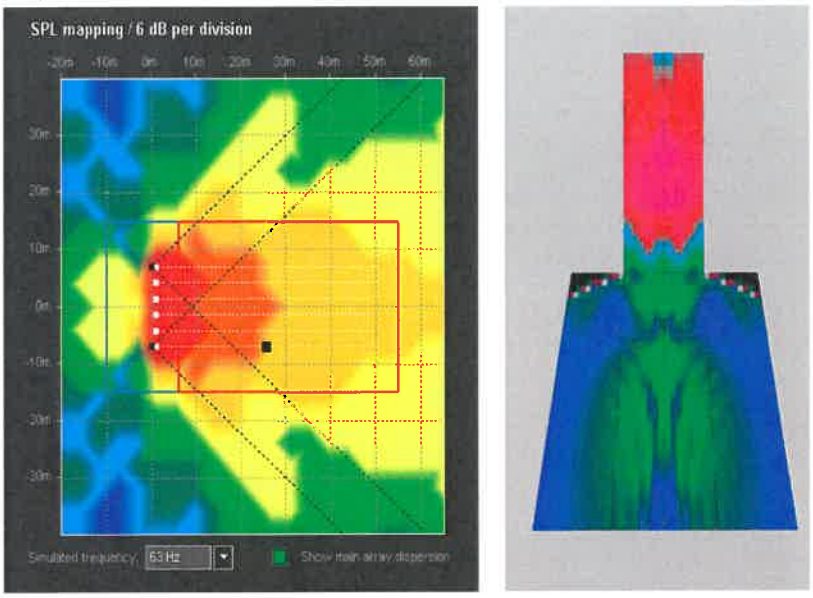

Figure 6-1 Diagram of sample of noise contour used to design sound system set up and layout. Source: Cardno

Figure 6-2 below illustrates a standard software package and 'program' which can be used to control and design LFS and overall design and management of sound from the stages. Such packages are key to the initial design, set up and calibration of the sound systems.

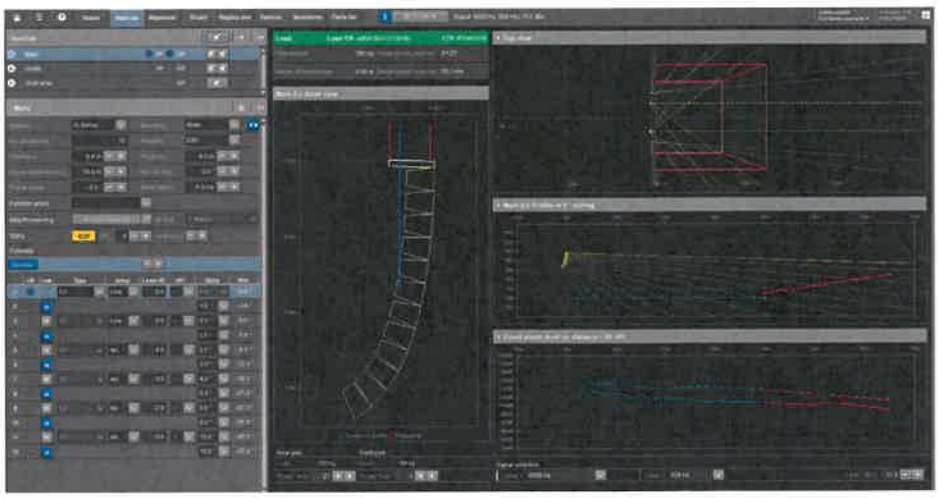

Figure 6-2 Diagram of audio engineer program - design and management for sound system set up and layout. Source: Cardno

7 Existing Environs

Many factors affect sensitivity to noise including time of day, state of mind, and the activity being carried out when noise is experienced. Of importance is the "intrusiveness" of nuisance noise, often defined as the degree to which the normally occurring ambient sound levels are exceeded. Existing background sound levels experienced in the local area have been considered as it is our experience that background sound levels can potentially affect the perception of noise if not suitably managed. We stress the applicant is an experienced operator who has years of managing noise effects off site with an experienced acoustics and production team.

Under the procedures recommended within the New Zealand Acoustic Standards, background sound found in the area has no bearing on whether expected noise effects of the proposed activity would *comply or not* with the relevant noise rules of the Waipa District Plan. The District Plan clearly signals sounds from activities taking place on the site are to be separately considered when assessing compliance with the permitted noise limits. However, this does not mean that samples of background sound levels or background sound levels in general for a project of this nature should not be collected and discussed as such samples provide context within which potential "new" temporary noise from the site might be received over and above the existing background levels, especially during night time when levels would be at their lowest.

A site visit was undertaken on the morning of Saturday 26th January 2019 to review the application site, surrounds and sample daytime background sound levels. Sample daytime background sound levels have been collected. It is acknowledged from the onset, based on actual measurements in the rural area of Waipa including at Mystery Creek that the surrounding noise sensitive sites (rural residential dwellings) are in fact located in a rural area which has modest to low background sound levels at night time (as do most rural areas). Cleary with more activity generally occurring during daytime and evenings the background sound levels during daytime and evening are expected to be higher during day that night.

Samples of daytime levels have been collected using a Type 1 Bruel and Kjaer 2250 sound analyser/sound level meter has been utilised to conduct samples of background day time sound level measurements. The Type 1 sound level meters hold current laboratory calibration certificates (refer ***Appendix B***). Field calibration was checked before and after the field measurements. It was noted the recommended maximum variation was by less than +/-0.1 dB(A) during the course of the monitoring for equipment used. The microphone was positioned approx. 1.5 metres above local ground. The microphone had a 90mm windshield placed over the microphone during the measurements. The sound level meter was programmed to log in contiguous interval over 15 minutes.

Measurement set up was:

- *A weighting (dBA), fast response;*
- *Measurement period: 15 minutes;*
- *Measurement Metrics A-weighed, dBA (time varying), Z-weighted, dB or dBZ (octave samples);*
- *Measurement Descriptors:* L_{Aeq}, L_{A90} *and* L_{AFmax}

The descriptors used to describe environmental noise are described as follows:

- L_{AFmax} *The A-weighted maximum noise level measured during the measurement period.*
- L_{A90} *The A-weighted noise level exceeded for 90% of the measurement period.*
- L_{Aeq} *The equivalent continuous noise level over the measurement period, generally referred to as the energy averaged sound pressure level over the measurement period.*

7.1 Measurement Standards

As per New Zealand Standard NZS6801 *Measurement of Sound* all background sound level measurements were undertaken as for 'free-field' - that is 3.5m or more away from any significant reflecting surfaces (other than the ground).

7.2 Met Window

All measurements were undertaken during weather conditions which were within the met window of New Zealand Standard NZS6801 *Measurement of Sound*. The weather during the measurement survey was cool and still conditions with approx. 13 degrees temperature and no wind and nil precipitation. Cloud cover was a mixture of overcast skies and clear blue skies.

7.3 Measurement Location Period and Measurement Personnel

The sample measurement was taken on site the location of the proposed Main Stage, shown on **Figure 4-2** as One Arena. Measurements were conducted by Lindsay Hannah, acoustic consultant, Cardno.

7.4 Measurement Results

Table 7-1 illustrates a summary table of the total overall sound pressure levels undertaken on site at the proposed Main Stage location.

Descriptor	L_{AEQ} dB	L_{A90} dB	L_{AFmax} dB
IP-1 Application Site	44 dB	42 dB	72 dB

Table 7-1 Sample of total sound pressure levels.
Saturday 26th January 2019 9.30am to 9.45am.

A host of measurements including background measurements have been conducted in the Waipa District by the author. Samples include at night from both Parachute Music Festival, Festival One and events and larger music events at Mystery Creek. Based on our measurements of background sounds over many years in the rural Waipa District a background level of between 40 dB to 45 dB L_{Aeq} would be expected up until around 10.00pm, this level would generally start to decrease to be less than 40 dB L_{Aeq} after 10.00pm. In terms of day time based on our measurements of background sounds over many years in the rural Waipa District a background level of between 40 dB to 60 dB L_{Aeq} would be expected during the day. It is noted however levels could be higher depending upon the activity and location, for example a quarry truck passing a rural residential dwelling in Whitehall Road could produce a level of up to 85 dB L_{Aeq}.

For the most affected receiver site the magnitude of the exceedance is expected to be in the region of up to around 25 dB L_{Aeq} until 10.00pm. This is based on a receiver level of up to 63 dB at 2/207 Whitehall Road and expected background level of 45 dB L_{Aeq}. For the two hours after 10.00pm until amplified music ceases on-site at 12.00 midnight, this exceedance may extend to around 28 dBA, based on a receiver level of up to 68 dB L_{Aeq} at 2/207 Whitehall Road and expected background level of 45 dB L_{Aeq}.

The above is based on worst case receiver with direct line of sight within close proximity of the main stage area, however for the majority of dwellings they are proposed to receive much lower levels from the festival. For example, dwellings in Dunning Road or lower or upper Whitehall Road which are predicted to receive say 42 dB L_{Aeq} from festival activities would have typical exceedance of 2 dB for a background sound level of 40 dB L_{Aeq}. Provided the duration and hours of the event are limited as proposed, with recommended noise limits adhered to, we consider noise effects to not be unreasonable, providing the noise mitigation measures set out in this report implemented. Based on sampling at Mystery Creek and elsewhere in the district, ambient sound levels vary through the day and night depending on what is occurring in the area. Measurements taken during day time periods ambient sound levels would be typically found to be between 40 and 60 dB L_{Aeq} in the rural area.

7.5 Overview – Surrounding Environs

There is a range of rural, residential, commercial, farming and business sites in the local and wider area adjacent to the site and further afield. Many of the rural residential sites that exist in the area adjacent to the application site are located at a good distances. Based on our knowledge of the site and surrounds, the following is a brief summary of sound sources existing in the local and wider area:

- *Traffic from transportation sources such as roading and aircraft overfly (fixed and rotating wing);*
- *Sounds from a range of non-residential sites in the immediate and wider area including (but not limited to) adjacent recreational activity and activity associated with business, farming, processing and commercial sites;*
- *Sounds from residential, community, entertainment, educational and recreational sites in the wider area, this list includes (but is not limited to) residential sites, schools, shops and civic buildings (museums) for example; and*
- *Sounds from natural environs including animals (bird song for example, cicadas (seasonal)).*

In addition to the above activities and related sound sources there are a host of events held at Lake Karapiro, these include smaller events through to large scale events such as rowing at Lake Karapiro. **Table 7-2** below illustrates an event calendar for the lake for 2019. 2020 calendar events. Events in the calendar range from cycling and rowing through to Scott Jamborees and a music festival.

LAKE KARAPIRO EVENT CALENDAR

YEAR: 2019 / 2020

Lake Karapiro — WAIKATO RIVER DOMAIN

JULY 2019	Zones	Times	Event
6th - 7th July	No Closure	7am - 6pm	North Island Cycling Champs

AUGUST 2019	Zones	Times	Event
22nd - 25th Aug	4,5,6	6am - 6pm	U21 Regatta / BPC Trials
31st August	4,5	7.30am - 5.30pm	Legion of Rowers Rowing Regatta

SEPTEMBER 2019	Zones	Times	Event
28th - 29th Sep	3,4,5,6,7	7am - 4pm	Waikato River Head Race

NOVEMBER 2019	Zones	Times	Event
2nd Nov	3,4	TBC	Cambridge Rotary Light Show
2nd Nov	4,5,6	TBC	Te Awamutu Rowing Regatta
9th - 10th Nov	4	TBC	Armistice in Cambridge
14th - 17th Nov	4,5,6	TBC	KRI Memorial Rowing Regatta
17th Nov	No Closure	TBC	Vintage Tractor Club Swap Meet
24th Nov	No Closure	TBC	Boggies Classic Car Show
30th Nov - 1st Dec	4,5,6	TBC	KRI Club Rowing Regatta

DECEMBER 2019	Zones	Times	Event
7th - 8th Dec	4,5	TBC	Regional Waka Ama Champs
12th - 15th Dec	3,4,5,6	TBC	KRI Christmas Regatta
30th - 31st Dec	3,4,5	TBC	NZ Scout Jamboree

JANUARY 2020	Zones	Times	Event
2nd -3rd & 5th - 6th Jan	3,4,5	TBC	NZ Scout Jamboree
12th - 18th Jan	3,4,5	TBC	Waka Ama Sprint Nationals
23rd - 27th Jan	3,4,5,6	TBC	KRI Cambridge Town Cup & Fifth Island Club Rowing Champs
28 - 31 Jan	4,5,6	TBC	Olympic Rowing Trials

FEBRUARY 2020	Zones	Times	Event
7th - 9th Feb	3,4,5,6	TBC	NZ Hydroplanes
14th - 16th Feb	3,4,5	TBC	Canoe Racing Nationals
18th - 22nd Feb	3,4,5,6	TBC	NZ National Rowing Championships
29th Feb - 1st March	3,4,5,6	TBC	KRI Aon Junior Rowing Regatta

MARCH 2020	Zones	Times	Event
2nd - 6th March	4,5,6	TBC	U23 Rowing Trial / Rowing NZ Trial #2
7th March	3,4	TBC	Music Festival
13th - 15th March	3,4,5,6	TBC	NI Sec School Rowing Champs
19th - 22nd March	4	TBC	NZ Jetsport Nationals
27th - 28th March	3,4,5	TBC	NZ Dragon Boat Championships

Table 7-2 Lake Karapiro event calendar. Source: https://www.lakekarapiro.co.nz/page/calendar/

As far as the surrounding area and adjacent rural residential sites are concerned the area experiences modest to high noise levels during day time and modest to lower levels during night time depending upon the various degrees of activity.

8 Noise Criteria

8.1 Resource Management Act

Noise is an environmental effect identified in the Act as a matter to be included in any assessment of environmental effects. Noise is defined as unwanted sound and can affect the residential amenity of an area. What constitutes a "reasonable level" is not prescribed by the Act. As a guide, noise limits prescribed by the relevant New Zealand Standards to determine limits of acceptability.

Section of the Act in particular is explicit in requiring the adoption of the "best practicable option" (BPO) to avoid unreasonable noise.

The definition of the BPO under the Act in relation to an emission of noise means the best method for preventing or minimising the adverse effect on the environment having regard, among other things to the nature of the discharge, financial implications and current technical knowledge.

In specific Part 1 Interpretations of the Act defines the BPO as follows:

> ***"...the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to***
> ***The nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and***
> ***The financial implications, and the effects on the environment, of that option when compared with other options; and***
> ***The current state of technical knowledge and the likelihood that the option can be successfully applied."***

8.2 Waipa District Plan Management Act

Figure 8-1 illustrates a planning map from the District Plan. The site and all adjoining sites are in the Rural (Primary Production) Zone. As indicated from our investigations and site visit the closest rural residentially zoned sites areas are scattered throughout the area with small clusters along Whitehall Road.

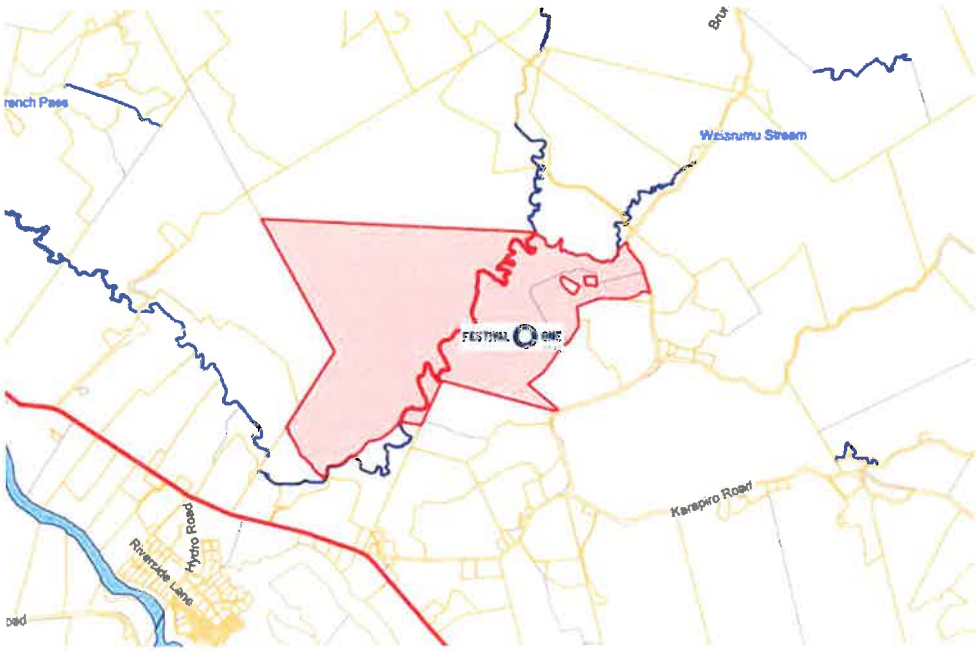

Figure 8-1 Waipa District Planning Map. Source: Waipa District Planning Maps.

8.3 Combined Waipa District Operational Plan Noise Rules

The site and all surrounding sites are zoned "Rural Zone" under the Waipa District Council noise criteria. The Waipa District Plan noise rule for the site under the District Plan is reproduced as follows in ***Rule 4.4.2.15*** Noise :

> **Rule 4.4.2.15 Noise**
> *Noise generating activity other than that from farm animals including farm dogs, agricultural vehicles (when not being used for recreational purposes), agricultural machinery or equipment (including produce packing facilities where the only produce packed is grown on site) operated and maintained in accordance with the manufacturer's specifications and in accordance with accepted management practices (e.g. for milking, spraying, harvesting, packing and the like, but not including frost fans) and provided that the best practicable option (including the option for the activity to take place at another time of the day), is adopted to ensure that the emission of noise does not exceed a reasonable level; shall be conducted and buildings located, designed and used to ensure that they do not exceed the following limits within the notional boundary of any dwelling (excluding dwellings within mineral extraction sites):*
>
> *(a) Day time - 7.00am to 10.00pm 50 dBA (L_{eq})*
> *(b) Night time - 10.00pm to 7.00am 40 dBA (L_{eq})*
> *(c) Night time single noise event 70 dBA (L_{max})*
>
> *The noise levels shall be measured and assessed in accordance with the requirements of NZS 6801:2008 – Acoustics – Environmental Sound and assessed in accordance with NZS 6802:2008 – Acoustics – Environmental Noise. Provided that this rule shall not apply to the use or testing of station and vehicle sirens or alarms used by emergency services.*

Under the Operative Waipa District Plan, the following limits currently apply to noise emitted from the Rural Zone, as received at the notional boundary of any dwelling who has not provided written approval:

- L_{Aeq} 50 dB day — 7.00am to 10.00pm all days - Daytime
- L_{Aeq} 40 dB day — 10.00pm to 7.00am all days – Night time
- L_{AFmax} 70 dB — 10.00pm to 7.00am all days – Night time (single event level)

Regarding anticipated environmental outcomes, the Rural area provisions are expected to result in "*ensure that the community is protected from the adverse effects of noise and vibration.*

8.4 Waipa District Vibration Rules

The Waipa District Plan Rural Zone sets out under **Rule 4.4.2.18** criteria for vibration. This relates to any vibration from a site, **Rule 4.4.2.18** is set out as follows:

> ***Rule 4.4.2.18 Vibration***
> *Vibration emanating from a site shall not exceed the limits recommended in and be measured and assessed in accordance with New Zealand Standard NZS 4403:1996 Code of Practice for Storage, Handling, and Use of Explosives. Activities that fail to comply with this rule will require consent for a restricted discretionary activity, with the discretion being restricted over:*
>
> - *Safety; and*
> - *Time and duration of effect; and*
> - *Effects on buildings and structures, either on site or on surrounding properties.*

8.5 Waipa District Construction Noise Rules

The Waipa District Plan Rural Zone sets out under **Rule 4.4.2.19** criteria for temporary construction noise which relates to site set up and take down before and after the festival. **Rule 4.4.2.19** is set out as follows:

> ***Rule 4.4.2.19 - Construction noise***
> *Construction noise emanating from a site shall meet the limits recommended in and be measured and assessed in accordance with New Zealand Standard NZS 6803:1999 Acoustics – Construction Noise. Activities that fail to comply with this rule will require a resource consent for a restricted discretionary activity with the discretion being restricted over:*
> - *Time and duration of effect; and*
> - *Effects on surrounding properties.*

8.6 Temporary Activity Standard

Rules 4.4.2.51 to **4.4.2.53** set out the rules for temporary events. **Rule 4.4.2.51** to **Rule 4.4.2.53** are summarised as follows:

> ***Rules - Temporary event***
> *4.4.2.51 All temporary buildings and works associated with a temporary event shall be removed and the site returned to its original condition within five working days of the temporary event ceasing.*
> *4.4.2.52 A temporary event that is likely to attract more than 200 vehicles will require a Traffic Management Plan. The Traffic Management Plan shall be submitted to, and approved by the relevant road controlling authority no less than one month prior to the event commencing.*
>
> ***4.4.2.53 Temporary events shall not:***
> *(a) Occur more than two times per calendar year in total on any one site or holding; and*
> *(b) Exceed the following durations individually or consecutively:*
> *(i) Motorised sport or amplified outdoor musical events or concerts - one days duration (excluding preparation time); or*
> *(ii) Other activities two days duration (excluding preparation time); and*
> *(c) Occur outside of the hours of 7.00am to 10.00pm; and*
> *(d) Exceed 500 attendees; and*
> *(e) Occur on a site within 500m of a Residential Zone or Large Lot Residential Zone boundary.*

In addition to the above operative rules the District Plan also sets out a definition for temporary as follows:

> *"an activity involving people engaged in recreational, leisure or meetings or similar pursuits either as participants or spectators and includes sports events, public meetings, carnivals, concerts, craft or trade fairs, displays, and filming, but excludes CUSTOMARY ACTIVITIES"*

We note temporary events are not excluded from the District Plan noise emission limits. Furthermore, the proposed Festival One event would exceed a permitted temporary event due its proposed hours of operation, duration of event and number of attendees. Regardless of this importantly however the District Plan does recognise that temporary events in the district may take place at certain times under certain conditions.

8.7 Assessment Criteria

In terms of assessing potential noise effects of the event, the Waipa District Council under **Section 21** sets out assessment criteria. **Sections 21.1.1.7** 'Noise and Vibration' for discretionary activities.

a) *Ambient noise environment of the locality.*
b) *The time and frequency that the activity occurs, duration of noise, and any special characteristics of the noise or vibration and subsequent effects on health and safety, and on the amenity values of the surrounding environment.*
c) *The effects on the environment from the maximum noise levels of the proposed activity, particularly at night.*
d) *The extent to which the noise adversely affects the amenity of the surrounding environment including cumulative effects.*

8.8 Measurement Descriptor Criteria

The Plan notes under the definition section that 'L_{eq} means the A-weighted sound pressure level of a noise measured over a period of time, expressed as the amount of average energy and that dBA means Decibels subject to an 'A-weighting' to better represent the pitch of human hearing when measured on a sound level meter.

8.9 New Zealand Acoustic Standards NZS6801 and NZS6802

The District Plan states that noise levels shall be measured and assessed in accordance with the requirements of ***NZS 6801:2008 – Acoustics – Environmental Sound*** and assessed in accordance with ***NZS 6802:2008 – Acoustics – Environmental Noise.***

8.10 Special Audible Character

A further aspect of NZS6802 is that it recommends a penalty be applied when sound is adjudged to contain "special audible characteristics" such as tonality or impulsiveness. Sound from large outdoor music events tend to contain levels of sound energy in the low frequency region, and therefore special attention should be given to this effect, in addition to the overall A-weighted L_{Aeq} level. New Zealand acoustic standard ***NZS6802:2008 Acoustics –Environmental Noise*** Appendix B (B4.3 – Table B2) sets out objective means for testing for the presence of special audible characteristics by comparing the levels of neighbouring one-third octave bands in the sound spectrum. An adjustment for tonality is recommended to be applied if the sound level in a one-third octave band exceeds the arithmetic mean of the sound level in both adjacent bands by more than the values given as follows in **Table 8-1.**

One-third octave band	Sound Level difference
25 – 125 Hz	15 dB
160 – 400 Hz	8 dB
500 – 10000 Hz	5 dB

Table 8-1 Objective criteria assessment for tonality under NZS6802:2008.

An important aspect of NZS6802:2008 is that a 5-dB penalty is applied for sound containing special audible characteristics such as tonality or impulsiveness *at the receiver locations*.

Amplified music noise does traditionally attract this 5 dB penalty; however, this is typically for amplified sounds from venues where the receiver is on an adjacent site such as a bar for example. Thus it should not be immediately assumed that sound would attach the penalty at all receiver sites as distance and terrain effects must be considered at this site, which are significant in terms of not only distance between the stages and closest rural residential sites but also acoustic shielding due to the step undulating terrain. Mitigation and control of low frequency sound must also be considered in the management of noise on site. Regardless if the penalty were required to be applied due to the qualities of amplified sounds from festival music events of the type proposed, assessment against the Operative District Plan noise limits would typically involve applying the 5 dB penalty to account for its special audible characteristics. This has the result of turning ***Rule 4.4.2.15*** *Noise* into a restrictive limit 45 dB L_{Aeq} day 7.00am to 10.00pm and 35 dB L_{Aeq} day 10.00pm to 7.00am all days.

The assessment here recommends measurement and assessment of noise from the proposed activity be assessed *without* adjustment for special audible characteristics (if present). This is common for most music festivals including in rural area of this type because the assessment has already considered the type of sounds involved (with specific mitigation of bass sounds going to be applied through system set up, design, calibration and operation). Thus the 5 dB 'penalty' is considered already taken into account in this assessment and no further adjustment is needed. This method is nowadays considered consistent with best practice for noise limits applying to rural concert events. While the aims and purpose of the District Plan 'permitted baseline' noise performance standards for the rural zone are acknowledged, this consent seeks to exceed these limits for a defined, limited time period also implementing a range of mitigation measures designed to minimise adverse noise effects during the Festival. We further note no adjustment has been required for the existing Festival One at Mystery Creek or its predecessor Parachute Music Festival.

8.11 Low Frequency Sound (LFS)

Based on our previous experience with rural based music events of this nature and scale have in some cases raised concerns by some community members regarding periodic Low Frequency Sound (LFS) experienced due to the sound systems employed on site. In fact, based on past experience from many festivals it is generally only the LFS that is detectable off site at distance. When a sound system generates levels of LFS typically between 63 Hz to 160Hz for example these sounds can propagate widely as they are not absorbed by the atmosphere (at least to the same degree as sound at higher frequencies) or mitigated to the same effect by buildings or terrain for example. As noted above however this site has good terrain shielding due to the undulating hills and valleys. Sounds which are not mitigated can be generated in the 20Hz to 160Hz frequency range can be experienced as a low rumble sound.

Low frequency sound, like that generated by sound systems of the type employed at the music festival, are not harmful to health but can cause additional annoyance (compared to annoyance indicated by the L_{Aeq} sound level alone). The District Plan only sets noise limit quantified using the total L_{Aeq} level which measures sound only in terms of overall dBA which is relatively unaffected by the presence of high levels of sound in frequencies below 160 Hz. The 'A' filtering (dBA) operation strongly attenuates the low frequency content of the measured sounds, thus LFS (L_{Zeq}) is not well controlled using just L_{Aeq} and additional controls are needed to avoid excessive bass sound occurring in off-site areas. Such controls include measurement of LFS at 63 Hz and 125 Hz as opposed to just total sound pressure levels. Our experience is that councils are now imposing resource consent conditions for large outdoor music events using a separate control for LFS pressure levels. Such measures are considered 'best practice' which we support and have adopted at several other events. While some bass sound is provided for within the recommended LFS limits, compliance with the L_{Aeq} and LFS limits will ensure potential adverse effects associated with excessive bass sound are avoided. Below it is recommended that resource consent conditions not only just include limits on overall L_{Aeq} event sound received at the Noise Control Line, but also include decibel limits applying in the 63 Hz and 125 Hz octave bands so as to take account of the control of any potentially excessive LFS in the local receiving environment. This is a key noise management method that will be adopted to assist in the control of LFS off site.

This management method will ensure the sound system is designed, set up and operated to take account of potential LFS and is therefore a key noise mitigation measure. Furthermore with a suitably designed, set up and operated system taking account of LFS this also help to mitigate potential special audible characteristics.

In summary, to control the low frequency content of received sound (up to the specified L_{Aeq} limit) limits on the amount of low LFS are considered necessary and will be adopted by the Applicant. The Applicant will place limits on the L_{Zeq} measured within the 63 Hz and 125Hz octave bands. By limiting the values in each of these octave bands the shape of the received sound spectrum is able to be controlled such that the sound received is not excessively 'bass heavy', thus mitigating potential LFS and potential special audible character at rural residential sites.

In essence, the District Plan only requires compliance with two criteria being overall (total) L_{Aeq} for day and night and L_{AFmax} for night time only, however the Applicant is proposing to go well above and beyond this and is proposing four compliance criteria being the to control overall sound levels (day and night) as well as the spectrum from LFS, these are the overall sound pressure level of 55 dB $L_{Aeq\ (5\ minutes)}$ plus compliance levels at 63 Hz and 125 Hz set at 75 dB $L_{Zeq\ (5\ minutes)}$ and 70 dB $L_{eq\ (5\ minutes)}$ respectively plus single event level of 65 dB L_{AFmax}. This is in comparison to current Festival One event at Mystery Creek where only the overall level is measured. Based on our experience the control of LFS at 63 Hz and 125 Hz is a key noise control measure for modern festivals of this nature.

8.12 Written Approvals and Community Consultation

Section 95D Part E of the Resource Management Act states that a consent authority must disregard any effect on a person who has given written approval to the relevant application. We were advised that at the time of finalising this report wide community consultation had been undertaken by the Applicant in order to discuss the project and any potential concerns of the surrounding community. In addition, at the time of preparing the report a number of rural residential dwellings had provided written approval with other parties still in consultation with the Applicant. We are further advised by the Applicant that community feedback has been very positive. Below the predicted cumulative worst-case sound levels are presented for land owners and occupiers that the Applicant has advised that written approval has not been provided by being IP-1 to IP-13. Thus we have prepared the report based on the information from the Application regarding the closest adjacent rural residential dwellings who have not provided written approvals at the time of preparing this report.

9 Sound Emission Levels

9.1 Sound Sources

The chief sound source associated with Festival One is the outdoor 'sound systems' i.e. amplified music noise. These systems are located at the stage locations shown above in **Figure 4-2** above. In addition, there is a number of additional sound sources as described above which include camping (people), vehicle movements (on the application site), auxiliary noise including service and plant noise such as power generators. The amplified sound is the chief noise detected off site at times with occasional crowd noise possibly being expected to be noticeable for brief times in the local area.

However, auxiliary sounds such as crowd noise would at levels around 15 to 20 dB below amplified music sound levels. There is evidence to suggest crowd and people sounds are not as annoying as music type sounds, at the same received sound level.

Overall, all auxiliary sounds will not result in significant noise received off site. This is because, unless these sources are within 10 dBA of the levels attributed to the sound system, their inclusion in the predictions will make very little difference to predicted off-site cumulative noise levels.

9.2 Sound System

The sound source are demountable PA systems used by live bands and louder performers. The speakers are traditionally stacked (or "**flown**") in two stacks each side of the performance stage. Sound power levels range from 500 watts RMS to 5,000 watts RMS. The systems usually employ separate bass speakers which are traditionally located at or near ground levels with the mid and high frequency range speakers elevated above head height to enable a good spread of sound across the audience area. Sound power levels (sound levels at **source**) employed in the predictions of cumulative sound levels are set out as follows;

Stage	Outdoor Sound Power Level L_{AW} dB
Main Stage – Arena One	129 dB
Music Box Stage	125 dB
Auxiliary small stages - market place stage	115 dB
Auxiliary small (acoustic performance/PA etc)	95 dB

Table 9-1 Sound power levels for stages

The source strength (sound power level) of outdoor sound amplification systems has assumed to be to measure up to 129 dB L_{Aeq} at source for the main stage. The author has not to date measured sound power levels higher than this 129 dB L_{Aeq} for any concert event including rock or metal concerts thus the sound power inputs in our view represent a worst case. It is unlikely that all sound sources combined from site would produce a total combined sound power level above 129 dB L_{Aeq}.

A moderately lower sound power level of L_{Aeq} 125 dB has been assumed for the Music Box stage which itself is a high sound power level represents worst case. The assessment and modelling also includes sound power levels for people, camping, auxiliary plant (generators etc) and traffic movements while on site. **Table 9-1 confirms the appropriateness of the assumed sound power levels of typical "loud" concert events in the region** of L_{Aeq} 129 dB. In terms of frequency content, the following sound level spectrum has been assumed. The spectrum has been adjusted for each of the sound stages relative to the total sound power level. Note the high level of LFS energy present at 63Hz and 125 Hz.

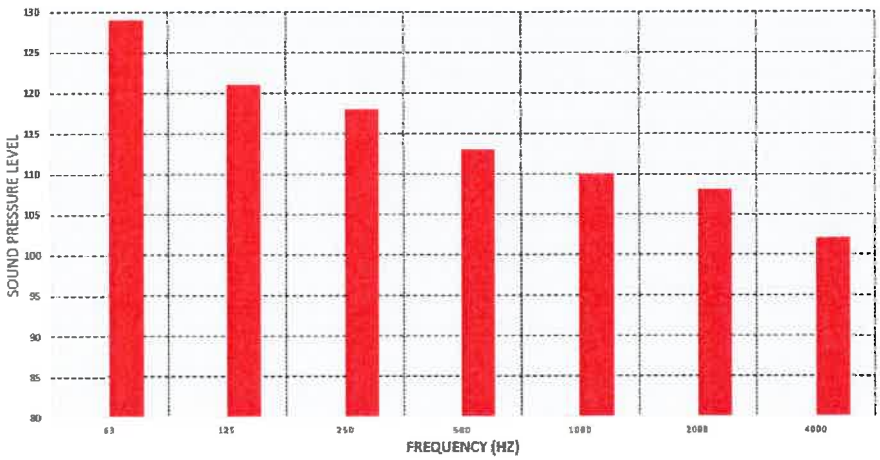

Figure 9-1 Sound spectrum used within sound level predictions. Sample total sound power level is 129 dB L_{Aeq}.

10 Prediction Method

Predictions of sound levels expected within the local area during the festival have been carried out to assist in assessing and understanding potential noise effects. The prediction method utilises input variables including octave band sound power levels at source, air absorption values based on temperature and humidity. The ISO 9613-Part 2:1996 method predicts equivalent continuous A-weighted sound level (As $L_{Aeq\ 5\ minutes}$) and L_{AFmax} (night time). The methods adopted to predict sound levels conform with the recommendations of NZS6801:2008 *Acoustics – Measurement of Environmental Sound*. Acoustic assessment has been undertaken to assess worst case noise from maximum concert sound at source.

Predictions of likely levels of noise received from the festival in the surrounding area have been predicted taking into account the following:

- *Topography and screening of the subject site and surrounding area;*
- *Sound power level of the various sound sources and sources;*
- *Location of the sound sources and location of dwellings;*
- *Operational scenarios of the event;*
- *Multiple or single noise sources;*
- *The nature of the ground surface (soft) and source and receiver heights above ground;*
- *Octave band air absorption losses and meteorological effects (slight downwind effects in all directors).*

Modelling of noise has taken account of distance and any natural terrain barriers. Predictions have been carried out using on the following base equation:

$$L_p = L_W - 10\ Log_{10}\ (2\pi R^2) \qquad \textbf{(Equation 1)}$$

Where;

Lp = The sound pressure level of noise received (in dBA) at distance R
L_W = The sound power level of noise source(s) (in dBA)
R = The distance between the source and the receiver in metres

The methods adopted to predict sound levels conform to the normative recommendations of Appendix B of NZS6801:2008 *Acoustics – Measurement of Environmental Sound*.

10.1 Sound Propagation Factors

Summer weather when the event will take place in Waipa would be expected to be warm, dry and generally settled. Typical maximum daytime temperatures range between approx. 20°C and 30°C, sometimes with temperatures potentially rising above 30°C. Typical night time temperatures would be expected to range between approx. 10°C and 20°C, with temperatures potentially rising above 20°C in January and February. Northerly and westerly winds are the common wind directions for the wider area however while these are the predominantly wind, wind data shows other prevailing wind directions also occur during January when the event will take place.

10.1.1 Sound Attenuation Factors – Distance, Terrain and Built Environment

Sound attenuation due to acoustic screening caused by buildings and structures (that is, where there is no line of sight between the source and the receiving position) are *not* considered, thus our assessment is worst case. Sound attenuation due to acoustic screening caused by terrain has been considered in the modelling. The predictions are based on hemispherical spreading of the sound from the source and do take into account reductions due to terrain screening effects, i.e. where there is no line of sight between the sources and receiver locations, noting the area is undulating terrain which provides good shielding.

Figure 10-1 illustrates a view looking from One Arena (Main Stage) audience area towards IP 3 (1/207 Whitehall Road). As clearly shown in the photo the dwellings at IP 3 and IP4 are not visible as they lies behind the hill top and thus has terrain screening.

Figure 10-1 View looking from One Arena (Main Stage)

View looking from the audience area towards IP 3 (1/207 Whitehall Road). Source: Cardno.

Figure 10-2 illustrates a view looking towards One Arena (Main Stage) from IP 3 (1/207 Whitehall Road). As clearly shown in the photo the dwellings at IP 3 and IP4 site back behind the hill and when the Main Stage (Arena One) is in place there will be good terrain screening.

Figure 10-2 View looking towards One Arena (Main Stage)
View looking down towards audience area from IP 3 (1/207 Whitehall Road). Source: Cardno.

10.1.2 Meteorological Effects

Attenuation due to atmospheric absorption of sound has the effect of reducing sound levels over distance in addition to the usual "inverse square" spreading of sound levels over distance. The air absorption effect is frequency dependent and is slightly related to the temperature and humidity of the air. In this case, air absorption has been factored in to the predictions, with temperature and humidity values adopted being the conservative values set out Table 2 of ISO9613-2:1996 (20 degrees (for summer) Celsius and 70% humidity, atmospheric pressure of 101.325 kPa).

10.1.3 Ground Factors

A soft ground (ground factor of g=1) has been assumed in the modelling which represents porous ground is ground covered in grass, trees other vegetation or farm land that surrounds the site.

10.1.4 Wind Effects and Temperature Effects on Sound Levels at Ground

The predictions are based on favourable meteorological conditions for sound propagation. This means hemispherical spreading i.e. sound propagation in all directions from each stage and sound source with enhanced sound propagation under a light following wind in all directions, or under downwind conditions. The most significant effects that can influence the long range propagation of noise are those introduced by variations in atmospheric conditions specifically, wind and temperature (gradients) which in the real world almost certainly occur simultaneously. By itself, wind has limited effects on noise propagation, other than to increase or decrease the speed of sound. When both wind and temperature gradients are present, the results are not the same as if either is acting independently. The combined interaction is complex. The wind effects experienced at any given location is highly dependent on local topography as well as instantaneous wind speed and direction which are strongly dependent on the location, time of day, weather conditions and the nature of the surface. Such conditions vary minute by minute and hour to hour.

The presence of wind causes a two-fold effect. The first effect is refraction due to wind gradients and the second is convection due to a constant wind. The rays are refracted upward when flow with a positive is approaching the acoustic source and downward when the same flow is moving away from the acoustic source. Downwind, the sound pressure level will generally increase; this increase in terms of dB levels is complex and depends not only upon the changing wind environment, namely the wind speed, but other interactions such as temperature for example.

Based on experience of real world field monitoring for similar events sound levels downwind within a few hundred meters would not be expected to increase sound levels, beyond this under moderate conditions could be expected to increase between approx. 2 to 5 dB downwind under enhanced meteorological conditions. The modelling is based enhanced sound propagation under a light downwind in all directions. However, regardless of wind or other meteorological enhancements it is absolute key to understand that noise monitoring from a suitable qualified and experienced acoustic engineer will be undertaken throughout the festival event to ensure the levels remains as presented in **Figure 11-2.** Effective noise control and management during the event relies on these checks conducted via field direct on-going field monitoring. The method of field monitoring involves real-time liaison with the event manager who will have **the ability/authority to implement 'instant'** changes to sound levels at all sound desks on-site during the event by providing instruction to Audio/Mix Engineers. This is important as wind direction and weather conditions for example will likely change throughout the event and it is important to be able to respond to ensure the proposed levels as presented in **Figure 11-2** is complaint at all times regardless of wind director or other changing met conditions.

10.2 Noise Modelling Qualifications

All noise level models and predictions are based on simplified models of sound generations and propagation. As noted above sound propagation in real world conditions is complex, especially for wind and temperature gradients. The sound propagation medium is generally modelled as uniform whereas in reality there may be sound velocity gradients, changes in wind speeds and direction or turbulence in the air to name but a few. The algorithms and equations used in modelling is based on assumptions for a complex environment. For all these reasons the results of sound level predictions are subject to a range of uncertainties such as changing weather conditions, thus why as described above and as proposed by the Applicant *real time field monitoring* will be conducted throughout the event to ensure levels are complaint at all times even under any changing weather.

In summary the attenuation of sound propagating outdoors between a sound source and receiver location fluctuates due to variations in the meteorological conditions along the propagation path. Table 5 of ISO 9613-2:1996 (reproduced below as **Table 10-1**) sets out the estimated accuracy of broadband noise.

	Source-Receiver Distance, *d*	
Mean height of source and receiver, *h*	**0<d<100m (0 to 100m)**	**100m<d<1000m (100-1000m)**
0 < h < 5m (ground level up to 5m)	±3 dB	± 3 dB
5 m < h <30m (5m to 30m)	±1 dB	± 3 dB

Table 10-1 Table 5 of ISO 9613-2. Source: ISO 9613-2

Table 5 of ISO 9613-2:1996 sets out the estimated accuracy of broadband noise. Modelling results presented with an accuracy of approximately ±1 to ±3 dB when taking into account typical measurement uncertainty for environmental acoustic measurements.

The 2008 version of NZS6801 and NZS6801 which are referenced in the District Plan include some commentary on uncertainty. In the forward of NZS6801:2008 Section 9.6 of NZS6801:2008 provides a paragraph on sound measurement uncertainty, stating that "***it is recommended to record an estimate of the measurement uncertainty along with the level of confidence***" and then refers to Appendix A.

Appendix A is only informative meaning that it is not a technical (normative) part of the standard, and therefore does not contain any necessary requirements for conformance to the standard. The final paragraph of Appendix A provides a key comment in regard to compliance measurements. This paragraph is reproduced in part below from the Standard. *When comparing a sound level with an applicable noise limit, the sound level should be deemed to comply if the sound level is equal to or less than the noise limit. It should be deemed not to comply if the sound level is greater than the noise limit, regardless of the uncertainty. Where compliance or non-compliance is marginal and contested, steps should be taken to reduce the uncertainty, where possible.* In the case of the event steps will be taken to reduce uncertainty including during following best practise to conduct real time field monitoring. The attenuation of sound propagating outdoors between a sound source and receiver location fluctuates due to variations in the meteorological conditions along the propagation path thus why again it is stressed that real time monitoring is going to be undertaken to ensure levels remain as predicted regardless of potential changing met conditions.

10.3 Stage Locations

Stages will be located as shown in **Figure 4-2**.

10.4 L_{Aeq} Sound Pressure Levels

Event sound levels are predicted as L_{Aeq} levels, in decibels, in order to remain consistent with the units and standards referred to within the ISO and 2008 New Zealand Standards. It is noted that the District Plan specifies noise limits using only L_{Aeq}.

10.5 $L_{Aeq\ (5\ mins)}$ Sound Pressure Levels

Levels are predicted as $L_{Aeq\ (5\ minutes)}$ to represent worst case. Based on experience measured levels over the average standard 15-minute period are generally much lower compared to a 5-minute period for concert events due to breaks between songs or sets. Thus a 5 minute period is selected to represent a worst case, and relates to a single song or artist.

10.6 L_{AFmax} Sound Pressure Levels

L_{Amax} or L_{AFmax} sound levels represent the single highest sound level sampled during the monitoring period and are controlled by short-duration sound events such as bangs and crashes. Limits on L_{Amax} sound levels are applied during the night time period only as a sleep protection measure and therefore apply to special events noise. Generally, music and sporting events do not generate high levels of L_{Amax} sound, with noise limits based on L_{Aeq} being appropriate to control potential adverse noise. This remains valid where there are single event impulsive noise sources such as those associated with fireworks, however such sounds will not be associated with the event.

Measurements of music concerts and events has shown L_{Amax} levels measured at 'far field' receiving sites generally measure less than 5 dB of L_{Aeq} levels. For those dwellings within close proximity such as IP-3 and IP-4 the noise would be constant type sound and L_{Aeq} and L_{Amax} levels be expected to be with 1-2 dB Thus, by adding a worst case of 5 dB for far field and 2 dB for near field (IP-3 and IP-4), predicted L_{Aeq} levels can be used as a guide to expected L_{Amax} levels.

10.7 Auxiliary Sound Pressure Levels

The noise modelling confirms audible sound levels will be received, at times, off site due to amplified music from the stages. This will be in addition to the more locally generated noise from vehicle traffic and people-based sounds, vendors, generators and the like. These localised sources are predicted to have little or no noise impact on the surrounding environment including at the closest sites who have not provided written approval. In regards to sound levels received off site at the closest applicable noise sensitive rural residential sites sounds from non-amplified sources such as people, on site entertainment, vendor equipment such as small generators will be at least 10 to 15 dB lower than sounds from sound amplification systems and thus will not increase the predicted cumulative sound emissions from these systems. As noted above, overall all auxiliary sounds will not result in significant noise received off-site, nor will the medium or smaller stages when the main stage is operating. This is because their inclusion in the predictions will make limited to no difference to predicted off-site cumulative noise levels except where these sources are within 10 dBA of the levels attributed to the sound system. In 'real terms' this means that the main stage (Arena One Stage) is the dominant sound source if it is operating simultaneously with the other stages. Accordingly, it is the noise from the main stage that would likely be audible off site at the closest applicable dwellings, even when all other axillary sound sources and the stages are operational.

11 Prediction Results

Cumulative sound levels including non-amplified sound sources have been predicted for applying the maximum cumulative L_{Aeq} noise emissions during peak time – all activities operating. The results are, therefore, a worst case in terms of concurrent activities as it is understood all stages and noise sources may not be operating at the same time, throughout the multiday day event.

The results were predicted as $L_{Aeq\ (5\ minutes)}$ sound pressure levels, in accordance with the recommendations of NZS6801:2008 and NZS6802:2008 for comparison with the permitted District Plan noise levels.

Table 11-1 indicates the predicted cumulative worst-case sound levels from three applicable receiver sites who have not provided written approval.

The worst-case sound pressure levels for the three sites who have not provide written approval is summarised in **Table 11-1** below.

Receiver Location	Address	Predicted Worst Case $L_{AEQ\ (5\ minutes)}$ dB Sound Level
IP3	**2/207 Whitehall Road**	68 dB L_{Aeq}
IP4	**1/207 Whitehall Road**	65 dB L_{Aeq}
IP6	**2/159 Whitehall Road**	44 dB L_{Aeq}
IP7	**196 and 178 Whitehall Cottage Accommodation**	41 dB L_{Aeq}
IP8	**178 Whitehall Dwelling**	40 dB L_{Aeq}
IP10	**15 Dunning Road**	42 dB L_{Aeq}

Table 11-1 Summary results –closest applicable residential site (who have not provided written approval).

For clarity, as discussed above we are advised by the Applicant that a significant number of landowners and occupiers have provided affected party approval. **Figure 11-2** indicates the predicted cumulative worst-case sound levels from receiver sites indicated as 55 dB $L_{Aeq\ (5\ minutes)}$ and 70 dB $L_{Aeq\ (5\ minutes)}$ contours. ***Appendix C*** shows an enlarged contour map to that illustrates in **Figure 11-2.**

N.B: Since conducting the original modelling a host of additional written approvals have been provided. This includes IP1 No 253 Whitehall (winstone aggregates and dwelling) IP2 No 308 Whitehall Road, IP5 No 3/207 Whitehall Road, IP9 No 17 Dunning Road, IP11 No 11 Dunning Road, IP12 No 103 Whitehall Road and IP13 No 57 Whitehall Road. **Table 11-1** above has been updated to include these changes and represents the applicable locations for assessment however IP1, IP2, IP5, IP9, IP11, IP12 and IP13 remain on **Figure 11-2** below, simply because the report is being finalised during the Covid-19 and the author does not have access to the acoustic model to update the graphics in **Figure 11-2.**

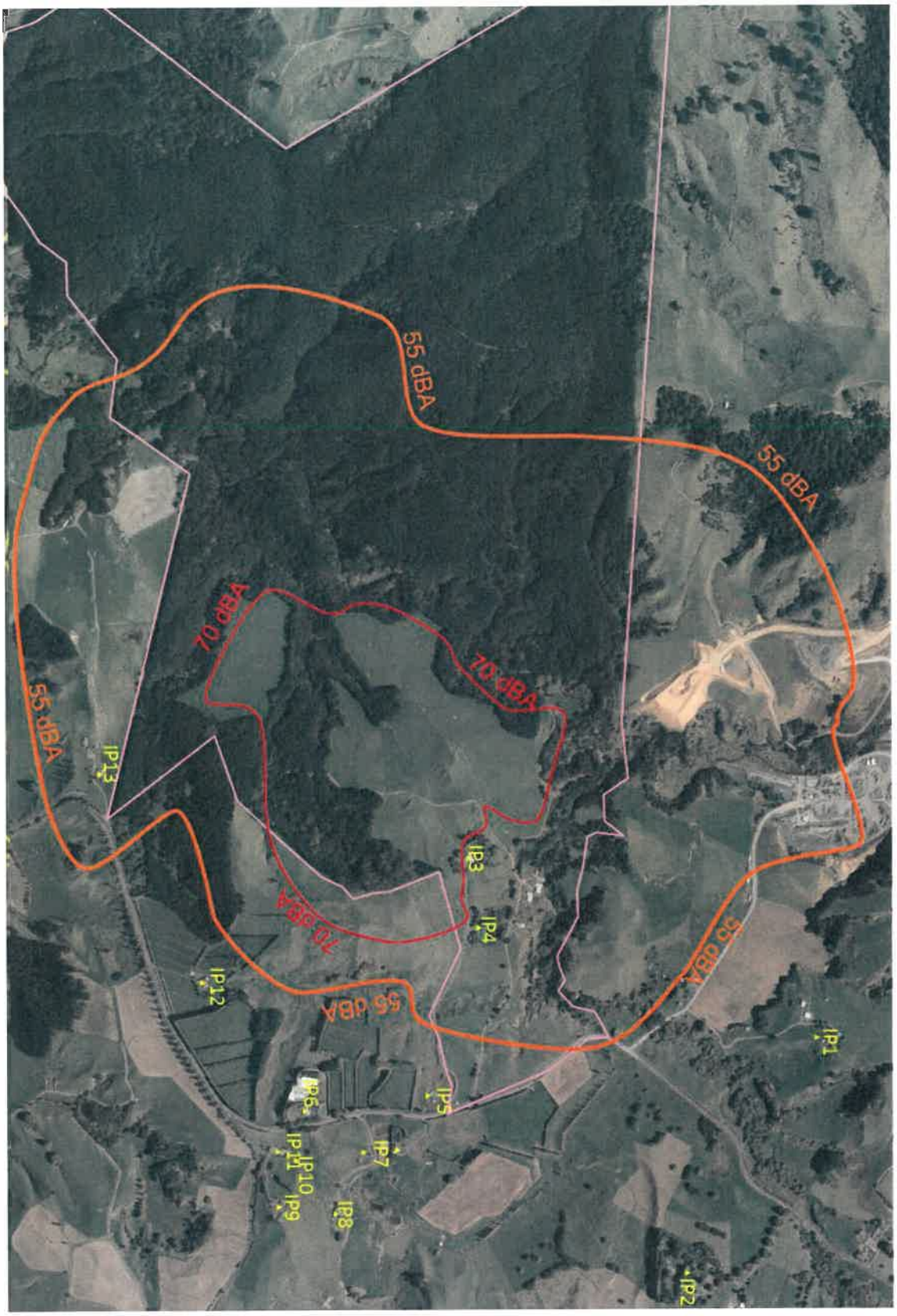

Figure 11-2 Predicted $L_{Aeq\ (5\ minute)}$ sound pressure level contour (55 dBA and 70 dBA). Not to Scale.

12 Assessment of Noise Effects

Noise is defined within the Act as "unwanted sound" and includes vibration. The capacity of noise to induce annoyance depends upon its physical characteristics, including its sound pressure level and spectral characteristics (frequency content), as well as the variations of these properties over time. However, annoyance reactions are also determined by many non-acoustical factors of a social, psychological or economic nature.

While there are considerable differences in an individual's reaction to the same noise, the guidance set out within documents such as New Zealand acoustic standards are based on social survey research on community response to noise. As such, published noise criteria are based on the typical response of the "average person" who is not overly sensitive or insensitive to sound in the environment.

An '*Outdoor Music Event or Festival*' is a term which can cover a wide range and combination of musical performances, however these events can generally be categorised as either urban (city events) which tend to be single stage concerts held in stadia, parks or urban settings with city backdrops. Examples of these include the Westpac (Sky) Stadium which hold events until around 11.00pm. The second type of event, as being proposed here, is rural festival events - these tend to be festivals that run over several days, have multiple stages and in some cases can operate past midnight.

In setting noise limits for outdoor music events, Councils must achieve an appropriate balance between the level of music required to provide satisfactory patron experience and protecting the amenity of surrounding rural residential residents. In doing this, it must be understood there is a minimum music level below which patron experience will be sub- standard. This matter is not typically considered in setting of noise objectives for other development types, but is critical to the success of outdoor music event and business model. As a *'rule of thumb'* for music levels from events outdoor where sound power levels are less than L_{Aeq} 100 (at source) is not considered to be sufficiently loud for most music genres, and is *likely* to elicit complaints from the event organisers and disgruntled patrons for being too low, while levels over L_{Aeq} 100 and up to 125 dB (at source) represent typical festival sound levels as being proposed. Levels over L_{Aeq} 100 may however also receive complaints from a small number of the community.

Festival One is a multi-faceted music, community and art event, with seminars and keynote sessions, art installations, and reflective spaces being as important as music and concerts on the stages. The festival is designed to be approachable for people of all ages – toddler care is provided, a children's programme, dedicated spaces for those with disabilities, and care taken to provide support for the elderly.

The festival is largely 'residential' with people arriving on the Friday and setting up camping communities (largely tents), as well as caravans and camper vans. Food and beverages are provided by a variety of food trucks, and all support services – toilets, showers, general store, etc are provided as self-contained pop up units. Power is be supplied from generators on-site. The festival is alcohol and drug-free event.

Festival One has a self-imposed night curfew of midnight, where amplified sound is turned off, and traffic movement is restricted other than for emergency medical needs. Special guests, overseas artists for example, are accommodated off-site in local B&Bs, homestays, motels and hotels.

The literature indicates environmental noise, such as may be emitted by recreational and entertainment activities can cause a range of noise effects for people in the local environment including annoyance and sleep disturbance – if the event occurs at night.

The over-riding requirement of the Act is for the noise-maker(s) to recognise and action the general duty to avoid unreasonable noise. Amplified sound from the Festival will exceed ambient sound levels with the actual level depending upon the time of day.

However, the event is limited in occurrence, duration and the Applicant proposes to implement a combination of noise mitigation measures during the event designed to manage and minimise the likely noise effects. The extended duration effect as an aggravating factor for noise-affected sites is reduced as the event will occur only very intermittently (annually) and will be conducted in accordance with an approved Noise Management and Noise Monitoring Plan (which includes monitoring) as per recommended consent conditions.

The normally applying District Plan nighttime noise limits will be exceeded for certain time periods and to a certain degree, while daytime limits will be complied with. This is common for almost all medium to larger scale music or festival events of this nature held nationwide.

Assessment of the impact needs take into account the limited duration of the event and that it is controlled in terms of hours of operation and noise levels. This assessment of noise effects has been carried out based on guidance for assessing noise effects contained within;

- *The Act;*
- *The relevant provisions of the Waipa District Plan;*
- *The relevant provisions of the Waipa District Plan including guidance from New Zealand Standards "NZS6801 Measurement of Sound and NZS6802 Assessment of Environmental Noise as set out in District Plan; and*
- *The requirement to manage noise effects set out under the Act.*

Section 17 of the Act places a general duty to avoid, remedy or mitigate adverse environmental effects of activities. Section 16 of the Act places a duty on all occupiers to adopt the BPO to ensure noise emitted from any site does not exceed a reasonable level. What constitutes a "reasonable level" is not defined by the Act. In terms of noise effects, under the District Plan the following key factors are considered:

- *Noise levels, and Mitigation of noise, and*
- *Duration and hours of the activity, and monitoring of noise levels, and*
- *The frequency and duration of events on a site.*

The management control and mitigation measures set out within the recommended conditions of consent are therefore considered adequate to address cumulative noise effects of holding the Festival One the day following the proposed pre-event. The noise modelling confirms significant sound levels will be received, at limited times, off site due to amplified music from the stages. This will be in addition to the more locally generated noise from vehicle traffic and people-based sounds, vendors, generators and the like. These localised sources are predicted to have little or no noise impact on the surrounding environment.

There is no doubt that effects of elevated outdoor noise from entertainment events could have an added effect if the event occurred on sequential nights, however in terms of the applicable receiving sites who have not provided written approval there are good buffer distances to these dwellings.

An Italian study[ii] found residents were additionally annoyed by outdoor music concerts at level of 73 to 81 dB L_{Aeq} held at the same outdoor venue over five consecutive evenings, when events took place between 10.00pm and 12.30am. The levels from the festival will not be anywhere near this level at the closest affected sites and the event will be over three nights not five. Overall, we consider the cumulative effect of outdoor events held sequentially over three days and nights would not be likely to give rise to additional adverse noise effects, when suitable managed as being proposed.

Based on sampling at Mystery Creek and elsewhere, ambient sound levels vary through the day and night depending on what is occurring in the area. Measurements taken during day time periods ambient sound levels would be typically found to be between 40 and 60 dBA in the rural area. During the evening and night time (when the festival is proposed to be in full operation) ambient sound levels would be expected to fall below 40 dBA. A range of district plan and resource consent conditions exist as examples for existing large scale noise events that permit events to be greater than normally permitted within day to day operational noise limits. Key to permitted raised levels from temporary events is the limited duration and noise control measures. **Figure 12-1** sets out examples of noise limits applying to various venues located in other districts, as indicated in the sample table various other events and districts permit higher levels of noise when suitable managed and limited in duration and occurrence (as is the case for a festival of this type).

Venue	Max No of Events PA	Total Duration PA	Noise Limit
Western Springs Concerts	6 PA	48 hrs	85 dB L_{A10}
Waikato Stadium	5 PA	20 hrs	80 dB L_{A10}
Auckland Viaduct Basin	15 PA	90 hrs	85 dB L_{A10}
New Plymouth Rugby Park	52 PA	260 hrs	60 dB L_{A10}
North Short Event Centre	6 PA	30 hrs	60 dB L_{A10}
Whangarei Stadium	5 PA	25 hrs	85 dB L_{A10}
Central Park Papakura	14 PA	84 hrs	85 dB L_{A10}
Homegrown Wellington	1 PA	15 hrs	75 dB L_{Aeq}
Bay Dreams Nelson	1 PA	48 hrs	75 dB L_{Aeq}
Westpac Stadium	6 PA	11 hrs	75 dB L_{Aeq}

Figure 12-1 Comparison of examples of noise limits applying to various venues located in other districts nationwide.

Figure 12-2 below shows the results of a U.K. study which found the greatest number of complaints correlated with the degree to which concert sound exceeded the normal background L_{Aeq} sound level.

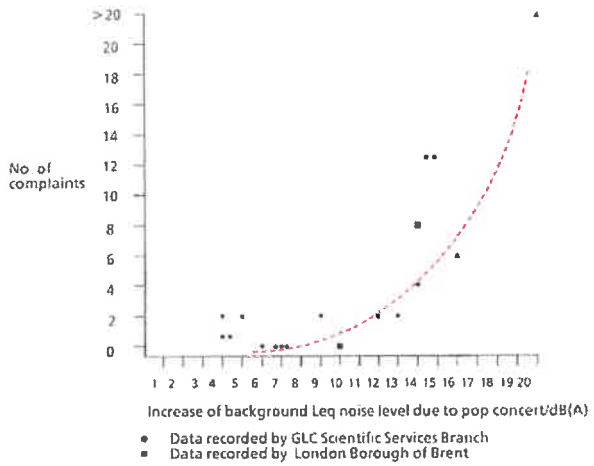

Figure 12-2 Number of night time complaints received versus the amount by which concert sound (L_{Aeq}) exceeds ambient sound (L_{Aeq})

The above relationship confirms concert noise may be more annoying at times when a low ambient sound, level is normally present. This effect is proposed to be addressed by the identified noise mitigation measures outlined below which are considered, collectively, to form the BPO to ensure noise from the event is not unreasonable.

The over-riding requirement of the RMA is for the noise-maker to recognise the general duty to avoid unreasonable noise by implementing various noise mitigation measures where it is practical and reasonable to do so.

The following summary is provided:

- *The noise modelling confirms high levels of sound levels will be received within the immediate area on site at times namely during the operation of the Main Stage (Arena One) which will occur at night time;*

- *It is important to understand that the worst-case levels of up to 68 dB $L_{Aeq\ (5\ minutes)}$ will only occur at night time. Based on past events these levels generally occur only for a few hours with programming between 7.30pm onwards each evening.*

- *Based on maximum festival noise levels as shown in **Figure 11-2**, the closest dwellings not located on the site, who have not provided written approval at the time of finalising the report, will receive amplified sound at levels between 40 to 68 dB $L_{Aeq(5\ minutes)}$. As noted above this will be for the limited nosiest periods under enhanced sound propagating conditions.*

- *The locations of affected dwellings indicate the majority will receive festival sound at levels between 40 to 50 dB $L_{Aeq(5\ minutes)}$.*

- *Two dwellings only (IP3 and IP4) are predicted to receive levels above 50 dB $L_{Aeq(5\ minutes)}$. All other dwellings shown in the modelling will be less than 45 dB $L_{Aeq(5\ minutes)}$.*

- *The District Plan also sets L_{AFMax} limits for sleep protection purposes that apply during night time. L_{AFMax} sound levels are controlled by short-duration sound events such as bangs and crashes which would unlikely occur from an event of this nature when suitable managed as being proposed. Monitoring of music events has shown the L_{Amax} to be within 5 dBA of the measured L_{Aeq} levels in the far field and within 1-2 dB with the near field. Thus, L_{AFMax} levels of up to L_{AFMax} 70 dB are predicted for the worst-case assessment location (IP3). The District Plan permitted L_{AFMax} level of L_{AFMax} 70 dB will be complied with at all sites.*

- *Currently the District Plan permits a level of 50 dB $L_{Aeq(5\ minutes)}$ for day time and 40 dB $L_{Aeq(5\ minutes)}$ / L_{AFmax} 70 dB night at the notional boundary of any rural dwelling. Clearly the event will exceed these limits at certain times, by up to 13 dB $L_{Aeq(5\ minutes)}$ daytime and 23 dB $L_{Aeq(5\ minutes)}$ after 10.00pm, for a limited period of time being approx. two hours.*

- *In addition to amplified sound there will be auxiliary sounds generated from vehicles, people-based sounds, camping, vendors and generators. These localised sources are predicted to have little or no noise impact on the surrounding environment or off site. People based sound from crowd noise may occasionally be audible in the immediate area but this sound source along with all other auxiliary sound sources are predicted to be fully complaint with the District Plan noise limits for both day and night time operations.*

- *The Applicant is an experienced operator and will be putting in a host of noise control measures which are discussed further below, including real time monitoring throughout the event.*

12.2 Proposed Noise Control Boundary

Most environmental noise guidelines for festivals of this type set levels which are to be met at the nearest residence or notional boundary of the dwelling. This is a logical location as it is where the most potential impact will typically occur and if required, allows for mitigation measures to be developed that will reduce the receiver impacts so as to remain complaint at all times. Such performance-based criteria allow music event operators to determine how to best manage event impacts. Front of House (FoH) levels are shown to be effective for controlling music levels and impacts in urban settings such as city stadiums where dwellings are close by this method does not in the authors experience translate very successfully to control of multiple stages in rural areas where cumulative impacts are hard to analyse due to changing metrological conditions and large distances. Although FoH levels are still proposed to be monitoring in conjunction with levels at distance receiver sites.

To ensure the levels of noise emission during the event remain reasonable at all times and as presented in this report, monitoring of sound levels at a designated "**Noise Control Line**" is proposed to be undertaken by a suitable qualified and experienced acoustic engineer.

This approach has been successfully adopted by a range of music events such as Parachute Music, Festival One, Homegrown and Bay Dreams and other festivals for noise management in the past and provides the Council, Applicant and others with certainty regarding noise control at source. The recommended location of the Noise Control Line is shown above in ***Appendix C***. A total of two measurement locations are being proposed (MP-1 and MP-2).

12.3 Set up and Take Down Noise Levels

The set up and pack down will involve people, equipment and vehicle sounds. At most sites some temporary construction works will be required involving limited impact sounds from banging of metal on metal for the set-up PA, stands, marquees etc. The movement of vehicles onto and off the site, small forklifts, a front-end loader, and mobile lifting equipment (Hiab truck) will generate low level sounds not likely to be detectable off site when suitable managed. The District Plan requires assessment for temporary construction noise in line with ***NZS6803: 1999 Acoustics Construction Noise.***

Based on the information available and size and scale of the works to be undertaken, the available separation distances, and the hours of operation, noise emitted during set up and take down noise levels are not predicted to exceed the District Plan permitted activity noise standards for the Rural Area regarding temporary set up and take down noise. The client will as part of their noise management methods provide a construction noise management plan for set up and take down noise, this will focus on the hours of operation that certain tasks can take place.

13 Noise Management Methods

The provisions of sections 16 and 17 of the Act require that activities adopt methods to avoid, remedy or mitigate potential adverse noise effects. It is the consent holder's ultimate responsibility to manage and control noise on their site.

The following noise control methods are critical to ensure noise from the event is suitable managed and controlled at all times. The Applicant advises that each of these noise measures are agreed to and will be adopted throughout each event:

13.1 Historical Compliance

We note the Applicant has achieved historical compliance with the noise controls set out within the Resource Consent conditions for Festival One held at Mystery Creek which have been assessed based on field measurements of L_{Aeq} dB and L_{Amax} dB levels taken at nominated "noise boundary" positions, at various times throughout the many events. We note that during the last Festival One event in 2018 the Waipa Council Nosie Officer came out with the author to ensure they were satisfied with the program of monitoring and review. The author is of the view that compliance has been achieved due to the real time monitoring which is conducted throughout the event and allows levels to be measured and when required reduced to ensure they comply at all times.

13.2 Hours and Duration of Event

The event will start on the Friday mid-morning (around 11.00am) before Auckland Anniversary weekend. The event will run through Friday, Saturday and Sunday with people leaving on the Monday with the site generally vacated and closed to the public by the evening by 6.00pm. The first event will start from the year 2021 onwards. Amplified music will occur until 12.00 midnight. Amplified sound only associated with the sound stages. No vendors or operators on-site will be authorised to generate amplified sound higher than background levels. The hours of main acts employing loud amplified music will be 6.00pm and 12.00 midnight Friday, Saturday and Sunday. Stages will operate at the same time which has been taken into account within the above predicted noise levels from this site. In summary, worst-case amplified sound emissions will occur over 3x 6-hour windows with the level of off-site noise effects expected to be less during day times due to higher ambient sound levels at these times.

13.3 Number of Patrons

The Application is for a maximum of up to 10,000 fee paying patrons, we understand that the expected numbers of volunteers and support crew would be in the order of 2,000 persons.

13.4 Designated Areas and Site Layout

The assessment here is based on the site layout in **Figure 4-2** which sets out the designated areas for key sound sources such as the Main Stage (Arena One Stage) where headline acts are located a 'secondary' stage referred to here as the 'Music Box Stage' (Stage 2), and smaller stages.

13.5 Reporting and Measurements

All acoustic compliance measurements will be conducted by a suitable qualified and experienced person. A written record shall be kept throughout all field measurements. This record shall be used to provide a compliance report setting out results of all monitoring results as A-weighted decibel levels for total overall $L_{Aeq\ (5\ mins)}$, $L_{eq\ (5\ mins)}$ at 63 Hz and $L_{eq\ (5\ mins)}$ at 125 Hz. These levels shall be reported (where relevant) consistent with the reporting requirements outlined in the resource consent conditions and NZS6801:2008 Acoustics - Measurement of Environmental Sound. A written compliance report shall be issued to Council at the completion of the event.

The report shall be issued no later than two weeks. The report shall also have appended to it a summary of any noise complaints i.e. The Noise Liaison Manager noise log. This summary shall be prepared and issued to Council by the Event Organiser and the Noise Liaison Manager.

13.6 Real Time Event Noise Monitoring

In order to ensure the levels of noise emission during the proposed Festival One events remains reasonable at all times, real time field monitoring of sound levels at a designated boundary locations, along the 55 dB $L_{Aeq\ (5minutes)}$ predicted. We note real time off site monitoring is recommended (as opposed to monitoring just at the sound desk) to ensure levels in the far field were people reside.

We are of the view a level of up to 55 dB $L_{Aeq\ (5minutes)}$ and 65 dB L_{AFMax} as well as setting limits at 63 Hz and 125 Hz for LFN is reasonable for the protection of health and amenity when considered in conjunction with the other detailed noise mitigation measures including but not limited to duration and frequency of the sound levels, character of the sound and that this is a maximum level.

This approach is supported by the Applicant and has successfully been adopted for noise management for other events in by the author nationwide as well as Parachute and Festival One at Mystery Creek. The recommended monitoring location of the noise monitoring locations is shown below in ***Appendix C***. There is therefore an obligation for the Applicant to implement field measurement of all Festival sound levels at the designated monitoring points during the event (and to report the results) is set out within the conditions of Consent recommended below[iii].

Effective noise control and management during the event relies on the checks conducted via real time field monitoring. The measured sound levels will be presented in a compliance report to the Council following the event. The method of field monitoring involves real-time liaison with the event manager or noise liaison person who has the ability/authority to implement 'instant' changes to sound levels during the event by providing instruction to audio/mix engineers. This is important as wind direction and weather conditions for example can change and it is important to be able to respond to ensure the proposed level of 55 dB $L_{Aeq\ (5\ minutes)}$ is complaint at all times. To ensure the levels of noise emission during the proposed festival remains reasonable at all times, real time field monitoring of sound levels at a designated boundary locations, along the 55 dB $L_{Aeq\ (5minutes)}$ predicted contour line, will take place.

We note real time off-site monitoring as opposed to monitoring just at the sound desk will be undertaken so as to ensure levels in the far field were people reside. We consider a level of up to 55 dB $L_{Aeq\ (5minutes)}$ as well as setting limits at 63 Hz and 125 Hz for LFS is reasonable for the protection of health and amenity when considered in conjunction with the other detailed noise mitigation measures including but not limited to duration and frequency of the sound levels, character of the sound and that this is a maximum level. This approach is supported by the Applicant and has successfully been adopted for noise management for other events nationwide.

The recommended monitoring location of the noise monitoring locations is shown below in ***Appendix C***. Monitoring will be conducted by a suitable qualified and experienced acoustic consultant who has suitable training in this area and has a suitable understanding and training in acoustics and application of the New Zealand acoustic standards. There is therefore an obligation on the Applicant to implement field measurement of all festival sound levels at the designated monitoring points during the event (and to report the results to Council in a noise compliance report). This is set out within the recommended conditions of consent below.

Figure 13-1 is a photo of monitoring of time varying and octave sound levels during Festival One in 2018.

Figure 13-1 Photo of noise monitoring during Festival One at Mystery Creek.

For clarity it is noted that:

- *Monitoring will be undertaken throughout the entire festival event by a suitable qualified and acoustic consultant suitable to Council.*
- *The consultant shall be suitably trained and has a suitable understanding and training in acoustics and application of the New Zealand acoustic standards.*
- *Monitoring will be undertaken also during set up and take down (normally by the Applicant)*
- *Monitoring will be undertaken to calibrate the stages.*
- *Monitoring shall be undertaken each year for each event.*
- *Detailed noise management and monitoring plans will be provided.*
- *A noise compliance report will be prepared at the completion of each event and submitted to Council.*
- *As with past festival events Councils Environmental Noise Officers will be most welcome to come and review the measurement methods and techniques undertaken throughout the festival by the acoustic consultant at any time throughout the festival.*

13.7 Operational Noise Monitoring and Management Plans

Two separate management plans are proposed these are 1) Noise Monitoring and 2) Management Plans for each event. It is proposed that draft plans be provided to the Council for comment as draft each event. This provides both council and the community with certainty around the protocols for management of noise at source, and in the steps taken to measure sound levels in the field throughout the event. These plans also set out assessment locations for measurements, consultation process, non-compliance noise monitoring procedures and reporting requirements. Traditionally noise monitoring and management plans are prepared once Resource Consent is granted to ensure the plans cover off all Council requirements and conditions relating to noise. For clarity it is noted that:

- *A separate noise monitoring and noise management plan will be prepared by a suitable qualified and experienced acoustic consultant who has suitable training in this area and has a suitable understanding and training in acoustics and application of the New Zealand acoustic standards.*
- *A draft noise monitoring and noise management plan shall be prepared as draft for comment and sign off by Council.*
- *A noise monitoring and noise management plan shall be prepared each year for each separate event.*

Figure 13-2 and **Figure 13-3** is a screen shot from the table of consents from a noise management and noise monitoring plan for a large festival of this nature.

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Figure 13-2 Sample table of contents for noise management plan. Source Cardno.

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Figure 13-3 Sample table of contents for noise monitoring plan. Source Cardno.

13.8 Community Noise Complaints

Figure 13-4 Illustrates the flow chart which will be used for noise complaints during the festival. The flow chart would form part of the noise management and monitoring plans.

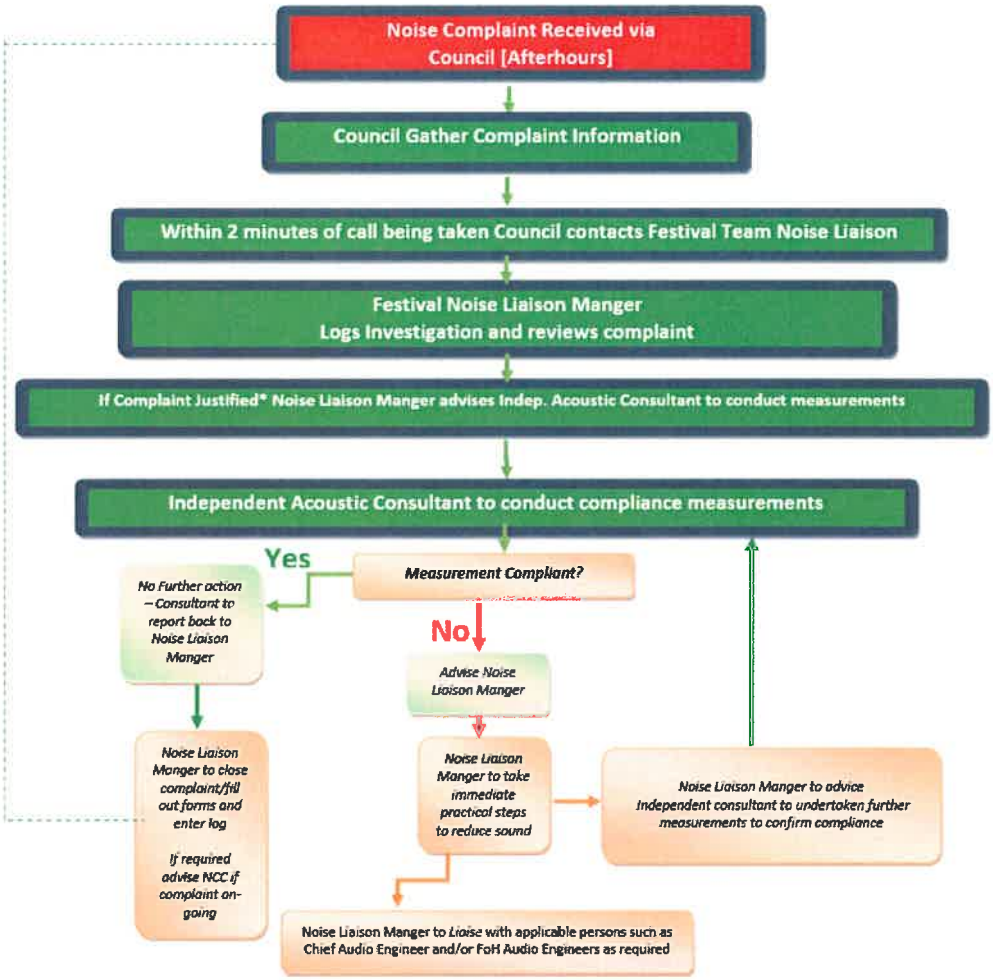


Figure 13-4 Festival noise complaint and monitoring.

13.9 Consultation & Liaison with the Community

Consultation with the surrounding community is an absolute key noise management method in the author's experience. Consultation is an important issue for large events such as the festival. The Applicant has undertaken detailed consultation so as to ensure there are 'no surprises' for the Council or the community, and so the community is aware of when the event will occur and parameters around it. Appropriate consultation after Resource Consent is granted is also going to be undertaken so as to ensure the community remains aware of the events. This is particularly important for people living within the 'noise affected area' which we define as within 1.0km of the site. Availability to receive complaints or comments from the surrounding community during the event is also an important mitigation measure. The Applicant will therefore notification via leaflet drops to all potentially affected sites within 1.0km of the site at least four weeks prior to the event.

13.10 Applicant Experience

The Applicant is an experienced operator who has organised and operated the Festival One event for several years at Mystery Creek. Importantly in addition to the Applicant is the noise and environment team. We note that the Festival Project Manager has worked with Lindsay Hannah (author of this report) since the inception of Festival One. The following chart indicates a flow chart of persons charged by Festival One to undertake both onsite and offsite acoustic noise monitoring and management of sound levels from past Festival One events at Mystery Creek. **Figure 13-4** show the Festival One 'Acoustic Monitoring Team' structure and related chief noise sources on site.

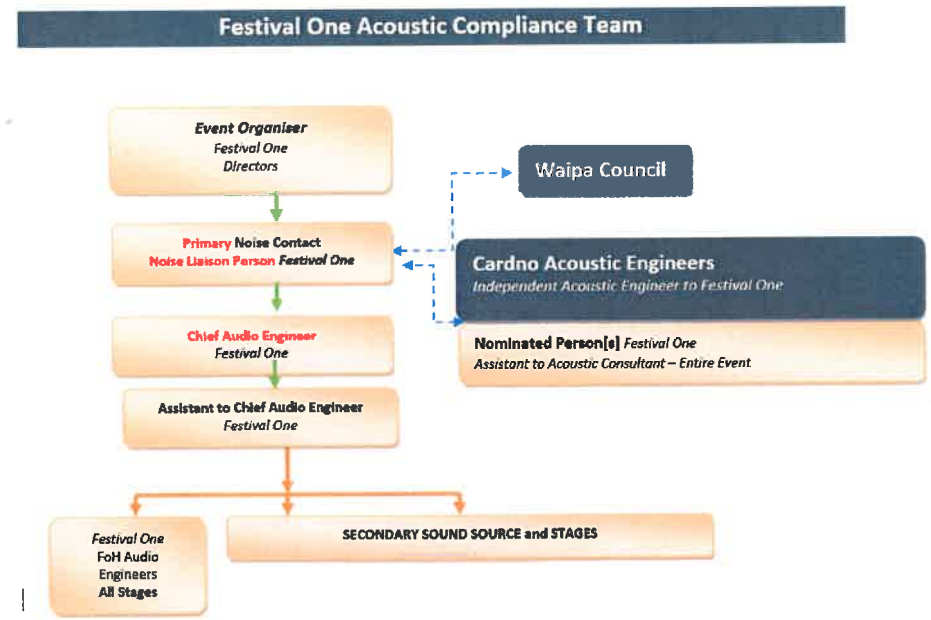


Figure 13-5 Festival One Acoustic Monitoring Team structure and related chief noise sources on site.

13.11 Construction Noise Management Plan (Set Up and take Down)

A construction noise monitoring will be prepared by a suitable qualified and experienced acoustic consultant who has suitable training in this area and has a suitable understanding for all temporary construction works. The key to the plan will be the management of noise during night time.

13.12 Sound System Design, Set Up, Calibration and On-Going Operations

Noise received off site can be minimised via careful design, set up, calibration and operation of the sound systems to be installed at each of the proposed stage locations. Noise received off site can be minimised via careful design, set up, calibration and operation of the sound systems to be installed at each of the four proposed stage locations. We are advised the Festival One organiser will ensure the chief audio engineer and production company as well as all FoH operators are made to understand the precautions needed to be taken in the design and set up the sound systems to ensure the proposed levels comply with the self-imposed noise contour limit at all times. The precautions will include carefully selecting stage sites and ensuring speaker orientation towards the pine forest and directed away from any sensitive receiver site in the local area.

The precautions will also include ensure suitable settings for the control of Low Frequency Noise (LFN). This approach should be employed for all stage sound systems. The system shall be designed with sub woofers located at or close to ground level. Mid and high frequency speakers should be directed inwards, towards the crowd area. The following is a diagram showing how low frequency bass sounds are able to be contained within confined areas by good speaker design and placement. This shows how sound levels can drop rapidly with distance when with correct equipment and sound system design are employed.

The Festival organiser will ensure the chief audio engineer and production company, as well as all front of house (FoH) operators, understand the precautions needed to be taken in the design and set up the sound systems to ensure the proposed levels comply with the self-imposed noise contour limit at all times. The precautions will include carefully design of stage set up and ensuring speaker orientation and directed away from any sensitive receiver site in the local area as far as possible. The precautions will also include ensuring suitable settings for the control of LFS. This approach should be employed for all stage sound systems. The system shall be designed with sub-woofers located at or close to ground level. Mid and high frequency speakers should be directed inwards, towards the crowd area. The sound desk operators must use careful control over music volumes and LFS spectrum at all times. While certain high levels of sound are a necessity, sound technicians at FoH shall be made aware that they are responsible for sound levels from each stage. However the chief audio engineer must have overall responsibility. Prior to the event commencing, the technicians are to be given a special briefing on containing off-site noise to reasonable levels whenever possible. To achieve this aim, sound stages should be calibrated before the event and levels kept within the range they are set at.

13.13 Fireworks and Helicopter Movements

The Applicant advises that no fireworks displays or helicopter rides will occur. For avoidance of doubt, this should not prohibit helicopter operations not directly associated with the festival (for example, helicopters used by the media which the festival organiser cannot have any control over) or helicopters used for emergency purposes. Our experience indicates both fireworks and helicopters sound sources can cause issues with the rural community particularly in relation to effects on animals, in particular horses.

14 Summary

Cardno has undertaken an assessment of noise effects for the proposed Festival One Music Festival to be held at a site in Whitehall Road, Karapiro staring in the year 2021 onwards. This assessment, prepared in accordance with the 4th Schedule of the RMA has identified worst case operational envelope for noise levels, described the potential effects and outlined the range of management and mitigation measures that are considered necessary to ensure noise effects are controlled to reasonable levels.

Predicted noise from "worst case" activities (at maximum capacity) have been assessed against the relevant Waipa District Plan permitted activity noise standards for the site. Our assessment confirms the activity will not be able to comply with Waipa District Plan permitted activity noise performance standards at all times.

Non-compliance is expected mainly during the limited evening and night period during 7.30pm to 12.00 midnight when the main entertainment acts will be on stage. Non-compliance is limited to number of close-by rural dwellings in the area (in the order of 6 dwelling who have not provided written approval are expected to be affected by some degree by event sound).

This assessment has identified various noise mitigation measures to ensure the effects are not unreasonable under the circumstances. The means by which noise emissions are to be contained is to ensure cumulative event noise does not exceed 55 dB $L_{Aeq\ (5minutes)}$ and 65 dB L_{AFmax} at the nominated noise control boundary.

This is proposed to be checked via field measurements taken at two boundary locations on this noise contour line. We are also recommending the control of LFN via setting limits at 63 Hz and 125Hz. We are of the view that cumulative, worse-case event sound contained in this manner (for the duration and hours proposed) will

provide reasonable protection against adverse health and amenity noise effects due to amplified sound associated with the event.

This assessment has identified a range of detailed best practice noise mitigation measures to ensure the effects are not unreasonable under the circumstances. The means by which noise emissions are to be contained is to ensure cumulative event noise does not exceed 55 dB $L_{Aeq\ (5minutes)}$ at the nominated noise control boundary. Measurements will be undertaken and compliance checked via real time field measurements taken at the selected control boundary locations by a suitable qualified and experienced acoustic consultant throughout the entire event. Results will be reported back to Council in a formal compliance report.

Overall, noise effects of the proposed event are able to be limited in scale and extent and can be adequately controlled providing the recommended mitigation measures are adopted (as proposed by the Applicant).

Our assessment findings are based on the noise-related conditions being fully adhered to as set out below in Section 15.

15 Recommended Conditions of Consent

Overall, there appear to be no basis for not granting consent on noise grounds.
If Consent is granted, we recommend the following conditions be attached to the consent:

A. *The Consent Holder shall ensure that Festival One operations including all amplified sound sources are managed so that cumulative sound from the site do not exceed the following noise limits when assessed over any 5-minute period at any of the two nominated noise compliance measurement locations (MP-1 and MP-2) shown in* ***Appendix C***

   55 dB $L_{Aeq\ (5\ minutes)}$
   75 dB $L_{eq\ (5\ minutes)}$ at 63 Hz
   70 dB $L_{eq\ (5\ minutes)}$ at 125 Hz
   65 dB L_{AFmax}

B. *The Consent Holder shall ensure noise shall be measured in accordance with NZS 6801:2008 Acoustics – Environmental Sound and assessed in accordance with NZS 6802:2008 Acoustics – Environmental Noise, except that Section 6.3.1 of NZS6802 shall not apply i.e. measured levels shall not be adjusted for special audible characteristics for comparison with the above limits in Condition A.*

C. *The Consent Holder shall ensure measured sound pressure levels shall be sampled over a 5 minute period.*

D. *The Consent Holder shall ensure all acoustic sound level monitoring and reporting shall be undertaken by a suitable qualified and experienced (SQAE) acoustic consultant suitable to Council.*

E. *The Consent Holder shall ensure no amplified sound stages shall operate between the hours of 12.00 midnight and 9.00am daily.*

F. *The Consent Holder shall forward to Waipa Council a written detailed noise compliance report within 2 weeks following completion of the festival. For avoidance of doubt all acoustic monitoring and reporting shall be undertaken by an experienced acoustic consultant suitable to Council.*

G. *The Consent Holder shall forward to Waipa District Council a draft* ***Noise Management Plan*** *for approval no less than 45 days prior to the event. The plan shall set out the managerial and physical noise mitigation methods to be employed during the event to ensure cumulative noise from the site does not exceed the limits set out in Condition A. This plan shall be prepared by a qualified and experienced acoustic consultant suitable to Council. For avoidance of doubt a new management plan shall be provided for each individual festival event.*

H. *The Consent Holder shall forward to Waipa Council a draft* ***Noise Monitoring Plan*** *for approval no less than 45 days prior to the event. This plan shall be prepared by a qualified and experienced acoustic consultant suitable to Council and shall set out the proposed method and frequency of readings to be taken at the approved monitoring locations by the approved acoustic consultant during the festival program. For avoidance of doubt a new monitoring plan shall be provided for each individual festival event.*

I. *The Consent Holder shall forward to Waipa Council a draft* ***Construction Noise Management Plan*** *for set up and take down for approval no less than 30 days prior to the event. This plan shall be prepared by a qualified and experienced acoustic consultant suitable to Council. For avoidance of doubt a new construction plan shall be provided for each individual festival event.*

J. *The Consent Holder shall ensure all activities authorised by this Consent are undertaken in accordance with the final approved noise management, noise monitoring and construction noise plans approved by Waipa District Council.*

K. *The Consent Holder shall ensure that during the entire event and no less than 10 working days prior to the day of the event that a free call 0800 or 0508 number is set up to allow direct contact by the community and council. The contact number should be provided via a physical letter drop and if able via email to the dwellings noted in Map 1. The Consent Holder shall ensure the free call number if answered by a person and be available between 8.00am and 12.00 midnight daily*

L. *The contact number should be provided via a physical letter drop and if able via email to the dwellings in the surrounding community within 1km of the site. The Consent Holder shall ensure as far as practical the free call number if answered by an actual person at all times and responded to within a short period but no longer than a 30 minute period.*

M. *The Consent Holder shall ensure that fireworks or pyrotechnical displays are associated with the consented Festival One event.*

N. *The Consent Holder shall ensure that helicopter movements such as rides are not provided to festival goers as an entertainment activity at any time. For avoidance of doubt, this condition does not prohibit helicopter operations not directly associated with the Festival (for example, helicopters used by the media) or helicopters used for emergency purposes such as fire or medics.*

Lindsay Hannah.

M.A.S.N.Z (M202HL). M.I.E.H. Assoc NZPI. MWAA.
MPhil- Acoustics (Sc) (Dist.).
Post Graduate Diploma Science (Dist.).
Bachelor Building Science
Lindsay Hannah for Cardno on behalf of the Applicant

APPENDIX

A

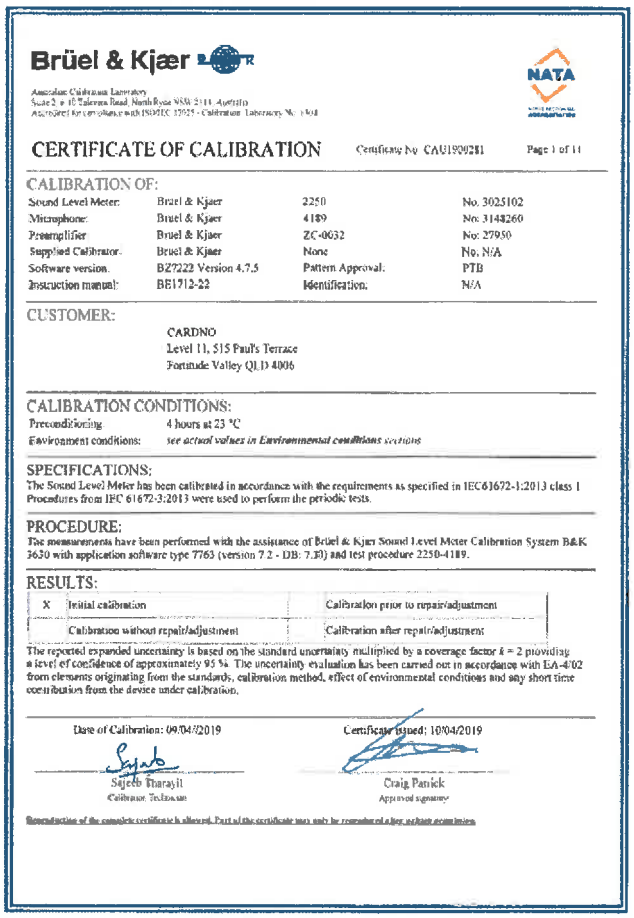
EQUIPMENT DETAILS

Cardno Acoustic Engineer Equipment List – Sound Level Meter and Calibrator		
Equipment	**Manufacture and Type**	**Serial Number/Details**
Bruel and Kjaer 2250 Sound Level Meter	Bruel and Kjaer 2250 Sound Level Meter	Serial Number: 3025102. Sound Level Meter complying with IEC 60651 Type 1, IEC 804 Type 1, and IEC1260 Class 1 specifications for Sound Level Meters
Bruel and Kjaer Calibrator Type 4230	Bruel and Kjaer Calibrator	Bruel and Kjaer Calibrator Type 4230. 94 dB @1000Hz. Serial Number: 622678
Inner and Outer Wind Screens	90 mm Foam Wind Screen type UA237 and 200 m foam wind screen	Bruel and Kjaer

Cardno Acoustic Engineer Equipment List – Navigation and Environment	
Garmin GPS Unit	Garmin GPS 60 Navigator
Garmin GPS Software	Garmin GPS 60 Navigator Software
Digital Camera (with motion picture functions)	Nikon A900 Digital Camera
Hand Held Digital Thermometer	Holy Oak Air Management Solutions Sh-102
Hand Held Digital Anemometer	Skywatch Xplorer 2 JD Instrument

APPENDIX B

CALIBRATION CERTIFICATION



Brüel & Kjær

Accredited Calibration Laboratory
Unit 2, 16 Talavera Road, North Ryde NSW 2113, Australia
Accredited for compliance with ISO/IEC 17025 - Calibration Laboratory No. 1301

NATA

CERTIFICATE OF CALIBRATION

Certificate No: CAU1909281 Page 1 of 11

CALIBRATION OF:

Sound Level Meter:	Brüel & Kjær	2250	No. 3025102
Microphone:	Brüel & Kjær	4189	No. 3148260
Preamplifier:	Brüel & Kjær	ZC-0032	No. 27950
Supplied Calibrator:	Brüel & Kjær	None	No. N/A
Software version:	BZ7222 Version 4.7.5	Pattern Approval:	PTB
Instruction manual:	BE1712-22	Identification:	N/A

CUSTOMER:

CARDNO
Level 11, 515 Paul's Terrace
Fortitude Valley QLD 4006

CALIBRATION CONDITIONS:

Preconditioning: 4 hours at 23 °C
Environment conditions: *see actual values in Environmental conditions section*

SPECIFICATIONS:

The Sound Level Meter has been calibrated in accordance with the requirements as specified in IEC61672-1:2013 class 1 Procedures from IEC 61672-3:2013 were used to perform the periodic tests.

PROCEDURE:

The measurements have been performed with the assistance of Brüel & Kjær Sound Level Meter Calibration System B&K 3630 with application software type 7763 (version 7.2 - DB: 7.3f) and test procedure 2250-4189.

RESULTS:

X	Initial calibration		Calibration prior to repair/adjustment
	Calibration without repair/adjustment		Calibration after repair/adjustment

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k = 2$ providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device under calibration.

Date of Calibration: 09/04/2019 Certificate issued: 10/04/2019

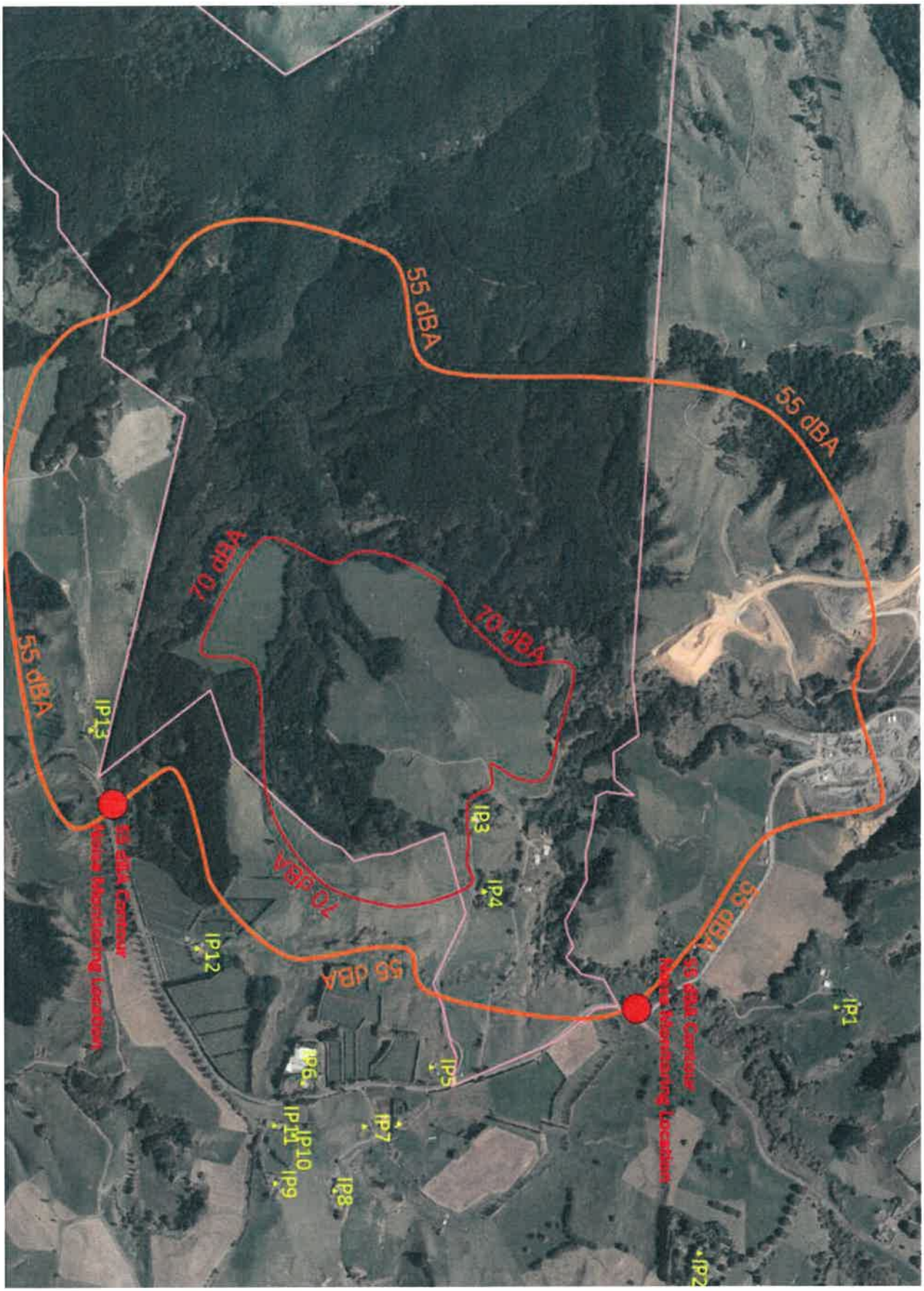
Sajeeb Tharayil
Calibration Technician

Craig Patrick
Approved signatory

Reproduction of the complete certificate is allowed. Part of the certificate may only be reproduced after written permission.

APPENDIX C

NOISE CONTROL BOUNDARY


55 dBA
55 dBA
70 dBA
70 dBA
55 dBA
IP13
IP3
IP4
70 dBA
IP12
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IP6
IP5
IP11
IP10
IP7
IP9
IP8
IP1
IP2

[i] Permitted under Waipa District Council Resource Consents Decision LU/0197/12 dated 2013, which permits a total of 5 festival events to be held between 2014 and 2018 at Mystery Creeks

[ii] Recreational noise: Impact and costs for disturbed residents in Milan and Turin by Elisabetta OTTOZ; Lorenzo RIZZI, Francesco NASTASI. Conference Proceedings, InterNoise16, Hamburg GERMANY, pages 6841-7829.

[iii] N.B The two proposed locations have been selected with health and safety in mind where there is a suitable location to allow the consultant to pull off the road and have good sight lines and suitable buffer away from the roading corridor to set up and operate, which is very important at night time when conducting monitoring in a dark rural area with little or no lighting

APPENDIX E

Integrated Transport Assessment

9 June 2020

Proposed Festival One Event
209 Whitehall Road, Whitehall
Integrated Transport Assessment

Festival One

ISSUE 2, 9 JUNE 2020

Proposed Festival One Event
209 Whitehall Road, Whitehall
Integrated Transport Assessment

Festival One

Prepared by: .....

Melanie Parsons

Reviewed by: .....

Alastair Black

ISSUE 2, 9 JUNE 2020

2 Alfred Street
PO Box 14178
Hamilton, 3214
Tel: 07 853 8997

graymatter

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EXECUTIVE SUMMARY

Festival One (the Applicant) is proposing to hold a Christian music festival near Cambridge over the Auckland Anniversary weekend. The site is at 209 Whitehall Road, Whitehall (near Karapiro). Whitehall Road connects to SH1 (Tirau Road) via Karapiro Road.

The Applicant intends to apply for resource consent to Waipa District Council to hold the event annually.

The site is located on the west side Whitehall road, approximately 2.5km north of the intersection with Karapiro Road and 4.2km from SH1 Tirau Road.

The Proposed Festival

The event is a four-day Christian music and entertainment festival with provision for attendees to come and go as desired each day or camp on site (tents or campervans) for the full or part duration of the event. For the past four years the Festival One event has been held at Mystery Creek near Hamilton.

The event would be held over Auckland Anniversary weekend. The festival would allow public access from 6am Friday morning (parking only, ticketing/event access not active until 10am) until 2pm Monday afternoon. The programme from the 2018 event is attached in Appendix H.

Based on information supplied by the Applicant, the audience arrives over an extended period which should reduce the peaks in trip generation. We understand from the Applicant that the audience is willing to follow directions and travel advice delivered via the Festival One app, which will be helpful in directing them to the preferred routes.

Festival One intend to grow the event over a period of several years, from the existing 3,300 tickets to a maximum of 10,000 tickets. The total number of people on site at any time will be approximately 12,000 if all staff, volunteers, and special guests (artists/musicians/speakers) are included.

For the 2021 event, the Applicant would like to sell up to 6,500 tickets if there is demand. We have based our assessment of the 2021 event being for 6,500 tickets even though it may take several years for the festival to reach this size.

Trip Generation and Distribution

For the purposes of this ITA we have based our evaluation on the maximum number of ticket-holders as 10,000, plus 2,000 staff, volunteers and special guests. The current estimated attendance is less than half of this, with the festival expected to grow over a period of approximately 5 years. For the 2021 event, the number of tickets is likely to be approximately 6,500 with 1,200 staff, volunteers and special guests.

The expected total number of trips generated by the entire festival operation is 14,760. Ticket-holders make 70% of the total trips (10,280 trips), with 30% of trips made by staff/volunteers and special guests (4,480 trips).

Trips will peak several times over the weekend, compounded by the 1-day tickets being used on the Saturday and Sunday, and the majority of people departing at the end of the festival.

We have distributed the trips based on information supplied by the Applicant showing the origin of festival attendees as being, 65% from north/Auckland, 22% from the south, and 13% from the east

(Tauranga). We used these proportions to distribute the event traffic on the transport routes and assess the transport effects.

Summary of Transport Effects

The adverse effects of the proposed activity relate mainly to the additional traffic using the local roads and are likely to be no more than minor provided that the suggested mitigation measures are implemented. The effects are likely to be focussed at the Karapiro Road/Whitehall Road intersection and along Whitehall Road for the arrival trips. For the departure trips, the most noticeable effects are likely to be focussed on the French Pass/Thornton Road route into the Cambridge urban area.

The people likely to be affected will be residents and businesses on Whitehall Road, Karapiro Road, Taotaoroa Road, and French Pass Road. Local road users are likely to notice the additional activity with the effects likely to be delays in access and egress from their properties, slowing for turning traffic, or delays in turning at intersections.

State Highway users are unlikely to notice the additional activity due to the usual holiday traffic activity expected on Auckland Anniversary weekend, but the effects are likely to be slowing for turning traffic, or minor delays in turning at intersections. With mitigation provided through TTM, event signage and public notices, the effects of the proposal relating to transport are likely to be no more than minor.

Options for Mitigation

With appropriate conditions, the potential adverse effects of the event could be mitigated to be acceptable. Options to mitigate the above adverse effects include:

- Capping the number of event tickets to 10,000 maximum;
- Approval of the design of the vehicle crossings at the event gates by Waipa DC;
- Approval of Festival One pre-event notification, event direction and cursory signage as follows:
  - For all installations on State Highways (including variable message signs), approval from NZ Transport Agency;
  - For all local road installations, approval from Waipa District Council;
- A Traffic Management Plan is developed in consultation with Waipa DC for each local road location: at Karapiro Road/ Whitehall Road intersection, and at the approaches to all event gates on Whitehall Road;
- A Traffic Management Plan is developed in consultation with Waipa DC to require vehicles exiting the site travelling towards Auckland and Hamilton to turn left and use the local road network to the State Highway 1/Victoria Road Interchange until such time that the State Highway 1/Karapiro Road intersection is upgraded to either have a roundabout or grade separation;
- Traffic monitoring on local roads throughout the duration of the first event to provide event specific data. The roads recommended for monitoring are Karapiro Road (west of Whitehall Road), Taotaoroa Road, Whitehall Road (south of Gate 3), French Pass Road, Robinson

Street, and Thornton Road (near Victoria Road) to assess the effectiveness of the alternate route north through Cambridge urban area;

- Traffic counts on the main event access road and counts of vehicles in the parking and camping areas during the first event would provide event specific data; and
- An assessment of the monitoring and count data and effectiveness of the transport mitigation should be prepared following the first event, prior to any increase over 8,000 attendees, and prior to any increase over 10,000 attendees and presented to NZ Transport Agency and Waipa DC for review and approval, with any required changes implemented prior to the following festival event.

Conclusion

Subject to the proposed conditions of consent relating to transport (refer Appendix K), and approval of recommended event signage and Temporary Traffic Management, the effects of the proposal relating to traffic are likely to be minor or less.

There does not appear to be any significant reason relating to transportation why the application should not be approved subject to the conditions of consent being met.

1. BACKGROUND

1.1. Introduction

Festival One (the Applicant) is proposing to hold a Christian music festival near Cambridge over the Auckland Anniversary weekend. The site is at 209 Whitehall Road, Whitehall (near Karapiro). Whitehall Road connects to SH1 (Tirau Road) via Karapiro Road.

The Applicant intends to apply for resource consent to Waipa District Council to hold the event annually.

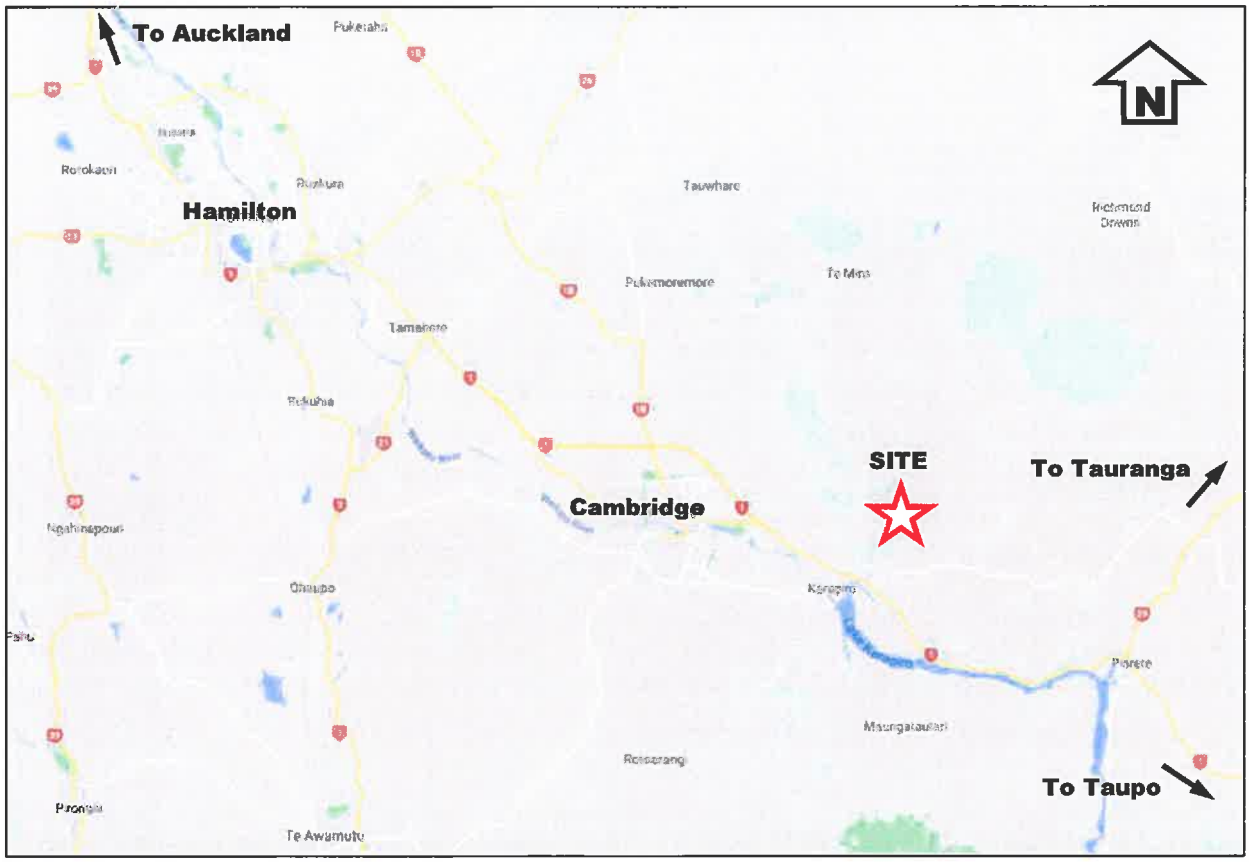

Figure 1: Site Location, Whitehall

1.2. Purpose of this Integrated Transport Assessment (ITA)

The Waipa District Plan Rule 16.4.2.25 requires a Broad Integrated Transport Assessment (ITA) to be prepared for activities that generate more than 250 vehicle movements/day on Major and Minor Arterial Roads (including State Highways).

The scope of this Broad ITA meets the information requirements in Rule 16.4.2.25 Requirements for Broad ITA, comprising:

- Location and scale of activity (Sections 2, 3, 4, 5);
- Effects of vehicle generation on functioning of road, road hierarchy and other users (Sections 6, 7, 8);
- Vehicle access and manoeuvring (Section 5);
- Number of car parks provided on site (Section 4.6);
- Consideration of CPTED (Section 4);

- Provision for multi-modal transport options (Broad ITA only) (section 4);
- Effects on connectivity (Broad ITA only) (Section 8);
- Vehicle queuing on site (Section 4, 5);
- Effects on infrastructure provision (Section 8); and
- Infrastructure deficiencies, risks or positive effects identified from consultation with the New Zealand Transport Agency where State Highways may be affected (Broad ITA only) (Section 8).

This Broad ITA has been prepared by Gray Matter Ltd to support Festival One's application for resource consent. Preliminary traffic assessments have informed the optimisation of proposed transport routes, access locations, site layout and on-site parking arrangements.

This report is based on the following information:

- Existing traffic information such as traffic volumes (AADT and SH1 telemetry data), crash history;
- Historical event information, such as ticket sales, origin of attendees, approximate arrival rates;
- Proposed event information, such as access arrangements, internal road layouts, carparking areas, operational hours;
- Maps of the proposed site; and
- Site visits and road inspections (11 July 2018 and 17 September 2018).

1.3. Initial Scoping Study

An overview of the scope for the event was prepared in May 2018 to inform discussions with NZ Transport Agency and Waipa District Council about potential transport issues prior to preparing an ITA for the consent application.

The potential issues and possible mitigation identified during the scoping exercise and preliminary discussions are included as part of this ITA and include:

- Roads and intersections on state highways and local roads likely to be used by event traffic;
- Alternate transport routes to and from the event to alleviate any congestion and mitigate potential safety issues; and
- Possible use of the Festival One app and NZTA's journey planning tools to actively manage travel times and route choice of event traffic.

2. THE SITE

2.1. Description of the Site

The site is located on the west side Whitehall road, approximately 2.5km north of the intersection with Karapiro Road and 4.2km from SH1 Tirau Road.

Land use is predominantly rural and agricultural activities. There are two quarries in the surrounding area, on Whitehall Road and Taotaoroa Road. The Whitehall quarry is located north of the site and is likely to generate a number of heavy vehicle movements.

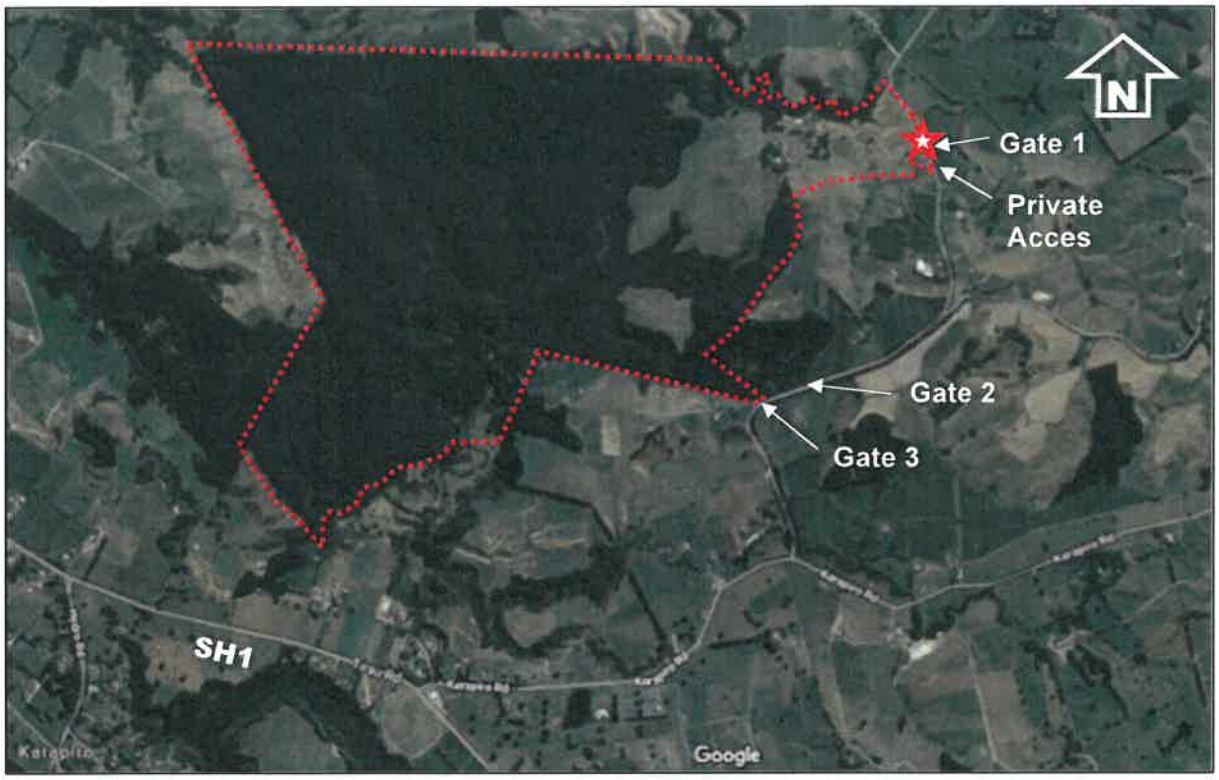

Figure 2: Site location and existing accesses, 209 Whitehall Road

2.2. Existing Site Accesses

The current site has frontage to Whitehall Road, with three existing vehicle crossings and one paddock access at separate points along the property road frontages.

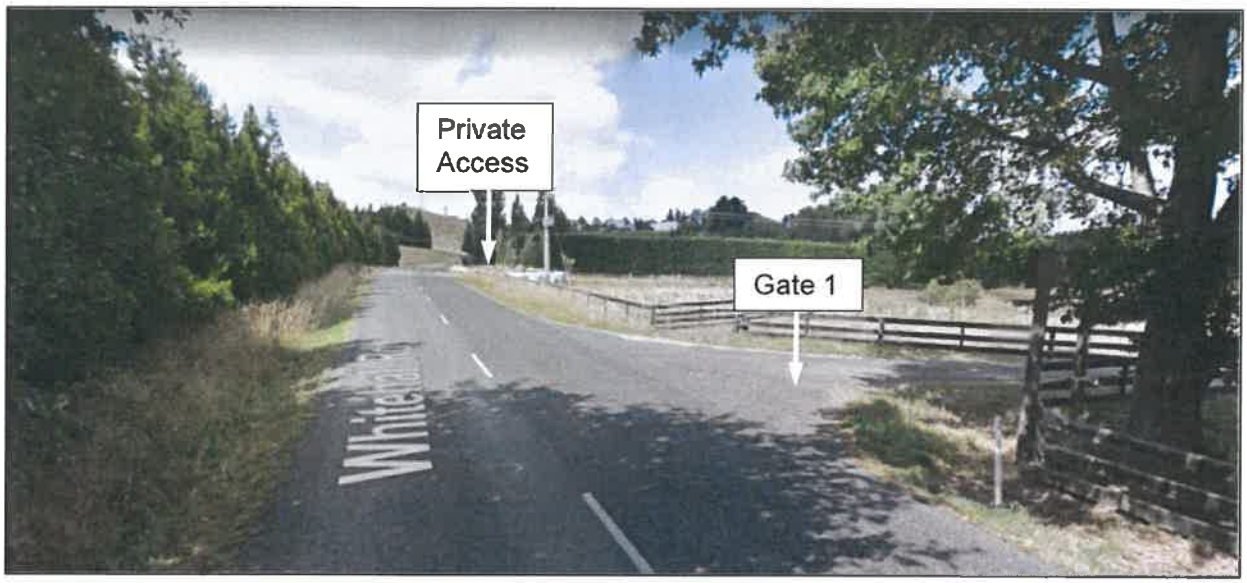

Figure 3: Existing frontage at the northern edge of the property looking south past two existing vehicle crossings

Gate 1 is used for the majority of access to the property. The private access serves two residences on the property and will not be used as event access. These two vehicle crossings are approximately 60m apart.

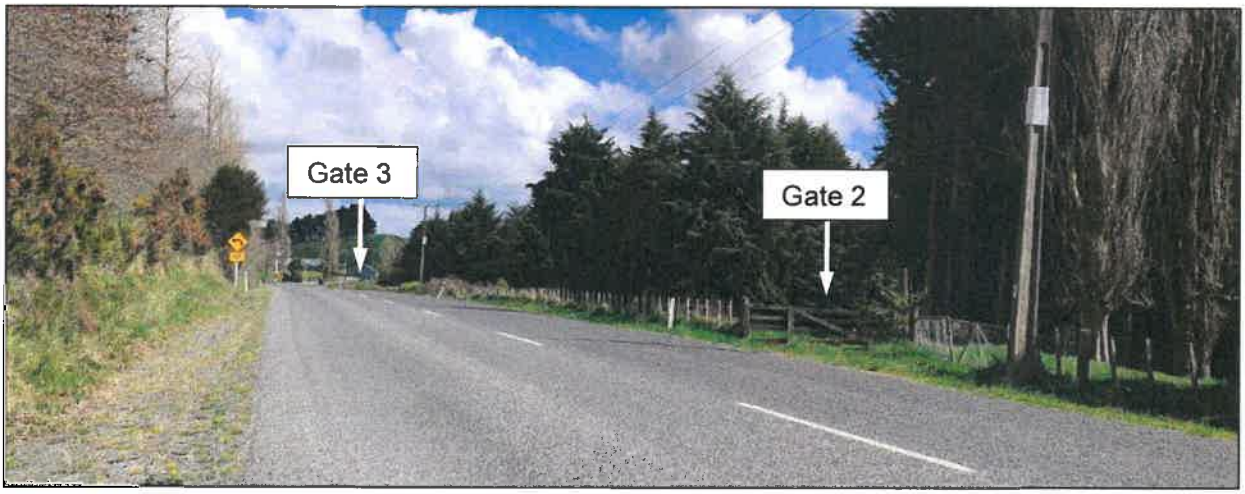

Figure 4: Existing frontage at the southern edge of the property looking south at the two existing vehicle crossings

There is an existing paddock access just south of the shelter belt, labelled Gate 2 in Figure 4 above. Gate 3 is the southern-most access located adjacent to 57 Whitehall Road. Gate 2 and 3 are approximately 200m apart.

2.3. Adjacent and Surrounding Land Use

The adjacent and surrounding land use is mainly rural and agricultural activities. There are two quarries in the area, Whitehall Quarry just north of the site on Whitehall Road, and Taotaoroa Quarry to the east of the site on Taotaoroa Road.

There are several rural farm stay and bed and breakfast accommodation services in the wider area. There are multiple farms and dwellings in the area, with vehicle entrances and paddock entrances frequently encountered on the road network.

Karapiro School (90 students, 2016 roll), is located on Karapiro Road, adjacent to SH1. Mobil Karapiro is located on the corner of SH1 and Karapiro Road. 9 Karapiro Road (adjacent to the school entrance) is a group accommodation facility. There is a private tour coach business located at 137 Karapiro Road.

3. EXISTING TRANSPORT ENVIRONMENT

3.1. Surrounding Transport Network

The surrounding road network is dominated by SH1 in the Karapiro area, with SH29 to the east.

The transport routes that may be used by people travelling to/from the event are shown in the figure and described in the table below.

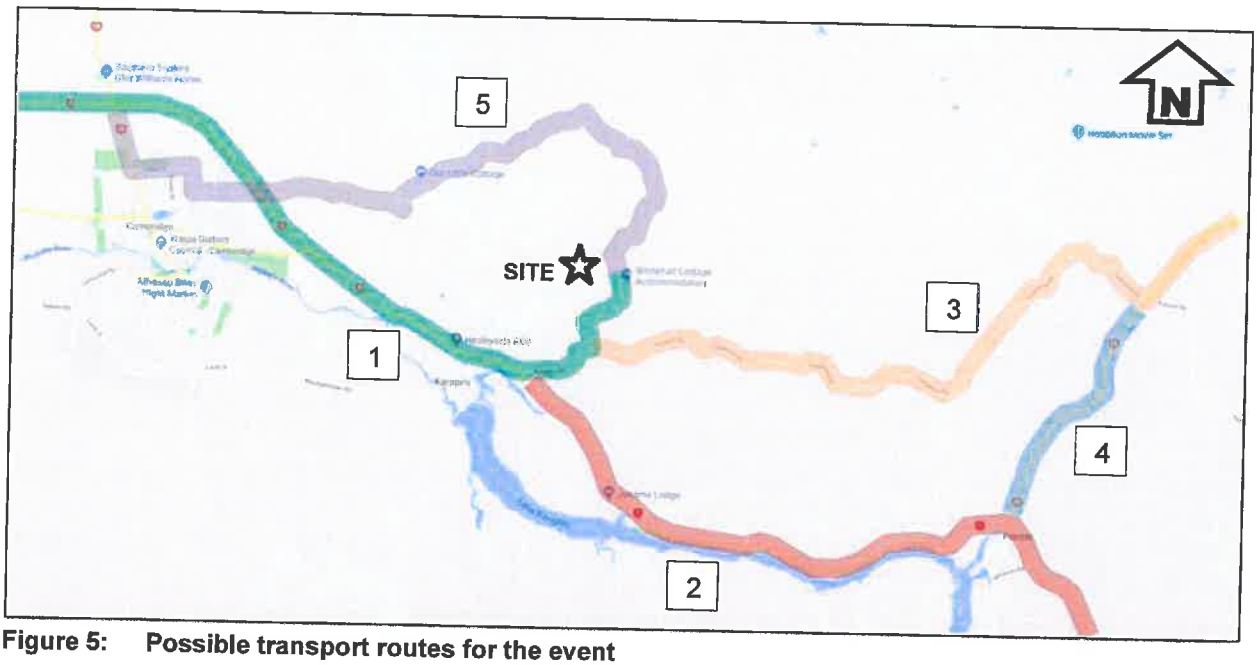

Figure 5: Possible transport routes for the event

Route number	Roads used	Origin/Destination
1	SH1 Waikato Expressway Karapiro Road Whitehall Road	**North:** Hamilton Auckland
2	SH1 Karapiro Road Whitehall Road	**South:** Taupo Wellington
3	SH29 Taotaoroa road Karapiro Road Whitehall Road	**East:** Tauranga
4	SH29 SH1 Karapiro Road Whitehall Road	**East:** Tauranga
5	Cambridge urban area Thornton Road French Pass Road Whitehall Road	**Local and/or North:** Hamilton Auckland

Table 1: Possible transport routes for the event

The surrounding roads are described below:

Road Name	Road Hierarchy	One Network Road Classification (ONRC)	Posted Speed Limit (km/h)	Estimated Current Traffic Volume[1] (c) = count data	Estimated % Heavy Vehicles
State Highway 1 – between Cambridge and SH29 Intersection	Major Arterial	High Volume	100	17,885vpd (AADT) 26,352vpd (Auckland Ann. Weekend 2018)[2]	11%
State Highway 29	Major Arterial (Matamata-Piako DC)	High Volume	100	7,586vpd	15%
Karapiro Road - west of Whitehall - east of Whitehall	 Collector Road Collector Road	 Primary Collector Secondary Collector	 100 100	 1,450vpd 840vpd	 16% 16%
Whitehall Road - south of quarry - north of quarry	 Collector Road Collector Road	 Secondary Collector Secondary Collector	 100 100	 500vpd 300vpd	22%
Taotaoroa Road - west of quarry - east of quarry	 Collector Road Collector Road	 Secondary Collector Secondary Collector	 100 100	 730vpd 230vpd	 11% 11%
French Pass Road	Local Road	Secondary Collector	100	65 – 640vpd	-
Thornton Road	Collector Road	Primary Collector	100 / 70 / 50	1,480 – 5,355vpd	-
Robinson Street	Collector Road	Primary Collector	50	4,420 – 5,020vpd	-
Taylor Street	Collector Road	Primary Collector	50	1,840 – 3,600vpd	-
Victoria Road (SH1B)	Major Arterial	Arterial	80	9,730vpd	-

Table 2: Description of transport routes to the event

State Highway 1 at the intersection with Karapiro Road is identified as a Significant Road Corridor in the Regional Policy Statement. There is a left turn lane from SH1 into Karapiro Road and a right turn bay from SH1 south into Karapiro Road.

[1] From mobileroad.org (unless otherwise stated), figures shown are estimates
[2] Calculated from hourly flow data collected at Site Ref: 01N00580 (KARAPIRO - Telemetry Site 20), 00:00 26-Jan-2018 to 23:00 29-Jan-2018, supplied by NZ Transport Agency

Figure 6: Intersection of State Highway 1 and Karapiro Road

Karapiro Road carriageway consists of two traffic lanes (approx. 3.5m wide) and a painted edgeline with no shoulders. Karapiro Road connects with SH1 at the Mobil Service Station with a priority give-way controlled intersection.

Figure 7: Looking west along Karapiro Road from Whitehall Road intersection (approx. location of a right-turning vehicle), showing approx. 115m sight distance.

Figure 8: Intersection of Karapiro Road and Whitehall Road

Whitehall Road carriageway consists of two traffic lanes (approx. 3.5m wide), with no shoulders. The speed environment for the road is estimated to be approximately 80km/h, due to the road

geometry and topography. The intersection of Whitehall Road and Karapiro Road is a priority controlled intersection with a left turn lane from Karapiro Road into Whitehall Road (northbound). There is limited visibility around the curve at this intersection as shown in the photograph.

Taotaoroa Road carriageway consists of two traffic lanes (approx. 3.5m wide) and no shoulders. The speed environment for the road is estimated to be approximately 80km/h, due to the road geometry and topography. Taotaoroa Road becomes Karapiro Road at the intersection with Buckland Road. The eastern 5.2km (approx.) of Taotaoroa Road and the intersection with SH29 is within Matamata-Piako District Council.

Figure 9: Intersection of State Highway 29 and Taotaoroa Road

State Highway 29 is wide and straight in the vicinity of Taotaoroa Road, with a right turn bay provided for traffic turning into Taotaoroa Road. The intersection with SH1 has well defined and separated turning lanes for both the left turn and right turn movements to and from SH1.

French Pass Road carriageway varies in seal width, from two 3.0-3.5m traffic lanes with marked centreline, to approximately 6.0m width and no centreline. Traffic volumes vary along its length from 65-640vpd, with volumes highest at the Cambridge end. French Pass Road is hilly and winding, with some tight curves with 35km/h speed advisory signs. The speed environment for the road is estimated to be approximately 80km/h, due to the road geometry and topography. There are sections of the road that require much lower speeds – particularly the tight curves through the gully at the Cambridge end.

Figure 10: French Pass Road, typical cross section

Thornton Road carriageway consists of 3.5m traffic lanes and variable shoulder width from approximately 0.5m in the rural area to over 2.0m wide unmarked shoulders in the urban area. Thornton Road has a 100km/h posted speed limit for 400m from the intersection with Maungakawa Road and French Pass Road, then 70km/h posted speed limit up to the Cambridge town belt where the speed limit reduces to 50km/h at the intersection with Maclean Street. Thornton Road intersects with Robinson Street at a roundabout.

Robinson Street is within the urban residential area of Cambridge. The carriageway is approximately 13m wide with wide traffic lanes and an edge line to demark the parking shoulder. Robinson Street carries up to 5,020vehicles per day and intersects with Taylor Street at a priority give way controlled intersection.

Taylor Street is approximately 8.4m wide with two traffic lanes and unmarked shoulders. There is a wide parking shoulder along the northern side of Taylor Street in front of the sports parks. Taylor Street intersects with Victoria Road at a give way controlled intersection.

Victoria Road (State Highway 1B) has a posted speed limit of 50km/h from Taylor Street 230m north (adjacent to the Hautapu Rugby Clubrooms) where it changes to 80km/h for the remainder of its length up to the Waikato Expressway Interchange. The carriageway width is approximately 8.6m, widening to four lanes at the Norfolk Drive intersection. Between Norfolk Drive and the Interchange, the carriageway width is approximately 8m.

Traffic volumes are well within the capacity[3] of the network and there are currently no efficiency issues in the area.

3.2. Public Transport, Walking and Cycling

There are no public transport services on the local road network. Inter-city services operate on the State Highway.

School buses use Karapiro Road before and after school. The local schools are on holiday until after Auckland Anniversary weekend, so there will be no school bus services operating throughout the duration of the festival.

Recreational cyclists use these roads, however there are no formal pedestrian or cyclist facilities. Most of the cycling use is on the local road network, with limited use of state highways.

Of the transport routes identified in Section 3.1 above, the following roads are identified as cycling routes in the Waipa Integrated Transport Study 2010:

- French Pass Road, Whitehall Road and Karapiro Road are "Rural Cycling Routes"; and
- Robinson Street and part of Taylor Street are "Proposed Cycle Routes".

French Pass Road is also identified as a "High use cycling road" in the Waipa District Cycle Network Strategic Framework, 2016[4].

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[3] A two lane, two-way rural road in level terrain can accommodate 15,200vpd at Level of Service E.
[4] http://www.waipadc.govt.nz/our-district/MajorProjects/Documents/Waipa%20District%20Cycle%20Network%20Strategic%20Framework%2005.05.16.pdf

3.3. Crash History 2015-2019

The recent five-year crash history (2015-2019) for the network surrounding the site is included in Appendix B. We completed a search of NZTA's crash analysis system (CAS) to provide a basis for analysis of the recorded crashes. The crash data includes mid-block and intersection crashes (including crashes within 50m of the intersections), for the surrounding road network.

The recorded crash history shows:

- none of the local roads analysed are high risk rural roads or have a significant crash problem;
- none of the local road intersections are high risk or have a significant crash problem;
- the majority of the crashes on local roads were due to loss of control;
- the state highway intersections have a mix of turning/crossing crashes and loss of control type crashes; and
- Both SH1/Karapiro and SH1/SH29 intersections are high-risk.

3.3.1. State Highway Intersections

Crashes at the state highway intersections are predominantly related to crossing-turning manoeuvres, although loss of control type crashes are also common.

There have been 13 recorded crashes at the SH1/Karapiro intersection, with nine related to crossing or turning manoeuvres. There were four injury crashes at this intersection during the analysis period, including one death as the result of a head on crash. This intersection is considered high risk as defined in the High Risk Intersection Guide[5].

There have been 20 recorded crashes at the SH1/SH29 intersection, with ten of these related to crossing-turning manoeuvres at the intersection, seven loss of control turning or cornering, two head on and one rear end crash. There were six injury crashes at this intersection during the analysis period resulting in two people dying, three with serious injuries and eight with minor injuries. This intersection is considered high risk. NZTA has introduced an Intersection Speed Zone to temporarily reduce the speed on SH1 to 60km/h[6] to help improve people's safety.

There have been eight recorded crashes at the intersection of SH29/Taotaoroa Road. Two crashes were due to loss of control by through traffic and five crashes was related to crossing or turning manoeuvres. There were two injury crashes at this intersection during the analysis period, resulting in three people with minor injuries.

3.3.2. Local Road Crashes

There have been three reported crashes at the intersection of Karapiro/Whitehall Road, two being loss of control crashes and one involving a head on due to a vehicle cutting the corner. These crashes resulted in one person being seriously injured. There have been no reported crossing-turning crashes at the intersection.

There have been four reported crashes at the intersection of Karapiro Road and Taotaoroa Road (Buckland Road intersection). All crashes were related to right-turning vehicles into and out of Buckland Road, with one crash resulting in a person being seriously injured.

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[5] High-risk Intersections Guide, NZ Transport Agency, August 2013

[6] https://www.nzta.govt.nz/safety/our-vision-of-a-safe-road-system/safety-boost-programme/safety-boost-programme-locations/intersection-speed-zones/

On the remainder of the surrounding local road network the mid-block crashes are predominantly loss of control type crashes related to cornering.

There were eleven reported crashes on Karapiro Road, with nine loss of control crashes resulting in minor injuries to eight people.

There were eight reported crashes on Taotaoroa Road, resulting in three people with minor injuries. Eight of the crashes were due to loss of control while cornering.

French Pass Road has a low incidence of crashes, with just two reported loss of control crashes and no resulting injuries.

3.4. Planned Road Network Changes

NZ Transport Agency has funding approval to construct a roundabout at the intersection of SH1 and SH29, which will improve safety for all vehicle movements. The timeframe for the intersection upgrade has not been confirmed.

When the Hamilton Section of the Waikato Expressway opens in 2021, SH1B Victoria Road (Cambridge) will revert to local road. The road classification is likely to remain as Arterial, with traffic volumes determining the classification of Major Arterial or Minor Arterial in the Waipa District Plan.

These planned and potential changes to the road network do not form part of the baseline for this assessment but will need to be taken into consideration for the operation of the event in future years.

3.5. Existing Access Arrangements

The sight distance requirements for vehicle crossings depend on the traffic speed, function of the road, and the number of vehicle movements to and from the driveway. Whitehall Road is a classified as a collector road in the Waipa District Plan.

The Regional Infrastructure Technical Specification (RITS) (March 2018) sets out the minimum sight distance required using NZTA Guidelines RTS 6 for rural vehicle crossings on a collector road are:

Operating speed (km/h)	Sight distance requirement (m)	
	<200 vehicle movements/day	>200 vehicle movements/day
50	45	90
60	65	115
70	85	140
80	105	175
90	130	210
100	160	250

Table 3: Sight distance requirements for collector roads (NZTA RTS 6)

The event traffic is likely to generate over 200 vehicle movements per day at each of the gates. We have assessed the sight distance against the greater level of activity to test the suitability for the proposed event traffic.

The estimated speed environment for Whitehall Road is less than the posted speed limit of 100km/h, and may be closer to 80km/h. Our assessment comments on the speed at which the sight distance is compliant according to the requirements set out in RTS 6. Note that the required sight distance for a 50km/h approach speed – such as for a temporary speed limit used as part of temporary traffic management – is 90m (highlighted in green in the table above).

Our sight distance assessment is summarised in the table and discussed below.

Vehicle Crossing	Direction	Sight Distance	Comment
Gate 1 (North)	North (left)	112m	Complies for 50km/h only
	South (right)	120m	Complies for 60km/h only
Gate 2 - unformed (850m north of Karapiro Road)	North (left)	300m	Complies
	South (right)	220m	Complies for 90km/h only
Gate 3 (650m north of Karapiro Road)	North (left)	250m	Complies
	South (right)	100m	Complies for 50km/h only

Table 4: Sight distance assessment of existing vehicle crossings

The private access serving the residential dwellings on the property is not going to be used for traffic associated with the festival and therefore has not been included in this assessment.

Festival traffic will use Gate 1, Gate 2 and Gate 3. Locations are shown in Figure 2 in Section 2.1 (page 3) above.

3.5.1. Gate 1

Gate 1 is the main entrance to the property and is currently used for access to the implement sheds and farm tracks. The Gate 1 vehicle crossing is approximately 20m wide at the seal edge and narrows to a single vehicle width (approximately 3.0m wide) at the gate. The crossing is chip sealed for approximately 6.0m from the edge of the traffic lane and the gate is set back approximately 20m.

Figure 11: Looking south from the existing Gate 1 vehicle crossing (sight distance 122m)

Figure 12: Looking north from the existing Gate 1 vehicle crossing (sight distance 112m)

Sight distance for Gate 1 is restricted by horizontal curves on both approaches. The sight distance is sufficient for an approach speed of 50km/h when allowing for more than 200 vehicle movements per day. It is not possible to increase the sight distance at this gate (by trimming vegetation etc).

3.5.2. Gate 2

Gate 2 is currently unformed but is expected to be formed in the location of an existing paddock gate just south of the shelter belt.

Figure 13: Looking south from the approximate location of Gate 2 (sight distance 220m)

Figure 14: Looking north from the approximate location of Gate 2 (sight distance 300m)

Sight distance for Gate 2 is restricted by horizontal curves on both approaches. The sight distance is sufficient for approach speeds of 90km/h (south) and 100km/h (north) when allowing for more than 200 vehicle movements per day. It is not possible to increase the sight distance at this gate.

3.5.3. Gate 3

Gate 3 is immediately adjacent to the vehicle crossing for 57 Whitehall Road, on the outside of a curve with a speed advisory of 65km/h. The vehicle crossings are approximately 12m apart.

Gate 3 is a recently upgraded access into the southern portion of the property. The gate is set back approximately 10m from the road edge. The crossing is formed with a compacted rock surface up to the road edge of seal.

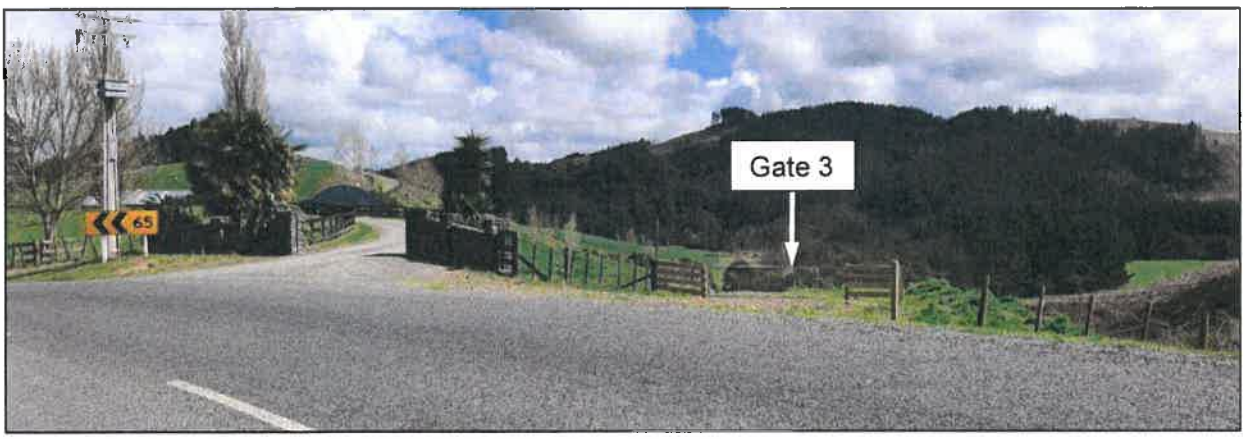


Figure 15: Looking towards 57 Whitehall Road and Gate 3

Figure 16: Looking south from Gate 3 (sight distance 100m)

Figure 17: Looking north from Gate 3 (sight distance 250m – note arrow indicating location of red car emerging from sag vertical curve)

Sight distance for Gate 3 is restricted by a sag vertical curve on the north approach and a horizontal curve on the south approach. The sight distance is sufficient for approach speeds of 100km/h (north) and 50km/h (south) when allowing for more than 200 vehicle movements per day. The 65km/h advisory speed on the curve to the south would reduce vehicle approach speeds, however even at lower visibility is insufficient for speeds above 50km/h. It is not possible to increase the sight distance at this gate.

4. THE PROPOSAL

This section describes the following aspects of the proposal

- General description – hours, days, planned future expansion
- expected attendance
- Access arrangements, for
    - Set-up
    - Festival
    - Festival close
    - Pack-down
- Site layout including internal roads
- Proposed parking arrangements
- Temporary traffic management proposed
- Lighting

4.1. The Proposed Festival

The event is a four-day Christian music and entertainment festival with provision for attendees to come and go as desired each day or camp on site (tents or campervans) for the full or part duration of the event. For the past four years the Festival One event has been held at Mystery Creek near Hamilton.

The event would be held over Auckland Anniversary weekend. The event would allow public access from 6am Friday morning for parking only, ticketing/event access would not be not active until 10am when the programmed entertainment starts. The event would close at 2pm Monday afternoon. The programme from the 2018 event is attached in Appendix H.

People travel to the festival in private vehicles, with some campervans.

Based on information supplied by the Applicant, the audience arrives over an extended period which should reduce the peaks in trip generation. We understand from the Applicant that the audience is willing to follow directions and travel advice delivered via the Festival One app, which will be helpful in directing them to the preferred routes.

Festival One intend to grow the event over a period of several years, from the existing 3,300 tickets to a maximum of 10,000 tickets. The total number of people on site at any time will be approximately 12,000 if all staff, volunteers, and special guests (artists/musicians/speakers) are included.

For the 2021 event, the Applicant would like to sell up to 6,500 tickets if there is demand. We have based our assessment of the 2021 event being for 6,500 tickets even though it may take several years for the festival to reach this size.

4.2. Attendance

The 2018 event provides an indication of the event scale through ticket sales. We have used this as a basis to scale up the event numbers to the intended future maximum as shown in the table below.

Description	Previous attendance (based on 2018 event)	Proposed attendance at 2021 event	Proposed maximum attendance (future)
Multi-day and 1-day tickets	3,000 + 300	5,300 + 500	8,000 + 800
1-day complimentary tickets	390	700	1,200
Staff/volunteers	760	900	1,500
Special guests (artists/musicians/speakers)	272	300	500
Total number of people	**4,722**	**7,700**	**12,000**

Table 5: Current and future attendance numbers

Currently, for a week leading up to the event there would be approximately 50 staff and volunteers on site during the set-up phase. The remainder of the volunteers arrive on Thursday evening. The number of staff on site during the setup phase expected to increase as the event grows each year. Similarly, there are staff on site for the pack-down phase in the week following the event.

Special guests are accommodated off-site and shuttled between the event venue and their accommodation or the airport in vans that are in operation for the duration of the event. At past events there have been six vans used in rotation. The number of shuttle vans used is also likely to grow as the event grows.

Attendance at the event may be intermittent as people are able to enter and leave the event as desired throughout the day. A gate curfew is in place between midnight and 6am during which time only emergency access is permitted. Based on experience at the current Mystery Creek site, most people camp on site, but others only attend for the day and stay off-site. Some people only attend for a single day or particular acts/shows on separate days.

Of the 3,300 ticket sales at the last event, approximately 10% were 1-day tickets. The 1-day ticket sales information from the 2018 event shows that 179 day tickets were for the Saturday and 134 day tickets were for the Sunday. A further 390 complimentary 1-day tickets were issued, taking the total number of tickets to 3,690.

4.3. Site Access

The three existing access gates to the site (as discussed in Section 3.5 and indicated on the layout plan below) will be upgraded as required to allow safe and efficient access to the site. All gates will be marshalled for safety and security, and vehicle entry and exit coordinated using temporary traffic management to manage turning and through traffic flows.

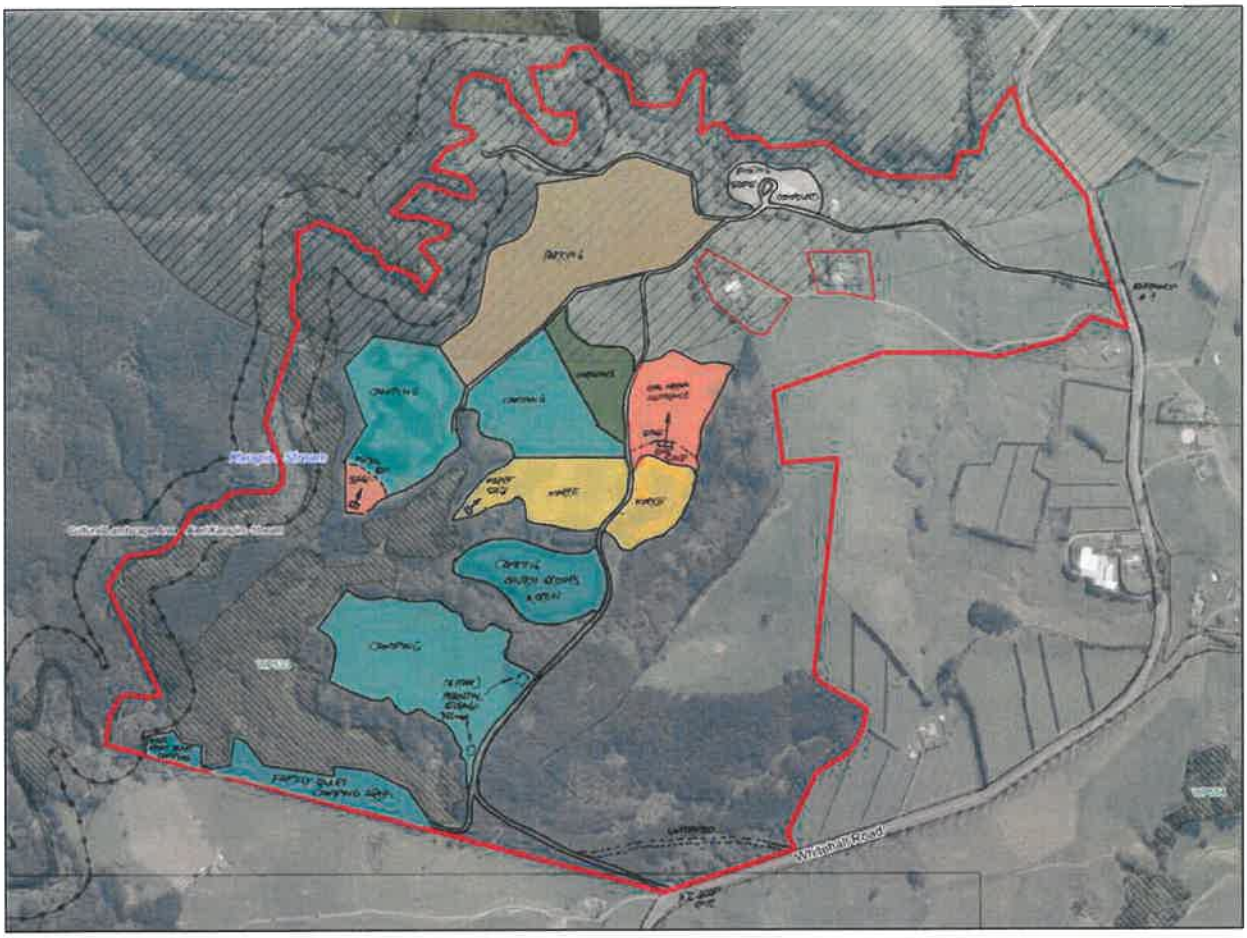


Figure 18: Proposed Site Layout (See also Appendix A for larger version)

The proposed vehicle crossing configurations for each of the gates is:

- Gate 1: main event access and public access. This will be formed as a double wide access to allow entry and exit via the primary property entrance. Both the vehicle crossing and internal road will be two lanes wide to allow vehicles to pass; and
- Gate 2 & 3: staff and service access. This gate will be a single width access to allow a single direction of entry or exit. Marshalls or traffic controllers at each gate and passing bays on the internal roads will allow safe passing of traffic and prevent queues forming onto the road.

Due to the high number of turning vehicles into and out of the gates, the event will utilise temporary traffic management on the local road network to manage speeds and avoid vehicles queuing on public roads. The use of temporary traffic management at the site accesses and approaches is expected to be sufficient to avoid adverse effects. The use of temporary traffic management is further explained in Section 4.8 and 8 below.

The festival will run through four phases of vehicle movements to and from the site, using different accesses for different purposes. The phases and the associated vehicle movements are outlined in the sections below.

4.3.1. Phase One – Set-up

In the week before the event, the staff on site will be in build mode coordinating delivery of infrastructure required for the event and establishing the various event zones. Gate 1 will be the entry for this phase, with all arrivals to site being security checked at the gate. Vehicles will exit via Gate 2 or Gate 3. This allows for a simple one-way traffic flow on site and ease of access for any emergency vehicles.

4.3.2. Phase Two – Festival

The festival site will be open to the public from 10am on Friday morning, though entry and parking is allowed from 6am to avoid vehicle queues on Whitehall Road.

Gate 1 will be used for public access to the site. The two-lane internal road will allow for two-way vehicle access (such as for people getting dropped off at the event) and emergency vehicle access at all times. Public vehicles will be restricted to carpark and camping areas (for car-camping, vans and campervans staying for the duration of the festival).

- Vehicles parked in the camping areas will not be permitted to leave until the end of the festival.
- Vehicles parked in the carpark are able to leave during the festival (between 6am and 12 midnight). Only emergency access will be permitted during curfew.

Gate 2 and 3 will be used for staff, special guests (shuttle vans for artists/musicians/speakers), service vehicles and emergency access. The internal roads will be formed to allow two vehicles to safely pass each other. No public access is allowed through Gate 2 or Gate 3.

It is possible that during Phase Two these gates will operate as a loop road between Gate 2 and 3 to use one gate for entry and one gate for exit. Vehicles could enter via Gate 2 (predominant manoeuvre being left turn in from the south) and exit via Gate 3 (predominant manoeuvre right turn out to south) as this best utilises the available sight distance.

4.3.3. Phase Three – Festival Close

At the end of the festival at 2pm on the Monday the site is closed to public entry to allow the remaining vehicles on site to leave. The Applicant advises that the audience usually packs up and starts leaving from 6am on the Monday and will have all left the site by about 3pm. The public will be directed to exit the site via a single lane through Gate 1 (leaving the other lane open for emergency access), where they will be directed towards their destination (turning left or right onto Whitehall Road).

4.3.4. Phase Four – Pack-down

After the public have vacated the site, the remaining staff will coordinate the pack-down using the same access arrangements as in Phase one – entry via Gate1 and exit via Gate 2 or 3.

4.4. Site Layout and Internal Roads

The internal road layout will make use of the existing track and race systems with the existing formations improved and widened where necessary and the surface prepared and compacted to ensure all-weather operation. The main access from Gate 1 will be formed to two lanes width as far as the carpark and vehicle camping access points. The access roads further into the festival site will either be two-lanes or there will be frequent passing bays available for traffic to pass. No public vehicle access will be permitted beyond the car park and vehicle camping areas.

We understand that some of the site works have commenced since our site visit in 2018.

The public will enter the site through Gate 1 and drive up the access road for approximately one kilometre where they will briefly stop at the parking area to have tickets checked and scanned. This length of access would accommodate a queue of over 100 vehicles (assuming an average 10m spacing of vehicles), without the queue reaching Whitehall Road. The Applicant advises that at past events the vehicle queues have reached a maximum of approximately 20 vehicles. The event staff have the flexibility to move the ticket checking and scanning area further into the carpark to increase the available queueing length as required.

Campervans will have a special parking area in the adjacent camping zones and some car-camping is allowed. Vehicles parked within the camping zones are not able to leave until the end of the festival. Vehicles parked within the carpark may leave during the festival (except when the gate curfew is active). An on-site shuttle service will transport people and their camping equipment from the parking area to the camping areas.

Staff, volunteers and special guests will enter the site through Gate 2 or 3 where they can access separate camping and parking areas. Shuttle vans will also use these gates to transport the special guests to and from the festival site (during Phase two). The internal access roads used by service vehicles and staff will be widened to allow frequent safe passing opportunities.

4.5. Parking

The festival proposal incorporates an on-site car parking area, including accessible parking. Campervans and car-campers have allocated areas within the camping zones and vehicles are not permitted to be moved once they are parked for camping. Staff parking and camping areas are near Gate 3 which will be the site access for staff and volunteers.

The car park layout will be temporarily marked on site using dazzle paint. Staff will direct vehicles to park in rows with aisles kept clear to allow vehicle circulation and turning movements during the festival. The festival staff have experience in operating temporary carparks from previous events at Mystery Creek Events Centre and are expected to direct cars according to a pre-agreed layout plan that optimises space.

The area provided for audience car parking is approximately 6.5 hectares. Assuming 1 carpark space per 25m^2, the proposed car parking area will hold approximately 2,600 vehicles.

The proposed campervan and vehicle camping area is approximately 2 hectares. Assuming 1 vehicle per 75m^2 (3 spaces per camp site), the area could hold approximately 270 vehicles.

The total public parking and vehicle camping capacity for the event site is estimated to be approximately 2,870 vehicles. This excludes an allowance for people getting dropped off at the beginning of the event and picked up at the event close. The carpark layout will include provision for a drop off and pick up area, utilising the two-way access road at Gate 1.

Parking for staff & volunteers (up to 3.7ha available) is located within the crew camping areas accessed via Gate 2 or Gate 3.

No specific provision has been made for cycle parking due to the remote location in a Rural Zone and on-site camping aspect meaning it is very unlikely for a significant number of people to travel to the event by bicycle. However, if they did choose to cycle to the event, the amenities provided for the festival campers would also serve the needs of the travelling cyclist.

4.6. Lighting

Temporary lighting will be used throughout the event site. Consideration is given to light spill and nuisance. If required, temporary lights may be installed at the entranceway and on the main internal road for the duration of the event. Whitehall Road is likely to be under temporary speed restriction which means drivers approaching the event site will be alert and be able to clearly identify the entranceway. Event staff will be on site to direct traffic into and within the event site.

4.7. Temporary Traffic Management

Temporary traffic management will be used to manage traffic at the event entrance on Whitehall Road. The proposed locations for TTM are shown on the map in Appendix E and in the draft Traffic Management Plan in Appendix F. The TTM includes use of a temporary speed restriction of 30km/h and Stop/Go control if required.

A temporary speed limit of 50km/h or less is appropriate for safe operation of Gate 3 with limited sight distance to the south.

The temporary traffic management signage and devices may be unattended during curfew hours (12 midnight-6am) when the public access to the event site is closed. In the case of an emergency, event staff will direct emergency vehicles into and within the site.

5. PREDICTED TRAVEL DATA

5.1. Basis of Trip Generation

For the purposes of this ITA we have based our evaluation on the maximum number of ticket-holders as 10,000, plus 2,000 staff, volunteers and special guests as described above. The current estimated attendance is less than half of this, with the festival expected to grow over a period of approximately 5 years. For the 2021 event, the number of tickets is likely to be approximately 6,500 with 1,200 staff, volunteers and special guests.

The Applicant has supplied the following information:

- parking counts from the 2017 event (Appendix G);
- 2018 Festival Programme;
- 2018 attendance figures and ticket sales information;
- an estimate of vehicle arrival times and;
- a proposed cap on ticket numbers for the 2021 event and future maximum event.

We have used the supplied information as a basis for estimating trip generation for the event.

5.1.1. Vehicle Occupancy

The trip generation for the festival is based on the total number of people on site with different vehicle occupancy rates and different travel characteristics for each group.

- Multi-day ticket-holders are likely to stay overnight and arrive in groups to set up their camping area. We have used an average vehicle occupancy rate of 2.5 people per vehicle for this group.
- We have used lower occupancy rates for the 1-day ticket-holders (1.3 people/vehicle) as they are assumed to only arrive for the day and are more likely to travel individually or in smaller groups.
- Special guests are shuttled to and from the festival in mini-vans and therefore, as a group, are estimated to have a higher vehicle occupancy rate of approximately 3.0 people/vehicle.

We have assumed that a proportion of some groups will travel to/from the site each day. For this ITA we have assumed 10% of multi-day ticket-holders will stay off-site as well as those on 1-day tickets. The special guests who are shuttled to/from the event site are also assumed to have off-site accommodation.

5.1.2. Calculation of Event Traffic

The two event size scenarios (6,500 tickets in 2021, 10,000 tickets as a future maximum) have been assessed to determine the likely trips generated by the event. The trip generation calculation spreadsheets are included in Appendix D. The commentary below relates to the future maximum event size of 10,000 tickets.

Group	Vehicle occupancy (people/ vehicle)	Proportion of group staying off-site	Proposed maximum event	
			Attendance	Total trip generation
Multi-day ticket-holders	2.5	10%	8,000	8,320
1-day ticket-holders	1.3	100%	800	1,270
Complimentary ticket-holders	1.3	100%	1,200	1,900
Staff/volunteers	1.3	10%	1,500	4,080
Special guests (artists/musicians/speakers)	3.0	100%	500	390
Total			**12,000**	**15,960**

Table 6: Trip generation assumptions and summary

The total number of trips generated by the entire festival operation is expected to be approximately 16,000. Ticket-holders make approximately 70% of the total trips, with 30% of trips made by staff/volunteers and special guests.

Trips will peak several times over the weekend, compounded by the 1-day tickets being used on the Saturday and Sunday, and the majority of people departing at the end of the festival. The festival programme is likely to have a strong influence on the timing of peak event traffic flows. The headline acts are typically on stage on Saturday and Sunday evening/night, which is when peak event traffic flows are expected.

Based on the information provided by the Applicant, we have estimated the timing of arrival and departure of the attendees across the 4-day festival and the week before and after when staff are on site to setup and pack down. Combining this with our trip generation estimates gives us a profile of the traffic characteristic for the festival as shown below.

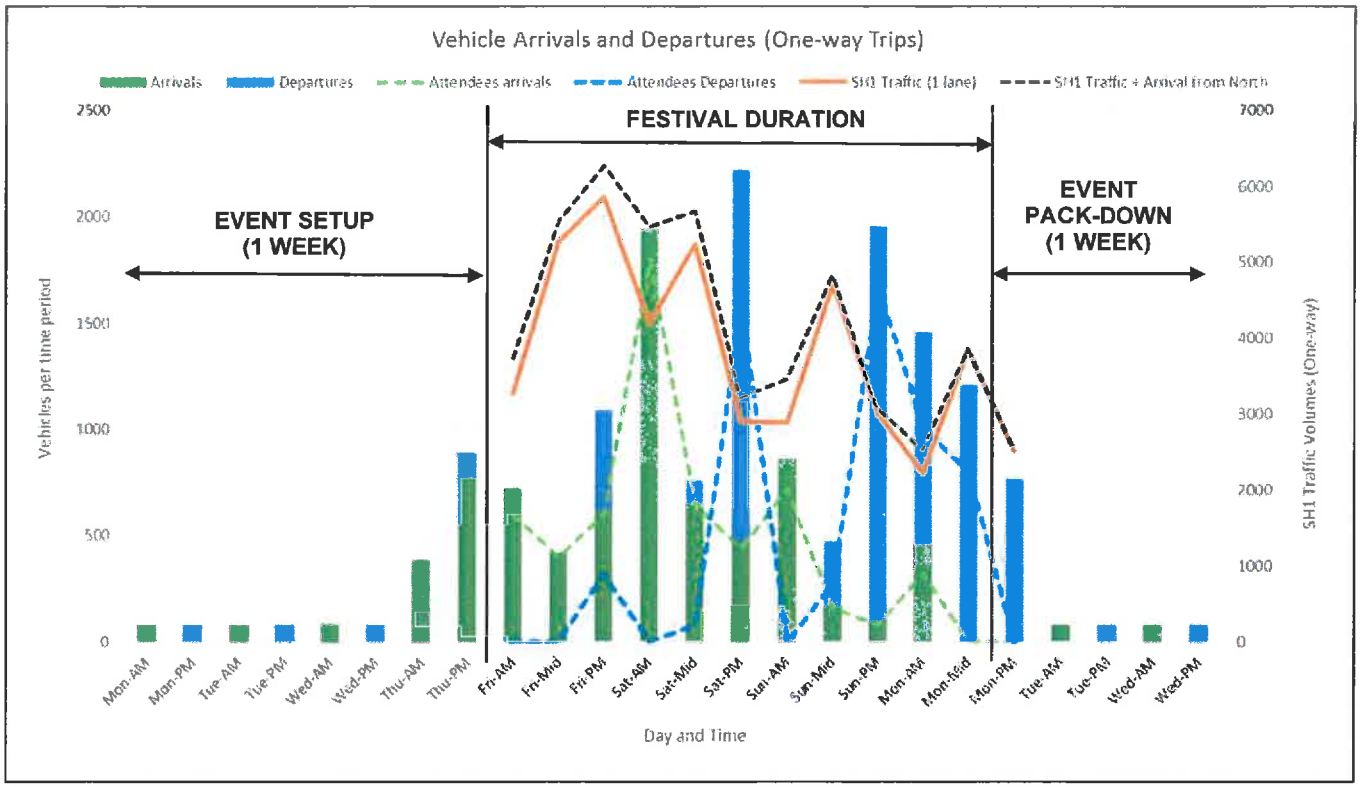


Figure 19: Festival One – Estimated Arrival and Departure Trips for the future event maximum

Note that the trips shown are not hourly volumes, but are spread over a time period of several hours, divided into:

- AM period, 5 hours: 6am opening – 11am;
- Mid period, 5 hours: 11am-4pm; and
- PM period, 8 hours: 4pm – 12 midnight gate close.

The orange line shows the SH1 traffic volumes over the 2018 Auckland Anniversary weekend (using the same time periods as the festival traffic), measured against the right-hand axis. The black dashed line shows the state highway traffic plus the estimated festival arrival traffic from the north (65% of total arrival trips).

5.1.3. Future Maximum Event (Cap)

The maximum future event (10,000 tickets) is estimated to generate approximately 16,000 trips spread across the entire festival operation including the week before and after the festival event 4-day weekend. We have estimated that approximately 4,500 trips would be made by staff, volunteers and special guests.

Management of arrival and departing traffic will be required to avoid adverse effects on the transport network, especially at the state highway intersections. Using the preferred alternative routes identified should assist in mitigating the effects at State Highway intersections, with traffic management to mitigate adverse effects at the local road intersections.

The highest period for arrival trips is expected to occur on the Saturday morning with an estimated 1940 trips made between 6am (gates opening) and 11am (the duration of the AM time period). For

the purposes of this evaluation we have assumed that approximately half the traffic arrives in the same hour, being a peak arrival flow of **970 veh/h**.

The highest peak departure trips is estimated to occur on the Sunday PM time period before the closure of the festival the following morning. An estimated 1,840 trips are expected between 4pm and midnight (gate curfew). For the purposes of this evaluation we have assumed that approximately half of the traffic departs in the PM peak hour being a peak departure flow of **920 veh/h**.

The highest hourly traffic volume recorded on SH1 throughout the Auckland Anniversary weekend in 2018 was **1,360veh/h** in the southbound direction and occurred between 11:00am and 12:00pm on the Saturday. The northbound peak flow was **1,271 veh/h** and occurred between 4:00pm and 5:00 pm on the Monday.

For the purposes of this evaluation we have used the peak hour arrival and departure flows in combination with the peak hour flow for SH1 traffic. This is a worst case traffic scenario where the peak festival traffic and peak holiday traffic flow coincide.

For the local road traffic and State highway 29, we have assumed the peak hourly flow to be 10% of the AADT.

5.1.4. Sensitivity Testing of Trip Generation

The table below summarises our assumptions for the traffic characteristics and gives commentary on the sensitivity testing.

Group	Vehicle occupancy (people/vehicle)	Proportion of group staying off-site	Proposed attendance (future)	Proposed total trip generation	Comments and sensitivity
Multi-day ticket-holders	2.5	10%	8,000	8,320	The trip generation is sensitive to this assumption. For example, if 25% of multi-day ticket-holders stay off-site the number of trips generated by multi-day ticket-holders increases by 22% to 10,720 (12% increase in all trips). Similarly, if the vehicle occupancy reduces to 2.0 people/vehicle the number of trips generated by multi-day ticket-holders increases by 25% to 10,400 (13% increase in all trips). The combination of 25% staying off-site plus 2.0 people/veh results in a 59% increase in trips to 14,000 (32% increase in all trips).
	2.5	25%	8,000	10,720	
	2.0	10%	8,000	10,400	
	2.0	25%	8,000	14,000	
1-day ticket-holders	1.3	100%	800	1,270	Less than 10% of total trips
Complimentary ticket-holders	1.3	100%	1,200	1,900	Slightly more than 10% of total trips

Group	Vehicle occupancy (people/vehicle)	Proportion of group staying off-site	Proposed attendance (future)	Proposed total trip generation	Comments and sensitivity
Staff/volunteers	1.3	10%	1,500	4,080	Not as sensitive to the overall trip generation: 10% off-site = 120 trips per day 25% off-site = 290 trips per day
Special guests (artists/musicians/ speakers)	3.0	100%	500	390	Small proportion of total trips (<5%). Likely to be shuttled to/from the event in mini-vans on a continuous rotation using the south access to the site
Total			**12,000**	**15,960**	

Table 7: Trip generation assumptions and sensitivity

The trip generation tables showing the trip generation assumptions, traffic volumes and sensitivity testing are attached in Appendix D.

5.1.5. Proposed 2021 Event

For the 2021 event, the number of tickets is likely to be approximately 6,500 with 1,200 staff, volunteers and special guests. A comparison of the trip generation for the 2021 event and the future maximum event is summarised in the table below. Note, these are total trips across the entire event duration and include the setup and pack down phases.

Description	2021 event trips	Future maximum event trips
Multi-day ticket-holders	5,560	8,320
1-day ticket-holders	800	1,270
1-day complimentary tickets	1,310	1,900
Staff/volunteers	2,660	4,080
Special guests (artists/musicians/speakers)	260	390
Total trip generation	**10,590**	**15,960**

Table 8: Comparison of 2021 event trip generation and maximum future event trip generation

5.2. Trip Distribution

The 2018 event data supplied by the Applicant provides some insight into where the attendees are travelling from[7]. This is shown in the table below.

Origin	Proportion of Attendees	SH1 from north	SH1 from south	East via SH29 or Taotaoroa Road
Auckland/Northland	50%	50%	0%	0%
Waikato	21%	15%	6%	0%
Bay of Plenty	10%	0%	0%	10%

[7] This information is based on a sample of 467 attendees.

Origin	Proportion of Attendees	SH1 from north	SH1 from south	East via SH29 or Taotaoroa Road
Rest of North Island	13%	0%	10%	3%
South Island	3%	0%	3%	0%
Unspecified	3%	0%	3%	0%
Total	100%	65%	22%	13%

Table 9: Origins of Festival Attendees (2018)

We have distributed the trips based on this information and applied these proportions to the proposed total trips for the future maximum event—including the staff/volunteers and special guests.

Traffic from Tauranga and the east could use two routes SH29 and SH1 or SH29 and the local road network via Taotaoroa Road. The route via Taotaoroa Road was identified during the scoping study as an alternative travel to reduce the number of right-turning vehicles at the intersection of SH1/SH29.

A small number of trips to/from Auckland and Northland may use SH2/SH27/SH29 via Matamata. If 5-10% of all trips used this route there could be approx. 410-840 fewer trips on SH1 from the north. For the purposes of this assessment we have assumed this traffic uses SH1.

5.2.1. Influencing and Incentivising Trips

The Applicant believes they can advertise alternative routes to discourage large numbers of drivers from taking routes that require right turns onto state highways (i.e. SH29 onto SH1 north at Piarere (arriving) and Karapiro Road onto SH1 north at Karapiro (departing)).

Using the Festival One app and NZTA's journey planning tools, there appears to be the ability to influence the routes people choose to use to travel to the event and even their time of travel. The degree of influence and success of getting attendees to divert to the recommended routes is uncertain. Information about the Festival One app is provided in Appendix I.

The route information delivered via the app would be reinforced with event direction signage on the roadside to guide attendees along the preferred routes. For departure traffic, traffic management staff could guide vehicles to the preferred routes from the event gate. For example, northbound traffic could be directed to turn left from Gate 1 to take them along French Pass Road, away from SH1 at Karapiro, and join the Waikato Expressway at the Victoria Road interchange.

The Applicant advises that they have a high success rate and positive response from the festival audience when sending out information and instructions via their app. For the purposes of this ITA we have assumed that preferred travel route information will be sent out via the Festival One app and reinforced with roadside signage, and that there will be a 90% positive response rate based on the combined effects of notifications via the app, event directional signage and traffic control at the gates.

5.2.2. Temporary Traffic Management and Diversions

Using the proposed alternate travel routes and diversions for both the arrival and departure traffic will help management peak flow on state highways and the traffic flow on the local road network.

The figure below shows the estimated traffic distribution (based on the origins of attendees as listed in Table 9 above), taking into account the alternative travel routes and possible diversions.

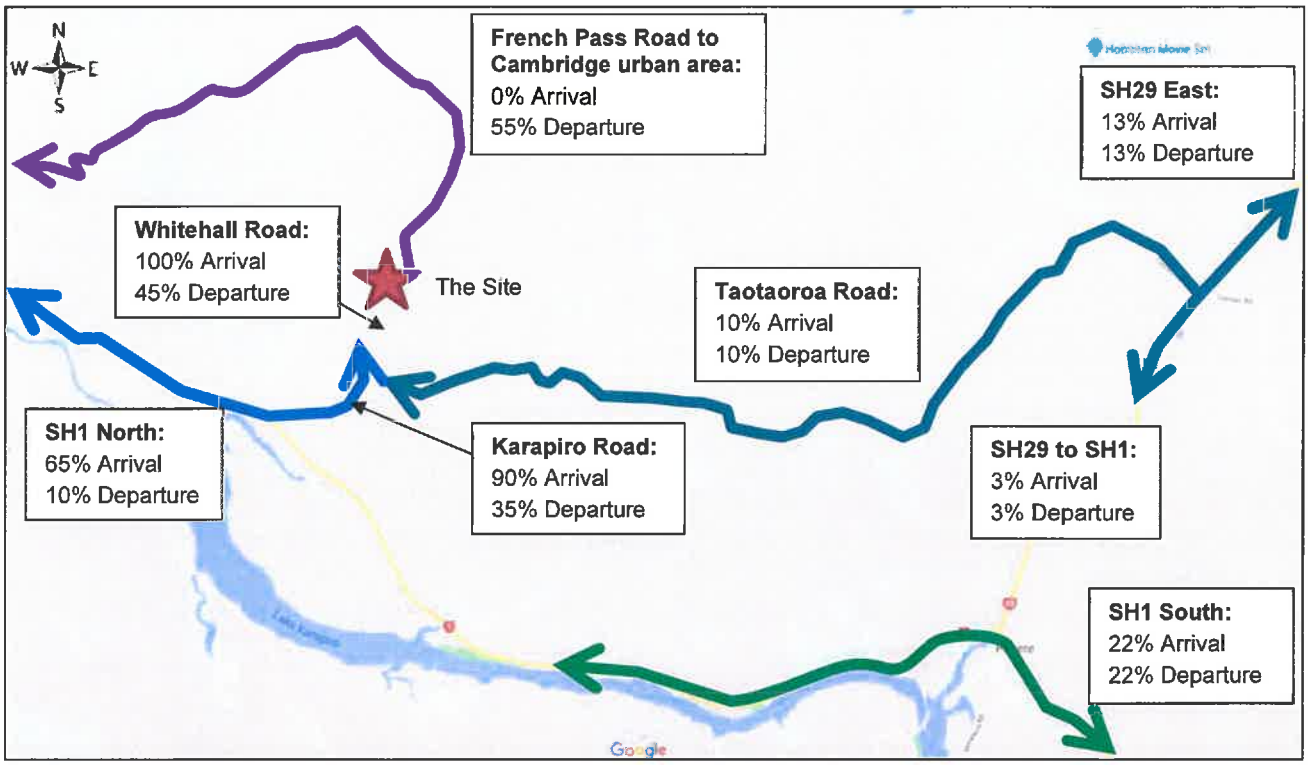


Figure 20: Potential Trip Distribution for Arrival and Departure

5.3. Arrival Traffic

The maps below show the peak hour arrival traffic for the festival, and the existing link flows for each of the transport routes to the festival. The turning flows for the maximum future event are also in red. These maps use the estimated peak arrival flows with the SH1 peak holiday traffic flows.

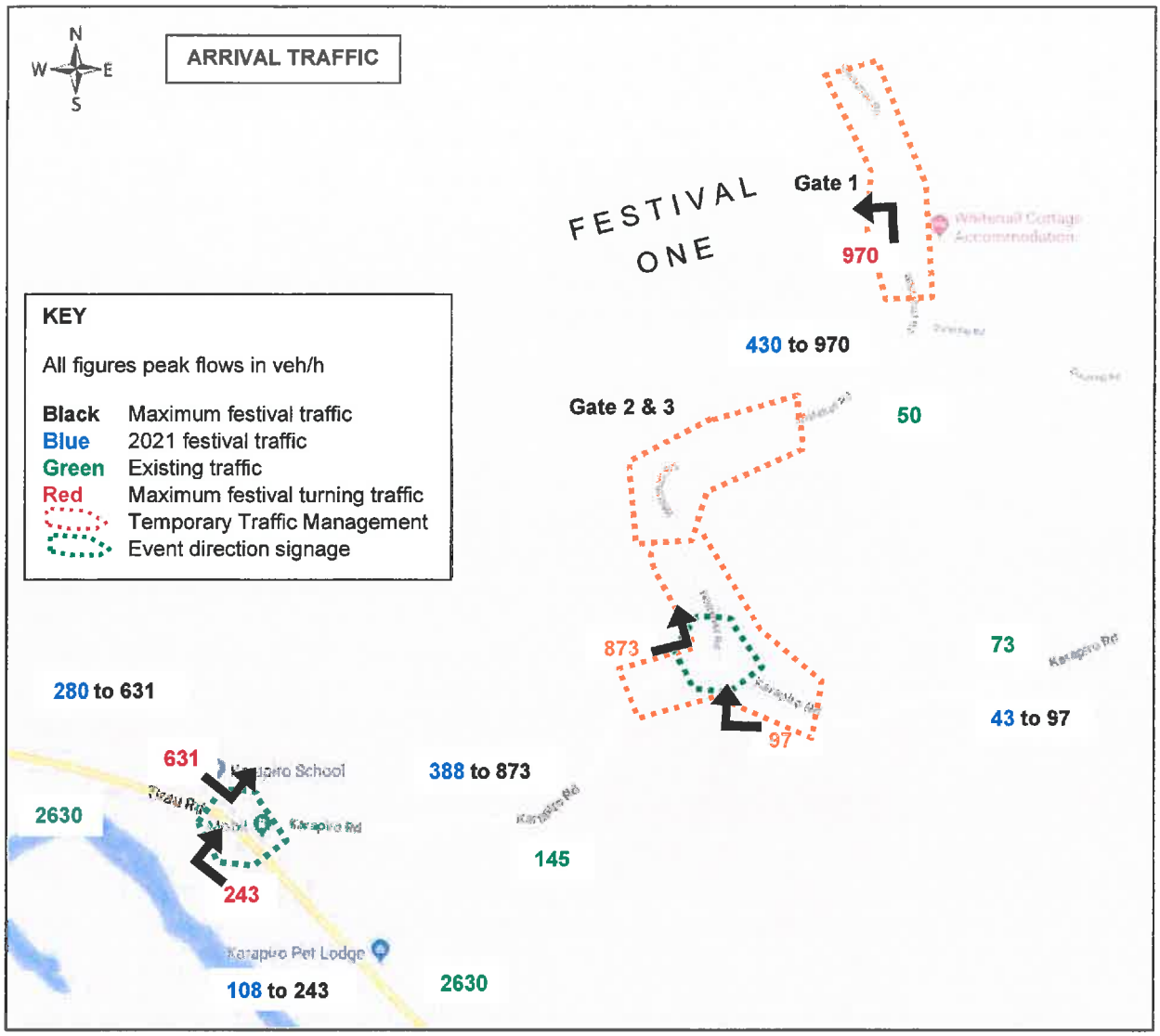


Figure 21: Arrival traffic flows, SH1 Karapiro area

5.3.1. SH1/Karapiro Road Intersection

Traffic arriving from the north turns left from SH1 into Karapiro Road. This turn is accommodated by an approximately 180m long left turn lane (including taper).

Traffic arriving from the south turns right from SH1 into Karapiro Road. This turn is accommodated by an approximately 175m long right turn bay (including taper).

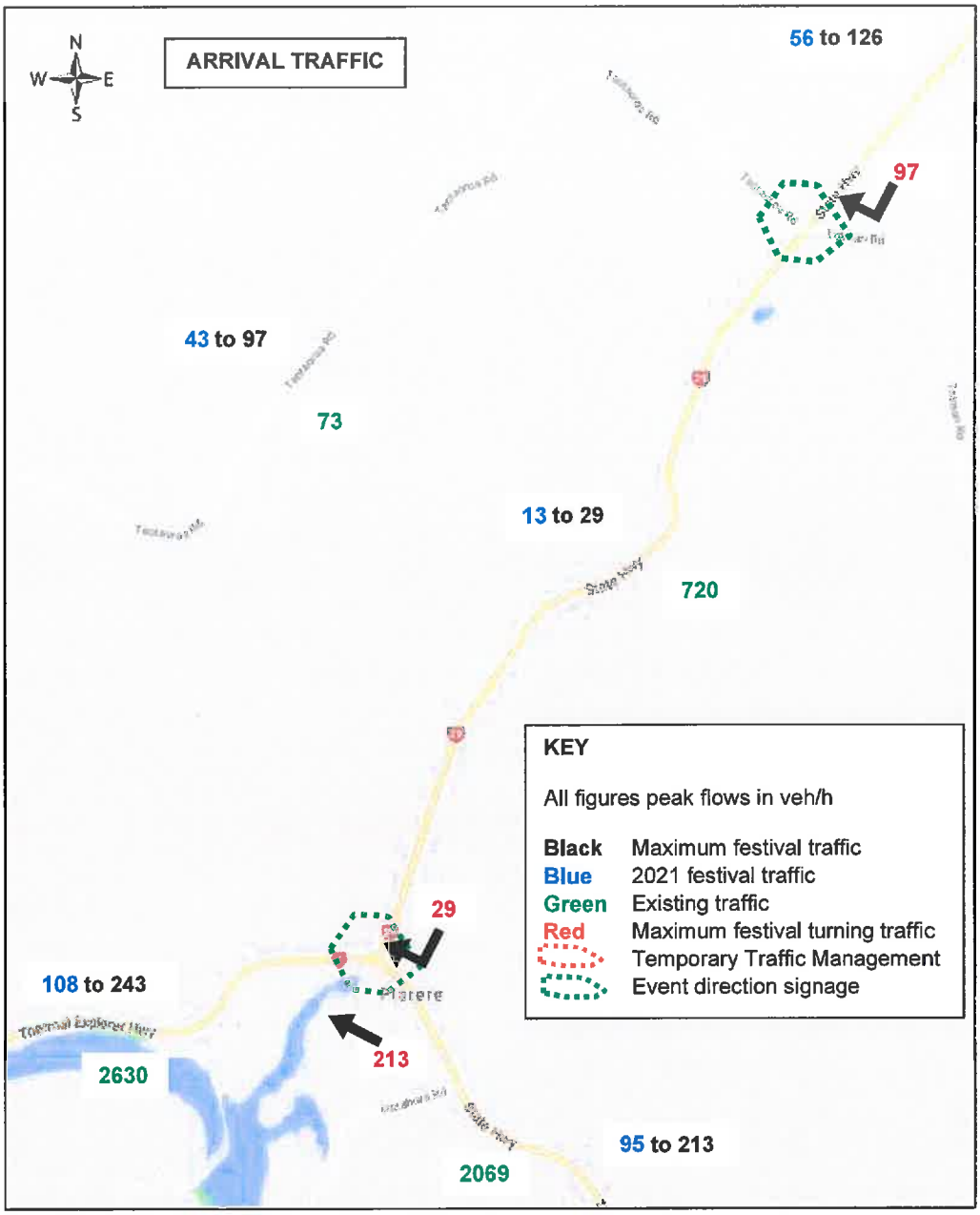


Figure 22: Arrival traffic flows, SH1/SH29 Piarere area

5.3.2. SH29/Taotaoroa Road Intersection

Traffic arriving from the east will be encouraged to turn right into Taotaoroa Road to avoid the right turn at the SH29/SH1 intersection and reduce the traffic load at the right turn from SH1 into Karapiro Road. The right turn into Taotaoroa Road is accommodated by a right turn bay.

5.3.3. SH1/SH29 Intersection

Any traffic arriving from the east that did not divert onto Taotaoroa Road (assumed 3%) would turn right at SH1 and travel toward the SH1/Karapiro Road intersection.

Traffic arriving from the south will be part of the northbound traffic flow on SH1 and travel north to the intersection of SH1/Karapiro Road.

5.4. Departure Traffic

The maps below show the peak hour departure traffic for the festival, and the existing link flows for each of the transport routes from the festival. The turning flows for the maximum future event are also in red. These maps use the estimated peak arrival flows with the SH1 peak holiday traffic flows.

Traffic departing the Festival and wishing to travel north, will be directed north on Whitehall Road and along French Pass Road into the Cambridge urban area. Event direction signage will guide festival traffic through Cambridge and up Victoria Road to the Waikato Expressway. Refer to the Indicative Signage Plan in Appendix E and draft Traffic Management Plan in Appendix F.

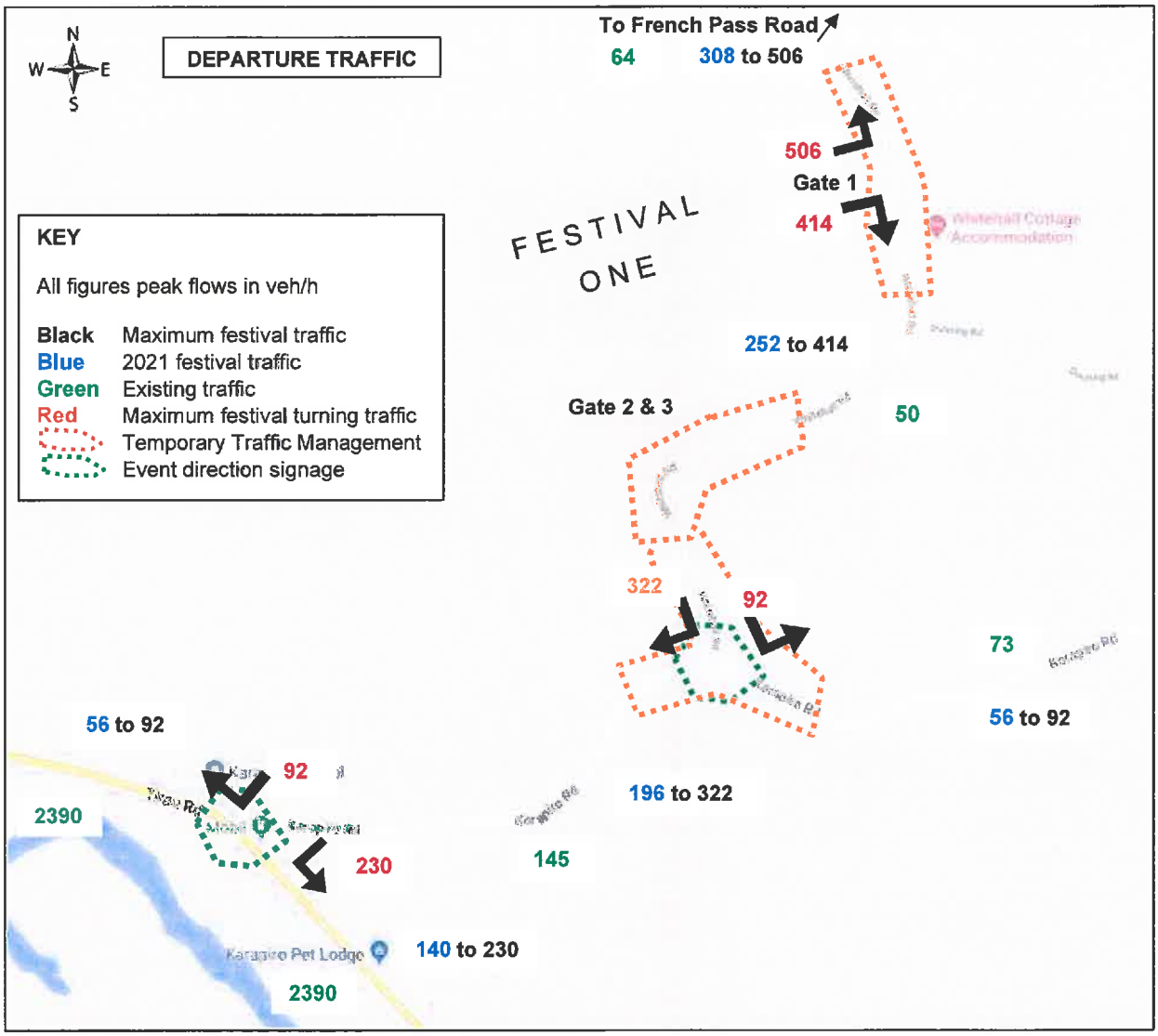


Figure 23: Departure traffic flows, SH1 Karapiro area

5.4.1. SH1/Karapiro Road Intersection

Traffic departing towards the north can be split between the SH1/Karapiro intersection and an alternate route via Whitehall Road – French Pass Road – Thornton Road – Cambridge Urban area. Assuming 85% of northbound traffic (55% of total festival traffic) diverts via French Pass Road, the traffic turning right at the SH1/Karapiro Road intersection would be greatly reduced.

Southbound traffic departing the event will turn right onto Whitehall Road and join SH1 at Karapiro road, via a left turn.

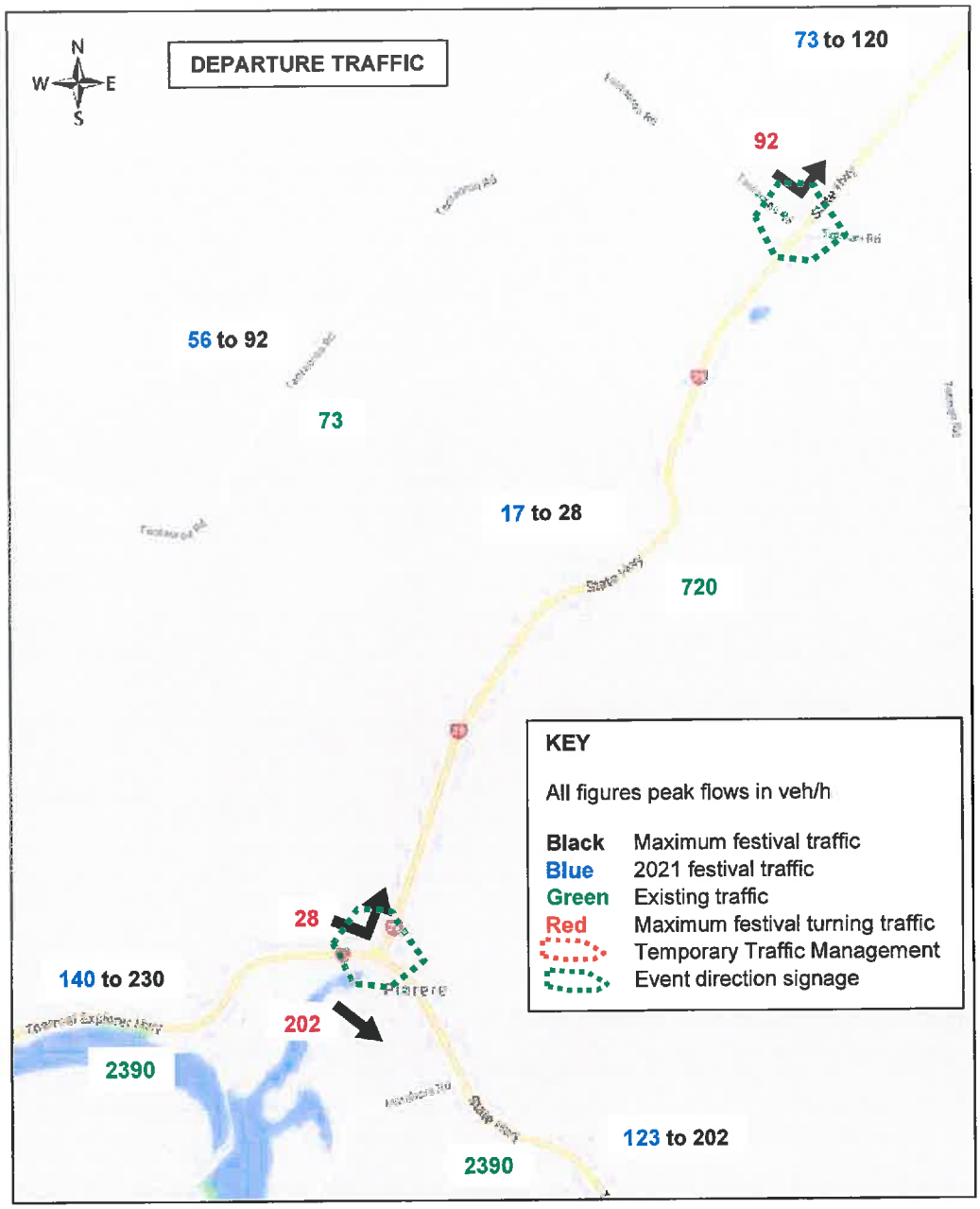


Figure 24: Departure traffic flows, SH1/SH29 Piarere area

5.4.2. SH29/Taotaoroa Road Intersection

Eastbound traffic departing the festival site will be directed to Taotaoroa Road using event direction signage. They will join SH29 via left turn from Taotaoroa Road.

5.4.3. SH1/SH29 Intersection

Any traffic departing towards the east that did not divert onto Taotaoroa Road (assumed 3%) will turn left at SH1 and travel south on SH1 toward the SH1/SH29 intersection where they will turn left.

Traffic departing toward the south will be part of the southbound traffic flow on SH1.

5.5. Link Flows

Using the peak hour trips generated by the event and predicted trip distribution, we have estimated the link flows for the peak hour flow. The Level of Service (LOS) definitions for the Waikato Regional Traffic Model (refer Appendix D), give a basis for assessing degree of change in the traffic flow conditions due to the event traffic flows. It is not an accurate measure of the actual LOS on the roads and is only intended to be used in this instance as a **basis for comparison** and **estimation of the degree of change.**

The table below shows the estimated arrival and departure link flows for the peak hour. Note that this is based on a worst-case scenario by distributing the total trips generated from all groups at the festival, not just ticket-holders, as explained in Section 6.2.

Local Road	Existing traffic (veh/h)	Existing LOS[8]	Event traffic direction	2021 Event (6,500 tickets)		Future Event Maximum (10,000 tickets)	
				Combined event and existing traffic (veh/h)	LOS with event traffic	Combined event and existing traffic (veh/h)	LOS with event traffic
Karapiro Road (west of Whitehall)	145	A	Arrival	533	C	1018	D
			Departure	325	B	425	B-C
Karapiro Road (east of Whitehall)	84	A	Arrival	127	A	181	A-B
			Departure	134	A	164	A-B
Whitehall Road	50	A	Arrival	480	C	1020	D
			Departure	280	B	410	B
Taotaoroa Road	73	A	Arrival	116	A	170	B
			Departure	123	A	153	A-B
French Pass Road (into Cambridge urban area)	64	A	Arrival	64	A	64	A
			Departure	372	A-B	570	C

Table 10: Local road traffic flows with event traffic flows

The table above shows that there is a minor increase in the likelihood of queuing and delays on the local roads with the most notable changes occurring on Karapiro Road (west of Whitehall Road) and Whitehall Road. The changes to the traffic flow conditions on the State Highways is likely to be minor or less than minor.

5.6. Intersection Capacity

[8] Level of Service (LOS) is a way of categorizing the traffic flow conditions on a road. The LOS ratings used here are an indicative mid-block LOS for before and after comparison purposes only.

The trip generation graph shows three significant peaks – Saturday morning, Saturday evening and Sunday evening. Comparing this to the peak volumes on the State Highway (Figure 20 and Appendix C), the festival traffic does not represent a large proportional change in the SH1 traffic flows.

The table below shows the peak hour turning flows at the intersections for festival traffic only. Note that this is based on the maximum future event with all trips generated (not just those from ticket holders) distributed using the proportions described in Section 5.2 above.

Direction	Intersection	Origin/ Destination	Turning movement	Proportion of trips	Estimated peak turning flow (veh/h)
ARRIVAL (970 veh/h)	SH1/Karapiro	North	Left-in to Karapiro	65%	631
	SH1/Karapiro	South (22%) East (3%)	Right-in to Karapiro	25%	243
	SH29/ Taotaoroa	East	Right-in to Taotaoroa	10%	97
	SH1/ SH29	East	Right-in to SH1	3%	29
	Karapiro/ Whitehall	North (65%) South (22%) East (3%)	Left-in to Whitehall	90%	873
	Karapiro/ Whitehall	East	Right-in to Whitehall	10%	97
	Whitehall/ Event	All	Left-in to Event	100%	970
DEPARTURE (920 veh/h)	Whitehall/ Event	North	Left-out of Event	55%	506
	Whitehall/ Event	North (10%) South (22%) East (13%)	Right-out of event	45%	414
	French Pass Road	North	Right-turn onto Victoria Road (SH1B)	55%	506
	Karapiro/ Whitehall	North (10%) South (22%) East (3%)	Right-out of Whitehall	35%	322
	Karapiro/ Whitehall	East	Left-out of Whitehall	10%	92
	SH1/Karapiro	North	Right-out of Karapiro	10%	92
	SH1/Karapiro	South (22%) East (3%)	Left-out of Karapiro	25%	230
	SH29/ Taotaoroa	East	Left-out of Taotaoroa	10%	92
	SH1/ SH29	East	Left-in to SH29	3%	28

Table 11: Peak arrival and departure turning flows at intersections for future maximum event

We have tested the intersection capacity of some key intersections using the turning flows generated by the two event size scenarios. The results of the intersection capacity analysis are shown in the table below.

	Origin Road	Destination Road	Movement	Turning flows within practical absorption capacity?		Comments
				2021 Event	Future Max. Event	
ARRIVALS	SH1 North	Karapiro	LT, unopposed	-	-	Unopposed turn, likely to operate adequately with existing left turn lane arrangement
	SH1 South	Karapiro	RT from major road	Yes	Ok	Close to capacity when event reaches 10,000 tickets.
	Karapiro Road (West)	Whitehall Road	LT, unopposed*	-	-	Unopposed turn, likely to operate adequately with active traffic management
	Karapiro Road (East)	Whitehall Road	RT from major road*	Yes	Yes	Spare capacity.
	SH29	SH1	RT from minor road	Yes	Ok	Close to capacity when event reaches 10,000 tickets.
DEPARTURES	Whitehall Road	Karapiro Road	LT*	Yes	Yes	Spare capacity.
	Tactaoroa Road	SH29 East	LT	Yes	Yes	Spare capacity.
	Whitehall Road	Karapiro Road	RT from minor road*	Yes	Yes	Spare capacity.
	Karapiro Road	SH1 North	RT from minor road	Yes	Yes	Spare capacity.
	Karapiro Road	SH1 South	LT	Yes	Yes	Spare capacity.
	SH1 South	SH29	LT	-	-	Left turn opposed by traffic turning right from SH1 South into SH29. Likely to operate adequately with existing lane arrangements
DEPARTURES VIA CAMBRIDGE	Thornton Road	Robinson Street	RT from major road	Ok	No	Likely to exceed practical capacity when event grows above 6,500 tickets.
	Taylor Street	Victoria Road	RT from minor road	Ok	No	Exceeds practical capacity when event grows above 6,500 tickets. Requires monitoring in initial years to determine actual traffic effects and required mitigation.

* Intersection likely to be under active traffic management for the event.

Table 12: Intersection capacity

Diverting most of the northbound traffic via French Pass Road will result in congestion on the local road network for short time periods. There is likely to be some dispersal of traffic within the Cambridge urban area, with multiple route options available to get from French Pass Road to the Victoria Interchange. We suggest that the Applicant work with Waipa DC to determine the best routes to use and any specific traffic management requirements.

6. CONSULTATION

The Applicant has consulted with affected parties and the results of their consultation is presented elsewhere. Our consultation with the road controlling authorities is described below.

6.1. Consultation with Waipa DC

We drove over the transport routes for the event with the Waipa DC Safety Engineer to identify potential issues and assess any mitigation required to accommodate the festival traffic. Waipa DC were supportive of the suggested mitigation to use Temporary Traffic Management at the Karapiro Road/Whitehall Road intersection (due to visibility constraints), and the approaches to the event entrances on Whitehall Road (to allow for the high turning volumes).

The event direction signage and cursory information was also discussed and agreed as being an appropriate tool for improving on-road navigation and readability of the roads for the festival attendees who may be unfamiliar with the area.

The consensus was that the curves on Taotaoroa Road, and the tight curves on the approach to the gully and bridge on French Pass Road should have a cursory sign to warn drivers to slow for the curves ahead.

Cursory signage to remind drivers to look for bikes was also discussed and considered worthwhile. The signs may also benefit to recreational cyclists who could alter their route choice over the event weekend.

The increased traffic on local roads is unlikely to have significant adverse effects. The event traffic will be noticed but is manageable through the use of public notices, temporary traffic management, event directional and cursory signage, and recommended transport route information delivered via the Festival One app.

We propose that local road traffic counters be used to monitor the traffic volumes and arrival and departure times of event traffic. The traffic information should be reviewed to determine if any changes to the mitigation is required.

6.2. Consultation with NZ Transport Agency

NZTA provided initial comments in regards to the proposed festival at a preliminary meeting, based on an initial scoping study for the event. The comments NZTA provided focused on:

- General safety and efficiency of the roads and intersections;
- Management of potential congestion hotspot at southbound merge off Cambridge section of Waikato Expressway and whether festival traffic would adversely affect traffic flow conditions;
- Management of arrival routes to spread traffic across network and dispersion of peak flows; and
- Incentivising route choice and arrival times using chip data and apps (i.e. NZTA "Connected Journeys").

A pre-application meeting with NZTA resulted in draft conditions of consent and an opportunity to further develop the use of the Festival One app in parallel with NZTA journey planning tools.

This Integrated Transport Assessment provides sufficient information in response to NZTA's comments.

Festival traffic volumes are unlikely to cause significant adverse effects on the state highway network. The effects are likely to be short-term and localised at Karapiro. The effects are likely to be noticed, but they are not unmanageable and can be mitigated with diversions, public notices, and event directional signage. The proposed traffic management in conjunction with the communications strategy (Festival One app and NZTA's journey planning tools) is required to accommodate the festival traffic at the intersections.

We propose that the festival traffic be monitored and reviewed following the first event with a summary provided to NZTA for consideration and identification of any changes to transport mitigation for future events.

NZTA's Mitigation Letter is included in Appendix J.

7. ASSESSMENT AGAINST THE DISTRICT PLAN

7.1. Zoning and Activity Status

The site is located within the rural zone. We understand that the activity is non-complying/discretionary.

7.2. Waipa Operative District Plan Assessment

The proposal is generally consistent with the Waipa District Plan objectives, policies and rules. The proposed activity is located next to strategic transport routes and is in an area where transport effects are able to be minimised.

The District Plan contains objectives, policies and rules that will govern activities within the District. There is no reason why the proposed activity would not support the relevant objectives and policies listed below.

District Wide Objectives	Policies	Comments
16.3.2 Integrating land use and transport: ensuring a pattern of land uses and a land transport system which is safe, effective and compatible	Land use and transport systems successfully interface with each other through attention to design, safety and amenity Policies = Integrating land use and transport = Enhancing pedestrian safety = Safe roads = Managing effects on character and amenity	Location of site supports integrated transport system – adjacent to strategic routes (SH1 and SH29). Event is located away from urban areas, is in an area with lower traffic volume roads, limiting the effects on local traffic. Promotion of alternative transport routes and use of event directional and cursory signage will improve safety and efficiency of traffic.
16.3.3 Maintaining transport network efficiency	To maintain the ability of the transport network to distribute people and goods safely, efficiently and effectively Policies = Effects of development or subdivision on the transport network = Location of network utilities	
16.3.4 Provision of vehicle entrances, parking, loading and manoeuvring areas	The provision of adequate and well located vehicle entrances and parking, loading and manoeuvring areas that contribute to both the efficient functioning of the site and the adjacent transport network Policies = Location of vehicle entrances = Ensuring adequate parking, loading and manoeuvring areas on site	Sufficient space for parking, loading and manoeuvring can be provided on site for an event size up to 6,500 tickets. Car parking, access and manoeuvring layouts are managed by an experienced event team and will be in accordance with District Plan requirements.
16.3.5 Minimising adverse effects of the transport network	The transport network can have effects on the adjacent environment that must be mitigated through design Policies = Natural environment = Noise and vibration	Site can be developed to minimise adverse effects. Most internal roads are on existing track/race formations.

Table 13: Comments on relevant District Wide Objectives and Policies

Rural Zone Objectives	Policies	Comments
4.3.9 Rural Amenity - Signs	To ensure that signs do not have an adverse impact on the amenity values of the Rural Zone, landscape values, heritage values, or public safety Policies = Signs to reflect local character and transport environment = Location of Signs = Signs to avoid adverse effects = Temporary Signs = Traffic Safety	Event signage will be consistent with District Plan rules, including rule 4.4.2.45.

Table 14: Comments on relevant Rural Objectives and Policies

21.1.1.6 Traffic	Comments
(a) The impacts on the safe, efficient and effective provision of the transportation system including, but not limited to: (i) Impacts on the road network and the effective operation of the road hierarchy; and (ii) Infrastructure provision, including works needed to maintain the safety, efficiency and effectiveness of the transportation system such as any upgrades necessary to pedestrian and cycle facilities, intersections, pavements and structures on the system affected by the proposed activity; and (iii) Timing and staging of development; and (iv) Connectivity between adjacent areas of development.	Temporary traffic management, directional signage and diversions for event traffic will be utilised to minimise adverse effects to through traffic. Vehicle crossings at the event gates can be widened or improved as required by Waipa DC.
(b) Whether sufficient provision has been made for alternative modes of transportation where this is available and practicable, including but not limited to: (i) Public transport; and (ii) Cycle and pedestrian movement; and (iii) The establishment of cycleways, walkways and public transport stops; and (iv) The establishment of cycle stands; and (v) Connectivity to alternative transport modes such as rail and air transport.	The audience travels to the event in private vehicles or campervans. Any cyclists can be accommodated with the proposed on-site facilities. There are no public transport services in the area.
(c) The extent to which the location of the activity on the site has given regard to: (i) The need for acceleration and deceleration lanes; and (ii) The type, frequency and timing of traffic; and (iii) The safety of road users, cyclists and pedestrians; and (iv) The ability for access to roads other than arterial roads or State Highways; and (v) The need for forming or upgrading roads and pavements potentially affected by the activity; and (vi) The need for additional maintenance, inspection or traffic monitoring; and (vii) The need for traffic control, including signs, signals and traffic islands; and (viii) The ability for parking and manoeuvring to be carried out on site.	The proposed gates have vehicle crossings that can be improved as required by Waipa DCs. Alternate transport routes will be advertised and may be incentivised via the Festival One app. Temporary traffic management will be used at the identified locations on the local road network. Event direction signage will also be used to help guide festival traffic.

21.1.1.6 Traffic	Comments
(d) The extent to which the location of the site access way has given regard to: (i) Safety for vehicles, and pedestrians with particular regard to the effect on the safety and functioning of the road and/or level crossing. (ii) The practicality and adequacy of the proposed access having regard to the location, nature and operation of the proposed activity and/or development.	The gate locations are compliant in relation to adequate sight distance for the proposed temporary speed limit of 50km/h. The internal access roads will be wide enough to allow two vehicles from opposing directions to pass each other safely, or provide frequent safe passing opportunities.
(e) The extent to which the location of the land use activity on the site has given regard to: (i) Visibility and sight distances particularly the extent to which vehicles entering or exiting the level crossing are able to see trains. (ii) The extent to which failure to provide adequate level crossing sightlines will give rise to level crossing safety risks.	Not applicable.

Table 15: Comments on relevant Assessment Criteria

7.3. Assessment against Waipa Integrated Transport Strategy 2010-2040 (WITS)

Waipa's Integrated Transport Strategy (WITS 2010-2040) sets out objectives and actions to support the vision of "access to an affordable, integrated, safe, responsive and sustainable transport system." The following table lists the objectives and comments on the consistency of the proposed activity with each.

WITS Objective	Proposed Activity
To integrate transport and land use planning in a sustainable and co-ordinated manner.	Supports this objective by locating the proposed activity in an area with good links to strategic transport corridors.
To adopt a safe road system approach and reduce deaths and serious injuries on Waipa's roads. To ensure an effective and efficient road network in Waipa District.	Uses Traffic Management Plans, directional, and cursory event signage to improve safety and efficiency.
To promote travel choices (where appropriate) to manage travel demand in the district. To improve passenger transport so that it becomes a viable option for travel between main centres in the District and the Region To encourage cycling and walking in Waipa District as safe and convenient modes of transport	Supports these objectives by promoting alternate routes to event attendees, and possibly incentivising route choice and time of arrival to disperse the traffic peak. The site infrastructure includes appropriate end of journey facilities for cyclists.

Table 16: Comments on WITS Objectives

8. EVALUATION OF TRANSPORT EFFECTS

8.1. Potential Transport Effects

This ITA and the assessment of effects is based on the maximum event size planned for the future. The current attendance rates and size of event is approximately half of the intended future maximum. Therefore, the effects are likely to be less for the initial festival event in 2021, growing over time to the level of effects as discussed here.

Many festival attendees are from out of the district and may not be familiar with the local roads. With the potential increase in turning traffic at the intersections, the effects and appropriate mitigation needs to be carefully considered.

The effects on the transport network arising from the festival are related to an increase in trip generation that coincides with Auckland Anniversary weekend. The likely transport effects relate to:

- Potential increase in vehicle conflict and delays associated with vehicles turning at the SH1/ Karapiro Road intersection;
- Potential increase in vehicle-cyclist conflict on local roads;
- Potential increase in loss-of-control type crashes due to drivers on unfamiliar local roads;
- Potential inadequate parking space for festival event greater than 6,500 tickets;
- Vehicle queues at intersections or the event gates impeding through traffic;
- Delays to local through traffic on the local road network;

8.1.1. Effects on Existing Activities

Existing activities in the area will notice the increase in traffic on local roads. The use of public notices, pre-event signage will help inform local road users and allow them to alter their travel route or time if possible.

The Applicant advises that they provide a phone number for local residents and businesses to call if they are experiencing problems as a result of the event activities. Event staff are on call to respond to any requests, such as vehicles obstructing access to a property.

The Karapiro School is unlikely to be affected since the festival entrance is more than 4km away and the school is not open to students until the Tuesday immediately following the Auckland Anniversary Weekend (pack down phase with minimal staff and traffic), or later depending on the arrangement of school start dates. If the school activities were to coincide with the event (i.e. on the Friday), consultation with the school would be required to assess the likely impact and determine if mitigation is required to assist traffic entry and exit from the school. If required, the event could manage their traffic movements by shutting their gates during the morning and afternoon school traffic times (i.e. 8am-9am and 2:30pm-3:30pm) and notifying event attendees and staff via the Festival One app.

The Mobil service station and Karapiro Hall may notice an increase in the traffic turning into Karapiro Road, and also into the service station (event traffic may stop to get their last supplies for the weekend), however significant adverse effects are unlikely as it is usual for the service station to experience a peak in customers over holiday weekends.

8.1.2. Safety Effects

There are no significant safety problems evident with existing traffic conditions on the road network.

Potential adverse safety effects relating to the increase in traffic result in a low probability of an increase in vehicular conflict, or loss of control type crashes.

The potential for increased turning volumes at Karapiro/Whitehall intersection with limited visibility for westbound right-turning traffic using the Taotaoroa Road route increase the crash risk at this intersection. These potential effects will be able to be mitigated through the use of a Temporary Traffic Management Plan (TTM) with a temporary speed restriction at the intersection.

There have been a number of loss of control crashes at the curves on Taotaoroa Road, from Karapiro Road to the east for a distance of approximately 700m. There is potential for drivers unfamiliar with this route to enter this section of road at an inappropriate speed. Appropriate mitigation in this instance is to install some event signage with a cautionary warning to reduce speed on the approach to the curves.

To aid drivers in their navigation on their travel route, it may be useful to install event direction signage in advance of the intersections and at intersections, and confirmation signage after each intersection displaying the remaining distance to the event. For example, "Festival One, Turn Right 200m →" and repeater directional signage at the intersection, i.e. "Festival One →" and the confirmation signage "Festival One 6km ↑". An indicative signage plan is included in Appendix E.

The addition of cursory information such as "Look for Cyclists" (recommended on Whitehall Road, French Pass Road and Taotaoroa Road), "Caution" "Slow" "Curves Ahead" (recommended on French Pass Road and Taotaoroa Road) may help drivers negotiate the unfamiliar local roads.

Any event directional signage for traffic direction should comply with the rules and provisions of the Waipa District Plan and also NZTA Traffic Devices Manual.

8.1.3. Efficiency Effects

Potential efficiency effects relate to the increase in traffic flows on the local roads and turning volumes at the State Highway intersections.

The existing facilities on the State Highways (left turn lane and right turn bay into Karapiro Road, and similarly at SH29), mean that the effects on through traffic are likely to be minor or less. Those that are affected would face a few seconds extra delay, which happens already from time to time and is generally expected during holiday period traffic.

There are no changes to, or adverse effects on, connectivity. The increased traffic on local roads is likely to be noticed by residents and through traffic and may cause some minor delays in accessing and using the road network. The local roads and intersections have sufficient reserve capacity to accommodate the traffic with minor efficiency effects. The use of Temporary Traffic Management (TTM) at the identified locations on Whitehall Road and Karapiro Road/Whitehall Road intersection along with public notices and signage prior to the event will mean the effects should be minor or less. (Refer Appendix E and F for recommended signage).

Monitoring traffic on local roads throughout the duration of the event would provide event specific data to determine the effectiveness of the proposed mitigation and if further, or different, mitigation is required. The roads recommended for monitoring are Karapiro Road (west of Whitehall Road), Taotaoroa Road, Whitehall Road (south of Gate 3), French Pass Road, Robinson Street, and Thornton Road (to assess the effectiveness of the alternate route north through Cambridge urban area).

8.1.4. Parking Effects

The predicted travel data (Appendix D) shows the total number of public vehicles for the event as:

- 2,890 for 6,500 tickets sold for the 2021 event, with a possible parking shortfall (estimated at 1%); and
- 4,500 for 10,000 tickets sold for the future maximum event (cap), with an apparent parking shortfall of 36%.

The large on-site parking area, vehicle-camping area and large separation distance from the road frontage means that adverse effects relating to parking or queuing are very unlikely for an event up to 6,500 tickets.

The apparent shortfall in parking for the event may not eventuate. Predicting the trip generation for the event required several assumptions, including vehicle occupancy rates, the proportion of people staying in accommodation off-site, the number of complimentary ticket-holders on site, and the number of day ticket holders on site. There will be some variance in the predicted travel data and vehicle numbers if the assumptions change (discussed in Section 5.1).

Therefore, we recommended that the Applicant use vehicle counters on the main access road and count vehicles in the parking and camping areas to record the number of vehicles on-site at various times during the festival. A review of vehicle numbers and parking space using the collected data will determine if the proposed site layout will accommodate the event growth to 10,000 tickets, or if the site would need to be reconfigured.

8.1.5. Pedestrian Safety Effects

Lighting should be set out to create safe pathways for pedestrians within the site to ensure safety around vehicles in the carpark and clear unobstructed walkways within the event. Consideration should be given to the principles of Crime Prevention Through Environmental Design (CPTED) when designing the site layout, lighting, and pedestrian areas.

8.2. Summary of Transport Effects

The adverse effects of the proposed activity relate mainly to the additional traffic using the local roads and are likely to be no more than minor provided that the suggested mitigation measures are implemented. The effects are likely to be focussed at the Karapiro Road/Whitehall Road intersection and along Whitehall Road for the arrival trips. For the departure trips, the most noticeable effects are likely to be focussed on the French Pass/Thornton Road route into the Cambridge urban area.

The people likely to be affected will be residents and businesses on Whitehall Road, Karapiro Road, Taotaoroa Road, and French Pass Road. Local road users are likely to notice the additional activity with the effects likely to be delays in access and egress from their properties, slowing for turning traffic, or delays in turning at intersections.

State Highway users are unlikely to notice the additional activity due to the usual holiday traffic activity expected on Auckland Anniversary weekend, but the effects are likely to be slowing for turning traffic, or minor delays in turning at intersections. With mitigation provided through TTM, event signage and public notices, the effects of the proposal relating to transport are likely to be no more than minor.

8.3. Options for Mitigation

With appropriate conditions, the potential adverse effects of the event could be mitigated to be acceptable. Options to mitigate the above adverse effects include:

- Capping the number of event tickets to 10,000 maximum;
- Approval of the design of the vehicle crossings at the event gates by Waipa DC;
- Approval of Festival One pre-event notification, event direction and cursory signage as follows:
  - For all installations on State Highways (including variable message signs), approval from NZ Transport Agency;
  - For all local road installations, approval from Waipa District Council;
- A Traffic Management Plan is developed in consultation with Waipa DC for each local road location: at Karapiro Road/ Whitehall Road intersection, and at the approaches to all event gates on Whitehall Road;
- A Traffic Management Plan is developed in consultation with Waipa DC to require vehicles exiting the site travelling towards Auckland and Hamilton to turn left and use the local road network to the State Highway 1/Victoria Road Interchange until such time that the State Highway 1/Karapiro Road intersection is upgraded to either have a roundabout or grade separation;
- Traffic monitoring on local roads throughout the duration of the first event to provide event specific data. The roads recommended for monitoring are Karapiro Road (west of Whitehall Road), Taotaoroa Road, Whitehall Road (south of Gate 3), French Pass Road, Robinson Street, and Thornton Road (near Victoria Road) to assess the effectiveness of the alternate route north through Cambridge urban area;
- Traffic counts on the main event access road and counts of vehicles in the parking and camping areas during the first event would provide event specific data; and
- An assessment of the monitoring and count data and effectiveness of the transport mitigation should be prepared following the first event, prior to any increase over 8,000 attendees, and prior to any increase over 10,000 attendees and presented to NZ Transport Agency and Waipa DC for review and approval, with any required changes implemented prior to the following festival event.

Issue and effect	Significance	Suggested Mitigation
Increased traffic on State Highways causing delays at intersections	Minor	= Journey management through use of Festival One app and NZTA journey management tools promoting appropriate travel route choice. = Event directional and cursory signage on state highway (VMS) and local road approaches to the event as part of approved Traffic Management Plans.

Issue and effect	Significance	Suggested Mitigation
Increased traffic on local roads increasing potential for vehicle-cyclist conflict	Minor	= Require pre-event notices/signage on identified transport routes on local roads. = Require cursory event signage throughout duration of event to warn of presence of cyclists on local roads.
Drivers on unfamiliar roads (i.e. Taotaoroa Road and French Pass Road) increasing potential for crashes at tight curves.	Minor	= Require event cursory signage on both approaches to curves (both directions), as approved by Waipa DC
Limited visibility for right-turning traffic at Karapiro Road into Whitehall Road increasing potential for crashes	Minor	= Require Temporary Traffic Management with a temporary speed limit of 50km/h to improve safety for vehicles at this intersection.
Queuing and congestion at Karapiro Road/Whitehall Road intersection causing traffic delays	Minor	= Require Temporary Traffic Management and event directional signage to manage the estimated turning flows at this intersection. = Require traffic monitoring on local roads to assess effectiveness of transport mitigation.
Queuing at event site entrance causing delays to through traffic	Minor	= Require approval of the vehicle crossings by Waipa DC. = Require Temporary Traffic Management at event gates on Whitehall Road to manage event traffic. = Require traffic monitoring and vehicle counts on site to assess extent of queuing and determine the appropriate mitigation as event grows each year.
Possible parking shortfall on event site	Minor	= Require on-site monitoring at first event using traffic counters, and counting vehicles parked on site. = Require a review of traffic data collected to ensure mitigation measures are adequate and effective.

Table 17: Transport Effects and Suggested Mitigation

9. CONCLUSION

9.1. Summary

There is a degree of uncertainty of the likely traffic characteristics for the event. We have made assumptions that are subject to influence or change from other external factors, such as:

- Festival programming – the timing of popular "headline" acts and other aspects of the festival that attract attendees;
- Ticket prices – the relative cost of a single day ticket versus a multi-day ticket influencing whether people attend one day or several days, and whether they camp or stay off-site; and
- A new venue and the associated marketing attracting people from different regions, altering the arrival and departure traffic flows.

We recommend the best course of action to be to measure and monitor traffic at the first event and report on the data and findings. Give Waipa DC and NZ Transport Agency an opportunity to review the report and revise the mitigation measures if necessary, to ensure the safe and efficient operation of the transport network during the event.

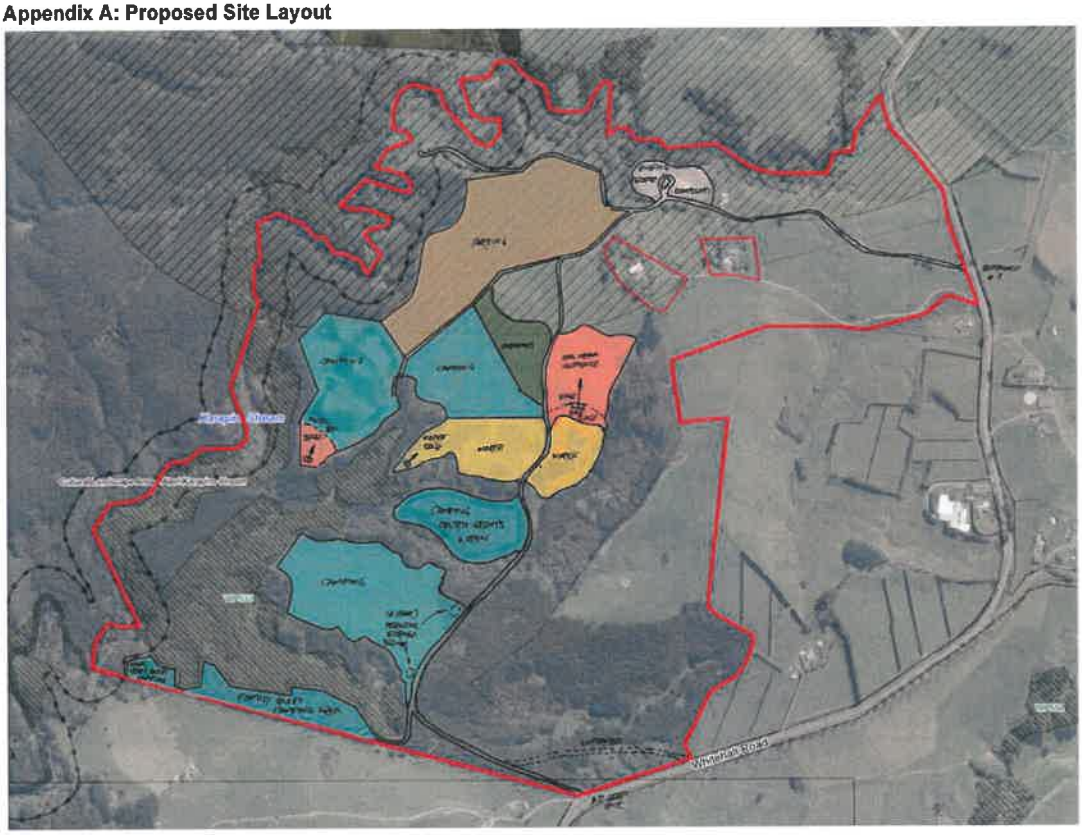
9.2. Conclusion

Subject to the proposed conditions of consent relating to transport (refer Appendix K), and approval of recommended event signage and Temporary Traffic Management, the effects of the proposal relating to traffic are likely to be minor or less.

There does not appear to be any significant reason relating to transportation why the application should not be approved subject to the conditions of consent being met.

APPENDICES

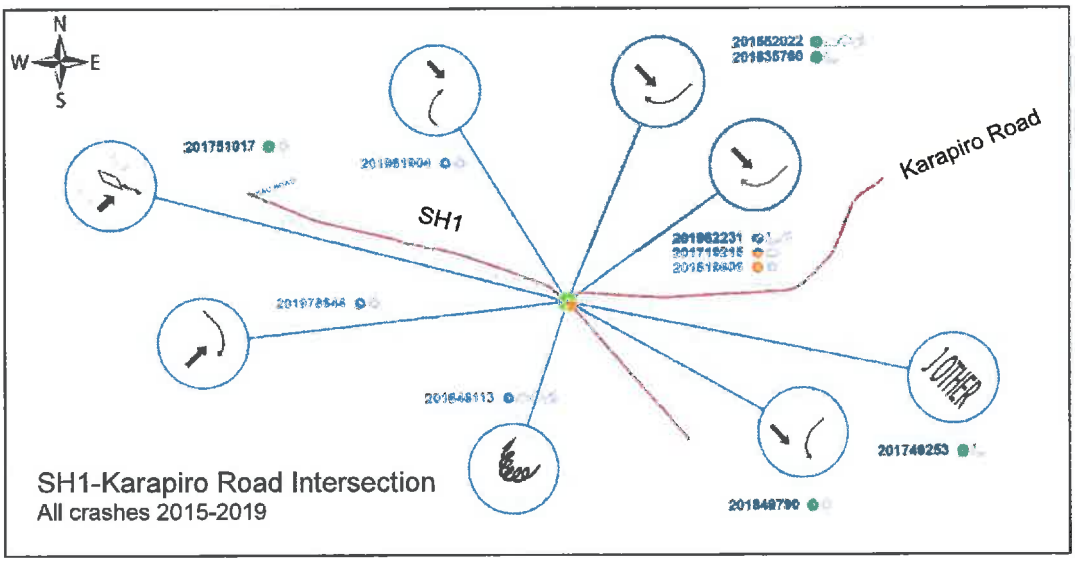
Appendix A: Proposed Site Layout

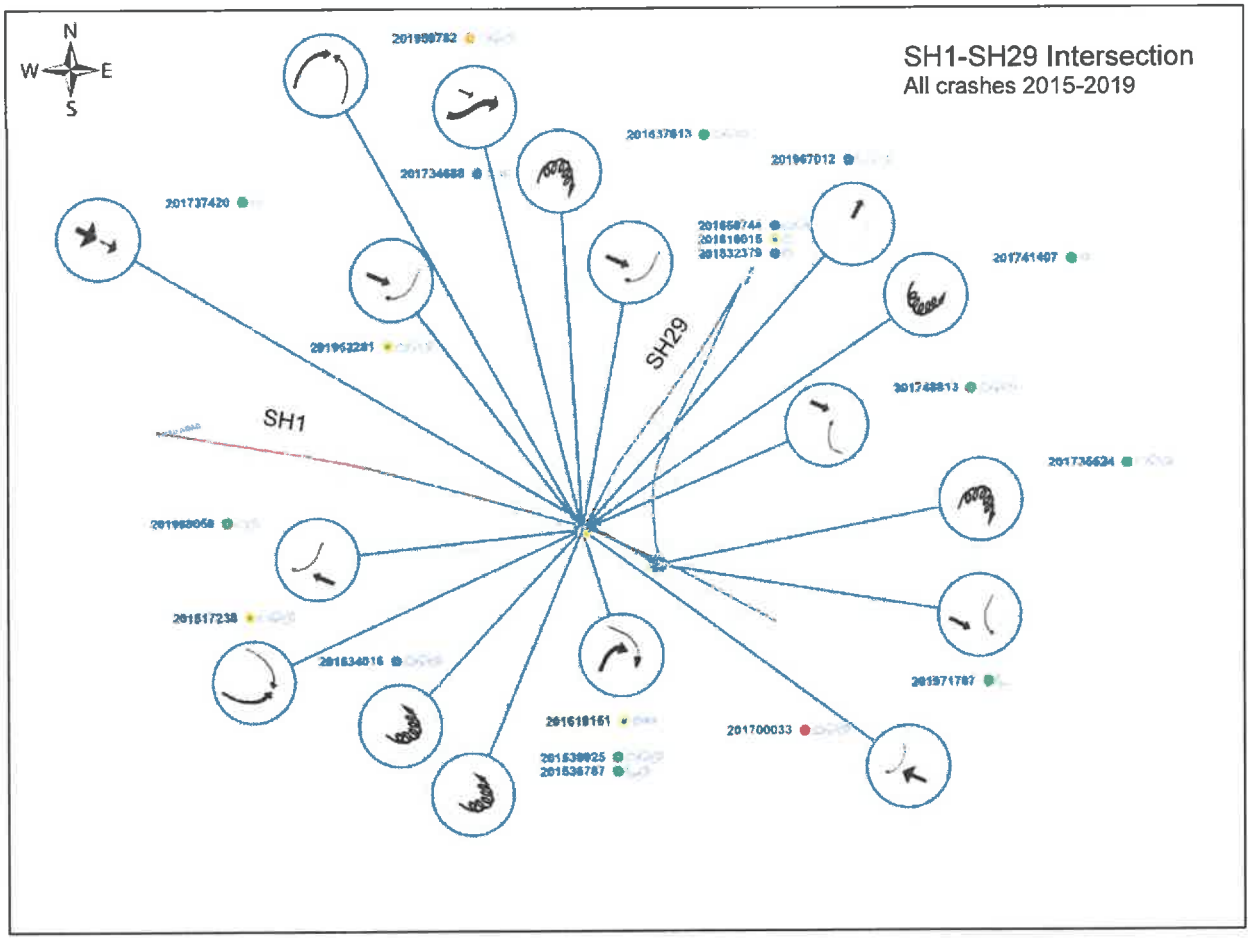


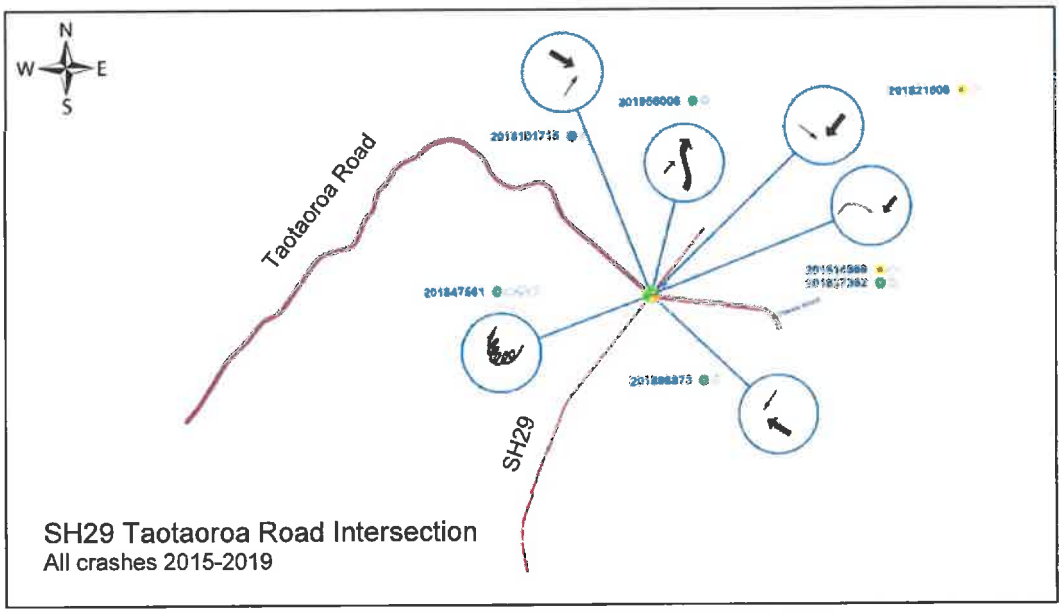
Appendix B: Crash Data 2015-2019

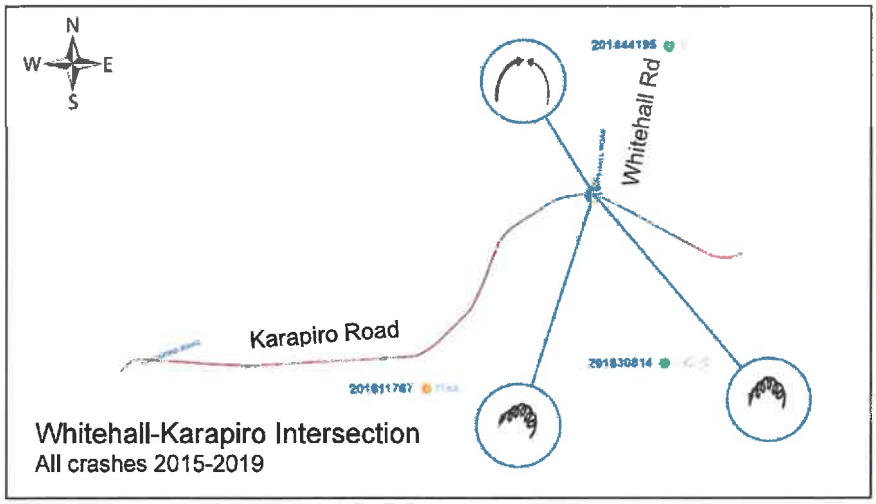
The collision diagrams presented below use the following key:

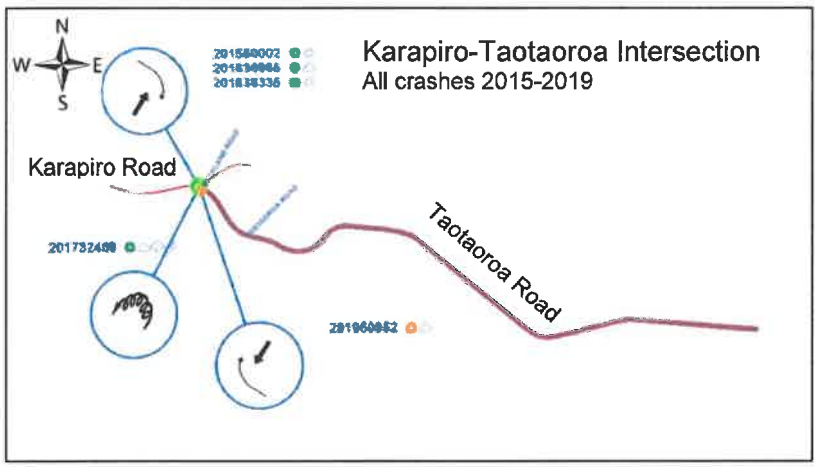
Intersection crash diagrams




N
W
E
S
SH1-SH29 Intersection
All crashes 2015-2019
SH1
SH29


N
W
E
S
Taotaoroa Road
SH29
SH29 Taotaoroa Road Intersection
All crashes 2015-2019


N
W
E
S
Whitehall Rd
Karapiro Road
Whitehall-Karapiro Intersection
All crashes 2015-2019


N
W
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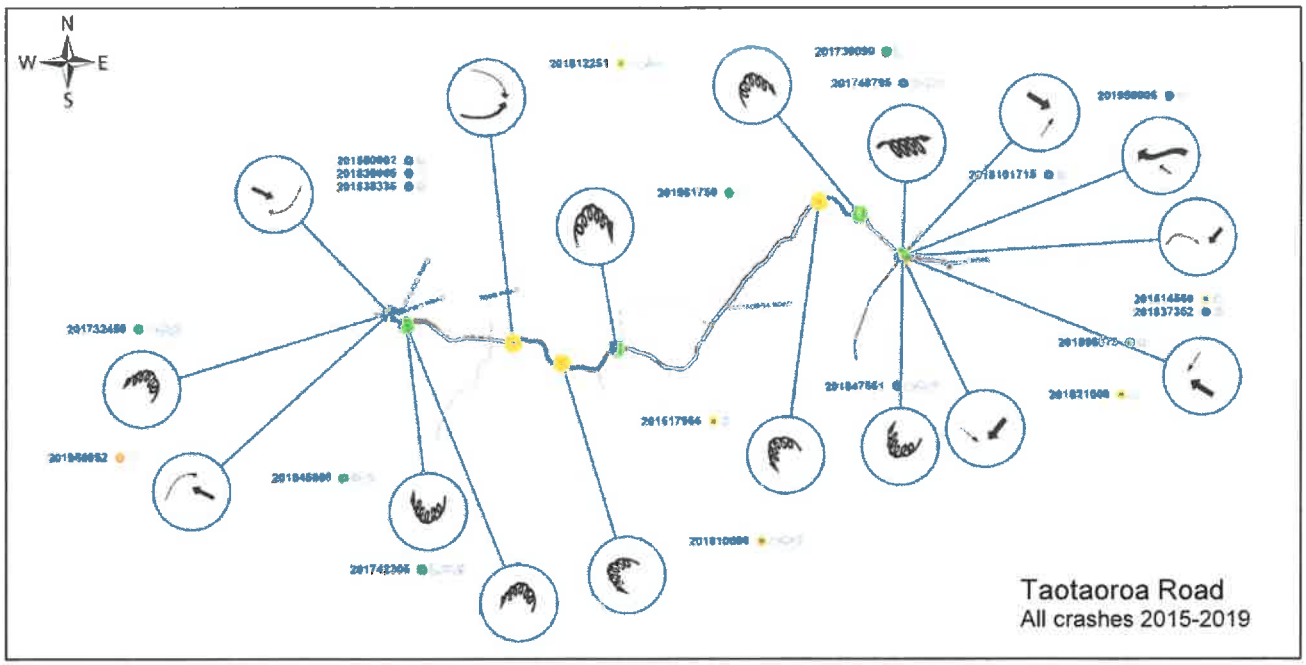
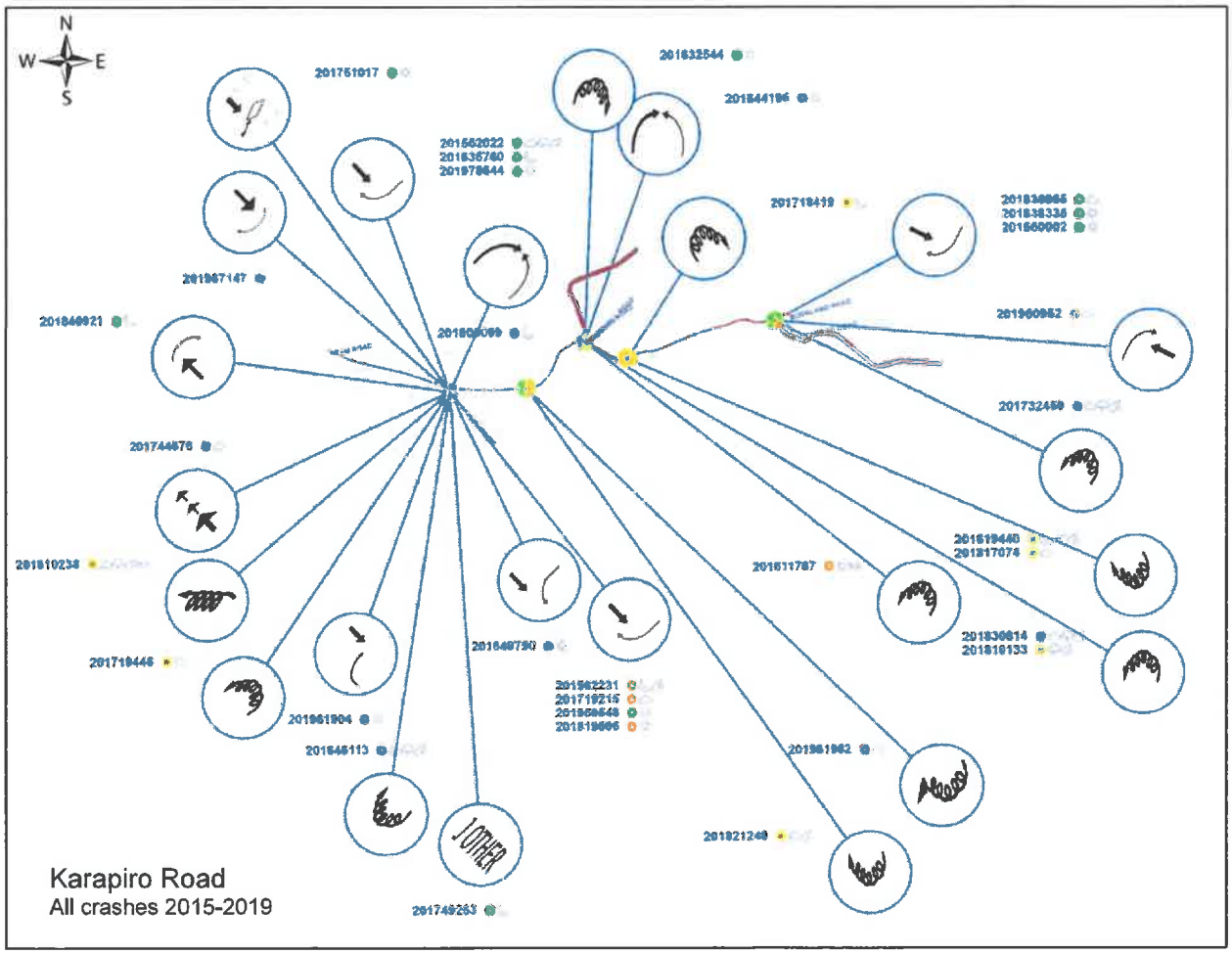
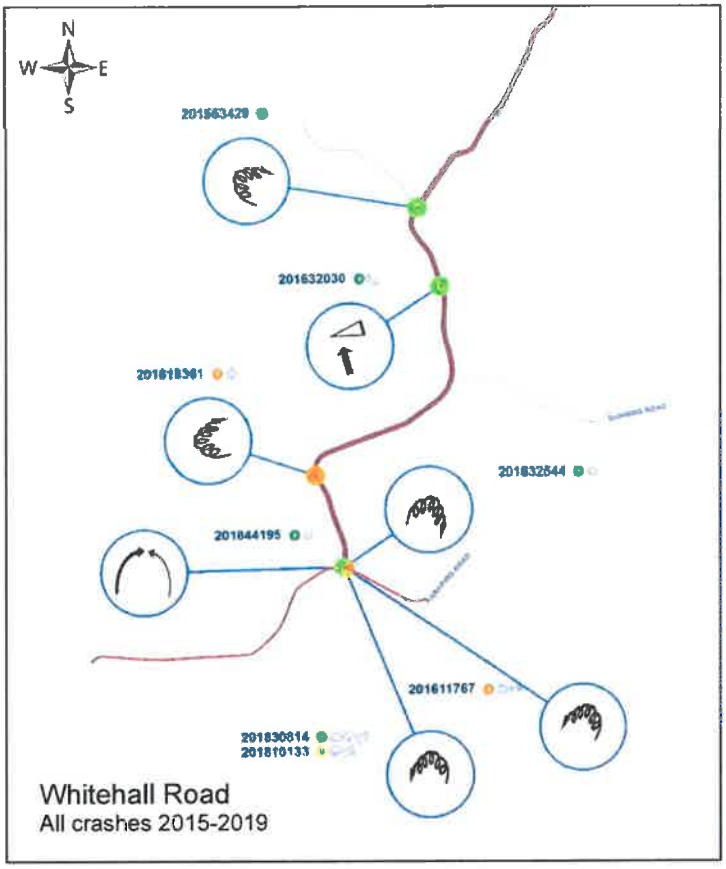
Karapiro-Taotaoroa Intersection
All crashes 2015-2019
Karapiro Road
Taotaoroa Road

Local road crash diagrams






N
W
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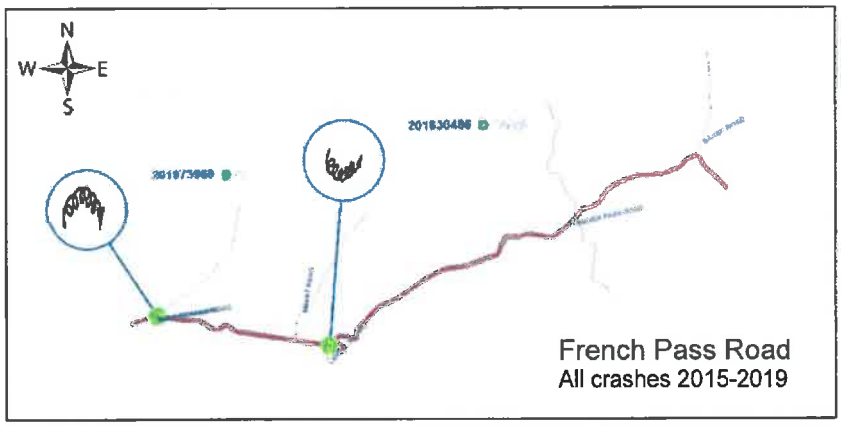
201632030
201618361
201632544
201844195
201611767
201830614
201810133
Whitehall Road
All crashes 2015-2019


N
W
E
S
201830486
French Pass Road
All crashes 2015-2019

Appendix C: Traffic Data

NZTA State Highway Traffic Counts

Hourly Count Export

Site Ref: 01N00580 (KARAPIRO - Telemetry Site 20)
Start Date (dd-mon-yyyy): 26-Jan-2018
End Date (dd-mon-yyyy): 29-Jan-2018
Direction: Increasing
Data Type: ALL Vehicles

Day	00:00 - 01:00	01:00 - 02:00	02:00 - 03:00	03:00 - 04:00	04:00 - 05:00	05:00 - 06:00	06:00 - 07:00	07:00 - 08:00	08:00 - 09:00	09:00 - 10:00	10:00 - 11:00	11:00 - 12:00	12:00 - 13:00	13:00 - 14:00	14:00 - 15:00	15:00 - 16:00	16:00 - 17:00	17:00 - 18:00	18:00 - 19:00	19:00 - 20:00	20:00 - 21:00	21:00 - 22:00	22:00 - 23:00	23:00 - 00:00	Total
26-JAN FRI	64	69	45	54	103	165	389	583	718	786	791	870	1003	1077	1150	1166	1206	1287	1009	722	583	522	344	179	14885
27-JAN SAT	121	83	59	62	76	162	318	525	840	1193	1314	1360	1063	1005	942	867	717	628	442	375	261	209	157	114	12893
28-JAN SUN	79	48	46	25	48	57	128	286	519	870	1092	1132	1004	920	808	839	804	611	488	354	289	228	142	101	10918
29-JAN MON	105	67	32	22	46	64	116	204	398	634	869	872	782	750	724	717	577	508	440	316	250	203	142	84	8922

Hourly Count Export

Site Ref: 01N00580 (KARAPIRO - Telemetry Site 20)
Start Date (dd-mon-yyyy): 26-Jan-2018
End Date (dd-mon-yyyy): 29-Jan-2018
Direction: Decreasing
Data Type: ALL Vehicles

Day	00:00 - 01:00	01:00 - 02:00	02:00 - 03:00	03:00 - 04:00	04:00 - 05:00	05:00 - 06:00	06:00 - 07:00	07:00 - 08:00	08:00 - 09:00	09:00 - 10:00	10:00 - 11:00	11:00 - 12:00	12:00 - 13:00	13:00 - 14:00	14:00 - 15:00	15:00 - 16:00	16:00 - 17:00	17:00 - 18:00	18:00 - 19:00	19:00 - 20:00	20:00 - 21:00	21:00 - 22:00	22:00 - 23:00	23:00 - 00:00	Total
26-JAN FRI	64	46	59	57	91	133	304	525	629	636	693	828	828	778	899	877	863	869	750	578	344	270	215	141	11477
27-JAN SAT	99	62	66	37	32	80	157	252	452	664	774	807	681	656	737	706	753	768	660	578	496	354	260	261	10392
28-JAN SUN	88	45	32	30	24	34	100	198	260	481	680	780	835	828	922	1021	1131	1048	1054	754	533	381	293	216	11768
29-JAN MON	132	86	44	47	52	76	152	249	396	625	894	1125	1175	1213	1144	1238	1271	1244	1125	830	650	451	250	131	14600

Appendix D: Trip Generation

FIRST WHITEHALL EVENT IN 2021

TIME PERIODS: AM 0600 to 1059 (5 hours); Mid 1100 to 1559 (5 hours); PM 1600 to 0000 (8 hours). Gates open 6am, close at 12pm

PEOPLE		Proportion staying off-site	Total	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thu AM	Thu PM	Fri AM	Fri Mid	Fri PM	Sat AM	Sat Mid	Sat PM	Sun AM	Sun Mid	Sun PM	Mon AM	Mon Mid	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	CHECK SUMS
Arrivals	Staff/volunteers	10%	980	80	0	80	0	80	0	500	400	90	0	0	90	0	0	90	0	0	80	0	0	80	0	80	0	1660
	Special Guests	100%	300									0	70	20	20	40	80	20	40	80	20							300 OK
	Multi-day	10%	5300									300	790	1000	1430	750	1000	530	0	0	530	0	0					6890
	Complimentary 1-day	100%	700												150	100	150	200	100	100		0	0					700 OK
	1-day tickets	100%	500												100	100	100	50	50	100								500 OK
	TOTAL ARRIVALS (People)		7700	80	0	80	0	80	0	500	400	990	770	1020	1780	990	1310	790	190	180	640	0	0	80	0	80	0	10050
Departures	Staff/volunteers	10%	980	0	80	0	80	0	80	0	90	0	0	90	0	0	90	0	0	90	0	500	400	0	85	0	80	1660
	Special Guests	100%	300									0	30	30	0	40	80	0	40	80	0	70	0					300 OK
	Multi-day	10%	5300									0	0	500	0	0	3080	0	800	1530	1500	1500	0					6890
	Complimentary 1-day	100%	700									0	50	170	0	0	400	0	0	300	0	20	0					940
	1-day tickets	100%	500												0	0	300	0	0	200								500 OK
	TOTAL DEPARTURES (People)		7700	0	80	0	80	0	80	0	90	0	80	[illegible]	0	40	2900	0	[illegible]	2200	1500	2040	400	0	80	0	80	10050
	Total People on site per day			80		80		80		990			3000			7020			4320			3020		80		80		

TRIPS		Vehicle Occupancy people/vehicle	Total	M AM	M PM	T AM	T PM	W AM	W PM	T AM	T PM	F AM	F Mid	F PM	S AM	S Mid	S PM	S AM	S Mid	S PM	M AM	M Mid	M PM	T AM	T PM	W AM	W PM	CHECK SUMS
Arrivals	Staff/volunteers	1.3	692	70	0	70	0	70	0	390	310	70	0	0	70	0	0	70	0	0	70	0	0	70	0	70	0	1330
	Special Guests	3.0	100									0	10	10	10	20	20	10	20	20	10	0	0					130
	Multi-day	2.5	2120									360	300	400	580	300	400	230	0	0	220	0	0					2760
	Complimentary 1-day	1.3	538									0	0	0	120	80	120	80	80	80	0	0	0					560
	1-day tickets	1.3	385												80	80	80	40	40	80								400
	TOTAL ARRIVALS (Vehicles)		3835	70	0	70	0	70	0	390	310	430	310	410	860	480	630	420	140	180	300	0	0	70	0	70	0	5300
Departures	Staff/volunteers	1.3	692	0	70	0	70	0	70	0	70	0	0	70	0	0	70	0	0	70	0	390	310	0	70	0	70	1330
	Special Guests	3.0	100									0	10	10	0	20	30	0	20	30	0	10	0					130
	Multi-day	2.5	2120									0	0	220	0	0	420	0	320	620	600	600	0					2760
	Complimentary 1-day	1.3	538									0	40	140	0	0	310	0	0	240	0	20	0					750
	1-day tickets	1.3	385												0	0	240	0	0	160								400
	TOTAL DEPARTURES (Vehicles)		3835	0	70	0	70	0	70	0	70	0	50	[illegible]	0	[illegible]	1070	0	340	1120	600	1020	310	0	70	0	70	5300
	Total Trips Per Period			70	70	70	70	70	70	390	380	430	360	850	860	500	1680	420	480	1300	900	1020	310	70	70	70	70	10590
	Total Trips Per Day			140		140		140		770			1640			3050			2200			2230		140		140		

Total Public Parking Required: 2880 (includes all public vehicles, all complimentary ticket vehicles, and half of the day ticket vehicles)

Parking capacity	Area (m²)	m² per vehicle	Capacity
Carpark area	65000	25	2600
Campervan area	20000	75	267
			2867 Shortfall 1%

2300 Average Vehicles per day (Fri-Mon inclusive)

PROPOSED FUTURE MAXIMUM EVENT

TIME PERIODS: AM 0600 to 1059 (5 hours); Mid 1100 to 1559 (5 hours); PM 1600 to 0000 (8 hours). Gates open 6am, close at 12pm

PEOPLE		Proportion staying off-site	Total	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thu AM	Thu PM	Fri AM	Fri Mid	Fri PM	Sat AM	Sat Mid	Sat PM	Sun AM	Sun Mid	Sun PM	Mon AM	Mon Mid	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	CHECK SUMS
Arrivals	Staff/volunteers	10%	1500	100	0	100	0	100	0	500	1000	150	0	0	150	0	0	150	0	0	150	0	0	100	0	100	0	2600
	Special Guests	100%	500									0	40	40	50	60	80	50	60	80	40							500 OK
	Multi-day	10%	8000									1300	1000	1500	3300	1000	500	800			800	0	0					10400
	Complimentary 1-day	100%	1200												300	700	200	180	100	100	0	0	0					1200 OK
	1-day tickets	100%	800												300	100	120	250	150									800 OK
	TOTAL ARRIVALS (People)		12000	100	0	100	0	100	0	500	1000	1620	[illegible]	1540	4100	1360	380	1500	240	180	990	0	0	100	0	100	0	15500
Departures	Staff/volunteers	10%	1500	0	100	0	100	0	100	0	150	0	0	150	0	0	150	0	0	150	0	500	1000	0	100	0	100	2600
	Special Guests	100%	500									0	0	80	0	50	140	0	50	140	0	40	0					500 OK
	Multi-day	10%	8000									0	0	800	0	0	1800	0	300	2800	2500	2800						10400
	Complimentary 1-day	100%	1200									0	0	0	0	100	600	0	100	400	0	0	0					1200 OK
	1-day tickets	100%	800												0	0	500	0	0	300								800 OK
	TOTAL DEPARTURES (People)		12000	0	100	0	100	0	100	0	150	0	0	1030	0	250	3190	0	650	3790	3500	2540	1000	0	100	0	100	15500
	Total People on site per day			100		200		100		1500			[illegible]			[illegible]			9400			6040		100		200		

TRIPS		Vehicle Occupancy people/vehicle	Total	M AM	M PM	T AM	T PM	W AM	W PM	T AM	T PM	F AM	F Mid	F PM	S AM	S Mid	S PM	S AM	S Mid	S PM	M AM	M Mid	M PM	T AM	T PM	W AM	W PM	CHECK SUMS
Arrivals	Staff/volunteers	1.3	1154	80	0	80	0	80	0	390	770	110	0	0	120	0	0	120	0	0	120	0	0	80	0	80	0	2040
	Special Guests	3.0	167									0	20	20	20	20	30	20	20	30	20	0	0					200
	Multi-day	2.5	3200									600	600	600	1320	400	200	320	0	0	320	0	0					4160
	Complimentary 1-day	1.3	923									0	0	0	240	160	160	240	80	80	0	0	0					960
	1-day tickets	1.3	615												240	80	60	110	80	0								640
	TOTAL ARRIVALS (Vehicles)		6059	80	0	80	0	80	0	390	770	730	620	620	1940	660	470	980	130	130	460	0	0	80	0	80	0	8000
Departures	Staff/volunteers	1.3	1154	0	80	0	80	0	80	0	150	0	0	120	0	0	120	0	0	120	0	390	770	0	80	0	80	2040
	Special Guests	3.0	167									0	0	30	0	30	50	0	30	50	0	20	0					190
	Multi-day	2.5	3200									0	0	320	0	0	720	0	280	1120	1000	800	0					4160
	Complimentary 1-day	1.3	923									0	0	0	0	40	470	0	80	310	0	0	0					960
	1-day tickets	1.3	615												0	0	390	0	0	240								630
	TOTAL DEPARTURES (Vehicles)		6059	0	80	0	80	0	80	0	150	0	0	470	0	100	1750	0	330	[illegible]	[illegible]	1210	770	0	80	0	80	7980
	Total Trips Per Period			80	80	80	80	80	80	390	890	730	420	1090	1940	760	2220	980	460	1950	1460	1210	770	80	80	80	80	15980
	Total Trips Per Day			160		160		160		1280			2230			4920			3250			3440		160		160		

Total Public Parking Required: 6492 (includes all public vehicles, all complimentary ticket vehicles, and half of the day ticket vehicles)

Parking capacity	Area (m²)	m² per vehicle	Capacity
Carpark area	65000	25	2600
Campervan area	20000	75	267
			2867 Shortfall 56%

3470 Average Vehicles per day (Fri-Mon inclusive)

Definitions Of LOS				Table 1
LOS	Description	WRTM Model LOS criteria		
		Link (vehicles per hour)	Intersection (average delay/veh)	
			Priority	Signal/Rotary
LOS F	Forced flow. The amount of traffic approaching a point exceeds that which can pass it. Flow break-downs occur, and queuing and delays occur.	In excess of **900-1700** depending on link type	50 sec	80 sec
LOS E	Traffic volumes are at or close to capacity and there is virtually no freedom to select desired speed and to manoeuvre within the traffic stream. Flow is unstable and minor disturbances within the traffic stream will cause break-downs in operation.	Between **810-1530** depending on link type	35 sec	55 sec
LOS D	Approaching unstable flow where all drivers are severely restricted in their freedom to select desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience is poor and small increases in traffic flow will cause operational problems.	Between **675-1275** depending on link type	25 sec	35 sec
LOS C	Stable flow but most drivers are restricted to some extent in their freedom to select their desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience has declined noticeably.	Between **450-850** depending on link type	15 sec	20 sec
LOS B	Stable flow where drivers still have reasonable freedom to select their desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience is less than LOS A.	Not Applicable	Not Applicable	
LOS A	Free flow in which drivers are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to manoeuvre within the traffic stream is extremely high and the general level of comfort and convenience is excellent.			

NB *The LOS for priority intersections is dictated by the delay on the worst approach and the LOS for roundabouts and signalised intersections is calculated based on the weighted average delay across all approaches.*

Appendix E: Indicative Signage Plan

Where directional signage is recommended to improve navigation and readability of the local roads, the following sign layouts are an example of what may be used, subject to approval by the road controlling authorities.

Directional signage may be required for both arriving and departing traffic – particularly for traffic heading north via French Pass Road and the Waikato Expressway.

A map showing the recommended locations for the directional and cursory signage is on the following page.

EXAMPLES OF ARRIVAL SIGNAGE

In advance of intersection (left or right)

At intersection

After intersection (insert distance)

EXAMPLES OF CURSORY SIGNAGE

Cursory signs for cyclists on Whitehall and French Pass roads

Cursory signs for curves on Taotaoroa Road and French Pass Road

EXAMPLES OF DEPARTURE SIGNAGE

At exit gate of Festival

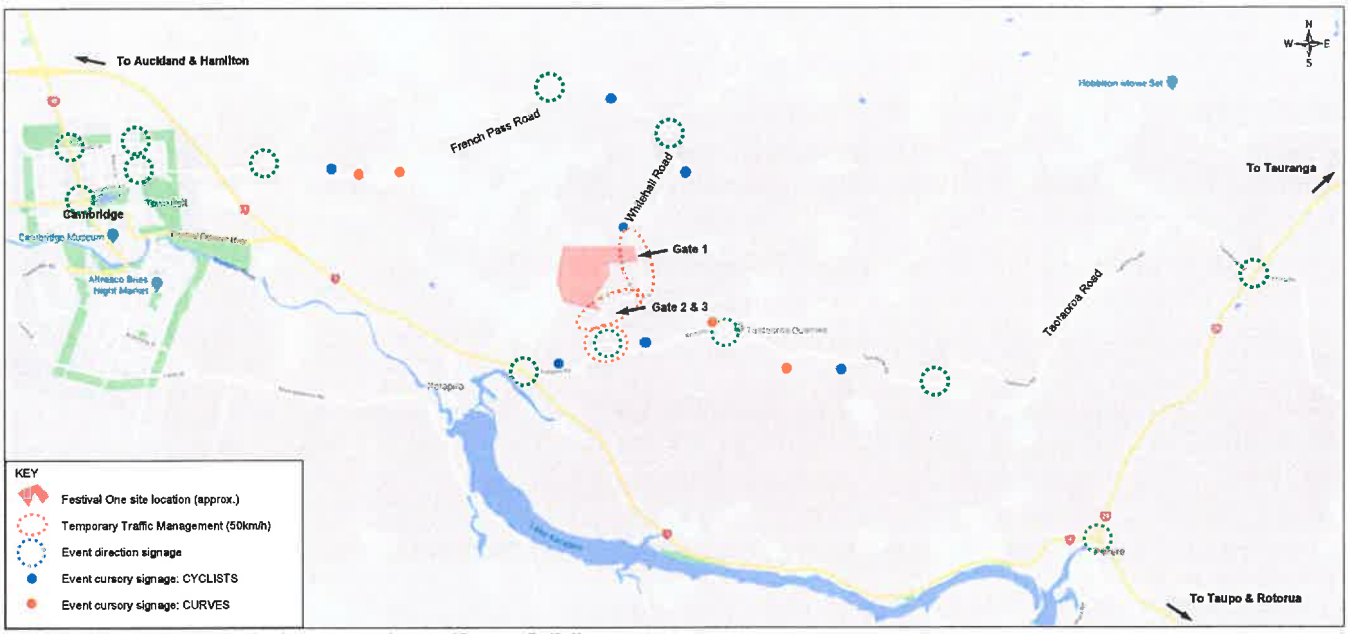


Figure 25: Indicative locations for direction signage, cursory signage and Temporary Traffic Management

Temporary Traffic Management is proposed at three locations:

- The intersection of Karapiro Road and Whitehall Road, for the purposes of managing turning traffic;
- Outside Gate 2 and 3 on Whitehall Road (north of Karapiro Road) for the purposes of managing traffic entering and exiting the festival site; and
- Outside Gate 1 on Whitehall Road (between Dunning Road and the Quarry) for the purposes of managing traffic entering and exiting the festival site.

Appendix F: Draft Traffic Management Plan

RCA consent (eg CAR/WAP) and/or RCA contract reference	

TRAFFIC MANAGEMENT PLAN (TMP) – FULL FORM

Use this form for complex activities. Refer to the NZ Transport Agency's Traffic control devices manual, part 8 Code of practice for temporary traffic management (CoPTTM), section E, appendix A for a guide on how to complete each field.

Organisations /TMP reference	**TMP reference:** **TMNZ-HAM-200052**	**Contractor (Working space):** **Festival One**	**Principal** *(Client)*: **Festival One**
		Contractor (TTM): **Traffic Management NZ**	**RCA:** **New Zealand Transport Agency** **Waikato District Council**

	Road names and suburb	House no./RPs *(from and to)*	Road level	Permanent speed
Location details and road characteristics	Whitehall Road, Whitehall	Entire Length	Level L1	100 km/h
	Karapiro Road, Whitehall	Entire Length	Level L1	100 km/h
	French Pass Road, Whitehall	Various Locations	Level L1	100 km/h
	Thornton Road, Leamington	Various Locations	Level 1	50 km/h
	Robinson Street, Leamington	0.470	Level 1	50 km/h
	Taylor Street, Leamington	0.646	Level 1	50 km/h
	Tirau Road, State Highway 1	01N-0574-B/6.940 to 01N-0574-B/7.550, 01N-0591-B/1.300 to 01N-0594-B/0.070	Level 2	100 km/h
	Taotaoroa Road, Karapiro	Various Locations	Level LV	100 km/h
	State Highway 29, Karapiro	029-0061-B/13.340, 029-0061-B/7.435	Level 1	100 km/h

Traffic details (main route)	**AADT** Whitehall Road, 630, 25.2%heavy Karapiro Road, 1700, 9.3%heavy	**Peak flows** 0630-0930 and 1530-1830 Monday to Friday

RCA consent (eg CAR/WAP) and/or RCA contract reference	

Description of work activity
This TMP is for the Festival One Event on Whitehall Road, TSLs slowing vehicles down passing the entrances to the music festival and stop go's to control the flow in and out of the entrances / side road as required. Plants on site include trucks, staging, camping and food stalls. Festival is expected to run for four days.

Planned work programme							
Start date	29/01/2021	**Time**	24 hours	**End date**	01/02/2021	**Time**	24 hours
Consider significant stages, for example: • road closures • detours • no activity periods.	Traffic Management and any signage next to the carriageway to be installed and removed under appropriate mobile operation. Event Direction signage and event cursory signage to be installed prior to the event starting to assist in guiding road users to and from the festival. Stop Go's to be installed to assist in either the arrival of traffic or departure as required. 50kp/h TSLs to slow traffic passing entrances / to assist turning traffic to be installed for the duration of the event unless the Stop Go operations are in use.						
Alternative dates if activity delayed	Nil						

Road aspects affected *(delete either Yes or No to show which aspects are affected)*					
Pedestrians affected?	No	**Property access affected?**	Yes	**Traffic lanes affected?**	Yes
Cyclists affected?	No	**Restricted parking affected?**	No	**Delays or queuing likely?**	No

Proposed traffic management methods

RCA consent (eg CAR/WAP) and/or RCA contract reference	
Installation *(includes parking of plant and materials storage)*	**Once on site, Prior to installation of the worksite the STMS must;** • Conduct a traffic count to confirm traffic volumes are at an appropriate level for set up to begin. • Check all vehicles have correct signage and flashing beacons. They also need to have continuous and appropriate communication with the STMS and each other on an agreed channel at all times. **Before any equipment or materials are brought onto the worksite a drive through check of the worksite will be made in all directions including all side roads. This check must confirm that the site is:** ➢ ***safe*** ➢ ***to the minimum standard shown in the approved TMP and that:*** • *The restriction to traffic flow is reasonable* • *The signs and delineation devices give clear messages to road users, and* • *The signs and delineation devices are securely erected and will remain in their correct position under the expected traffic volumes and weather conditions.* **Once on site, prior to works commencing, the STMS will conduct the toolbox briefing using this approved TMP to explain:** • **Identified hazards** - *Identify public safety and site safety hazards and how they will be addressed and place on the hazard document for 'toolbox' briefing.* • **The TTM requirements for the worksite** - *STMS to check the TMP is appropriate to the event. Where the TMP is not suitable, halt proceedings until the necessary actions have been taken.* **Briefings are to be completed:** • *At the start of each set up.* • *On a regular basis.*

RCA consent (eg CAR/WAP) and/or RCA contract reference	
	Installation Process: **Installation of the site will be done under a Level 2/3 mobile operation with appropriate work vehicles and crew and with TTM equipment unloaded from:** • *The non-traffic side of a stationary work vehicle.* ***TTM equipment is installed either:*** • *To the non-traffic side of a work vehicle.* *OR* • *10m in front of the work vehicle.* **Order of installation:** *Signs are to be installed on the left hand side of the road. Signs should be erected by travelling around the road network in a clockwise direction setting up each side road as they are passed. All turns in and out of side roads will be to the left which is to make turning easy and provide better safety.* • *The first sign erected for the site must be the advance warning sign.* • *The remaining signs are placed in order from the advance warning sign until the thank you sign is reached as per the approved TMP.* • *The vehicle then makes a loop on a single direction carriageway or simply turns around on a bidirectional carriageway to make the next run. This process will continue until the sign network is complete.* • *Delineation devices must only be placed once all signs have been installed.* ***When installing a Stop Go and TTM signage has been installed, MTC's will hold traffic while closure delineation is installed.*** **On completion of the site set up:** • *The STMS shall undertake a drive-over inspection to check that the site is safe, legal and complies with the TMP.* • *The STMS then may give the okay for the work crew to enter the worksite and carry out the work.*
Attended (day)	Stop Go operations, as per TMNZ-HAM-200052-2, 3 & 6.1 The site will be attended during the day by a minimum of a Level 2/3P STMS. All staff on the site shall be briefed on the traffic management requirements before the starting of the event A site safety / tailgate meeting is to be held at the start of each day and all hazards, the control measure implemented to control the hazards are to be noted on the Hazard ID form. The Hazard ID form must be signed by all staff and event crew.

RCA consent (eg CAR/WAP) and/or RCA contract reference	

Attended (night)	Stop Go operations, as per TMNZ-HAM-200052-2, 3 & 6.1 The site will be attended during the night by a minimum of a Level 2/3P STMS. All staff on the site shall be briefed on the traffic management requirements before the starting of the event A site safety / tailgate meeting is to be held at the start of each day and all hazards, the control measure implemented to control the hazards are to be noted on the Hazard ID form. The Hazard ID form must be signed by all staff and event crew. Are light towers etc. required? If so, they must not cause a 'Glare' hazard for road users. Consider the following: • traffic density will be less and hence traffic speed may increase • road user's visibility is reduced • road users awareness may be reduced • positive traffic management measures may be different • additional lighting for working spaces, safety zones, MTCs, pedestrian and cycle lane detours, and for mobile working plant is required. These should always be chosen and mounted so that they direct light downward. **Light sources that produce glare that could dazzle road users are not permitted**, and • Use of illuminated wands is optional and may only be used when overhead lighting for MTCs is provided. All signs must have a delineation device placed at the base of each sign on the traffic side.
Unattended (day)	50kp/h TSLs, as per TMNZ-HAM-200052-4, 5 & 6 Event Direction Signage, as per TMNZ-HAM-200052-7, 8, 9, 10, 11, 12, 13, 14 & 15 Event Cursory Signage, as per TMNZ-HAM-200052-16
Unattended (night)	50kp/h TSLs, as per TMNZ-HAM-200052-4, 5 & 6 Event Direction Signage, as per TMNZ-HAM-200052-7, 8, 9, 10, 11, 12, 13, 14 & 15 Event Cursory Signage, as per TMNZ-HAM-200052-16
Detour route	No Detour Planned ~~Does detour route go into another RCA's roading network? Yes No (delete either Yes or No)~~ ~~If Yes, has confirmation of acceptance been requested from that RCA? Yes No (delete either Yes or No)~~ ~~Note: Confirmation of acceptance from affected RCA must be submitted prior to occupying the site.~~
Removal	***Breakdown Procedure*** Removal of the site will commence as soon as the client has finished with their work. The removal of TTM measures must be in order of delineation devices, direction and protection signs, end of works signs(thank you), and then finally advanced warning signs. The last signs to be removed from the site **must** be the advanced warning signs. The STMS will carry out the final check and sign off before leaving the site. Removal of the site will be done under a mobile closure with TTM equipment loaded from: • the non-traffic side of a stationary work vehicle TTM equipment is removed either: • To the non-traffic side of a work vehicle. OR • 10m in front of the work vehicle.

RCA consent (eg CAR/WAP) and/or RCA contract reference	

Proposed TSLs *(see TSL decision matrix for guidance)*				
	TSL details as required Approval of Temporary Speed Limits (TSL) are in terms of Section 6 of Land Transport Rule: Setting of Speed Limits 2017, Rule 54001/2017 *(List speed, length and location)*	**Times** *(From and to)*	**Dates** *(Start and finish)*	**Diagram ref. no.s** *(Layout drawings or traffic management diagrams)*
Attended day/night	A temporary max speed limit of **30 km/h** is hereby fixed for motor vehicles travelling over the length of **325m** Situated between **1.920(RP)** and **2.245(RP)** on **Whitehall Road, Whitehall**	24hours (as required)	29/01/2021 to 01/02/2021	TMNZ-HAM-200052-2
	A temporary max speed limit of **30 km/h** is hereby fixed for motor vehicles travelling over the length of **340m** Situated between **0.455(RP)** and **0.795(RP)** on **Whitehall Road, Whitehall**	24hours (as required)	29/01/2021 to 01/02/2021	TMNZ-HAM-200052-3
	A temporary max speed limit of **30 km/h** is hereby fixed for motor vehicles travelling over the length of **115m** Situated between **0.000(RP)** and **0.115(RP)** on **Whitehall Road, Whitehall**	24hours (as required)	29/01/2021 to 01/02/2021	TMNZ-HAM-200052-6.1
	A temporary max speed limit of **30 km/h** is hereby fixed for motor vehicles travelling over the length of **235m** Situated between **1.560(RP)** and **1.795(RP)** on **Karapiro Road, Whitehall**	24hours (as required)	29/01/2021 to 01/02/2021	TMNZ-HAM-200052-6.1
Unattended day/night	A temporary max speed limit of **50 km/h** is hereby fixed for motor vehicles travelling over the length of **280m** Situated between **1.920(RP)** and **2.200(RP)** on **Whitehall Road, Whitehall**	24hours (as required)	29/01/2021 to 01/02/2021	TMNZ-HAM-200052-4
	A temporary max speed limit of **50 km/h** is hereby fixed for motor vehicles travelling over the length of **340m** Situated between **0.455(RP)** and **0.795(RP)** on **Whitehall Road, Whitehall**	24hours (as required)	29/01/2021 to 01/02/2021	TMNZ-HAM-200052-5
	A temporary max speed limit of **50 km/h** is hereby fixed for motor vehicles travelling over the length of **115m** Situated between **0.000(RP)** and **0.115(RP)** on **Whitehall Road, Whitehall**	24hours (as required)	29/01/2021 to 01/02/2021	TMNZ-HAM-200052-6
	A temporary max speed limit of **50 km/h** is hereby fixed for motor vehicles travelling over the length of **290m** Situated between **1.505(RP)** and **1.795(RP)** on **Karapiro Road, 1.795**	24hours (as required)	29/01/2021 to 01/02/2021	TMNZ-HAM-200052-6
TSL duration	Will the TSL be required for longer than 12 months? ***If yes**, attach the completed checklist from section I-18: Guidance on TMP Monitoring Processes for TSLs to this TMP.*			No

RCA consent (eg CAR/WAP) and/or RCA contract reference	

Positive traffic management measures
Positive traffic management measures must be used when installing TSLs of: • less than 70km/h in areas with permanent speed limits of 100km/h, or **Where a site has already been installed and traffic is not complying with the installed TSL additional measures available to the STMS are the following;** • Narrowing lane widths adjacent to the working space by the use of Side Friction cones • Close spacing of delineation devices • Placing cones from the TSL to the taper • Cone offset delineation (where cones are placed either side of a lane(s), the cones on one side are placed longitudinally offset from the other by a half cone spacing).

RCA consent (eg CAR/WAP) and/or RCA contract reference	

Contingency plans		
Generic contingencies for: • major incidents • incidents • pre planed detours.	**Major Incident** A major incident is described as: • Fatality or notifiable injury - real or potential • Significant property damage, or • Emergency services (police, fire, etc) require access or control of the site.	**Actions** The STMS must immediately conduct the following: • stop all activity and traffic movement • secure the site to prevent (further) injury or damage • contact the appropriate emergency authorities • render first aid if competent and able to do so • notify the RCA representative and / or the engineer • under the guidance of the officer in charge of the site, reduce effects of TTM on the road or remove the activity if safe to do so • re-establish TTM and traffic movements when advised by emergency authorities that it is safe to do so • Comply with any obligation to notify WorkSafe.
	Incident An incident is described as: • excessive delays - real or potential • minor or non-inquiry accident that has the potential to affect traffic flow • structural failure of the road.	**Actions** The STMS must immediately conduct the following: • stop all activity and traffic movement if required • secure the site to prevent the prospect of injury or further damage • notify the RCA representative and / or the engineer • STMS to implement a plan to safely remove TTM and to establish normal traffic flow if safe to do so • re-establish TTM and traffic movements when it is safe to do so and when traffic volumes have reduced.
	~~**Detour**~~ ~~If because of the on-site activity it will not be possible to remove or reduce the effects of TTM once it is established a detour route must be designed. This is likely for:~~ • ~~excessive delays when using an alternating flow design for TTM~~ • ~~redirecting one direction of flow and / or~~ • ~~total road closure and redirection of traffic until such time that traffic volumes reduce and tailbacks have been cleared.~~ ~~The risks in the type of work being undertaken, the risks inherent in the detour, the probable duration of closure and availability and suitability of detour routes need to be considered.~~ ~~The detour and route must be designed including:~~ • ~~pre- approval form the RCA's whose roads will be used or affected by the detour route~~ • ~~ensure that TTM equipment for the detour signs etc are on site and pre-installed.~~	~~**Actions**~~ ~~When it is necessary to implement the pre-planned detour the STMS must immediately undertake the following:~~ • ~~Notify the RCA and / or the engineer when the detour is to be established~~ • ~~Drive through the detour in both directions to check that it is stable and safe~~ • ~~Remove the detour as soon as it practicable and safe to do so and the traffic volumes have reduced and tailbacks have cleared~~ • ~~Notify the RCA and / or the engineer when the detour has been disestablished and normal traffic flows have resumed.~~

RCA consent (eg CAR/WAP) and/or RCA contract reference	

	Note also the requirements for no interference at an accident scene: In the event of an accident involving serious harm the STMS must ensure that nothing, including TTM equipment, is removed or disturbed and any wreckage article or thing must not be disturbed or interfered with, except to: • save a life of, prevent harm to or relieve the suffering of any person, or • make the site safe or to minimise the risk of a further accident; or • maintain the access of the general public to an essential service or utility, or • prevent serious damage to or serious loss of property, or • follow the direction of a constable acting in his or her duties or act with the permission of an inspector.	
Other contingencies to be identified by the applicant	***Light***	STMS to evaluate whether light conditions are good enough for daylight operations. If not, an artificial light source may be needed or work be suspended until light conditions are suitable.
	Traffic Delays exceeding 5 minutes	Should delays exceed 5 minutes, the site will be suspended or reduced by the STMS until traffic has cleared. STMS/TC to communicate to affected motorists the cause of the delay and also notify TMC of the delay.
	Passage of emergency vehicles	The STMS will suspend or re-evaluate the methodology of the works to allow passage of emergency service vehicles.

Authorisations				
Parking restriction(s) alteration authority	**Will controlled street parking be affected?**	No	**Has approval been granted?**	N/A
	Not Required			
Authorisation to work at permanent traffic signal sites	**Will portable traffic signals be used or permanent traffic signals be changed?**	No	**Has approval been granted?**	N/A
	Not Required			
Road closure authorisation(s)	**Will full carriageway closure continue for more than 5 minutes (or other RCA stipulated time)?**	No	**Has approval been granted?**	N/A
	Not Required			
Bus stop relocation(s) – closure(s)	**Will bus stop(s) be obstructed by the activity?**	No	**Has approval been granted?**	N/A
	Not Required			
Authorisation to use portable traffic signals	**Make, model and description/number**	Not Required		
	NZTA compliant?	N/A		

EED			
Is an EED applicable?	Not Required	**EED attached?**	N/A

Delay calculations/trial plan to determine potential extent of delays
Delays of up to 5 minutes may occur while Stop Go is active, however if delays exceed more than the maximum wait time allowed by the RCA (normally 5 minutes), the STMS is to inform the TMC and take appropriate action. One lane is to be closed on a two-lane two-way road. The peak hourly traffic volumes are unknown but the AADT is 1700. The total traffic volume required to use one lane is 107(1700/2=851/8=107vph) and this traffic volume is not greater than 500vph, Delays of more than five minutes are not likely while the activity is in progress because the threshold of 1000vph for lanes is not exceeded.

RCA consent (eg CAR/WAP) and/or RCA contract reference	

Public notification plan	
Not Required	
Public notification plan attached?	No
On-site monitoring plan	
Attended *(day and/or night)*	The first inspection must take place as soon as the equipment has been installed as per the approved TMP. This verifies that all devices are correctly in place, no item has been omitted, all equipment meets its condition requirements and no conflicting messages exist between permanent signs, temporary signs or other devices. Monitoring the Site: Constant monitoring of the worksite and a minimum of 2-hourly site checks must be carried out to ensure the site is: • fit for purpose • suitable for the nature and duration of the work • installed, set up and used correctly. **The STMS must ensure that:** • all traffic management devices function properly for the full duration of their installation • the visibility and effectiveness of all devices and signs is maintained • damaged equipment is repaired or replaced, as appropriate, and • suitable equipment is available at short notice in case of un-programmed removal, alteration or installation of a closure is necessary. Level 2 - The STMS is to remain on site at all times except during a drive through when the STMS may need to leave the worksite to gain access to the front of the worksite. In this case the STMS may be away from the worksite for up to 30 minutes.
Unattended *(day and/or night)*	STMS to check site at the completion of each day and check that the site is set out in compliance to the approved TMP and all hazards are adequately barricaded. The site is to be checked at least once in a 24 hour period.
Method for recording daily site TTM activity *(eg CoPTTM on-site record)*	
STMS to complete on-site record forms attached to TMP.	
Site safety measures	
Personal Safety Hard Hats, High Visibility Clothing, Long Sleeves, Long Pants, Safety Footwear, Safety Glasses and Cut Resistant Gloves at CoPTTM standards and New Zealand Transport Agency requirements. Minimum requirements for working on State Highways is outlined at the end of this document All vehicles to have flashing lights and hazard lights. STMS to wear a yellow high visibility vest compliant with CoPTTM specifications. All other TMNZ personnel to wear orange/blue reflective overalls. Visitors to site are to report to the STMS who will advise of site specific safety procedures and any hazards. ***Plant and equipment*** Plant and equipment is to be positioned off the live lanes as far as possible within the work area. Hazard light and flashing beacons to be used on all vehicles within the work area. All non-plant vehicles to be park off site.	

RCA consent (eg CAR/WAP) and/or RCA contract reference	

Other information
Changes may only be made to this TMP for reasons of safety. All TMP changes are to be recorded and the TMC informed immediately of any significant modifications to TTM measures not included in the approved TMP. All other changes are to be noted on the TMP and TMC to be advised as soon as possible or no later than the following working day.

Site specific layout diagrams

Number	Title
TMNZ-HAM-200052-1	Event Location
TMNZ-HAM-200052-2	Stop Go
TMNZ-HAM-200052-3	Stop Go
TMNZ-HAM-200052-4	50kp/h TSLs to slow vehicles passing entrance
TMNZ-HAM-200052-5	50kp/h TSLs to slow vehicles passing entrance
TMNZ-HAM-200052-6	50kp/h TSLs to assist turning traffic
TMNZ-HAM-200052-6.1	Stop Go Contingency
TMNZ-HAM-200052-7	Event Direction Signage
TMNZ-HAM-200052-8	Event Direction Signage
TMNZ-HAM-200052-9	Event Direction Signage
TMNZ-HAM-200052-10	Event Direction Signage
TMNZ-HAM-200052-11	Event Direction Signage
TMNZ-HAM-200052-12	Event Direction Signage
TMNZ-HAM-200052-13	Event Direction Signage
TMNZ-HAM-200052-14	Event Direction Signage
TMNZ-HAM-200052-15	Event Direction Signage
TMNZ-HAM-200052-16	Event Cursory Signage
TMNZ-HAM-200052-17	L1 Mobile Operation
TMNZ-HAM-200052-18	L2/3 Mobile Operation

Contact details

	Name	24/7 contact number	CoPTTM ID	Qualification	Expiry date
Principal	Festival One – Graham Burt	021 983 375			
TMC	GHD – Trish Anderson	027 645 4855	53064	STMS 2/3NP	06/09/2022
	Waipa District Council – Paige McLiesh	027 292 8521	43658	STMS 1 (T)	22/11/2021
Engineers' representative	Not Required	N/A	N/A	N/A	N/A
Contractor	Festival One – Graham Burt	021 983 375			
TTM Contractor	Traffic Management NZ – Basil Morgan	07 849 5800			
STMS	James Anderson	027 520 9869	44520	STMS 2/3P	06/06/2021
	Natasha Huriwaka	021 966 892	77812	STMS 2/3P	06/06/2021
	Richard Moons	022 458 7714	54584	STMS 2/3P	28/03/2021
TC					
Others as required					

RCA consent (eg CAR/WAP) and/or RCA contract reference	

TMP preparation						
Preparation	Joshua Smith	6/3/2020		116133	STMS 2/3NP	**29/08/2021**
	Name (STMS qualified)	*Date*	*Signature*	*ID no.*	*Qualification*	*Expiry date*

This TMP meets CoPTTM requirements	Number of diagrams attached	19

TMP returned for correction *(if required)*						
	Name	*Date*	*Signature*	*ID no.*	*Qualification*	*Expiry date*

Engineer/TMC to complete following section when approval or acceptance required						
Approved by TMC/engineer *(delete one)*						
	Name	*Date*	*Signature*	*ID no.*	*Qualification*	*Expiry date*
Acceptance by TMC *(only required if TMP approved by engineer)*						
	Name	*Date*	*Signature*	*ID no.*	*Qualification*	*Expiry date*

Qualifier for engineer or TMC approval

Approval of this TMP authorises the use of any regulatory signs included in the TMP or attached traffic management diagrams.

This TMP is approved on the following basis:

1. To the best of the approving engineer's/TMC's judgment this TMP conforms to the requirements of CoPTTM.
2. This plan is approved on the basis that the activity, the location and the road environment have been correctly represented by the applicant. Any inaccuracy in the portrayal of this information is the responsibility of the applicant.
3. The TMP provides so far as is reasonably practicable, a safe and fit for purpose TTM system.
4. The STMS for the activity is reminded that it is the STMS's duty to postpone, cancel or modify operations due to the adverse traffic, weather or other conditions that affect the safety of this site.

Notification to TMC prior to occupying worksite/Notification completed

Type of notification to TMC required	TMC to be notified of works by way of email confirmation or emailing notification via the Daily Activity Report Spreadsheet prior to the commencement of the planned work	**Notification completed**	Date Time

TMP or generic plan reference	

ON-SITE RECORD On-site record must be retained with TMP for 12 months.			Today's date	
Location details	Road names(s):	House number/RPs:	Suburb:	

Working space

Person responsible for working space		
	Name	*Signature*
Where the STMS/TC is responsible for both the working space and TTM they sign above and in the appropriate TTM box below		

TTM

STMS in charge of TTM					
	Name	*TTM ID Number*	*Warrant expiry date*	*Signature*	*Time*
Worksite handover accepted by replacement STMS					
	Name	*ID Number*	*Warrant expiry date*	*Signature*	*Time*
	Tick to confirm handover briefing completed				

Delegation

Worksite control accepted by TC/STMS-NP					
	Name	*ID Number*	*Warrant expiry date*	*Signature*	*Time*
	Tick to confirm briefing completed				

Temporary speed limit

Street/road name (RPs or street numbers):	TSL action	Date:	Time:	TSL speed:	Length of TSL (m):
	TSL installed				
	TSL remains in place				
From: To:	TSL removed				

Street/road name (RPs or street numbers):	TSL action	Date:	Time:	TSL speed:	Length of TSL (m):
	TSL installed				
	TSL remains in place				
From: To:	TSL removed				

Street/road name (RPs or street numbers):	TSL action	Date:	Time:	TSL speed:	Length of TSL (m):
	TSL installed				
	TSL remains in place				
From: To:	TSL removed				

Street/road name (RPs or street numbers):	TSL action	Date:	Time:	TSL speed:	Length of TSL (m):
	TSL installed				
	TSL remains in place				
From: To:	TSL removed				

TMP or generic plan reference	

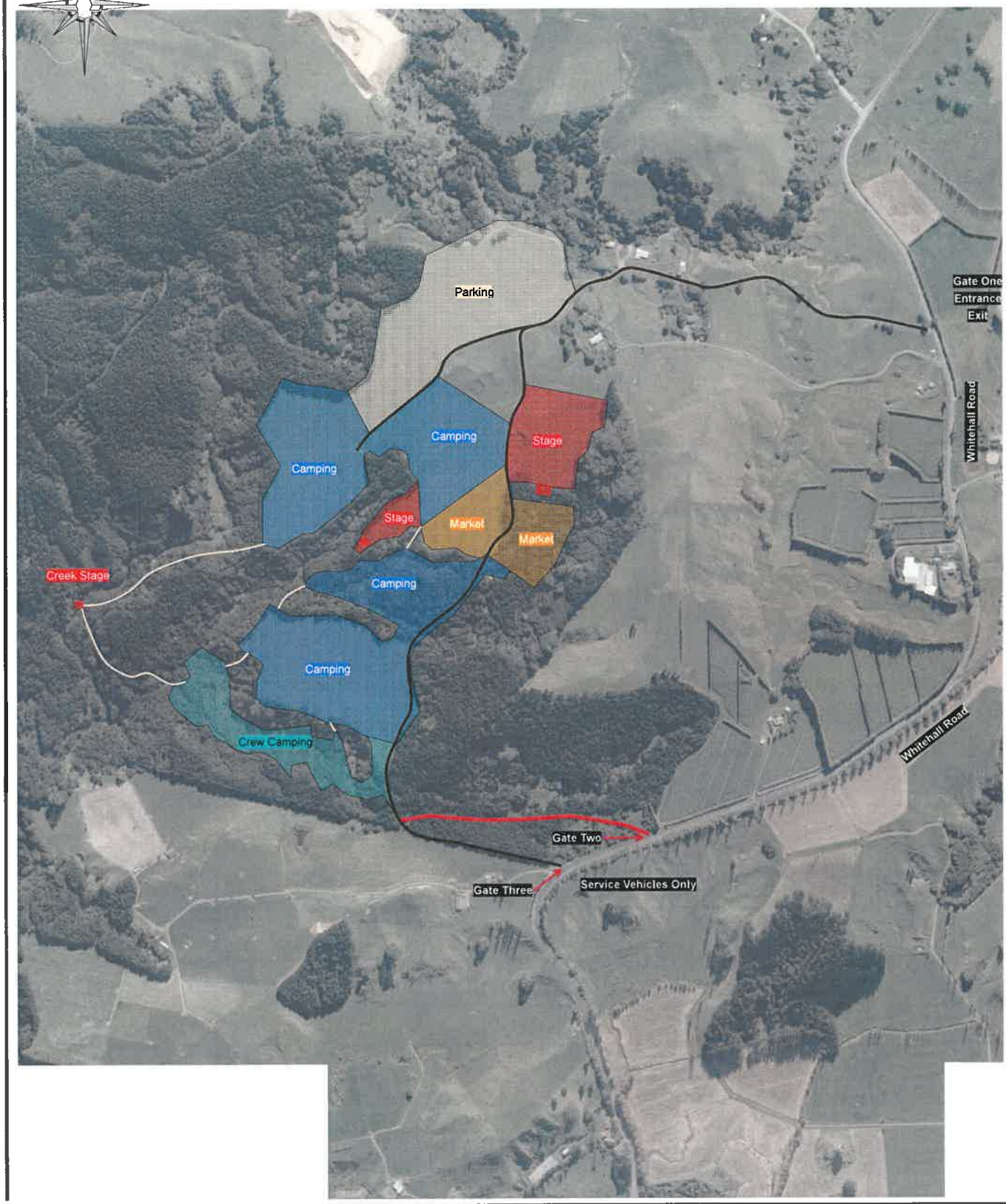
Worksite monitoring

TTM to be monitored and 2 hourly inspections documented below.

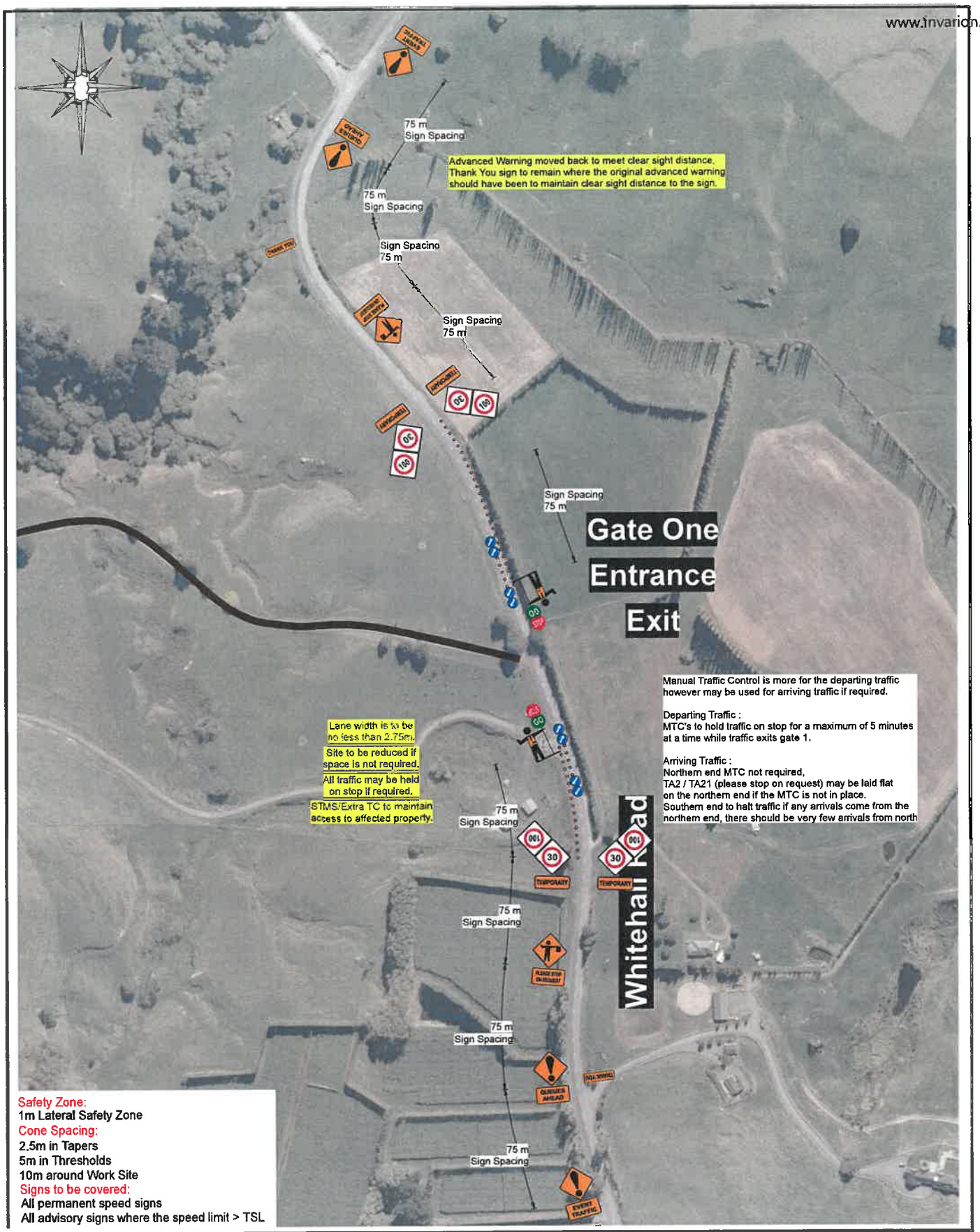
Items to be inspected	TTM set-up	2 hourly check	2 hourly check	2 hourly check	2 hourly check	2 hourly check	TTM removal
High-visibility garment worn by all?							
Signs positioned as per TMP?							
Conflicting signs covered?							
Correct delineation as per TMP?							
Lane widths appropriate?							
Appropriate positive TTM used?							
Footpath standards met?							
Cycle lane standards met?							
Traffic flows OK?							
Adequate property access?							
Add others as required							
Time inspection completed:							
Signature:							

Comments:

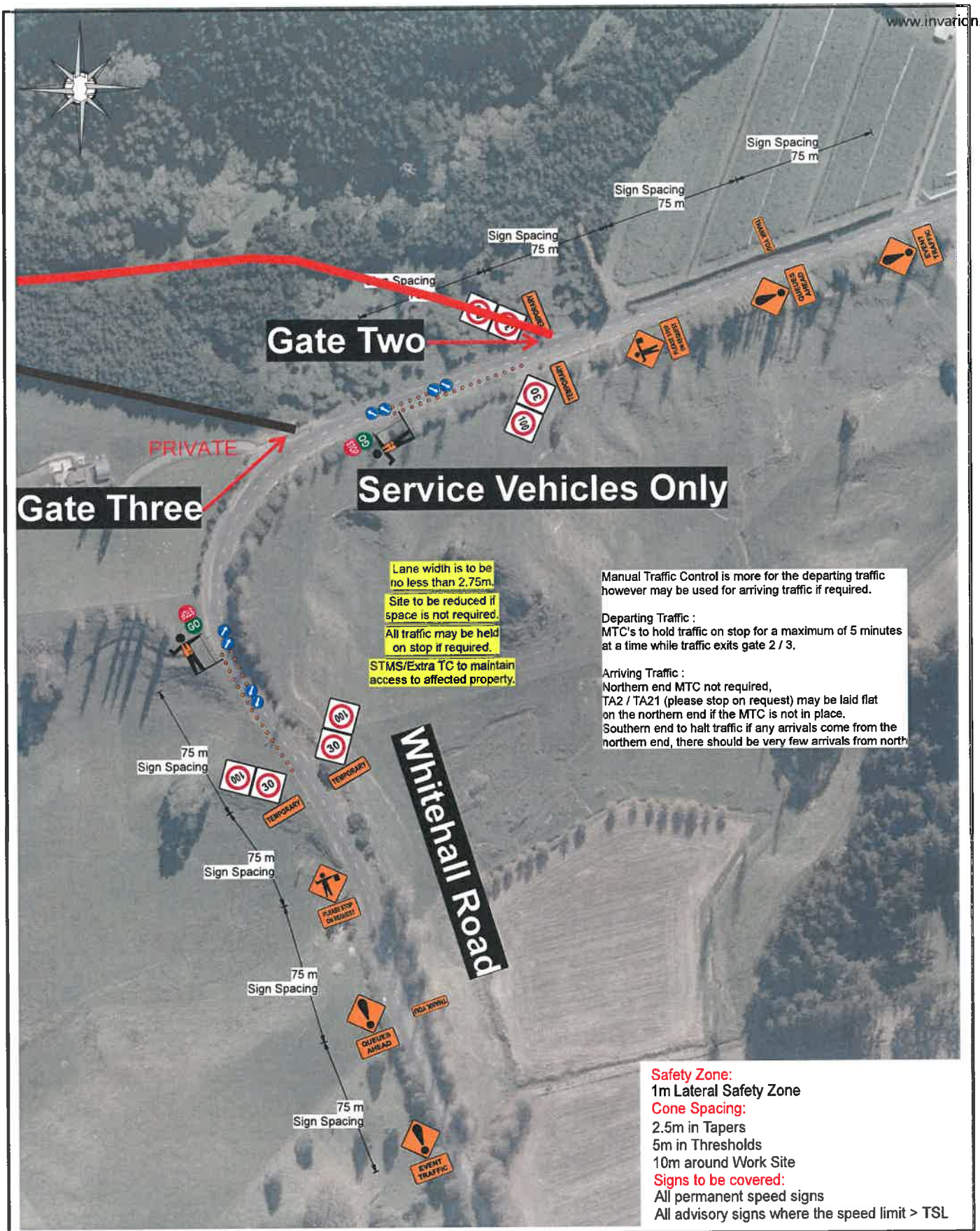
Time	Adjustment made and reason for change



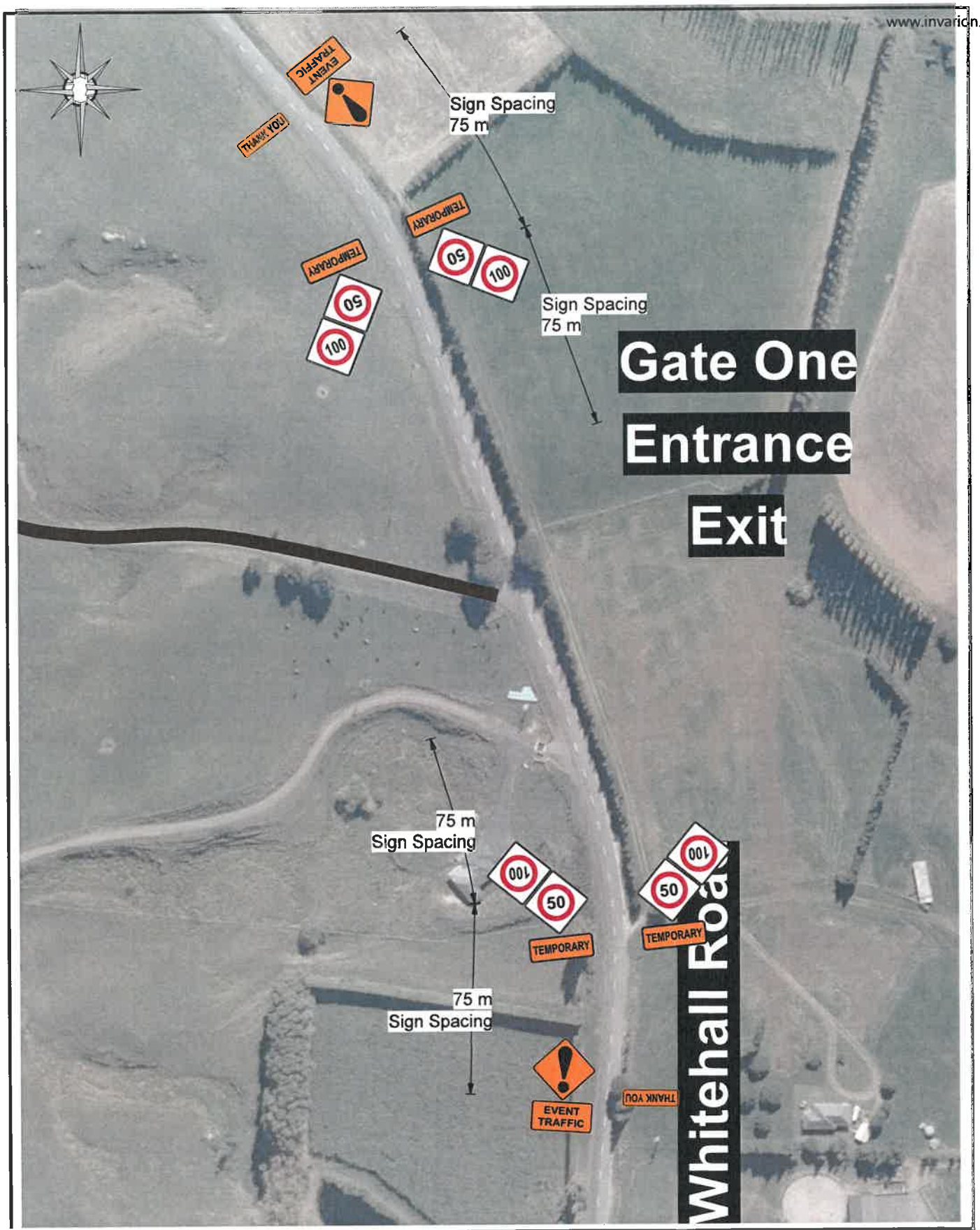
Situation: Whitehall Road, Whitehall	Drawing No: TMNZ-HAM-200052-1	Revision: A	
		Drawing By: Joshua Smith	
Drawing Title: Event Location		Checked:	
		Date: March 2020	
Traffic Management NZ		TMC Approval:	FESTIVAL ONE



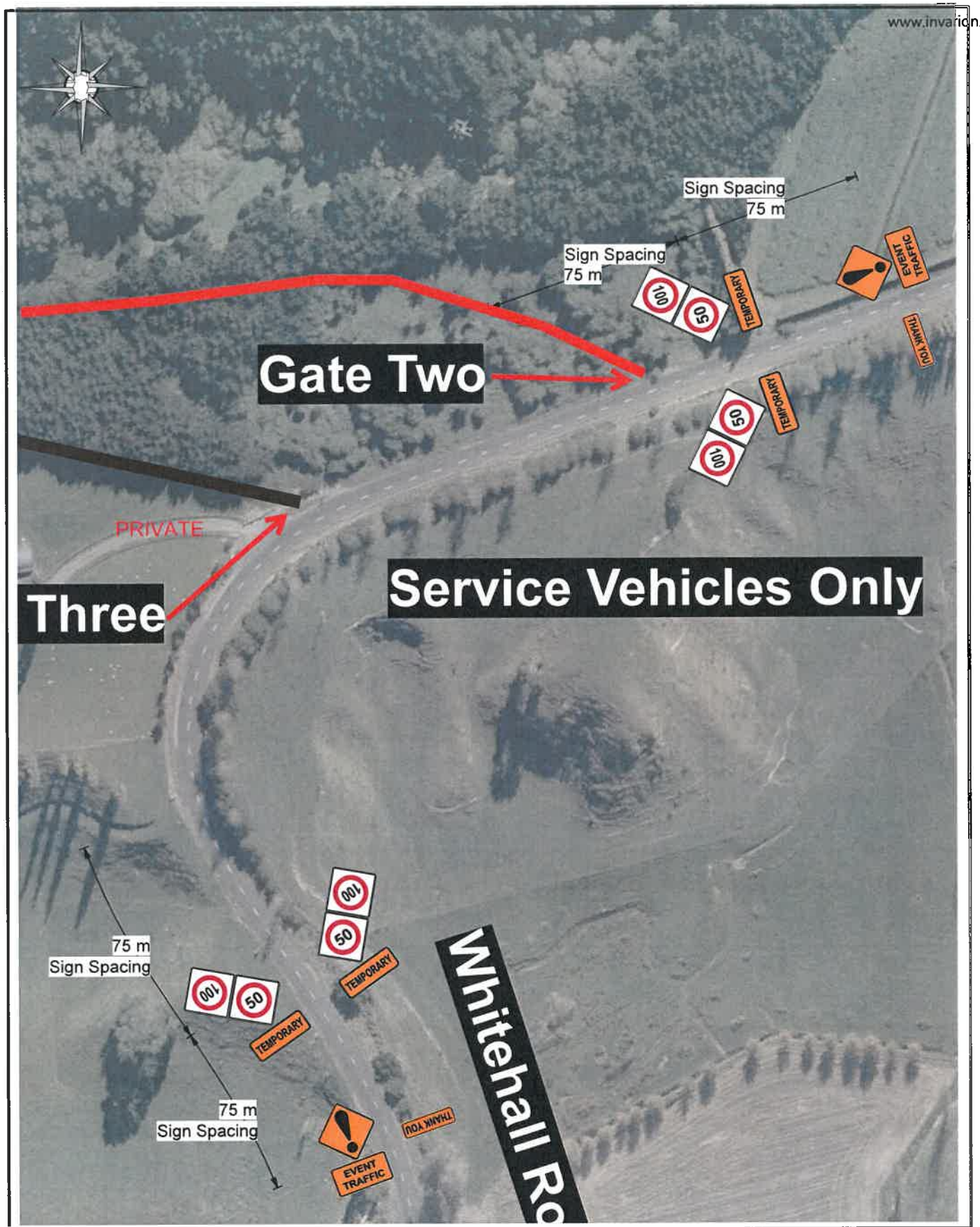
Situation: Whitehall Road, Whitehall	Drawing No: TMNZ-HAM-200052-2	Revision: A	FESTIVAL ONE
Drawing Title: Stop Go		Drawing By: Joshua Smith	
		Checked:	
		Date: March 2020	
Traffic Management NZ		TMC Approval:	



Situation: Whitehall Road, Whitehall	Drawing No: TMNZ-HAM-200052-3	Revision: A	
		Drawing By: Joshua Smith	
Drawing Title: Stop Go		Checked:	
		Date: March 2020	
Traffic Management NZ		TMC Approval:	FESTIVAL ONE



Situation: Whitehall Road, Whitehall	Drawing No: TMNZ-HAM-200052-4	Revision: A	FESTIVAL ONE
Drawing Title: 50kp/h TSLs to slow vehicles passing entrance		Drawing By: Joshua Smith	
		Checked:	
		Date: March 2020	
Traffic Management NZ		TMC Approval:	

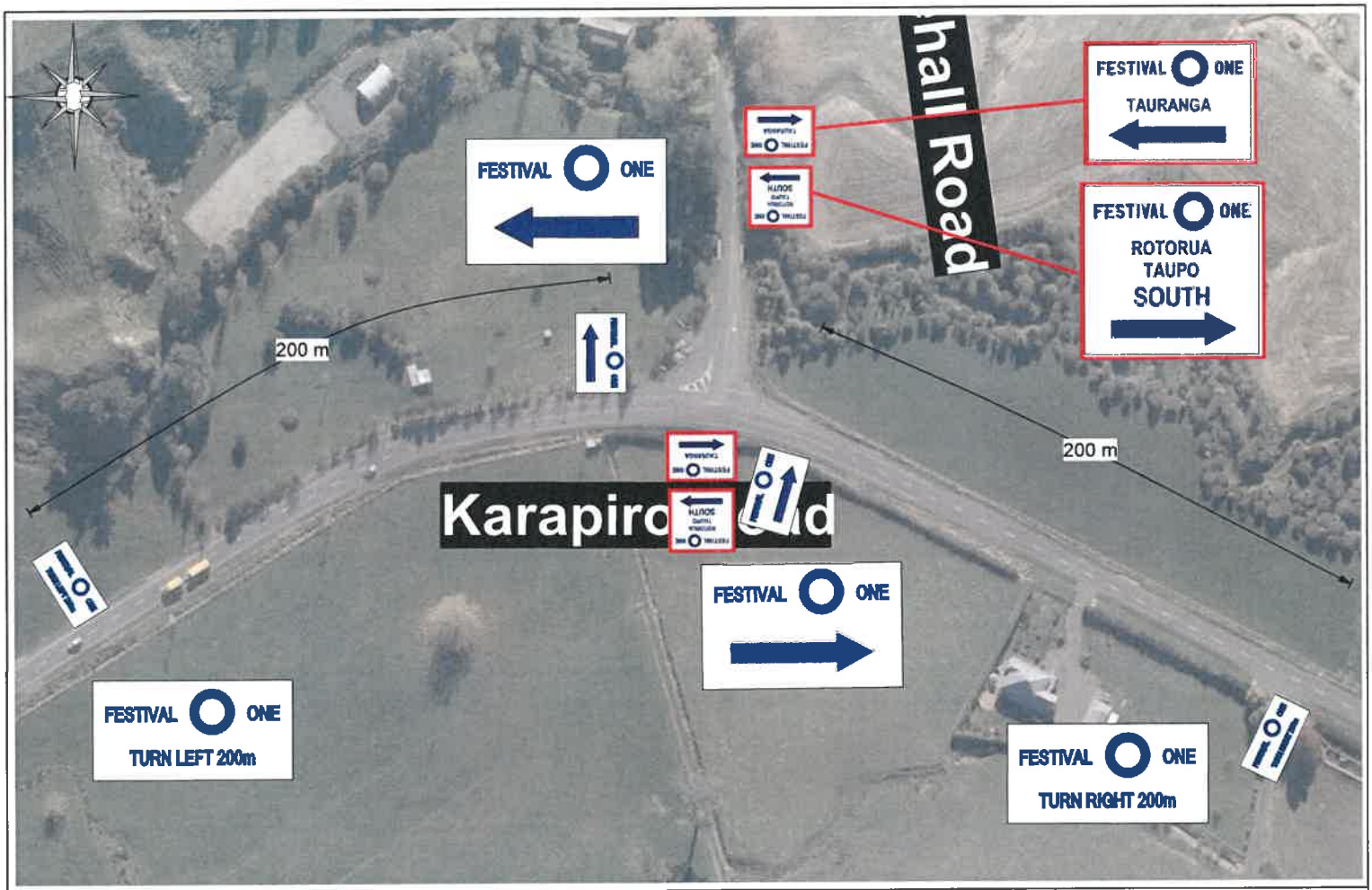


Situation: Whitehall Road, Whitehall	Drawing No: TMNZ-HAM-200052-5	Revision: A	FESTIVAL ONE
Drawing Title: 50kp/h TSLs to slow vehicles passing entrance		Drawing By: Joshua Smith	
		Checked:	
		Date: March 2020	
Traffic Management NZ		TMC Approval:	

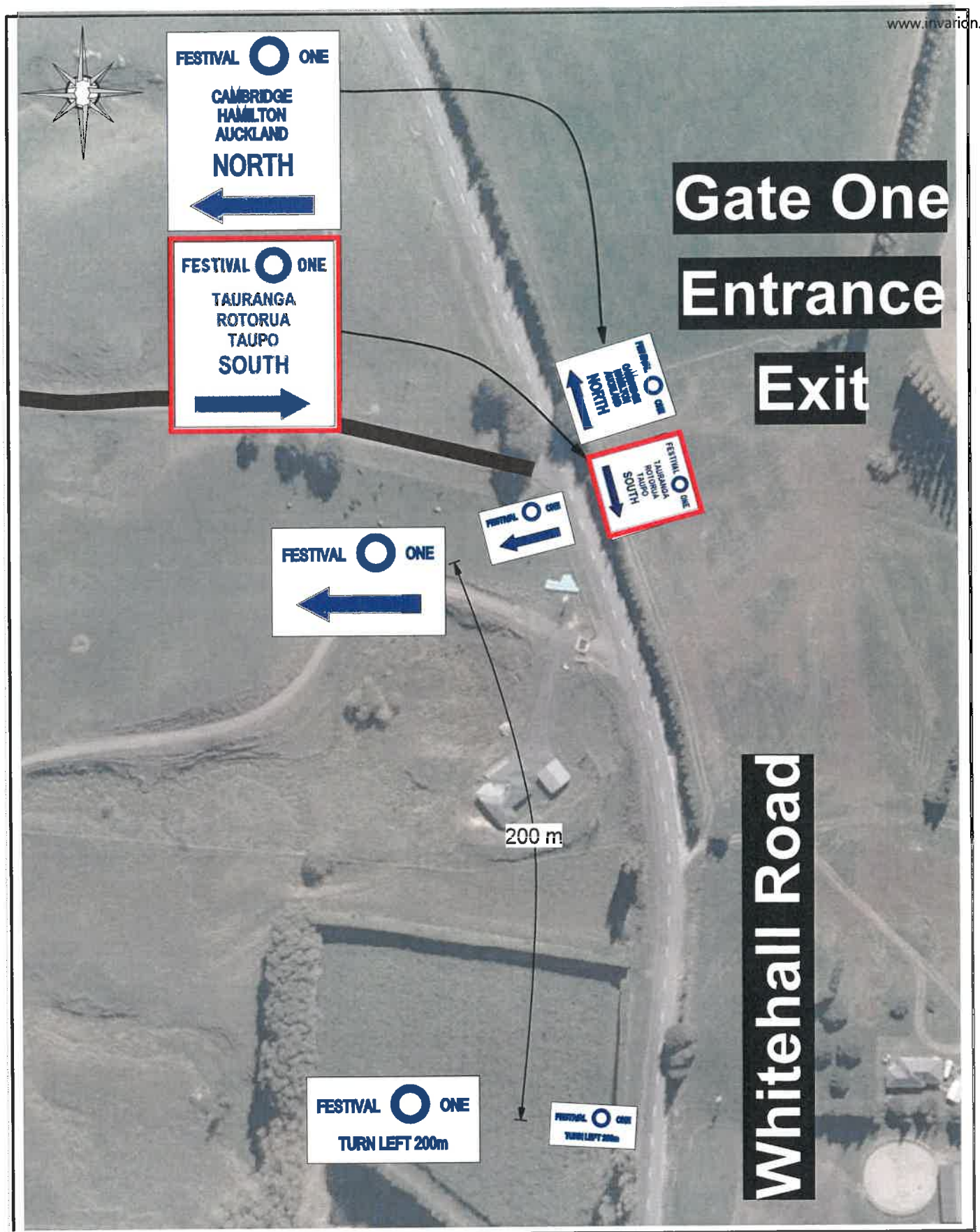
Drawing No: TMNZ-HAM-200052-6	Situation: Whitehall Road, Whitehall	Revision: A	TMC Approval:
Traffic Management NZ	Drawing Title: 50kp/h TSLs to assist turning traffic	Drawing By: Joshua Smith	
		Checked:	
		Date: March 2020	

FESTIVAL ONE

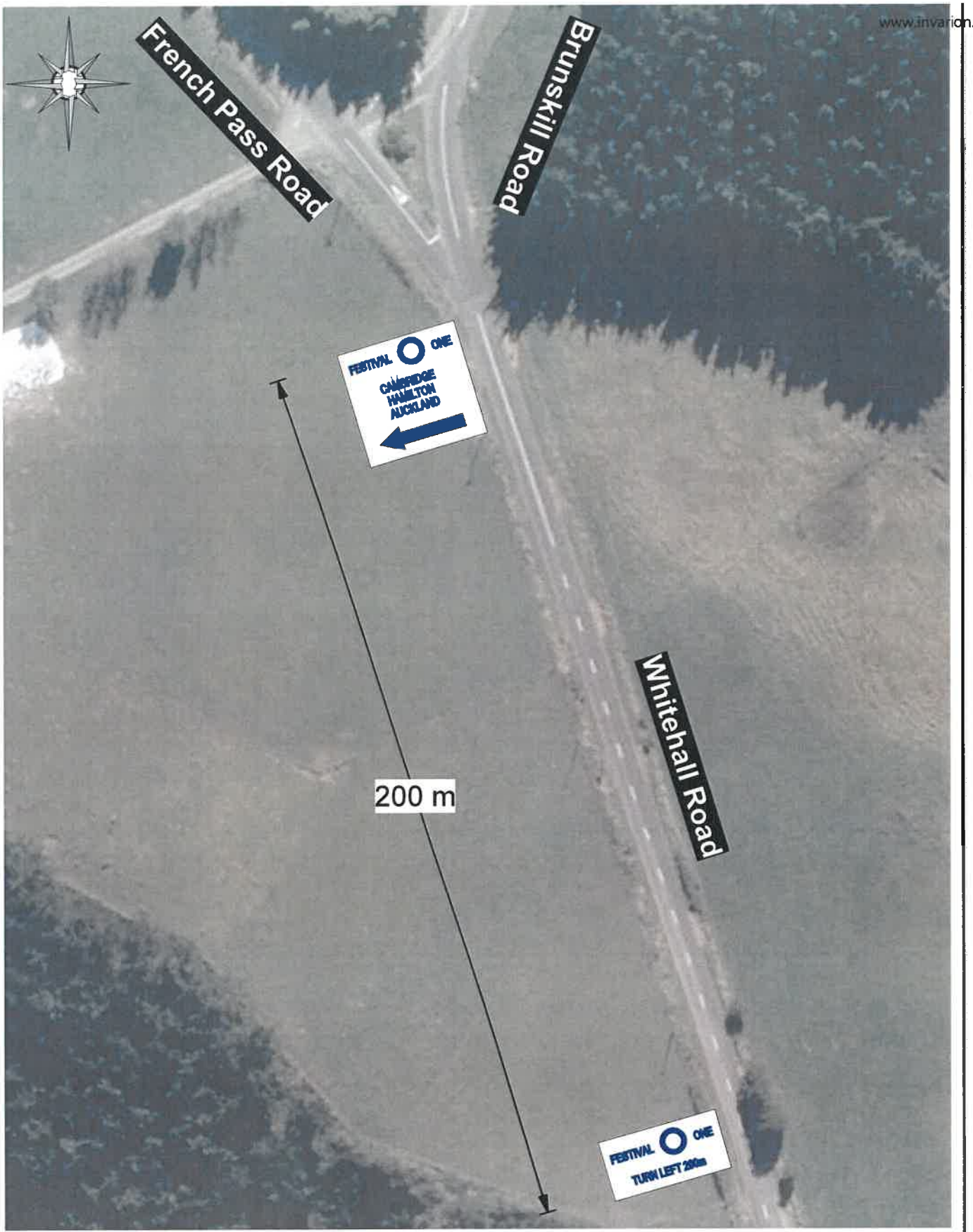
Drawing No: TMNZ-HAM-200052-6.1	Situation: Whitehall Road, Whitehall	Revision: A	TMC Approval:
Traffic Management NZ	Drawing Title: Stop Go Contingency	Drawing By: Joshua Smith	FESTIVAL ONE
		Checked:	
		Date: March 2020	



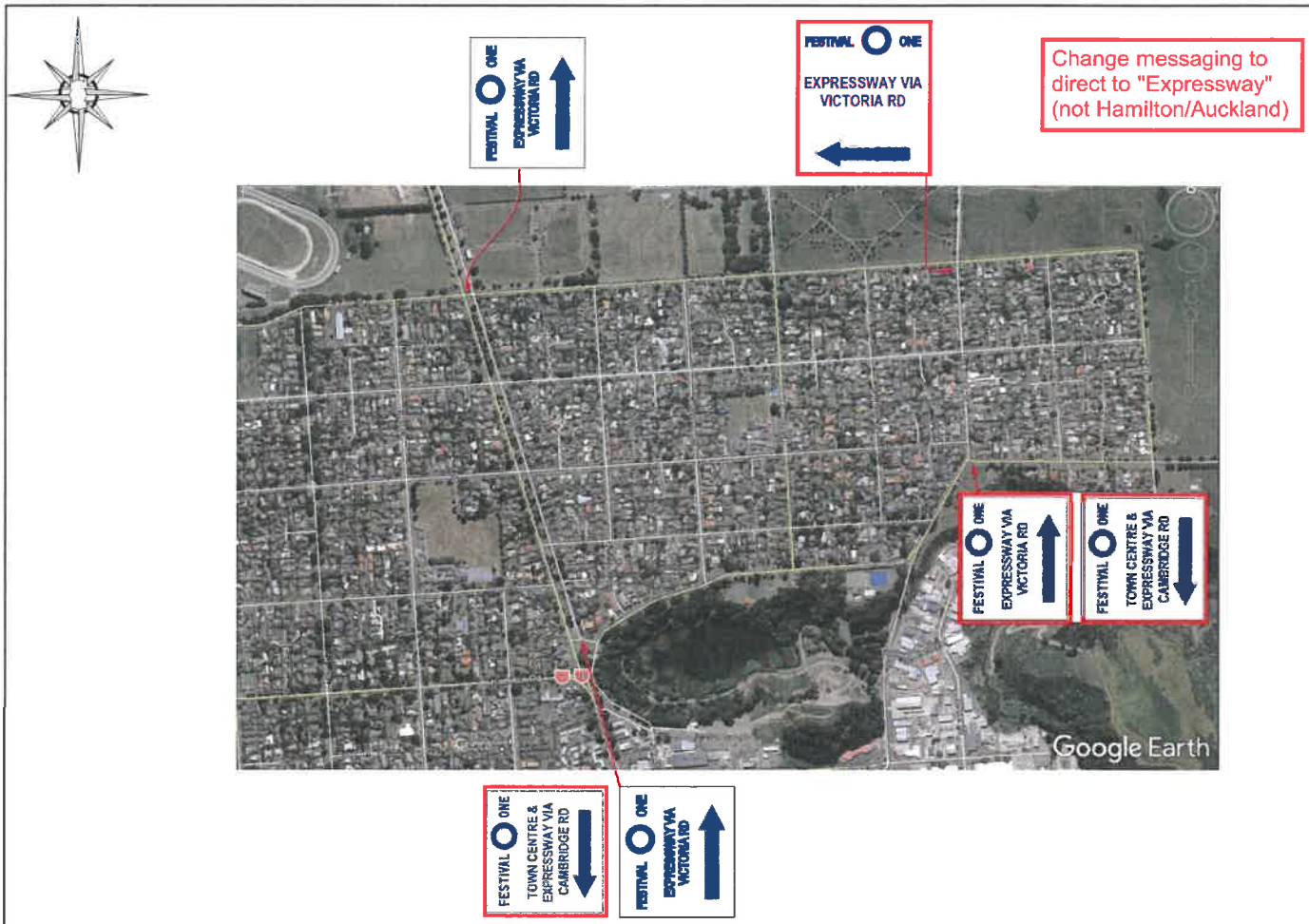
Drawing No: TMNZ-HAM-200052-7	Situation: Whitehall Road, Whitehall	Revision: A	TMC Approval:	FESTIVAL ONE
Traffic Management NZ	Drawing Title: Event Direction Signage	Drawing By: Joshua Smith		
		Checked:		
		Date: March 2020		



Situation: Whitehall Road, Whitehall	Drawing No: TMNZ-HAM-200052-8	Revision: A	FESTIVAL ONE
Drawing Title: Event Direction Signage		Drawing By: Joshua Smith	
		Checked:	
		Date: March 2020	
Traffic Management NZ		TMC Approval:	

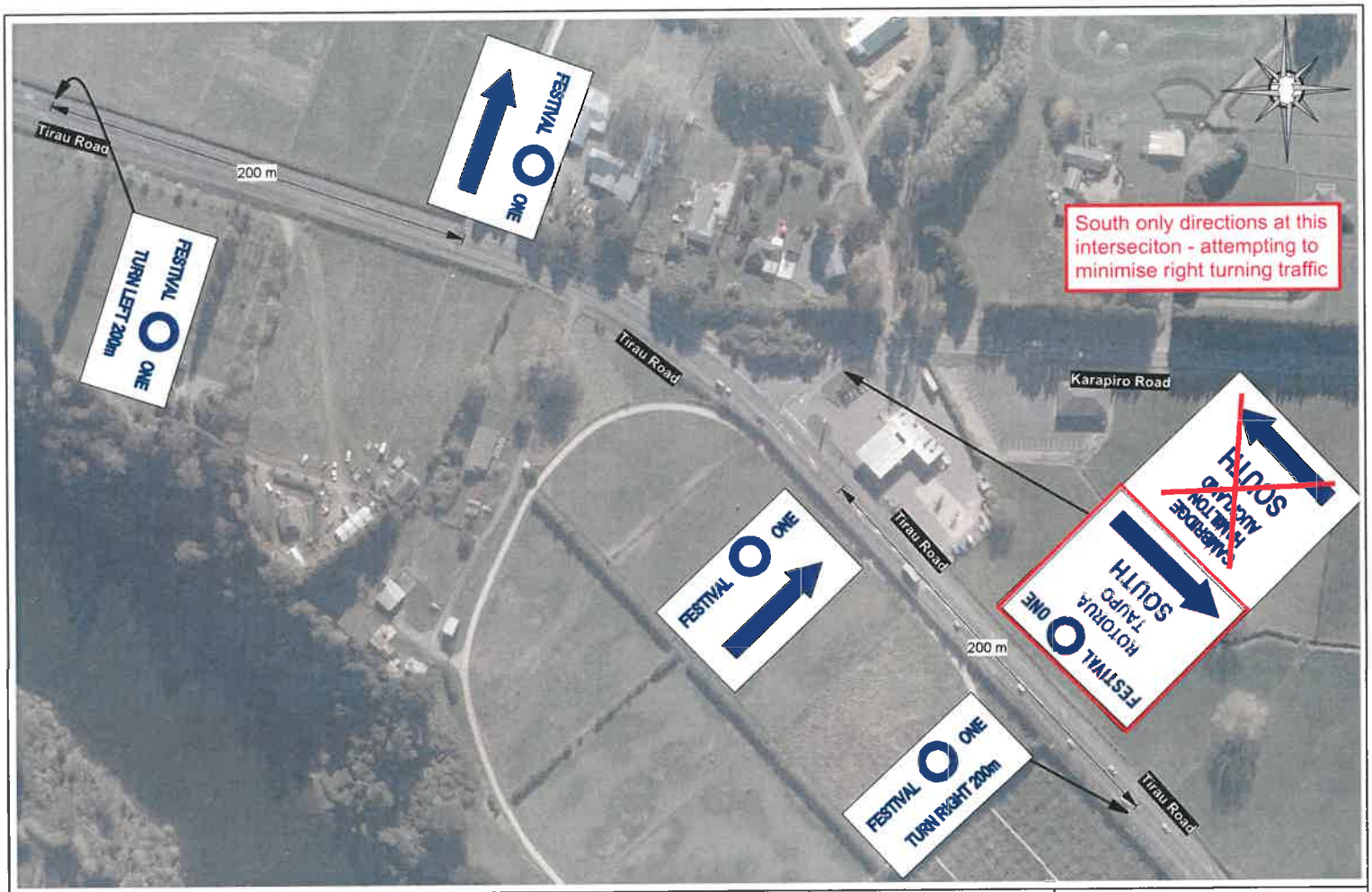


Situation: Whitehall Road, Whitehall	Drawing No: TMNZ-HAM-200052-9	Revision: A	FESTIVAL ONE
Drawing Title: Event Direction Signage		Drawing By: Joshua Smith	
		Checked:	
		Date: March 2020	
Traffic Management NZ		TMC Approval:	

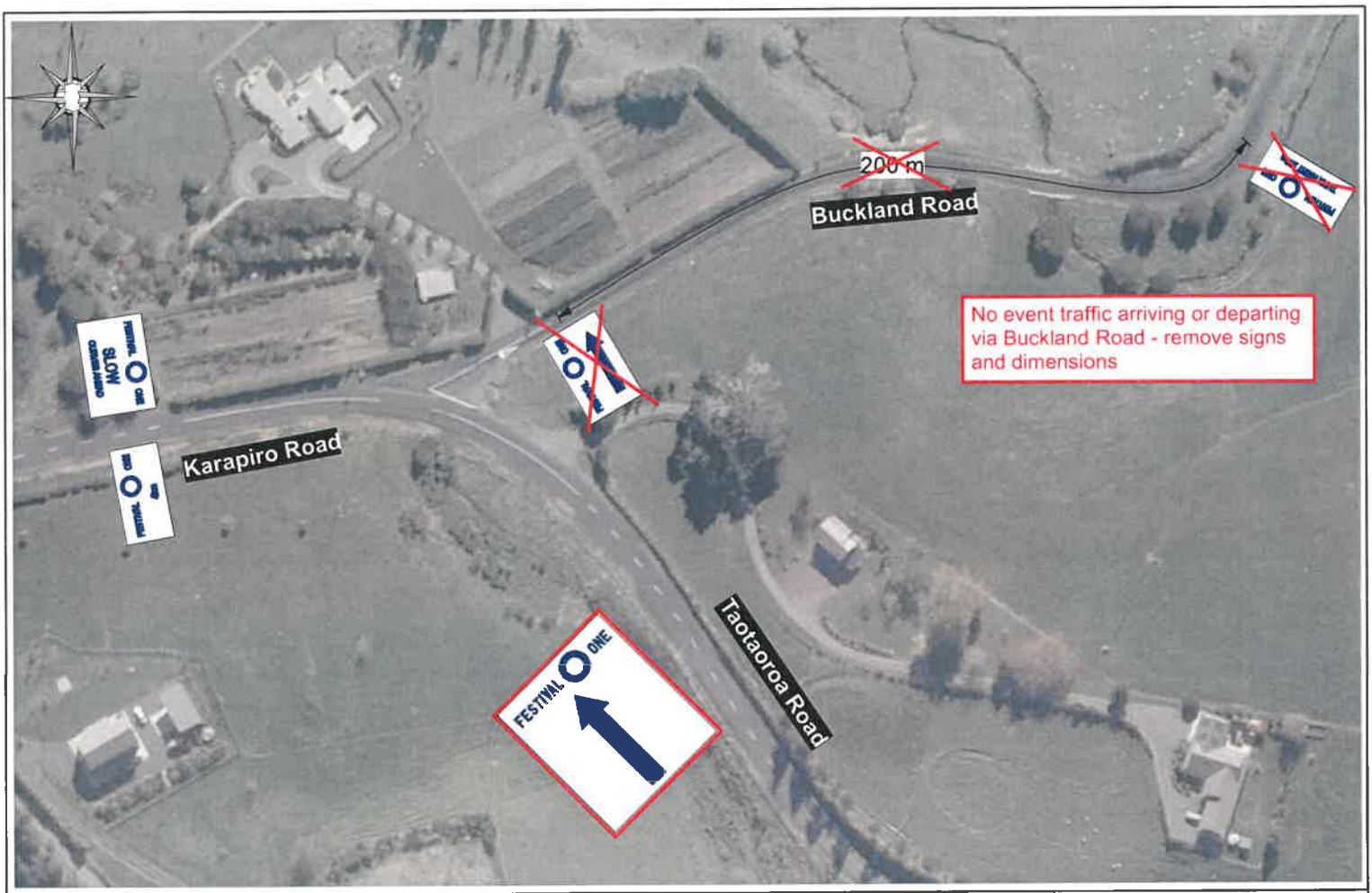


Drawing No: TMNZ-HAM-200052-10	Situation: Cambridge, Waikato	Revision: A	TMC Approval:	FESTIVAL ONE
Traffic Management NZ	Drawing Title: Event Direction Signage	Drawing By: Joshua Smith		
		Checked:		
		Date: March 2020		

www.invarion.com

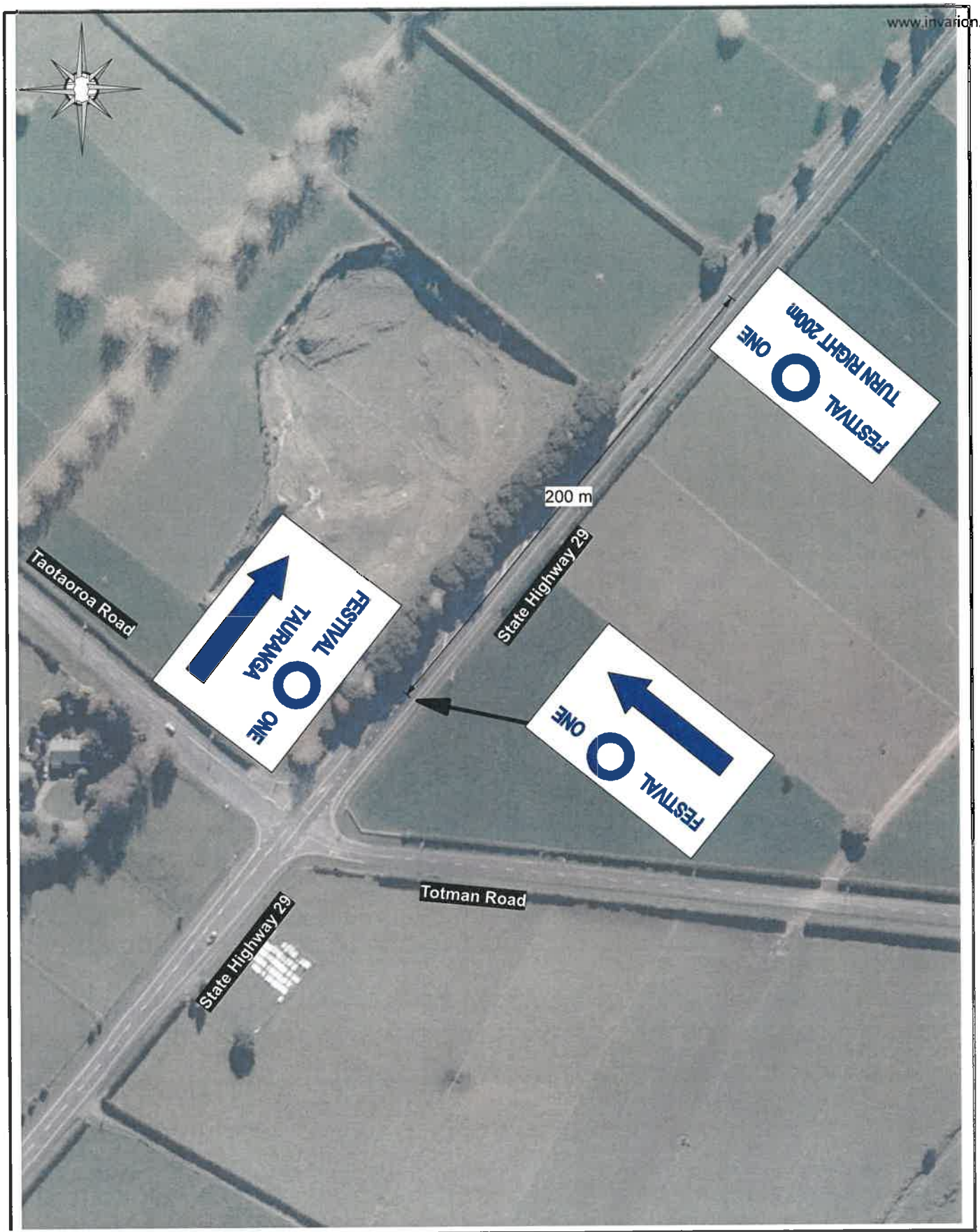


Drawing No: TMNZ-HAM-200052-11	Situation: Tirau Road / Karapiro Road	Revision: A	TMC Approval:	FESTIVAL ONE
Traffic Management NZ	Drawing Title: Event Direction Signage	Drawing By: Joshua Smith		
		Checked:		
		Date: March 2020		



Drawing No: TMNZ-HAM-200052-12	Situation: Karapiro, Buckland & Taotaoroa Rd	Revision: A	TMC Approval:	FESTIVAL ONE
Traffic Management N2	Drawing Title: Event Direction Signage	Drawing By: Joshua Smith		
		Checked:		
		Date: March 2020		

Drawing No: TMNZ-HAM-200052-13	Situation: Taotaoroa Road, Karapiro	Revision: A	TMC Approval:	FESTIVAL ONE
Traffic Management NZ	Drawing Title: Event Direction Signage	Drawing By: Joshua Smith		
		Checked:		
		Date: February 2020		



Situation: State Highway 29	Drawing No: TMNZ-HAM-200052-14	Revision: A	FESTIVAL ONE
Drawing Title: Event Direction Signage		Drawing By: Joshua Smith	
		Checked:	
		Date: March 2020	
Traffic Management NZ		TMC Approval:	

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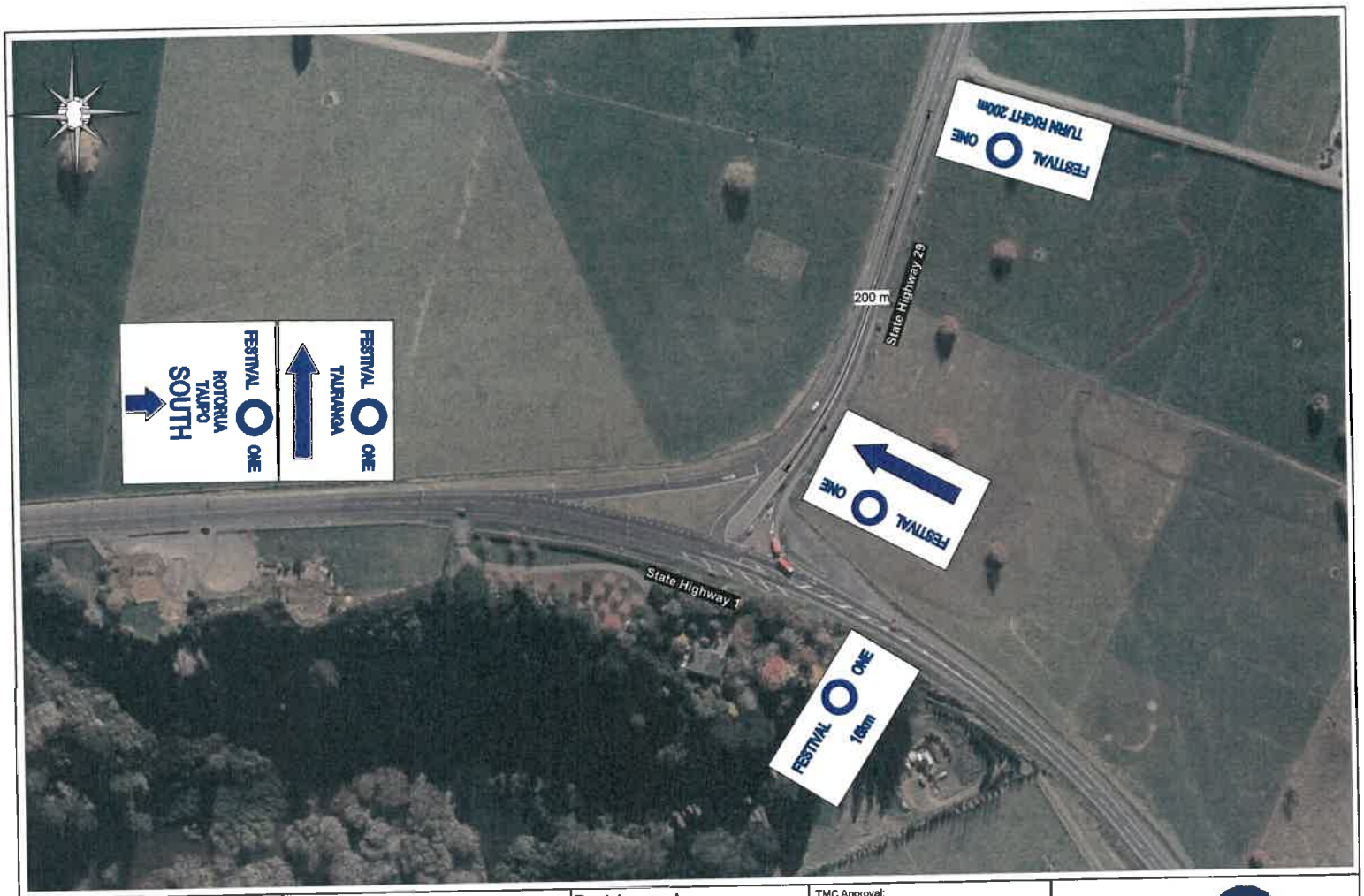
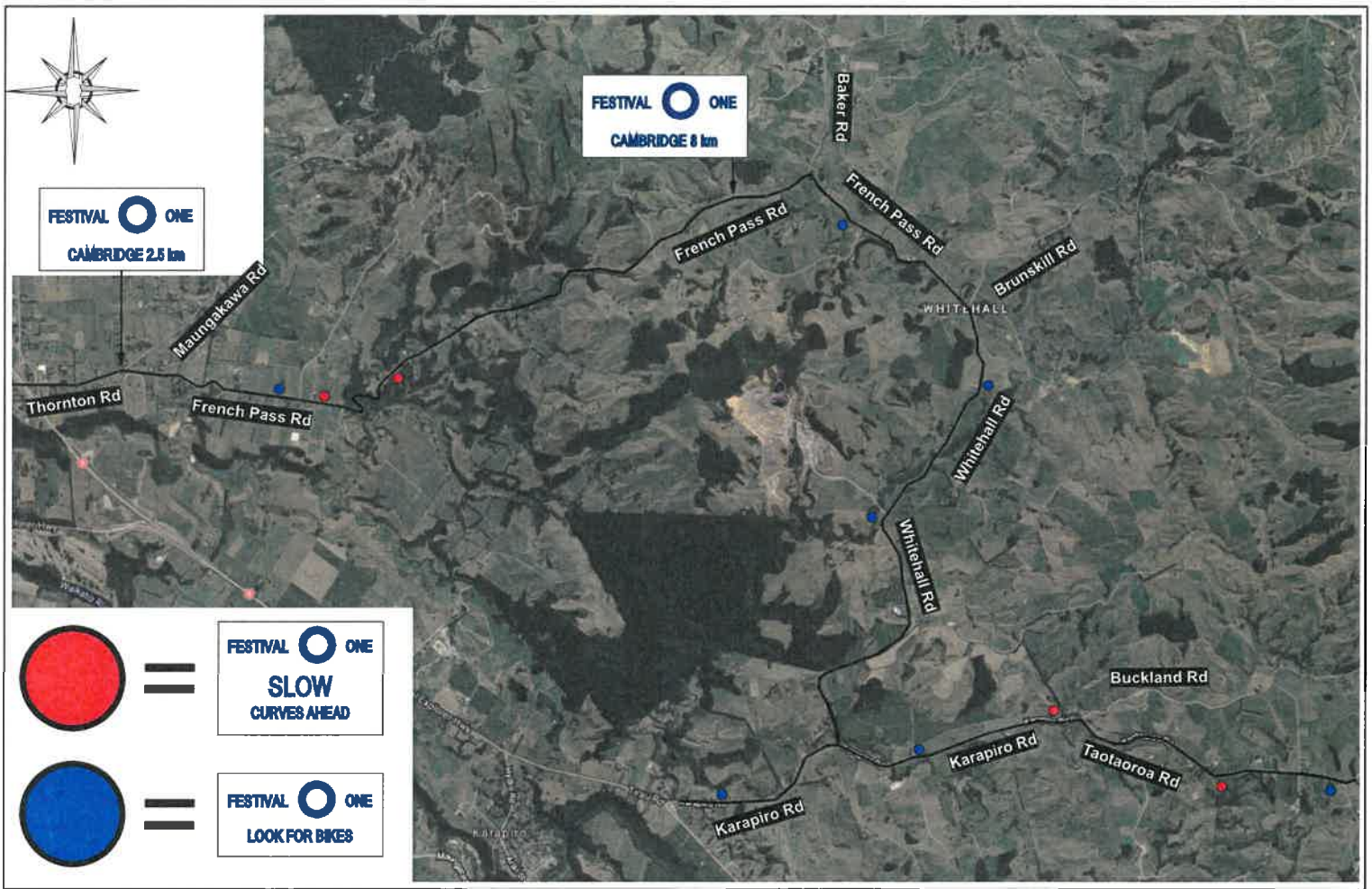


Drawing No: TMNZ-HAM-200052-15	Situation: State Highway 29 & 1	Revision: A	TMC Approval:	FESTIVAL ONE
Traffic Management NZ	Drawing Title: Event Direction Signage	Drawing By: Joshua Smith Checked: Date: February 2020		

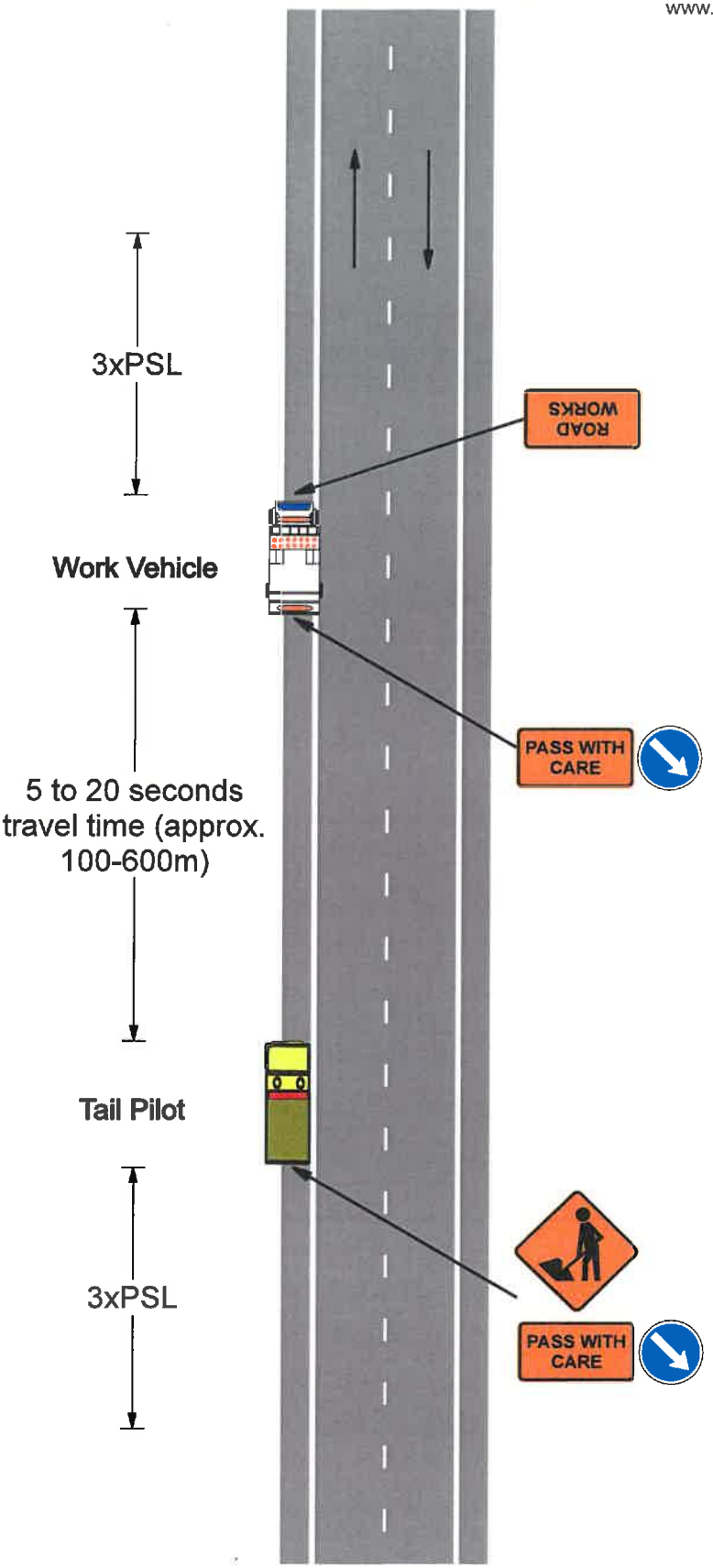


Drawing No: TMNZ-HAM-200052-16	Situation: Various Roads, Whitehall / Cambridge	Revision: A Drawing By: Joshua Smith Checked: Date: March 2020	TMC Approval:
Traffic Management NZ	Drawing Title: Event Cursory Signage		FESTIVAL ONE

Mobile Operation layout using Level 1 tail pilot and a work vehicle. May not stay in location for more than 5 minutes

Note: all vehicles to have amber flashing lights in operation whilst they are entering and leaving the sites TM and whilst it is being established, or removed

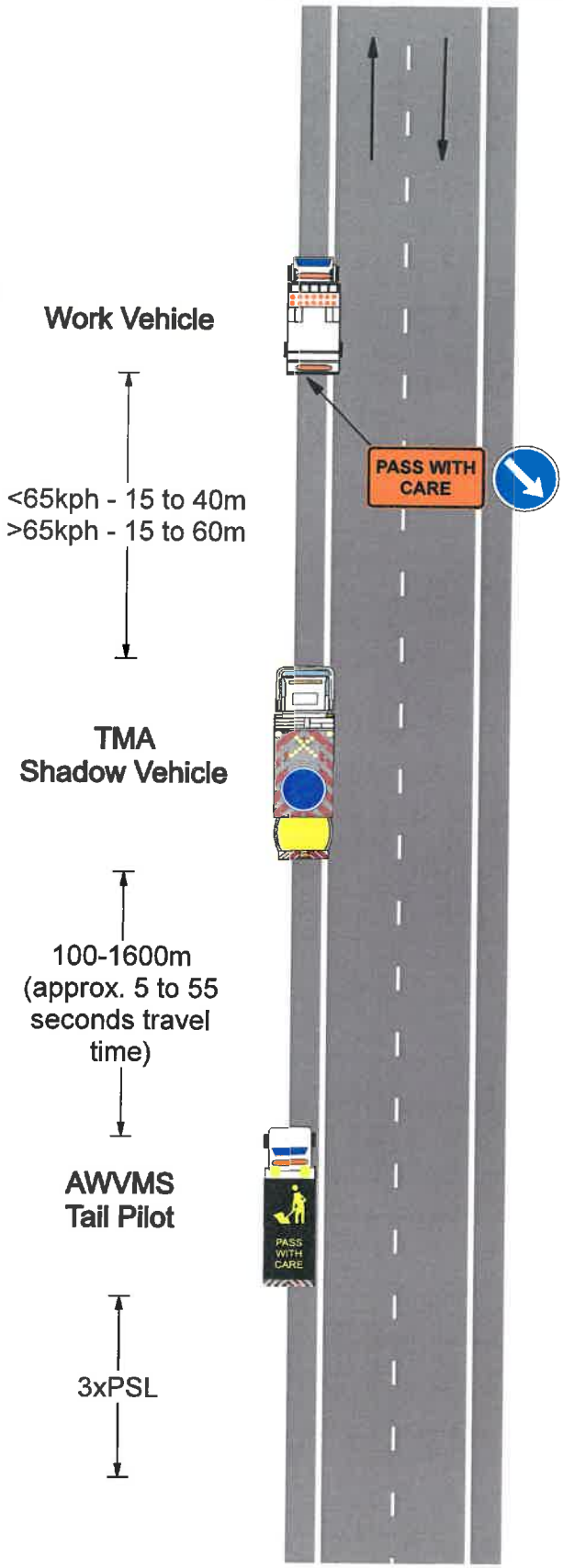
Tail Pilot not required if there is CSD to the Work Vehicle



Situation: Various	Drawing No: TMNZ-HAM-200052-17	Revision: A	FESTIVAL ONE
Drawing Title: L1 Mobile Operation		Drawing By: Joshua Smith	
		Checked:	
		Date: March 2020	
Traffic Management NZ		TMC Approval:	

Mobile Operation layout using Level 2/3 tail pilot and a work vehicle. May not stay in location for more than 10 minutes

Note: all vehicles to have amber flashing lights in operation whilst they are entering and leaving the sites TM and whilst it is being established, or removed.



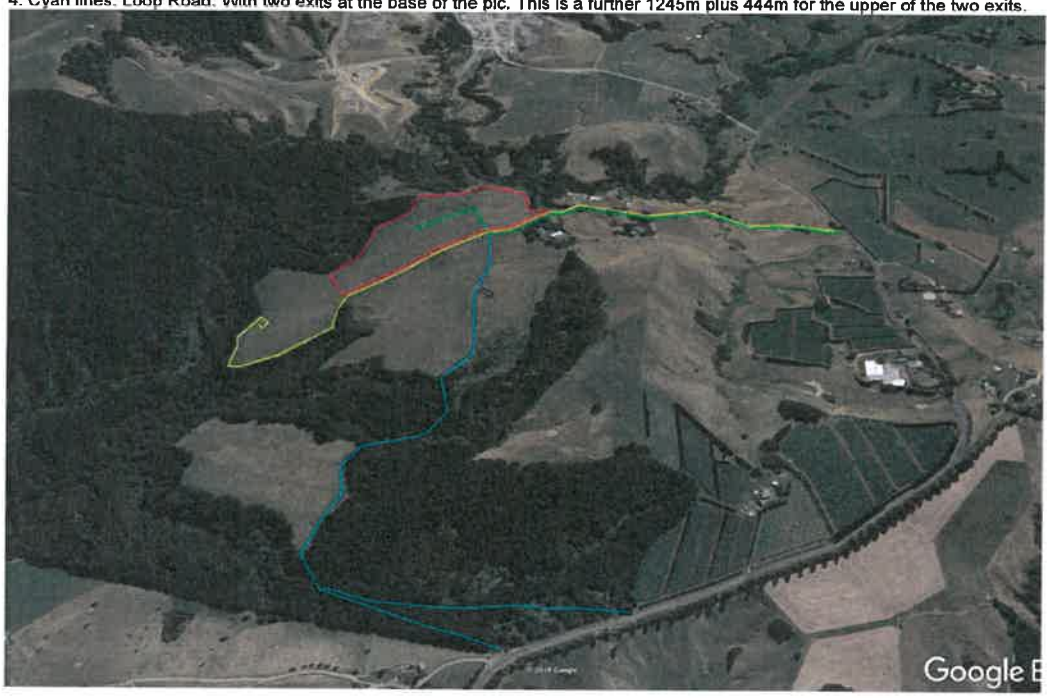
Situation: State Highway 1	Drawing No: TMNZ-HAM-200052-18	Revision: A	FESTIVAL ONE
Drawing Title: L2/3 Mobile Operation		Drawing By: Joshua Smith	
		Checked:	
		Date: March 2020	
Traffic Management NZ		TMC Approval:	

Appendix G: Parking and Site Layout

Information supplied by the Applicant:

The attached map displays:-

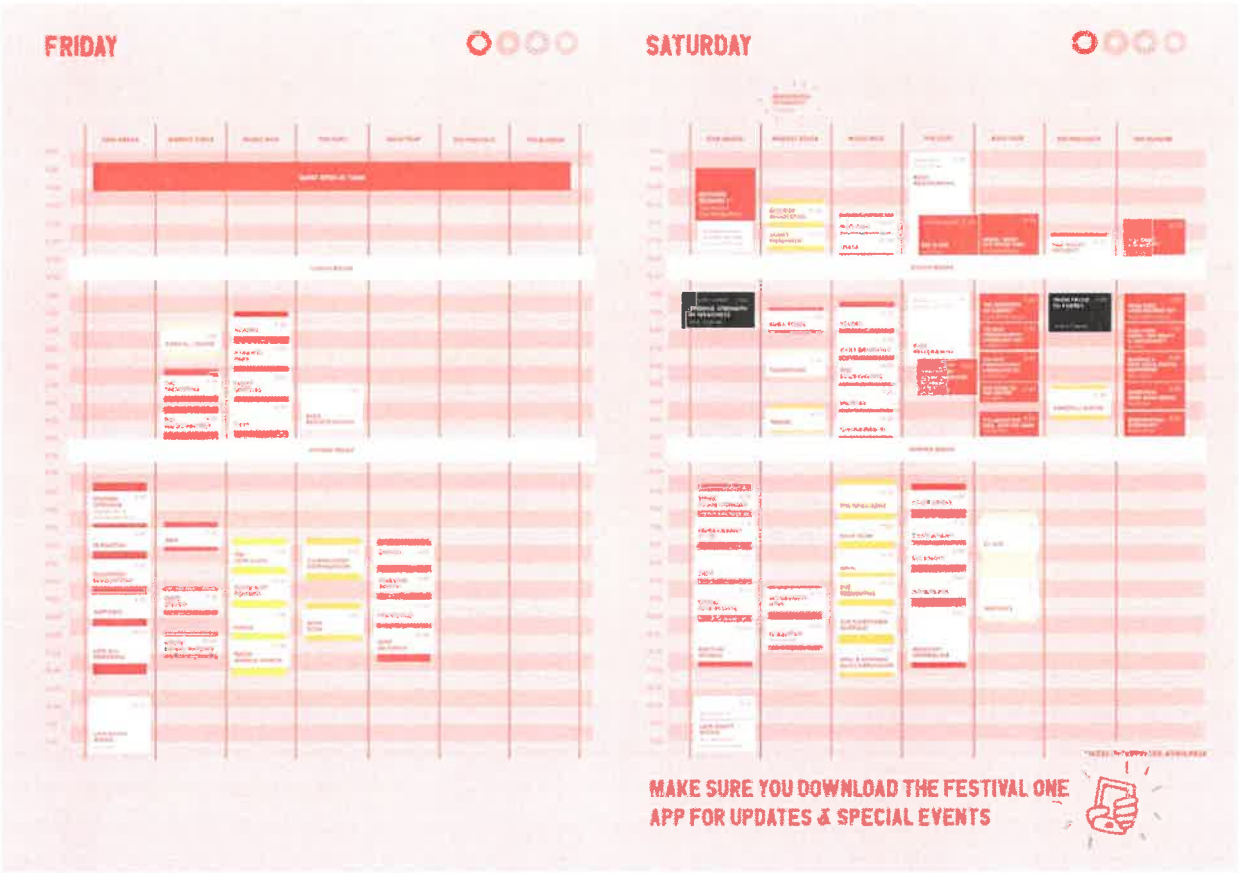
1. Red Polygon. Parking area. 65,200 sq. metres.
2. Green line. Off road car stacking area. This represents 1,041 metres of off road stacking.
3. Yellow Line. Market access road for vendors and supply vehicles, also waste vehicles. Distance 1,590 metres from road.
4. Cyan lines. Loop Road. With two exits at the base of the pic. This is a further 1245m plus 444m for the upper of the two exits.

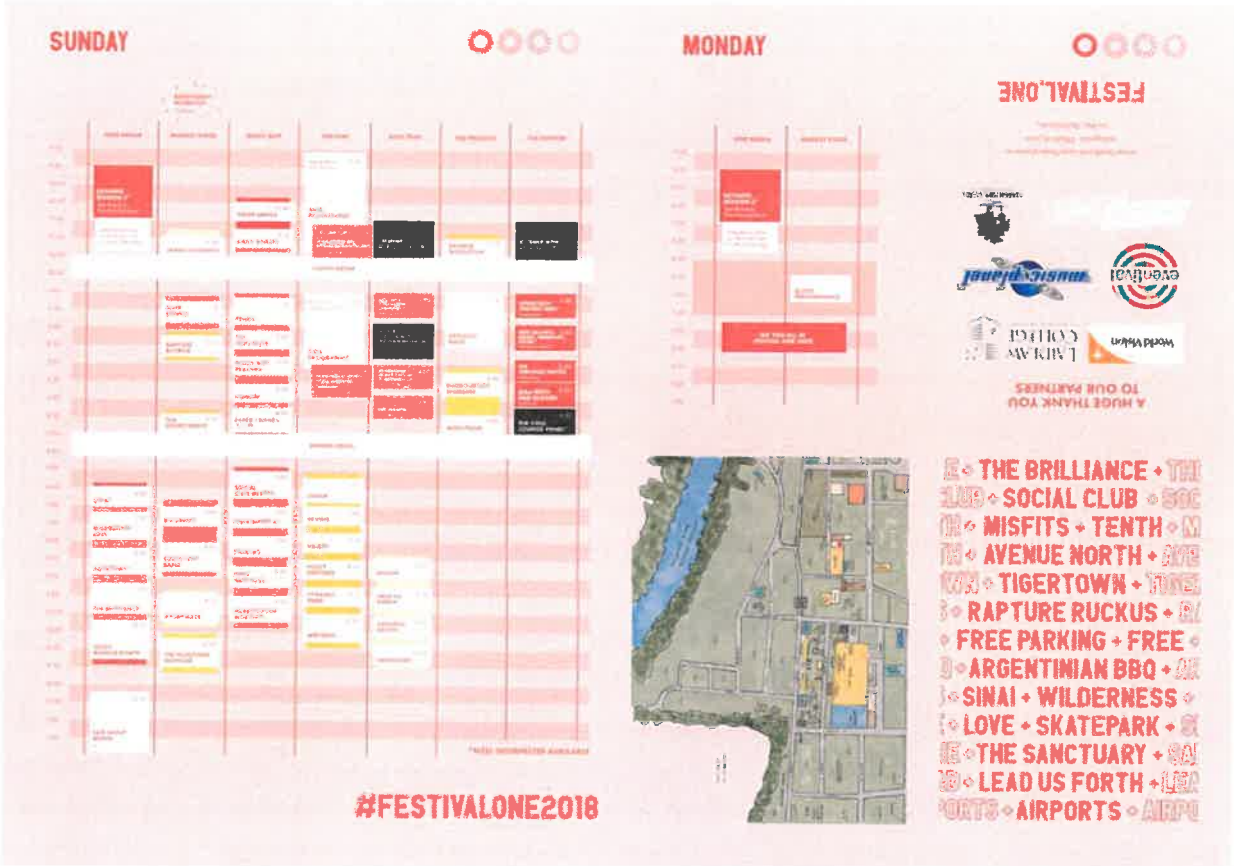


Information supplied by the Applicant:
This is at the peak time of Festival 2017. Numbers almost identical to those who attended 2018 - as you can see from the previously supplied numbers. The attendee parking is to the left. The crew parking is to the far right.

Count:
Car parking: 1068 (in 41,100m²)
Crew: 205 (includes campervans)
Campervans (public area): 85
Total = 1,368

Appendix H: Festival One 2018 Programme

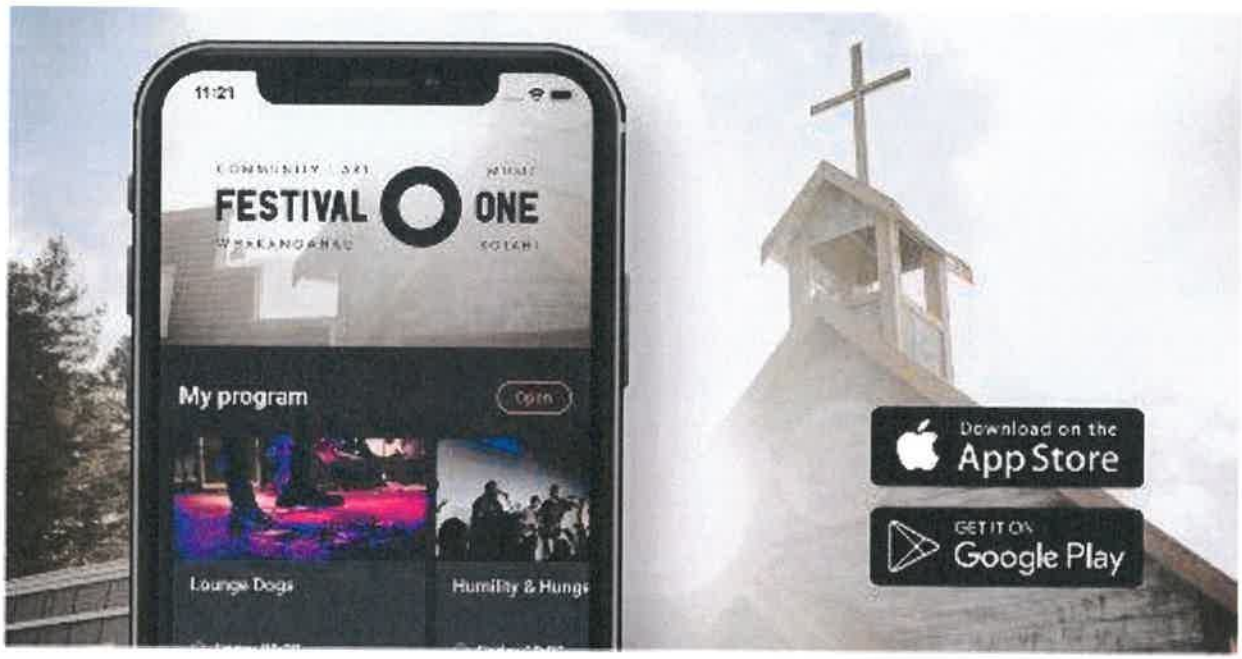



SUNDAY
MONDAY
FESTIVAL.ONE
#FESTIVALONE2018
THE BRILLIANCE
SOCIAL CLUB
MISFITS
TENTH
AVENUE NORTH
TIGERTOWN
RAPTURE RUCKUS
FREE PARKING
ARGENTINIAN BBQ
SINAI
WILDERNESS
LOVE
SKATEPARK
THE SANCTUARY
LEAD US FORTH
AIRPORTS

Appendix I: Festival One App

FESTIVAL ONE

Active Management of traffic flow to Festival One at Hartford Farm



Festival One is proposing to actively manage traffic flow to and from their event using their tailor-made Festival One App.

App Statistics Festival One 2019

4,076

guests on site

3,604

devices that installed the App

3,611

guests over the age of 16

80% +?

of those driving to Festival One 2019 had the App installed.

App Capabilities/Usage

There are two main reasons our guests install the App.

1. To view the programme and organise their own personalised schedule.
2. To receive push notifications about pop up performances, special deals, meet and greets etc.

This allows us as organisers to use the App as our main channel of communication.

Most App users download the App before Festival, using it to plan their campsite, their personal schedules and to stay up to date with what is going on - via push notifications.

Active Traffic Management

We propose actively managing the inbound and outbound traffic flows by providing live, specific route plans to all attendees via the App, using data supplied by NZTA.

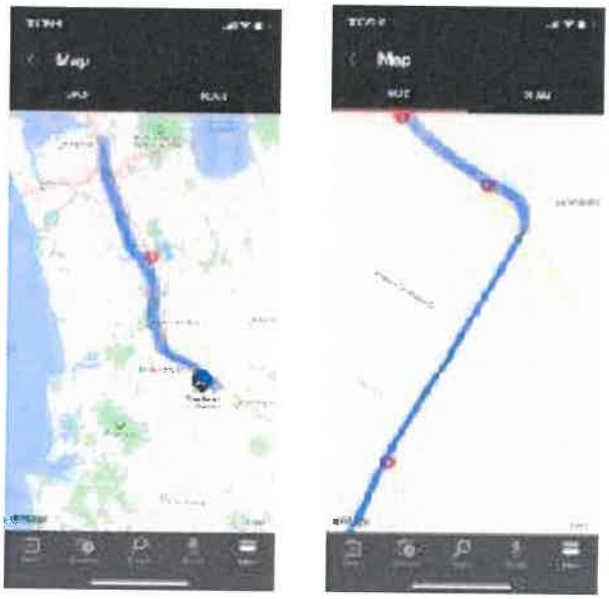
This will:-

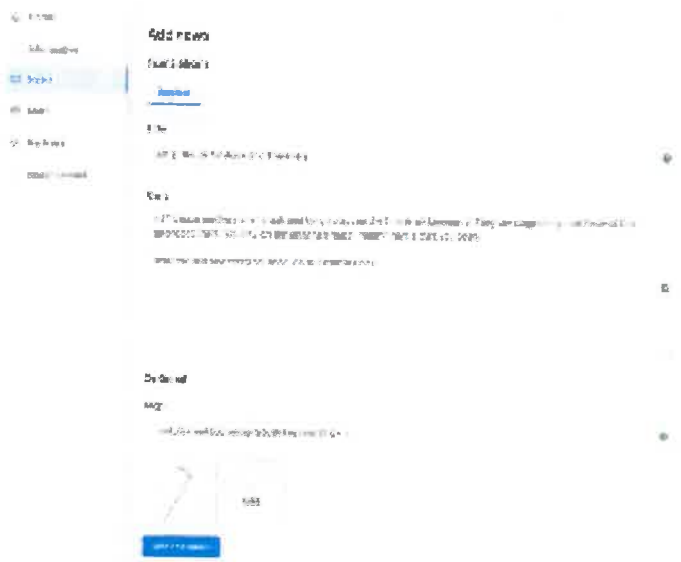
1. Provide attendees with the easiest travel route to Festival One.
2. Be able to actively divert travellers away from developing network pressure points.

Three possible methodologies.

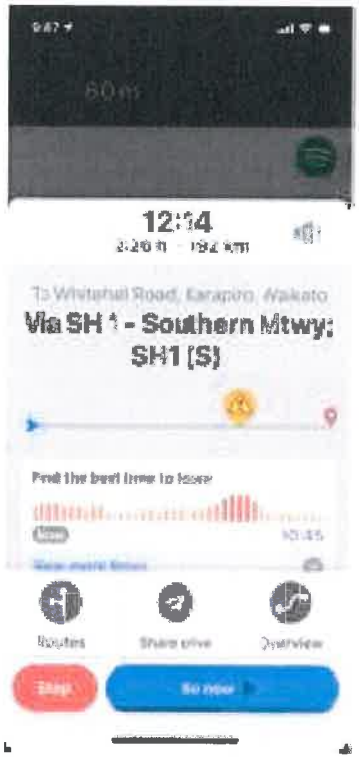
1. API. Festival One App developers work with NZTA developers to build an API that delivers existing NZTA traffic congestion data direct to the Festival One App. The will run in a dedicated Travel Advisory pane in the App.

2. Pre-plan, alongside NZTA, route variants from the three key arrival quadrants - Auckland, Hamilton, Bay of Plenty - and publish these in the App. Upon advice from NZTA, push notify the most effective routes given traffic flows and re-supply links to specific route information along with live notifications.





3. Festival One is registered with Google as one of their supported charities. This provides Festival One with beneficial access to the full suite of Google services. We are considering contacting Waze - a Google owned travel software entity, to consider incorporating their cloud based, user submitted, turn by turn travel advisory. One of its key functions is allowing the user to plan arrival and departure times in the future based on predicted network loading.



It is possible for Festival One to work one or all of these scenarios simultaneously.

Festival One is a drug and alcohol free, family friendly Festival. The vibe is chilled. Police presence at Festival One has steadily diminished over its 5 year history to a single officer on site. As the Waikato Head of Police said "we resource where necessary. You do not need a big Police presence." Our patrons are well behaved, and open to instruction.

Summary

With careful preparation and by working closely with NZTA we believe that we can achieve two gaols:-

1. Offer Festival One attendees the best possible information to make their journey to Festival One as easy as possible.

2. Assist NZTA to actively manage the stress points on their network - at least as far as Festival One traffic is concerned.

Appendix J: NZ Transport Agency Mitigation Letter

Level 1, Deloitte Building

24 Anzac Parade
PO Box 973, Waikato Mail Centre
Hamilton 3240
New Zealand
T 64 7 958 7220
F 64 7 957 1437
www.nzta.govt.nz

19th May 2020

Graham Burt
c/- Gray Matter Ltd
Attn: Melanie Parsons

Dear Melanie,

Relocation of 'Festival One' Event- 209 Whitehall Road, Karapiro

Thank you for submitting your client's proposal to the NZ Transport Agency (Transport Agency) for comment. As you will appreciate, millions of dollars are invested in the transport network each year and the Transport Agency has an interest in ensuring this investment is not compromised, including by ensuring land use and subdivision do not impact on the safety and efficiency of the transport network.

The Transport Agency understands that the applicant is seeking resource consent to annually hold the 'Festival One' event from a new location at 209 Whitehall Road, Karapiro. The event will take place over a period of four days (Auckland Anniversary weekend). The festival would allow public access from 6am Friday morning (parking only, ticketing/event access not active until 10am) until 2pm Monday afternoon.

The Transport Agency understands that the applicant intends to grow the event over a period of several years, from the existing 3,300 tickets to a maximum of 10,000 tickets. The total number of people on site at any time will be approximately 12,000. All access to the site will be via Whitehall Road.

A Festival One app will be available for attendees to help influence the routes people will choose to travel to and from the festival.

Based on the information provided, the Transport Agency requires the conditions outlined below to be met so as to avoid and/or mitigate adverse effects on the network. Subject to these conditions being met, the Agency is **not opposed** to the proposed activity.

Conditions

1. Prior to any increase over 8,000 attendees, an assessment of the monitoring and count data and effectiveness of the transport mitigation shall be prepared and presented to the NZ Transport Agency and Waipa District Council for review and approval, with any required changes implemented prior to the following festival event.

2. Prior to any increase over 10,000 attendees, there shall be a review of the consent conditions to identify any additional mitigation measures required to avoid or remedy adverse effects on the state highway network.

3. The consent holder shall undertake event specific monitoring undertaken by a suitably qualified traffic engineer with results provided to the Transport Agency and Waipa District Council within two months after the event taking place. The report is to include the following information as minimum:

    a) Summarised data of volumes, arrival and departure profile and any other collected information of interest to the road controlling authority to inform of the impacts to the road network during the Festival One.
    b) Review of the traffic management.
    c) Traffic or traffic management related complaints.
    d) Delays by direction at the SH1/Karapiro Road intersection.
    e) Maximum queue length for all approaches.
    f) Debrief of any incidents of network disruptions that occurred on the recommended routes to Festival One and the response.
    g) Recommendations for future improvements.
    h) Appendix of raw data.
    i) Any remedial works and mitigation required prior to the next Festival One.

4. A Corridor Access Request (CAR) application shall be submitted to and approved by the NZ Transport Agency prior to any event taking place. Approval will be subject to temporary traffic management (TTM) proposed by the applicant which shall include the following as a minimum:
    a) An event specific traffic management plan (TMP) that has been undertaken by a suitably qualified person experienced in major events and is in accordance with the latest version of CoPTTM. The TMP shall include an approval from a suitably and independent CoPTTM qualified personnel prior to lodgement with the Transport Agency. The TMP shall include, but not limited to the following:
        i. Signage on preferred routes. Which are to be erected no more than 24 hours prior to the commencement of the event and removed no more than

24 hours following the event on the state highway. Berm reinstatement following removal of any stands or posts.

ii. Use of variable message signs.

iii. Contingency measures to minimise traffic impacts in the event of weather and road incidents on the state highway and/or local road.

iv. Role of manual traffic controllers.

v. Method of communication across the TTM extents and with the STMS and back-up.

vi. Requirements for vehicles exiting the site travelling towards Auckland and Hamilton to turn left and use the local road network to the State Highway 1/Victoria Road Interchange until such time that the State Highway 1/Karapiro Road intersection is upgraded by the Transport Agency to either have a roundabout or grade separation.

Note: due to the size of the events and complexity, it is recommended that the applicant submits a CAR application for approval at least 45 working days prior to an event.

To apply for any authorisations/approvals or for confirmation that conditions of your resource consent have been met, please contact the Transport Agency directly on consentsandapprovals@nzta.govt.nz.

Please be aware that this response is the Transport Agency's current view of the situation. If your application changes or is put on hold for any length of time, the Transport Agency may need to review the application again.

Thank you for undertaking consultation with us. Please feel free to contact me if you have any questions or require further information.

Yours sincerely

Claudia Jones

Consultant Planning Advisor

DDI: 07 958 9614

Email: claudia.jones@nzta.govt.nz

Appendix K: Proposed Conditions of Consent

We suggest that the conditions of consent require:

1. The consent holder shall present for approval by Waipa District Council no less than four weeks prior to construction the detailed design of vehicle crossings, parking areas, vehicle-camping areas and on-site roads. The vehicle crossings are to be constructed in accordance with Regional Infrastructure Technical Specification D3.3.4 for Rural Entranceways.

2. The consent holder shall ensure that vehicle parking areas on the site are sufficient to accommodate up to 3000 cars. Access roads and entry points shall be all-weather and provide for two-way movement. Access roads shall be treated with sand, matting, geotextile or some similar method to increase weather resistance. The car parks shall include pedestrian routes segregated from access roads and circulation aisles between the car parks to the main event arena.

3. The consent holder shall take measures to ensure debris or mud is not tracked onto Whitehall Road as a result of events. Should debris or mud be tracked onto Whitehall Road, the consent holder shall ensure that the roads adjoining the site and/or affected by event traffic are cleaned, to their pre-event state, within two hours of the end of the Event.

4. A Corridor Access Request (CAR) application shall be submitted to both Waipa District Council and NZ Transport Agency no less than 45 working days prior to any event taking place. Approval will be subject to temporary traffic management (TTM) proposed by the applicant which shall include the following as a minimum:
   a) An event specific traffic management plan (TMP) that has been undertaken by a suitably qualified person experienced in major events and is in accordance with the latest version of CoPTTM. The TMP shall include an approval from a suitable and independent CoPTTM qualified person prior to lodgement with the Transport Agency. The TMP shall include, but is not limited to the following:
      i. Signage on preferred routes. Which are to be erected no more than 24 hours prior to the commencement of the event and removed no more than 24 hours following the event. Berm reinstatement following removal of any stands or posts;
      ii. Installation of pre-event signage and public notices on local roads prior to the event;
      iii. Installation of event direction signage, including variable message signs, and event cursory signage prior to the event. NZ Transport Agency approval will be required for any signs on the state highway network;
      iv. Use of variable message signs;
      v. Details of any non-standard signs;
      vi. Details of any lighting proposed, and arrangements for arrivals or departures in dark, overcast or foggy conditions;
      vii. Contingency measures to minimise traffic impacts in the event of weather and road incidents on the state highway and/or local roads;
      viii. Role of manual traffic controllers;
      ix. Method of communication across the TTM extents and with the STMS and back-up;
      x. How contingency responses such as traffic controllers, site traffic management supervisors and security staff will be able to access the full extent of the traffic management area even if congestion takes place;
      xi. How delays and the extent of queuing will be monitored so that traffic management arrangements can be modified; and
      xii. Requirements for vehicles exiting the site travelling towards Auckland and Hamilton to turn left and use the local road network to the State Highway

1/Victoria Road Interchange until such time that the State Highway 1/Karapiro Road intersection is upgraded by the Transport Agency to either have a roundabout or grade separation.

5. The consent holder shall complete a review of traffic and parking demand during the first festival event. The purpose of the review is to confirm that the actual trip generation and parking demand are broadly aligned with the ITA, and that the mitigation is effective. The review should be developed using the recommendations in the ITA and in consultation with Waipa DC and NZ Transport Agency and be presented to Waipa District Council two months after the event. Any recommended remedial works or mitigation agreed by Waipa District Council in consultation with NZTA shall be implemented prior to the following festival event.

   The content of the review report shall include but not be limited to:
   a) The event size and type;
   b) The number of ticket sales and associated staff/acts/crew for the event;
   c) The origin (where possible) of the ticket sales for the event;
   d) An overview of the temporary traffic management measures employed on site and the approach road network;
   e) Traffic count information data relating to the number of vehicles entering and departing the site per 15min period and a summary of the volume profile by hour;
   f) Average delays for turning movements at the SH1/ Karapiro Road intersection for peak festival periods;
   g) Maximum queue length for turning movements at the SH1/Karapiro Road intersection for peak festival periods;
   h) Traffic or traffic management related complaints;
   i) Details of any reported network disruptions that occurred on the recommended routes to Festival One and the traffic management response;
   j) Review of the traffic management;
   k) Any overall recommendations pertaining to the traffic planning and temporary traffic management of future events;
   l) Any remedial works and mitigation required prior to the next Festival One; and
   m) Appendix of raw data.

6. Prior to any increase over 8,000 attendees, an assessment of the monitoring and count data and effectiveness of the transport mitigation as per Condition 5 shall be prepared by a suitably qualified traffic engineer and presented to the NZ Transport Agency and Waipa District Council within two months after the event taking place. Any required changes shall be implemented prior to the following festival event.

7. Prior to any increase over 10,000 attendees, there shall be a review of the consent conditions to identify any additional mitigation measures required to avoid or remedy adverse effects on the state highway network.

F

APPENDIX F

Written Approvals

Graham Burt
Executive Director Festival One
22 November 2018

Festival One

Proposal to relocate to Hartford Farm

209 Whitehall Road

Festival One Limited, the applicant, runs a drug and alcohol-free Christian festival annually at Mystery Creek. Festival One is a continuation of the long running and successful 'Parachute Music Festival'. Festival One is seeking to relocate the event to a new venue at a 280-hectare rural property (Hartford Farm - previously known as 'Dunwold') at 209 Whitehall Road, Karapiro.

Festival One is run by a Christian charitable trust – Summer Festival Charitable Trust. The Board wishes to refresh the festival by locating to a site more in keeping with the relaxed and community feel of the festival. The Board also wishes to 'cap' attendance at 10,000 paying patrons so that the family friendly atmosphere is retained. The Trust therefore seeks resource consent for a Discretionary Activity to commence the first scheduled event on Auckland Anniversary weekend 2020.

The venue is centred around the river flats on the property that nestle within a natural amphitheatre provided by the encircling hills and which provide a forested backdrop that will screen most elements of the festival from public view.

<u>What will the festival look like?</u>

1. The festival will be held annually over the Auckland Anniversary long weekend – the last weekend in January.
2. The festival will run over four nights and three consecutive days – 10am Friday until midday Monday.
3. The festival is outside the school holidays.
4. The venue capacity will be capped at 10,000 paying patrons, with support from up to 2,000 volunteers, acts and crew – in the first few years about 6,500 patrons plus support staff are anticipated. These two assumptions about the size of the event underpin the traffic modelling.
5. The festival is a multi-faceted music, community and art event, with seminars and keynote sessions, art installations, and reflective spaces being as important as music and concerts on the stages. The festival is designed to be approachable for people of

all ages – toddler care is provided, a children's programme, dedicated spaces for those with disabilities, and care taken to provide support for the elderly. The festival is largely 'residential' with people arriving on the Friday and setting up camping communities (largely tents), as well as caravans and camper vans. Food and beverages are provided by a variety of food trucks, and all support services – toilets, showers, general store are provided as self-contained pop up units. Power will be supplied from generators on-site.

6. The festival is an alcohol and drug-free event.

7. Festival One has a self-imposed night curfew of midnight, where amplified sound is turned off, and traffic movement is restricted other than for emergency medical needs.

8. Festival One provides a free mobile phone App. This is interactive and provides real time updates and is used before, during and after the festival as well as to manage the travel demand peaks and queues, and patterns of travel on the road network by directing patrons to the preferred alternative routes.

9. Special guests, overseas artists for example, are accommodated off-site in local B&Bs, homestays, motels and hotels. A shuttle service run by volunteers will provide their transport.

10. Public site access is only available from Whitehall Road, between Dunning Road and the Whitehall Quarry. Traffic will be directed to two or three security controlled entranceways to the property. Management of traffic from the state highway and local roads will be guided using Event Directional signage and Temporary Traffic Management Plans developed in conjunction with the NZ Transport Agency and the District Council.

<u>How will this all this work?</u>

The site plan attached shows the overall layout for the festival:

- The controlled public entranceways with passing bays and/or two-way vehicle movement on the site;
- Vehicle queues will be on-site in prepared stacking lanes, and not on the public roadway;
- The parking and pre-registration areas – over 80% currently pre-register allowing for ease of entry and parking for patrons;
- The accommodation zones that will provide for camping, caravans and motor homes;
- Arena 1, The Music Box and Market Stage and a largely acoustic River Stage will provide the four concert venues; and
- The market and administration precincts – the heart of the festival.

<u>What are the potential environmental effects on me, my family and or my business?</u>

The effects expected from running the festival can be described in terms of:

- the pre-event setup phase: this includes the arrival of the crew of about 20 volunteers a week prior to the Friday start, building to a team of around 300 from the Wednesday prior. This team build and assemble the facilities, supervise the arrival of the various hire suppliers - marquees, toilet and shower blocks, audio and sound

equipment, and food trucks and caravans. Building activity will take place on site from the Friday prior to the Friday start.
• The event itself: these effects are summarised more fully below; and
• The post-event packdown: this includes the hire companies returning to pick up their gear and facilities, and the build crew disassembling the temporary structures for a period of 3-4 days.
• In summary, the event brings increased activity to the property and the neighbourhood over a three weekend, two-week period.

Effects of traffic going to and from the festival

The Integrated Transport Assessment (ITA) evaluated two scenarios for event traffic: the 2020 event and the future maximum event 'cap'. The predicted traffic generated is outlined in the table attached.

People driving on the state highway are unlikely to notice the additional activity due to the holiday traffic activity, but the effects are likely to be slowing for turning traffic, or minor delays in turning at intersections.

The potential effects from festival traffic will be mainly noticed on the local roads. The attached table shows this. For example, peak traffic on Karapiro Road (west of Whitehall Road) is expected to increase from 145 vehicles per hour (veh/h) peak traffic flow, to 460 veh/h with the predicted 2020 event arrival traffic. At the future maximum event with 10,000 tickets, the peak arrival traffic on this section of Karapiro Road is expected to increase to 665 veh/h. This equates to a slight decrease in the level of service where drivers may be slightly impeded by interactions with other traffic.

The highest traffic flows arriving to the festival are likely to occur on Friday night and Saturday morning. The highest traffic flows leaving the festival are likely to occur on Sunday evening and Monday morning, with many of these vehicles travelling north via French Pass Road.

Local road users are likely to notice the additional activity with the effects likely to be delays in access and egress from their properties, slowing for turning traffic, or delays in turning at intersections.

The potential traffic effects from festival traffic include:
• Increased traffic on state highways and local roads;
• Increased potential for conflict at intersections;
• Some queuing and/or delays at intersections; and
• Queued vehicles at the festival entrance delaying local through traffic.

These effects will be managed by:
• Pre- and post-event notification and planning using the free App provided to patrons;
• Directional and cursory signage for people driving to the festival;
• Temporary traffic management at key locations using signs and cones, and 50km/hr speed restrictions;
• Directing departing traffic to the most appropriate route to avoid delays and minimise the potential for conflict at intersections;
• Live updates on route management provided by the NZTA and delivered via the festival App;

• encouraging patrons to carpool where possible; and
• Festival gate curfew of midnight to 6am (emergency access only).

The indicative signage plan is attached and shows the recommended locations for Temporary Traffic Management, directional signage and cursory signage to help manage and guide festival traffic.

A review of the traffic effects and effectiveness of the mitigation used will be completed to fine tune the traffic management for future events. All traffic management and mitigation measures used by Festival One will have prior approval from the District Council and NZ Transport Agency.

Effects from noise and vibration during the festival

Noise effects of the festival will be mainly related to use of amplified sound systems on the site. These sounds will exceed, at times, the normally applying District Plan noise limits applying in the area. In order to keep any noise disturbance to a minimum, sound amplification systems will be closely managed by event managers and their production teams, at all times. An independent acoustic consultant will conduct sound level monitoring at pre-determined assessment locations at various times throughout the event to check noise remains within the specified consented noise. The noise limits set out within the consent will control both the overall sound level (LAeq) and the levels of low frequency (bass) sound experienced in the vicinity of the site.

Monitoring at the pre-determined assessment sites of sound levels during the event provides for real-time sound level control by relaying the results of field monitoring to Audio Engineers in control of the sound system(s). These methods are being followed to ensure there are no noise limit overages during the event. It is worthy of note that for 4 years of operation at Mystery Creek Festival One has not once exceeded the prescribed noise limits. Noise effects from other sources will remain reasonable at all times as there will be no fireworks on-site and no helicopter movements are proposed as part of the event.

Each event will be operated in accordance with a Noise Management Plan is which has been signed off by Waipa District Council for each event. This Plan will, among other things, require neighbours to be advised beforehand on the methods for managing noise and methods for handling how any complaints regarding noise are received, recorded and responded to. Festival One has a successful record managing noise effects from outdoor music festivals as mentioned above.

Effects from lighting and glare during the festival

The venue will be lit by temporary lighting structures to ensure the safe movement of patrons at night from accommodation areas, food markets and concert venues. There will also be event lighting, generated by the stages. Both of these may result in night glow which while observable is not likely to disturb sleep patterns due to the bowl effect that the event is contained in.

Effects from providing and managing water, waste water and rubbish for patrons during the festival

Portable facilities will be bought on site providing fully self-contained services for patrons. No facilities will discharge waste water onto the ground. All brown water will be transported off site and disposed of in an approved fashion. Water taps will provide patrons with potable drinking water from a mix of bore and tanker supply.

Effects from signs on and beyond the site before and during the festival

There will be minimal Festival branded signage. There will be 'way finding' signage on-site to direct patrons from location to location. There will be traffic management signage on the local road network for the duration of the event.

Effects on health (medical, hazard management) and safety (crime prevention) of people attending the festival

Festival One runs an on-site triage medical team 24/7, comprised of doctors, nurse practitioners, and nurses. Serious medical events are referred to Waikato Hospital. In its four year history, Festival One has not had a serious medical emergency, rather it has had to deal largely with abrasions and strains.

Festival One runs a comprehensive and iterative Health and Safety Plan in conjunction with their consultants. There are daily meetings, and events and incidents are recorded and practices amended as needed.

Festival One invites NZ Police to be present at each Festival. Because of the lack of incidents, the Police have reduced their presence down to one officer on duty at any given time. Festival One also runs its own security team - comprised of volunteers, and managed, as a volunteer, by a currently serving Police officer. This team operates 24/7 and is used to ensure security at gates, entrances, back stage areas, etc. and to direct patrons.

Effects on the amenity of neighbours and community

There will be limited viewpoints into the site where the festival will be operating. Neighbours will notice the increase in traffic over the period of the festival. The staggered arrival times anticipated for patrons coupled with the use of the festival App will mean congestion can be mitigated as much as is possible. Using temporary traffic management plans with cones and signage and a 50kph speed limit will help control vehicles on Whitehall Road. Alternate routes to the venue are proposed depending on the direction of travel for patrons and this too should alleviate congestion. There will be noise associated with concerts and night glow will be noticeable - the curfew hours proposed will mean concert noise will cease and night glow will rapidly fade after mid-night.

Effects on cultural values of people and the community

From its inception, Festival One sought the approval of local Iwi to hold the event. Festival One remains closely associated with Ngāti Haua, and Rukumoana Marae, holding planning meetings and times of Karakia on the Marae during the year. Rukumoana Marae generously welcome and authorise the running of each Festival via a powhiri and celebrate the ending and success with a poroporoaki. Festival One has

consulted with Ngāti Haua on the selection of the proposed Whitehall Road site, and has a site blessing meeting planned for mid 2019.

Festival One has also met with representatives of wider Tainui Iwi prior to completing Resource Consent documentation, with particular reference to the Karapiro Stream. At this meeting Tainui representatives very generously offered their full support of the event on its proposed site.

Benefits

The festival will generate a range of benefits to the district generally and particularly to Cambridge and the local area by providing accommodation, petrol and food to patrons before, during and after the three-day festival. The service station will benefit from increasing passing traffic and with providing a convenient stop for food. Neighbouring accommodation services will also benefit either from patron bookings or from the festival organisers using these places themselves because of their convenience to the event.

Neighbour Liaison & Contacts

Ahead of an annual event, Festival One will:

- During December: Complete a letter drop to all near neighbours, outlining the latest plans for the Festival, artists coming, and provide a general overview of progress to date, while providing the opportunity for feedback.
- During January: Complete a second letter drop with more specifics, traffic management expectations, the programme for Festival, offer for complimentary family passes and again invite an opportunity for feedback.
- Late January: Make door to door visits to say hello and hear any further feedback, and to ensure that the invitations to attend/observe had been received.
- Festival One will also provide a dedicated neighbour phone line - a line that neighbours can call day and night for the duration of festival.

Our Request for Your Written Approval

We have approached you as a potentially affected neighbour and want to discuss the proposal with you and to seek your written approval to run this festival as an annual event. This step is required under the Resource Management Act 1991.

The Waipa District Council Form is attached that provides further background on your rights in this process.

If you are willing to provide your written approval, as a landowner and or occupier, please complete the attached Council Form and ***sign/initial each page of this Information Note including the attached plans and tables.***

The contact details to get answers to any further questions concerning this resource consent:

Graham Burt, from Festival One

[redacted]

Mark Gardiner, the land owner

[redacted]

October 2018

Attachments:

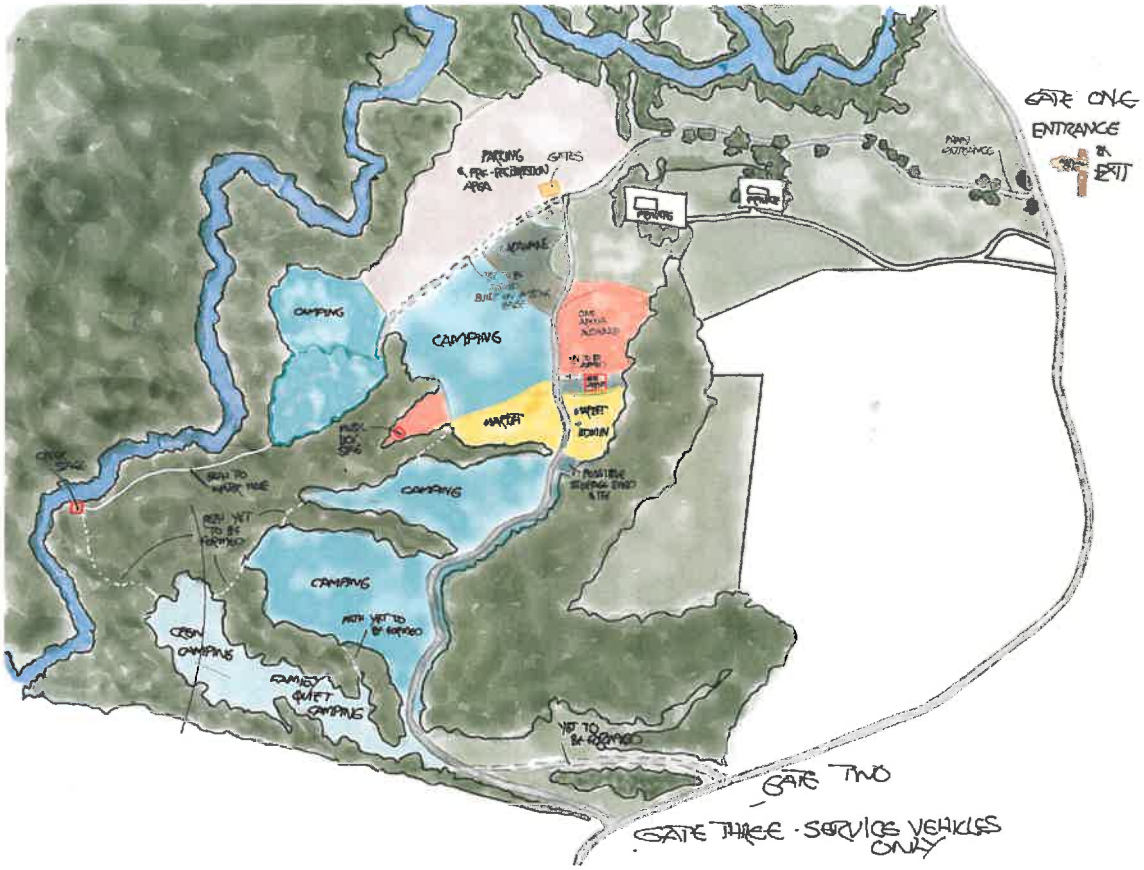
1 Site Plan

2 Temporary Traffic Management Plan and Table (sourced from technical report)

3 Predicted Sound Levels in Locality (sourced from technical report)

4 Waipa District Council Affected Persons Form

Site Plan



Traffic Estimates

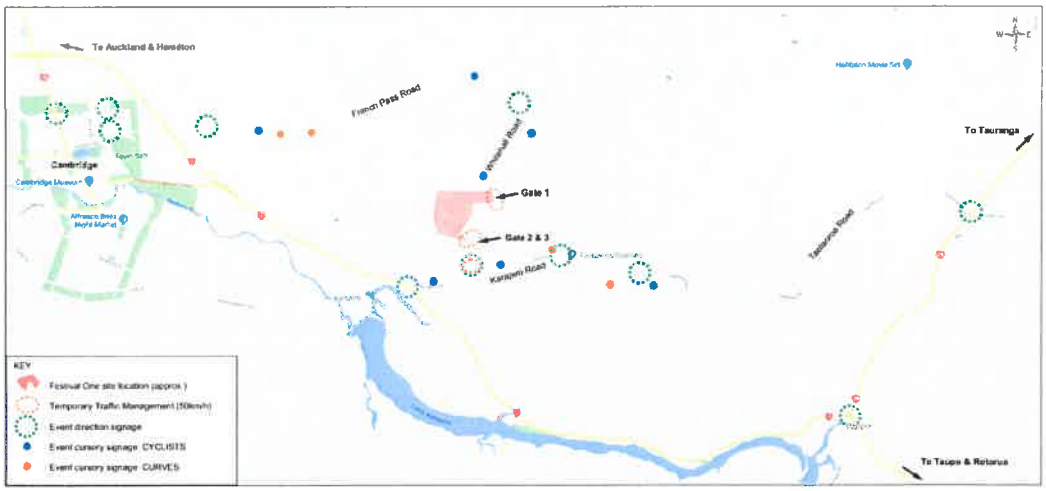
Local Road	Existing traffic (veh/h)	Existing LOS	Event traffic direction	2020 Event (6,500 tickets)		Future Event Maximum (10,000 tickets)	
				Combined event and existing traffic (veh/h)	LOS with event traffic	Event max. + Existing traffic (veh/h)	LOS with event traffic
Karapiro Road (west of Whitehall)	145	A	Arrival	460	B	665	C
			Departure	325	B	425	B
Karapiro Road (east of Whitehall)	84	A	Arrival	119	A-B	144	A-B
			Departure	134	A-B	164	A-B
Whitehall Road	50	A	Arrival	400	B	630	C
			Departure	280	A-B	410	B
Taotaoroa Road	73	A	Arrival	108	A-B	133	A-B
			Departure	123	A-B	153	A-B
French Pass Road (urban area)	64	A	Arrival	64	A	64	A
			Departure	344	B	504	B

LOS Definitions

LOS A – Free flow conditions in which drivers are virtually unaffected by the presence of others in the traffic stream.

LOS B – Stable flow where drivers still have reasonable freedom to select their desired speed.

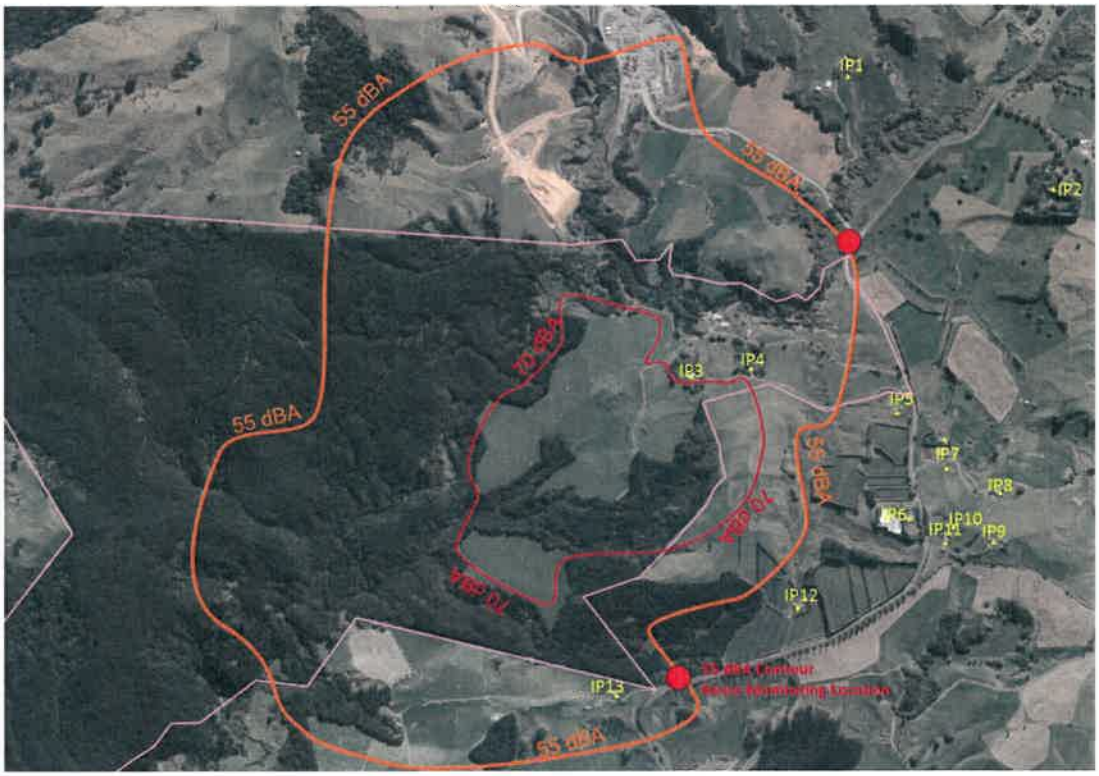
LOS C – Stable flow, but most drivers are restricted to some extent in their freedom to select their desired speed. The general level of convenience has declined noticeably.



Temporary Traffic management is proposed at three locations:

- The intersection of Karapiro Road and Whitehall Road, for the purposes of managing turning traffic;
- Outside Gate 2 and 3 on Whitehall Road (north of Karapiro Road) for the purposes of managing traffic entering and exiting the festival site; and
- Outside Gate 1 on Whitehall Road (between Dunning Road and the Quarry) for the purposes of managing traffic entering and exiting the festival site.

Festival One Noise Contours & Monitoring Locations



Written Approval of Potentially Affected Party

Waipa DISTRICT COUNCIL

Resource Management Act 1991

To: Waipa District Council, Private Bag 2402, Te Awamutu 3840
Phone: 0800 924 723 | Fax: 07 872 0033 | Web: www.waipadc.govt.nz | Email: info@waipadc.govt.nz

Approval by person(s) potentially affected by an application for a Resource Consent/ Change of Condition/s.
Before you sign this form, please read the information on the back of this form.

For office use only
Pe

A1 To be completed by the person requesting approval

Applicant:

Type of Resource Consent: *Landuse* ☐ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: *Date:*

A2 To be completed by the person giving their approval

Name/s and/or organisation: Paul and Irene Gardiner

Property address: 17 Dunning Rd, R.D.4 Cambridge

Postal address: same as above ☑

Contact phone number(s): [redacted]

Ownership of your property: *I/We: own* ☑ *occupy* ☐ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

1) I/We have sighted all the attached plans and supporting information for the above activity; and

*2) I/We hereby **give approval** for the proposal to be considered by the Waipa District Council without public notification; and*

*3) I/We understand that, **if I give my approval**, Waipa District Council will not take into account any effects that the proposed activity may have on me/us, when considering whether this application should be notified (Section 95E of the Resource Management Act 1991) and whether the application should be granted (Section 104(3) of the Resource Management Act 1991).*

I/we have signed and dated the plans and supporting information ☐ *(please tick)*

Signature/s: [signature] *Date:* 5/11/19

PTO for further information

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Version 23/04/14

Written Approval of Potentially Affected Party

Waipa DISTRICT COUNCIL

Resource Management Act 1991

To: Waipa District Council, Private Bag 2402, Te Awamutu 3840
Phone: 0800 924 723 | Fax: 07 872 0033 | Web: www.waipadc.govt.nz | Email. info@waipadc.govt.nz

Approval by person(s) potentially affected by an application for a Resource Consent/ Change of Condition/s.
Before you sign this form, please read the information on the back of this form.

For office use only
P#

A1 To be completed by the person requesting approval

Applicant:

Type of Resource Consent: *Landuse* ☐ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: *Date:*

A2 To be completed by the person giving their approval

Name/s and/or organisation: Russell Bezzant

Property address: 111 Dunning Rd RD4 Cambridge

Postal address: same as above ☑

Contact phone number(s): [redacted]

Ownership of your property: *I/We: own* ☑ *occupy* ☐ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

1) I/We have sighted all the attached plans and supporting information for the above activity; and

*2) I/We hereby **give approval** for the proposal to be considered by the Waipa District Council without public notification; and*

*3) I/We understand that, **if I give my approval**, Waipa District Council will not take into account any effects that the proposed activity may have on me/us, when considering whether this application should be notified (Section 95E of the Resource Management Act 1991) and whether the application should be granted (Section 104(3) of the Resource Management Act 1991).*

I/we have signed and dated the plans and supporting information ☐ *(please tick)*

Signature/s: RBezzant *Date:* 2/10/19

PTO for further information

The information you have provided on this form is required so that the applicant's resource consent application can be processed under the Resource Management Act 1991, and so Council staff can contact you if required. The form will be stored on the relevant property file, and held by the Council, and the information provided on it may be made publically available. If you have any concerns about providing any of the information on the form, please contact Council's Planning Administration team to discuss prior to returning this form to the applicant. If you would like to request access to, or correction of your details at any time, please contact the Council.

Version 23/04/14

Written Approval of Potentially Affected Party

Waipa District Council

Resource Management Act 1991

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A1 To be completed by the person requesting approval

Applicant:

Type of Resource Consent: *Landuse* ☐ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: *Date:*

A2 To be completed by the person giving their approval

Name/s and/or organisation: Jason Farrow

Property address: 11 Anning Rd.

Postal address: same as above ☑

Contact phone number(s): [redacted]

Ownership of your property: *I/We: own* ☑ *occupy* ☐ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

1) I/We have sighted all the attached plans and supporting information for the above activity; and

*2) I/We hereby **give approval** for the proposal to be considered by the Waipa District Council without public notification; and*

*3) I/We understand that, **if I give my approval**, Waipa District Council will not take into account any effects that the proposed activity may have on me/us, when considering whether this application should be notified (Section 95E of the Resource Management Act 1991) and whether the application should be granted (Section 104(3) of the Resource Management Act 1991).*

I/we have signed and dated the plans and supporting information ☐ *(please tick)*

Signature/s: Jason Farrow *Date:* 9/10/19

PTO for further information

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Waipa District Council

Resource Management Act 1991

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Approval by person(s) potentially affected by an application for a Resource Consent/ Change of Condition/s.
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PR

A1 To be completed by the person requesting approval

Applicant:

Type of Resource Consent: *Landuse* ☐ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: *Date:*

A2 To be completed by the person giving their approval

Name/s and/or organisation: DAVIES & DELOS REYES

Property address: 103 Whitehall Road

Postal address: same as above ☐ RD 4 Cambridge 3496

Contact phone number(s): [redacted] [redacted]

Ownership of your property: *I/We: own* ☑ *occupy* ☐ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

1) I/We have sighted all the attached plans and supporting information for the above activity; and

*2) I/We hereby **give approval** for the proposal to be considered by the Waipa District Council without public notification; and*

*3) I/We understand that, **if I give my approval**, Waipa District Council will not take into account any effects that the proposed activity may have on me/us, when considering whether this application should be notified (Section 95E of the Resource Management Act 1991) and whether the application should be granted (Section 104(3) of the Resource Management Act 1991).*

I/we have signed and dated the plans and supporting information ☐ *(please tick)*

Signature/s: [signature] *Date:* 19/9/19

PTO for further information

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Version 23/04/14

Written Approval of Potentially Affected Party

Waipa DISTRICT COUNCIL

Resource Management Act 1991

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Approval by person(s) potentially affected by an application for a Resource Consent/ Change of Condition/s.
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For office use only
PH

A1 To be completed by the person requesting approval

Applicant:

Type of Resource Consent: *Landuse* ☐ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: *Date:*

A2 To be completed by the person giving their approval

Name/s and/or organisation: KARAPIRO MOTORS (1975) LTD

Property address: 719 TIRAU RD KARAPIRO 3496

Postal address: same as above ☐ PO BOX 271 CAMBRIDGE

Contact phone number(s): [redacted]

Ownership of your property: *I/We: own* ☒ *occupy* ☐ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

1) I/We have sighted all the attached plans and supporting information for the above activity; and

*2) I/We hereby **give approval** for the proposal to be considered by the Waipa District Council without public notification; and*

*3) I/We understand that, **if I give my approval**, Waipa District Council will not take into account any effects that the proposed activity may have on me/us, when considering whether this application should be notified (Section 95E of the Resource Management Act 1991) and whether the application should be granted (Section 104(3) of the Resource Management Act 1991).*

I/we have signed and dated the plans and supporting information ☐ *(please tick)*

Signature/s: *Date:* 25/01/19

PTO for further information

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Version 23/04/14

Waipa DISTRICT COUNCIL

Written Approval of Potentially Affected Party

Resource Management Act 1991

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For office use only
Pd

Approval by person(s) potentially affected by an application for a Resource Consent/ Change of Condition/s.
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A1 To be completed by the person requesting approval

Applicant:

Type of Resource Consent: *Landuse* ☐ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: *Date:*

A2 To be completed by the person giving their approval

Name/s and/or organisation: D Raigart

Property address: 137 Kakepuko Rd.

Postal address: same as above ☑

Contact phone number(s): [redacted]

Ownership of your property: *I/We: own* ☑ *occupy* ☐ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

1) I/We have sighted all the attached plans and supporting information for the above activity; and

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I/we have signed and dated the plans and supporting information ☑ *(please tick)*

Signature/s: [signature] *Date:* 5 2 19.

PTO for further information

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A1 To be completed by the person requesting approval

Applicant:

Type of Resource Consent: *Landuse* ☐ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: *Date:*

A2 To be completed by the person giving their approval

Name/s and/or organisation: Michael and Cai Schonberger

Property address: 3/207 Whitehall Road Cambridge

Postal address: same as above ☑

Contact phone number(s): [redacted]

Ownership of your property: *I/We: own* ☑ *occupy* ☑ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

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I/we have signed and dated the plans and supporting information ☑ *(please tick)*

Signature/s: [signature] *Date:* 29 Jan 2019

PTO for further information

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Resource Management Act 1991

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For office use only:
P#

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Applicant:

Type of Resource Consent: *Landuse* ☐ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: *Date:*

A2 To be completed by the person giving their approval

Name/s and/or organisation: G & S Atkinson

Property address: 253 Whitehall Road RD4 Cambridge

Postal address: same as above ☑

Contact phone number(s): [redacted]

Ownership of your property: *I/We: own* ☑ *occupy* ☐ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

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I/we have signed and dated the plans and supporting information ☑ *(please tick)*

Signature/s: G. Atkinson *Date:* 25/1/19

PTO for further information

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Version 23/04/14

G. A.

Written Approval of Potentially Affected Party

Waipa District Council

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Approval by person(s) potentially affected by an application for a Resource Consent/ Change of Condition/s.
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Pπ

A1 To be completed by the person requesting approval

Applicant:

Type of Resource Consent: *Landuse* ☐ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: *Date:*

A2 To be completed by the person giving their approval

Name/s and/or organisation: Winston Aggregates

Property address: 253 Whitehall Rd RD4 Cambridge

Postal address: same as above ☑

Contact phone number(s): [redacted]

Ownership of your property: *I/We: own* ☐ *occupy* ☐ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

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I/we have signed and dated the plans and supporting information ☑ *(please tick)*

Signature/s: [signature] *Date:* 25-10-2019

PTO for further information

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A1 To be completed by the person requesting approval

Applicant:

Type of Resource Consent: *Landuse* ☐ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: *Date:*

A2 To be completed by the person giving their approval

Name/s and/or organisation: Ken Blundell & Nicola Wayte

Property address: 57 Whitehall Road Cambridge

Postal address: same as above ☑

Contact phone number(s): [redacted]

Ownership of your property: *I/We: own* ☑ *occupy* ☐ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

1) I/We have sighted all the attached plans and supporting information for the above activity; and

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I/we have signed and dated the plans and supporting information ☑ *(please tick)*

Signature/s: [signature] [signature] *Date:* 31/1/19

PTO for further information

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Approval by person(s) potentially affected by an application for a Resource Consent/ Change of Condition/s.
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For office use only:
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A1 To be completed by the person requesting approval

Applicant:

Type of Resource Consent: *Landuse* ☑ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: ***Date:***

A2 To be completed by the person giving their approval

Name/s and/or organisation: M L W. & R A. Gardiner.

Property address: 159 Whitehall Rd

Postal address: same as above ☐ R.D.4, Cambridge 3496

Contact phone number(s): [redacted]

Ownership of your property: *I/We: own* ☑ *occupy* ☐ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

1) I/We have sighted all the attached plans and supporting information for the above activity; and

*2) I/We hereby **give approval** for the proposal to be considered by the Waipa District Council without public notification; and*

3) I/We understand that, if I give my approval, Waipa District Council will not take into account any effects that the proposed activity may have on me/us, when considering whether this application should be notified (Section 95E of the Resource Management Act 1991) and whether the application should be granted (Section 104(3) of the Resource Management Act 1991).

I/we have signed and dated the plans and supporting information ☑ *(please tick)*

Signature/s: M L W Gardiner ***Date:*** 22/6/20

PTO for further information

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Version 23/04/14

MLWG

Giving written approval as an affected person(s)

*The applicant named on this form is seeking approval from Council for a **planning (resource) consent and/or building consent.***

*Under the Resource Management Act 1991, **in certain circumstances** resource consent applicants must obtain written approval from every **person potentially affected** by the granting of the consent. If approvals are obtained, Council may decide the application does not need notifying, and public submissions will not be requested.*

*Before asking for your approval, the applicant must provide you with a detailed explanation of the proposal. You should see a description of the proposal including plans and a list or explanation of possible effects on the natural and built environment and on people. This is called an **assessment of environmental effects (AEE).** The applicant should explore with you ways of dealing with any likely or significant adverse (bad) effects the proposal may have on you; and consider amending the proposal to avoid, remedy or mitigate (reduce) the adverse effects.*

What happens if I give my approval?

*If you decide to give the applicant written approval for their resource consent application, the law states that Waipa District Council **will not have regard** to any effect the activity may have on you. Please note that you **cannot** include any requirements or conditions with your written approval.*

NOTE: IF YOU DO NOT UNDERSTAND WHAT THIS FORM IS, OR DETAILS ABOUT THE APPLICATION ASSOCIATED WITH THIS FORM, OR YOU DO NOT CONSENT TO THIS PROPOSAL, DO NOT SIGN THE FORM.

What happens if I do not want to give my approval?

*If Council considers that you are a person/s who may be adversely affected by the proposed activity, and you **do not** sign this form; Council will write to you ("serve notice"). If this occurs you will receive a copy of the application from Council. You will have 20 working days from the date of notice being served to lodge a submission to the application. If submissions in opposition are received, Council will hold a public hearing and make a decision to either grant or decline the application.*

If Council considers the environmental effects of the proposed activity will be more than minor or that there are special circumstances; it will publicly notify the application (i.e. in the newspaper). You will also be notified if this occurs.

*Please note that by law the Council **must approve applications for Controlled Activities** even if you refuse written approval, but Council can put conditions on the approval to address likely adverse effects on you.*

What happens if I gave my approval, then change my mind later?

*You have the right to withdraw any written approval you have given on this form, **provided** Council receives notice in writing that your approval is withdrawn before the date of the hearing (if a hearing is held) or otherwise **before** the date of determination of the application.*

MLWS

Still have questions?

Written Approval of Potentially Affected Party

Waipa District Council

Resource Management Act 1991

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Approval by person(s) potentially affected by an application for a Resource Consent/ Change of Condition/s.
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For office use only:
P#

A1 To be completed by the person requesting approval

Applicant:

Type of Resource Consent: *Landuse* ☐ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: *Date:*

A2 To be completed by the person giving their approval

Name/s and/or organisation: Paul & Irene Gardiner

Property address: 16 Dunning Rd, Cambridge, RD4. 3496

Postal address: same as above ☑

Contact phone number(s): [redacted]

Ownership of your property: *I/We: own* ☑ *occupy* ☐ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

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I/we have signed and dated the plans and supporting information ☑ *(please tick)*

Signature/s: [signature] *Date:* 22/6/2020

PTO for further information

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Version 23/04/14

Giving written approval as an affected person(s)

*The applicant named on this form is seeking approval from Council for a **planning (resource) consent and/or building consent.***

*Under the Resource Management Act 1991, **in certain circumstances** resource consent applicants must obtain written approval from every **person potentially affected** by the granting of the consent. If approvals are obtained, Council may decide the application does not need notifying, and public submissions will not be requested.*

*Before asking for your approval, the applicant must provide you with a detailed explanation of the proposal. You should see a description of the proposal including plans and a list or explanation of possible effects on the natural and built environment and on people. This is called an **assessment of environmental effects (AEE).** The applicant should explore with you ways of dealing with any likely or significant adverse (bad) effects the proposal may have on you; and consider amending the proposal to avoid, remedy or mitigate (reduce) the adverse effects.*

What happens if I give my approval?

*If you decide to give the applicant written approval for their resource consent application, the law states that Waipa District Council **will not have regard** to any effect the activity may have on you. Please note that you **cannot** include any requirements or conditions with your written approval.*

NOTE: IF YOU DO NOT UNDERSTAND WHAT THIS FORM IS, OR DETAILS ABOUT THE APPLICATION ASSOCIATED WITH THIS FORM, OR YOU DO NOT CONSENT TO THIS PROPOSAL, DO NOT SIGN THE FORM.

What happens if I do not want to give my approval?

*If Council considers that you are a person/s who may be adversely affected by the proposed activity, and you **do not** sign this form; Council will write to you ("serve notice"). If this occurs you will receive a copy of the application from Council. You will have 20 working days from the date of notice being served to lodge a submission to the application. If submissions in opposition are received, Council will hold a public hearing and make a decision to either grant or decline the application.*

If Council considers the environmental effects of the proposed activity will be more than minor or that there are special circumstances; it will publicly notify the application (i.e. in the newspaper). You will also be notified if this occurs.

*Please note that by law the Council **must approve applications for Controlled Activities** even if you refuse written approval, but Council can put conditions on the approval to address likely adverse effects on you.*

What happens if I gave my approval, then change my mind later?

*You have the right to withdraw any written approval you have given on this form, **provided** Council receives notice in writing that your approval is withdrawn before the date of the hearing (if a hearing is held) or otherwise **before** the date of determination of the application.*

Still have questions?

Waipa DISTRICT COUNCIL

Written Approval of Potentially Affected Party

Resource Management Act 1991

To Waipa District Council, Private Bag 2402, Te Awamutu 3840
Phone. 0800 924 723 | Fax. 07 872 0033 | Web www.waipadc.govt.nz | Email info@waipadc.govt.nz

Approval by person(s) potentially affected by an application for a Resource Consent/ Change of Condition/s.

Before you sign this form, please read the information on the back of this form.

For office use only

PH

A1 To be completed by the person requesting approval

Applicant:

Type of Resource Consent: *Landuse* ☐ *Subdivision* ☐ *Amendment of existing consent* ☐

Address for correspondence:

Contact phone number(s):

Proposed activity:

Location of site:

Signature of applicant/s or agent: *Date:*

A2 To be completed by the person giving their approval

Name/s and/or organisation: Casey

Property address: 308 Whitehall Road

Postal address: same as above ☑

Contact phone number(s):

Ownership of your property: *I/We: own* ☐ *occupy* ☐ *rent* ☐ *the property (tick relevant boxes)*

I/We state as follows:

1) I/We have sighted all the attached plans and supporting information for the above activity; and

*2) I/We hereby **give approval** for the proposal to be considered by the Waipa District Council without public notification; and*

*3) I/We understand that, **if I give my approval**, Waipa District Council will not take into account any effects that the proposed activity may have on me/us, when considering whether this application should be notified (Section 95E of the Resource Management Act 1991) and whether the application should be granted (Section 104(3) of the Resource Management Act 1991).*

I/we have signed and dated the plans and supporting information ☐ *(please tick)*

Signature/s: J Casey *Date:* 27/1/19

PTO for further information

The information you have provided on this form is required so that the applicant's resource consent application can be processed under the Resource Management Act 1991, and so Council staff can contact you if required. The form will be stored on the relevant property file, and held by the Council, and the information provided on it may be made publically available. If you have any concerns about providing any of the information on the form, please contact Council's Planning Administration team to discuss prior to returning the form to the applicant. If you would like to request access to, or correction of your details at any time, please contact the Council.

Jan & Ray 27/1/19.

Version 23/04/14

Expressed traffic concerns at peak times - French Pass Rd. option is a difficult one.

Chairman and Treasurer
Gaylene Roberts, 2/3 Margaret Street Putaruru.
Mobile: 027 652 6661 Email: ngaiwitoopuowaipa@gmail.com

Secretary
Hazel Wander, 23 Te Kanawa Street, Otorohanga, 3900 Ph: (027) 7138704
Email: hazel_wander@yahoo.com.au

18 June, 2020 *digitally delivered*

Festival One Ltd
Box 25-779, St Heliers
Auckland, New Zealand

Tēnā Koutou,

At a meeting held the members of Ngā Iwi Toopu o Waipā moved to write a letter to the Summer Festival Charitable Trust in support of the festival being held at Hartford Farm, 209 Whitehall Road, Karapiro.

We understand that the 4-day Christian music festival is held annually over the Auckland Anniversary weekend and attended from the young and elderly. We recognize and support the festival organisers in that the event is drug and alcohol free.

Ngā Iwi Toopu o Waipa also support Kaumātua Mat Hakiaha, Paul Samuels and Sonny Karena in conjunction with Ngati Haua and their support for the festival.

Nāku noa
Naa,

Gaylene Roberts
CHAIR – NGĀ IWI TOOPU O WAIPA

NZ TRANSPORT AGENCY
WAKA KOTAHI

Level 1, Deloitte Building

24 Anzac Parade
PO Box 973, Waikato Mail Centre
Hamilton 3240
New Zealand
T 64 7 958 7220
F 64 7 957 1437
www.nzta.govt.nz

19th May 2020

Graham Burt
c/- Gray Matter Ltd
Attn: Melanie Parsons

Dear Melanie,

Relocation of 'Festival One' Event- 209 Whitehall Road, Karapiro

Thank you for submitting your client's proposal to the NZ Transport Agency (Transport Agency) for comment. As you will appreciate, millions of dollars are invested in the transport network each year and the Transport Agency has an interest in ensuring this investment is not compromised, including by ensuring land use and subdivision do not impact on the safety and efficiency of the transport network.

The Transport Agency understands that the applicant is seeking resource consent to annually hold the 'Festival One' event from a new location at 209 Whitehall Road, Karapiro. The event will take place over a period of four days (Auckland Anniversary weekend). The festival would allow public access from 6am Friday morning (parking only, ticketing/event access not active until 10am) until 2pm Monday afternoon.

The Transport Agency understands that the applicant intends to grow the event over a period of several years, from the existing 3,300 tickets to a maximum of 10,000 tickets. The total number of people on site at any time will be approximately 12,000. All access to the site will be via Whitehall Road.

A Festival One app will be available for attendees to help influence the routes people will choose to travel to and from the festival.

Based on the information provided, the Transport Agency requires the conditions outlined below to be met so as to avoid and/or mitigate adverse effects on the network. Subject to these conditions being met, the Agency is **not opposed** to the proposed activity.

Conditions

1. Prior to any increase over 8,000 attendees, an assessment of the monitoring and count data and effectiveness of the transport mitigation shall be prepared and presented to the NZ Transport Agency and Waipa District Council for review and approval, with any required changes implemented prior to the following festival event.

2. Prior to any increase over 10,000 attendees, there shall be a review of the consent conditions to identify any additional mitigation measures required to avoid or remedy adverse effects on the state highway network.

3. The consent holder shall undertake event specific monitoring undertaken by a suitably qualified traffic engineer with results provided to the Transport Agency and Waipa District Council within two months after the event taking place. The report is to include the following information as minimum:

    a) Summarised data of volumes, arrival and departure profile and any other collected information of interest to the road controlling authority to inform of the impacts to the road network during the Festival One.
    b) Review of the traffic management.
    c) Traffic or traffic management related complaints.
    d) Delays by direction at the SH1/Karapiro Road intersection.
    e) Maximum queue length for all approaches.
    f) Debrief of any incidents of network disruptions that occurred on the recommended routes to Festival One and the response.
    g) Recommendations for future improvements.
    h) Appendix of raw data.
    i) Any remedial works and mitigation required prior to the next Festival One.

4. A Corridor Access Request (CAR) application shall be submitted to and approved by the NZ Transport Agency prior to any event taking place. Approval will be subject to temporary traffic management (TTM) proposed by the applicant which shall include the following as a minimum:
    a) An event specific traffic management plan (TMP) that has been undertaken by a suitably qualified person experienced in major events and is in accordance with the latest version of CoPTTM. The TMP shall include an approval from a suitably and independent CoPTTM qualified personnel prior to lodgement with the Transport Agency. The TMP shall include, but not limited to the following:
        i. Signage on preferred routes. Which are to be erected no more than 24 hours prior to the commencement of the event and removed no more than

24 hours following the event on the state highway. Berm reinstatement following removal of any stands or posts.

ii. Use of variable message signs.

iii. Contingency measures to minimise traffic impacts in the event of weather and road incidents on the state highway and/or local road.

iv. Role of manual traffic controllers.

v. Method of communication across the TTM extents and with the STMS and back-up.

vi. Requirements for vehicles exiting the site travelling towards Auckland and Hamilton to turn left and use the local road network to the State Highway 1/Victoria Road Interchange until such time that the State Highway 1/Karapiro Road intersection is upgraded by the Transport Agency to either have a roundabout or grade separation.

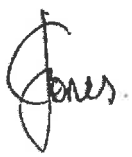
Note: due to the size of the events and complexity, it is recommended that the applicant submits a CAR application for approval at least 45 working days prior to an event.

To apply for any authorisations/approvals or for confirmation that conditions of your resource consent have been met, please contact the Transport Agency directly on consentsandapprovals@nzta.govt.nz.

Please be aware that this response is the Transport Agency's current view of the situation. If your application changes or is put on hold for any length of time, the Transport Agency may need to review the application again.

Thank you for undertaking consultation with us. Please feel free to contact me if you have any questions or require further information.

Yours sincerely



Claudia Jones

Consultant Planning Advisor

DDI: 07 958 9614

Email: claudia.jones@nzta.govt.nz