Alton Towers Resort

Proposed New Ride

Transport Assessment

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Rev 3.2	Final comments	JWT	TN		NW	9/5/16

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1. Introduction

1.1. This Transport Assessment has been prepared on behalf of Merlin Entertainment Group in support of a planning application for a new ride at the Alton Towers Resort in Staffordshire.

1.2. 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. Historically the provision of a major new attraction at the Resort has generated additional guests over the initial opening years and then gradually returned to the normal annual volume.

1.3. The Resort has a Long Term Plan that forecast 3.1 million visitors in 2017 which is more than that currently being forecast. The Long Term Plan included a strategy for the Resort to provide family accommodation to encourage longer stays which will assist in reducing the peak time traffic movements on the local highway network. The provision of further family accommodation in 2015, through the opening of the lodge development, is intended to further enhance its position in the family short break market and is consistent with the Long Term Plan. There are also further proposals to increase the availability of accommodation at the Resort.

1.4. The replacement of the existing Log-Flume ride and installation of a new ride in 2018 is expected to generate approximately an additional 120,000 annual guests to the Resort. Whilst this will be an increase on the recorded volume for 2016, it will still be less than the volume achieved in 2010 and 2014, when previous new rides were opened, or the Long Term Plan for 2017. On those occasions in 2010 and 2014 there was no significant congestion experienced although some special management measures were put in place on peak days.

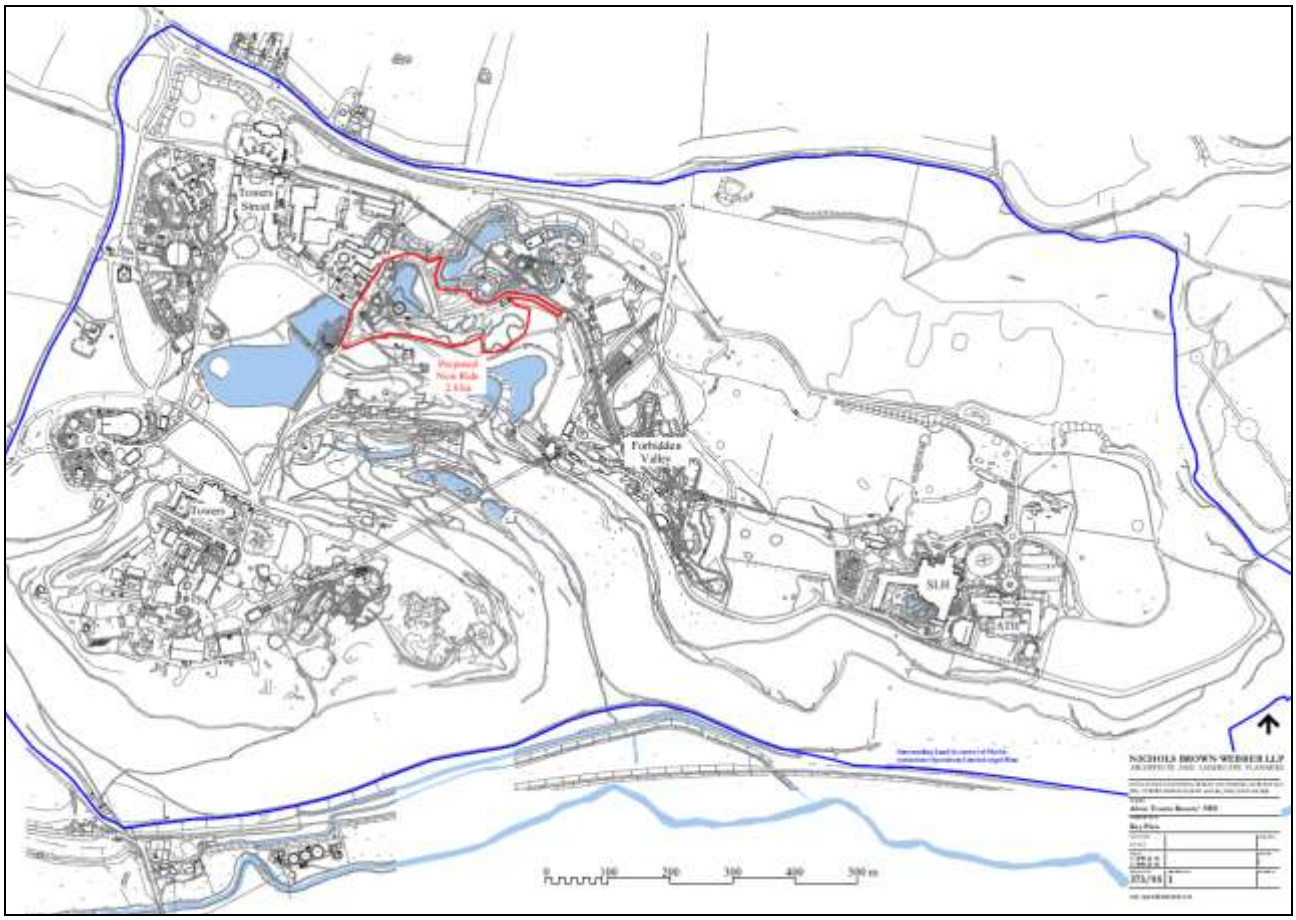
The Proposed Development

1.5. The proposed new attraction at the Resort will include a shop, maintenance and station building, games unit and food kiosk.

1.6. The new ride is proposed to be sited in the existing theme park. It will involve the removal of the current Log-Flume ride (see the location plan below).

1.7. The proposal will be accessed using the existing Resort access road from the Farley Lane entrance.

Figure 1-1 Proposal Location



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1.8. The Alton Towers Resort is a major tourist destination in Staffordshire and attracts visitors to the theme park and hotel complex. The transport assessment needs to examine the potential additional traffic generated by the proposed new ride and establish if this will impact on the public highway and transport network.

1.9. Section 2 describes the Resort location and Section 3 provides the available visitor and traffic data which supports the assessment of potential key transport parameters that enable an assessment of traffic generation and impact in Section 4. The conclusion is provided in Section 5 with a brief summary below.

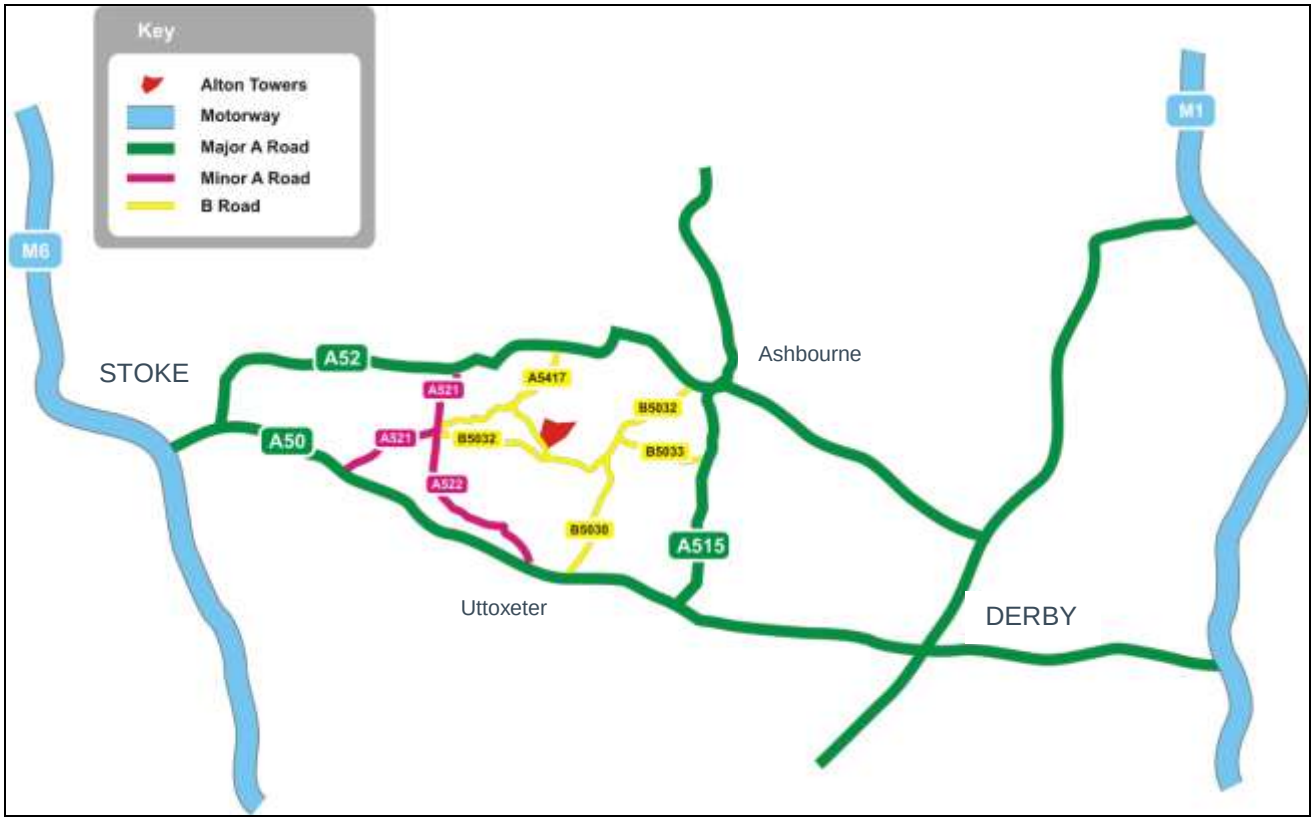
Summary of Conclusions

1.10. In summary, this Transport Assessment concludes that the proposed development will not affect the operational capacity of the local highway or public transport network. It will have no significant 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. The Resort Location

2.1. Alton Towers Resort is located in the County of Staffordshire in the Staffordshire Moorlands District. The location of the site in its wider geographical context and major highway network is illustrated below.

Figure 2-1 Location of the Alton Towers Resort



Existing Local Highway Network

2.2. Vehicular access to Alton Towers Resort is by Farley Lane and the B5032 in the south and Wootton Lane and the B5417 in the north. The B5417 connects to the A52 in the north to the west of Ashbourne, and the B5032 connects to the A50 at Uttoxeter via the B5030 in the south. The A52 and A50 are primary routes and link to the motorway and trunk road network.

Farley Lane

2.3. Farley Lane is the main southern access road to Alton Towers Resort and the development site. It is a rural road with a width of approximately six metres. Through the village of Alton the road is undulating with tight corners and has a speed limit of 30 mph. At the southern end of Farley Lane is Alton village and the B5032, which links the site to the B5030 at Denstone and the A50 Trunk Road in the south.

Wootton Lane

2.4. Wootton Lane is also a rural road of approximately six metres width with limited pedestrian facilities and numerous farm entrances. At the northern end of

Wootton Lane is the B5417, which in turns connects to the A52 and provides access to the north of Derby and Stoke.

B5417

2.5. The B5417 connects Wootton Lane to the A52 to the north of Alton Towers. It has a width of around six metres and has a speed limit of 40 mph.

B5032

2.6. The B5032 connects with Farley Lane in the south, the carriageway is approximately six metres in width. The national speed limit is in force and there is an average travel speed of 35 to 40 mph.

B5030

2.7. The B5030 connects the B5032 to the A50 at Uttoxeter in the south. The carriageway is approximately nine metres wide and is relatively flat with few curves. The national speed limit is in force, with a small section around some new roundabouts with a 40mph restriction, so the average speed is around 55 to 60 mph.

Existing Public Transport

2.8. The use of public transport for visitors to the Resort is limited as trips tend to be long distance, for family parties and at off peak periods when services are limited. However Alton Towers Resort does encourage public transport and provides information on available services on its website.

Train

2.9. There are several train stations within reasonable proximity to Alton Towers, shown below, some of which are linked to Alton Towers via public bus.

Table 2-1 Railway Stations serving 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

2.10. 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.

Buses

2.11. The Alton Towers website provides a list of bus services and their corresponding fares. There are two bus services running to and from Alton Towers Resort from conurbations in the area (as shown in Table 2.2). These services do have a limited frequency. Alton Towers also operates buses for employees.

Table 2-2 Bus Services to Alton Towers Resort

Service Number	Route	Frequency	First and Last Service Outward Journey	First and Last Service Return Journey
32A	Hanley - Cheadle -- Uttoxeter Railway Station – Rocester – Denstone – Alton – Alton Towers	7 - 9 Journeys per day – every 2 hours	09.00am and 19.45pm	08.00am and 19.15pm
X32	Stoke-on Trent – Alton Towers	4 per weekday		
X52	Nottingham – Derby – Alton Towers	1 per day (main season)	0915	1730

2.12. First PMT (Potteries Motor Traction) operates the X32/32A from Stoke on Trent to Alton Towers Resort and and Notts Derby Buses runs the X52 from Nottingham via Derby and Ashbourne. The First PMT service is operational throughout the period Alton Towers Resort is open to visitors / staff at the Resort or hotel complex.

Employee Travel Plan

2.13. The Alton Towers Resort currently operates an Employee Travel Plan for all employees. The plan encourages all team members to reduce their dependence on the private vehicle by promoting the following policies:

- Car sharing
- Utilising public transport
- Cycling
- Varying travel times to the site
- Working from home if practical
- Using IT to virtually attend meetings rather than travel to them

2.14. The existing Travel Plan was approved by the District and Borough Councils in 2014 and is currently being promoted to encourage these principles. Any new employees are advised of the Travel Plan and its initiatives.

3. Available Data

3.1. This section provides a summary of relevant data on visitors and traffic to the resort over recent years.

Resort Visitor Numbers

3.2. The Alton Towers Resort is open in 2016 from mid-March to early November. Daily visitor numbers to the Resort vary considerably affected, as they are, by a number of influences including the economic climate, the increase in 'staycation' holidays, day of the week, school holidays, weather, other sporting events and the influence of new attractions. Detailed visitor numbers are provided to the Planning Authority annually.

3.3. It is necessary for the Resort to provide new attractions to ensure visitors have new experiences, continue repeat visits and maintain acceptable visitor volumes to ensure the sustainability of the business. Historically the initial impact of major new attractions will last for up to two years. Over recent years these have included the following new attractions:

2010 – New rollercoaster 'Thirteen' opened
2011 – No significant new attractions
2012 – Nemesis Sub Terror and Ice Age 4D theatre
2013 – New rollercoaster 'The Smiler' opened from May
2014 – Full season of 'The Smiler' and CBeebies opened May

3.4. 2015 saw slight reduction in annual visitor numbers as it was a low investment year with no new thrill rides. Instead, the resort opened a new accommodation development and a small scale new high ropes attraction which will further reposition the Resort in the family short break market.

3.5. New attractions generate an initial increase in visitors that is often obscured by other influences. On the basis of experience with previous major rides it is estimated that the proposed new ride could increase visitor numbers by up to 120,000 per annum for up to two years and then numbers would reduce until another new larger attraction is opened. It is forecast therefore that the annual visitors will still remain below those actual achieved in 2010 and 2014 (when new major rides opened) but will remain in accordance with estimates for 2017 in the Long Term Plan.

3.6. Generally the peak periods at the Resort, approximately 30 days per annum, immediately precede or are during school holidays, when up to 20,000 visitors are attracted to the Theme Park. There are occasions when special events (eg, concerts, Scarefest, Fireworks) are held when this number is exceeded and up to 25,000 may attend. However special traffic measures are implemented at these very peak times to reduce the traffic impact on the road network. On other days the volume is considerably less and the majority of days average at less than 15,000 visitors.

3.7. The provision of on-site accommodation has an impact on the travel pattern of a number of visitors and provides additional facilities for longer stays for families with long journeys. The strategy for the Resort is to provide family

accommodation to encourage these longer stays and assists in reducing the peak time traffic movements on the local highway network. Typically visitors that stay overnight will arrive late in the afternoon to the accommodation to ensure they enter the theme park early the following day and may then leave during the day to avoid peak periods. The Resort opened additional accommodation for up to 640 guests at the new Lodge development in 2015 which will further assist in smoothing the arrival and departure peaks.

3.8. Theme Park visitors purchase entry in a number of ways including at the ticket booths, group bookings, as special advance online purchase offers, through promotional vouchers or annual Merlin or Resort passes. The Resort plan staffing levels and any additional traffic management based on many years of experience but that is often affected by last minute weather changes.

Summary of Key Transport Parameters

3.9. The availability of visitor and transport data enables a number of key parameters to be identified. Clearly these parameters will vary based on time of the year, day of the week, weather and events but they enable estimates to be made of the expected impact of the proposed development.

3.10. 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
- Hotel Stays

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

Volume of Resort Visitors

3.12. As described above 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.

Seasonal Variation

3.13. The Peak and Peak+ days at the Resort are when the traffic generation has some effect on the highway network. This is generally approximately 30 days during the season. 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.

3.14. Generally, peak days attract approximately 20,000 visitors to the resort. However, on occasions when special events (eg, concerts, Scarefest, Fireworks) are held this number can exceed this and up to 25,000 attend. Generally approximately 1% of the annual visitors are on these Peak days.

Modal Split

3.15. Surveys have identified the modal split at the Resort as being:

Private car	88.1%
Private hire coach or bus	8.4%
Train and bus	2.1%
Train and taxi	0.7%
Other	0.7%
	100%

3.16. For this analysis these figures are being used to estimate the number of vehicles to be generated by the proposed development.

Vehicle Occupancy

3.17. Surveys observed the vehicle occupancy to be 3.6 persons per car and 40 persons per coach.

Arrival / Departure Profile

3.18. The surveys undertaken in recent years 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 later evening opening to reduce the peaks.

3.19. 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

3.20. 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)

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

Hotel Guests

3.22. The hotels at the Resort are unique and the travel characteristics are quite different than normal business or holiday hotels. Generally guests are visitors to the Park and follow the transport characteristics of seasonal variation, modal split, vehicle occupancy and trip distribution. The main difference is the arrival / departure profile.

3.23. Guests generally arrive during the afternoon or evening on the day before their visit to the Park. This period is the opposite of the Park visitor peaks and in fact reduces the peak traffic movements on the local highway network. A similar pattern of travel has been experienced for the lodge development that was opened in 2015.

4. Traffic Generation and Impact

Existing Resort Traffic Generation

4.1. The number of vehicles generated by the Alton Towers Resort is dependent on the key parameters defined in this report and is affected by a number of factors including the economic climate, the increase in 'staycation' holidays, school holidays, weather, other sporting events and the influence of new attractions

4.2. Based on the key parameters determined above the vehicles generated on a Peak+ day can be estimated as follows:

Number of Resort visitors on Peak+ days = 25,000

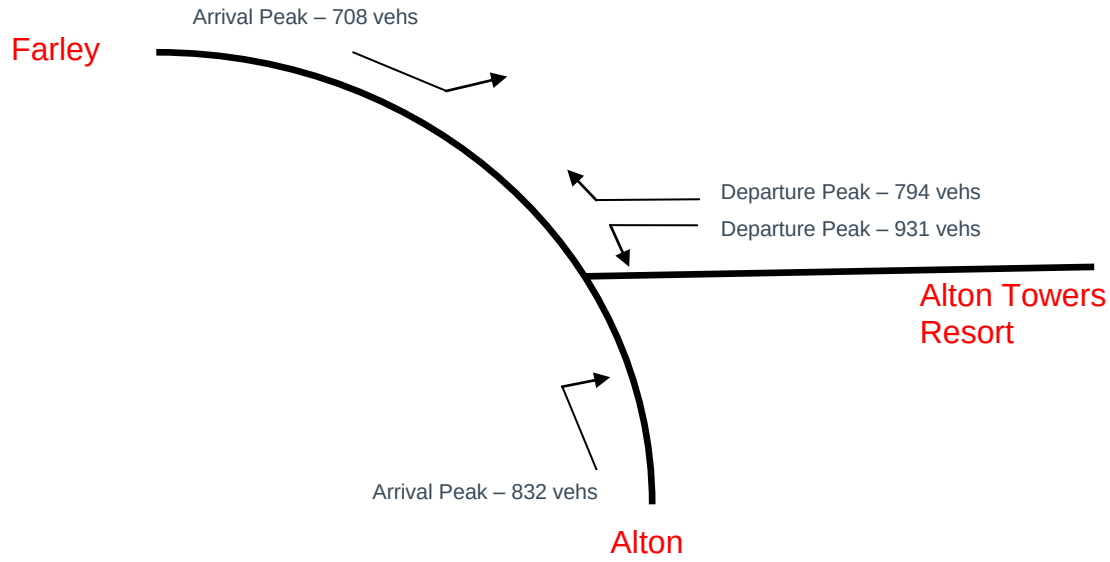
Vehicles generated
25,000 x 88% by car / 3.6 per car = 6,111 cars
25,000 x 8% by bus/coach / 40 = 50 buses / coaches
TOTAL = 6,161 vehicles per Peak+ day

Vehicles per peak hour
6,161 x 25% = 1,540 arrival peak hour
6,161 x 28% = 1,725 departure peak hour

Arrivals (9.00 - 10.00am)
832(54%) vehicles per hour from the south
708(46%) vehicles per hour from the north

Departures (6.00 – 7.00pm)
931(54%) vehicles per hour to the south
794(46%) vehicles per hour to the north

Figure 4-1 Resort Generated Traffic Movements



Proposed New Ride Traffic Generation

4.3. The TRICS database that is normally used to estimate traffic generated by developments is not appropriate for this proposal. The development is an addition to an existing tourist attraction and generated trips are considerably different to a normal tourist resort. Alton Towers is unique as the availability of hotel or lodge accommodation has a direct impact on the Resort traffic movements.

4.4. An estimate has been made below of the estimated generation of traffic movements for the proposal based on the parameters establish above and the proportion that is additional to existing movements.

Visitors

120,000 additional visitors per annum
120,000 x 1% = 1,200 visitors per peak day.

Vehicles generated – peak day

1,200 x 88% = 1,056 visitors by car
1,200 x 8.0% = 96 visitors by coach

1,056 / 3.6 = 293 cars per peak day
96 / 40 = 2 coaches per peak day

TOTAL 295 vehicles per peak day

Peak Arrivals – 9am to 10am = 25% per hour = 74 vehicles per peak hour

Peak Departures – 6pm to 7pm = 28% per hour = 83 vehicles per peak hour

Trip Distribution

Arrivals (9.00 - 10.00am)

74 x 54% = **40** vehicles per peak hour from the south
74 x 46% = **34** vehicles per peak hour from the north

Departures (6.00 – 7.00pm)

83 x 54% = **45** vehicles per peak hour to the south
83 x 46% = **38** vehicles per peak hour to the north

Proposal Impact

4.5. The highway network adjacent to the Resort currently carries approximately 800 vehicles in the peak hour on a peak day at the Resort.

4.6. This forecast volume of additional traffic is a small percentage (approximately 5%) of the current volume of traffic on the network and less than that experienced in 2010 and 2014 when no significant congestion was experienced. On the remaining non-peak days during the Resort's season the volume of traffic generated will be significantly lower.

4.7. This additional volume of traffic can be accommodated on the peak days and is within the capacity of the highway network. The forecast volume of visitors for 2017 is less than the forecast provided in the Long Term Plan.

Parking

4.8. The proposed parking for the new attraction will be in the existing Resort parking areas. On peak days additional parking is provided and the expected volumes of visitors have been accommodated in the past and have not caused any off site parking.

Construction Traffic

4.9. The attraction will be constructed over a period of 18 months, the first six of which will be during the winter months when the Theme Park is closed, during which time there will be construction traffic associated with the site. Areas on site will be allocated for storage of equipment and hardware and there will be no need for any off site provision. Alton Towers Resort has vast experience of managing these types of projects with minimal impact on local highways or traffic movements.

5. Conclusion

5.1. This Transportation Assessment has been carried out in relation to the proposed development on the Alton Towers Resort site in Staffordshire. The proposed attraction will be accessible via the existing Alton Towers access onto Farley Lane. The main car park on-site is approximately 0.8 miles from the access with plenty of storage for arriving or departing traffic thereby not creating any impact on the public highway.

5.2. This assessment identifies that the proposed new ride may generate approximately 5% more traffic movements than forecast for it's opening year on the adjacent highway network on peak days. However, this volume will not be as high as was experienced on peak days during 2010 or 2014, when new major rides opened, and no significant congestion was experienced. In 2014 only 30 Peak and Peak+ days were recorded although some special management measures were put in place on peak days. On the remaining days during the Resort's season the volume of traffic generated will be significantly lower.

5.3. The Resort has a Long Term Plan that includes a strategy for the Resort to provide family accommodation to encourage longer stays and assists in reducing the peak time traffic movements on the local highway network. The provision of further family accommodation in 2015, for up to 640 visitors, was intended to further enhance its position in the family short break market and will reduce the peak period traffic movements. Furthermore highways contributions have been made by Alton Towers Resort to the County Council to allow local measures to be implemented to improve traffic flows in the surrounding area.

5.4. The existing Employee Travel Plan for the Resort will incorporate the proposed development and any new staff will be encouraged to use alternative forms for transport to the private car, therefore minimising the number of employee vehicle trips to the site.

5.5. There are therefore no valid reasons for refusing the proposed development at this site, on highway or transportation grounds.