

## PERTH &amp; KINROSS COUNCIL

## Licensing Committee – 16 June 2015

PUBLIC ENTERTAINMENT LICENCE – T IN THE PARK, STRATHALLAN  
ESTATE, AUCHTERARDER

## Report by Head of Legal Services

**PURPOSE OF REPORT**

The purpose of this report is to ask the Committee to consider an application by D F Concerts for a public entertainment licence in respect of the T in the Park event at Strathallan Estate, Auchterarder, to seek approval for revised conditions to be attached to the licence and to delegate authority to the Head of Legal Services in consultation with the Convenor of the Licensing Committee, to make any necessary adjustments to the conditions if required prior to the event.

**1 BACKGROUND/MAIN ISSUES**

- 1.1 This report deals with an application for a three year public entertainment licence at Strathallan Estate, Auchterarder in respect of the T in the Park event. The application is attached at Appendix 1. This is a large popular music festival which previously took place at Balado Airfield, Kinross.
- 1.2 The site upon which it is proposed that the event takes place comprises a main arena, a production area, car parks, transport hubs and camping areas. The applicants are seeking to sell 85,000 tickets for the event. It is proposed that the event will be open to the public over a period of five days from 1100 on Thursday 9 July with the arrival of campers, to 1600 on Monday 13 July.
- 1.3 The proposed hours for music in the main arena are 1300 to 2400 on Friday 10 July and 1000 to 2400 on Saturday 11 July and Sunday 12 July. The proposed hours for campsite musical entertainment are 1400 to 2400 on Thursday 9 July and 1000 to 0200 on Friday 10 July, Saturday 11 July and Sunday July 12.
- 1.4 As in previous years, operational groups made up of representatives from the relevant public authorities have been considering the proposed arrangements for this very large event. These operational groups have met on several occasions throughout the past year. The bodies represented amongst these groups include Police Scotland, Scottish Fire and Rescue, NHS Tayside, SEPA, Scottish Water, the Scottish Ambulance Service, the Drugs and Alcohol Action Team Partnership, Transport Scotland, Traffic Scotland (traffic management service for Scotland's strategic roads network), and Citylink. They also include representatives from The Environment Service and Chief Executives Service. Individual officers from Council Services and other involved agencies have also had direct contact with the applicants in respect of their fields of interest. As part of the formal licensing consultation, the statutory consultees, Police Scotland and the Scottish Fire and Rescue Service have also been formally consulted about the application.

- 1.5 Committee members will be aware of the recent application for planning permission which was granted on 14 May 2015 (Appendix 2) for changes of use of land and associated operations for the purpose of holding the T in the Park event at Strathallan Estate, Auchterarder. There is a significant duplication in the objections submitted to the planning application and those submitted in respect of the public entertainment licence application. The fact that planning permission has been granted does not necessarily mean that the Licensing Committee cannot consider the objections which are common to both applications. However, the Licensing Committee should be slow to refuse the public entertainment licence application on the basis of an objection already considered as part of the planning process unless it can be shown that the Development Management Committee's reasoning was flawed or that a new issue has arisen. The objectors have been advised that the Licensing Committee were likely to receive this advice.
- 1.6 Seven letters of objection/observation to the application have been submitted (Appendix 3). The reasons for objecting include concerns about:
- the sufficiency of the size of the site;
  - security;
  - the figures provided to Police Scotland being inaccurate;
  - access by emergency services;
  - road traffic management issues.
  - numbers of campers;
  - control of pedestrians;
  - vandalism;
  - noise levels;
  - impact on the environment;
  - litter;
  - pollution of water supply;
  - sufficiency of water supply;
  - off-site camping;
  - risk of injury from falling branches;
  - risk of drowning;
  - risk of electrocution;
  - the proximity of the site to the storage of aviation fuel;
  - risk of catching Lyme's Disease from ticks;
  - the loss of amenity as a consequence of fencing being erected around properties;
  - the grass in sown fields not being ready for camping;
  - there being a legal right of access over the site.
- 1.7 The matters that the Committee should have regard to when considering whether or not to grant the licence are set out in paragraph 5(3), Schedule 1 to the Civic Government (Scotland) Act 1982 (Appendix 4).
- 1.8 The opportunity has been taken to review the conditions that were attached to the previous licence for the event when it took place at Balado. The revised conditions incorporate seven management plans which individually address

the key management issues to ensure a safe event. These conditions are set out in (Appendix 5) and a table of these management plans is attached to the conditions. The conditions place the onus on the licence holder to prepare the management plans with the assistance of the relevant agencies through operational sub-groups. The Multi-Agency Strategic Group which includes representatives from Police Scotland; Scottish Fire and Rescue; NHS Tayside; the Scottish Ambulance Service; Scottish Water; D.F. Concerts; and the Council meets twice a year to consider the strategic direction of the Event has been consulted about the proposed amendments to the licensing conditions. There have been no objections to the proposals by them.

- 1.9 If the revised conditions require to be amended before the event it is proposed that the Committee delegate authority to change the conditions to the Head of Legal Services in consultation with the Convenor of the Licensing Committee to avoid having to arrange a special Licensing Committee at short notice.
- 1.10 Prior to the event if there is any breach of the licensing conditions that could have an adverse impact upon public safety, this will be reported to the Head of Legal Services who will decide whether or not the licence should be suspended. The Head of Legal Services has delegated powers under the Council's Scheme of Administration to suspend the licence in terms of paragraph 12, Schedule 1 to the Civic Government (Scotland) Act 1982 where the carrying on of the activity to which the licence relates has caused or is likely to cause undue public nuisance, a threat to public order or public safety.
- 1.13 In the event of a public safety or public nuisance issue, it will be important to make an informed, early decision on whether to suspend the licence. The Silver Commander will liaise directly with the Head of Legal Services if there are circumstances which may require a suspension of the licence, and the Head of Legal Services will decide whether or not to suspend the licence.
- 1.11 Council staff will be on duty during the operation of the event and command structures follow conventional public service arrangements for large scale events, with officers on duty at the following levels:
  - Gold – offsite strategic command (Executive Director)
  - Silver – onsite tactical command (e.g. Depute Director, Head of Service, or Senior Manager)
  - Bronze – on site operational commanders responsible for their own areas (e.g. Environmental Health, Building Standards)
- 1.12 During the event the Council's Silver Commander can make on site assessments as they will receive reports from Council staff and other agencies, and have been heavily involved in the multi-agency meetings dealing with any issues that occur.

## **2 PROPOSALS**

- 2.1 It is proposed that the Committee considers the application for the public entertainment licence. If the Committee decides to grant the application, the

conditions set out in Appendix 5 to the licence should also be considered along with any other conditions that the Committee considers appropriate.

- 2.2 It is also proposed the Committee agrees to delegate authority to the Head of Legal Services in consultation with the Convenor of the Licensing Committee, to make any necessary adjustments to the conditions prior to the event in July 2015.

### **3 CONCLUSION AND RECOMMENDATION(S)**

- 3.1 It is recommended that:-

- 1 the Committee considers application.
- 2 if the Committee decides to grant the application, they should also consider the conditions set out in Appendix 5 to the licence together with other conditions it considers appropriate.
- 3 the Committee delegates authority to the Head of Legal Services in consultation with the Convenor of the Licensing Committee, to make any necessary adjustments to the conditions attached to the licence prior to the event in July 2015.

#### **Author(s)**

<b>Name</b>	<b>Designation</b>	<b>Contact Details</b>
Moina McLaren	Solicitor	01738 475136

#### **Approved**

<b>Name</b>	<b>Designation</b>	<b>Date</b>
Ian Innes	Head of Legal Services	11 June 2015

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All Council Services can offer a telephone translation facility.

## 1. IMPLICATIONS, ASSESSMENTS, CONSULTATION AND COMMUNICATION

<b>Strategic Implications</b>	<b>Yes / None</b>
Community Plan / Single Outcome Agreement	<b>none</b>
Corporate Plan	<b>none</b>
<b>Resource Implications</b>	
Financial	<b>none</b>
Workforce	<b>none</b>
Asset Management (land, property, IST)	<b>none</b>
<b>Assessments</b>	
Equality Impact Assessment	<b>none</b>
Strategic Environmental Assessment	<b>none</b>
Sustainability (community, economic, environmental)	<b>none</b>
Legal and Governance	<b>yes</b>
Risk	<b>yes</b>
<b>Consultation</b>	
Internal	<b>yes</b>
External	<b>yes</b>
<b>Communication</b>	
Communications Plan	<b>none</b>

## 2. Assessments

### 2.1 Equality Impact Assessment

- Under the Equality Act 2010, the Council is required to eliminate discrimination, advance equality of opportunity, and foster good relations between equality groups. Carrying out Equality Impact Assessments for plans and policies allows the Council to demonstrate that it is meeting these duties.
- Although the report is assessed as not relevant for the purpose of EqIA the event is considered relevant for this purpose and therefore the applicant has been asked to provide a copy of their Equalities policy to the Licensing Authority.
- Issues of disability access have also been addressed with within the Structures and Fire Safety Management Plan.

### 2.2 Strategic Environmental Assessment

- The Environmental Assessment (Scotland) Act 2005 places a duty on the Council to identify and assess the environmental consequences of its proposals.
- No further action is required as the report does not qualify as a PPS as defined by the Act and is therefore exempt.

### 2.3 Risk

- There is a financial risk to the Council of incurring legal expense if the Council has to defend in court the Committee's decision to grant or refuse the licence.
- There are also significant risks with an event of this size which have been addressed through the numerous Management Plans that form part of the licensing conditions.

## 3. **Consultation**

### 3.1 Internal

- Planning and Transportation Services; Environment Services; Corporate Services.

### 3.2 External

- Police Scotland; Scottish Fire and Rescue; NHS Tayside; SEPA; Scottish Water; the Scottish Ambulance Service; DAAT Partnership; Transport Scotland; Traffic Scotland; Citylink

## 4. **APPENDICES**

Appendices:

1. Application for public entertainment licence
2. Planning permission
3. Letters of Objection
4. Paragraph 5(3), Schedule 1 to the Civic Government (Scotland) Act 1982.
5. Draft conditions

PE 295  
(New)**APPLICATION FOR A LICENCE/RENEWAL OF A LICENCE****PUBLIC ENTERTAINMENT – COMPANY OR PARTNERSHIP***Please read the Guidance Notes before you complete this form*

1. Full name of Company or Partnership	DF CONCERTS LIMITED			
Trading name (if different)				
2. Company Registration Number (for Limited Companies)	SC333566			
3. Address (including postcode) of registered or principal office	WHITEHALL HOUSE 33 YEAMAN SHORE DUNDEE DD1 4BJ			
4. Full names, date and place of birth and home address (including postcode) of all directors, partners or other persons responsible for the management of the business	Full Name	Date of Birth	Place of Birth	Home Address
	GEOFF ELLIS			
	COLIN PAUL RODGER			
5. Full name, date and place of birth and home address (including postcode) of the employee or agent who is to carry on the day to day management of the business	Full Name	Date of Birth	Place of Birth	Home Address
	ASHLEY CLAIRE LOUISE MILES			

6. Contact details - Business Manager	Telephone	Mobile	E-mail
7. Please list all current convictions against the Company/ Partnership and any director, partner or managers.	Date	Court	Offence
8. Has your Manager lived in the UK for at least 10 years?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, please see guidance notes)		
9. Licence applied for	New <input type="checkbox"/> 1 year <input type="checkbox"/> 3 years <input type="checkbox"/> Renewal <input type="checkbox"/> 1 year <input type="checkbox"/> 3 years <input type="checkbox"/> Temporary <input checked="" type="checkbox"/> 3 years Current Licence Number (For renewals only)		
10. Name and address (including postcode) of premises or site for which the licence is required	T IN THE PARK FESTIVAL SITE STRATHALLAN ESTATE AUCHTERARDER PH3 1JZ		
11. Name and address (including postcode) of owner of site if different from applicant	MS ANNA ROBERTS STRATHALLAN CASTLE STRATHALLAN ESTATE AUCHTERARDER PH3 1JZ		
12. Specify the type(s)/ nature of public entertainment or recreation to be carried on within the premises or site	MUSIC FESTIVAL		



13. State the days and times of operation	Days or Dates: THURSDAY 9 <sup>TH</sup> - MONDAY 13 <sup>TH</sup>	Times: FROM 7AM ON THURSDAY 9 <sup>TH</sup> - 4PM ON MONDAY 13 <sup>TH</sup> * <i>*additional information included in attached sheet.</i>	Months of the Year: JULY
14. State the maximum number of persons proposed to be admitted to the premises/site/event at any one time and <b>enclose a copy of your fire risk assessment</b>	92,500		
15. Give details of Public Liability Insurance Cover and <b>enclose a copy of the policy</b>  If you do not have your insurance details yet, please mark "to follow"	Name of Company Royal & SunAlliance Insurance plc & Westchester Fire Insurance Company & Allied world Insurance Co & XL Insurance Company and Ironshore Europe Ltd.	Policy No.  YMM824299 & G2197936008 & 0305-0614 & US00044096LFI13 A and B0823WE1200547	Indemnity  Up to £25,000,000
16. Have you previously held or do you currently hold a public entertainment licence?	Yes <input checked="" type="checkbox"/>	Date licence issued  6 <sup>th</sup> JULY 2013	Date of expiry  6 <sup>th</sup> JULY 2015
	Name of Issuing Authority  PERTH & KINROSS COUNCIL		
17. Have you ever applied for and been refused a public entertainment licence?	No <input type="checkbox"/>		
	Yes <input checked="" type="checkbox"/>	When were you refused  2012	Which authority refused your licence  GLASGOW CITY COUNCIL
18(a) Is planning consent required?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
(b) If yes, have you been granted planning consent?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
	Date planning approved		
	Planning Reference 15/00081/FLM		

CHECKLIST		
I have	Please tick	
	Yes	No
• Made or enclosed payment of the fee for the application	X	
• If my Manager has not lived in the UK for 10 years I have enclosed a letter from his/her home country confirming that he/she has/has not got any convictions	N/A	
• I have enclosed a copy of my Fire Risk Assessment		X
• I have enclosed a copy of my current Public Liability Insurance Policy	X	
• I have enclosed a location plan	X	
• I have enclosed an internal sketch plan of the premises	X	
• I have displayed the Site Notice and confirm I will return the Compliance Notice after 21 days to certify that I have complied with the display notice requirement.	X	

#### **Data Protection Act 1998**

The information provided by you and by relevant third parties will be used in determining your application for the Grant/Renewal of a Public Entertainment Licence. Information may also be shared with Statutory Bodies for the purpose of prevention or detection of fraud or crime. This may include both personal and other details being shared with other appropriate professionals, service providers and other bodies responsible for auditing or administering public funds for these purposes, in particular each application will be forwarded to the Police.

In terms of the Data Protection Act 1998, you are entitled to know what personal information Perth and Kinross Council hold about you, on payment of a fee of £10. Application should be made to the Head of Legal Services, 2 High Street, Perth PH1 5PH. Further information is available on our website at [www.pkc.gov.uk/dataprotection](http://www.pkc.gov.uk/dataprotection) or by contacting Donald Henderson, Information Compliance Manager, Chief Executives – Legal (01738 477930), who can also provide hard copies of information available on our website.

I declare that the particulars given by me on this form are true. I consent to the sharing of my personal information for the purposes set out above.

Signature of applicant/agent .....

Date .....

24/4/15

**It is an offence to make any statement in this application which you know to be false or to recklessly make any statement which is false in a material particular. Offences are punishable by a fine up to £1,000.**

# PERTH AND KINROSS COUNCIL

DF Concerts Limited  
c/o Bell Ingram  
Catherine Newton  
Durn  
Isla Road  
Perth  
PH2 7HF

Pullar House  
35 Kinnoull Street  
PERTH  
PH1 5GD

Date 14 May 2015

Town and Country Planning (Scotland) Acts.

Application Number **15/00081/FLM**

I am directed by the Planning Authority under the Town and Country Planning (Scotland) Acts currently in force, to grant your application registered on 20<sup>th</sup> January 2015 for planning permission for Change of use of land and associated operations for the purpose of holding annual music festival including permanent works relating to water supply and drainage, access and engineering works and temporary works relating to event site preparation and decommissioning at Strathallan Castle Estate Strathallan subject to the undernoted conditions.

Development Quality Manager

## Conditions referred to above

- 1 Consent is hereby granted to allow for the construction and permanent retention of all permanent physical works as outlined in the Environmental Statement and Addendum.

Reason - These works are considered to be acceptable in terms of national, regional and local policy.

- 2 Consent is hereby granted for a temporary period only for the hosting of a single music festival event and associated temporary works on this site in 2015, 2016 and 2017 only.

Reason - To limit the number of events to be held on the site and to inform future assessment of the impact of the development on this site.

- 3 The proposed development must be carried out in accordance with the approved drawings and documents, unless otherwise provided for by conditions imposed on the planning consent.

Reason - To ensure that the development is carried out in accordance with the plans approved.

- 4 Prior to any build works associated with each annual music festival, a phased, comprehensive and detailed multimodal Transport Management Plan (TMP) shall be submitted to and approved in writing by the Planning Authority in consultation with the Roads Authority (PKC and Transport Scotland) and Police Scotland. This shall include a comprehensive Transport Communications Management Plan and shall provide the details requested in Transport Scotland's consultation response dated 17 April 2015. The TMP requires to be phased such that no build or break site traffic (referred to as build traffic) is permitted until that phase of the TMP is approved in writing. Additionally, no event traffic is permitted until the event phase TMP is approved in writing. The details of the phased TMP, as approved each year, shall be strictly adhered to during the relevant phases of the event.

Reason - To detail how adverse impacts on the safe and efficient operations of the transport network arising from the event will be minimised and managed.

- 5 Prior to use by either build or event traffic, specific to that location, all affected vehicular accesses shall be formed in accordance with specification Type B, Fig 5.6 access unless otherwise agreed in writing with the Planning Authority in consultation with the Roads Authority.

Reason - In the interests of pedestrian and traffic safety

- 6 Prior to any build works associated with each annual music festival all road improvements identified in the Transport Management Plan shall be implemented in accordance with appropriate specifications to be approved in writing by the Planning Authority in consultation with the Roads Authority.

Reason - In the interests of pedestrian and traffic safety

- 7 Prior to the commencement of event phase traffic flows, all road improvements associated with upgraded accesses on private land as identified as access roads within the TMP shall be implemented in accordance with appropriate specifications to be approved in writing by the Planning Authority in consultation with the Roads Authority.

Reason - In the interests of pedestrian and traffic safety

- 8 Prior to any build works associated with each annual music festival, a plan detailing the extent of the public road network affected by the hosting of the music festival, shall be agreed in writing with the Planning Authority in consultation with the Roads Authority.

Reason - In the interests of pedestrian and traffic safety

- 9 Prior to any build works associated with each annual music festival, a road condition survey of the affected roads, as agreed under condition 8, shall be undertaken at the expense of the developer in conjunction with the Roads Authority. A report detailing the condition of the affected roads shall be submitted to the Planning Authority as public record.

Reason - To identify the condition of the road network prior to the event.

- 10 Immediately upon completion of the break phase, each year, a further roads condition survey shall be undertaken at the expense of the developer in conjunction with the Roads Authority to identify relevant deterioration resulting from festival related traffic.

Reason - To establish any deterioration of the road network as a result of the event and to inform the need for a Section 96 agreement to make good exceptional deterioration of the local road network due to festival traffic.

- 11 Prior to any build works associated with each annual music festival the developer shall agree, in conjunction with the Council's Public Transport Unit, including notifying the Scottish Traffic Commissioner, measures to ensure the effective management and resultant variations to the current public transport arrangements during the festival. This shall include, at the developer's expense, any additional resources required to be put in place by the Council's Public Transport Unit to maintain current public transport provision.

Reason - To ensure that public transport provision for the local community is not detrimentally impacted upon during the event.

- 12 Prior to the 2016 and 2017 annual music festival, the developer shall maintain and update the PARAMICS Traffic Flow Model and undertake annually at their expense, a traffic survey of all traffic movements during each festival, at locations to be agreed with the Roads Authority to understand, confirm and inform future updates to the Strategic Festival Traffic Management Plan.

Reason - In the interests of pedestrian and traffic safety.

- 13 During build and break phases of the music festival event permitted by this consent, reinforced track surfacing for ground protection to site access, service roads and car park entrances within the application site shall be laid, and utilised by vehicles, and shall remain in place for the duration of the event itself.

Reason - To clarify the extent of the permission for the avoidance of doubt and to ensure details are acceptable to the Council as Planning Authority to safeguard the water environment in the interests of amenity.

- 14 The hours of operations during the site preparation, build and break shall be restricted to 0700 hours to 1900 hours Monday to Friday and 0800 hours to 1700 Saturday to Sunday unless otherwise agreed in writing with the Council as Planning Authority.

Reason - In the interests of residential amenity

- 15 All plant or equipment shall be so enclosed, attenuated and/or maintained such that any noise therefrom shall not exceed Noise Rating 35 between 0700 and 2300 hours daily, or Noise Rating 25 between 2300 and 0700 hours daily, within any neighbouring residential property, with all windows slightly open, when measured and/ or calculated and plotted on a rating curve chart.

Reason - In the interests of residential amenity

- 16 All external lighting shall be sufficiently screened and aligned so as to ensure that there is no direct illumination of neighbouring land and that light spillage beyond the boundaries of the site is minimised, to the satisfaction of the Council as Planning Authority.

Reason - In the interests of residential amenity

- 17 All toilet facilities within campsite areas, other than toilet facilities within the campsite for the disabled, shall be located at least 100m from the nearest residential properties, all to the satisfaction of the Council as Planning Authority.

Reason - In the interests of residential amenity

- 18 During and on completion of the event each year all watercourses in the confines of the site shall be inspected and cleared of any impediments likely to create any obstruction to the free flow of water; all to the satisfaction of the Council as Roads Authority.

Reason - In the interests of visual amenity; to ensure a satisfactory standard of local environmental quality and in accordance with the adopted development plan.

- 19 The soffit level of any temporary bridge over any watercourse shall be designed to be a minimum of height of the equivalent 1 in 30 year flood return period and any permanent foundations shall set back from the existing bank profile.

Reason - In the interests of best practise; to reduce flood risk.

- 20 Surface Water runoff shall be managed on site by implementing SUDS in accordance with the principles of the SUDS (Sustainable Drainage Systems) Manual (C697) published by CIRIA. Any changes to the SUDS details outlined in the ES shall be agreed in advance with the Planning Authority in consultation with SEPA.

Reason - To reduce flood risk.

- 21 At least one month prior to the commencement of each annual music festival event authorised by this permission a site and event specific Environmental Management Plan, fully detailing the mitigation and contingency measures outlined in the Environmental Statement and Addendum and incorporating operational plans for sanitation, waste management, water management, drinking water, flood prevention measures (including flood warning and evacuation), drainage management, construction methods, environmental monitoring, pollution incident response and a wet weather contingency plan shall be submitted to and approved in writing by the Planning Authority in consultation with SEPA and SNH. This document should address the details and requirements outlined in SEPA's consultation response dated 9th February 2015 (ref:PCS/138067) and PKC Environmental Health's consultation response dated 24th February 2015 regarding the protection of private water supplies. The approved mitigation and contingency measures shall be put in place for each annual event in accordance with those approved details.

Reason - To clarify the extent of the permission for the avoidance of doubt and to ensure details are acceptable to the Council as Planning Authority to safeguard the water environment in the interests of amenity.

22 Development shall not commence until an independent and suitably qualified Ecological Clerk of Works (ECoW) or Environmental Manager has been appointed at the developers expense. Details of this appointment shall be subject to the prior written approval of the Planning Authority. The appointed person will remain in post for the duration of permanent site works, operation of the event and subsequent decommissioning of the event each year. The ECoW or Environmental Manager in representation of the Planning Authority relating to this development shall have responsibility for the following:

- a) Implementation of the Environmental Management Plan (EMP) approved by this permission.
- b) Authority to stop operations or to alter construction methods should there be any works occurring which are having an adverse impact on the natural heritage.
- c) Prior to the commencement of development they shall provide an environmental / ecological tool box talk for construction staff.
- d) They will have authority to amend working practices where required. Any amendments shall be submitted to the Council as Planning Authority as an addendum to the approved EMP.
- e) They shall notify the Council as Planning Authority in writing of any requirement to halt development in relation to this condition as soon as reasonably practicable.
- f) Ensure all protection and mitigation measures outlined within the ES and submitted species protection plans are fully adhered to.

The above shall be implemented to the satisfaction of the Council as Planning Authority during each year of the event and during all permanent construction works.

Reason - To minimise disturbance to ecology, protected species and sensitive areas during all stages of the event.

23 All waste water generated during the event shall be collected and taken off site for proper disposal.

Reason- In the interests of protection the environment.

24 The clearance of waste, litter and other debris from the application site and generated by each annual music festival permitted by this consent shall be completed within 14 days following the closure of the music festival site to the public.

Reason - In the interests of visual and residential amenity

25 A minimum 15-30m fenced buffer zone shall be erected around all watercourses and sensitive features in accordance with Environmental Statement and Addendum. The fencing used should not unduly impede the flow of water. The fencing shall prohibit public access to the relevant sensitive features and shall remain in place throughout the duration of each annual music festival.

Reason - In order to protect sensitive features on the site.

- 26 The area of wetland (M23b) identified in Section 9.48 and 9.88 of the ES shall be fenced off prior to each annual music festival event to prevent incursion into this area during all phases of the development and shall be retained during all phases of the music festival until decommissioning is complete all to the satisfaction of the Council as Planning Authority.

Reason - To protect the area of wetland.

- 27 Within 6 months of the date of this decision, details of alternative artificial nesting sites for Kingfisher shall be submitted to and approved in writing by the Planning Authority in consultation with RSPB and SNH. The details as approved shall be implemented prior to any build works associated with the 2016 festival.

Reason - In order to provide alternative nesting sites for Kingfisher as a result of the loss of nesting sites within the application site

- 28 All buildings within the application site with potential for nesting birds shall be monitored from February onwards each year and appropriate mitigation carried out should any impact be identified to the satisfaction of the Council as Planning Authority.

Reason - In order to ensure the protection of any nesting bird species.

- 29 Within 6 months of the date of this decision the developer shall supply details, for the written approval of the Planning Authority in consultation with SNH and RSPB, of alternative nesting habitat for ground nesting birds through the retention of some area of rough grass or off site enhancement. The details, as approved in writing, shall be fully implemented.

Reason - To provide alternative habitat for ground nesting birds

- 30 Areas of grassland to be mowed to accommodate the event shall be examined for the presence of ground nesting birds before mowing takes place. Full details of all monitoring methods for ground nesting birds shall be submitted to and agreed in writing by the Planning Authority in consultation with SNH and RSPB prior to the commencement of site works. The monitoring methods, as agreed in writing, shall be fully implemented.

Reason - To ensure the protection of ground nesting birds on site.

- 31 Within the consultation distance (305 metres) of the 10 Feeder Kirriemuir/Braco pipeline as identified on the "Constraints Map (Rev A) Figure 6.1 in the ES Addendum:
- i) No member of the public shall be present with the exception of parking their vehicles and access/egress.
  - ii) Parking provision (except that restricted to the developers or operator's employees in relation to the major music event authorised by this permission or their contracted workforce), shall be in a manned controlled area, solely for vehicles used to transport the public.



- iii) Control shall be put in place to prevent members of the public being present for more than 30 minutes within the consultation zone. This shall include assembly, picnicking, camping, sleeping in vehicles, and dispersion of those attending the event at the end of each day.

Reason - To control the population levels within the pipeline consultation zone.

- 32 No development shall take place within the development site as outlined in red on the approved plan until the developer has secured the implementation of a programme of archaeological works in accordance with a Written Scheme of Investigation which has been submitted by the developer, agreed by Perth and Kinross Heritage Trust, and approved by the Planning Authority. Thereafter, the developer shall ensure that the programme of archaeological works is fully implemented and that all recording and recovery of archaeological resources within the development site is undertaken to the satisfaction of the Planning Authority in consultation with Perth and Kinross Heritage Trust.

Reason - To protect archaeological interests on the site

- 33 Prior to the commencement of works on the tracks associated with the event, full details of the proposed track construction and landscape mitigation for the tracks shall be submitted to approved by the Planning Authority. The works shall be implemented in accordance with those approved details.

Reason - In the interests of visual amenity

- 34 A comprehensive approach to tree protection on site shall be adhered to in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction.

Reason - In order to protect retained trees on site.

- 35 The developer shall ensure that the existing private water supply networks within or affected by the development shall be protected in accordance with paragraphs 5.19 to 5.21 of ES Addendum; Section 5 - Water Management/Private Water Supplies to the satisfaction of the Council as Planning Authority.

Reason - In order to protect PWS.

- 36 The developer shall maintain the private water protective measures put in place before the site works commence and be maintained throughout the period of construction, the event and deconstruction to the satisfaction of the Council as Planning Authority.

Reason - In order to protect PWS

- 37 Prior to any build works associated with each annual music festival a fully detailed Otter Protection Plan (OPP) which can be based upon the OPP contained within Appendix 3 of the ES Addendum shall be submitted to and approved in writing by the Planning Authority consultation with SNH. This shall fully detail the requirements outlined on page 5 of SNH's consultation response dated 24th April 2015 and reflect the comments in the PKC Bio Diversity Officer's consultation response dated 29th April 2015. The OPP, as approved in writing, shall be strictly adhered to during all phases of the festival.

Reason - In order to ensure the protection of otters

- 38 Prior to any build works associated with each annual music festival a fully detailed Bat Protection Plan (BPP) which can be based upon the BPP contained within Appendix 3 of the ES Addendum shall be submitted to and approved in writing by the Planning Authority consultation with SNH. This shall fully detail the requirements outlined on page 5 and 6 of SNH's consultation response dated 24th April 2015 and reflect the comments in the PKC Bio Diversity Officer's consultation response dated 29th April 2015. The BPP, as approved in writing, shall be strictly adhered to during all phases of the festival.

Reason - In order to ensure the protection of bats

- 39 Prior to any build works associated with each annual music festival a fully detailed Red Squirrel Protection Plan (RSPP) which can be based upon the RSPP contained within Appendix 3 of the ES Addendum shall be submitted to and approved in writing by the Planning Authority consultation with SNH. This shall fully detail the requirements outlined on page 6 and 7 of SNH's consultation response dated 24th April 2015 and reflect the comments in the PKC Bio Diversity Officer's consultation response dated 29th April 2015. The RSPP, as approved in writing, shall be strictly adhered to during all phases of the festival.

Reason - In order to ensure the protection of red squirrels

- 40 The developer shall arrange for monitoring of badger activity on the site over a 6 month period. The sett identified within the ES shall be monitored using trail cameras to record use and mitigation provided based upon these findings. Details of the mitigation shall be submitted to and approved in writing by the Planning Authority in consultation with SNH. The mitigation, as approved in writing, shall be strictly adhered to during all operations on site.

Reason - In order to ensure the protection of badgers.

- 41 Prior to any build works associated with each annual music festival an updated Osprey Management Plan (OMP) shall be submitted to and approved in writing by the Planning Authority. This shall contain the mitigation provided in the OMP Draft April 2015 and shall also include the following:

- ornithological monitoring of osprey nests on and adjacent to the site
- use of access tracks adjacent to nests is not permitted
- update the document to ensure the position of all nests within and adjacent to the site are accurately mapped
- propose appropriate mitigation for all osprey nests within and adjacent to the site
- no fireworks are permitted
- the funfair and big wheel shall be located at least 500m from all osprey nests
- provide a detailed layout plan of the event arena

The OMP as approved in writing shall be strictly adhered to during all operations on site and shall be updated, submitted to and approved in writing by the Planning Authority prior to build works commencing on each of the annual music festivals permitted by this consent to take account of the monitoring of the ospreys.

Reason - In order to mitigate impact on ospreys

42 Development shall not commence until an independent and suitably qualified Ornithological Clerk of Works (OCoW) has been appointed at the developers expense. Details of this appointment shall be subject to the prior written approval of the Planning Authority. The appointed person will remain in post for the duration of permanent site works, operation of the event and subsequent decommissioning of the event each year. The OCoW in representation of the Planning Authority relating to this development shall have responsibility for the following:

- a) Implementation of the Osprey Management Plan (OMP) approved by this permission and any subsequent amendments to the OMP.
- b) Authority to stop operations or to alter construction methods should there be any works occurring which are having an adverse impact on breeding birds
- c) Prior to the commencement of development they shall provide an ornithological tool box talk for construction staff.
- d) They will have authority to amend working practices where required. Any amendments shall be submitted to the Council as Planning Authority as an addendum to the OMP.
- e) They shall notify the Council as Planning Authority in writing of any requirement to halt development in relation to this condition as soon as reasonably practicable.
- f) Ensure all protection and mitigation measures outlined within the ES and OMP are fully adhered to

The above shall be implemented to the satisfaction of the Council as Planning Authority during each year of the event and during all permanent construction works.

Reason - To minimise disturbance to protected bird species during all stages of the event.

43 All fencing erected around residential properties shall remain in place for a maximum duration of 14 days to the satisfaction of the Council as Planning Authority.

Reason - In the interests of residential amenity.

### **Justification**

The proposal is in accordance with the Development Plan and there are no material reasons which justify departing from the Development Plan.

### **Informatives**

- 1 Under section 27A of the Town and Country Planning (Scotland) Act 1997 (as amended) the person undertaking the development is required to give the planning authority prior written notification of the date on which it is intended to commence the development. A failure to comply with this statutory requirement would constitute a breach of planning control under section 123(1) of that Act, which may result in enforcement action being taken.

- 2 As soon as practicable after the development is complete, the person who completes the development is obliged by section 27B of the Town and Country Planning (Scotland) Act 1997 (as amended) to give the planning authority written notice of that position.
- 3 The developer is reminded that a Public Entertainment Licence and also an alcohol license are required for the event.
- 4 The developer should ensure that any existing wayleaves for maintenance or repair to existing private water supply or septic drainage infrastructure in the development area are honoured throughout and after completion of the development.
- 5 The developer should be fully aware of the advice and guidance contained within SEPA's consultation responses regarding their regulatory role.
- 6 The developer should be aware of the requirement for Schedule Monument Consent referred to in Historic Scotland's consultation responses dated 5th March 2015 and 16th April 2015.
- 7 The developer should be advised that in terms of section 56 of the Roads (Scotland) Act 1984 he must obtain from the Council as Roads Authority consent to open an existing road or footway prior to the commencement of works. Advice on the disposal of surface water must be sought at the initial stages of design from Scottish Water and the Scottish Environmental Protection Agency
- 8 The developer should open dialogue with the Council and SNH regarding positive implementation of osprey monitoring at Strathallan.
- 9 The developer is advised that there are septic tanks and soakaways or outfall pipes serving neighbouring properties within the site and the surrounding area. The applicant should therefore take all reasonable precautions to ensure their continued operation.
- 10 The developer should ensure that any existing wayleaves for maintenance or repair to existing private water supply or septic drainage infrastructure in the development area are honoured throughout and after completion of the development.
- 11 The developer should be aware of the requirement for licenses from SNH in regard to protected species and should discuss this requirement directly with them.
- 12 The developer should consider the implementation of a series of bio diversity habitat enhancement measures throughout the site.
- 13 The applicant should inform and agree with the Roads Authority all necessary Temporary Traffic Regulation Orders as identified in the Transport Management Plan, and at his expense and with sufficient advanced notice, arrange for such orders to be produced.

**RICHARD C. HASELTINE DLC(Hons) C.Eng F.I.C.E.**

**Ruwa Lodge, 39 Park Village, Turretbank Road, Crieff, Perthshire PH7 4JN**

**Tel : [REDACTED] e-mail : [REDACTED]**

19 May 2015

Head of Legal Services  
Perth and Kinross Council  
Council Building  
2 High Street  
Perth

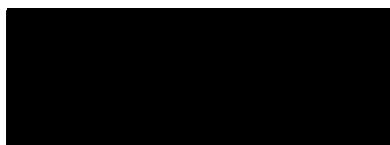
By hand; copy to be signed for as proof of receipt.

Dear Sir,

Objection to  
Application for Public Entertainment Licence  
By DF Concerts at Strathallan Castle

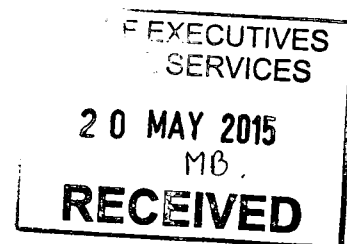
- (a) As required, this objection is made in writing.
- (b) Specific grounds of objection:- No public meeting with Police Scotland has examined public safety, control of off site camping, control of pedestrians on narrow roads around the proposed site, access to private houses around the site in emergency, Fire Service and Rescue access to private houses and to the main site. Satisfactory and suitable plans and answers to all these points need to be provided and approved before the above application can be considered.
- (c) My name and address is as shown above.
- (d) I have signed this objection as shown below.
- (e) I have made this objection in the time required by the Council, and delivered it by hand.

Yours faithfully



R. C. Haseltine

Copy; to be signed for and dated, please:-

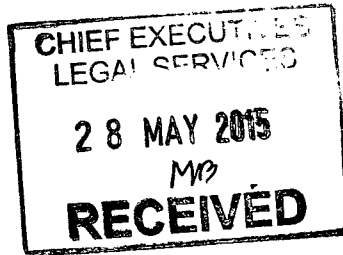




19 May 2015

Your Ref: PE295  
Our Ref: ES/TITP/004

Chief Executive  
Legal Services / Licensing  
Perth and Kinross Council,  
Pullar House,  
35 Kinnoull Street,  
Perth, PH1 5GD



Sir Stephen House QPM  
Chief Constable

Tayside Divisional Headquarters,  
D Division,  
West Bell Street,  
Dundee  
DD1 9JU

email: [REDACTED]

Dear Sir / Madam

**Civic Government (Scotland) Act 1982 - Consultation on application for Public Entertainment License - PE295 - DF Concerts**

**T in the Park Music Festival Site, Strathallan Estate, Auchterarder, PH3 1JZ**

I write with regards to the above application for a public entertainment licence and associated email of 29 April 2015 and also the request from the PKC Licensing Section to review the T in the Park Licensing Conditions from 2014. The following are the observations on both matters from the perspective of Police Scotland.

**Review of Licensing Conditions from 2014**

In my view, the terms of the conditions laid out in the Public Entertainment Licence granted for T in the Park in 2014 remain largely valid, relevant for transfer onto the new site, subject to the following specific observations and requests for amendment;

Section 1.1.2 makes reference to the Health and Safety Executive Guide - it is understood that this guide is now owned by the Events Industry Forum rather than the HSE.

Section 1.1.9 as amended in 2014 is agreed, with specific importance being attached to the requirement to submit plans no later than 28 days before the event. This is considered essential to allow comprehensive planning to take place in support of delivery of a safe event.

Section 1.1.12 and the associated table; Police Scotland are now a substantive member of the group developing the Safety and Health and Wellbeing Plan. I would be grateful if the contents of the table be amended to reflect this change in circumstances. In

addition, and in support of the requirement contained in section 1.1.9 for plans to be submitted no later than 28 days prior to the event, I consider it would be useful if favourable consideration were given to aligning the completion dates for all plans to the same time frame. I believe this to be particularly important in the first year of the event at a new site to allow adequate time for implementing the arrangements in the completed plans.

In the associated table within this section and in relation to the specific plans for which Police Scotland are noted as a relevant agency, it should be noted that at this stage none of these plans are complete. Given the collapsing timeframe there is some risk that one or more of these plans may not be completed successfully within the required timescale.

Specifically, at the time of compiling this response, and in relation to the Crowd Management, Stewarding and Policing Plan, Police Scotland are yet to have sight of the elements of this plan required by DF Concerts and their security provider, Showsec. Over and above this situation, it should further be noted that despite regular and extended dialogue with DF Concerts the policing plan we believe necessary to support the delivery of a safe event has not been agreed.

On that basis, it is therefore currently impossible for an assessment to be made as to whether or not the event can be delivered safely in this regard.

Section 2.4 currently stipulates that not less than 7 days prior to the event the licence holder must provide sets of 'agreed maps'. These maps are critical to the safe delivery of the event as they are used to provide grid references for every area of the site, requiring considerable data input to upload all locations, onto command and control systems for the event. Successful completion of this process is essential to ensure effective and accurate deployment of resources to any incident which may occur. In that context and due to this being the first year at this venue, we request that the current requirement be amended to at least 21 days prior to the event.

Section 2.6 makes requirements with regards to adequate lighting. It is understood that there is discussion ongoing within the traffic management group regarding pedestrian routes being adequately lit around the site and as such it would be recommended that the licensing authority, following completion of the traffic management plan, ensure that this element of the licence requirement has been suitably met for public safety and should be specifically considered as part of the pre-event inspection.

Section 3.4 makes reference to camping, we would request amendment to this condition for the inclusion as follows; *'or agreed by the licensing authority and the 'relevant Emergency Services'*

Section 6.1 regarding the default position is noted and we believe this should remain in place for the conditions of this year's licence.

We anticipate that other interested parties may make similar requests to alter the conditions as articulated for the 2014 event. I would be grateful therefore if, following consolidation of all suggested changes into a revised document, a further opportunity for consultation is afforded.



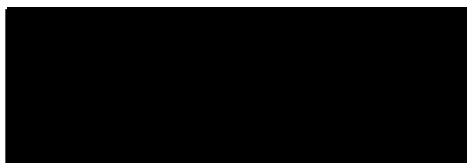
## Conclusion

As articulated throughout the planning process, Police Scotland remain committed to working with all parties to ensure their interests are understood and addressed throughout the planning and the licensing process.

At the time of writing no agreement has been reached between Police Scotland and DF Concerts with regards to the policing plan. From our perspective, a comprehensive plan has been produced by Police Scotland, to safely support delivery of the event in mitigation of the prevailing risks and vulnerabilities associated with the event. Should this matter continue without resolution, and in the ongoing absence of how these risks will be managed by DF Concerts, then Police Scotland believe that the level of policing resource proposed by DF Concerts is insufficient to allow us to police the event safely.

Should you require any further information in relation to the content of this letter, please do not hesitate to contact myself or Superintendent Colin Brown [colin.brown@scotland.pnn.police.uk](mailto:colin.brown@scotland.pnn.police.uk).

Yours faithfully,



Chief Superintendent Eddie Smith  
D Division Commander





3 Allanfield  
Tullibardine  
PH3 1FN

20 May 2015

Head of Legal Services  
Chief Executive's - Legal  
Perth & Kinross Council  
Pullar House  
35 Kinnoull Street  
Perth  
PH1 5GD

Dear Sir,

**Objection to Public Entertainment Licence - DF Concerts, Strathallan Estate, Auchterarder**

I would like to object to the above PEL applications on the following grounds:

**TRAFFIC MANAGEMENT PLAN**

- (i) DFC has stated that the traffic volume on Friday 10th July has been reduced due to attendees arriving on Thursday 9th July. Using DFC projected data this results in around 46,500 attendees arriving on Thursday which is in excess of the 2014 daily attendance allowance set by PKC of 40,000.

I would also like to make representations that the number of campers arriving on the Thursday should be reduced to the 2013 levels at Balado of 30,000. PKC have already acknowledged the Strathallan site is very different in its nature than Balado. There are a number of residential properties either within or immediately adjacent / surrounded by the proposed festival site. Reducing the number of campers to the 2013 limit of 30,000 will help to mitigate the level of disturbance to local residents, the majority of whom have work on the Friday morning.

- (ii) The TMP fails to include any traffic volumes for the 7,500 staff, arriving on the Wednesday 8<sup>th</sup> or Thursday 9<sup>th</sup> July and will leave on Sunday 12<sup>th</sup> or Monday 13<sup>th</sup> July. Given the City Link Bus network is not operational on Wednesday then we must assume the majority of these employees / volunteers travel by private car, adding a significant number of additional traffic movements. Using DFCs average of 2.8 people per car, this would create an additional 5,500 traffic movements. Likewise, no operational traffic has been factored into the traffic volumes (eg. deliveries, waste disposal etc.).
- (iii) The TMP uses unclassified single track roads (i) Tullibardine Station passed Tullibardine Chapel to A823 and (ii) Drumness Farm to A823 Machany Road. These roads will be main egress routes during hours of darkness and are unlit. Given high risk of driver fatigue, or dare I say alcohol consumption, there may be a higher risk of accidents on

these sections. How will emergency vehicles gain access? Likewise, should there be an engine fire, how will the emergency services gain access?

The TMP assumes a flow rate of c1,360 vehicles per hour on these sections. However, it is unclear what factor if any has been applied to these flow rates to accommodate the impact of traffic control systems on this section of the network. A study by Richard Sweet of Somerset Council [http://www.trics.org/conference12/richard\\_sweet.pdf](http://www.trics.org/conference12/richard_sweet.pdf) on traffic flows on single track roads suggests a flow rate of around 300 vehicles per hour is more realistic. This would have a significant impact on the ability to clear the drop-off and car parks during egress. The HSE has identified a risk in the East Car Park from the adjacent HP gas pipeline and recommends a maximum stay of 30 minutes. How will the TMP ensure that the flow rate will not result in cars and passengers being stuck in this car park for longer than 30 minutes?

- (iv) PKC Road Department are responsible for verifying the effectiveness of the TMP on local road network. PKC does not have any in-house expertise in relation to traffic flow models and therefore PKC should engage an independent traffic flow expert to verify the accuracy of the DFC TMP submission. It is not good enough to rely on the applicants TMP without independently verifying the data, particularly given PKC themselves are the body responsible for this section of the TMP. A review of the plan by Andrew Carrie, an experienced and respected traffic consultant, raises serious failing in the TMP, I trust you have all read his report?

- (v) During the construction phase the TMP makes use of an unmade road (a field) which exits at Stewarts Building Supplies. The TMP provides no detail of how these roads will be constructed or and how they will operate if the underlying ground becomes unsuitable. There is also no contingency route identified in the event that these routes are unsuitable. In addition they are in close proximity, possibly driving over, two HP gas pipelines. Has the pipeline operator been contacted?

The Road Sweep Survey identifies a number of corners (12) on both the construction and event traffic routes that will require vehicles to cross onto the opposite carriageway in order to navigate the corner or bend. In a number of instances these are also 'blind corners'. The TMP only provides for temporary traffic lights to be in place during the event which means there is a significant risk to normal road users caused by construction vehicles being on 'wrong' side of the road at sharp corners. There is no mitigation plan for this risk. This is a particular concern for construction traffic at Easthill Road, Tullibardine Station and the Tullibardine War Memorial junction as all construction traffic passes these corners on 'wrong side' of road.

- (vi) The likely scenario of traffic problems in local roads will increase the probability of pedestrians walking to other locations to be 'picked-up'. DFC does not factor this risk into the current TMP. Likewise they do not factor the significant number of patrons walking to satellite campsites, many of which are already taking bookings.

During the construction phase DFC plan to drive thousands of trucks down narrow country roads which have no pedestrian footpaths or cycle paths. The local community use these roads to walk their dogs, jog, cycle etc. The use of this route as the main construction traffic route poses a serious risk to pedestrians and cyclists. There is no proposed mitigation in the TMP.

## SITE CAPACITY

- (i) Camping - DFC quoted the square footage per person for camping at Balado as 5.5m<sup>2</sup> at the DMC meeting on 12 May 2015, despite their documentation stating it was 7m<sup>2</sup>. Likewise, their documentation states Strathallan will have 10m<sup>2</sup> per person, however, at the same meeting DFC stated it would be 7m<sup>2</sup> (point 384 DMC report). So just what is the figure? It would appear no one knows.
- (ii) I have prepared a rough calculation and I fail to see how DFC will achieve the 7m<sup>2</sup>, the minimum standard ascribed to camping for the event.
- (iii) As noted in the DMC Report (point 384) a detailed site plan was requested in letters of representation, but none appears to have been provided. It is therefore unknown exactly what land is designated for use, and exactly what land has been set aside for the many buffers and set-off distances required for residential properties. Buffers are required for bat roosts, red squirrels, the weather station, trees and woodland, flood plain, aviation fuel, among other site features. In response to this very serious issue PKC state in the report *"given the applicant's experience in hosting events where camping makes up a significant proportion of the site it is considered that the applicant has sufficient experience to be able to ascertain the required level of space for campers at an event of this nature."* As demonstrated at the meeting, DFC do not have this knowledge, they struggled to answer very basic questions on this subject matter

In addition, what account has been taken of the fact that some of the fields (at North Mains, at Bernie Wood, and in the strip between North Mains and the main arena) may not be ready for use as campsites by the time the festival is set to start? They have only been ploughed / sown in the last week - photo attached.

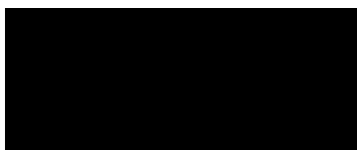
- (iv) Critically, the police have based their planning on the assumption that the figures are accurate; if the figures are wrong, they will have insufficient resources in place to support the safe delivery of the event. It is not difficult to envisage what will follow if the event sells out and it transpires that the figures are wrong, meaning that festival-goers with tickets arrive expecting to be able to access a campsite but find themselves turned away by stewards because the campsite is full. The crowd safety aspects (people looking to gain unauthorised access to the site by clambering over fences; possible violence as stewards deal with festival-goers being turned away; pressure on satellite camp sites; trespass as people look to camp out anywhere in the vicinity of the estate, with or without the landowner's permission; illegal parking; night-time fires, off-site vandalism, uncontrolled sanitation, litter, and noise) are immediately apparent.
- (v) The assertion, at point 384 of the Report, that it is *'in the applicant's interest to ensure there is adequate space available on the site for campers'* fails properly to take account of the very significant consequences which would be felt by many others if the numbers are wrong. It would be a dereliction of duty not to hold the applicant to a more stringent standard of disclosure on such a fundamental issue of public order.

## OTHER HSE ISSUES

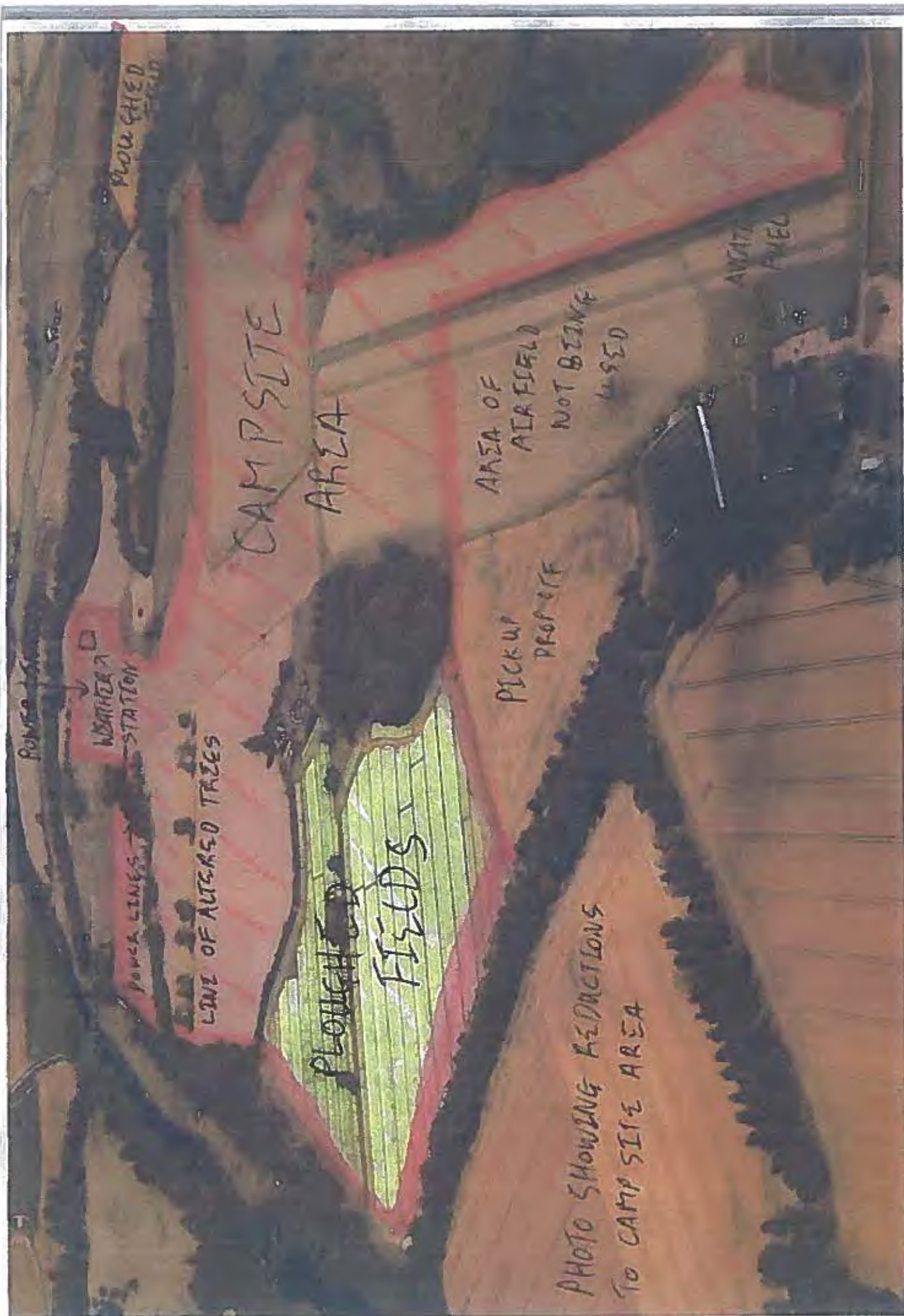
- (i) There is a glaring omission in DFCs submissions regarding the very large quantity of highly inflammable aviation fuel stored in the tanks at Strathallan airfield. The plan proposes people camping on the airfield and camper vans located in the adjacent field.
- (ii) There is a risk of people swimming in the nearby River Earn, possibly heading back to a satellite campsite in the evening, intoxicated and unable to sensibly assess the dangers. It is unclear from the submission by DFC what the emergency services intend to do in this event, indeed it is rather alarming that DFC have said on numerous occasions once the patrons are offsite they are no longer their responsibility.
- (iii) Electricity lines over the campsite are low and easily reached when putting up tent poles. There is therefore a risk of electrocution. If such areas are to be fenced off, how does this impact on the space available for camping?
- (iv) There are no fire hydrants, which is a major issue for local homes and/or the campsite where there is no mains water and where the private water supply will be totally insufficient to cope with the demands in the case of a fire.
- (v) An entomological survey (not done) would have revealed a healthy population of Ticks on site, particularly where the campsite is to be located. Festival goers need to be made aware of the correct way to remove a tick and the symptoms of Lyme's Disease so that they can seek urgent medical attention.
- (vi) All trees which have had their lower limbs removed are now a potential hazard of sudden branch drop. As such all such trees should be fenced off.
- (vii) There is a serious public health issue concerning the Private Water Supply, which both DFC and the landowner are choosing to ignore. Many of the residential properties are located on a plateau of highly permeable soil structure, should there be a fracturing of the water pipe there is a high possibility of osmosis into the water supply.

On the basis of the significant number of traffic, health and safety issues raised in this letter, the PEL should be refused.

Yours faithfully

A large black rectangular box used to redact the signature of Mr & Mrs Kipps.

Mr & Mrs Kipps





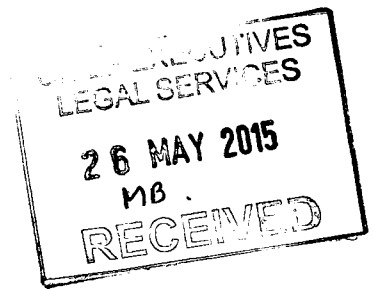
YELLOW AREA ON AERIAL PHOTO





Hillcrest, Thornhill St, Muthill, Crieff, PH5 2AD

Chief Executives - Legal Services,  
Perth and Kinross Council,  
Pullar House,  
35 Kinnoull Street,  
Perth, PH1 5GD



May 21, 2015

Dear Sir/Madam

Re: DF Concerts Application for a Public Entertainment Licence for T in the Park Music Festival, to be held at Strathallan Castle Estate, July 9-13, 2015

I should like to object to the above application. I have tried to access documents associated with this application - TMP, Crowd management plan, Safety Health and Wellbeing Plan, Structures and Fire Safety Plan, Environment Plan etc - to no avail. I will assume therefore that, given this application was submitted on April 24, 2015, the content of these documents is similar to information presented in planning application Ref: 15/00081/FLM

My major concerns are as follows:

1. **Site capacity:** Has a detailed site map been produced, to take into account the many buffers and set-off distances required? What account has been taken, for instance, of the fact that some of the fields (at North Mains, at Bernie Wood, and in the strip between North Mains and the main arena) may not be ready for use as campsites by the time the festival is set to start? The second osprey nest will require a buffer which would make a significant incursion into an area currently designated for camping - what account has been taken of this? Other buffers are needed for bat roosts, the weather station, trees, archaeological features and the flood plain etc.

Where specific figures have been made available, they appear unreliable. For instance, DFC have informed a local resident whose land adjoins the 'Citizen T' zone that the zone is to accommodate 3,500 campers. DFC provided a map of the zone showing two camping areas and buffers but not specifying acreage. Our estimate of the size of the two camping areas combined is 18,382 square metres. This is enough space for only 1,838 people at 10 square metres per person, or 2,626 people at the 'minimum standard' of 7 square metres.

Critically, **the police have based their planning on the assumption that the figures are accurate**; if the figures are wrong, they will have insufficient resources in place to support the safe delivery of the event. The Police Response states the following, under 'Use of Land':

*'Planning for the policing operation to support the safe delivery of the event is predicated upon an assumption that the land allocated for the purpose of camping is of*

*a sufficient size to safely accommodate the projected crowd, should all available tickets be sold.'*

It is not difficult to envisage what will follow if the event sells out and it transpires that the figures are wrong, meaning that festival-goers with tickets arrive expecting to be able to access a campsite but find themselves turned away by stewards because the campsite is full. The crowd safety aspects (people looking to gain unauthorised access to the site by clambering over fences; possible violence as stewards deal with festival-goers being turned away; pressure on satellite camp sites; trespass as people look to camp out anywhere in the vicinity of the estate, with or without the landowner's permission; illegal parking; night-time fires, off-site vandalism, uncontrolled sanitation, litter, and noise) are immediately apparent.

## **2. Traffic & Transport:**

i Using DFC's own data, 47,000 campers are predicted to arrive on Thursday. However, this would be in breach of the 40,000 limit agreed. Has the TMP then taken into consideration the additional 7,000 people - a significant increase - who now must arrive on Friday?

ii How will the **emergency services** access the Machany and Tullibardine chapel roads - two single track-roads - particularly during Monday morning when traffic jams are anticipated?

iii Is there a clear strategy for **emergency access** to local residents in the entire Strathearn area? How will ambulances leave the area quickly to get to a suitable hospital (PRI or Ninewells)?

3. A **gas pipeline** runs beneath East Car Park. SEPA has stipulated that no vehicle should remain in this area for longer than 30mins. How will DFC ensure this requirement will be met, given the mass exodus of traffic on Monday morning and anticipated traffic jams?

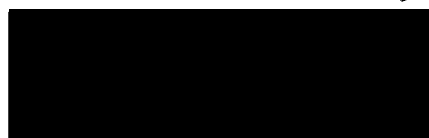
4. Has a **pedestrian route** been agreed between the site and Auchterarder? The Castleton route - initially suggested - is also used for local traffic. How will this B-listed road accommodate one-way traffic, pedestrians and temporary street lights, particularly at its narrowest points? If a pedestrian route has not been agreed, there will be very obvious safety issues, particularly on Monday morning when festival-goers leave on mass. DFC have stated they will take no responsibility for attendees once they leave the site; this is unacceptable.

5. Site layout: There are several **choke-points** - particularly the bridges - where crushing could occur.

6. Site topography: There are several **steep slopes** around the site - by Citizen T campsite, and between the airfield campsites and the main arena - which could become dangerous, particularly in wet weather.

I trust these points will be given due consideration in view of the serious issues of public safety involved.

Yours faithfully

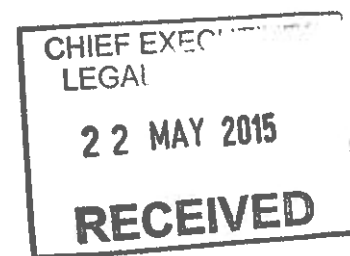


Alexandra  
MacKintosh

Caroline Greene  
The Byre  
Dolleriemuir Farm  
Crieff PH7 3NX

21st May 2015

Head of Legal Services  
Chief Executive's - Legal  
Perth and Kinross Council  
Pullar House  
35 Kinnoull Street  
Perth  
PH1 5GD



## **Objection relating to application for Public Entertainment Licence at Strathallan Estate, Auchterarder, PH3 1JZ**

Dear Sir,

After attending the planning meeting where permission was granted to DF Concerts to hold T in the Park at Strathallan Castle and hearing the surprising result I am counting upon you to weigh the importance of your decision carefully.

I believe that the local authority, in making their decision to allow T in the Park to take place at Strathallan Castle, has:

### **Erred in Law**

DF Concerts erected a cherry picker next to an osprey nest on Strathallan Estate and whenever the Osprey tried to land in its nest, they raised and lowered the platform which had CDs and reflective balloons tied to it. The operatives who were on the platform and at the bottom shouted to each other and whistled every time the osprey was seen circling its nest. In the week leading up to Easter the birds started building their nest, it therefore being deemed "active". Clear footage of this happening was finally obtained on Easter Sunday yet the operatives, despite having seen the evidence continued illegally to obstruct the bird's nest-building activity. Police were called and charges are pending.

Furthermore, Tom Gray does not recognise the law regarding osprey preservation. He clearly stated to all present at the planning meeting on 13th May that ospreys are a pest.

The local authority has also:

### **Based their decision on many incorrect material facts:**

- The maps upon which Perth and Kinross Council have based their decision are incomplete. There is no final plan of the area available for camping with all buffers marked. DFC state this as being 10m<sup>2</sup> per camper in their application but at the planning meeting on 13th May they stated this as being 7m<sup>2</sup>. One resident whose home is beside the Citizen T campsite was told by DFC that it would hold 3,500 campers. Without yet knowing the buffers for overhead power lines and possibly an emergency services area, the area is reduced to around 18,363m<sup>2</sup>. This

equates to 5.2m<sup>2</sup> per person. So the figures are not known.

Justification for this disparity was that some people will share a tent and some tents are bigger than others. This information is vague. Based on vague information they will only know when the campsite is full when nobody else can be squeezed in. When this happens and people with a considerable financial outlay at stake are turned away, is when local residents, PKC and Police Scotland have a problem on their hands and DFC have said time and again, they are not responsible for what happens outside the perimeter.

- There is no evidence to suggest the fencing around the site will reduce noise.
- Within the planning application there is no information regarding cumulative noise and levels have not been estimated for many sites which could have a significant effect on the people living there.
- There is no information regarding the effect on the natural environment of light pollution.
- Full wildlife and environmental surveys have not been carried out so there is no baseline to record the potentially permanent effect of this festival on the flora and fauna of Strathallan Estate.
- Traffic numbers do not include 7,500 staff arriving. Neither do they account for operational vehicles such as deliveries, waste disposal, emergency services, site management etc. Furthermore local and tourist traffic has been ignored. (Discounting the information gathered in a snowy January week when traffic bore no relation to normal summer traffic in this busy tourist destination).
- some roads are so narrow passing is impossible - therefore access by emergency vehicles will be impossible if the traffic on them is stationary.
- The effect of vibration on valuable heritage buildings from traffic and noise has not been considered.
- Pedestrians during the event - there is no knowledge of how many of these there will be, where they will be and where off-site campsites will be.

Perth and Kinross Council has in my opinion also

### **Acted contrary to natural justice**

- There are many well-written, well-thought through letters on the council portal explaining in detail just why the decision to allow this event to go ahead could have disastrous, possibly even fatal results and personal accounts of how certainly this will affect some local people.
- Contrary to that there are many poorly-written letters expressing the sentiment shared by many that because this event is a "rite of passage" it should go ahead.
- Solid steel fencing is due to be erected like prison walls around some of the houses surrounding the estate, blocking out all light in the downstairs of their houses and obscuring the view for the majority of our short Scottish summer.
- High levels of traffic will result in considerable pollution affecting the air quality of local residents, their children and their animals. There are some vulnerable people living around the estate for whom the effect of this pollution could prove injurious to their health.

I believe Perth and Kinross Council have also

## **Exercised their discretion in an unreasonable manner**

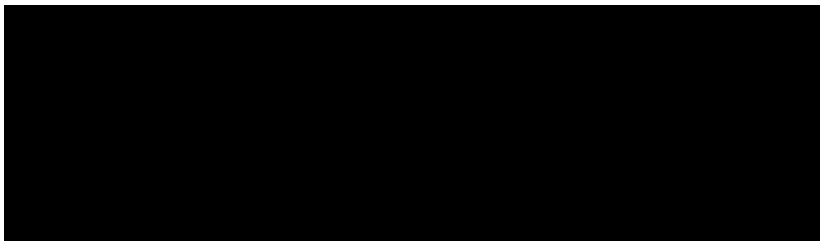
I was at the planning meeting and was amazed to hear the convener's flippant remarks about osprey preservation.

This cavalier attitude to osprey preservation seems to extend to the lives of the people surrounding the estate too. I am concerned about the following threats to health and safety:

- Litter - clear-up on the estate could take 2 weeks, allowing ample time for litter to blow far and wide. There is no evidence of a plan to clear litter outwith the site, potentially causing a hazard and attracting black-backed gulls which will also eat young birds and animals.
- Pollution - the fragile water pipes under the estate frequently fracture. Leaking of raw sewage into the soil could contaminate the water supply of many local residents.
- Cyclists/pedestrians/horse-riders, many of whom are children will be using these normally quiet, narrow roads throughout the summer. There will be a significant increase in heavy-vehicle traffic on these narrow roads making it far more likely that accidents could occur. Crossing the A9 has also not been taken into consideration on any of the traffic consultations I have attended.
- Fire Hydrants - there is no mains water around the estate and the private water supply will not be able to cope in the case of a fire.
- There is to be no alcohol breathalysing or drugs testing - random or otherwise - of the thousands of people leaving the site in their cars on Monday who will have spent the entire weekend drinking and taking drugs.

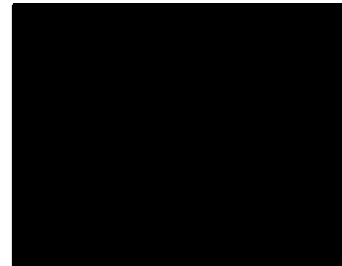
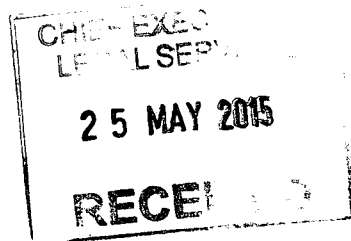
There are 85,000 festival attendees, 7,500 staff and 9,000 people living in the local area who are depending on PKC and DFC to ensure this event goes ahead safely. The local people are also relying on you to ensure they can go about their normal daily lives, before, during and after the event. It is not good enough, in the words of the organisers to "hope", "have confidence" or simply "trust" this event will work at this location. It is only by consideration of all the information that we can KNOW this event will work. The information currently available with only 7 weeks to go is not complete, therefore I suggest until it is, it is not possible to grant them a Public Entertainment Licence.

Yours faithfully,



Caroline Greene





21 May 2015

Head of Legal Services  
Chief Executive's – Legal  
Perth & Kinross Council  
Pullar House  
35 Kinnoull Street  
Perth  
PH1 5GD

Dear Sir,

**Objection to Public Entertainment Licence – DF Concerts, Strathallan Estate, Auchterarder**

I am writing to object to the above licence application. My reasons for this objection are listed below. I have a huge concern about the risk to the health and safety of the public, concert-goers and concert workers. I have raised this concern with the Council on several occasions since September 2014, and I have seen nothing in subsequent documentation that reduces my level of concern.

**Health and Safety:**

I have the following health and safety concerns:

There are gaps in the submission by DFCs application – notably - relating to the large quantity of highly inflammable aviation fuel stored in the tanks at Strathallan airfield. The plan proposes people camping on the airfield and camper vans located in the adjacent field. I believe that this issue illustrates that the speed that this application has been prepared leaves significant risk that it is erroneous and/or missing vital issues.

I understand that DFC is not taking any responsibility for the activities of concert goers once they have left the site. There is a risk of people who are returning to local accommodation and satellite campsites at the end of a day (possibly worse for wear having consumed alcohol) deciding to go for a swim in the River Earn – with the potential of drowning.

Electricity lines over the campsite are low and easily reached when putting up tent poles, presenting the risk of electrocution. I do not believe that the site plan takes into account the impact on space for camping that fencing off these areas will have.

There are no fire hydrants, which is a major issue for local homes and/or the campsite as there is no mains water. The private water supply will be totally insufficient to cope with the demands in the case of a fire.

The site is well known for its healthy population of ticks particularly where the campsite is to be located. Festival-goers need to be made aware of the correct way to remove a tick and the symptoms of Lyme's Disease so that they can seek urgent medical attention.

All trees which have had their lower limbs removed are now a potential hazard. I refer to the incident at Kew Gardens in 2012:

<http://www.theguardian.com/uk-news/2014/jun/16/woman-killed-falling-branch-kew-gardens-coroners-court-accidental-death>

It is only the extensive surveying of the trees by resident arboreal experts (an activity that spanned 15 years) and the careful attention paid to remedial work that protected Kew from the full force of the law in this tragic circumstance. In the case of Strathallan - only one limited survey has been carried out and, as the area is prone to heavy rain and winds, I believe that there is a high risk of trees shedding their branches during the summer. All trees should be fenced off.

#### **Site Size:**

There seems to be a considerable confusion within DFC about the required and available space for camping. I believe that they do not have a confirmed position relating to the provision of camping and I have heard/seen several conflicting figures relating to the available space and density required.

A detailed site plan was requested of DFC, but none appears to have been provided. It is therefore unknown exactly what land is designated for use, and exactly what land has been set aside for the required buffers and set-off distances required for residential properties.



The planning approval is contingent on surveys (not yet done) and buffers for bat roosts, red squirrels, the weather station, trees and woodland, flood plain, aviation fuel, among other site features.

The Council seem content to leave this issue to DFC to resolve. I believe that this is both short sighted and reckless. It is in DFCs interest to “make it work” – the council should have appointed an independent expert to assess the requirement and available space. “Making it work” – will only be possible if there is enough land available – and this is far from certain especially this year as space is exceptionally limited on the site. Late preparations have lead to fields that are earmarked for camping are still ploughed and only recently sown.... There is little chance that these areas will be fit for camping in time for the festival. If the weather is wet, then the impact on surface water run off will be considerable – with soil polluted water flowing into the Earn (a significant salmon river)

What most worries me is that the police have based their planning on the assumption that the figures are accurate; if the figures are wrong, they will have insufficient resources in place to support the safe delivery of the event. Festival-goers **with tickets** may arrive expecting to be able to access a campsite but find themselves turned away by stewards because the campsite is full. The crowd safety implications are worrying (people looking to gain unauthorised access to the site by clambering over fences; possible violence as stewards deal with festival-goers being turned away; pressure on satellite camp sites; trespass as people look to camp out anywhere in the vicinity of the estate, with or without the landowner's permission; illegal parking; night-time fires, off-site vandalism, uncontrolled sanitation, litter, and noise) are immediately apparent.

### **Traffic Management**

DFC has stated that the traffic volume on Friday 10th July has been reduced due to attendees arriving on Thursday 9th July. Using DFC projected data this results in around 46,500 attendees arriving on Thursday.

This is in excess of the 2014 daily attendance allowance set by PKC of 40,000.

Due to the “experimental” approach that the Council seem to be taking to this event and the known and stated risks, I believe that the number of campers arriving on the Thursday should be reduced to the 2013 levels at Balado of 30,000. PKC have already acknowledged the Strathallan site is very different in its nature than Balado. There are a number of residential properties either

within or immediately adjacent / surrounded by the proposed festival site. Reducing the number of campers to the 2013 limit of 30,000 will help to mitigate the level of disturbance to local residents, many of whom have work on the Friday morning.

The TMP does not include the 7,500 staff, arriving on the Wednesday 8<sup>th</sup> or Thursday 9<sup>th</sup> July and leaving on Sunday 12<sup>th</sup> or Monday 13<sup>th</sup> July.

I understand that the City Link Bus network is not operational on Wednesday therefore we must assume the majority of these employees / volunteers travel by private car, adding a significant number of additional traffic movements. Using DFCs average of 2.8 people per car, this would create an additional 5,500 traffic movements. Likewise, no operational traffic has been factored into the traffic volumes (eg. deliveries, waste disposal etc.).

The proposed route uses unclassified single track roads

- (i) Tullibardine Station passed Tullibardine Chapel to A823 and
- (ii) (ii) Drumness Farm to A823 Machany Road.

These roads will be main egress routes during hours of darkness and are unlit. Given high risk of driver fatigue, or possibly alcohol consumption, there will be a higher risk of accidents on these sections. How will emergency vehicles gain access? Likewise, should there be a fire, how will the emergency services gain access?

The TMP assumes a flow rate of c1,360 vehicles per hour on the above sections. However, it is unclear what factor if any has been applied to these flow rates to accommodate the impact of traffic control systems on this section of the network. A study by Richard Sweet of Somerset Council [http://www.trics.org/conference12/richard\\_sweet.pdf](http://www.trics.org/conference12/richard_sweet.pdf) on traffic flows on single track roads suggests a flow rate of around 300 vehicles per hour is more realistic. This would have a significant impact on the ability to clear the drop-off/pickup and car park areas during egress. The HSE has identified a risk in the East Car Park from the adjacent HP gas pipeline and recommends a maximum stay of 30 minutes. Does the TMP ensure that the flow rate will not result in cars and passengers being stuck in this car park for longer than 30 minutes?

PKC Road Department are responsible for verifying the effectiveness of the TMP on local road network. PKC does not have any in-house expertise in relation to traffic flow models and therefore PKC should engage an independent traffic flow expert to verify the accuracy of the DFC TMP submission. IT is highly risky to rely on the applicants TMP without independently verifying the data, particularly given PKC themselves are the

body responsible for this section of the TMP. A review of the plan by Andrew Carrie, an experienced and respected traffic consultant, raises serious failing in the TMP, I trust you have all read his report. You will be aware that media coverage of recent “corporate failings” that have lead to health and safety tragedies often results in negative perceptions of the bodies involved – even though they are “legally” not responsible. I believe that there is an ethical responsibility that the Council has to ensure that the risk is minimised – relying on the applicant in this instance is not sufficient – the council has a duty of care to the local community in this respect.

During the construction phase the TMP makes use of an unmade road (a field) which exits at Stewarts Building Supplies. The TMP provides no detail of how these roads will be constructed or and how they will operate if the underlying ground becomes unsuitable. There is also no contingency route identified in the event that these routes are unsuitable. In addition they are in close proximity, possibly driving over, two HP gas pipelines. Has the pipeline operator been contacted?

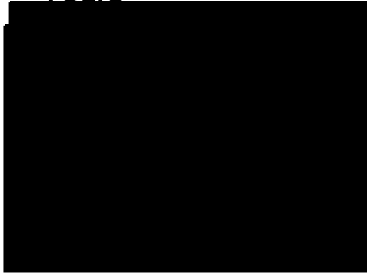
The Road Sweep Survey identifies a number of corners (12) on both the construction and event traffic routes that will require vehicles to cross onto the opposite carriageway in order to navigate the corner or bend. In a number of instances these are also 'blind corners'. The TMP only provides for temporary traffic lights to be in place during the event which means there is a significant risk to normal road users caused by construction vehicles being on 'wrong' side of the road at sharp corners. There is no mitigation plan for this risk. This is a particular concern for construction traffic at Easthill Road, Tullibardine Station and the Tullibardine War Memorial junction as all construction traffic passes these corners on 'wrong side' of road. These are busy junctions for local people travelling between Auchterarder and Crieff.

The likely scenario of traffic problems in local roads will increase the probability of pedestrians walking to other locations to be 'picked-up' as was the case in Balado. My own daughter has twice been collected from a location over a mile from the site with the intent of avoiding the traffic leaving the site. DFC does not factor this risk into the current TMP. Likewise they do not factor the significant number of patrons walking to satellite campsites.

During the construction phase DFC plan to drive thousands of trucks down narrow country roads which have no pedestrian footpaths or cycle paths. The local community use these roads to walk their dogs, jog, cycle etc. The use of this route as the main construction traffic route poses a serious risk to pedestrians and cyclists. There is no proposed mitigation in the TMP.

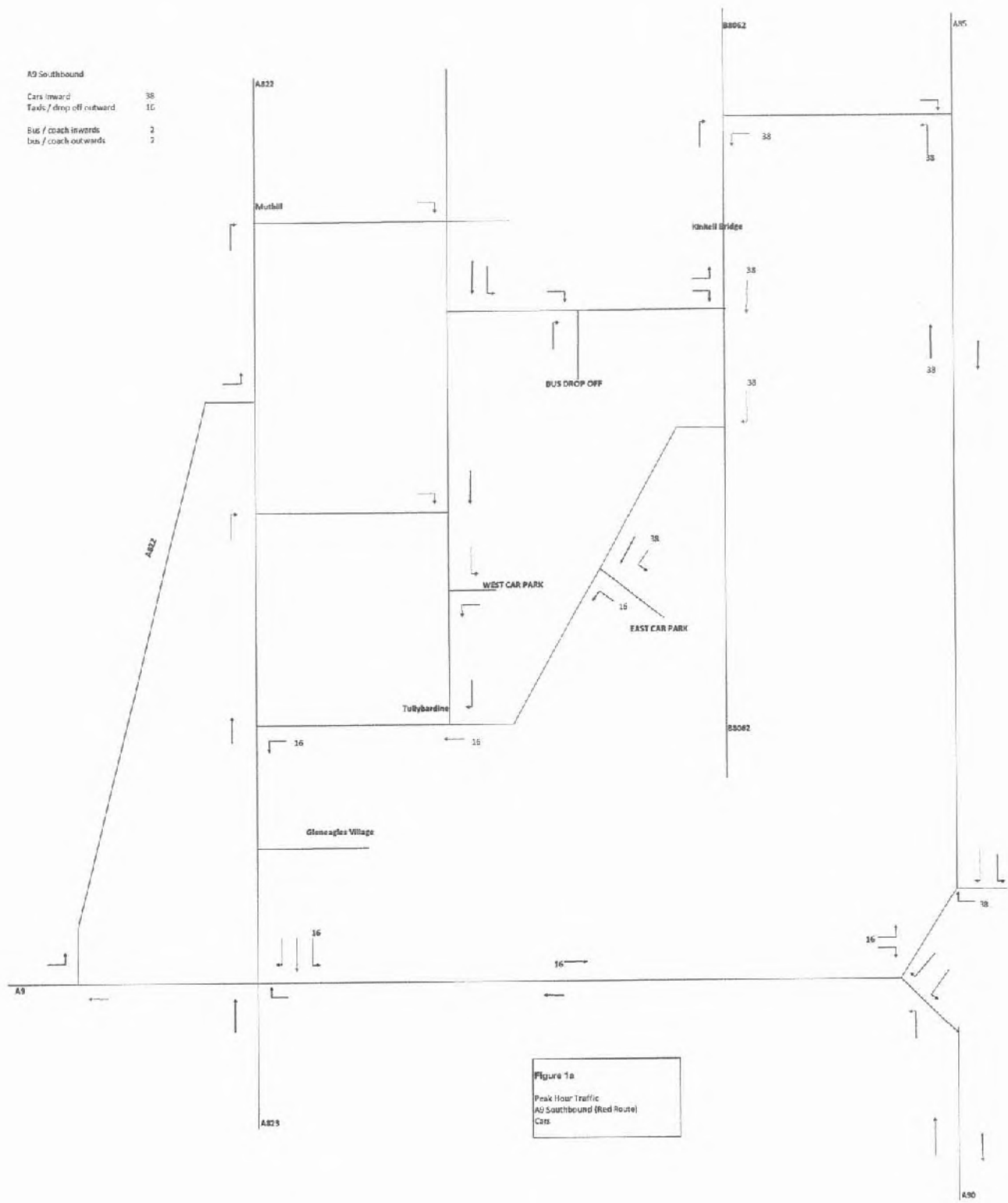
I urge you to consider the above and reject this application. Given another year of planning time, maybe there would have been enough time to safely execute this event. As Mr Littlejohn discussed with me in November 2014 – he would rather have had another year to consider this event. I believe that approving this licence application is a considerable risk to the Council and the application should therefore be rejected

Yours



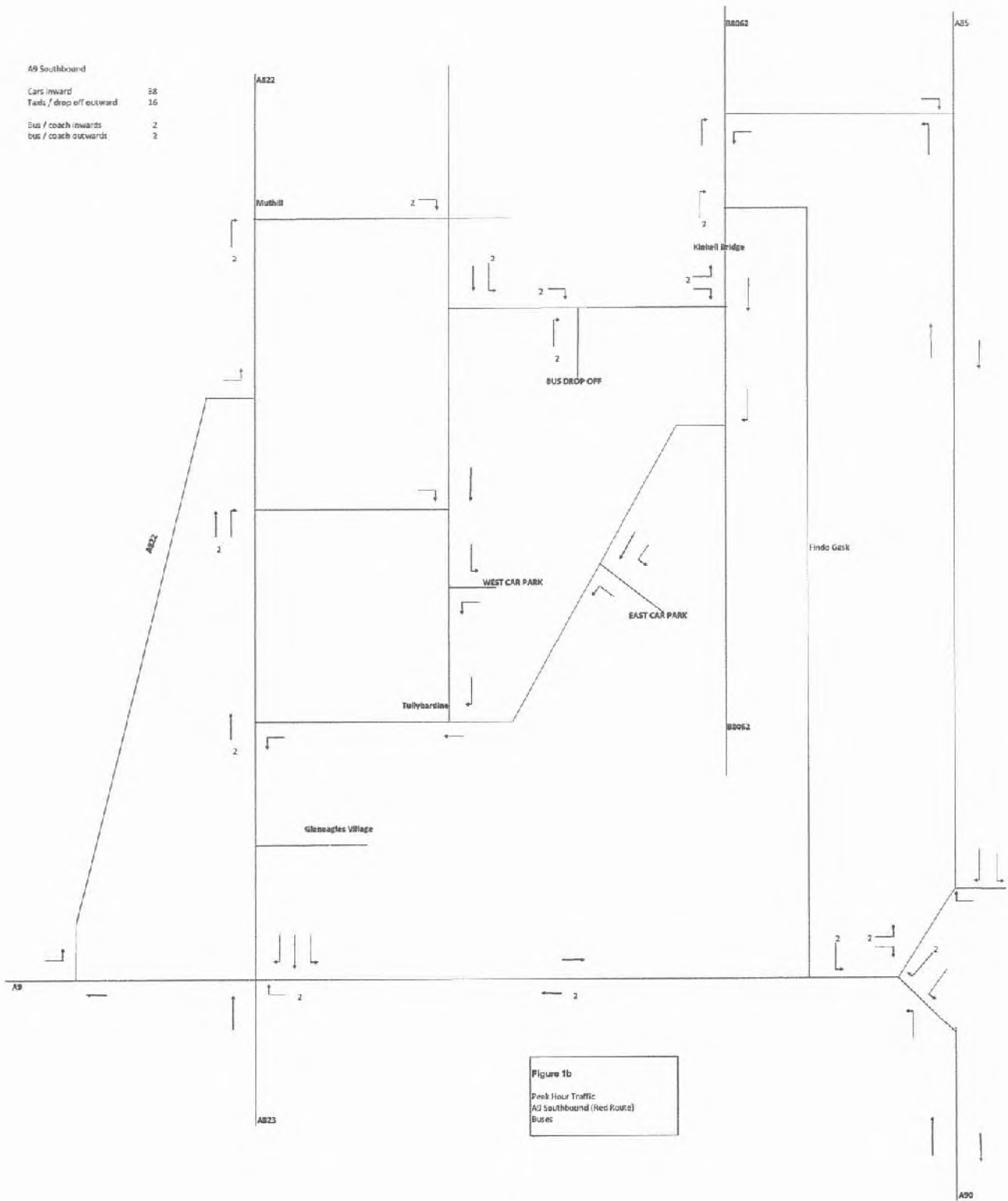
## APPENDIX A

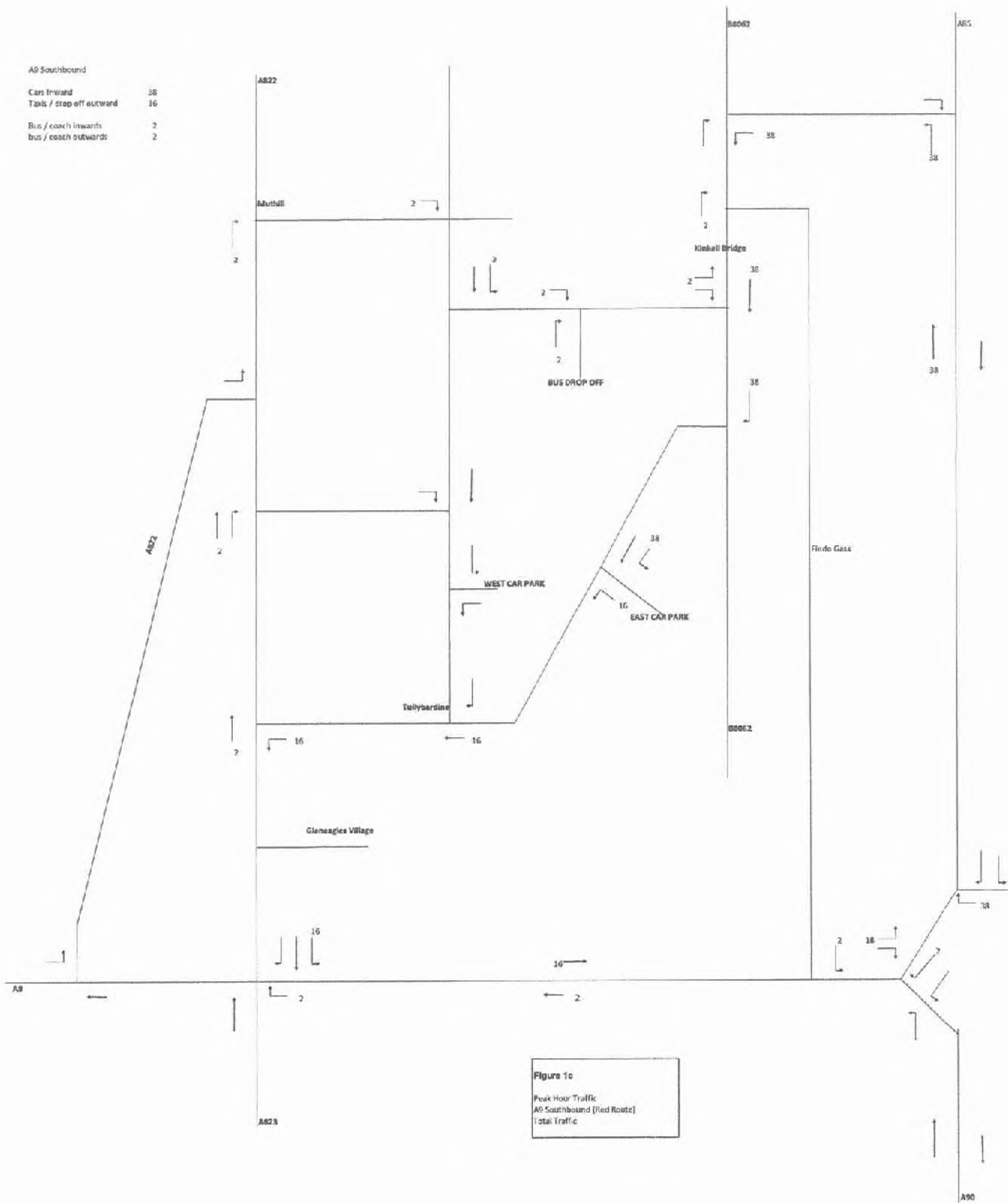
### TRAFFIC FLOW DIAGRAMS



A9 Southbound

Cars inward	38
Taxis / drop off outward	16
Bus / coach inwards	2
bus / coach outwards	2

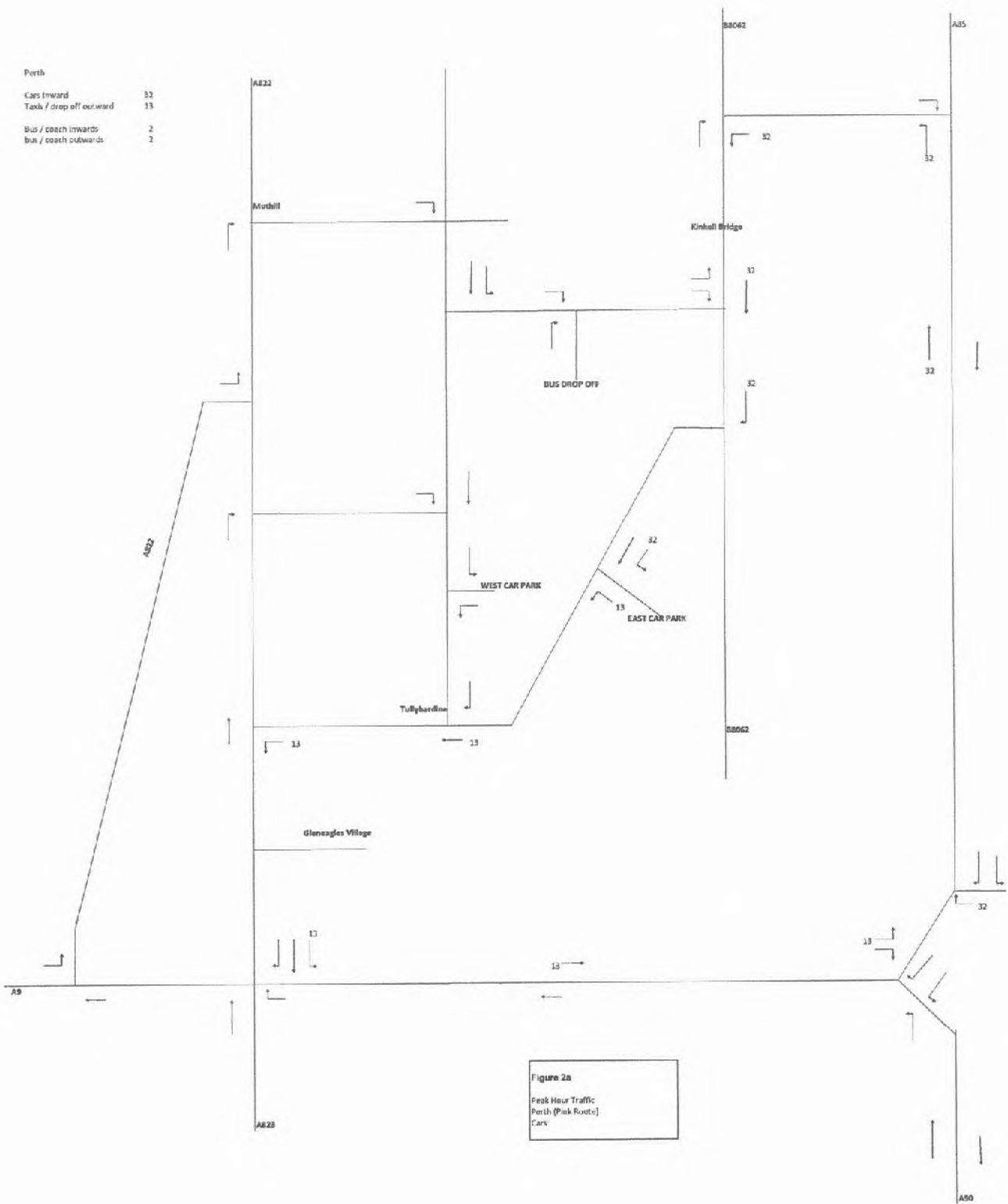






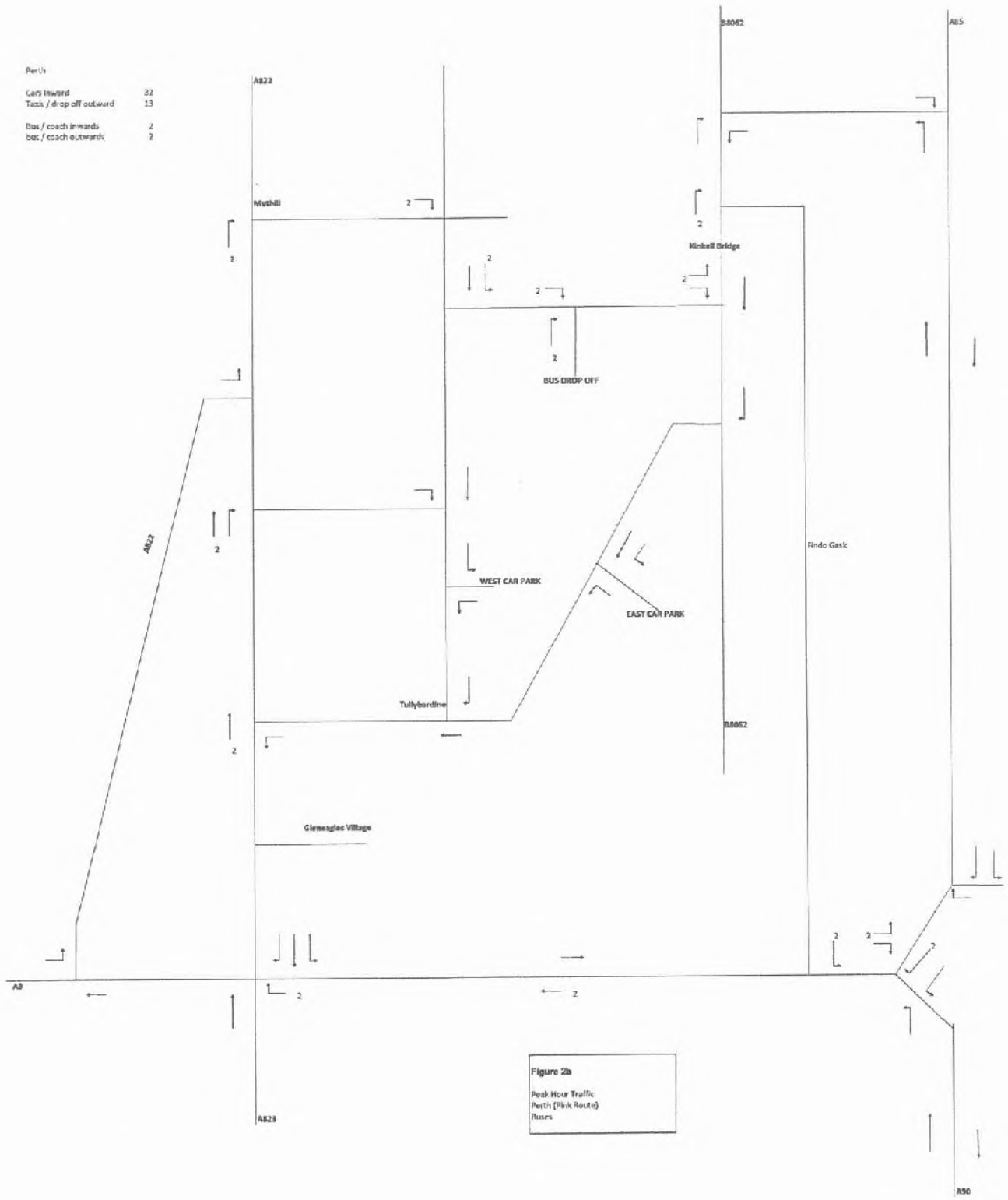
Perth

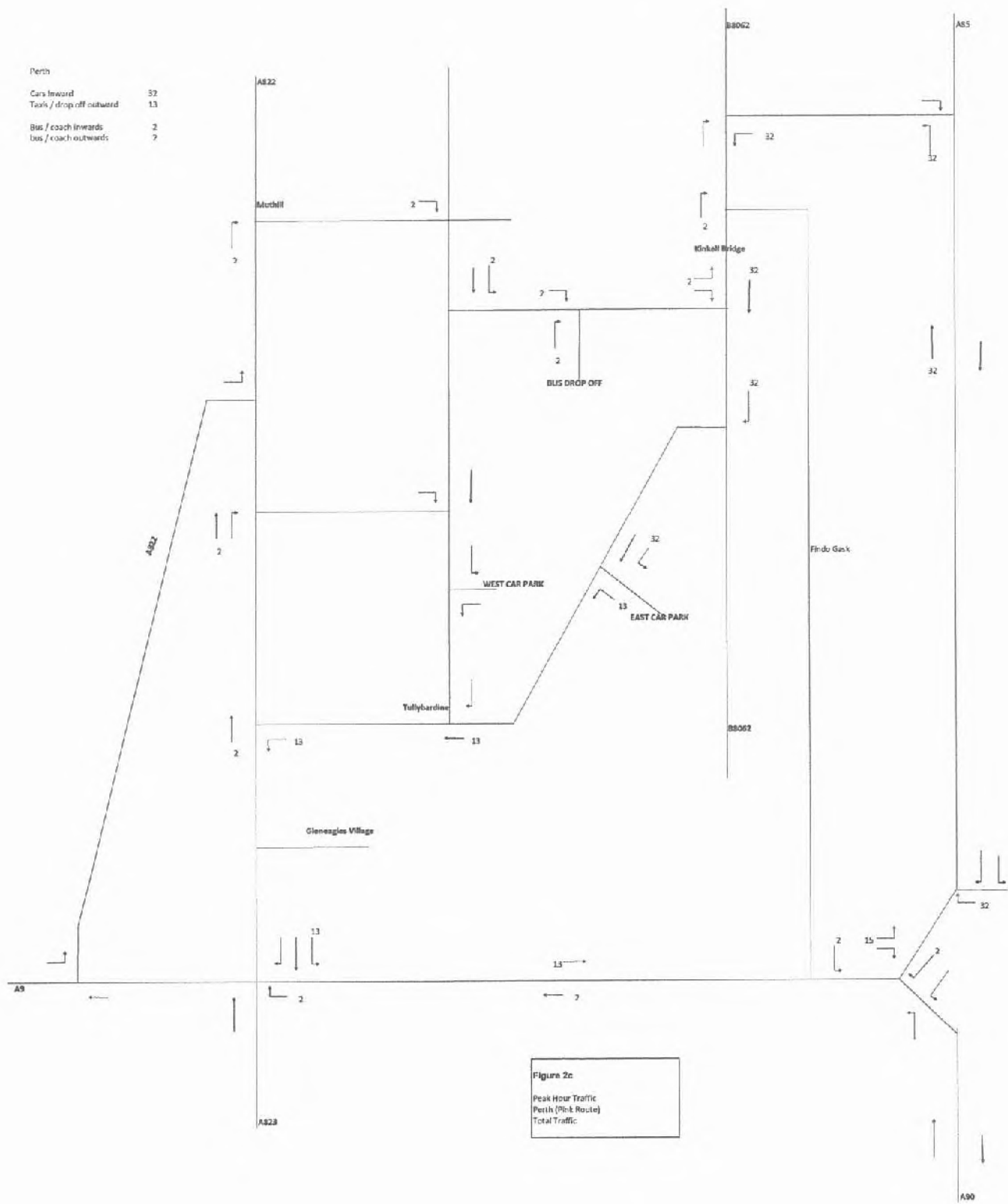
Cars Inward	32
Taxis / drop off outward	13
Bus / coach Inwards	2
bus / coach Outwards	2

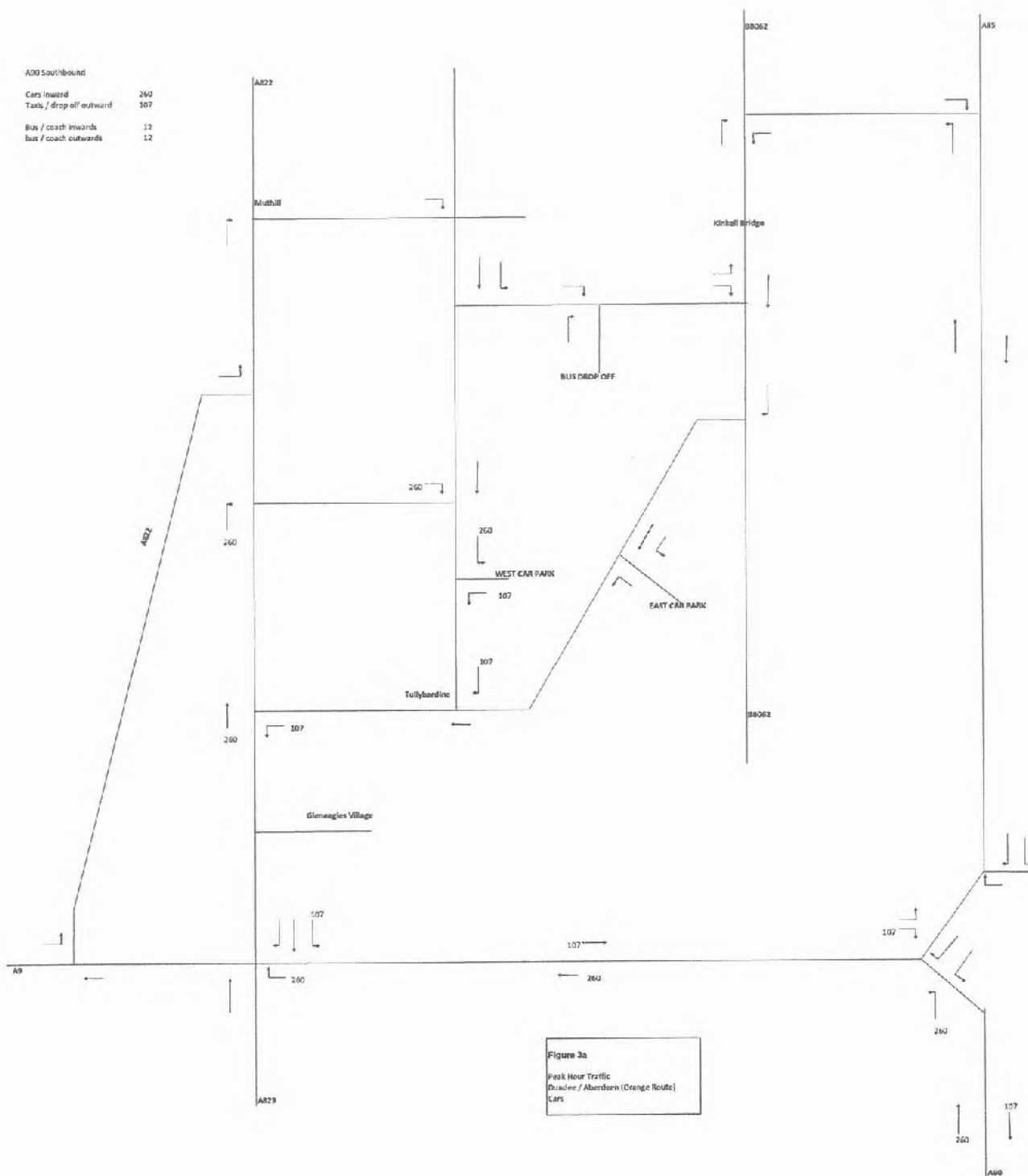


Perth

Cars inward	32
Taxis / drop off outward	13
Bus / coach inward	2
bus / coach outward	2

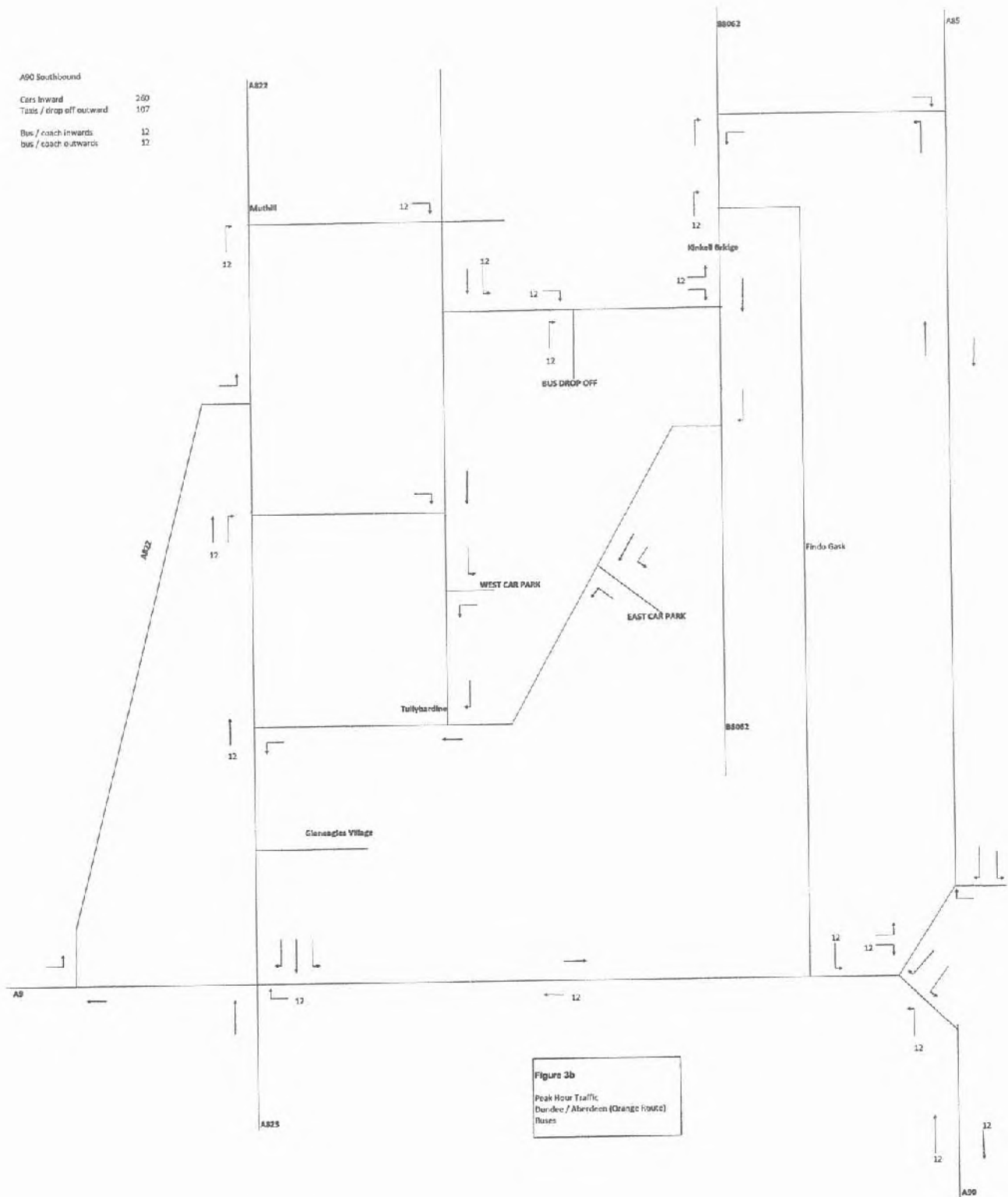


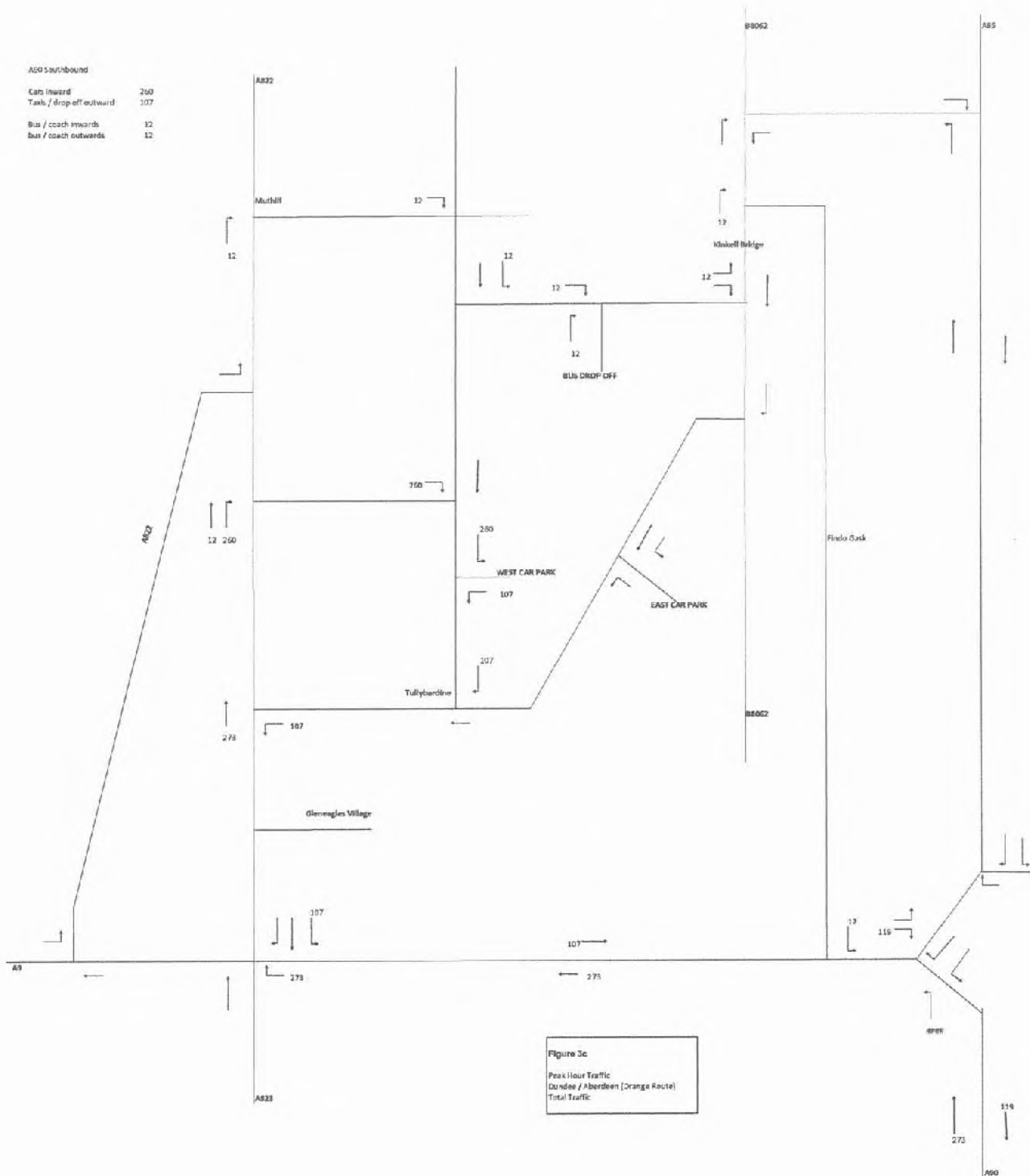




A90 Southbound

Cars Inward	260
Taxis / drop off outward	107
Bus / coach Inwards	12
bus / coach Outwards	12



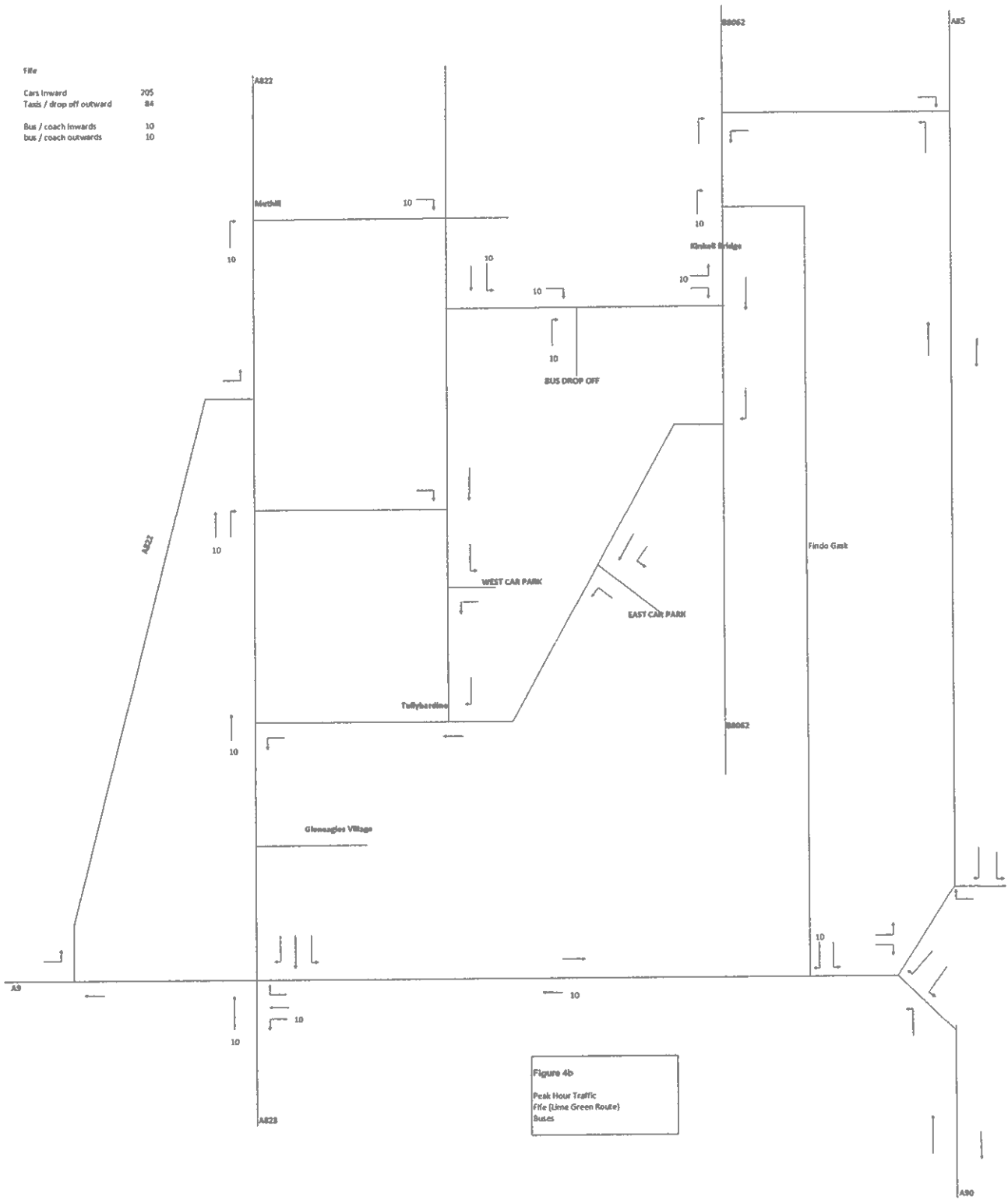


Cars inward	205
Taxis / drop off outward	84
Bus / coach inwards	10
bus / coach outwards	10

Figure 4a  
Peak Hour Traffic  
for (Lime Green Route)  
Cars

File

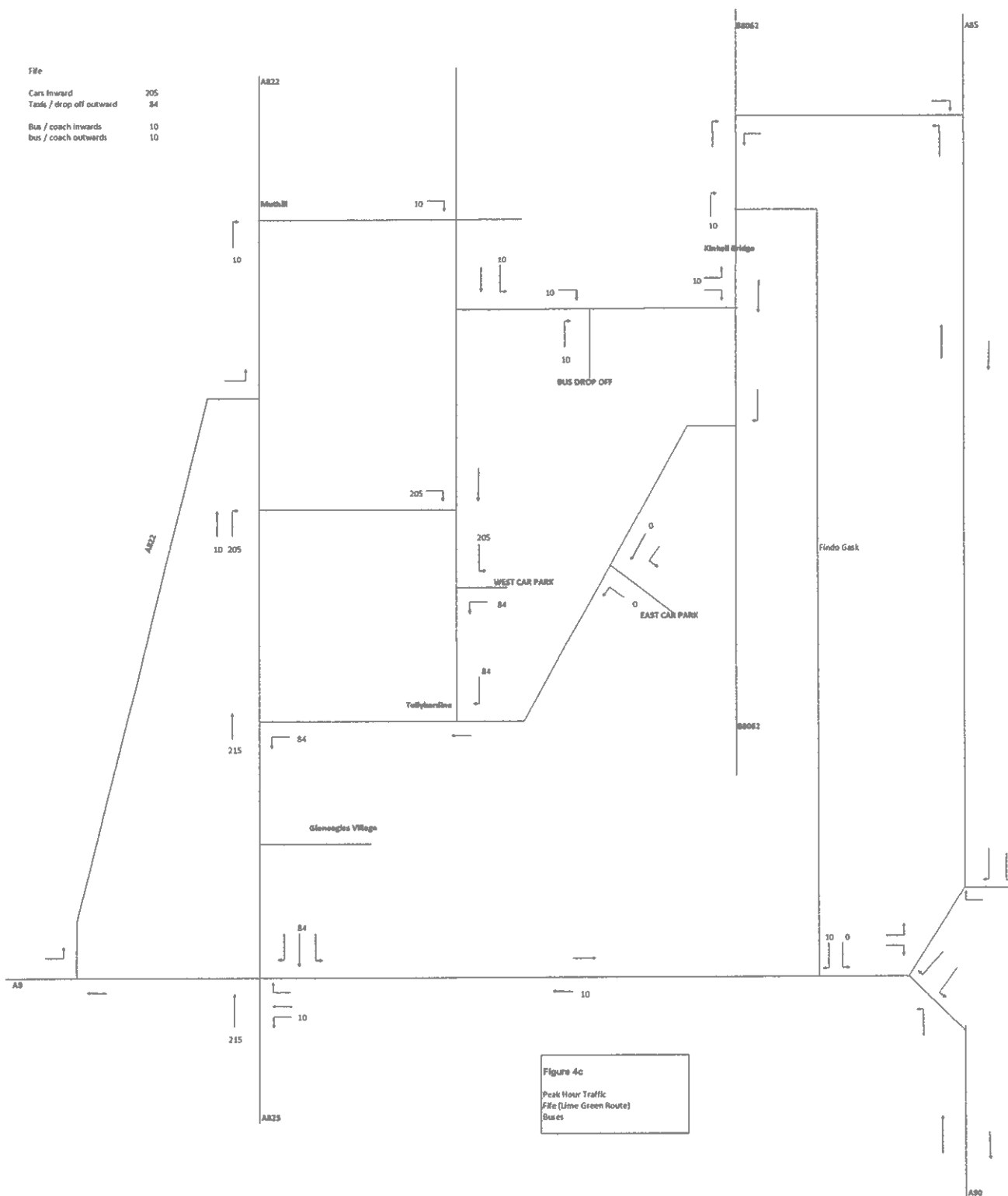
Cars Inward	205
Taxis / drop off outward	84
Bus / coach Inwards	10
bus / coach outwards	10

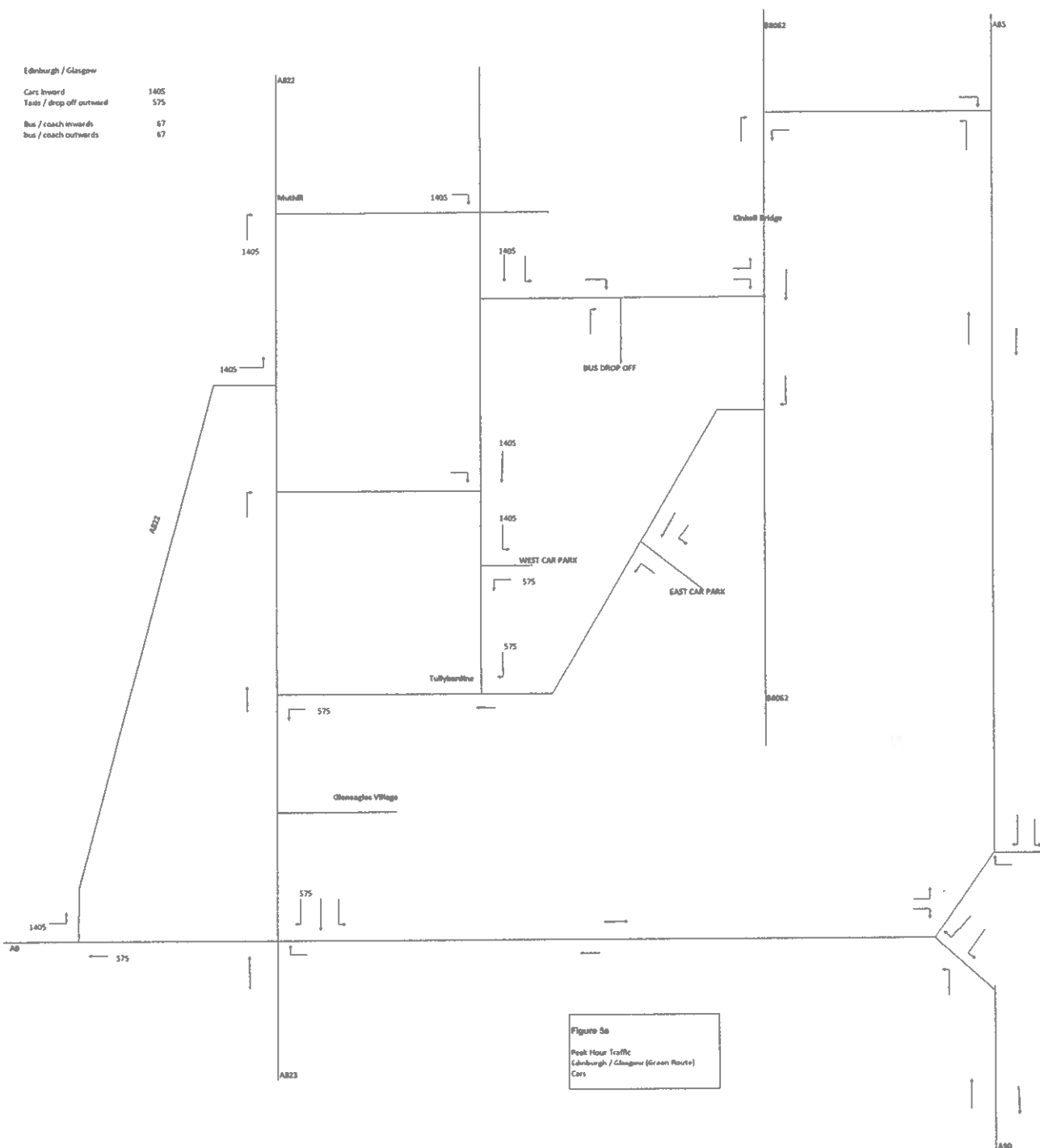




File

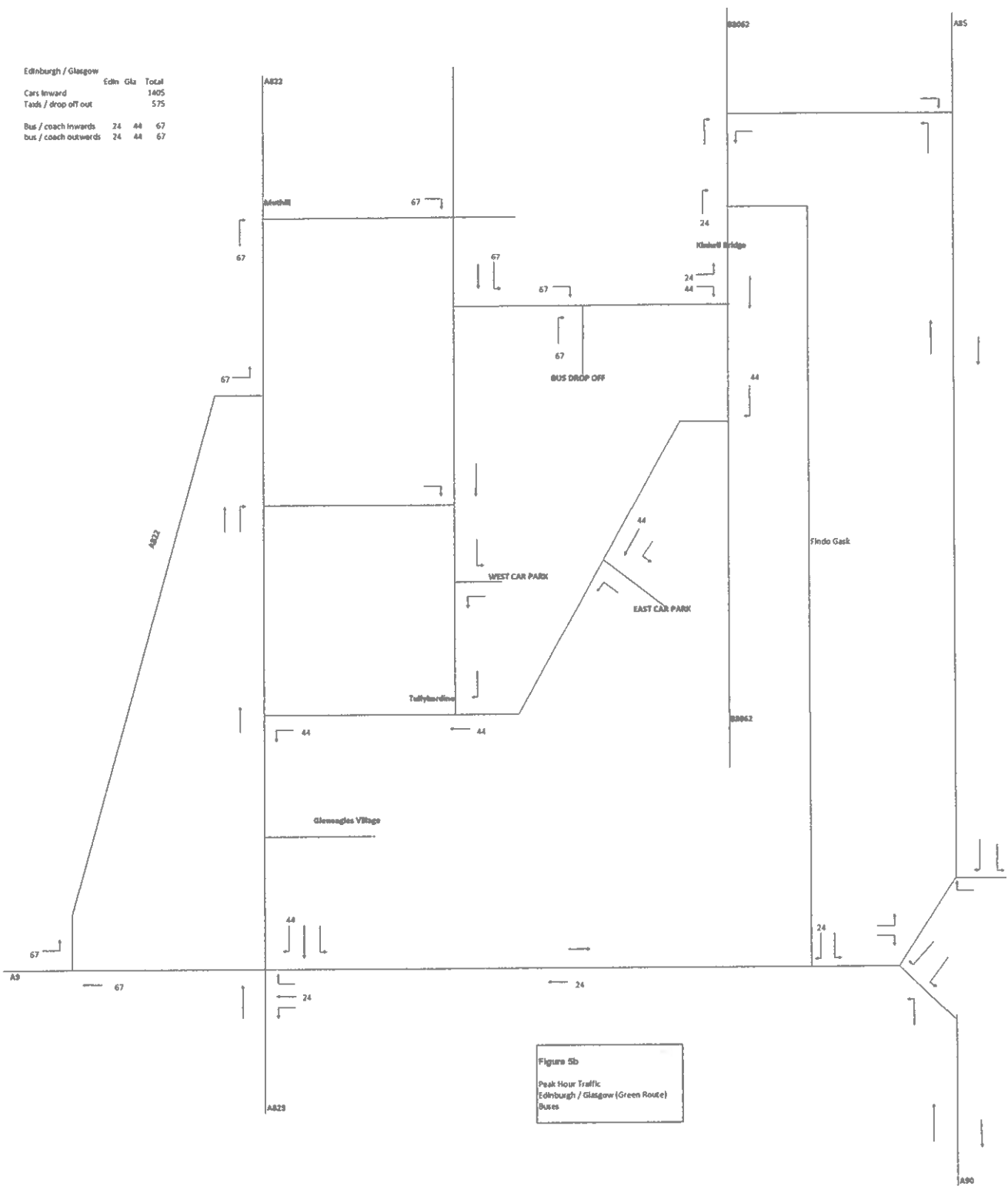
Cars Inward	205
Taxis / drop off outward	84
Bus / coach inwards	10
bus / coach outwards	10



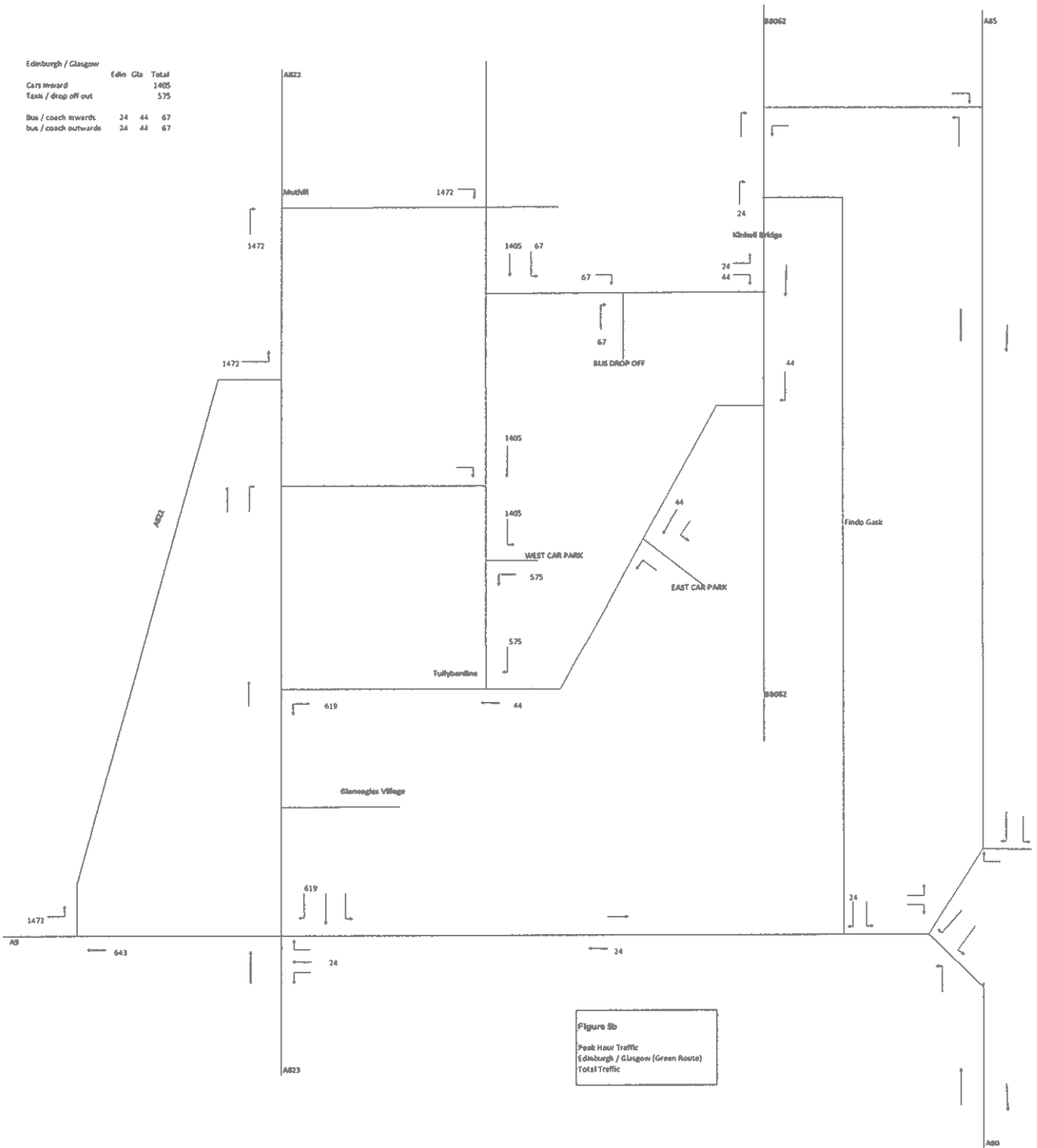


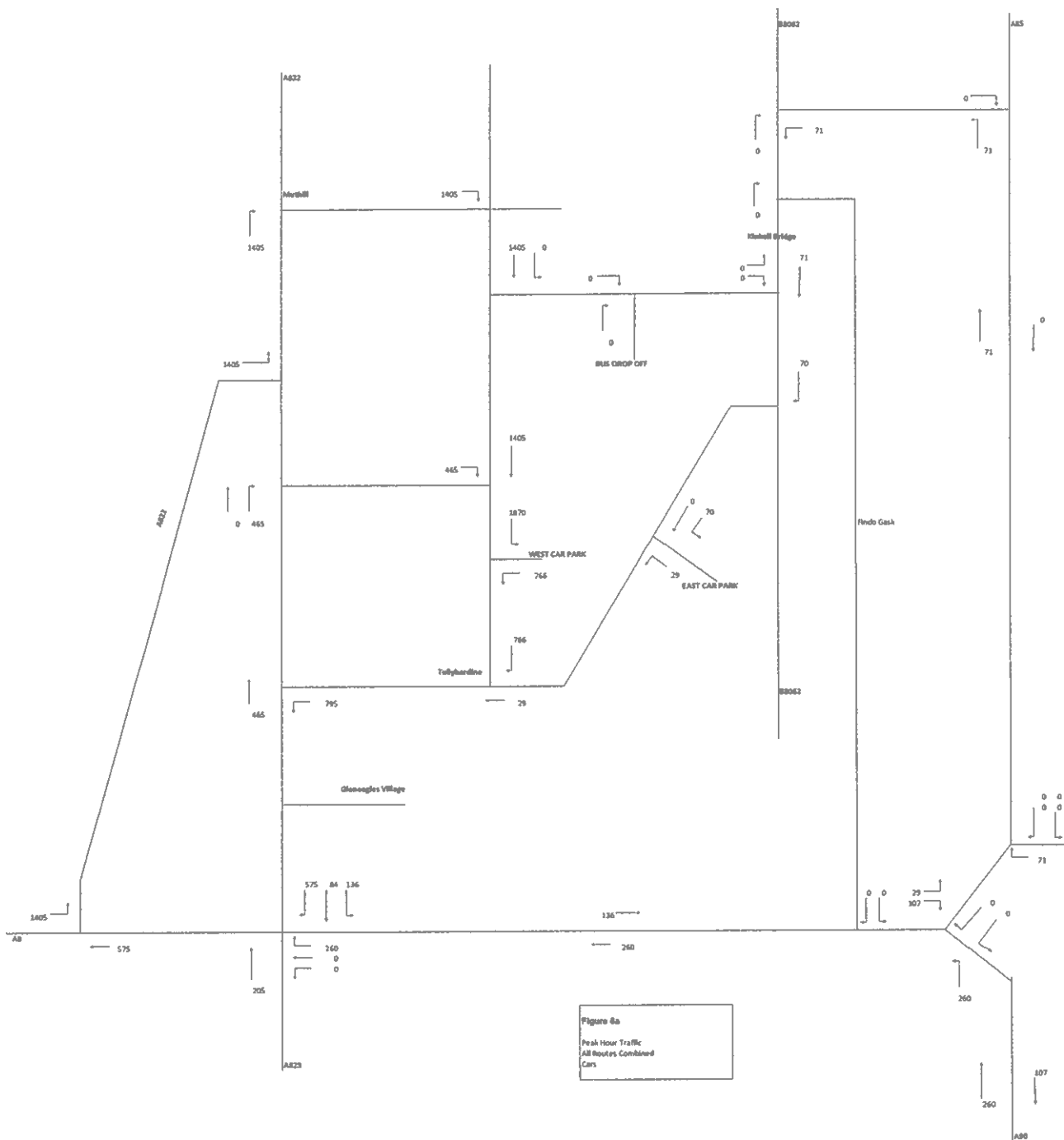
Edinburgh / Glasgow

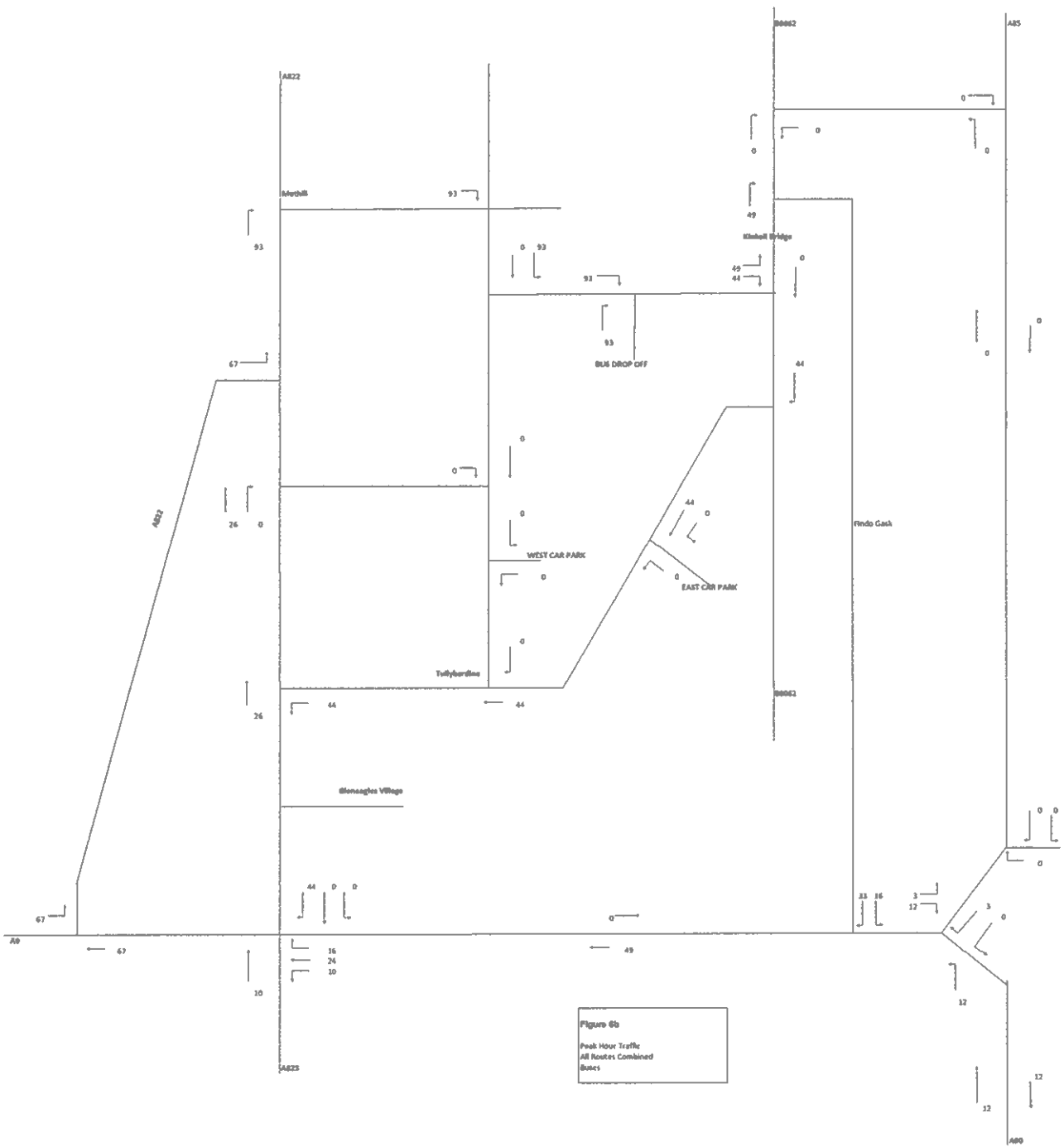
	Edin	Gla	Total
Cars Inward			1405
Task / drop off out			575
Bus / coach Inwards	24	44	67
bus / coach outwards	24	44	67

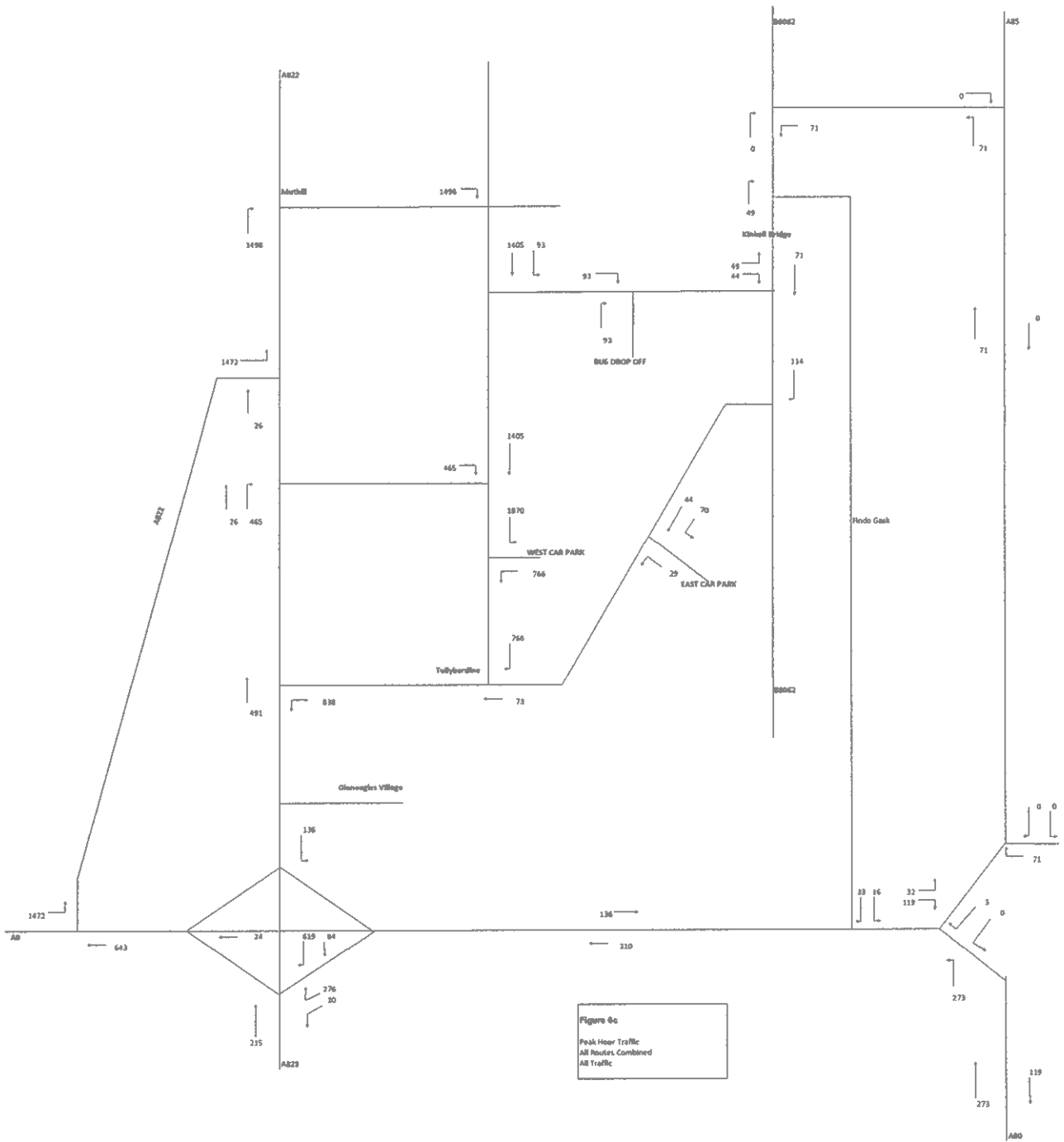


Edinburgh / Glasgow			
Edin	Gla	Total	
Cars inward		1405	
Taxis / drop off out		575	
Bus / coach inward	24	44	67
bus / coach outward	24	44	67









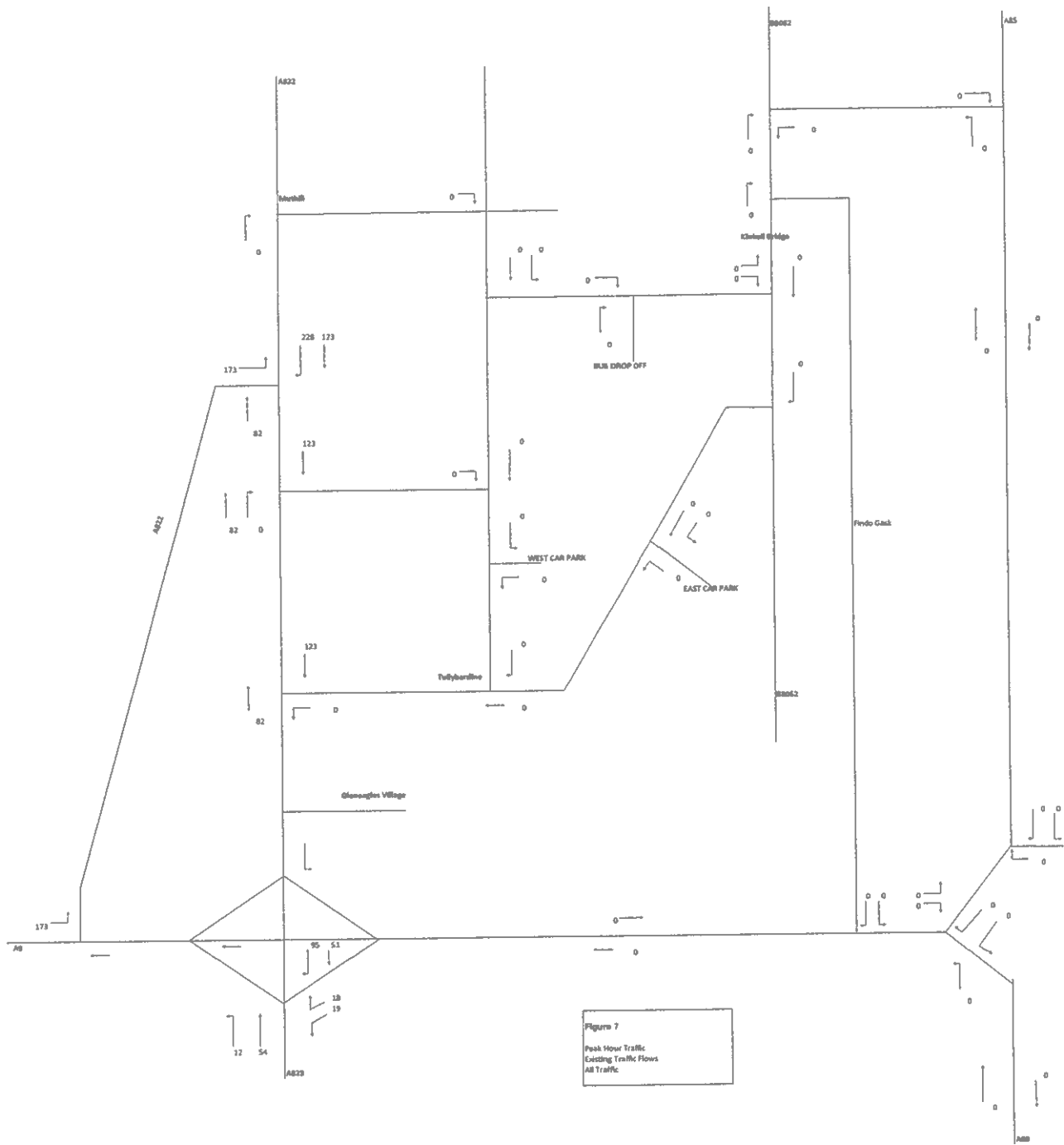


Figure 7  
Peak Hour Traffic  
Existing Traffic Flows  
All Traffic





## **APPENDIX B**

### **JUNCTION ANALYSIS OUTPUT FILES**

Basic Results Summary  
**Basic Results Summary**

**User and Project Details**

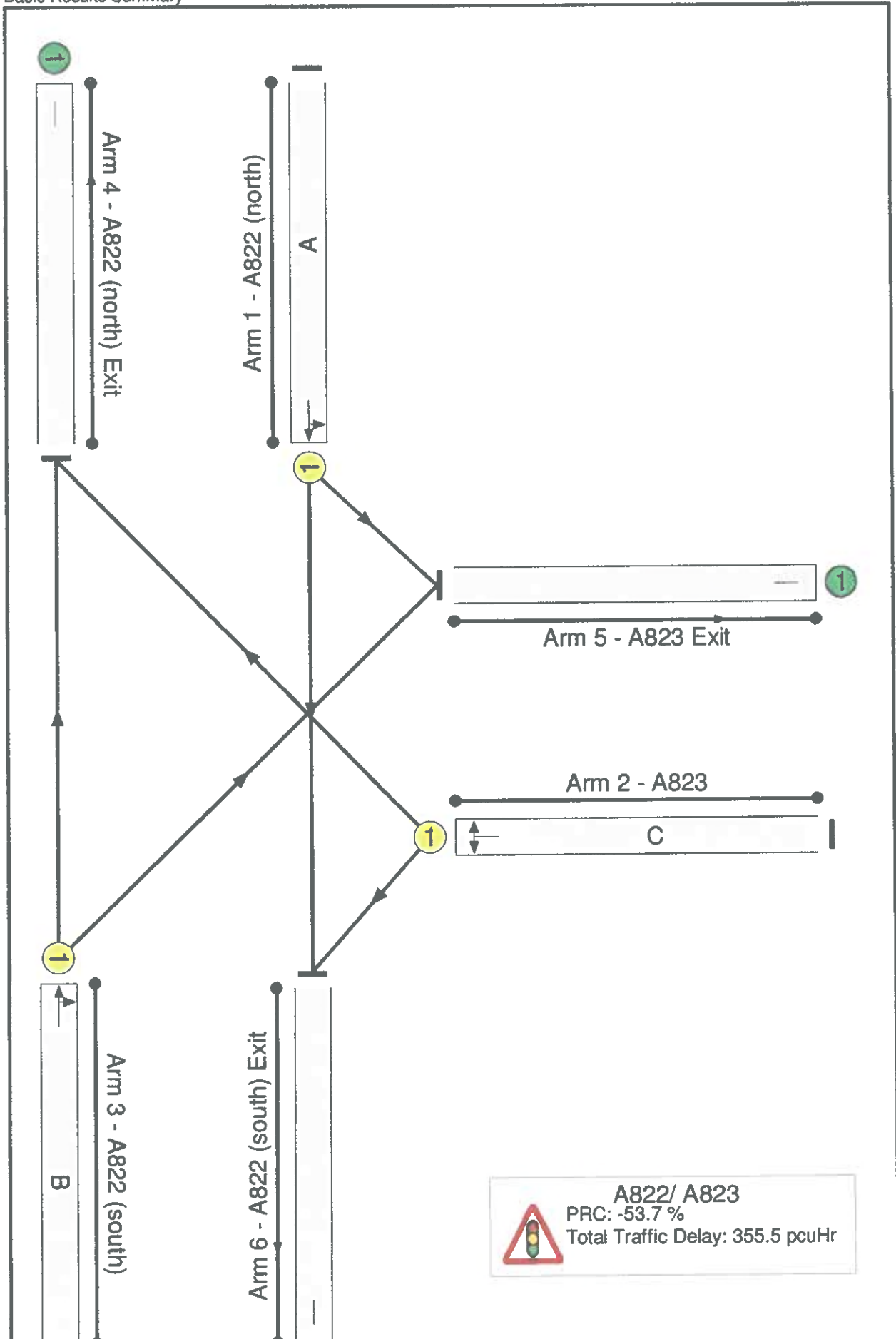
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<b>Title:</b>	<b>T in the Park</b>
<b>Location:</b>	A822/ A823
<b>File name:</b>	A822_A823 3 stage 150220.lsg3x
<b>Author:</b>	Andrew
<b>Company:</b>	ACTT
<b>Address:</b>	
<b>Notes:</b>	

## Basic Results Summary

**Scenario 1: 'Scenario 1 - 3 stages'** (FG1: '2015 Weekday Peak + T in the Park traffic', Plan 1: 'Network Control Plan 1')

### **Network Layout Diagram**

# Basic Results Summary

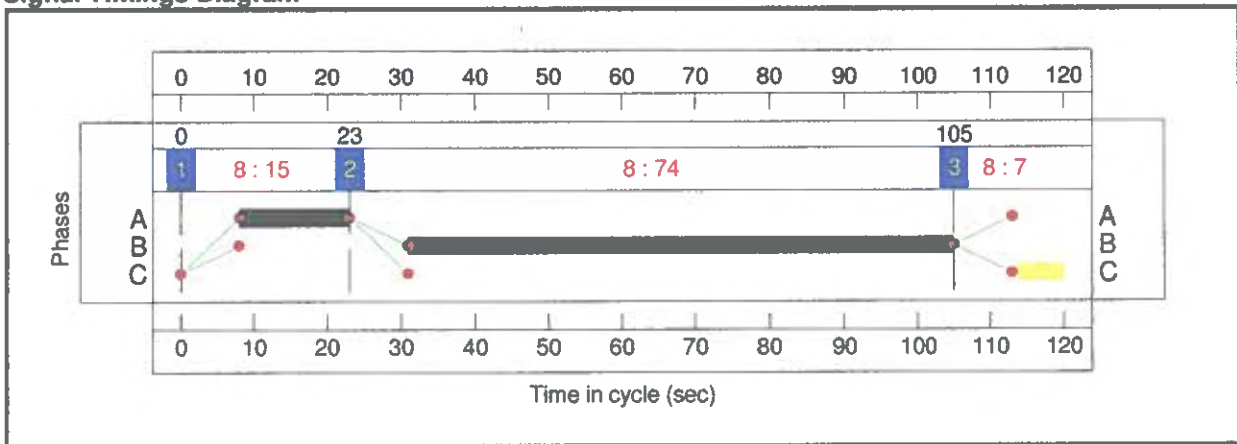


## Basic Results Summary

### Lane Saturation Flows

Junction: A822/ A823								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A822 (north))	3.65	0.00	Y	Arm 5 Left	15.00	35.0 %	1913	1913
				Arm 6 Ahead	Inf	65.0 %		
2/1 (A823)	4.10	0.00	Y	Arm 4 Right	15.00	99.3 %	1841	1841
				Arm 6 Left	15.00	0.7 %		
3/1 (A822 (south))	3.65	0.00	Y	Arm 4 Ahead	Inf	99.9 %	1980	1980
				Arm 5 Right	20.00	0.1 %		
4/1 (A822 (north) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (A823 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A822 (south) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

### Signal Timings Diagram



Basic Results Summary  
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners in Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: T in the Park	-	-	-	-	-	-	-	-	-	-	138.3%	0	0	0	355.5	-	-
A822/A823	-	-	-	-	-	-	-	-	-	-	138.3%	0	0	0	355.5	-	-
1/1	A822 (north) Left Ahead	U	A		1	15	-	351	1913	255	137.6%	-	-	-	60.7	622.9	65.3
2/1	A823 Right Left	U	C		1	7	-	135	1841	123	110.0%	-	-	-	12.6	334.9	14.8
3/1	A822 (south) Ahead Right	U	B		1	74	-	1712	1980	1238	138.3%	-	-	-	282.3	593.5	322.0
C1																	
PRC for Signalled Lanes (%): -53.7												Total Delay for Signalled Lanes (pcuHr): 355.55					
PRC Over All Lanes (%): -53.7												Total Delay Over All Lanes (pcuHr): 355.55					
												Cycle Time (s): 120					

TRL LIMITED

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM  
RELEASE 5.0 (JUNE 2010)

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THE USER OF THIS COMPUTER PROGRAM FOR THE SOLUTION OF AN ENGINEERING PROBLEM IS  
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Run with file:-  
"C:\Users\Stuart\Documents\LPL\AC\Strathallan\Junction Analysis\PICADY\Unclassified Road\_Machany (East End).vpi"  
(drive-on-the-left) at 12:36:41 on Saturday, 21 February 2015

RUN INFORMATION  
\*\*\*\*\*

RUN TITLE : Unclassified Road/ Machany (East End)  
LOCATION : Strathallan  
DATE : 20/02/15  
CLIENT :  
ENUMERATOR : SL  
JOB NUMBER : AC  
STATUS :  
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY  
\*\*\*\*\*

INPUT DATA  
-----

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)  
I  
I  
I  
I  
I  
I  
MINOR ROAD (ARM B)

ARM A IS Unclassified Road (south)  
ARM B IS Machany (East End)  
ARM C IS Unclassified Road (north)

STREAM LABELLING CONVENTION  
-----

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B  
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C  
ETC.



# GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	( W ) 6.00 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR ) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 2.20 M.	I
I	- VISIBILITY	I	(VC-B) 50.00 M.	I
I	- BLOCKS TRAFFIC (SPACES)	I	YES ( 0)	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 60.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 8.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 2.25 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

# .SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-C	STREAM	A-C	STREAM	A-B	I
I	581.74		0.23		0.09	I

I	Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-A	STREAM	A-C	STREAM	A-B	STREAM	C-A	STREAM	C-B	I
I	463.16		0.21		0.08		0.13		0.30	I

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM C-B	STREAM	A-C	STREAM	A-B	I
I	602.92		0.23		0.23	I

{NB These values do not allow for any site specific corrections)

# TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: 2015 weekday peak hour + T in the Park traffic

TIME PERIOD BEGINS 11.45 AND ENDS 13.15

LENGTH OF TIME PERIOD - 90 MIN.  
LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

I	ARM	I	NUMBER OF MINUTES FROM START WHEN	I	RATE OF FLOW (VEH/MIN)	I
I		I	FLOW STARTS	I	BEFORE	I
I		I	TO RISE	I	AT TOP	I
I		I	IS REACHED	I	OF PEAK	I
I		I	FALLING	I	PEAK	I
I		I		I		I
I	ARM A	I	15.00	I	45.00	I
I	ARM B	I	15.00	I	45.00	I
I	ARM C	I	15.00	I	45.00	I
I		I		I	75.00	I
I		I		I	0.00	I
I		I		I	0.00	I
I		I		I	0.00	I
I		I		I	5.81	I
I		I		I	8.72	I
I		I		I	5.81	I
I		I		I	17.56	I
I		I		I	26.34	I
I		I		I	17.56	I

Demand set: 2015 weekday peak hour + T in the Park traffic

		I	TURNING PROPORTIONS						I				
I		I	TURNING COUNTS						I				
I		I	(PERCENTAGE OF H.V.S)						I				
I			-----										
I	TIME	I	FROM/TO	I	ARM	A	I	ARM	B	I	ARM	C	I
I	11.45 - 13.15	I		I					I				I
I		I	ARM	A	I	0.000	I	0.000	I	0.000	I		I
I		I		I		0.0	I	0.0	I	0.0	I		I
I		I		I	(	0.0)	I	(	0.0)	I	(	0.0)	I
I		I		I			I		I				I
I		I	ARM	B	I	1.000	I	0.000	I	0.000	I		I
I		I		I		465.0	I	0.0	I	0.0	I		I
I		I		I	(	0.0)	I	(	0.0)	I	(	0.0)	I
I		I		I			I		I				I
I		I	ARM	C	I	1.000	I	0.000	I	0.000	I		I
I		I		I		1405.0	I	0.0	I	0.0	I		I
I		I		I	(	0.0)	I	(	0.0)	I	(	0.0)	I
I		I		I			I		I				I

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET 2015 weekday peak hour + T in the Park traffic  
AND FOR TIME PERIOD 1

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	11.45-12.00										I
I	B-AC	5.83	5.35	1.090		0.00	12.96	115.6		1.71	I
I	C-AB	0.00	9.14	0.000		0.00	0.00	0.0		0.00	I
I	C-A	17.63									I
I	A-B	0.00									I
I	A-C	0.00									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	12.00-12.15										I
I	B-AC	6.97	4.90	1.423		12.96	44.35	430.6		6.58	I
I	C-AB	0.00	9.14	0.000		0.00	0.00	0.0		0.00	I
I	C-A	21.05									I
I	A-B	0.00									I
I	A-C	0.00									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	12.15-12.30										I
I	B-AC	8.53	4.26	2.003		44.35	108.46	1146.1		18.01	I
I	C-AB	0.00	9.14	0.000		0.00	0.00	0.0		0.00	I
I	C-A	25.78									I
I	A-B	0.00									I
I	A-C	0.00									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	12.30-12.45										I
I	B-AC	8.53	4.26	2.003		108.46	172.54	2107.5		33.27	I
I	C-AB	0.00	9.14	0.000		0.00	0.00	0.0		0.00	I
I	C-A	25.78									I
I	A-B	0.00									I
I	A-C	0.00									I
I											I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	12.45-13.00										I
I	B-AC	6.97	4.90	1.423		172.54	203.63	2821.3		36.64	I
I	C-AB	0.00	9.14	0.000		0.00	0.00	0.0		0.00	I
I	C-A	21.05									I
I	A-B	0.00									I
I	A-C	0.00									I
I											I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	13.00-13.15										I
I	B-AC	5.83	5.35	1.090		203.63	210.85	3108.5		38.96	I
I	C-AB	0.00	9.14	0.000		0.00	0.00	0.0		0.00	I
I	C-A	17.63									I
I	A-B	0.00									I
I	A-C	0.00									I
I											I

\*WARNING\* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM		B-AC
TIME	NO. OF	
SEGMENT	VEHICLES	
ENDING	IN QUEUE	
12.00	13.0	*****
12.15	44.4	*****
12.30	108.5	*****
12.45	172.5	*****
13.00	203.6	*****
13.15	210.8	*****

QUEUE FOR STREAM		C-AB
TIME	NO. OF	
SEGMENT	VEHICLES	
ENDING	IN QUEUE	
12.00	0.0	
12.15	0.0	
12.30	0.0	
12.45	0.0	
13.00	0.0	
13.15	0.0	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I	I	I	I	I	* DELAY *	I	* DELAY *	I
I	I	I	(VEH)	I	(MIN)	I	(MIN)	I
I	I	I	(VEH/H)	I	(MIN/VEH)	I	(MIN/VEH)	I
I	B-AC	I	640.0	I	426.7	I	9729.7	I
I	C-AB	I	0.0	I	0.0	I	0.00	I
I	C-A	I	1933.9	I	1289.3	I		I
I	A-B	I	0.0	I	0.0	I		I
I	A-C	I	0.0	I	0.0	I		I
I	ALL	I	2573.9	I	1715.9	I	9729.7	I
							3.78	I
							13881.0	I
							5.39	I

\* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD  
\* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES  
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD  
\* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS  
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

\*\*\*\*\*END OF RUN\*\*\*\*\*

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	STREAM B-C	STREAM A-C	STREAM A-B	I
I	581.74	0.23	0.09	I

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	STREAM B-A	STREAM A-C	STREAM A-B	STREAM C-A	STREAM C-B	I
I	463.16	0.21	0.08	0.13	0.30	I

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	STREAM C-B	STREAM A-C	STREAM A-B	I
I	602.92	0.23	0.23	I

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE(%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: Dummy

TIME PERIOD BEGINS 17.45 AND ENDS 19.15

LENGTH OF TIME PERIOD - 90 MIN.  
LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

I	ARM	NUMBER OF MINUTES FROM START WHEN			RATE OF FLOW (VEH/MIN)			I							
		I	I	I	I	I	I								
									I	I	I				
												I	I	I	
I	I	FLOW STARTS	TOP OF PEAK	FLOW STOPS	BEFORE	AT TOP	AFTER	I							
I	I	TO RISE	IS REACHED	FALLING	PEAK	OF PEAK	PEAK	I							
I	I	I	I	I	I	I	I	I							
I	ARM	A	I	15.00	I	45.00	I	75.00	I	0.00	I	0.00	I	0.00	I
I	ARM	B	I	15.00	I	45.00	I	75.00	I	5.81	I	8.72	I	5.81	I
I	ARM	C	I	15.00	I	45.00	I	75.00	I	17.56	I	26.34	I	17.56	I

Demand set: Dummy

I		I	TURNING PROPORTIONS						I				
I		I	TURNING COUNTS						I				
I		I	(PERCENTAGE OF H.V.S)						I				
I													
I	TIME	I	FROM/TO	I	ARM	A	I	ARM	B	I	ARM	C	I
I	17.45 - 19.15	I		I			I			I			I
I		I	ARM	A	I	0.000	I	0.000	I	0.000	I		I
I		I			I	0.0	I	0.0	I	0.0	I		I
I		I			I	( 0.0)	I	( 0.0)	I	( 0.0)	I		I
I		I			I		I		I		I		I
I		I	ARM	B	I	1.000	I	0.000	I	0.000	I		I
I		I			I	465.0	I	0.0	I	0.0	I		I
I		I			I	( 0.0)	I	( 0.0)	I	( 0.0)	I		I
I		I			I		I		I		I		I
I		I	ARM	C	I	1.000	I	0.000	I	0.000	I		I
I		I			I	1405.0	I	0.0	I	0.0	I		I
I		I			I	( 0.0)	I	( 0.0)	I	( 0.0)	I		I
I		I			I		I		I		I		I

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET Dummy  
AND FOR TIME PERIOD 2

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	5.83	5.35	1.090		0.00	12.96	115.6		1.71
C-AB	0.00	9.14	0.000		0.00	0.00	0.0		0.00
C-A	17.63								
A-B	0.00								
A-C	0.00								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	6.97	4.90	1.423		12.96	44.35	430.6		6.58
C-AB	0.00	9.14	0.000		0.00	0.00	0.0		0.00
C-A	21.05								
A-B	0.00								
A-C	0.00								

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	18.15-18.30										I
I	B-AC	8.53	4.26	2.003		44.35	108.46	1146.1		18.01	I
I	C-AB	0.00	9.14	0.000		0.00	0.00	0.0		0.00	I
I	C-A	25.78									I
I	A-B	0.00									I
I	A-C	0.00									I
I											I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	18.30-18.45										I
I	B-AC	8.53	4.26	2.003		108.46	172.54	2107.5		33.27	I
I	C-AB	0.00	9.14	0.000		0.00	0.00	0.0		0.00	I
I	C-A	25.78									I
I	A-B	0.00									I
I	A-C	0.00									I
I											I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	18.45-19.00										I
I	B-AC	6.97	4.90	1.423		172.54	203.63	2821.3		36.64	I
I	C-AB	0.00	9.14	0.000		0.00	0.00	0.0		0.00	I
I	C-A	21.05									I
I	A-B	0.00									I
I	A-C	0.00									I
I											I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	19.00-19.15										I
I	B-AC	5.83	5.35	1.090		203.63	210.85	3108.5		38.96	I
I	C-AB	0.00	9.14	0.000		0.00	0.00	0.0		0.00	I
I	C-A	17.63									I
I	A-B	0.00									I
I	A-C	0.00									I
I											I

\*WARNING\* NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
18.00	13.0	*****
18.15	44.4	*****
18.30	108.5	*****
18.45	172.5	*****
19.00	203.6	*****
19.15	210.8	*****

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0
19.00	0.0
19.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND		I	* QUEUEING *		I	* INCLUSIVE QUEUEING *		I
I	I	I	I		I	* DELAY *		I	* DELAY *		I
I	I	I	I		I	I		I	I		I
I	I	I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)	(MIN/VEH)	I
I	B-AC	I	640.0	I 426.7	I	9729.7	I 15.20	I	13881.0	I 21.69	I
I	C-AB	I	0.0	I 0.0	I	0.0	I 0.00	I	0.0	I 0.00	I
I	C-A	I	1933.9	I 1289.3	I	I	I	I	I	I	I
I	A-B	I	0.0	I 0.0	I	I	I	I	I	I	I
I	A-C	I	0.0	I 0.0	I	I	I	I	I	I	I
I	ALL	I	2573.9	I 1715.9	I	9729.7	I 3.78	I	13881.0	I 5.39	I

\* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD  
\* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES  
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD  
\* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS  
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

\*\*\*\*\*END OF RUN\*\*\*\*\*

===== end of file =====

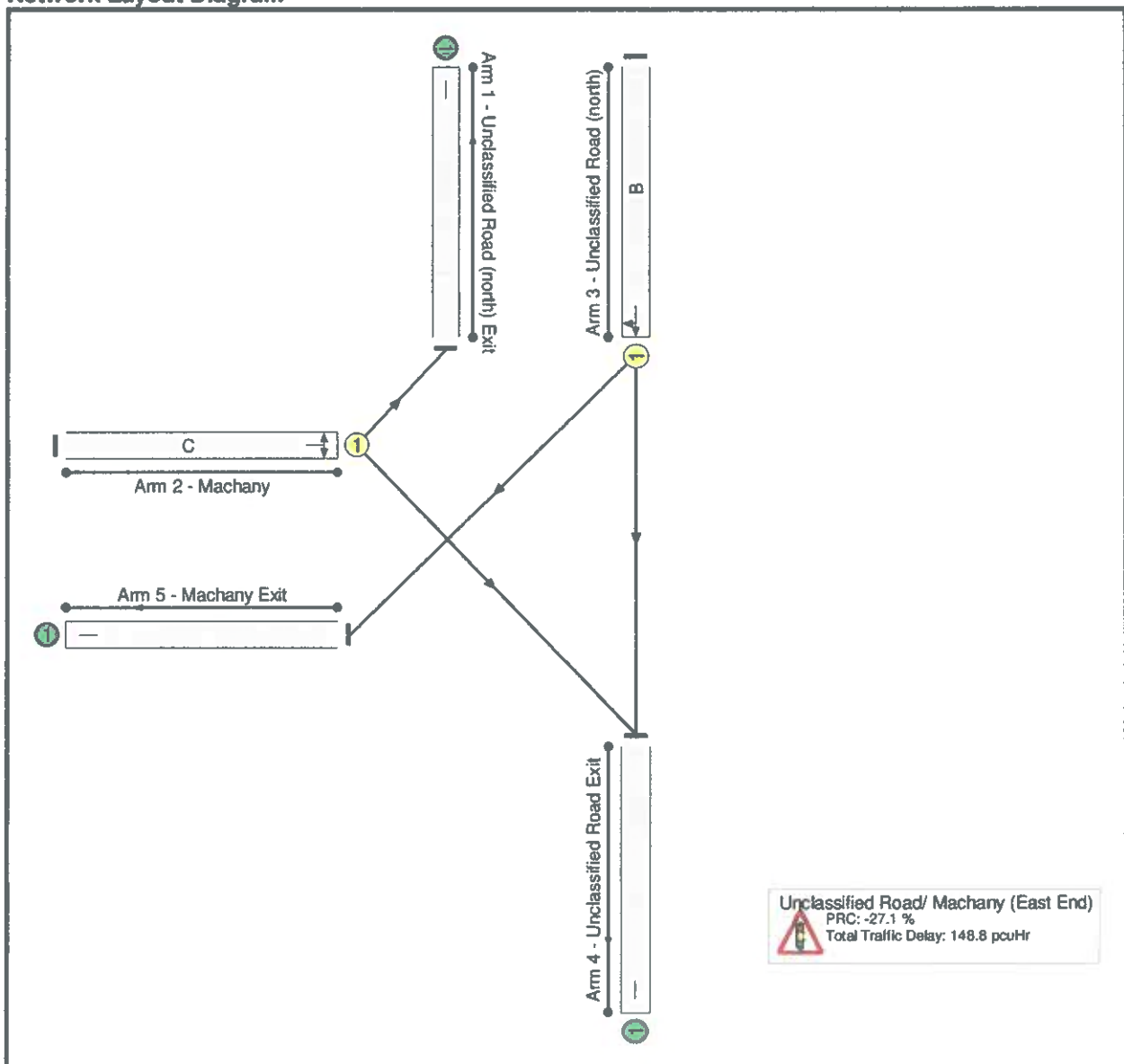
Basic Results Summary  
**Basic Results Summary**

**User and Project Details**

<b>Project:</b>	Strathallan
<b>Title:</b>	T in the Park
<b>Location:</b>	Unclassified Rd/ Machany (East End)
<b>File name:</b>	Unclassified Rd_Machany (East End) 2 stage 150220.lsg3x
<b>Author:</b>	Andrew
<b>Company:</b>	ACTT
<b>Address:</b>	
<b>Notes:</b>	

Scenario 1: 'Scenario 2 - 2 stages' (FG1: '2015 Weekday Peak + T in the Park traffic', Plan 1: 'Network Control Plan 2')

**Network Layout Diagram**



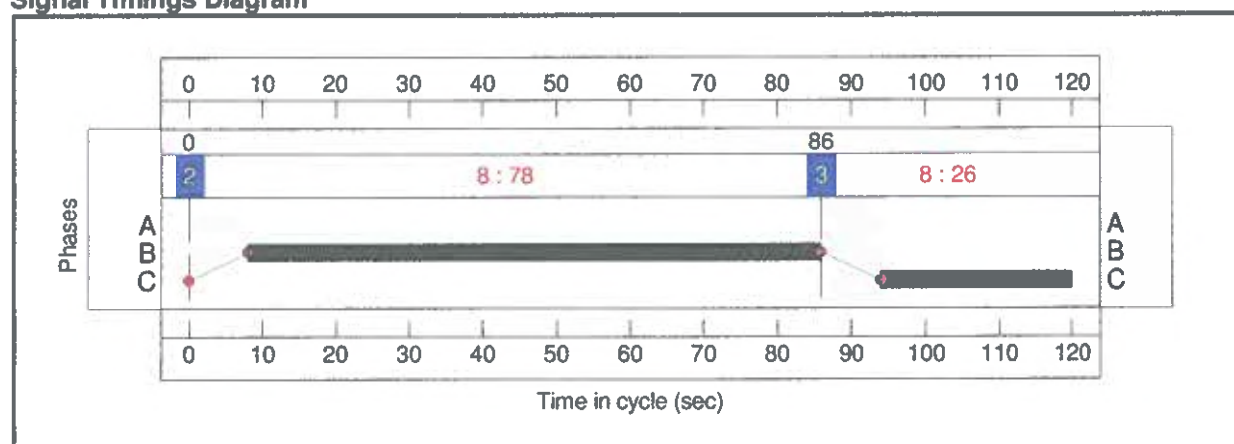


## Basic Results Summary

### Lane Saturation Flows

Junction: Unclassified Road/ Machany (East End)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Unclassified Road (north) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
2/1 (Machany)	2.25	0.00	Y	Arm 4 Right	8.50	0.0 %	1840	1840
				Arm 1 Left	7.50	0.0 %		
3/1 (Unclassified Road (north))	2.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1865	1865
				Arm 5 Right	10.50	0.0 %		
4/1 (Unclassified Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Machany Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

### Signal Timings Diagram

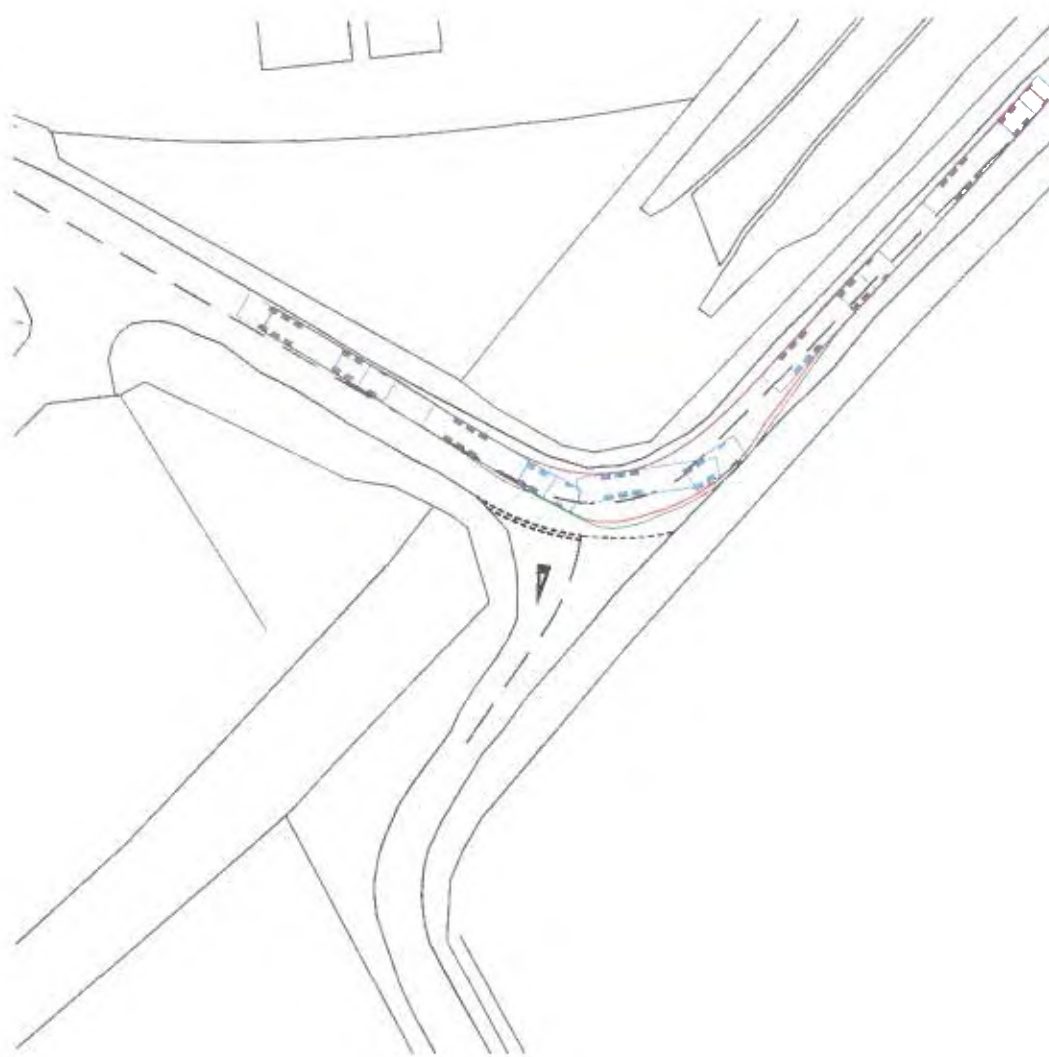


Basic Results Summary  
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners in Gaps (pcu)	Turners When Unopposed (pcu)	Turners in Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: T in the Park	-	-	-	-	-	-	-	-	-	-	114.4%	0	0	0	148.8	-	-
Unclassified Road/ Machany (East End)	-	-	-	-	-	-	-	-	-	-	114.4%	0	0	0	148.8	-	-
2/1	Machany Left Right	U	C	-	1	26	-	465	1840	414	112.3%	-	-	-	39.0	302.0	48.0
3/1	Unclassified Road (north) Ahead Right	U	B	-	1	78	-	1405	1865	1228	114.4%	-	-	-	109.8	281.4	145.1
C1																	
PRC for Signalled Lanes (%): -27.1												Total Delay for Signalled Lanes (pcuHr): 148.82					
PRC Over All Lanes (%): -27.1												Total Delay Over All Lanes (pcuHr): 148.82					
												Cycle Time (s): 120					

## APPENDIX C

### VEHICLE TRACKING DRAWINGS



NO	DATE	BY	CHKD	APPD
1	11-10-10	10/10/10		
11-10-10/10/10				
FROM: 610				
10.5% HOV 3+FT PATH ANALYSIS				
AT 6310 NORTH EAST TO SOUTH EAST				
NO	DATE	BY	CHKD	APPD
1	5-FEB-15	12-11-15-15		
2	1-500 @ 13	15-11-15-15		
ANDREW CARPIS				
10.5% HOV 3+FT PATH ANALYSIS				
11-10-10/10/10				
11-10-10/10/10				
11-10-10/10/10				

DO NOT scale from this drawing





















**PROPOSAL TO RELOCATE  
"T IN THE PARK"  
TO  
STRATHALLAN CASTLE,  
Nr AUCHTERARDER**

**REPORT ON ACCESS CONSTRAINTS**

August 2014

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## **1. Introduction**

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- 1.1 The T in the Park music festival has been held at Balado, near Kinross, for 18 years, with a series of temporary planning consents to cover the change of land use (from "agriculture" to "Class 11 – Assembly"), and the construction and removal of stages, equipment etc.
- 1.2 In latter years, the Health and Safety Executive have expressed concerns that the site sits over a high-capacity pipeline carrying crude oil from the Forties oil field to the refinery at Grangemouth, and have stated, since at least 2011, that the assembly of large numbers of people in the vicinity of the pipe line cannot continue beyond the festival in 2014.
- 1.3 The festival organisers have therefore identified a new site, at Strathallan Castle and Airfield, to the north of Auchterarder, and have already begun to advertise that the 2015 festival will be held there.
- 1.4 Local residents are concerned that this decision has apparently been made without proper consultation, and without proper consideration of the environmental and safety impacts of this proposed change of land use. They have therefore commissioned Andrew Carrie Traffic and Transportation Limited (ACTT) to consider and report on the proposed access arrangements and likely traffic impacts.
- 1.5 Further information may be available on various aspects assessed in this report and can be made available on request.

### **Qualifications and Experience**

- 1.6 Andrew Carrie Traffic and Transportation Ltd is Registered in Scotland No 414163. This report has been prepared by the Director of the company, Andrew Carrie, who was formerly a director and shareholder at Dougall Baillie Associates Ltd, a transport, civil and structural engineering consultancy based in East Kilbride.
- 1.7 He has a Bachelor of Science (Honours) degree in Civil Engineering from the University of Edinburgh (1978). He is a Chartered Engineer, registered with the Engineering Council since 1984, a Fellow of the Institution of Civil Engineers (Member 1984, Fellow 2006), and a Fellow of the Chartered Institution of Highways and Transportation (Member 1990, Fellow 2004).
- 1.8 He has given evidence as an expert witness on traffic and transportation matters at over 200 public local inquiries and hearings, when acting for a wide range of private and public sector clients in Scotland, England and Northern Ireland.



## **2. Brief History**

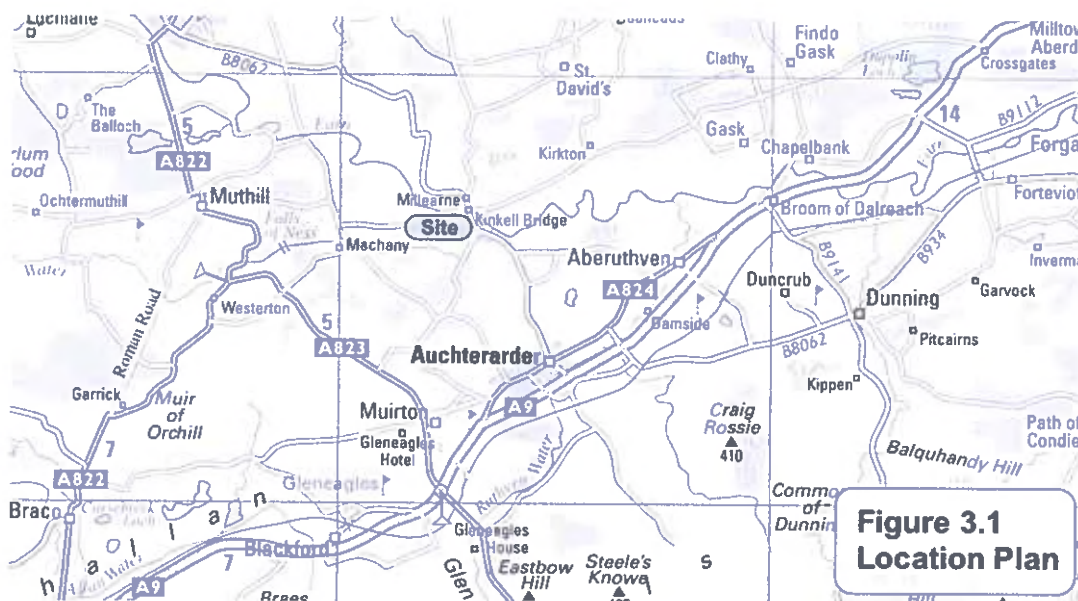
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- 2.1 The T in the Park music festival has been held at Balado since 1997, under a series of temporary planning consents. An application was submitted in 2009 for planning consent for a permanent change of use. That application highlighted, in public safety terms, the incompatibility of that site for a large scale music festival, due to the extensive public safety zone associated with the presence of the high-pressure oil pipeline between the North Sea oil fields and the refinery at Grangemouth. Health and Safety Executive advised against the issue of a permanent, intensified, planning approval.
- 2.2 As a consequence, the planning consent imposed a condition that the festival should not continue after 2011. This was, however, extended by a further planning consent (09/01289/FLM) in 2012 for temporary change of use of the site for the purposes of holding the music festival once in 2012 and once in 2013. These extensions were granted on the understanding that the festival organisers were seeking to identify a new site, and to permit the festival to continue until such a site was identified. The HSE had made it clear, however, that public use of the site could not continue beyond 2014 at the very latest.
- 2.3 No suitable site had been identified by 2013, however, and a further application (13/02107/FLM) was submitted for planning consent to hold the event in 2014. The Report of Handling by the Council's Development Quality Manager, dated 19 February 2014, explains that "Due to the size of the application site, which is over 2 hectares, this proposal is classed as a Major Application as defined by the Town and Country Planning (Hierarchy of Development) (Scotland) Regulations 2009."
- 2.4 The Report of Handling states that the event now attracts an audience population of over 85,000 people, with an additional 7,500 staff. The Public Entertainments licence issued by Perth & Kinross Council was amended in 2012 to permit camping for 70,000 spectators, plus 15,000 day visitors.
- 2.5 The Report also states that "In the weeks either side of the event itself activity levels at Balado Park involve commissioning and de-commissioning works (site assembly, service installation, stage construction/de-construction, litter picking etc)."
- 2.6 In transport terms, the report explains that arrangements for access and egress would be the same as in the previous 17 years, and were therefore tried and tested. On that basis, neither Transport Scotland (who are responsible for maintenance and management of the M90 motorway) nor Police Scotland (who are responsible for traffic control around the site) offered any objections.
- 2.7 Over the years field gates around the site and serving adjacent farm land have been improved (widened, drained and surfaced) to facilitate ease of vehicle movement and off-site car parking for the T in the Park event.

- 2.8 The Report states that “Specific measures and practices to manage vehicle movements at both construction and operational stages of the event have been adopted in previous years. These have been incorporated within a Traffic Management Plan and have evolved over time through consultation with multi-agency groups which include Transport Scotland, Highway Management Agencies, and emergency services across the Central Belt. The planning supporting statement identifies that these measures would continue for the duration of any new consent. They include:
- Promotion of public transport
  - Provision of buses from major centres of population;
  - Specific event only access lanes on the M90;
  - Walking routes from Kinross;
  - Staggering of event times to avoid same time arrival”
- 2.9 Critically, the Report states that “the existing public route network, its capacity and the size of the site itself are factors which have enabled the safe movement of vehicles to and from the site.”
- 2.10 It is therefore evident, from the foregoing discussion, that although the event itself lasts only 3 days, there is a significant period of construction beforehand, and a significant decommissioning period afterwards. It is evident that the event attracts a significant amount of visitors, and that the existing venue, being close to the M90 motorway and accessible by suitable classified roads, facilitates traffic movements. It is also evident that the proximity of Kinross, for people walking into the site, and the suitability of access routes for public transport, are important considerations in approving the festival in this area.
- 2.11 It is especially evident that, if the use of the existing venue requires planning consent, whether permanent or temporary, then the use of any other venue, for the same event and of the same duration (including construction and decommissioning) will similarly require planning consent.
- 2.12 The T in the Park organisers have already advertised that the 2015 event will be held at Strathallan Castle, north of Auchterarder. However, there is no planning consent for any change of use of this area to permit the event to proceed, there is currently no Traffic Management Plan in place, either for construction / decommissioning or the event itself, and there have been no discussions with Transport Scotland (who are responsible for the A9 trunk road) or with Police Scotland.
- 2.13 This report therefore examines the transport network in the vicinity of the proposed site, the various factors affecting its operation, now and in the future, and its suitability to serve such a major event.

### 3. The Proposed Site and Adjacent Transport Network

- 3.1 The proposed site is located approximately 3 miles north of Auchterarder. The location of the site is shown in Figure 3.1.



- 3.2 The nearest strategic road is the A9 trunk road, to the south of Auchterarder. The A9 is a dual carriageway between Dunblane and Perth, and there are 3 junctions which serve the Auchterarder / Gleneagles area. The first of these, known as the Loaninghead junction, is the grade-separated junction between the A9 and the A823. This is the principal junction serving Gleneagles, and the road continues north to join the A823 giving access to Crieff. To the south, the A823 continues through Glen Devon to Yetts o' Muckhart, where it joins the A91, and then continues to join the A977 at Rumblingbridge.
- 3.3 The Loaninghead junction has recently been upgraded, with slip roads extended and improved connections to the A823, in preparation for the Ryder Cup event due to be held at Gleneagles in September 2014. Traffic management arrangements for the Ryder Cup are discussed later in this report.
- 3.4 Prior to the construction of the dual carriageway, the A9 trunk road passed through Auchterarder and Aberuthven. That former route, now designated as the A824, joins the new A9 via at-grade junctions to the north and south. The term "at-grade" means that traffic turning in or out of the side roads must cross the central reservation, and this has resulted in a notably bad accident record at these junctions. Measures have been taken to mitigate these difficulties, including the installation of speed cameras to deter high speeds on the main road approaches, and further measures are currently under consideration as part of an overall study of the A9 route between Dunblane and Inverness by Transport Scotland, which is again discussed later in this report.



**Photo 1 – A9 Junction at Auchterarder**

- 3.5 As it passes through Auchterarder and Aberuthven, the A824 now serves a predominantly local function, with direct frontage to a range of properties including shops, commercial and residential. Photograph 2 shows how the road now accommodates pedestrian crossing facilities and on-street parking, along with bus stops and loading and unloading to adjacent premises, as well as pedestrian and cycle movements.



**Photo 2 – Auchterarder Main Street**

- 3.6 The signed route to Strathallan Airfield and the Cstle follows the B8062 northwards from Main Street. Hunter Street in Auchterarder forms part of that route.



**Photo 3 – Auchterarder Main Street / Hunter Street Junction**

- 3.7 The side road is narrow and visibility splays are restricted by adjacent buildings and boundary walls, although some improvement has been made by moving the kerbs forward, with the junction give way line, and reducing the width of Main Street.
- 3.8 Hunter Street is narrower, and has on-street car parking along much of its length, associated with adjacent properties which have no off-street car parking provision. Two-way traffic flow is dependent on alternating drivers yielding priority to pass parked vehicles. This works satisfactorily at low traffic volumes.



**Photo 4 – Hunter Street, Auchterarder**

- 3.9 As Hunter Street leaves the village, there is a new roundabout recently constructed to serve an adjacent ongoing residential development. This acts as a "Gateway" Feature to traffic entering Auchterarder.





**Photo 5 – New Roundabout on Hunter Street**

- 3.10 To the north of the roundabout, leaving the urban speed limit, the B8062 is rural in character, with a width generally of 5 metres, and with no footway provision. Photographs 6, 7, 8 9 and 10 show the road at various points along its length, between Auchterarder and the junction just south of Kinkell Bridge.



**Photo 6 – B8062 north of Auchterarder**

- 3.11 Photograph 6 shows the limited width for two opposing vehicles to pass. It should also be noted that there is no central white lane along the carriageway. The Traffic Signs Manual, Chapter 5, recommends that central road markings are not appropriate where the carriageway is less than 5 metres wide.



**Photo 7 – B8062**

- 3.12 The B8062 also serves a number of agricultural and residential properties along this length. Some, like those shown in photograph 7, have been constructed or improved to a reasonable standard. Many more, however, have limited width and limited visibility of approaching traffic.



**Photo 8 – B8062**

- 3.13 In addition to its width constraints, the road has poor horizontal and vertical alignment, with blind bends and crests.



**Photo 9 – B8062**

- 3.14 There are short lengths, particularly towards the northern end of the route to the site, where the road does widen to 5.5 metres, so a white centre line has been provided. Nevertheless, drivers were observed to drive along the centre of the road to equalise nearside and offside dangers, and to give a better view around bends. Photograph 9 shows a driver returning to his own side of the road to pass an oncoming vehicle, as he approaches a left-hand bend.



**Photo 10 – B8062 Bridge over Machany Water**

- 3.15 Photograph 10 shows the B8062 continuing north, over the narrow bridge over Machany Water.
- 3.16 Approximately half a mile further north, at Kinkell Bridge, there is an unclassified side road to the west, which currently accesses the airfield and castle. Photograph 11 shows the side road junction.





**Photo 11 – B8062 Kinkell Bridge  
with Private Accesses and Unclassified Road on the Right**

- 3.17 There are therefore a number of constraints along this part of the route, that limit its suitability to carry large volumes of construction or spectator traffic, particularly if that traffic includes buses.
- 3.18 From the above junction, the route to the airfield and castle branches off to the west. This part of the route varies between approximately 4.8 metres to 5 metres wide. Photo 12 shows the route near the junction at Kinkell Bridge. It should be noted that the road had been recently resurfaced by “spray and chip” at the time of our site visit, so there were no road markings. As explained earlier, however, the Traffic Signs Manual does not recommend centre line road markings for roads of this width.



**Photo 12 – Unclassified Road to Site**



**Photo 13 – Unclassified Road to Site**

- 3.19 Photo 4 then shows the existing access to the airfield from that unclassified road.



**Photo 14 – Existing Airfield Access**

- 3.20 This part of the route is narrower, and therefore even more constrained than the B8062 in its ability to carry large volumes of construction or spectator traffic, particularly if that traffic includes buses.
- 3.21 This section, so far, summarises the main route between the A9 and the site. There are, however, a number of alternative minor unclassified routes through Tullibardine to the south, or via Aberuthven or Findo Gask to the east. ACTT have examined and recorded all of those routes, although it is not necessary to

discuss them in detail here, since they are all similar in character to the unclassified road in the proximity of the site, and in photographs 12, 13 and 14. As such, they are not suitable for carrying large volumes of traffic, particularly if that traffic includes larger vehicles and buses.

### **Public Transport**

- 3.22 The Stirling to Perth rail line follows the line of the A9, to the south. There is a rail station at Gleneagles, just to the east of the Loaninghill junction with the A823. There is one service every 9 minutes or so, to Perth or Stirling. Normally, extra trains are made available for major events at Gleneagles etc.
- 3.23 The station was originally served directly by a road from Gleneagles, but that route was cut off by construction of the A9 dual carriageway, and the remaining road end joined the A9 at a simple priority junction. So part of the upgrade of the Loaninghill junction, a new access road was constructed to the A823, combined with the roundabout connecting the junction slip roads.
- 3.24 Reference has also been made to bus timetable information, which indicates that there are a number of bus services, on Auchterarder Main Street. These bus services are summarised in Table 3.1.
- 3.25 It can be seen that there are infrequent bus services serving Auchterarder at the present time.

Service	Route Description	Frequency	Buses/hr	Operator
17	Perth - Gleneagles	120 mins	-	Stagecoach
18	Auchterarder – Tullybardine – Muthill Crieff	3 per day	-	Docherty Midland
19	Perth – Auchterarder - Blackford	60 mins	1	Docherty Midland
20	Auchterarder to Stirling	3 per day		Docherty Midland
604	Strathallan Airfield – Tullybardine - Auchterarder	School Service		Sweeney's Garage
613	Auchterarder - Dunning	School Service		Docherty Midland
618	Auchterarder - Dunning	School Service		Docherty Midland
620	Auchterarder - Blackford	School Service		Docherty Midland

**Table 3.1– Local Bus Services on Main Street**

### **Walking**

- 3.26 It should be noted that none of the roads examined earlier, between Auchterarder and the Strathallan Castle site, have adjacent footways. Pedestrians are therefore obliged to walk on the road carriageway. While that presents no difficulty when traffic flows are low, these roads would not be suitable for high levels of pedestrian flow, combined with higher traffic flows.
- 3.27 The existing site access is approximately 5.5 km (3.5 miles) from Auchterarder Main Street, and a further 3.5 km (2.5 miles) from Gleneagles rail station. It is considered unlikely that pedestrians would find walking attractive, given the distances involved.

## 4. The A9 Safety Study

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- 4.1 The A9 trunk road extends from Dunblane to Thurso, via Perth and Inverness. The Dunblane to Perth section carries more traffic than the northern parts of the route. The annual average daily traffic flow between Dunblane and Perth is approximately 25,000 vehicles per day. Cars make up 81.8% with all goods vehicles making up 17.4%.
- 4.2 The route varies in character along its length, and is now a continuous dual carriageway between Dunblane and Perth, and subject to the national speed limit of 70 miles per hour for cars and light goods vehicles, and 60 mph for heavier vehicles. Between Perth and Inverness, the route alternates between single and dual carriageway.
- 4.3 The Scottish Government have committed to full dualling of the A9 between Perth and Inverness by 2025, and design and site investigation contracts are already under way.
- 4.4 The Government, through its agency, Transport Scotland, has established the A9 Safety Group, whose main aim, before and during the A9 dualling programme, is to explore measures which could be introduced on the route using engineering, enforcement, education and encouragement to positively influence driver behaviour in a way that helps reduce road casualties. The A9 Safety Group are currently undertaking a study to model the route between Dunblane and Inverness and report on those safety measures.
- 4.5 In addition to Transport Scotland, the A9 Safety Group includes:
- BEAR Scotland Limited, responsible for the management and maintenance of the North West, North East and South East Trunk Road units on behalf of Transport Scotland;
  - Road Safety Scotland;
  - Police Scotland;
  - Central Scotland Safety Camera Partnership;
  - Tayside Safety Camera Partnership;
  - Northern Safety Camera Partnership;
  - Scottish Council for Development and Industry (SCDI);
  - Federation of Small Businesses (FSB);
  - Freight Transport Association;
  - Road Haulage Association;
  - The Confederation of Passenger Transport UK (CPT);
  - Stagecoach: One of the largest bus operators in the UK;
  - Institute of Advanced Motorists (IAM);

- Perth and Kinross Council;
- The Highland Council.

- 4.6 On the basis of early results, it is proposed that average speed cameras will be installed between Dunblane and Inverness, which will cover the A9 in the vicinity of Auchterarder. Installation is already under way, and it is understood that the first sections (north of Perth) will be operational in October 2014.
- 4.7 Other recent measures have included the replacement of lighting columns and sign poles by passive structures (ie designed to protect the occupants of any vehicles that collide with them).
- 4.8 The A9 Safety Group have released road accident statistics for each section of the A9 included in the study. Those are expressed in terms of "accidents per 100 million vehicle kilometres" – in other words, they are adjusted to take account of different traffic flows on different sections, to give a comparator of the risk for each section. This is normal practice in such comparisons.
- 4.9 Those statistics are summarised in Table 4.1 below.

Section	Description	Accident / 100 million veh-kms
1	Keir Roundabout to A820 overbridge	9.65
2	A820 Overbridge to Junction with B8033	1.37
3	Junction with B8033 to council boundary, Balhaldie	7.2
4	Council bdry, Balhaldie to Junction at A822 (Braco)	0
5	Junction at A822 to Junction at B8081 Blackford	5.82
6	Junction B8081 Blackford to A823 (Loaninghead)	12.54
7	A823 Flyover to Junction A824 at Auchterarder	16.63
8	Junction at A824 Auchterarder to Abbey Road Bridge	5.63
9	Abbey Road Bridge to Junction at A824 Aberuthven	5.12
10	Junction A824 Aberuthven to Broxden Roundabout	9.74

**Table 4.1 – A9 Accident Statistics**

- 4.10 It can be seen that sections 6 and 7, that is to say, the sections including the Loaninghead junction and the junction into Auchterarder, have a significantly greater safety risk than other sections of the A9. In the time available to prepare this report, ACTT have not been able to examine the circumstances and possible causes of these accidents, but we are aware that:
- (i) the recent improvement to the Loaninghead junction, by realigning, widening and extending slip roads, was specifically designed as a road safety improvement, and not to increase road capacity. It is therefore

likely that this improvement will have reduced the accident rate on Section 6 above; and

- (ii) the improvement scheme at Loaninghead also removed the separate junction on the A9 serving Gleneagles station, and this will probably show a benefit on Section 7. However, we understand that there is also a high incidence of “crossover” accidents at the Auchterarder junction (ie collisions involving vehicles turning right, in to our out of the A824 and this has not been addressed, to date.
- 4.11 Transport Scotland’s figures suggest that 53% of right turn accidents along the whole route between Dunblane and Perth are KSIs (Killed or Seriously Injured) compared to a North East unit average of 29%.
- 4.12 While this section of the report focuses on the accident problems on the A9 trunk road, it should not be overlooked that the local roads, such as the A822 and A823, also have a record of fatal and serious accidents, some of them very recent. This emphasises that any proposals in the area that are likely to increase pedestrian or traffic flows on any of these routes, even some distance from the proposed venue, require careful scrutiny and management.
- 4.13 The road safety concerns on the A9, in particular, have limited opportunities for development in the Auchterarder and Aberuthven area for many years, and the next section of this report examines the mechanisms that have been put in place through the planning system, to ensure that traffic flows at these junctions do not increase until suitable road safety improvements are in place.

## 5. A9 Developer Contributions

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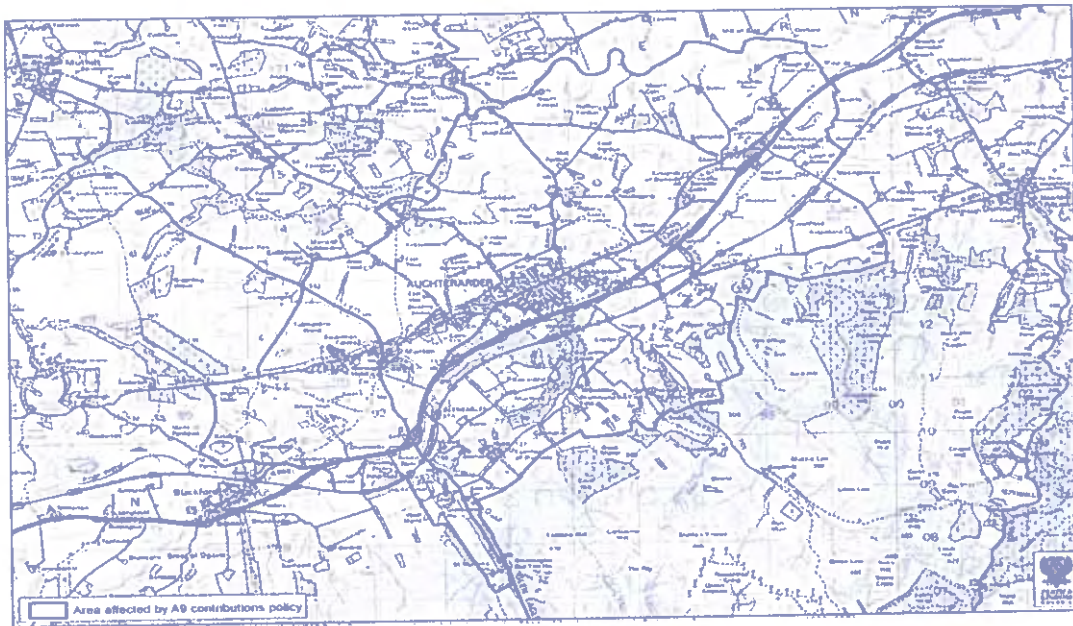
- 5.1 Early in 2001 a consortium of developers, comprising Muir Homes, Stewart Milne Homes and Richmond Homes, commissioned a team of consultants to prepare a Development Framework for the residential development on the Castlemains and Kirkton sites to the north, and for the Townhead site to the south-west of Auchterarder, in accordance with the adopted Strathearn Area Local Plan, which made provision for a mixed use housing development on the northern edge of Auchterarder.
- 5.2 At that time, Transport Scotland, in its role as Highway Authority responsible for the trunk road network, had already been in discussion with Perth & Kinross Council regarding a strategy for the improvement of junctions on the A9 Trunk Road to address the road safety issues discussed in the previous sections of this report. That strategy included the closure of central reserve gaps on the A9 between the Loaninghead (A823) Interchange and the Aberuthven (A824) junction.
- 5.3 The BEAR consortium on behalf of Transport Scotland produced the A9 Auchterarder / Aberuthven Junction Improvement Strategy report in December 2001, and then in August 2005, a Small Scheme STAG Appraisal Report for the A9 at Loaninghead, Auchterarder and Aberuthven which identified measures to improve road safety on the A9.
- 5.4 That report proposed the closure of the central reserve gaps at the A9 Auchterarder South and Aberuthven junctions which would eliminate the hazardous at grade right turn manoeuvres to and from the A9 trunk road southbound carriageway. The existing Auchterarder South and Aberuthven junctions would be retained but would only accommodate left turn manoeuvres to / from the A9 northbound.
- 5.5 It was acknowledged that these closures would intensify traffic movements at the Loaninghead Interchange, and the report recommended that a new southbound on ramp and merge taper should be provided on the solum of the old A9 in the southwest quadrant of the existing Interchange (these are the proposals which were carried out by Transport Scotland and others in 2010, as discussed earlier).
- 5.6 The BEAR report also proposed the construction of a new grade separated junction on the A9 at Shinafoot Road (B8062). The new Interchange at Shinafoot would include the provision of southbound on and off slips and would utilise the existing Shinafoot Road underpass below the A9 to accommodate the grade separated crossing of the A9 from the southbound carriageway. It was also recommended that the horizontal alignment of Shinafoot Road should be improved between the A9 overbridge and the A824.
- 5.7 At the time, Transport Scotland insisted that the existing road safety issues at the Auchterarder South and Aberuthven junctions would have to be addressed before additional development could be accommodated within Auchterarder.



They indicated that the funding program did not include an allocation for these improvements.

- 5.8 They accepted that a modest development of 50 residential units would be acceptable without improvements to the A9 junctions. Further development would be dependent on the Loaninghead improvement being implemented first (permitting the closure of the central reserve gap at Auchterder South, followed by Shinafoot (permitting the closure of the gap at Aberuthven). To be clear, it was stipulated that the full Masterplan development at Auchterarder would require the provision of both Loaninghead and Shinafoot Junction Improvements, although a further detailed assessment by Dougall Baillie Associates, on behalf of the development consortium, identified that some development could be accommodated at Auchterarder with the Loaninghead junction improvement without increasing accident rates over existing levels.
- 5.9 The agreed thresholds are as follows:
- Completion of up to 200 mainstream dwellings prior to the completion of Loaninghead Junction;
  - Completion of up to 500 mainstream dwellings prior to the completion of Shinafoot Junction.
- 5.10 Again, to be clear, these A9 junction improvements were required to address safety issues and not operational capacity restrictions.
- 5.11 After lengthy negotiations with the Scottish Government regarding the upgrading of the A9, the Development Framework process was concluded in February 2008.
- 5.12 Having identified those constraints, planning conditions were attached to the consents for the consortium developments. The Consortium of developers has been willing to lead and implement the works to not only benefit themselves but the wider area.
- 5.13 The total estimated cost of the A9 junction improvements in 2007 was £10.52m. This figure is obviously subject to change in line with inflation, with final figures brought forward through the tendering process of the contracts for junction improvements.
- 5.14 Whilst the Consortium would lead on the delivery of the junction improvements which would relieve the constraint in terms of road safety, this would also allow further development to take place in addition to the framework and therefore have wider benefits.
- 5.15 With that in mind, Perth and Kinross Council produced Supplementary Planning Guidance in November 2012, to provide an approach which is the most equitable, sharing the cost with all development which places demand on infrastructure capacity, rather than placing an uneconomic burden on a limited number of developers.

- 5.16 The area over which the contributions protocol will apply has been identified in map form as shown in Figure 5.1. This boundary incorporates an area where development would access the A9 using Loaninghead or Aberuthven junctions or both, and would subsequently benefit from the proposed junction improvements.



**Figure 5.1 - A9 Supplementary Guidance Boundary**

- 5.17 A financial contribution, calculated at £3,450 per dwelling (to be reviewed every three years), will be sought from all residential developments with the exception of Affordable & Council housing.
- 5.18 A contribution will be sought from non-residential developments requiring a Transport Assessment within the identified boundary, that have a trip generation equal to or higher than a dwellinghouse. However where a formal Transport Assessment is not required or it is considered to reduce the need to travel e.g. through the provision of local employment or services the Guidance would not apply.
- 5.19 Outside the identified boundary area but within the Strathearn Housing Market Area, a contribution would only be sought from developments that require a Transport Assessment which identified that the development would have an impact on the A9 junctions within the boundary area at Auchterarder.
- 5.20 The Guidance states in paragraph 5.22 that "Major developments contrary to the Development Plan will be subject to separate assessment against this Guidance on road safety grounds." Paragraph 5.25 adds that "For non-residential development the contribution will be calculated on the basis of the impact of an equivalent number of residential properties."
- 5.21 The Council produced a monitoring report in April 2012 which demonstrates that 12 developments, ranging in size from single-house developments to a

development of 19 houses, have contributed a total of £158,700 under the terms of the Supplementary Guidance (ie the equivalent of 46 houses granted planning consent). This is in addition to the costs to be met by the development consortium and others.

## **6. The Ryder Cup 2014 Traffic Management Plan**

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- 6.1 At the time of writing of this report, the Ryder Cup is scheduled to take place at Gleneagles in September 2014. Recognising the difficulties of local access to Gleneagles for a large number of spectators, a Traffic Management Plan has been agreed with Transport Scotland, Perth and Kinross Council, Stirling Council, Scotrail and Police Scotland.
- 6.2 The Plan is based, fundamentally, on strictly limiting traffic movements in the vicinity of the event, with no car access or parking at Gleneagles for spectators. Access to Gleneagles during the period of the event will be strictly limited, to ensure no parking issues are experienced in the vicinity of the event.
- 6.3 Spectator access will be based on three Park and Ride sites, all of which are deemed to be easily accessed from the strategic road network, for spectators arriving from all directions. The three Park and Ride sites will be at :
- McDairmid Park in Perth (directly accessed from the A9).
  - Castlevue in Stirling (directly accessed from the M9, and extended to accommodate expected spectator parking); and
  - Balado at Kinross (directly accessed from the M90). Buses from this site will travel one way along Glendevon and return via the M90 from the north. Reduced speed restrictions will be in force around Balado during the event to ensure smooth traffic flow.
- 6.4 Detailed traffic management plans have been produced for each of the Park and Ride sites. All of the Park and Ride facilities will have dedicated provision for cyclists, but pedestrian access will not be permitted for safety reasons and to minimise the disruption to the surrounding areas/businesses which could be caused by parking nearby. There will be drop-off facilities at all Park and Rides for taxis and private vehicles.
- 6.5 Two new temporary bus terminals at Gleneagles are being constructed to handle Park and Ride buses. Access to and from Auchterarder will be kept open, but road restrictions will apply.
- 6.6 Police Scotland will manage traffic at key road junctions at Gleneagles and on the M9, A9 and M90 near the Park and Ride facilities.
- 6.7 Special traffic provisions will operate between Gleneagles and Yetts O'Muckhart along the A823, where there will be some necessary road restrictions for safety reasons, given the very high volumes of traffic expected. It is understood that this will include the complete closure of the A823 at Gleneagles from the A9 junction to Muirton, while the A9 junction through to the A91 at Yetts O' Muckhart will be restricted to local access. Local diversions will be implemented for both of the affected routes.

- 6.8 The A9 Junctions that serve Auchterarder will be subject to restrictions with closure of central barriers and speed controls to 50 or 30mph.
- 6.9 There will be enhanced train provision to the improved Gleneagles Station, and a commitment to keep stations operating for local commuters. A temporary footbridge will be constructed to carry Scotrail passengers over the A9.
- 6.10 These trains have already sold out, so tickets are no longer available. Ryder Cup Europe have therefore added a pre-paid and pre-booked coach service from Edinburgh Bus Station, St Andrew's Square to Gleneagles, where spectators will be dropped off for ticket and security checking and can then walk in to the event site.
- 6.11 These proposals have been discussed with local communities in Auchterarder, Kinross, Stirling and Perth, since March 2014, to offer local community representatives a chance to find out how traffic will be managed during the event and how community needs have been built into the planning. The plans aim to ensure spectators can easily access the 2014 Ryder Cup via various transport options, while minimising disruption to local residents.

#### **Estimated Spectator Numbers and Traffic Movements**

- 6.12 Since all the tickets have been pre-sold since August 2013, the number of spectators on match days is known to be 45,000, travelling by all transport modes. There is no published breakdown of rail, bus and car travel, however, so the following assumptions have been made:
  - (i) there are 2 special trains to Gleneagles from Edinburgh, 5 from Glasgow and 2 from Perth on match days, but it is not known how many carriages / seats will be available on each train. As an estimate, a 3-car diesel multiple unit can carry about 300 people sitting / standing, and those can be coupled together to form a 6-car or 9-car train (the latter with a capacity of 900 or so people). 9 trains, each with 9 cars, could accommodate 8,000 people or so if they were all busy.
  - (ii) The Ryder Cup 2014 website advertises that there will be 5 buses from Edinburgh to Gleneagles on match days. If each of those has 100 seats, that would result in 500 more spectators travelling by public transport.
- 6.13 It is therefore likely that approximately 37,000 spectators will be reliant on the Park and Ride facilities from Stirling, Perth and Balado.
- 6.14 As set out above, the Park and Ride car parks, and the proposed temporary bus terminus at Gleneagles, will be immediately accessible from the principal road network, with reasonable standard roads "door-to-door". As a result, the Ryder Cup plan can use full-size buses. A double deck bus can carry about 100 people including standing, so 37,000 would require 370 double decks (or about 120 from each of the three Park and Rides) spread over 2 or 3 hours arrival in the morning, and the same period in the evenings.

- 6.15 The journey time between each park and ride site and the venue will be 20 to 25 minutes, so when account is taken of boarding and alighting times, each bus should be able to make two trips per hour. Over a period of 3 hours, therefore, 20 buses would be required to serve each Park and Ride site.

## **7. T in the Park Traffic Management**

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- 7.1 The next T in the Park festival is scheduled to take place in July 2015 at Strathallan Castle. With a year to go, there is no agreed Traffic Management Plan or Construction Plan in place, so it is not possible, at this stage, to comment on the proposals in detail. There are, however, inconsistencies in the information that has been made available to date.
- 7.2 First, there is a suggestion that the relocated event may not require planning consent, because of its temporary nature (ie less than 28 days). The prescribed period includes the construction and decommissioning stages before and after the event, and it is difficult to see how all of that can be accomplished within the 28 day limit, when the existing event at Balado takes considerably longer to set up and the subsequently, to remove.
- 7.3 It is also difficult to see how the event at Strathallan would not require planning consent, when the existing event at Balado has required a series of temporary planning consents over the past 18 years.
- 7.4 It may be pertinent to note that any planning application would have to be notified to Scottish Ministers, via Transport Scotland, where there is expected to be a material impact on the operation of the trunk road (in this case, the A9). Given the likely influx of spectators (70,000 people camping plus 15,000 day visitors each day) it would be difficult to argue that traffic impacts were not likely to be "material". Given the long-standing concerns over road safety on this part of the A9, and the ongoing study to consider and implement solutions, it would appear unlikely that the trunk road authority would accept any increased road safety risk, even on a temporary basis.
- 7.5 As at July 2014, the TITP web site includes a number of "Questions & Answers" on the proposed relocation in 2015. In answer to the question "Is it easier to get to" the answer given is "It's pretty much the same! Strathallan is approx an hour away from both Edinburgh and Glasgow. There are good road links with the main route to the north, the A9, just three miles away." The examination set out in earlier sections of this report demonstrates that the road links between the site and the A9 cannot be described as "good".
- 7.6 The same answer continues "As always we'll be providing a shuttle bus service to the site from around the UK. Gleneagles train station is also nearby with regular trains from both Edinburgh and Glasgow as well as daily to and from Kings Cross, London in less than 6 hours." As set out earlier in this report, the roads surrounding the site, connecting to the A9, are not suitable for intensive bus use, especially if mixed with spectator traffic. Gleneagles rail station is at least 4 miles from the site, on the other side of the A9 and with no connecting footways between the site and Auchterarder.
- 7.7 In answer to the question "Will more people be able to go", the website responds "We expect to keep the capacity at the same level in the first year but

there is room to increase that in the future." Presumably any Traffic Management Plan will therefore take this into account.

- 7.8 In response to questions on Scottish Television, a spokesperson for T in the Park said that "One of the key deciding factors on choosing a new venue was ensuring that it had a workable traffic route to ensure ease of travel for both festival goers and the local community. Our current plans will not use or even come past the A9 Aberuthven junction."
- 7.9 It is understood that it is currently proposed that all traffic from Fife and further south would be signed to go north on the M90 to Perth, and then back south on the A9, to avoid routes through Yetts o' Muckhart and Glendevon. It is difficult to understand how that traffic, which will then be combined with traffic from Dundee and Aberdeen, can then reach the proposed site from the A9, without passing through the Aberuthven junction, unless it is proposed to use the narrow and steep minor roads through Findo Gask etc. Those roads are similar to the other minor roads examined in detail in this report, and are not suitable for spectator traffic and / or shuttle buses.
- 7.10 The junctions on to the A9 itself are of a lower standard than those at Aberuthven and Auchterarder, and are only acceptable because they are very lightly trafficked. They are not suitable for an intensification of use, even on a temporary basis.
- 7.11 Although the traffic management proposals at this stage are somewhat vague, it is possible, in light of the above statement, that the traffic impacts of the relocation of the TITP event to Strathallan, may be experienced over a much wider area than simply the routes between Strathallan and Auchterarder, and may extend to include routes through Findo Gask, Tullybardine etc.
- 7.12 There will be a significant number of lorry movements associated with the construction and decommissioning stage, over a number of weeks. As well as the construction and dismantling of temporary structures, these works will also include transporting of associated attractions such as the funfair etc.
- 7.13 Waste management will also be critical, and will generate a number of lorry movements, as will the construction of any temporary hardstandings or car park accesses etc.





**Photo 15 – Lorries accessing Balado**

- 7.14 Photo 15 shows lorry tractor units entering the Balado site on Monday 14 July (ie the day after the 2014 festival) to collect trailers. On that day, there were a number of lorries, of various sizes, entering and leaving the site, and it was evident that dismantling of the site structures had barely started.



**Photo 16 –Balado Lorry Park**

- 7.15 Photograph 16 shows a temporary lorry park adjacent to the Balado site, on that same day.
- 7.16 It is therefore evident that access to the event will be required by lorries of all sizes. It is difficult to see how lorries of that size could manoeuvre around the adjacent minor road network without substantial road widening or corner improvements, outside the existing highway boundary.
- 7.17 It is noted that there are a number of road bridges over the River Earn and its tributaries. These are narrow, and many of them are of a historic “humped” design, which may not be suitable for wide loads or low-loaders. None of

them have statutory weight limits, based on their location and current use, but it may be necessary to consider how they might be affected by a more intensive use during the event, and the periods around it.

- 7.18 Despite the assurances from TITP, it is understood that there has, as yet, been no discussion of a Traffic Management Plan, as the resources of both Transport Scotland and Police Scotland have been focused on this year's TITP event, the Ryder Cup and the arrangements for the Commonwealth Games in Glasgow.
- 7.19 It is therefore difficult to ascertain what the likely traffic impacts will be, and premature to suggest that they will be acceptable.

### **Estimated Spectator Numbers and Traffic Movements**

- 7.20 Based on previous attendances, the number of spectators is expected to be approximately 85,000, travelling by all transport modes. Of those, 70,000 will be camping, and 15,000 day ticket holders.
- 7.21 Because of the limited access for public transport vehicles, and the distance to Gleneagles station, it is likely that the majority of those spectators will be reliant on the private car, more than at the existing Balado venue.
- 7.22 The event organisers have stated in a meeting, that they propose to provide on-site car parking for 12,000 cars, with any remaining spectators arriving by bus. If these are split proportionately between "campers" and "visitors", this would result in 10,000 campers' vehicles and 2,000 for day visitors.
- 7.23 It is unlikely, however, that these 12,000 vehicles will be split proportionately between campers and day visitors, since the latter are more likely to arrive by car. A more likely split would be 9,000 campers' vehicles and 3,000 for visitors.
- 7.24 This would result in 12,000 vehicles (including the camping population) at the beginning and end of the event, and 3,000 vehicles in and out at other times, for day ticket holders.
- 7.25 It is acknowledged that the "camping" traffic could be spread over a longer period of time, and that would result in 9,000 campers' vehicles over a period of, say, 12 hours, which would result in an average of about 750 vehicles per hour, continuously, over that period (some of those would take place on the preceding day).
- 7.26 In addition 3,000 vehicles for day visitors over say 3 hours at the start and end of each day, results in 1,000 cars per hour.
- 7.27 At the start and end of the event, therefore, surrounding roads might carry 1,750 cars per hour. At the start and end of each intermediate day, there would be 1,000 vehicles per hour.
- 7.28 In terms of overall spectator numbers, 12,000 cars, even in the unlikely event that there are if there are 4 people in each car, results in no more than 48,000

people by car. The remaining 37,000 people would be brought in by bus, using those same routes, at the same time. Of those, 34,000 would be campers, and 3,000 would be day visitors.

- 7.29 In calculating the number of buses required, it should be noted that, unlike the Gleneagles event, the venue will not be immediately accessible from the principal road network, but will involve 3 miles or more of these narrow rural roads. As a result, any Traffic Management Plan for the TITP event could not use full-size buses, since those roads are not suitable for large buses, particularly in high volumes, to manoeuvre around bends or corners, or pass each other, or other traffic.
- 7.30 It would be more realistic to assume that, at the most, midi-buses could be used on those roads. Those buses have a capacity of approximately 50, including standing, so the camping population would need 680 of those at the beginning and end of the event. This results in just under 60 buses per hour, or one per minute, if spread out over, say, 12 hours of the preceding day. There would be the same number of buses running empty, in the opposite direction, so there would be 120 buses per hour on surrounding roads.
- 7.31 A further 60 buses would be required each day, for day ticket holders, over a much shorter period of time at the start and end of each day. Again, there would be the same number running empty in the other direction.
- 7.32 As a result, the evolving traffic plan, as explained recently by the organisers, results in a total of 12,000 cars and 1,480 buses (740 in each direction) at the start and end of the event, and 3,000 cars and 120 buses for day visitors, at the start and end of each intermediate day.
- 7.33 In terms of hourly traffic flows, the figures calculated above would result in 1,750 cars (750 + 1,000) per hour, and 160 buses (120 for campers + 120/3 for day visitors) per hour, on surrounding roads.
- 7.34 These are substantial traffic flows, and in normal road design, as per the Design Manual for Roads and Bridges, would require a standard road of at least 7.3 metres width. The roads surrounding the site are barely 5 metres wide, and simply do not have the capacity to carry this volume and type of traffic.
- 7.35 It is clear, therefore, that substantial improvements to junctions, or to provide passing places, would be required to accommodate these traffic volumes, and to permit access by even these smaller buses, in the numbers envisaged, or to accommodate the type of HGVs that would need access during construction and decommissioning. If these road improvements require land outside the existing road boundary (ie including the existing verges) then planning consent would be required, as would Road Construction Consent (since even a wider verge would constitute an extension to the existing road, in terms of the Roads (Scotland) Act 1984.
- 7.36 At the same meeting, however, the event organisers made it clear that they do not propose to acquire land to carry out road improvements, such widening at

junctions to allow lorries or buses to turn, or widening on roads to facilitate vehicles passing each other.

- 7.37 It is clear that without substantial improvements, the narrow roads surrounding the proposed venue are not capable of accommodating these volumes of vehicles, particularly if some are larger (for example, buses). It is also difficult to see how construction vehicles, of the size and number evident at Balado, can use these existing routes to access the site.
- 7.38 Unlike the arrangements for the Ryder Cup, outlined earlier, this plan is very reliant on access by private cars. Interestingly, it is also contradicted by other statements made by the organisers, who suggested, in an interview on 14 July, that they are looking at the option to organise trains to bring all spectators to Gleneagles rail station, and then buses to transfer them to the site. That option would not appear to be practicable because:
- (i) The number of trains that can be provided is constrained by timetabling and signalling restrictions elsewhere on the network, particularly around Glasgow Central, Queen Street, and Edinburgh Waverley. The Ryder Cup organisers were able to fit in 9 trains, with a capacity, at the most, of about 900 people each, so this could accommodate only about 10% of the expected spectator audience for TITP.
  - (ii) Each train would require 9 double-deck buses, or 18 midi-buses, requiring 80 or 160 bus movements in total, to transfer passengers to the venue. Although the recent station refurbishment included a bus turning circle, there is insufficient space for the simultaneous boarding and manoeuvring of multiple buses, to give the necessary throughput, even for those 10% of total spectators.
- 7.39 For each of these shuttle bus options, there would again, obviously, be the same number in the other direction in each period, running empty. Those numbers, even over a number of hours, could not be accommodated on surrounding roads, and would make movements by residents very difficult.
- 7.40 Finally, even if the organisers were to adopt a "Total Park and Ride" approach, similar to the Ryder Cup (and it is accepted that this does not appear to feature in their current proposals), it is possible to draw a rough comparison with the Ryder Cup event, to demonstrate that a "Park-and-Ride" solution is less viable.
- 7.41 The camping population would need 1400 buses (70,000 divided by 50 per bus) at the beginning and end of the event, with a further 300 buses (15,000 divided by 50) in each direction each day, for day ticket holders, over a much shorter period of time at the start and end of each day. Again, there would be a similar number of empty buses in the opposite direction.
- 7.42 The logistics of transferring so many people on to so many buses would require careful consideration, but would not appear to be practicable. In addition, the surrounding road network is not suitable for the resulting numbers of buses.

- 7.43 The Council have indicated that an Environmental Assessment will not be required, and have issued a "Screening Checklist" explaining that conclusion. While that decision by the Council is the subject of a challenge, it is appropriate to note that paragraph 1(b) of the Screening Checklist states that the proposal "Could have a significant impact of traffic numbers and result in congestion on the road network associated with the event. No track record associated with this site, likely to be complex although frequency will be limited to main event days only."
- 7.44 Paragraph 1(f) deals with "Risk of Accidents" but makes no mention of off-site road safety risks.
- 7.45 Paragraph 1(g) (on page 8) discusses the need for road closures or diversions, and concludes that the impact is unlikely to be significant. "Whilst no details are provided, the proposals could result in significant congestion which may result in environmental effects but given the very limited period for the duration of the event this is not considered to be significant."
- 7.46 It is also important to bear in mind that stationary or slow-moving queues of traffic on these narrow roads may mean that access for emergency vehicles, either to the event itself or to other existing premises, could be compromised, with an indirect increased risk to neighbours or their property.
- 7.47 All of these points would appear to support, not negate, the need for a proper appraisal of traffic impacts, not just in terms of route capacity, and likely queues and congestion, but also in terms of impacts on road safety on the A9 and on roads surrounding the venue.
- 7.48 It is acknowledged, however, that discussions with the relevant road authorities have still to take place, and that a Traffic Management Plan and Construction Management Plan will be prepared in due course. It would however appear to be premature to assume, and to publicise already, that the traffic and access constraints set out earlier in this report can be readily overcome.
- 7.49 Comparisons with the previous event at Balado are inappropriate since that venue is accessible by high-standard A-class roads directly from a motorway with considerable spare capacity and no adverse accident record. The traffic arrangements have been developed, and tried and tested, over many years as the event at Balado has grown to national significance
- 7.50 By contrast, the Ryder Cup event acknowledges the difficulties of access in this particular area, and proposes a solution that does not rely on private car access to the event, but intercepts all spectator car trips several miles away, to minimise local impacts. Even then, the event has justified investment in transport infrastructure including improvements to Gleneagles Station and its access road, improvement at Loaninghead Interchange, temporary road crossings, and expansion of the park and ride car park at Castlevew, Stirling.
- 7.51 All of that investment has been made in support of an event which has fewer spectators and which, comparatively speaking, is accessed almost directly from the A9. The TITP event, by contrast, is 3 or 4 miles from Auchterarder or

the A9, or Gleneagles rail station, and public transport is therefore likely to be less attractive, placing greater reliance on the private car.

- 7.52 It would therefore appear reasonable to assume that TITP would require a similar level of investment in transport infrastructure in the area, including improvements to the A9 junctions and improvements to the access routes between the A9 and the proposed site.

## 8. Conclusions

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- 8.1 The T in the Park music festival has been held at Balado since 1997, under a series of temporary planning consents. Following safety difficulties at the existing site at Balado, the T in the Park organisers have identified a new site for 2015, at Strathallan Castle and Airfield, to the north of Auchterarder, and have already begun to advertise that the 2015 festival will be held there.
- 8.2 Local residents are concerned that this decision has apparently been made without proper consultation, and without proper consideration of the environmental and safety impacts of this proposed change of land use. There are concerns, based on information and statements made to date, that the transport constraints surrounding the Strathallan site have been significantly under-estimated, and require careful consideration and scrutiny.
- 8.3 This report explains that the event attracts an audience of over 85,000 people, with an additional 7,500 staff. 70,000 spectators camp on the site, with an additional 15,000 day visitors. Although the event itself lasts only 3 days, there is a significant period of construction beforehand, and a significant decommissioning period afterwards. Works lasting longer than 28 days require planning consent. It is not accepted that the entire event can be constructed and decommissioned within that period.
- 8.4 In approving the final Balado event in 2014, the Council's Development Quality Manager reports that the proposal is classed as a Major Application, and therefore requires pre-application consultation etc. If the use of the existing venue requires planning consent, whether permanent or temporary, then the use of any other venue, for the same event and of the same duration should also require planning consent.
- 8.5 This report examines the transport network in the vicinity of the proposed site, the various factors affecting its operation, now and in the future, and its suitability to serve such a major event. The report concludes that there are significant constraints on the surrounding transport network.
- 8.6 First, there are long-standing concerns regarding the road safety record of the adjacent section of the A9 trunk road, with particular concerns regarding right turn movements at the junctions at Aberuthven and Auchterarder. Transport Scotland have set up the A9 Safety Group to explore measures which could be introduced on the route using engineering, enforcement, education and encouragement to positively influence driver behaviour in a way that helps reduce road casualties. The A9 Safety Group are currently undertaking a study to model the route between Dunblane and Inverness and report on those safety measures.
- 8.7 In the meantime, following extensive negotiations, Perth and Kinross Council and Transport Scotland have placed a limit on developments in the area, until safety improvements are carried out at the A9 junctions. This has subsequently been supported by Supplementary Planning Guidance to ensure that all

developments in the area contribute towards those safety improvements on a pro rata basis.

- 8.8 With this in mind, the Traffic Management Plan for the 2014 Ryder Cup competition at Gleneagles recognises the difficulties of local access to Gleneagles for a large number of spectators, and strictly limits traffic movements in the vicinity of the event, with no car access or parking at Gleneagles for spectators. Spectator access will be based on three Park and Ride sites, at Perth, Stirling and Balado, with temporary bus terminals at Gleneagles. There will be road closures on surrounding roads to minimise spectator traffic.
- 8.9 Spectators will be able to use enhanced train provision to Gleneagles Station, and a temporary footbridge over the A9. This will be supplemented by a pre-booked coach service from Edinburgh to Gleneagles.
- 8.10 The A823 Loaninghill Interchange, was implemented in advance of the Ryder Cup. This is one of the A9 road improvements identified, for some time, as necessary to permit development in the area.
- 8.11 This is a comprehensive Traffic Management Plan, and has been in preparation for a number of years, and has identified specific area where investment has been necessary to enable the event to proceed.
- 8.12 All of that transport investment has been made in support of an event which has fewer spectators and which, comparatively speaking, is accessed almost directly from the A9. The TITP event, by contrast, is 3 or 4 miles from Auchterarder or the A9, along roads which are narrow, and with poor horizontal and vertical geometry, and which are not suitable for any intensification of use, in their current form.
- 8.13 In addition, Gleneagles rail station is at least 4 miles from the proposed TITP site, on the other side of the A9 and with no connecting footways between the site and Auchterarder.
- 8.14 There is no traffic management plan in place for TITP, and proposals at this stage are somewhat vague. There has been no discussion, to date, with Perth and Kinross Council, as the local Roads Authority, or with Transport Scotland, who are responsible for the operation and safety of the A9 trunk road, or with Police Scotland, who will be responsible for managing traffic safely during the event.
- 8.15 It appears, at this stage, that the organisers propose to accommodate parking for 12,000 cars somewhere on the site. This raises significant concerns, in comparison to the Ryder Cup event, where spectator traffic was strictly controlled (or, it would be more accurate to say, prohibited from the surrounding area).
- 8.16 It is not possible to say, with any certainty, that a practical and economically-viable transport solution can be found. Various questions remain, including:
- a. Where will spectator parking be located?



- b. Will the proposal lead to the intensification of traffic (either through traffic or turning traffic) at any of the existing junctions on the A9, which require improvement before any other development is to be permitted?
  - c. How will those vehicles get from the A9 to the car parks?
  - d. What road improvements will be required along those routes to accommodate the expected number of vehicles?
  - e. How will access be maintained for local residents and businesses?
  - f. Will the event propose Park and Ride car parks? If so, where will those be located? What size of buses will be used to transfer spectators? How many buses will there be, and over what period?
  - g. What route(s) will those buses take, and what improvements will be required along the route(s) to accommodate buses passing each other, and other traffic?
  - h. How will spectators access any Park and Ride car parks separately from bus traffic?
  - i. What size of vehicles will be used during construction and decommissioning, and how many will there be? What route will they take and what improvements will be required to accommodate low / wide / long / high vehicles?
  - j. Are the listed bridges on surrounding roads suitable for the proposed intensification of use, particularly if that involves HGVs and buses?
  - k. Is it proposed to provide dedicated train services to Gleneagles? If so, how many trains can be accommodated within operator timetable constraints? How many passengers can be accommodated on those trains? How do those passengers get from the train station to the venue, across the A9 and along narrow roads with no footways?
  - l. What existing communities will be affected by event traffic, ie Auchterarder, Findo Gask, Tullybardine etc.
- 8.17 Many of these points constrain other developments in the area. Without careful consideration of all of these points, and consultation with the relevant authorities, it would appear to be premature to assume, and to publicise already, that the traffic and access constraints set out earlier in this report can be readily overcome.

**PROPOSAL TO RELOCATE  
"T IN THE PARK"  
TO  
STRATHALLAN CASTLE,  
Nr AUCHTERARDER**

**REPORT ON  
ENVIRONMENTAL STATEMENT  
AND  
TRAFFIC MANAGEMENT PLAN**

February 2015

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## APPENDICES

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## 1. Introduction

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- 1.1 DFC submitted a planning application on 15 January 2015, to hold the T in the Park music festival at Strathallan Estate, north of Auchterarder. An Environmental Statement was submitted on 20 January, in support of the application.
- 1.2 Local residents are concerned at the proposed access arrangements and likely traffic impacts. DFC held pre-application events in November 2014, but those did little to clarify proposals for access, or to allay those concerns. They have therefore commissioned Andrew Carrie Traffic and Transportation Limited (ACTT) to consider and report on the access proposals.
- 1.3 This report therefore examines the proposals, as set out in Chapter 7 of the Environmental Statement, and the Traffic Management Plan prepared separately by DFC, and included in the ES as Appendix 7A. The next section of this report points out significant discrepancies between those two documents.
- 1.4 Section 3 demonstrates how traffic flows to and from the event ought to have been calculated, using the information from the Traffic Management Plan, then Section 4 sets out the existing traffic flows more clearly, and then adds those together with event traffic to demonstrate the total traffic likely to use all of the roads surrounding the event.
- 1.5 Chapter 5 discusses the methodology used in the EA to derive capacity of surrounding roads, and then carries out a reassessment of link flows against capacity using that methodology.
- 1.6 Chapter 6 examines the capacity of key junctions, and demonstrates that delays are likely to occur, even under traffic signal or manual control.
- 1.7 Chapter 7 then examines the suitability of these routes for movements by buses and lorries.

## **2. Discrepancies Between ES and TM Plan**

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- 2.1 Both the Transportation Assessment section of the ES (Chapter 7) and the Traffic Management Plan (Appendix 7A) calculate traffic flows to the event, based on figures provided by SEP events (ES para 7.40). Those figures are based on their experience at Balado (ES para 7.45), derived from a later postal survey of 2014 ticket purchasers, with 9,000 respondents (i.e. about 12% of the total event attendance).
- 2.2 The surveyed information included:
- the number of people travelling by each transport mode;
  - the postcodes of tickets buyers;
  - the likely times of travel; and
  - the proposed routes to the site.
- 2.3 The surveyed information has been transposed directly to the proposed event at Strathallan – in other words, it is assumed that the same proportion of people will travel by car, bus or taxi. That may not necessarily be the case, however: the site at Balado is within easy walking distance of Citylink and other bus services which stop at Kinross Park and Ride, on the west side of Kinross near the motorway junction.
- 2.4 Table 2.1 of the TM Plan shows that approximately 25% of attendees at the event, use these services, and then presumably walk into the event.
- 2.5 In contrast, existing bus services through Auchterarder are less frequent than at Kinross, so there is less capacity to accommodate the same number of event-goers. Furthermore, the event site at Strathallan is also a considerable distance from any of those existing bus routes, so travel by scheduled bus services is likely to be less attractive than at Balado.
- 2.6 The site at Strathallan is more remote, with numerous farmlands between the main approach roads and the event site. This is likely to mean that more people are likely to travel by car than to walk from existing settlements (whether they live there or have used bus services which stop there).
- 2.7 It is therefore arguable that the surveyed travel information is not directly transferable to the site at Strathallan. While it is accepted that the survey is all the information there is, some caution should be exercised in interpreting the figures that arise, since they are likely to underestimate the proportion travelling by car to Strathallan.

## Total Daily Traffic

- 2.8 Table 7.6 of the ES shows "Total Projected Trips, TITP 2015", and shows that the Friday is expected to be the busiest of the four days. Those figures correspond with the TM Plan. The remainder of this report therefore focuses on those same Friday figures.
- 2.9 The Table shows 6,738 cars parking on the Friday, another 3,693 drop-offs, 982 taxis, and 557 buses, giving a total of 11,970 vehicle movements over the day. That is not, however, a proper representation of daily traffic movements. First, the "drop-offs", the taxis and the buses are not parking, they are going away again (presumably all by the same route) so there are another 5,232 movements outwards during the same period.
- 2.10 Second, neither the ES nor the TM Plan considers vehicles leaving the site at the end of the day. To consider that impact, reference needs to be made to Table 2.1 of the TM Plan. The appropriate figures are extracted to the table below.

	Day Ticket Vehicles	Vehicles for Campers	Total Vehicles In
Parking	1838	4900	6738
Drop-off	1007	2686	3693
Citylink	76	203	279
Private Coach	47	125	172
Bus	26	70	96
Taxi	268	714	982
<b>Total</b>	<b>3262</b>	<b>8698</b>	<b>11960</b>

- 2.11 The day-ticket parking (1838 vehicles) must leave again later in the day. The other day-ticket holders, highlighted in yellow in the table, will also leave at the end of the day, requiring 1007 vehicles to "pick-up" as opposed to "drop-off", 149 buses and 268 taxis – a total of 1424 vehicles, making a total of 3,262 vehicles leaving.
- 2.12 All of the "pick-up", bus and taxi traffic highlighted in yellow must first come in, collect passengers and leave again, adding a further 1424 inward traffic movements at the end of the day, making a total of 4686 traffic movements on roads around the site during that period.
- 2.13 Those departures will not be spread over a longer period, as the arrivals apparently are, but can be expected to be concentrated in a fairly short period of time after event activities close.
- 2.14 Neither the ES nor the TM Plan contain any information at all, on the impact of this outgoing traffic, or how it is proposed to be routed or managed. This is a serious omission, which needs to be addressed.

## Traffic Split by Routes

- 2.15 Both the ES and the TM Plan then split that traffic on to different routes, according to the post code information for ticket sales. That approach assumes that the same proportion travel by bus from, say, Perth, as from Edinburgh or Glasgow or Dundee or anywhere else. In practice, some of those areas will be better served by their bus provision than others, so the correct approach is to calculate the modals split according to postcode first, and then assign the calculated vehicle traffic to each of the routes, not the other way round.
- 2.16 Again, the necessary information to check this, is not available, so any difference may or may not be significant.
- 2.17 Both the ES and the TM Plan purport to be based on the same information, derived from the postcode survey of 2014 attendees. However, in splitting traffic between different routes, both use a different distribution of incoming and outgoing trips. The table below shows the proportions used in Table 2.3 of the Traffic Management Plan, and what that means in terms of total daily traffic.

Total Daily Inward Traffic – TM Plan Proportions		
Route	Percentage	Vehicles Inward
A9 southbound	1.98%	237
Perth	1.66%	199
A90 Dundee / Aberdeen	13.41%	1604
Fife	10.55%	1262
Edinburgh / Glasgow	72.40%	8659
<b>Total</b>		<b>11960</b>

- 2.18 Although the ES states that it uses the same survey information, it assumes different proportions from each direction, as below.

Total Daily Inward Traffic – ES Traffic Proportions		
Route	Percentage	Vehicles Inward
A9 southbound	3.49%	417
Perth	4.18%	500
A90 Dundee / Aberdeen	14.82%	1772
Fife	13.3%	1591
Edinburgh / Glasgow	64.2%	7678
<b>Total</b>		<b>11960</b>

- 2.19 There is no explanation for this discrepancy. The ES approach therefore underestimates traffic from the south (Edinburgh / Glasgow), and overestimates traffic on other routes. This is critical when considering the assignment of traffic to individual routes surrounding the event, and how they reach the east and west car parks.

## Calculation of Hourly Traffic Flows

- 2.20 Both the ES and the TM Plan then apply a profile to that daily traffic. The ES makes various assumptions in paragraphs 7.50 and 7.51, to derive Figure 7.5

which assumes that the busiest hour is 15% of the total daily traffic. That is at variance with the graph shown as Figure 2 in the Traffic Management Plan, that demonstrates, based on surveys of participants, that the peak hour is 17% of the total. The text below the figure states that "It is this 17% that will be analysed for use in representing the maximum flow rate on any given route."

- 2.21 That statement is incorrect. The ES uses a proportion of 15%, for no apparent reason, but based on various assumptions, to derive the maximum hourly traffic flow rate. In terms of total traffic numbers, 2% of 11,960 daily vehicle movements is an extra 240 vehicles on the road network in that busiest hour.
- 2.22 Again, there is no explanation for this discrepancy. The ES approach therefore underestimates traffic from all directions at the busiest times. This is critical when considering the operation of the surrounding road network at those times.

### **Vehicle Routing**

- 2.23 Figure 7.8 of the ES shows "proposed event traffic route". It clearly shows ALL of the incoming traffic (all coloured routes) going clockwise around the site, past Kinkell Bridge, and then back eastwards to the east car park. The Traffic Management Plan has most of the traffic going southwards from Machany towards Tullybardine, and using the WEST car park access - see Maps 4.3, 5.2 and 6.3 for example.
- 2.24 This is a further inconsistency between the ES and the TM Plan, and the implications will be discussed later in this report.
- 2.25 It should also be pointed out that there is no indication in the TM Plan or the ES, of how traffic will be "encouraged" to use the routes that are set out. There is no indication of how these proposed routes will be "enforced", to prevent drivers choosing any routes they wish, either when arriving at the event, or when leaving (either at the end of each day, or taxis, drop-offs and buses during the day).
- 2.26 For example, it is not clear if controls will be in place to prevent people dropping off ticket-holders in Auchterarder or Gleneagles. This could result in significant numbers of pedestrians walking on roads to the event, which have no dedicated pedestrian footways, and which would be carrying significant volumes of event traffic. Aside from the road safety risk, pedestrians on these roads would also affect their vehicle capacity, as discussed later in this report.
- 2.27 Any traffic diverting from the "recommended" routes clearly has implications on the management of traffic through Auchterarder, and traffic using junctions along the A9 (most of which are already the subject of road safety studies and actions by Transport Scotland and other agencies, including Police Scotland).



### **Contingency Routes**

- 2.28 Contingency route planning is important for such a large event, and should address how traffic could still enter the event if one of the main routes was blocked because of an accident or breakdown, or excessive queues.
- 2.29 The maps in the Traffic Management Plan show contingency routes on the wider road network, that is to say, mainly outside the triangle formed by the A9, A823 and A85 routes.
- 2.30 There is no contingency plan in place for any incidents or emergencies that might occur within that triangle, on the roads carrying most of the event traffic, approaching the site itself. As discussed later in this report, this may be critical since many of these routes will be operating at a level approaching, and in many cases exceeding, their calculated link capacity, so any minor incident would lead to substantial and disproportionate delays.

### **Emergency Access**

- 2.31 Similarly, the TM Plan takes no account of the need to maintain emergency access to existing premises in the area.
- 2.32 Stationary or slow-moving queues of traffic on these narrow roads may mean that access for emergency vehicles, either to the event itself or to other existing premises, could be compromised, with an indirect increased risk to neighbours or their property.

### **Gleneagles Rail Station**

- 2.33 Unlike the arrangements for the Ryder Cup in September, this plan is very reliant on access by private cars. Interestingly, it is also contradicted by other statements made by the organisers, who suggested, in an interview on 14 July 2014 that they were examining the option to organise trains to bring spectators to Gleneagles rail station, and then buses to transfer them to the site. reducing the demand for road transport. These would be supplemented by shuttle buses running between the station and the event. It is notable that neither the TM Plan nor the ES take any account of this possibility, so presumably these plans have now been abandoned.
- 2.34 In any case, the number of trains that can be provided is constrained by timetabling and signalling restrictions elsewhere on the network, particularly around Glasgow Central, Queen Street, and Edinburgh Waverley. The Ryder Cup organisers were able to fit in 9 trains, with a capacity, at the most, of about 900 people each, so this could accommodate only about 10% of the expected spectator audience for TITP.
- 2.35 Gleneagles rail station is at least 4 miles from the site, on the other side of the A9 and with no connecting footways between the site and Auchterarder.
- 2.36 This is an example of a further inconsistency as the proposal has evolved.

### **Construction /Break Traffic**

- 2.37 Table 1.1 of the Traffic Management Plan shows daily arrivals of construction traffic, again based on experience at Balado. This raises one important issue, however. Although not mentioned in the ES or the TM Plan, it is understood that a great deal of the equipment is stored at Balado, and therefore did not need to be transported in or out at the start and end of the event. That equipment will, however, have to be transferred from Balado to Strathallan, adding to these estimated traffic flows. The ES methodology therefore underestimates the number of construction vehicle trips during the construction / break period.
- 2.38 In discussing noise impact in Chapter 8, the ES Sets out, in paragraph 8.58 and Table 8.9, the daily number of construction vehicle trips over the whole period before and after the event. Those numbers are consistent, in terms of daily traffic flows, with the figures in the TM Plan.
- 2.39 Chapter 8 of the ES then goes on to convert those daily flows into hourly flows, by simply dividing the total by 12 hours (8am to 8pm). This assumes that vehicles arriving overnight will be kept in the holding area adjacent to the A823, and released after 8am. The average of all of the daily flow figures is 205 vehicles per day, or 17 vehicles per hour (205 divided by 12).
- 2.40 Chapter 7 of the ES does not replicate the same table of daily traffic flows, but includes as Table 7.5, a daily profile based on the average number of lorries per day. Adding up the numbers in the first column of Table 7.5 results in a total of 209 vehicles over the whole 24 hours, which would appear to correlate with the average derived from Table 8.9.
- 2.41 It is clear, however, from Table 7.5 that although the average is 17 vehicles per hour, this can vary significantly, up to 78 vehicles per hour, or more than one every minute. Those are significant traffic flows to and from the event.
- 2.42 Table 7.5 also demonstrates that an average of 31 vehicles can be expected overnight (8pm to 8am) on roads leading to the holding area. The ES does not make this entirely clear, in assessing the noise impact on properties adjacent to the A823 and other approach routes.
- 2.43 Taking all of these inconsistencies into account, it is hardly surprising that local residents and businesses have experienced some difficulty in understanding exactly what is proposed, and what the implication will be, in traffic terms.
- 2.44 This report therefore goes on to provide further clarity of these issues, based on a more comprehensive examination of the applicant's own traffic figures.

### **Use of Local Roads**

- 2.45 When account is taken of traffic leaving the event, as well as just arrivals, and including construction / break traffic in both directions, the event will add significantly to the very low traffic flows on these narrow local roads.
- 2.46 Some of these roads were resurfaced by “spray and chip” shortly before the Ryder Cup, despite the fact that the TM Plan for that event, added very little traffic on these local roads: the principal traffic movements were buses to and from the A9 on the A823.
- 2.47 The TM Plan for TITP proposes a significant intensification of traffic on these, and on other roads, which were not resurfaced. Over the four days of the event, some of those roads will be carrying more traffic, especially buses, than they would over several years of normal service life.
- 2.48 In addition to any extraordinary wear of the road surface, this report demonstrates later, that buses and HGVs will experience difficulty in manoeuvring within the existing carriageway limits, increasing the risk of damage to verges and the edge of the carriageway.
- 2.49 Section 96 of the Roads (Scotland) Act 1984 gives the roads authority powers to recover any extraordinary maintenance expenses arising from damage to the road, in comparison with the average cost of maintaining a similar road elsewhere. Although they can do that at any time, it is not unusual for relevant conditions to be applied to any planning consent which involves significant movements of heavy vehicles on smaller unclassified roads.
- 2.50 This is normally implemented by carrying out a “condition survey” before and after the operations, with the operator held liable for any additional road damage arising between those times.
- 2.51 It would appear to be reasonable, in the circumstances, for the Council to require a suitable planning condition here, so that any consequent damage to surrounding roads does not have to be repaired at public expense.

### 3. Calculation of Traffic Flows for Event

- 3.1 Chapter 7 of the ES is not particularly clear about how much traffic is added onto individual roads. Table 7.10 does examine flows on some routes around the event, but that information is not readily assimilated.
- 3.2 With that in mind, ACTT have examined traffic to and from the event during the busiest hour, using the routes the Traffic Management Plan sets out in all its maps, and the direction split and the 17% peak hour split also from the TM Plan. Table 3.1 below shows a corrected calculation of peak flows, and proportional split in each direction.

Trip Mode	Friday	17% in peak	A9 s/b 1.98%	Perth 1.66%	A90 s/b 13.41%	Fife 10.55%	Edinburgh 25.44%	Glasgow 46.96%
Cars Parking	6738	1145	23	19	154	121	291	538
Drop Off	3693	628	12	10	84	66	160	295
Taxi	982	167	3	3	22	18	42	78
<b>Total In</b>	<b>11413</b>	<b>1940</b>	<b>38</b>	<b>32</b>	<b>260</b>	<b>205</b>	<b>494</b>	<b>911</b>
<b>Total Out (Drop off + taxis)</b>	<b>4675</b>	<b>795</b>	<b>16</b>	<b>13</b>	<b>107</b>	<b>84</b>	<b>202</b>	<b>373</b>
Buses City Link	279	47	1	1	6	5	12	22
Private Coach	172	29	1	0	4	3	7	14
Bus	96	16	0	0	2	2	4	8
<b>Total</b>	<b>547</b>	<b>93</b>	<b>2</b>	<b>2</b>	<b>12</b>	<b>10</b>	<b>24</b>	<b>44</b>
<b>Total Out (After Drop-off)</b>	<b>547</b>	<b>93</b>	<b>2</b>	<b>2</b>	<b>12</b>	<b>10</b>	<b>24</b>	<b>44</b>
Total Vehicles In	11960	2033	40	34	273	215	517	955
Total Vehicles Out	5222	888	18	15	119	94	226	417
<b>Total vehicles</b>	<b>17182</b>	<b>2921</b>	<b>58</b>	<b>48</b>	<b>392</b>	<b>308</b>	<b>743</b>	<b>1372</b>

- 3.3 To clarify what this means in terms of traffic flows on local routes, these figures have been used to prepare a series of diagrams for cars, buses, and total traffic for each of the coloured routes (i.e. A9 southbound, Perth, Aberdeen/Dundee, Fife, and Edinburgh / Glasgow). For example, traffic Flow Diagram 1a shows the 38 cars per hour from the A9 north of Perth, following the route shown in red in Maps 2.2 and 2.3 of the TM Plan, turning on to the A85 and then south-westwards towards Kinkell Bridge, then into the East car park.
- 3.4 The figure also shows 16 vehicles (drop-off plus taxis) leaving the east car park after dropping off their passengers, and leaving via the route shown in Map 2.5 of the TM Plan.

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- The map shows the Muthill area with roads A822, A823, A824, and A9. Traffic flows are indicated by numbers and arrows. Key locations include Muthill, Auchterarder, Muthill, and Muthill. The map also shows the Falls of Ness, Roman Road, and various other roads and landmarks.

- ### Strathallan Castle – T in the Park





leaving, plus buses returning to the south. Lower traffic flows, still with a mix of buses included, would be maintained on this road during all hours of arrival.

- 3.17 Traffic flows leaving at the end of the event could be expected to be much higher (being a combination of all weekend campers), and over a shorter period of time (a few hours as opposed to 2 or 3 days). It is inconceivable that the hourly traffic exit flow, including pick-ups and buses, could be only 36% higher than the maximum hourly exit flow of drop-offs and buses during the event itself.
- 3.18 These omissions, and the discrepancies between the ES and the TM plan, are significant, and need to be clarified before either can be approved.
- 3.19 These discrepancies set out in this and the preceding chapter of this report, are indicative of the difficulties faced by the local community in ascertaining the likely impacts of the proposal. Inconsistent information has been made available throughout, and it was hoped that the position would be clarified in formal submissions accompanying the planning application. That has proven not to be the case.

## 4. Existing Traffic Flows

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- 4.1 The ES also takes account of existing traffic flows, derived for traffic count surveys supplied by Perth and Kinross Council as set out in tables 7.2 to 7.5 of the ES. Those counts give an indication of traffic flows on the main road network, but do not cover all local routes surrounding the site. The traffic flows, where they are known, are included in Table 7.10 of the ES.
- 4.2 Those existing traffic flows have been extracted from the Tables, and are shown in Flow Diagram 7.
- 4.3 Inspection of the vehicle trip generation for the event (Flow Diagram 6a) shows a significant number of conflicting traffic movements (that is to say, they must give way to each other) at the roundabout at the southbound slip roads to the A9 at Loaninghead junction. At that roundabout, there will be 276 vehicles trying to turn right, but they have to give way to the 619 right-turners and the 84 straight-ahead movements from the north. The 215 movements from Glendevon have to give way to all of that (apart from the 84 going south). This is additional to existing traffic on these roads already.
- 4.4 A further traffic count survey has therefore been carried out at that junction on Friday 13 February, and the results of that survey are also shown in Flow Diagram 7.
- 4.5 There is no information available for other roads in the immediate vicinity of the event. It is fair to say that traffic on some of these roads is negligible, but two in particular (ie the B8062 from Auchterarder to Kinkell Bridge, and the parallel road from Auchterarder through Machany to Muthill, are slightly busier.
- 4.6 Flow Diagram 8 then shows the total traffic flow on these routes, adding event traffic (Flow Diagram 6c) to existing flows (Flow Diagram 7).



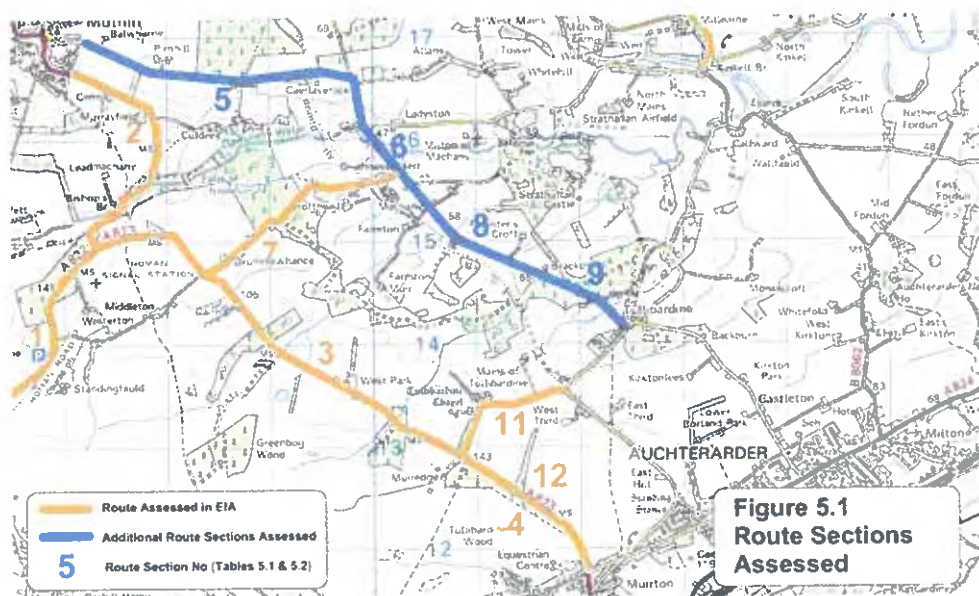
## 5. Reassessment Using EA Methodology

- 5.1 As set out earlier, the ES examines the capacity of surrounding road links, using a formula from the Design Manual for Roads and Bridges. The DMRB Section referred to is "TA 46/97 Traffic Flow Ranges for Use in the Assessment of New Rural Roads".
- 5.2 That part of DMRB clarifies that "This Advice Note sets out carriageway standard options for use as starting points in the assessment of new rural trunk roads." It is notable that the methodology is intended to apply to new roads, not existing routes which may not meet modern design standards.
- 5.3 Unfortunately, however, there is no other advice on rural road capacities. However, it must be applied with caution.
- 5.4 Table 7.10 of the ES sets out a comparison of anticipated traffic flows, against the calculated capacity of various routes surrounding the site.
- 5.5 The ES sets out the formula for calculation of "hourly capacity" as:

$$\text{CAPACITY} = [A - B * Pk\%H]$$

Where Pk%H is the percentage of 'Heavy Vehicles' in the hour, and A and B are parameters dependent on the road type. For a single carriageway, A=1380, and B=15.

- 5.6 It should be noted that Figure 7.10 of the ES purports to show, in orange, the route sections examined in this capacity assessment. However, not all of the local routes near the event, and critical to access to and from the car parks etc, have been assessed. Figure 5.1 shows in orange, the routes actually assessed in the ES.



**Figure 5.1  
Route Sections  
Assessed**

5.7 ACTT have carried out a more comprehensive assessment of these local routes, covering all of the route sections shown in Figure 5.1 (ie adding the sections shown in blue), using the traffic flows derived from the Traffic Management Plan (Flow Diagram 6c).

5.8 The results of that assessment, using the correct traffic flows, are set out in Table 5.1.

Route Section	Description	Existing Traffic	Event Traffic	Total Traffic	% HGV	ES Capacity	ES Spare Capacity
<b>Inbound</b>							
1	A822 from A9 at Greenloaning to A823	173	1472	1645	4.6	1312	-333
2	A822 from A823 to Muthill	255	1498	1753	6.2	1287	-466
3	A823, Tullibardine to Drummawhance	82	465	547	5.6	1296	749
4	A823, Gleneagles to Tullibardine	82	465	547	5.6	1296	749
5	Unclassified, Muthill to Ladyston		1498	1498	6.2	1287	-211
6	Unclassified, Ladyston to Machany		1405	1405	6.6	1281	-124
7	Unclassified, Drummawhance to Machany		465	465	0.0	1380	915
8	Unclassified, Machany to West Car Park		1870	1870	0.0	1380	-490
<b>Outbound</b>							
9	Unclassified, West Car Park to Tullibardine		766	766	0.0	1380	614
10	Unclassified, Tullibardine to A823		838	838	5.3	1301	463
11	A823, Tullibardine to Gleneagles	123	838	961	5.3	1301	340

**Table 5.1 – Route Assessment Using TM Plan Traffic Flows**

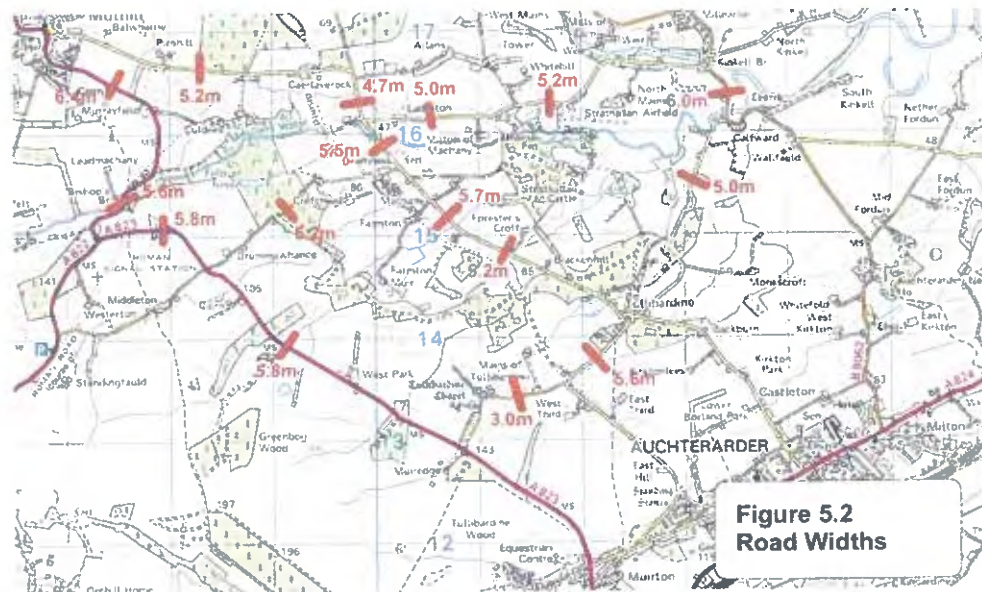
5.9 In addition, however, the formula quoted in paragraph 7.57 of the ES takes no account of the road width - it is assumed that the road allows easy two-way passage.

5.10 The DMRB guidance calculates a daily "Congestion Reference Flow", which takes account of a number of factors, of which the term "capacity" is only one. The calculation of Congestion Reference Flow also includes a "Carriageway Width Factor" which adjusts the capacity for single carriageways with non-standard lane widths. It states that "Roads built to modern designs usually have 7.3 metre or 10 metre carriageways, that is, a width factor of unity or 1.46. The width of older roads can vary significantly but the width factor relationship is not valid for road widths less than 5.5 metres or greater than 11 metres. For roads with widths outside these limits the traffic analyst must use judgement to decide on the relevant value."

5.11 The formula used in the ES does not apply any width correction factor, and therefore assumes that all of the roads approaching the site are at least 7.3 metres wide – the standard road width for new trunk roads.

5.12 ACTT have measured the existing road widths on routes surrounding the proposed event, and those are shown in Figure 5.2. Even the A823, the widest

of any of the local roads, varies between 5.6 metres and 6.4 metres, and so is narrower than the “standard” 7.3 metres. Other local roads vary between 5.0 and 5.5 metres, while the exit route, via Tullibardine Chapel, is only 3 metres wide.



**Figure 5.2  
Road Widths**

- 5.13 There is no correction factor in the DMRB for hump-back bridges, steep hills, or sharp bends, since the methodology is intended for new roads. While the ES approach might therefore be valid in assessing the capacity of the trunk road links, which are closer to modern design standards, it does not take account of the restricted and substandard width and alignment of the local roads leading to the site.
- 5.14 In calculating the hourly capacity, however, it is appropriate to also apply the width factor, which, for a single carriageways (2-lane) is given by the formula:
- $$Wf = (0.171 * \text{Carriageway Width}) - 0.25$$
- 5.15 For a carriageway width of 7.3 metres, this formula resolves to 1.0 – that is to say, no correction is required. For a road width of 5.5 metres, the correction factor is 0.69 – that is to say, less than 70% of the uncorrected capacity value.
- 5.16 Table 7.10 of the ES then looks at their projected traffic flow to and from the event, added to existing surveyed traffic flow, and compares them with that calculated “capacity” and concludes that all routes will be within capacity. Where they are at, or close to, capacity, they simply explain that “local traffic will be lower because people will avoid these routes during the event”.
- 5.17 ACTT have repeated the assessment of local routes, again using the traffic flows derived from the Traffic Management Plan (Flow Diagram 6c) but this time applying appropriate corrections to take account of carriageway width. That assessment is set out in Table 5.2 below.

Route Section	Description	Existing Traffic	Event Traffic	Total Traffic	% HGV	width	Width Factor	Corrected Capacity	Corrected Spare Capacity
	Inbound								
1	A822 from A9 at Greenloaning to A823	173	1472	1645	4.6	6	0.78	1018	-627
2	A822 from A823 to Muthill	255	1498	1753	6.2	6.4	0.84	1087	-666
3	A823, Tullibardine to Drummawhance	82	465	547	5.6	5.8	0.74	961	414
4	A823, Gleneagles to Tullibardine	82	465	547	5.6	5.8	0.74	961	414
5	Unclassified, Muthill to Ladyston		1498	1498	6.2	5.25	0.65	834	-664
6	Unclassified, Ladyston to Machany		1405	1405	6.6	5.25	0.65	830	-575
7	Unclassified, Drumawhance to Machany		465	465	0.0	5.25	0.65	894	429
8	Unclassified, Machany to West Car Park		1870	1870	0.0	5.5	0.69	953	-917
	Outbound								
9	Unclassified, West Car Park to Tullibardine		766	766	0.0	5.5	0.69	953	187
10	Unclassified, Tullibardine to A823		838	838	5.3	3	0.26	342	-496
11	A823, Tullibardine to Gleneagles	123	838	961	5.3	6	0.78	1010	49

**Table 5.2 – Route Assessment Applying Width Correction Factor**

- 5.18 It should be noted that these corrected capacity figures still do not take account of poor alignment, such as sharp bends. Nevertheless, it can be seen that many of these local route sections can be expected to be substantially over capacity, including the A822 between the A823 junction and Muthill, ie crossing Bishops Bridge (where the alignment is poor and the road width is only 5.6 metres, creating a further “bottleneck”).
- 5.19 The approach to the west car park would be carrying almost twice as much traffic as its calculated capacity. Map 9.1 of the ES shows the proposed one-way systems. That route isn't one of them, so will presumably be carrying traffic in both directions. As demonstrated above, 1,870 vehicles is well over the capacity of that road in a single hour, even if there are no junctions.
- 5.20 As shown in Map 1.6 of the TM Plan, however, 5 separate access / exit points are proposed - an entry and an exit for the west car park, and entry and an exit for the drop-off area, and a combined entry / exit for the day car park. That traffic will be approaching from the north at a rate of 1 every 2 seconds, above the full capacity rate for a modern single carriageway, far less a historic narrow one, and that traffic has to then be sorted into 3 separate car parks for campers, day visitors and drop-offs.
- 5.21 It is simply inconceivable that the TM Plan can work at the west car park, without resulting in queues, partly arising from the limited capacity of the road itself, but mainly by the presence of these access junctions and the need to sort traffic between them.
- 5.22 It seems more likely that, as queues started to form, some of that traffic would be directed north-eastwards before Machany, and sent along the road past the bus terminus area, to Kinkell Bridge, and back to the East car park, which the

TM Plan routing suggests would be underused (as discussed in Section 3 of this report). That traffic would then combine with all of the buses going in, and coming out again.

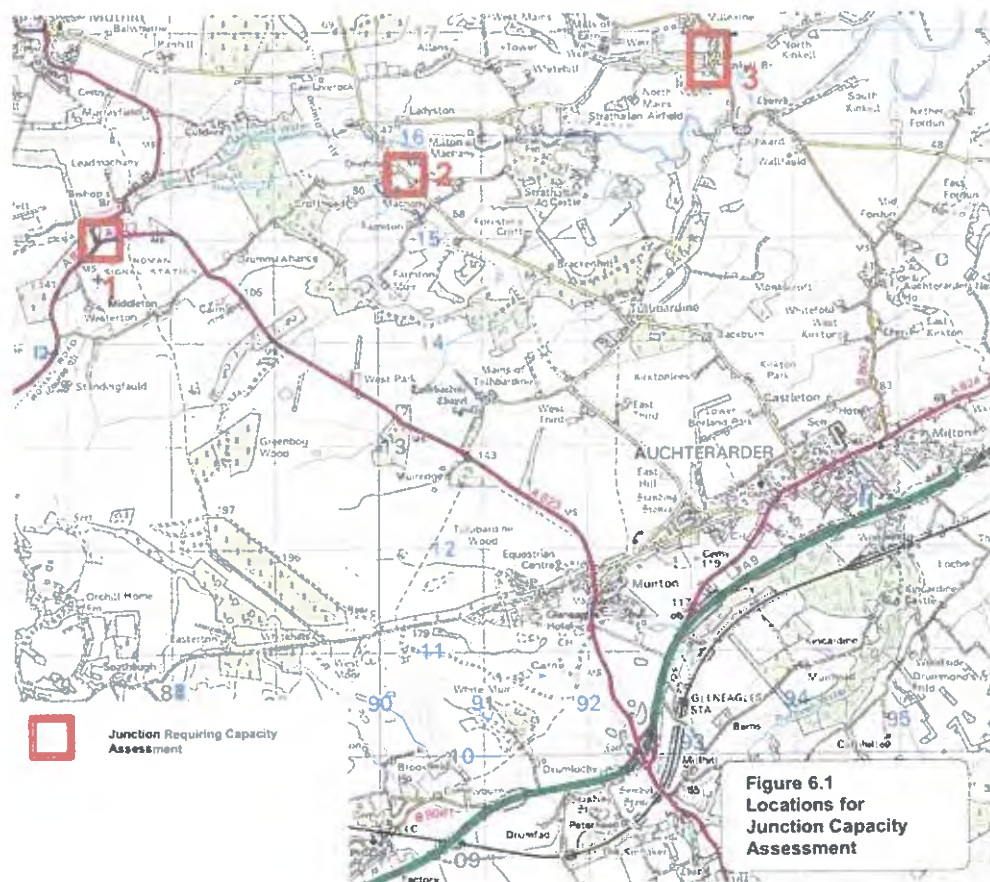
- 5.23 Table 5.2 demonstrates that other local routes to and from the event will be operating at a level well above their capacity.
- 5.24 The DMRB specifically states that this calculated capacity "is a measure of the performance of a road link between junctions. The effect of junctions must be considered separately."



## 6. Junction Capacities

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- 6.1 Paragraph 7.64 of the ES acknowledges that *"There are a number of further points to note from this analysis", and the first is "The theoretical capacity is based on constant movement of vehicles along a route. Any significant delays could cause any route to be over capacity."*
- 6.2 Neither the ES nor the TM Plan consider where such delays might occur, but appear to simply accept that they can be managed by temporary traffic signal or manual control. No attempt has been made to model the effect of those junction controls.
- 6.3 It is understood that a Paramics microsimulation transport model was built for the area, to test the Travel Plan for the Ryder Cup. That modelling exercise showed that they could not allow the public to bring their cars anywhere near the venue - even 1,000 VIP cars were predicted to lead to problems on the slip road from the south.
- 6.4 It appears surprising, if such a traffic model already exists, that DFC have not assessed the impact of the TITP event using that same model, adding all the local roads that lead to Strathallan. It would then be possible to see how vehicles move about the network, how they interact at junctions, and how they access the various car parks, with queues and "hot spots" easy to see.
- 6.5 Similarly, the effect of junction management could be readily modelled, to ensure that queues could be managed.
- 6.6 Nevertheless, as explained earlier, the current ES does not consider these interactions in any detail, and is content to state simply that traffic can be suitably managed.
- 6.7 The fact is that if two high volumes of traffic meet, on roads that are approaching (or are already exceeding) their link capacity, then any form of junction control will result in delays, and rapid formation of queues.
- 6.8 ACTT have therefore identified locations where event traffic routes meet each other, to ascertain that they can, indeed, operate under traffic signal or manual control. Those locations are shown in Figure 6.1.
- 6.9 At each location, ACTT have carried out a capacity assessment of the junction, using the traffic flows set out in Flow Diagram 6c, to demonstrate that temporary traffic control would be required. Each location has been examined as if it was under traffic signal control. That is likely to replicate the effect of manual traffic control, which would still have to allow only one direction to proceed at a time.



- 6.10 Location 1 is the junction of the A822 and A823, where a large volume of event traffic through Braco meets buses northbound on the A823, and all of that is superimposed on existing traffic.
- 6.11 It is accepted that, because of the combination of traffic flows meeting, this junction will require some form of traffic management. The Traffic Management Plan shows 13 sets of traffic signals on the road network, including this location. There is no assessment of how, or if, those would work to manage queues.
- 6.12 The junction was therefore analysed using the computer analysis program LINSIG, using the traffic flows derived in earlier sections of this report, and shown in Flow Diagram 6c. Buses are converted to equivalent passenger car units using a factor of 2 (that is to say, a bus or HGV normally counts as 2 cars for the purposes of junction capacity assessment). The analysis data files are contained in Appendix B.
- 6.13 A given movement at a traffic signal junction reaches its capacity when the Degree of Saturation (DoS) value reaches 90%. Above that value, levels of queuing and delay become more significant.
- 6.14 The results of this analysis show that the average DoS on the A823 approach from the south (Braco) is expected to be 137.6%, with a mean queue at the traffic signals of 322 vehicles, while the DoS on the A822 northbound would be 138.3% with a queue of 15 vehicles. Although the event does not add

traffic southwards, the effect of traffic signals is to create a queue of 65 vehicles from that direction.

- 6.15 It should be noted that this analysis assumes more generous road widths than are available on site.
- 6.16 It is evident that queues at this junction can be expected to be substantial, even if the junction is under temporary traffic signal control. While manual direction of traffic may be slightly better in some ways (in terms of being able to respond to changes in traffic demand), this is unlikely to make a significant difference where the junction is so busy, with all approaches queuing.
- 6.17 Location 2 is the minor junction at Machany, where at peak times, according to the TM Plan, a substantial traffic volume from Drummawhance, and turning right to go south, meets a substantially greater volume coming southwards from Muthill.
- 6.18 This junction was first analysed using the TRL computer program PICADY, using the traffic flows derived in earlier sections of this report and shown in Flow Diagram 6c. Again, buses are converted to equivalent passenger car units using a factor of 2. The analysis data files are contained in Appendix B.
- 6.19 At a priority junction, a given movement reaches its capacity when the Ratio of Flow to Capacity (RFC) value reaches 1.000, however a figure of 0.85 is commonly adopted as a limiting RFC value when analysing roundabout and priority junctions, above which levels of queuing and delay become more significant.
- 6.20 The results of this analysis show that the average RFC on the side road approach from Drummawhance is expected to be 2.003, with the queue growing throughout the period, to 210 metres, simply because there are few gaps in main road traffic, to allow traffic to emerge from the side road. At 6 metres per vehicle, this results in a queue of 1.2 kilometres back towards Drummawhance.
- 6.21 Again, the junction was analysed under traffic signal control, using the computer analysis program LINSIG, and the analysis data files are contained in Appendix B.
- 6.22 The results of this analysis show that the average DoS on the road from Machany is expected to be 112.3%, with a mean queue at the traffic signals of 48 vehicles, while the DoS on the road from Muthill would be 114.4% with a queue of 145 vehicles. It should be noted, however, that there are no traffic figures available for existing traffic on this road, so existing traffic is not included in this analysis.
- 6.23 Event traffic alone would be too much for traffic signals to handle. Any existing traffic would simply add to queues and delays.
- 6.24 Location 3 is Kinkell Bridge. The ES acknowledges that *"Kinkell Bridge is the proposed route for exiting buses to Inverness, Perth, Dundee, Aberdeen, Edinburgh and Fife as well as the entrance for Inverness and Perth cars. There*



*will be conflict here, but calculations show the A85/Maderty Road/Kinkell Bridge route for Perth and Inverness cars to have a large amount of spare capacity. Traffic management at this location will be required."*

- 6.25 Kinkell Bridge is the point where the proposed access routes from the North combine with buses exiting to Inverness, Perth, Dundee, Aberdeen, Edinburgh and Fife, so there will be heavy traffic movements from at least two directions. The calculation of route link capacity does not look at how this junction will operate. It will have to be managed to give priority to one direction then the other (because vehicles, especially buses, cannot pass each other over the bridge). This will result in delays, especially if buses are also having to negotiate the left turn over Kinkell Bridge slowly because of the restricted junction geometry.
- 6.26 However, as discussed earlier, the Traffic Management Plan adds only 70 cars southbound over the bridge, and 93 buses emerging from the road from the Airfield. Even taking account of existing traffic, those low traffic flows would not create a capacity difficulty.
- 6.27 Again, as discussed earlier, the TM Plan directs 1,870 vehicles to the west car park, and 70 to the east car park, during the peak hour. This split of traffic is counter-intuitive, and given the likely problems that will emerge due to the proximity of the entrances to the west car park, the west drop-off zone, and the west day ticket car park, added to the limited capacity of the links leading to that point, it appears likely that a further unpublished contingency plan might be to divert some of that traffic to the east car park, through the junction at Kinkell Bridge.
- 6.28 Such a re-routing may lead to a capacity difficulty, due to the long clearance times required while traffic clears the length of the bridge, before another traffic stream can proceed. Since there will be a number of buses also exiting at this point, their manoeuvring speed around tight radii may have a further detrimental impact on junction capacity.

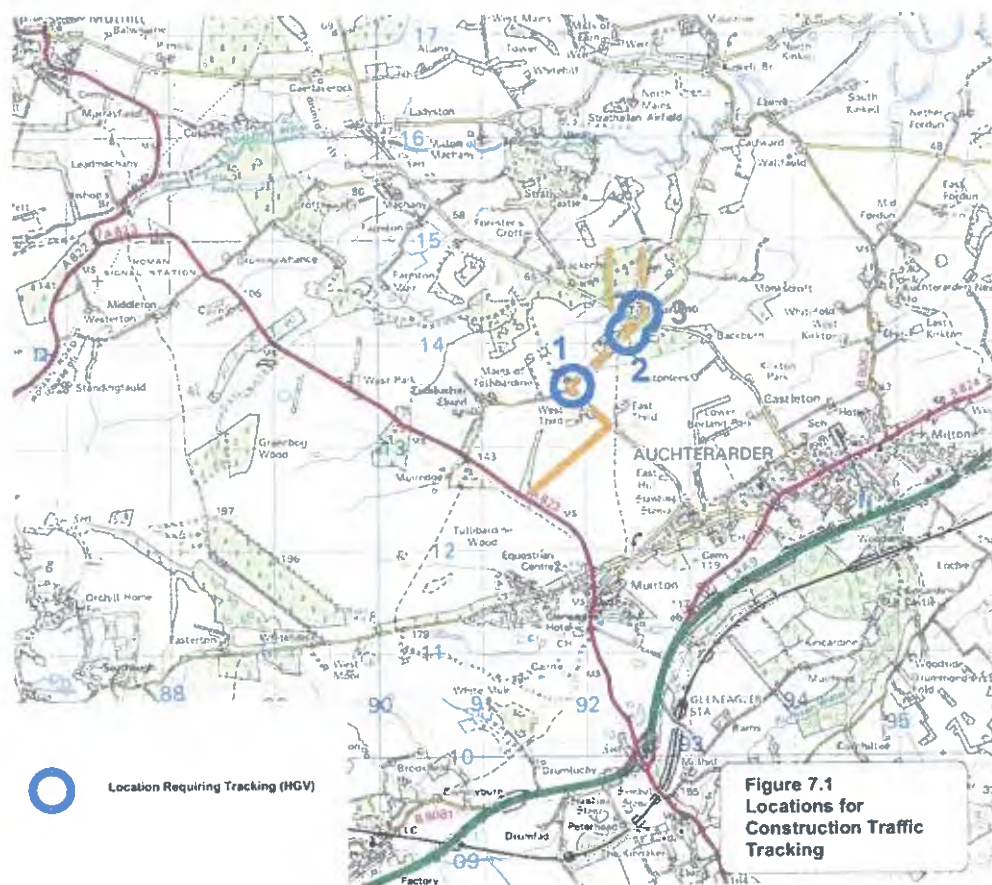
## 7. Vehicle Tracking

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- 7.1 There will be a significant number of lorry movements associated with the construction and decommissioning stage, over a number of weeks. As well as the construction and dismantling of temporary structures, these works will also include transporting of associated attractions such as the funfair etc.
- 7.2 Waste management will also be critical, and will generate a number of lorry movements, as will the construction of any temporary hardstandings or car park accesses etc.
- 7.3 Comparisons with the previous event at Balado are inappropriate since that venue is accessible by high-standard A-class roads directly from a motorway with considerable spare capacity and no adverse accident record. The traffic arrangements have been developed, and tried and tested, over many years as the event at Balado has grown to national significance.
- 7.4 The relocation of the event to Strathallan would result in significant numbers of these larger vehicles using narrow unclassified roads to access the event. Those vehicles would either be lorries during the construction / break period, or buses to and from the event itself.
- 7.5 Neither the ES nor the TM Plan include any discussion of road alignment constraints on the size of buses using the access routes, or on the size of lorries that may need to access the site before and after the event.
- 7.6 ACTT have therefore examined the surrounding road network to identify locations which might be difficult for buses or large lorries to negotiate.

### **Construction / Break Traffic**

- 7.7 Figure 7.1 shows the proposed route for construction / break traffic to enter the site, from the holding area adjacent to the A823. There are three locations, along that route, where lorries would have to negotiate substandard bends and junctions. Those locations are also shown in Figure 7.1.



- 7.8 ACTT have obtained Ordnance Survey base plans of those locations, and have then plotted the track of a large vehicle going to the site, at these key points along this route.
- 7.9 The first location is the bend to the south-west of Tullibardine. Drawing E112/SK/102 shows that such a vehicle can negotiate the bend, but not on its own side of the road. Similarly, Drawing E112/SK/101 shows that a lorry returning, in the opposite direction, has to use both sides of the road to negotiate the bend.
- 7.10 There is already evidence, as shown in the photograph below, that heavy goods vehicles are over-running the verge on the inside of the bend, and the current proposals are likely to increase this damage.



**Photo 1 – Verge Damage at Bend at Tullibardine**

- 7.11 The second location is the junction in Tullibardine itself. Drawing E112/SK/104 shows a lorry turning left into the junction, but again, not on its own side of the road. This means that a southbound vehicle would have to wait north of the junction while the lorry completed its manoeuvre. That in turn requires intervisibility between that approaching vehicle, and the lorry before it reaches the turn. Photograph 2 indicates that these two vehicles would not be intervisible because of buildings and walls on the approach.

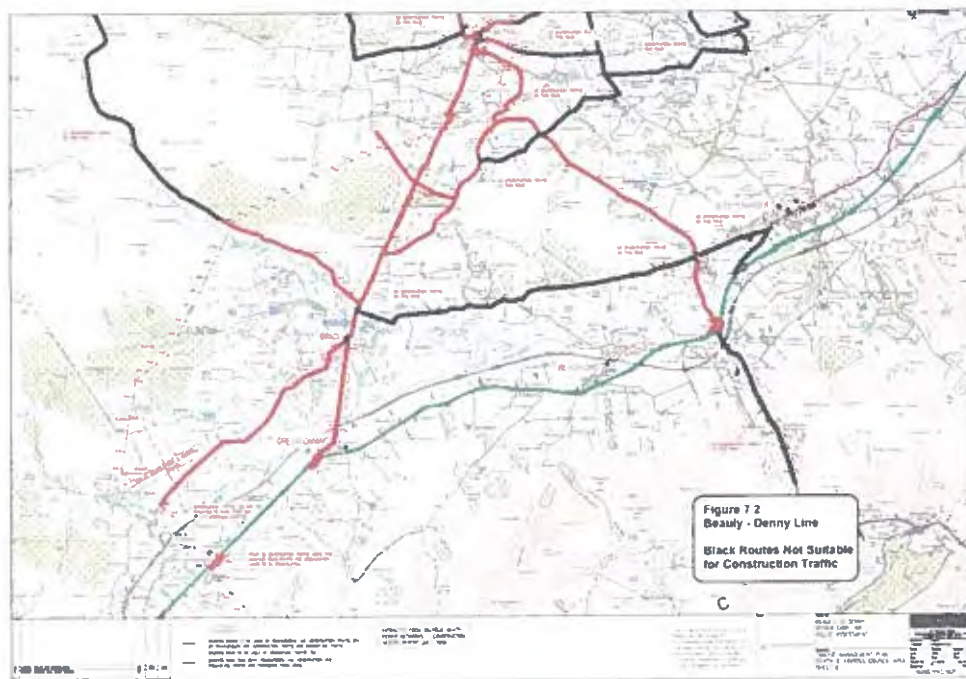


**Photo 2 – Approach to Junction in Tullibardine**

- 7.12 The third location is at the entrance into the Strathallan Estate to the east of the above junction, which the TM Plan describes as “Strathallan Castle Front Entrance”, but is shown as a construction / break access route.

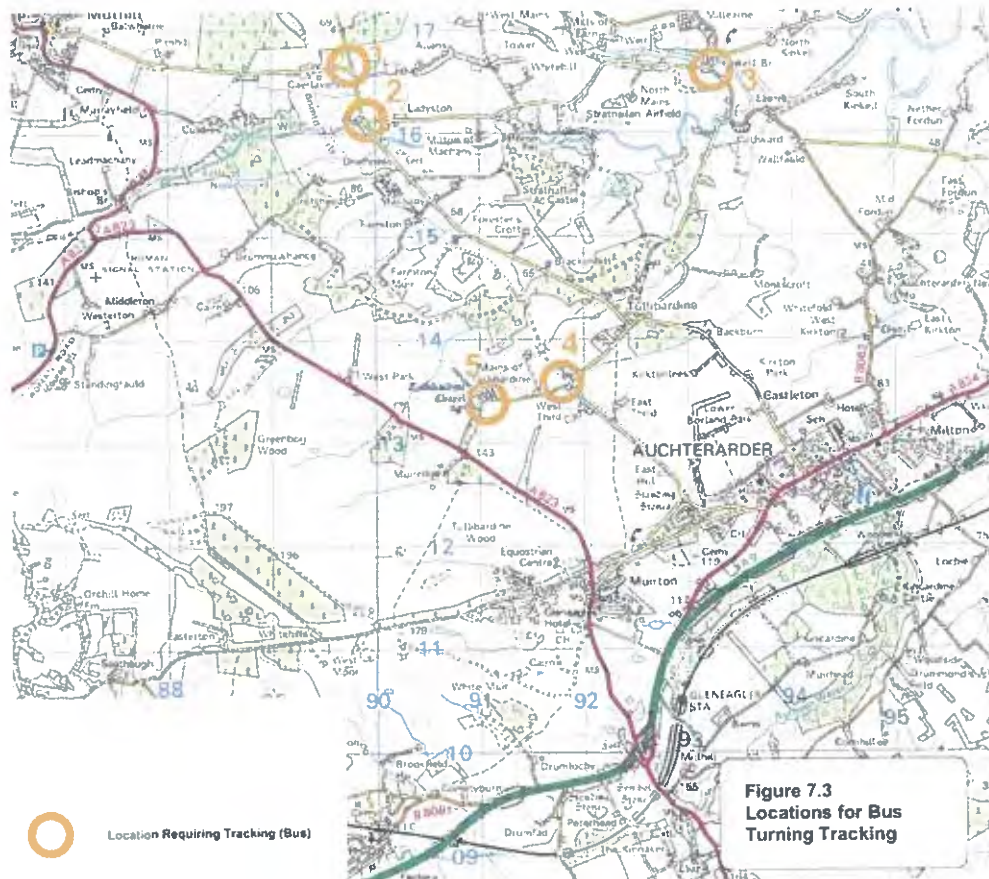


- 7.13 Drawing E112/SK/105 shows a lorry turning left into the access. This demonstrates that a larger vehicle would have to move to the other side of the road, adjacent to the bend, to be able to “wing in” and straighten before reaching the narrow part of the access.
- 7.14 It should be noted that all of these drawings assume a vehicle speed of 5 kilometres per hour, or 3 miles per hour.
- 7.15 There are therefore concerns that lorries using the indicated route could result in damage to the existing road, and, at the junction in Tullibardine, could result in conflicts between lorries turning left, and vehicles approaching the junction from the north.
- 7.16 It should also be noted that, while the TM Plan identifies a route TO the site, it does not identify if construction lorries will be obliged to return, by the same route, to the holding area, or if drivers will be free to leave by any route they choose.
- 7.17 Similarly, during the “break” period, it is not at all clear that lorries will be obliged to leave via the indicated route through the holding area, or if drivers will be free to choose their own departure route.
- 7.18 These points need to be clarified, since these roads are fundamentally unsuitable for construction traffic. This was recognised during construction of the Denny-Beaully power line, where construction traffic was prohibited from using these routes, by planning condition. Figure 7.2 shows, in black, the routes that were covered by this prohibition.



## Bus Routes

- 7.19 Figure 7.3 shows five locations where buses would have to negotiate substandard bends and junctions.



- 7.20 The first of those locations is the bend to the east of Muthil. Drawing E112/SK/201 shows that a bus can negotiate the bend, but not on its own side of the road. Map 9.1 of the TM Plan shows the proposed one-way systems. This route is not one of them, so will presumably be carrying traffic in both directions, so there may be traffic northwards on that side of the road.
- 7.21 Visibility across the bend is limited, so there may be a risk of two vehicles meeting on the bend.
- 7.22 The second location is slightly to the south at Ladyston, where buses turn left towards the bus area, and other traffic continues straight ahead to the west car park. Drawing E112/SK/202 shows that a bus can negotiate the junction, but again, not on its own side of the road. The main route will still be carrying traffic in both directions, so the bus cannot swing out to make the turn.
- 7.23 Again, both of these drawings discussed above, assume a vehicle speed of 5 kilometres per hour, or 3 miles per hour to make these turns. A vehicle travelling at higher speed would have to track further across the corners on the opposite side of the road. Table 5.2. earlier in this report, showed that this route section (No 5 in the table) would already be expected to carry traffic

well above its operating capacity, even assuming that traffic is free-flowing. The inclusion of buses, having to slow to such an extent to negotiate the bend and junction, would have a further detrimental effect on that route capacity.

- 7.24 The third location is at Kinkell Bridge, on the route used by buses leaving after dropping off at the event. Map 7.1 of the TM Plan shows that some of those buses would turn southwards, and then use the route past the east car park to return to the main road network. Map 7.1 also shows approximately half of those buses would turn left over Kinkell Bridge, and then turn immediately right, on to the road to Findo Gask,
- 7.25 Drawing E112/SK/203 shows that a bus can turn left on to Kinkell Bridge, but not on its own side of the road. Drawing E112/SK/204 shows a bus turning right into the side road, not on its own side of the road. There are no proposals to make the road past Findo Gask one-way, so there may be traffic emerging from that junction.



**Photo 3 – Visibility Turning in to Findo Gask junction**

- 7.26 Drivers must give priority to traffic coming towards them around the bend, before they can start the turn. According to the TM Plan, that oncoming traffic includes existing traffic, plus event traffic and buses from Perth, and the A9 north of Perth. The photograph shows that the driver's visibility of that oncoming traffic is severely restricted by the boundary wall on the inside of the bend.
- 7.27 Again, the drawing assumes a maximum vehicle speed of 3 miles per hour to make this turn. The vehicle will be starting from a standstill, so will take some time to complete the turn, invisible to traffic approaching the bend from the north. The road safety risk is self-evident.
- 7.28 The fourth location is west of Tullibardine. Map 7.1 of the TM Plan shows that all of the vehicles leaving the event (ie taxis, drop-offs, plus the remaining buses not turning over Kinkell Bridge as above) would approach from Tullybardine and turn right onto the road past Tullibardine Chapel.



- 7.29 Drawing E112/SK/205 shows a bus turning right into the side road, and then negotiating the left hand bend immediately after. It should be noted that the Ordnance Survey base plan shows the side road (the road to Tullibardine Chapel) as approximately 3.5 to 4.0 metres wide, but measurements on site confirm that the width at the carriageway is only 3 metres wide, so the manoeuvre would be even more difficult than shown in the drawing.
- 7.30 Photo 4 shows the approach to this junction, from the east. Visibility into the side road is limited by the old railway abutment, so approaching drivers would not be able to appraise the layout of both bends on approach, but would be turning “blind” into the junction, then having to align their vehicles precisely for the second bend.
- 7.31 Even with the road made one-way, all of the bus drivers would have to execute unrealistically consistent precision to make these two turns within the existing carriageway width, without damage to the carriageway edge or the verge.



**Photo 4 – Visibility Turning in to Tullibardine Chapel junction**

- 7.32 The fifth location is at the sharp bend in the same road, at Tullibardine Chapel. Drawing E112/SK/206 shows a bus negotiating the left hand bend. Again, although the OS base plan suggests a width of 3.5 metres, the carriageway is only 3 metres wide, so again, the turn would be more difficult than shown, so all of the bus drivers would have to execute unrealistically consistent precision to make this turn within the existing carriageway width, without damage to the carriageway edge or the verge.
- 7.33 Again, both of these drawings discussed above, assume a vehicle speed of 3 miles per hour to make these turns. In this case, the drivers have no option to “cut the corner” – those are the speeds necessary to execute these turns.
- 7.34 Table 5.2. earlier in this report, showed that this route section (No 10 in the table) would already be expected to carry traffic well above its operating capacity, even assuming that traffic is free-flowing. The inclusion of buses, having to slow to such an extent to negotiate the bend and junction, would have a further detrimental effect on that route capacity.



- 7.35 All of these matters should have been considered in the TM Plan and the ES. The examination carried out in this report suggests again, that the practical implications of the TM Plan have not been fully thought through. There are practical difficulties with the plan for construction / break traffic inwards, and no consideration of how those vehicles exit the site. There are also practical difficulties with getting buses to and from the site, which would have a further impact on the route capacities discussed in Section 5 of this report.

## 8. Conclusions

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8.1 This report examines the proposals, as set out in Chapter 7 of the Environmental Statement, and the Traffic Management Plan prepared separately by DFC, and included in the ES as Appendix 7A. The report points out significant discrepancies between those two documents:

- (i) All of the traffic figures are based on surveys at Balado, which is more accessible by existing bus services, and also more accessible on foot. The transport mode splits have simply been transposed to Strathallan, where pedestrian access and existing bus services are both more limited. It is therefore likely that a greater proportion of festival goers will choose to travel by private car;
- (ii) Drop-offs, buses and taxis have to leave again, but are not shown in daily traffic flows;
- (iii) There is no information on routes or management of vehicles leaving at the end of the day;
- (iv) The Traffic Management Plan proportionally splits traffic between the various principal origins, in accordance with surveys carried out after the event at Balado in 2014. The Transport Assessment included in the ES adopts a different proportional split, thus overestimating traffic on some routes, and underestimating traffic on the busiest routes.
- (v) The Traffic Management Plan sets out clearly, a daily profile of traffic arrivals, indicating that the busiest single hour is 17% of the daily total. The Transport Assessment included in the ES states that the busiest single hour is 15% of the daily total. There is no explanation for this variation from the surveyed figure, which underestimates hourly traffic on all routes.
- (vi) Figure 7.8 of the ES shows the "proposed event traffic route", and clearly shows ALL of the incoming traffic (all coloured routes) going clockwise around the site, past Kinkell Bridge, and then back eastwards to the east car park. The Traffic Management Plan has most of the traffic going southwards from Machany towards Tullybardine, and using the WEST car park access - see Maps 4.3, 5.2 and 6.3 for example.

8.2 There is no indication in the TM Plan or the ES, of how traffic will be "encouraged" to use the routes that are set out. There is no indication of how these proposed routes will be "enforced", to prevent drivers choosing any routes they wish, either when arriving at the event, or when leaving (taxis, drop-offs and buses), or from dropping off ticket holders in Gleneagles or Auchterarder, adding traffic to the critical junctions on to the A9, and adding pedestrians on the local routes leading to the event.

- 8.3 Although various local roads are shown in orange in Figure 7.10 of the ES as being included in the assessment, the ES does not consider, at all, the busiest of the local routes leading to the site, ie from Machany to the west car park, or from Muthill to Machany. This is a serious omission from the ES.
- 8.4 This report demonstrates how traffic flows to and from the event ought to have been calculated, using the information from the Traffic Management Plan, then Section 4 sets out the existing traffic flows more clearly, and then adds those together with event traffic to demonstrate the total traffic likely to use all of the roads surrounding the event.
- 8.5 This calculation of traffic flows based on the TM Plan maps and coloured routes shows traffic flows that are not consistent with the ES.
- 8.6 In the busiest hour, when all of the assumptions of the TM Plan are set out properly, it forecasts 1870 vehicles into the west car park, and 71 into the east car park. That split of traffic between the two car parks simply does not make sense.
- 8.7 This report discusses the methodology used in the ES to derive capacity of surrounding roads, and then carries out a reassessment of link flows against capacity using that methodology, but with corrected flows, and including the recommended factor to take account of the various road widths. This reassessment shows that some roads would be significantly over capacity, even on the assumption that traffic is free-flowing and that there are no bends. Junctions etc.
- 8.8 As shown in Map 1.6 of the TM Plan, however, 5 separate access / exit points are proposed to the west car park - an entry and an exit for the west car park, and entry and an exit for the drop-off area, and a combined entry / exit for the day car park. That traffic will be approaching from the north at a rate of 1 every 2 seconds, above the full capacity rate for a modern single carriageway, far less a historic narrow one, and that traffic has to then be sorted into 3 separate car parks for campers, day visitors and drop-offs.
- 8.9 This report identifies other locations where event traffic routes meet each other, and demonstrates that delays are likely to occur, even under traffic signal or manual control.
- 8.10 Neither the ES nor the TM Plan include any discussion of road alignment constraints on the size of buses using the access routes, or on the size of lorries that may need to access the site before and after the event. This report therefore examines the surrounding road network and identifies locations which would be difficult for buses or large lorries to negotiate. Vehicles negotiating these corners or bends at low speeds would have a significant effect on the calculated "free-flow" route capacity.
- 8.11 It would appear to be reasonable for the Council to require an agreement under Section 96 of the Roads (Scotland) Act 1984, so that any consequent damage to surrounding roads does not have to be repaired at public expense.

- 8.12 These discrepancies and difficulties set out in this report, are indicative of the difficulties faced by the local community in ascertaining the likely impacts of the proposal.
- 8.13 It would appear that these practical implications of the TM Plan have not been properly thought through, and need to be clarified before any TM Plan can be finalised.

### **Safeguarding local residents amenity**

Virtually no attempt has been made by DF Concerts to safeguard local residents amenity at the properties most impacted by the festival, it would appear they are to be sacrificed in the drive for maximum profits for DF Concerts. The issue of noise has been completely dismissed in the planning document, as has anti social behaviour, impact on Private Water Supplies and light pollution (deprivation of sleep).

The proximity of fencing to the properties has also been decided without consultation and / or in breach of verbal assurances made, Earnbank House and North Mains Farm being particularly badly affected.

No discussion with regard to security arrangements has, as yet, taken place. Perth & Kinross council made no attempt to visit or speak to the local people impacted or include conditions in the planning approval to help support them during this stressful time. The only recourse now is to the PEL Committee.

There are a number of homes with vulnerable people living in them whose needs have not been taken into account.

[See below reference material]



### **Other Concerns**

No mention has been made at any point of the fact that the bus drop off at Strathallan Airfield is carried out adjacent to large quantities of aviation fuel.

No account has been taken of the presence of large quantities of bees in close proximity to the campsite area.

No consideration has been taken to the large volumes of ticks on the estate and the actions they need to take if one attaches itself to their skin and how to check themselves each day for their presence. There is current a fast and wide spreading concern in Scotland about tick-borne disease. We suggest that a free distribution of tick removal tweezers is recommended together with a leaflet explaining what to do if a tick bite is suspected.

Given that the road system is likely to be clogged with traffic, it does not seem that any attempt has been made to identify households with old, infirm or very young children who might need regular nursing care or access to rapid assistance.

For many their water supply is gravity fed, in the event of a fire, where does the water come from and how long does it take to arrive? The same question is asked about woodland fires in and around the event site and cars over heating waiting to exit the site and bursting into flames either near the gas pipeline in the Car Park or on one of the single track roads with ditches either side where access by fire engines is impossible.

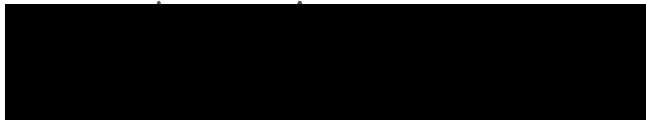
Given the issues around public safety which are very real in this document, it is essential that Strathallan Castle Estates also have public liability insurance in place of £25,000,000, to cover any potential claims which may arise.

We would also ask that any consideration of granting permission for a Public Entertainments Licence should be only for 2015 and that the issues that arise in 2015 are taken into consideration in any later applications by DF Concerts for a Public Entertainment Licence.

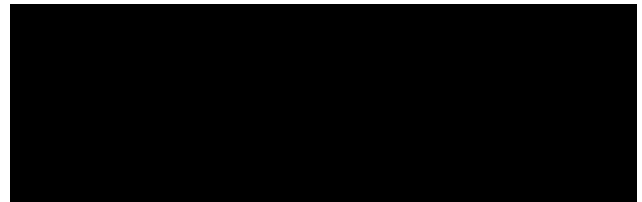
We conclude by asking you to seriously consider the implications for Perth & Kinross, Police Scotland, H&S and Transport Scotland of all the unknowns detailed in this letter. Copies of this representation are being sent to Police Scotland, Tayside Fire & Rescue, H & S Executive and other interested parties.

Thank you for your consideration of all these matters.

Yours faithfully



Mark & Kim Liddiard





**Civic Government (Scotland) Act 1982****Schedule 1**

5 (3) A licensing authority shall refuse an application to grant or renew a licence if, in their opinion—

- (a) the applicant or, where the applicant is not a natural person, any director of it or partner in it or any other person responsible for its management, is either—
  - (i) for the time being disqualified under section 7(6) of this Act, or
  - (ii) not a fit and proper person to be the holder of the licence;
- (b) the activity to which it relates would be managed by or carried on for the benefit of a person, other than the applicant, who would be refused the grant or renewal of such a licence if he made the application himself;
- (c) where the licence applied for relates to an activity consisting of or including the use of premises or a vehicle or vessel, those premises are not or, as the case may be, that vehicle or vessel is not suitable or convenient for the conduct of the activity having regard to—
  - (i) the location, character or condition of the premises or the character or condition of the vehicle or vessel;
  - (ii) the nature and extent of the proposed activity;
  - (iii) the kind of persons likely to be in the premises, vehicle or vessel;
  - (iv) the possibility of undue public nuisance; or
  - (v) public order or public safety; or
- (d) there is other good reason for refusing the application;

and otherwise shall grant the application.



**T IN THE PARK CONDITIONS 2015**

- 1 GENERAL
- 2 MANAGEMENT PLANS
- 3 PROVISION OF SERVICES
- 4 COMMUNICATIONS
- 5 MAPS
- 6 INSURANCE
- 7 FACILITIES AND EQUIPMENT
- 8 APPOINTMENT/NOMINATION OF STAFF
- 9 LIGHTING
- 10 CAMPING
- 11 INSPECTION
- 12 IDENTIFICATION
- 13 INFORMING PEOPLE ABOUT CONDITIONS
- 14 OPENING TIMES
- 15 ATTENDANCE
- 16 SUSPENSION

APPENDIX 2 - CAR PARKS/CAMPSITE INSPECTION MEETING TIMES

APPENDIX 3 - OPENING TIMES OF CAR PARK/CAMPING AREA AND ARENA

APPENDIX 4 - MUSICAL ENTERTAINMENT TIMES IN CAMPING AREA AND ARENA

APPENDIX 5 - TICKET SALES FOR EACH DAY

APPENDIX 6 – MAP OF SITE

## **1 GENERAL**

- 1.1 The licensed site comprises the area delineated on the map attached hereto. (Appendix 6)
- 1.2 The Licence Holder shall follow the guidance detailed in the publication produced by the Events Industry Forum in consultation with the events industry "The Purple Guide to Health, Safety and Welfare at Music and Other Events or any subsequent amendments to the Guide unless more specific requirements are imposed in terms of this licence.

## **2 MANAGEMENT PLANS**

- 2.1 No later than 6 months prior to the Event the Licence Holder, will consult with the agencies detailed in column 2 of Table A (Appendix 1) to prepare the Management Plans detailed in column 1 thereof. The Management Plans will include details of measures which will be taken to properly and safely manage the activities detailed in column 3 of Table A.
- 2.2 No later than 14 days prior to the commencement of the Event on 9 July 2015 and no later than 28 days prior to the commencement of the Event in any subsequent year, the Licence Holder will ensure that the said Management Plans are approved and agreed by the relevant agencies referred to in column 2 of Table A and submitted to the Licensing Authority.
- 2.3 It is a requirement of the Licence that the Licence Holder complies with the duties placed upon it by the Management Plans.

## **3 PROVISION OF SERVICES**

- 3.1 Prior to the commencement of the Event, the Licence Holder shall consult with Police Scotland, Scottish Fire and Rescue, the Scottish Ambulance Service and the Licensing Authority regarding the provision of services necessary for the Event and in each case completed plans for the provision of necessary services will be provided by the Licence Holder to the Licensing Authority no later than 14 days prior to the commencement of the Event on 9 July 2015 and no later than 28 days prior to the commencement of the Event in any subsequent year..

## **4 COMMUNICATIONS**

- 4.1 Prior to the commencement of the Event, the Licence Holder shall consult with Police Scotland, Scottish Fire and Rescue, the Scottish Ambulance Service and the Licensing Authority regarding the provision of a clear and effective system for communication throughout the Event and a signed agreement for the provision of necessary services will be provided by the Licence Holder to

the Licensing Authority no later than 7 days prior to the commencement of the Event.

## **5 MAPS**

- 5.1 No later than 7 days prior to the commencement of the Event, the Licence Holder shall provide in an electronic format capable of being printed, Agreed Maps in an appropriate grid format to Scottish Fire and Rescue, Police Scotland, Scottish Ambulance Service and the Licensing Authority. The Agreed Maps shall clearly show all parts of the Site, including the areas used for camping, car parking, and emergency access points, on site access roads and fire points. The Site boundary will be clearly defined and sections will be named and/or colour coded on the Agreed Maps to enable Scottish Fire and Rescue, Police Scotland, Scottish Ambulance Service and the Licensing Authority to identify locations when responding to an incident.

## **6 INSURANCE**

- 6.1 The Licence Holder shall maintain in force at all times during the period of the Public Entertainment Licence Public Liability Insurance in the amount of £25,000,000 for any one occurrence in respect of the site; Employer's Liability Insurance with a minimum Indemnity Limit of £10,000,000 any one occurrence, and Public/Product Liability with a minimum Indemnity Limit of £25,000,000 for any one occurrence.
- 6.2 The Licence Holder's policy of insurance shall be exhibited to the Corporate Insurance and Claims Team, Perth and Kinross Council, no later than 7 days prior to the commencement of the Event.
- 6.3 The Licence Holder shall provide details of the contractors and sub-contractors' levels of indemnity and a list of their activities to the Corporate Insurance and Claims Team, Perth and Kinross Council, no later than 7 days prior to the commencement of the Event.

## **7 FACILITIES AND EQUIPMENT**

- 7.1 The Licence Holder shall, no later than four days prior to commencement of the Event, provide the accommodation facilities and equipment detailed in the Accommodation Facilities and Equipment Management Plan for the Licensing Authority and other Relevant Agencies.
- 7.2 The Licence Holder shall provide a public address system details of which shall be contained in the contingency plan which shall:
- (i) be capable of broadcasting information in the event of an emergency.
  - (ii) be capable of overriding any other system within the site, including live entertainment equipment.

- (iii) be clearly audible throughout the arena (loudhailers will be used to cover the campsite).
- (iv) be controlled from a central position approved by the Licensing Authority and Emergency Services. Access to the central position will be available at all times to the Licensing Authority and Emergency Services.
- (v) have a power supply which will ensure continuous operation of the system in the event of the failure of the main electricity supply.
- (vi) prior to the admission of the public on to the site all systems used for broadcasting information in the event of such an emergency shall be tested. Records of such tests shall be made available to all Emergency Services for verification.

7.3 The Licence Holder will provide public telephones on the site as agreed with the Licensing Authority

## **8 APPOINTMENT/NOMINATION OF STAFF**

8.1 The Licence Holder shall nominate specified staff to be available throughout the event at a Joint Operations Control Centre or other agreed location to receive and respond to the requirements and notifications of the Licensing Authority.

8.2 The Licence Holder shall appoint a suitably qualified and experienced person to act as the Event Safety Co-ordinator who will be responsible for:

- (i) Liaising with Licence Holder's lead sub-contractors at the Site to ascertain their competence.
- (ii) Assisting the Licensing Authority in the inspection of the venue before and during the event and in particular to meet with the Licensing Authority at specific times as detailed in Appendix 2.
- (iii) Assisting the Licensing Authority in the inspection of all structures and electrical services at the Site.
- (iv) Obtaining and checking all relevant risk assessments, safety policies, hand-over documentation and Safety Certificates for submission to the Licensing Authority by the specified time referred to in the relevant Management Plans detailed in column 1 of Table A (Appendix 1).
- (v) Taking appropriate steps to ensure that any unsafe working practices or the use of any unsafe equipment which is observed or notified to the Event Safety Co-ordinator is halted until remedial action is taken.
- (vi) The Licence Holder's own risk assessment.
- (vii) Liaising with representatives of the licensing authority, emergency services and other involved agencies.

8.3 The Licence Holder or nominated representative will be in charge and present on the Site at all times the site is open to members of the public.

## **9 LIGHTING**

- 9.1 The Licence Holder will ensure that all facilities on Site are adequately illuminated at night including information points, access routes from car parks, gates and thoroughfares where hazards exist. Provision will be made for back up lighting in the event of failure which will be set out in the Major Incident Contingency Plan, referred to in column of Appendix 1.

## **10 CAMPING**

- 10.1 The Licence Holder shall provide camping pitches at the Site to a level or standard as required or agreed by the Licensing Authority and the Emergency Services. Camping areas for campervans/caravanettes or similar shall be subject to prior approval by Scottish Fire and Rescue.
- 10.2 No camping will be permitted in any car parks or within close proximity of vendors' stalls/outlets and/or accompanying vehicles.

## **11 INSPECTION**

- 11.1 There shall be an on-site inspection by the Licence Holder and the Licensing Authority of all facilities to be provided under the Licence Conditions at the times specified in Appendix 2 to determine whether the Site is in a condition such that it can be opened for public use. The Licence Holder shall ensure that they are represented at these meetings by the Event Safety Co-ordinator who has appropriate authority to action any issues or concerns identified by the Licensing Authority.

## **12 IDENTIFICATION**

- 12.1 All Members of Public Authorities acting in the course of their duties and either in uniform, or with the appropriate ID from that Authority together with an event pass, shall be permitted to enter the site or any part thereof at any time prior to, during or after, the event for the purposes of inspection. All Public Authorities must pre-register on the Premise Licence Holder website and take part in its induction save where access is required to respond to an emergency. They shall be allowed to use such access or egress gates as are necessary where any urgent response is required. They shall also be allowed to use such access or egress gates as are necessary if any urgent response is required.

## **13 INFORMING OTHERS ABOUT CONDITIONS**

- 13.1 The Licence Holder shall take all necessary steps to inform any promoter, performer or other people connected or involved with the organisation of the

event, of these conditions and ensure that they do not breach or permit any breach of any condition of this licence.

#### **14 OPENING TIMES**

- 14.1 The permitted times of opening the car parks, campsite, arena and musical entertainment in the arena and the campsite are as detailed in Appendix 3.
- 14.2 The start times of the entertainment in the arena and the campsite are as detailed in Appendix 3.

#### **15 ATTENDANCE**

- 15.1 The maximum attendance in the Site including ticket holders, artists, crew, traders and guests during the whole period of the event should not exceed 92,500 at any time during the Event.
- 15.2 Admission shall be by ticket (including electronic tickets on paper or on electronic devices such as mobile phone) and by wrist bands and/or passes for artists, crew, trader or guest pass. The total ticket sales during the whole period of the event shall be as detailed in Appendix 4. The initial number of ticket sales may be increased subject to the prior written agreement of the Licensing Authority provided that the maximum attendance in condition 3.1 is not exceeded.
- 15.3 The total Camping attendance during the whole period of the event shall be as detailed in Appendix 4.

#### **16 SUSPENSION**

- 16.1 In the event that any of the requirements imposed in terms of this licence have not been fulfilled to the satisfaction of the Licensing Authority, the Licensing Authority will consider whether or not to suspend the licence in terms of paragraph 12, Schedule 1 of the Civic Government (Scotland) Act 1982.



TABLE A - MANAGEMENT PLANS

APPENDIX 1

<b>Management Plans</b> <b>1.</b>	<b>Relevant Agencies</b> <b>2.</b>	<b>Activities Covered</b> <b>3.</b>
Showsec Operating Plan	Police Scotland	<ul style="list-style-type: none"> <li>• Crowd safety and management</li> <li>• Policing</li> <li>• Security (within and around the venue)</li> <li>• On site communication/ security control room</li> <li>• Insurance</li> <li>• Recruitment and training</li> <li>• Risk assessment</li> <li>• Site security</li> <li>• Security</li> </ul>
Transport Management Plan	Police Scotland Perth and Kinross Council Transport Scotland Traffic Scotland Citylink Scottish Fire and Rescue Scottish Ambulance Service	<ul style="list-style-type: none"> <li>• All traffic, travel and transport arrangements and associated communication plans</li> </ul>
Major Incident Contingency Plan	Police Scotland Perth and Kinross Council Scottish Fire and Rescue Scottish Ambulance Service NHS Tayside	<ul style="list-style-type: none"> <li>• Preparing for emergencies</li> </ul>
Contingency Communication Plan	Perth and Kinross Council Police Scotland	<ul style="list-style-type: none"> <li>• Media Communications</li> <li>• Social media</li> </ul>
Safety, Health and Wellbeing Management Plan	Scottish Ambulance Service NHS Tayside Perth and Kinross Council DAAT Partnership Police Scotland	<ul style="list-style-type: none"> <li>• Medical</li> <li>• Public Health</li> <li>• Food Safety</li> <li>• Health and Safety at Work including fire safety in concessions</li> <li>• </li> <li>• Special effects and pyrotechnics (other than fire)</li> </ul>

		safety aspects) <ul style="list-style-type: none"> <li>• Welfare and Advice</li> <li>• Drugs and Alcohol</li> </ul>
Environmental Plan	Perth and Kinross Council SEPA Scottish Water	<ul style="list-style-type: none"> <li>• Sanitary facilities</li> <li>• Waste water</li> <li>• Campsite welfare</li> <li>• Toilet/facilities</li> <li>• Drainage/sewerage</li> <li>• Waste Management</li> <li>• Litter clearance</li> <li>• Recycling</li> <li>• Noise</li> <li>• Water provision</li> <li>• Tap signage</li> <li>• Drainage systems</li> <li>• Water supply and quality</li> </ul>
Structures and Fire Safety Plan	Perth and Kinross Council Scottish Fire and Rescue	<ul style="list-style-type: none"> <li>• Fire safety</li> <li>• Building Standards</li> <li>• Safety and Structures</li> <li>• Disability Access</li> <li>• Special effects and Pyrotechnics (relating to fire safety)</li> <li>• Facilities for the disabled</li> <li>• Chemical solvents and gases</li> <li>• Recording information and keeping records</li> </ul>
Accommodation facilities and Equipment Plan	Perth and Kinross Council, Police Scotland, Scottish Fire and Rescue,,	<ul style="list-style-type: none"> <li>• Accommodation, facilities and Equipment to be provided by the Premises Licence holder for use by Relevant Agencies</li> </ul>

**Car Parks Inspection Meeting Times:**

<b>Wednesday 8 July 2015</b>	<b>1200 hours</b>
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**Campsite Inspection Meeting Times:**

<b>Wednesday 8 July 2015</b>	<b>1700 hours</b>
<b>Thursday 9 July 20145 (including designated camping areas)</b>	<b>1100 hours</b>
<b>Friday 10 July 2015 (including designated camping areas)</b>	<b>0800 hours</b>

**Arena Inspection Meeting Times:**

<b>Thursday 9 July 2015</b>	<b>1700 hours</b>
<b>Friday 10 July 2015</b>	<b>1000 hours (rest of main Arena)</b>
<b>Saturday 11 July 2015</b>	<b>0900 hours</b>
<b>Sunday 12 July 2015</b>	<b>0900 hours</b>

(i) **Parking Areas may be open as follows**

<p><b>From 0700 hours on Thursday 9 July 2015 until 1600 hours on Monday 13 July 2015</b></p>
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(ii) **The Camping Area may be open as follows:**

<p><b>From 1100 hours on Thursday 9 July 2015 (including designated arena areas)</b></p>

(iii) **The Arena may open to the public as follows:**

<b>Friday 10 July 2015</b>	<b>Between 1200 and 0100 hours</b>
<b>Saturday 11 July 2015</b>	<b>Between 1000 hours and 0100 hours</b>
<b>Sunday 12 July 2015</b>	<b>Between 1000 hours and 2400 hours</b>

**Note: the designated arena areas area forms part of the campsite when the main Arena is not in operation.**

(iv) **Campsite Entertainment may operate as follows:**

<b>Thursday 9 July 2015</b>	<b>From 1400 hours to midnight</b>
<b>Friday 10 July 2015</b>	<b>From 1000 hours to 0200 hours on Saturday 12 July 2015</b>
<b>Saturday 11 July 2015</b>	<b>From 1000 hours to 0200 hours on Sunday 13 July 2015</b>
<b>Sunday 12 July 2015</b>	<b>From 1000 hours to 0200 hours on Monday 14 July 2015</b>

***Arrangements for this entertainment shall be to the satisfaction of the Executive Director (Environment).***

(v) **Musical Entertainment in the Arena may operate as follows:**

<b>Friday 10 July 2015</b>	<b>Between 1300 hours and ending by 2400 hours (designated areas only)*</b>
<b>Saturday 11 July 2015</b>	<b>Between 1000 hours and ending by 2400 hours</b>
<b>Sunday 12 July 2015</b>	<b>Between 1000 hours and ending by 2400 hours</b>

**\*Designated Areas to be agreed in advance of the event, with the Licensing Authority**

***All in accordance with the Public Entertainment Licence issued by the Licensing Authority.***

**T IN THE PARK 2015**  
**THURSDAY 9 JULY – MONDAY 13 JULY**  
**TICKET SALES**

	<b>Thursday 9 July</b>	<b>Friday 10 July</b>	<b>Saturday 11 July</b>	<b>Sunday 12 July</b>
<b>Camping Tickets Only</b>	<b>40,000</b>	<b>70,000</b>	<b>70,000</b>	<b>70,000</b>
<b>Fri/Sat/Sun Day Tickets Only</b>	<b>N/A</b>	<b>15,000</b>	<b>15,000</b>	<b>15,000</b>
<b>Totals</b>	<b>40,000</b>	<b>85,000</b>	<b>85,000</b>	<b>85,000</b>