Alton Towers Resort

Proposed Replacement Roller Coaster

Transport Assessment Report

December 2011

Document History

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1. Introduction

1.1 This Transport Assessment has been prepared by Atkins on behalf of the Merlin Entertainment Group in support of a planning application for a new rollercoaster attraction within the Alton Towers Resort in Staffordshire.

The Proposed Development

1.2 The proposal seeks planning and conservation area consent for the demolition of existing structures (including the demolition of the Black Hole tent) and installation of a new rollercoaster (not exceeding 25 metres from existing ground levels), construction of associated buildings and hard and soft landscaping. The planning application is being prepared by Nathaniel Lichfield & Partners, details of the proposal, the drawings and location plan relating to this Transport Assessment will be submitted as part of the planning application.

Contents of the Document

1.3 Section Two describes the existing traffic conditions based on traffic surveys in 2010 which support the assessment of potential traffic generation in Section 3. The expected impact is estimated in Section 4 and a statement on the sustainability is contained in Section 5.

Summary of Conclusions

1.4 The Transport Assessment concludes that the proposed development will not affect the operational capacity of the local highway network and will have no detrimental impact on the vehicular trips associated with the Resort. It concludes that there are no valid highway or transportation reasons which should prevent the proposal from being developed at Alton Towers Resort.

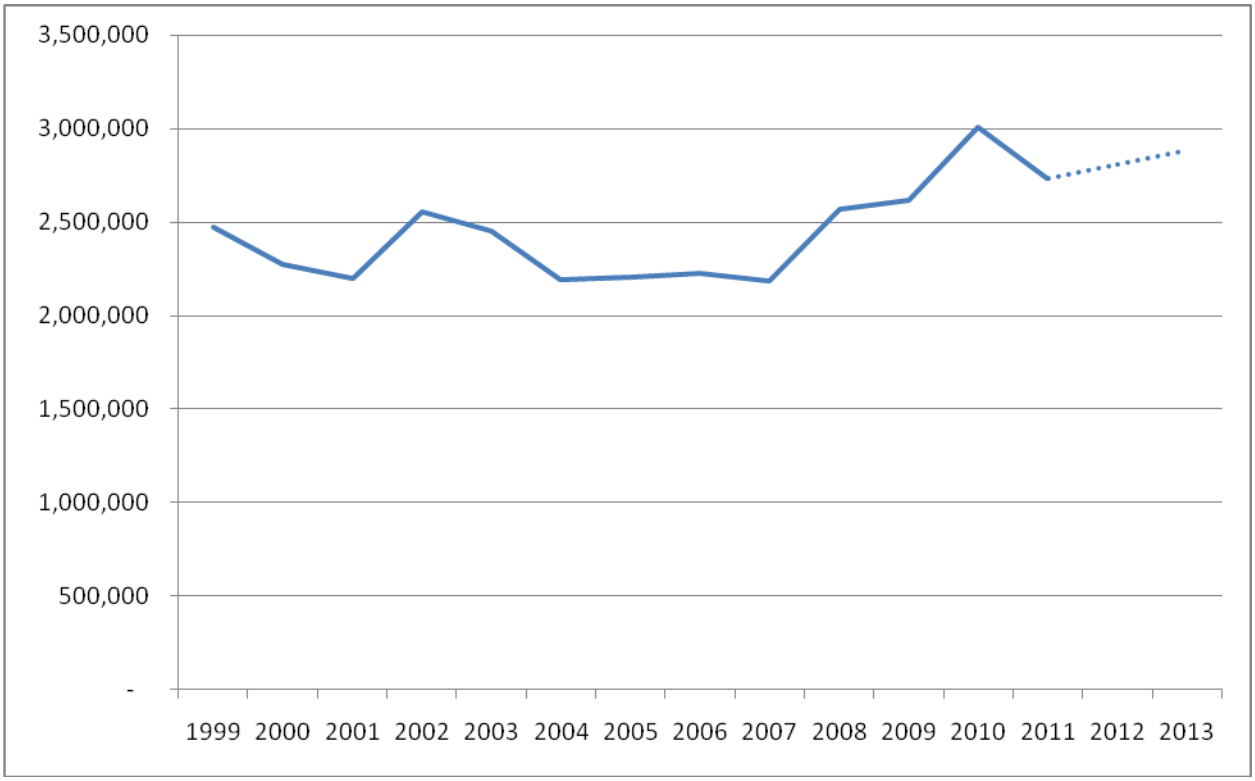
2. Existing Traffic Conditions

Resort Visitor Data

2.1 The Alton Towers Resort records the number of admissions to the Resort daily.

2.2 Figure 2.1 below provides the total annual visitors to the Resort between 1999 and 2011 and includes the projected totals for 2012 and 2013 based on the increase in visitors for the proposed development.

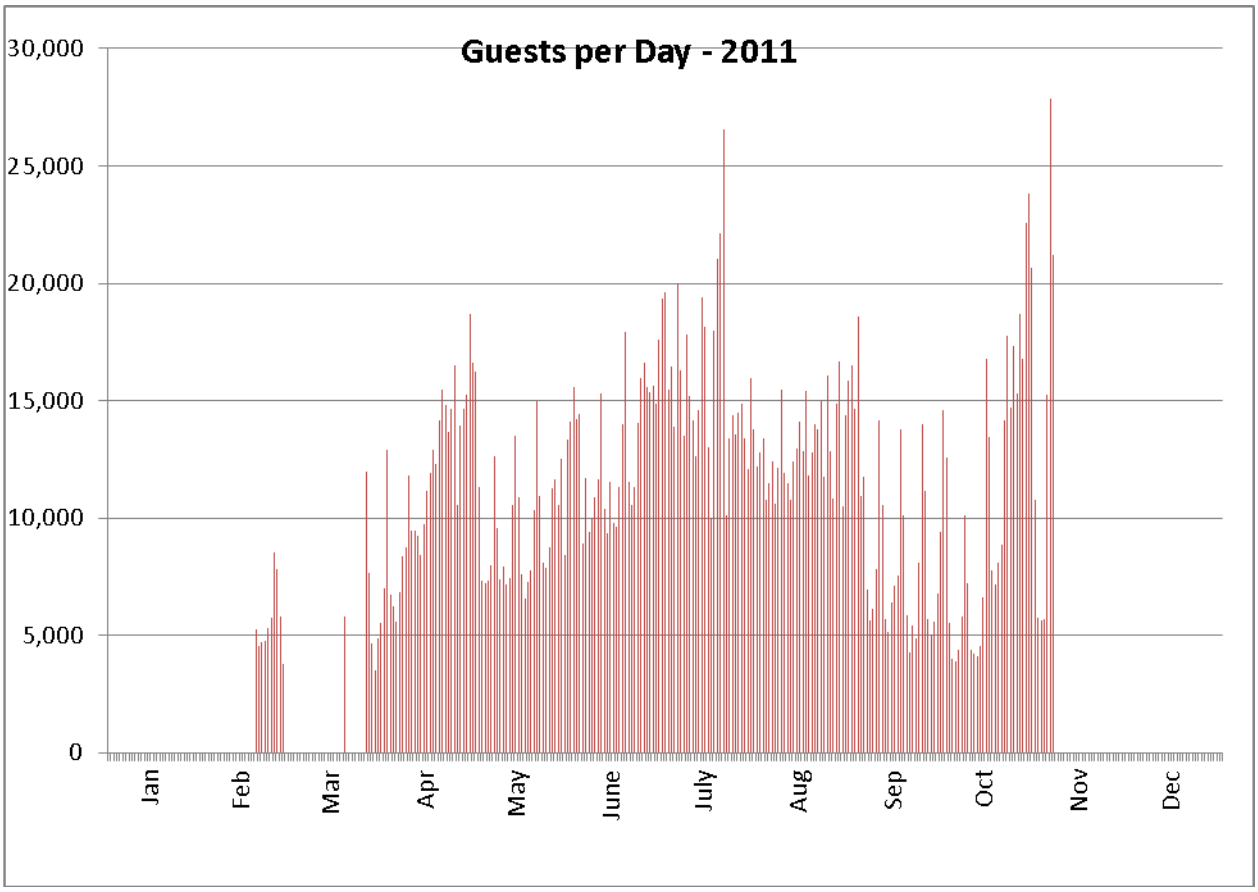
Figure 2-1 - Alton Towers Resort yearly Guest Volumes



2.3 This data indicates that the forecast increase in visitor numbers during 2012 and 2013 will not achieve total visitor numbers as high as those experienced in 2010. In 2010 there was an expected increase in visitors due to the launch of a major new rollercoaster called TH13TEEN and the additional success of the special events for Fireworks and Scarefest (held at the end of October) and two concerts (Pink concert held in June 2010 and the 80s concert held in May 2010). In addition the on-going effects of the recession saw an increase in 'staycations' with an increase in UK based day trips and short breaks. However, in spite of all of the additional activity there were no significant problems experienced on the public highway network.

2.4 The daily visitors at Alton Towers Resort are available for 2011 and are shown graphically in Figure 2.2 below.

Figure 2-2 - Alton Towers Park - Daily Guest Volumes 2011



2.5 The graph showing the daily admissions for 2011 indicates the peak and Peak+ days related to concerts and special events. During Peak+ days the Resort provides additional traffic management measures.

2.6 Table 2.1 shows the daily visitor numbers by day type for the past 4 years.

Table 2-1 - Number of Days by Day Type – 2008 to 2011

		2008	2009	2010	2011
Annual Admissions		**2,575,581**	**2,668,576**	**3,010,533**	**2,732,179**
Maximum Day		24,081	26,845	29,155	27,858
Average Day (of days open)		10,180	11,356	12,492	11,528
Day Type Analysis					
Peak+ Days	>20,000 admissions	4	6	13	9
Peak Days	17,001 - 20,000 admissions	20	24	21	13
Design Days	11,001 - 17,000 admissions	91	90	119	106
Normal Days	7,301 - 11,000 admissions	54	57	50	57
Quiet Days	< 7,300 admissions	84	58	38	52
Total		**253**	**235**	**241**	**237**

2.7 This data indicates that measures introduced over the past 4 years have decreased the number of Peak and Peak+ days for an increase in total visitors. For example in 2011 the total number of visitors was 60,000 more than 2009 but the number of Peak/Peak+ days decreased from 30 to 22.

Data Collection 2010

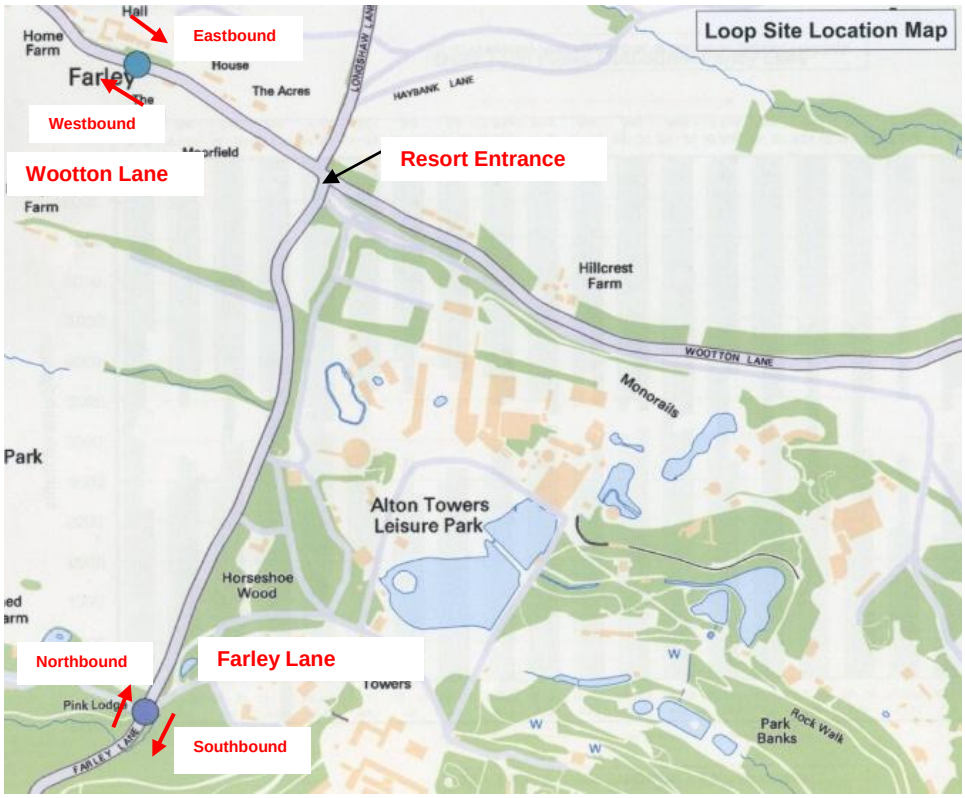
2.8 The Alton Towers Resort Transport Liaison Group was set up in 2009 and includes representatives of the County and District Councils. The purpose of the Liaison Group is to review issues related to the impact of development at the Alton Towers Resort on the transport infrastructure. It monitors the local traffic movements and considers local measures that may reduce transport impact. As a partnership between the operators and the local authorities it enables transport issues to be examined, addressed and communicated to the local community.

2.9 Based on initial discussion at the Liaison Group the Alton Towers Resort has funded automatic data collection on the highway network to support the assessment of the transport impact of the development proposals. The data collected in 2010 has been analysed and the main findings are set out below.

Traffic Data

2.10 During 2010 Staffordshire County Council installed automatic traffic counters to the north and south of the Resort entrance. The locations are on Farley Lane and Wooton Lane shown below.

Figure 2-3 - Location of Automatic Traffic Counters

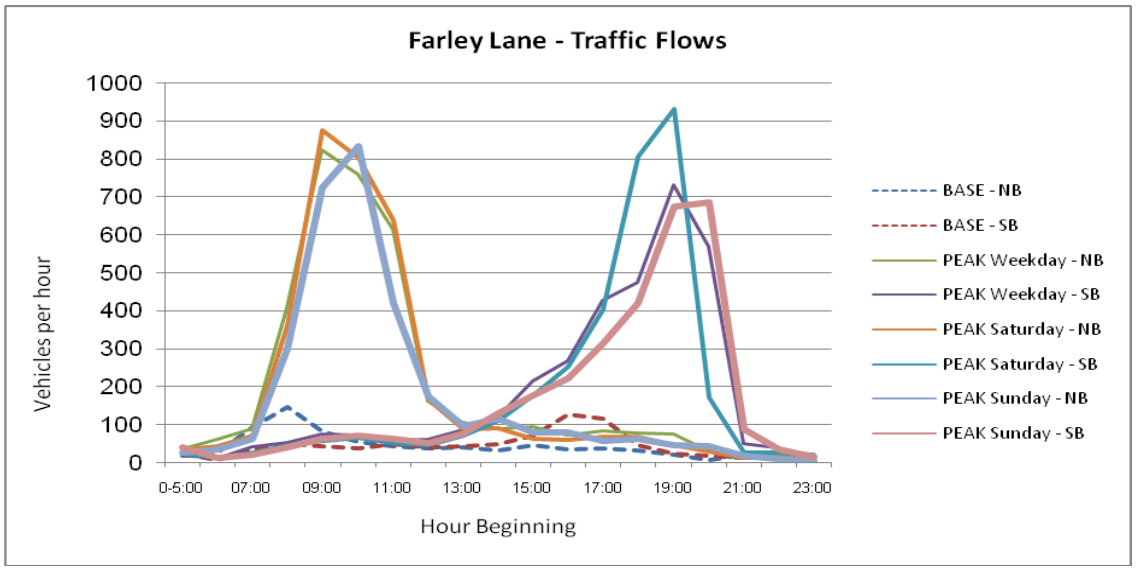


2.11 The traffic counters have been fully operational from the 3rd June 2010 and record traffic volumes in each direction by hour of the day. The data provided by SCC has been used to assess the volumes of traffic on a selection of typical peak days.

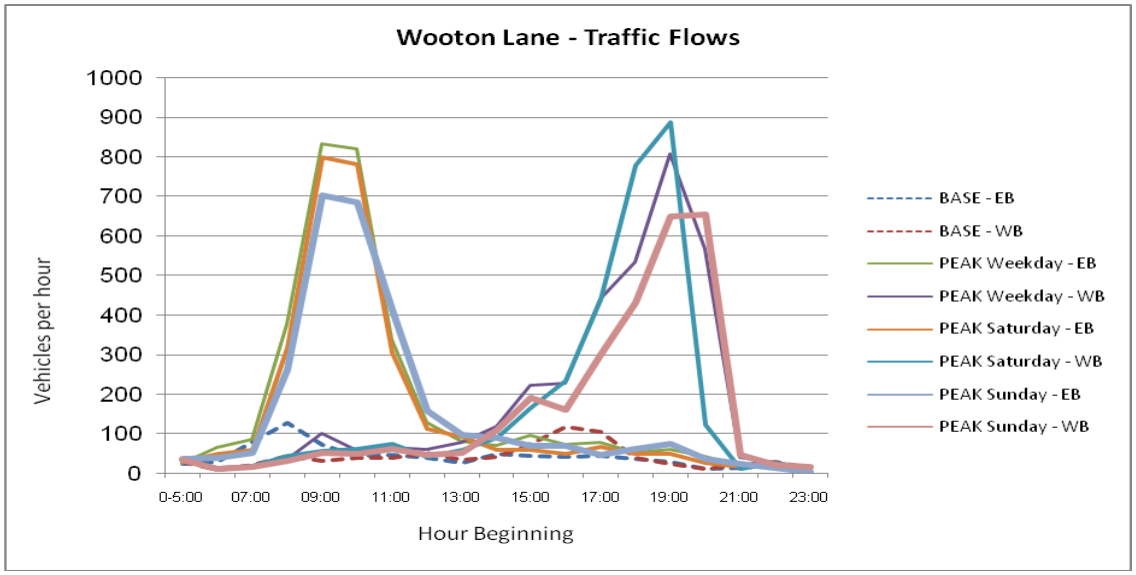
- **Base traffic** – Weekday – Wednesday 10th November – Park Closed
- **Peak weekday** – Wednesday 25th August – 17,762 admissions to the Park
- **Peak Saturday** – 4th September – 18,510 admissions to the Park
- **Peak Sunday** – 8th August – 17,220 admissions to the Park

2.12 The arrival and departure profiles for each location are shown below.

Figure 2-4 - Arrival / Departure Profiles



NB = Northbound SB - Southbound



EB = Eastbound WB = Westbound

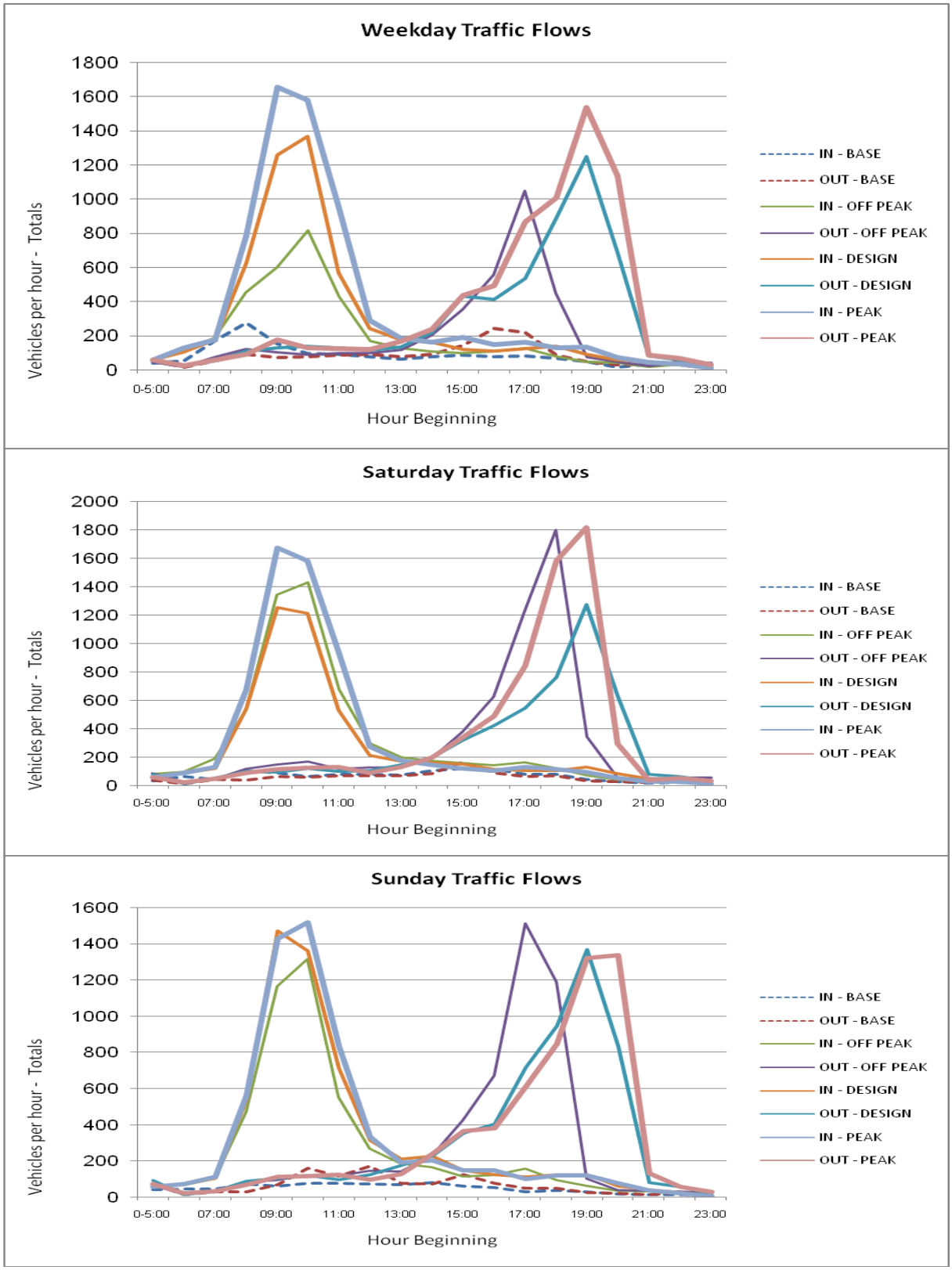
2.13 This analysis indicates that at both locations the peak base traffic flow, when the Resort is closed, is less than 200 vehicles per hour between 8.00 and 9.00 in the morning. This increases to more than 900 vehicles per hour on peak days for admissions to the Resort. During 2010 this increase in traffic flow on peak days did not make any appreciable impact on the operation of the highway network and there was no significant congestion.

Total Inbound and Outbound Flows

2.14 The arrival / departure profile varies for different volumes of visitors and times of the year. The further analysis below indicates that total flows (inbound and outbound combined) from both

survey locations does not exceed 1800 vehicles (approximately 900 per survey location) on each day type and that on design and peak days the later opening strategy spreads the departing peak over a number of hours till 9.00 pm.

Figure 2-5 - Total Inbound and Outbound Flows



2.15 It has been demonstrated that the standard of road on the approaches to the Resort should have capacity for up to 2,520 vehicles per hour two-way (1,260 in each direction). The data collected indicates that the maximum flows recorded since June 2010 did not exceed 970 vehicles in one direction at either survey location. Whilst the capacity of the local road network varies considerably the least capacity is considered to be through the narrow bends in Alton village where it is difficult for large vehicles to pass. The Resort implemented measures on some peak days during 2010 (including control of coach routes and 'stop / go' control) to reduce the problems caused by coaches conflicting in Alton and this reduced the congestion caused by this activity.

Peak Day Flows

2.16 The following special events were held during 2010:

Pink Concert - 27th June. Visitors were able to:

- visit the Resort during the day and attend the concert, or
- just attend the concert in the evening.

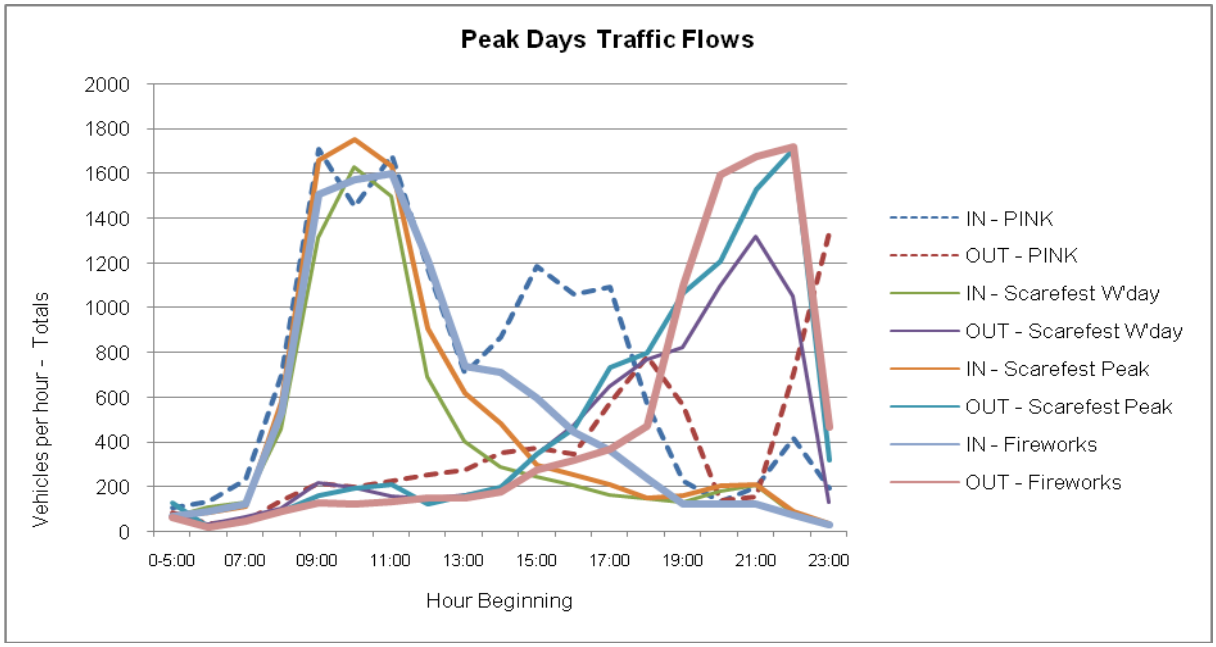
This strategy spread the arrival movements over the whole day. There was some congestion during the departure period late at night but this was on-site and there was limited traffic on the network.

Scarefest – 23rd to 31st October. A number of peak days on both weekdays and weekends were experienced but visitors were encouraged to remain in the Resort late in the evening and the departure peak period was therefore spread over a number of hours.

Fireworks – 6th November. A large number of visitors for this annual event but, again, visitors were encouraged to spread their departure and any congestion was retained on-site.

2.17 These special events are well publicised and the resort puts in place measures to ensure that congestion is minimised. The graphs below show the total inbound and outbound flows for these special events and how the peak arrivals and departures have been spread over a number of hours to reduce peak impact.

Figure 2-6 - Peak Days Arrival / Departure Profiles



3. Traffic Generation

Transport Parameters

3.1 There are a number of key parameters that determine the volume of vehicles generated by the Alton Towers Resort. These include:

- Annual Volume of Guests
- Seasonal Variation – identification of volume of guests per day
- Modal Split
- Vehicle Occupancy
- Arrival / Departure Profile
- Trip Distribution

3.2 This section sets out the values of each of these parameters that are used in this assessment.

Annual Volume of Visitors

3.3 As shown in Section 2 the annual number of visitors to the Resort is dependent on a number of influences including the economic climate, the increase in 'staycation' holidays, the weather and the influence of new attractions. During the past few years the Resort peaked in 2010 with over 3 million annual guests related to special events and a new roller coaster (TH13TEEN). The number of guests during 2011 was 2.7 million.

3.4 The removal of the Black Hole tent and installation of a new rollercoaster in 2013 is expected to generate an additional 150,000 guests to the Resort. This will increase the annual total to approximately 2.9 million. The figure used for this analysis is 2,880,000 (2010 total plus 150,000 - 5.5%)

Seasonal Variation

3.5 The Peak and Peak+ days at the Resort are when the traffic generation has some effect on the highway network. This was approximately 22 days during 2011 and 34 days during 2010. It is the Resort strategy to encourage guests to use the Resort during the quieter days and not significantly increase the number of Peak days.

3.6 For this analysis it is suggested that approximately 1,000 additional guests may be generated on a Peak day.

Modal Split

3.7 Surveys during 2008 identified the modal split at the Resort as being:

Private car	85.7%
Private hire coach or bus	5.0%
Public bus	4.3%
Train and bus	2.5%
Train and taxi	1.2%
Other	1.3%
	100%

3.8 For this analysis these figures are being used to estimate the number of vehicles to be generated.

Vehicle Occupancy

3.9 The 2008 surveys estimate the vehicle occupancy to be 3.6 persons per car and 40 persons per coach.

Arrival / Departure Profile

3.10 The surveys undertaken in 2010 provide accurate figures on the arrival and departure of vehicles at the Resort. Based on those surveys the peak movements occur in the morning and when the Resort closes in the evening. On Peak days the Resort can implement late opening to reduce the peaks.

3.11 For this analysis the following proportions are to be applied:

9.00 – 10.00 am - 25% arrivals

6.00 – 7.00 pm - 28% departures

Trip Distribution

3.12 The traffic data collection in 2010 indicates that 54% of trips to the Resort arrive from the south (through Alton) and 46% for the north (through Farley)

3.13 These parameters have been applied in the identification of the traffic impact in Section 4.

4. Transport Impact

4.1 Using the key parameters described above the generation of additional vehicles on the highway network is estimated below.

4.2 Number of additional guests on Peak days = 1,000

4.3 Vehicles generated

1,000 x 87.2% / 3.6 = 233 cars

1,000 x 5.0% / 40 = 1 coach

TOTAL 234 vehicles per Peak day

4.4 Vehicles per peak hour

234 x 25% = 58 arrival peak hour

234 x 28% = 65 departure peak hour

Arrivals (9.00 -10.00am) 31 vehicles per hour from the south – 26 from the north

Departures (6.00 – 7.00pm) 35 vehicles per hour to the south – 30 to the north

4.5 The existing highway network adjacent to the Resort carries approximately 800 vehicles in each direction in the peak hour on a peak day at the Resort. The impact of this additional traffic on the highway network (less than 4%) will have little impact on the traffic flows and will not make traffic flows as high as were experienced during the peaks of 2010. During that year there were no adverse affects of traffic on the network.

5. Sustainable Measures

Public Transport

5.1 There is limited access by public transport to the Resort, although there is a bus service from Stoke on Trent and Uttoxeter where further mainline railway connections are available. In addition staff and patrons living in local towns have access to bus services that are operated by Alton Towers Resort. These services would be available to patrons and employees of the proposed development.

Public Transport Use

5.2 The car is the predominant mode of transport used when travelling to Alton Towers (currently 87% modal split) however there are public transport modes available.

Train

There are several train stations within reasonable proximity to Alton Towers as demonstrated in Table 5.1 most of which are linked to Alton Towers via public bus.

Table 5-1 - Train Stations close to Alton Towers Resort

	Station Distance
Uttoxeter	6.44 miles
Blythe Bridge	7.49 miles
Longton	10.42 miles
Barlaston	12.02 miles
Wedgwood	12.04 miles
Tutbury & Hatton	12.11 miles
Stoke-on-Trent	12.26 miles

5.3 As Stoke-on-Trent is a main-line station, in many cases it is cheaper and faster to reach than Uttoxeter. A series of buses connect these two stations with the resort as demonstrated below. These shorter multi-modal journeys that combine bus and rail, from destinations which are within say a 20 mile radius, are a realistic travel option.

Bus

5.4 The Alton Towers website provides a list of bus services and their corresponding fares. There are five bus services running to and from Alton Towers Resort from conurbations in the area (as shown in Table 5.2). These services do have a limited frequency. Alton Towers also operates a fleet of staff buses which are also open to visitors to the resort to use.

Table 5-2 - Bus Services to Alton Towers Resort

Service Number	Route	Frequency	First and Last Service	First and Last Service Return Journey
10/10A	Leek – Cheddleton - Kingsley - Cheadle – Alton Towers	7 – 9 Journeys per day	06.00am and 18.30pm	05.30am and 00.15am
14	Stoke – Stoke Station – Hanley – Cheadle – Alton Towers	5 – 7 Journeys per day	5.20am and 13.20pm	15.45pm and 00.15am
30	Uttoxeter Railway Station –Rocester – Denstone – Alton – Alton Towers	10 Journeys per day	06.00am and 19.45pm	05.25am and 19.15pm
X52	Nottingham – Derby - Alton Towers	One Service per day	09:00am	17.30pm
X65	Stoke Station – Hanley – Cheadle – Alton Towers	One – Two Services per day	10.10am	17.15pm and 19.00pm

5.5 In addition, Alton Towers Resort operates a service whereby it will collect passengers from nearby railway stations if they have phoned the Resort to arrange this service.

Travel Plan

5.6 Alton Towers Resort has a resort-based Green Travel Plan. This is regularly reviewed.

6. Conclusion

6.1 This Transport Assessment has been prepared in relation to the proposed new rollercoaster development which will be the subject of a planning application submitted to Staffordshire Moorlands District Council. Staffordshire County Council will be consulted on the application, as the highways authority.

6.2 The proposed development will be replacing an existing coaster within the resort (namely the Black Hole) and it will be built on the same site, albeit a slightly larger site area.

6.3 The local highway network operates within capacity when the Resort is at its peak operation. The traffic generation which could be attributed to the replacement attraction is considered negligible at 234 vehicles per peak day.

6.4 There are therefore no valid reasons for refusing the proposed replacement coaster on this site, on highway or transportation grounds.