Scoping Note Addendum: Trip Generation Analysis

Project: Great Wolf Lodge, Chesterton

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1.0 Introduction

- 1.1 Motion has been instructed by Great Wolf Resorts (the parent company of Great Wolf Lodge) to advise on highways and transport matters associated with development proposals for a new family resort at a site in Chesterton near Bicester
- 1.2 The site is situated to the south of the A4095 to the west of Chesterton. The site currently forms part of the Bicester Golf Course and Hotel site that benefits from a main customer/ visitor access from Green Lane and a secondary access from the A4095 which operates as the service access to the golf course.
- 1.3 The development proposals comprise the redevelopment of 9 holes of the existing 18 holes of the golf course and construction of a 500-bedroom hotel and indoor family resort. Vehicle access to the proposed hotel would be taken from a new priority junction access from the A4095.
- 1.4 Motion submitted a Scoping Note to Oxfordshire County Council (OCC) dated 25th April 2019 and Motion subsequently met with Officers at OCC on 7th May 2019 to discuss the proposals and Scoping Note.
- 1.5 This Scoping Note Addendum has been prepared to provide additional assessment of the expected trip generation of the development proposals and parking provision, and seeks agreements on these matters with Officers at Oxfordshire County Council (OCC) and Cherwell District Council (CDC). It is proposed that this Note be discussed at the upcoming pre-application meeting on 13th June 2019
- 1.6 Since submission of previous Scoping Note and subsequent meeting, there has been further discussions between Motion and OCC which are summarised as follows:
 - Motion has provided OCC with details of the proposed diversion of PROW 161/6 across the site and improvements to the pedestrian crossing at PROW 161/1 and are awaiting comment from OCC on these matters;
 - OCC has advised that they would strongly object to the opening of a second access to the development solely for access to a pumping station and sub-station. Motion can confirm that all vehicle access to the site will be taken from the main vehicle entrance as presented on Drawing 1803047-03 submitted with the previous Scoping Note;
 - OCC and CDC have advised a list of committed developments which will need to be considered as part of the assessment. Motion are preparing a separate Scoping Note Addendum considering the junctions at which committed development traffic will be assessed and consider the use of TEMPRO to ensure background traffic growth is not double counted; and
 - OCC has confirmed that no S106 contributions are currently envisaged.



2.0 Trip Generation Methodology

- 2.1 The Scoping Note submitted in April 2019 detailed the expected trip generation of the development proposals during a weekday morning, weekday evening and Saturday peak periods. The trip generation analysis presented in the Scoping Note was based on traffic survey information at three existing Great Wolf sites in the United States.
- 2.2 Table 2.1 below is extracted from the submitted Scoping Note and summarises the expected trip generation of the development proposals based on surveys of existing Great Wolf sites.

	Vehicle Trips				
	In	Out	Total		
Weekday Morning Peak (08:00-09:00)	66	47	113		
Weekday Evening Peak (17:00-18:00)	66	88	154		
Saturday Peak (13:00-14:00)	122	125	247		
Weekday Daily (07:00-19:00)	917	1061	1,977		
Saturday Daily (07:00-19:00)	1,230	1,531	2,761		

Table 2.1 Expected Vehicle Trips (based on Great Wolf Surveys)

TRICS Database

- 2.3 Following discussions with OCC and Highways England, consideration has been given to whether there are suitable sites within the TRICS database to use for trip assessment purposes.
- 2.4 The TRICS database was reviewed to assess whether there are any comparable hotel sites for the purpose of assessing the expected trip attraction of the development proposals. However, the hotel sites included within the TRICS database comprise hotels such as Travelodge, Premier Inn, Holiday Inn and Thistle branded hotels which are not comparable to the proposed hotel as they do not provide comparable facilities to the development proposals and do not cater for the same market/ users as the development. On that basis it is concluded that the hotel trip data available from the TRICS database does not provide an appropriate comparison for the development proposals.

First Principles Sensitivity Test

As a comparison to the survey data collected at the three existing Great Wolf Lodges in the United States, a first principles sensitivity test has been undertaken to consider the appropriateness of the trip generation analysis presented in the Scoping Note dated 25th April 2019.

Guests Trip Attraction

- 2.6 The proposed hotel will have a total of 500 bedrooms and Great Wolf Lodge have advised that their business model is based on a typical room occupancy of 4.5 guests per room, including children. On that basis the proposed hotel would accommodate up to 2,250 guests if the hotel were fully occupied.
- 2.7 In order to assess the number of guests staying at the resort it has been assumed that occupancy could be 100% at weekends and 75% during weekdays. This would equate to a total of 2,250 guests within the hotel over the Friday and Saturday nights, with circa 1,688 guests in the hotel at other times.



- 2.8 Great Wolf has advised that at their existing resorts guest have an average duration of stay of 1.6 days although the business plan seeks to increase this. On that basis it is expected that typically half of the occupied rooms would changeover each day during the week.
- 2.9 Based on the expected hotel occupancy, room occupancy and duration of stay, Table 2.2 below summarises the expected profile of daily guest arrivals and departures throughout a week. It is noted that the proposed hotel is a family resort and therefore the majority of guests at the hotel will be families with children who would therefore arrive and depart the hotel as a group.

	Mon	Tue	Wed	Thurs	Fri	Sat	Sun
Occupancy	75%	75%	75%	75%	100%	100%	75%
Guests	1,688	1,688	1,688	1,688	2,250	2,250	1,688
Changeover	50%	50%	50%	50%	63%	38%	50%
Arrivals (Guests)	844	844	844	844	1,406	844	844
Departures (Guests)	844	844	844	844	844	844	1,406

Table 2.2 Hotel Occupancy and Guest Arrivals/ Departures

- 2.10 In order to assess the mode share of guest trips to/from the hotel and the expected car occupancy of guest trips, reference has been made to data presented within the Transport Assessment submitted alongside the planning application for the Center Parcs resort in Woburn, the most recently opened Center Parcs site. The business model for Center Parcs is based on fixed changeover days on Mondays and Fridays and therefore the total daily trip generation of Center Parcs will not be comparable to the proposed Great Wolf site with flexible arrivals and departures on any day of the week. However, Center Parcs is considered to provide a reasonable comparison for guest mode share, car occupancy and arrival/departure profile during a day.
- 2.11 The Center Parcs survey data, presented in the Woburn Center Parcs Transport Assessment, included all vehicle movements to and from the main site entrance and does not disaggregate between guest and staff vehicle movements. For the purpose of this analysis it is assumed that all single occupancy car trips to/from the Center Parcs site were staff trips as it is considered highly unlikely for guests to travel to the site alone. Table 2.3 below summarises the mode share data for guests based on survey data presented in the Woburn Center Parcs Transport Assessment and excludes single occupancy car trips, which are assumed to be undertaken by staff.

	Arrivals	Departures	Total	Mode Share	
Walk	2	1	3	<0.5%	
Cycle	12	10	22	0.5%	
Motorcycle	22	6	28	0.5%	
Car Driver	1044	974	2018	32%	
Car Passenger	2106	2050	4156	66%	
Bus	25	15	40	1%	

Table 2.3: Woburn Center Parcs Mode Share



- 2.12 The Woburn Center Parcs data indicates that two-thirds of guests would arrive as car passengers. The Center Parcs data indicates only a small proportion of guests arriving by sustainable modes of travel. However, it is noteworthy that the proposed development will include sustainable travel initiatives which will encourage the use of sustainable modes of travel and reduce the number of car trips associated with the development. However, for the purpose of this assessment it is considered that the above mode share provides a robust assessment of the likely trip generation of the development proposals in terms of overall vehicle numbers.
- 2.13 The data from the Center Parcs survey also includes information of car occupancy of vehicles to the site and demonstrates an average car occupancy of 3 guests per car. This is based on the on survey data presented in the Woburn Center Parcs Transport Assessment and excludes single occupancy car trips, which are assumed to be undertaken by staff.
- 2.14 The mode share established from the Center Parcs data (as presented at Table 2.3) has been applied to expected daily guest arrivals and departures (as presented at Table 2.2) in order to assess the daily vehicle arrivals and departures to the proposed hotel by guests. Table 2.4 below summarises the expected daily guest and guest vehicle arrivals and departures.

	Mon	Tue	Wed	Thurs	Fri	Sat	Sun
Arrivals (Guests)	844	844	844	844	1,406	844	844
Departures (Guests)	844	844	844	844	844	844	1,406
Arrivals (Cars)	270	270	270	270	450	270	270
Departures (Cars)	270	270	270	270	270	270	450

Table 2.4 Expected Daily Guest Vehicle Trips

- 2.15 The data presented in Table 2.4 shows the daily guest arrivals and departures. In order to assess the vehicle movements during the weekday morning, weekday evening and Saturday peak periods, reference has been made to the daily inbound and outbound profile of trips to the Center Parcs site at Elveden Forest, as presented within the Woburn Center Parcs Transport Assessment.
- 2.16 Chart 2.1 below shows the arrival and departure profile of vehicle trips to the Center Parcs site at Elveden Forest.



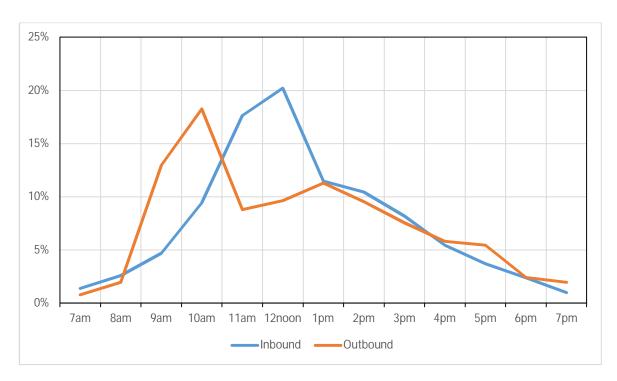


Chart 2.1 Expected Guest Arrival/ Departure Profile

2.17 The chart shows that the majority of guest arrivals and departures occur outside the morning and evening peak periods, with the majority of arrivals and departs spread across from 10am to 3pm. Table 2.5 below details the percentage of guest arrival and departure trips during each of the weekday morning, evening and Saturday peak periods and the expected guest vehicle trips in each pf the peak periods.

	Arri	vals	Departures		
	% Total Vehicle Trips		% Total	Vehicle Trips	
Weekday Morning Peak (08:00 to 09:00)	5%	23	2%	5	
Weekday Evening Peak (17:00 to 18:00)	4%	18	5%	14	
Saturday Peak (12:00 to 13:00)	20%	54	10%	27	

Table 2.5 Expected Guest Vehicle Trips

2.18 The first principles assessment demonstrates that the development would be expected to attract 28 guest vehicle trips during the weekday morning peak hour, 32 guest vehicle trips during the weekday evening peak hour and 81 guest vehicle trips during the Saturday peak period.

Staff

- 2.19 In order to assess the arrive and departure profiles of staff at the site and the peak number of staff on site at any given time, reference has been made to staff data from existing Great Wolf Lodges in the United States. The facilities and services to be provided at the proposed hotel are based on the business model of existing Great Wolf Lodges in the United States and therefore staff numbers and shift patterns are expected to be comparable with the existing Great Wolf hotels in the United States.
- 2.20 Chart 2.2 below shows the expected arrival and departure profile of staff during a typical day.



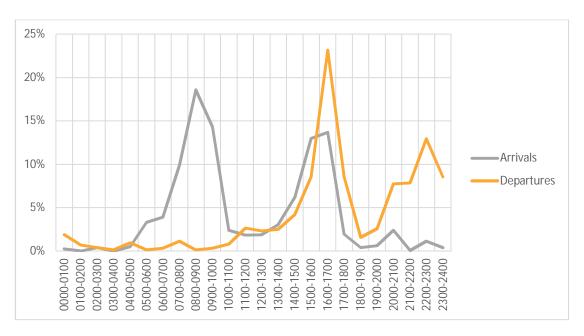


Chart 2.2 Expected Staff Arrival/ Departure Profile

- 2.21 In order to assess the likely mode share of staff at the hotel, reference is made to journey to work data from the 2011 Census for the output area in which the site is located; Bicester 016. Data from 2011 census indicates the 80% of people that work within the local census output area drive to work. This mode share has been applied to the expected staff arrivals and departures
- 2.22 Table 2.6 below shows the expected staff arrivals and departures and vehicles trips during each of the weekday morning, evening and Saturday peak hours.

	Arri	vals	Departures		
	Staff Vehicles		Staff	Vehicles	
Weekday Morning Peak (08:00 to 09:00)	65	52	0	0	
Weekday Evening Peak (17:00 to 18:00)	7	6	30	24	
Saturday Peak (12:00 to 13:00)	6	5	7	6	

Table 2.6 Expected Staff Vehicle Trips

Total Trip Generation

- 2.23 Based on the first principles sensitivity test the total trip generation of the site has been calculated by summating the first principles guest trip generation (presented at Table 2.5) and the first principles staff trip generation (presented at Table 2.6).
- 2.24 Table 2.7 provides a comparison of the expected trip generation of the development based on traffic surveys at existing Great Wolf sites, as presented in the Scoping Note dated 25th April 2019 and the first principles sensitivity test presented in the Note.



	Great Wo	If Surveys	First Principles Assessment		
	Arrivals Departures		Arrivals	Departures	
Weekday Morning Peak (08:00 to 09:00)	66	47	75	5	
Weekday Evening Peak (17:00 to 18:00)	66	88	24	38	
Saturday Peak (12:00 to 13:00)	122	125	59	33	

Table 2.7: Comparison of Trip Generation Methodology

2.25 Table 2.7 demonstrates that the trip generation analysis presented in the submitted Scoping Note dated 25th April 2019 and based on surveys of existing Great Wolf sites provides a robust assessment of the expected trip generation of the development proposals in comparison with a first principles sensitivity test. Therefore, no change to the trip generation methodology is proposed and the previously submitted trip generation analysis will form the basis of the Transport Assessment to be submitted alongside the planning application.

3.0 Parking

- 3.1 It was originally proposed that 1,000 car parking spaces would be provided on site. Having considered feedback received from OCC the proposed parking provision has been reduced to circa 900-920 car parking spaces. This section of the Addendum Scoping Note demonstrates how the proposed car parking provision is appropriate to meet the needs of the development.
- 3.2 As set out in Section 2 of this Note, the proposed hotel will have a total of 500 bedrooms and the expected occupancy of those rooms is 4.5 guests per bedroom, resulting in a peak occupancy of the hotel of 2,250 guests
- 3.3 In addition, the information presented above shows that typical car occupancy is 3 guests per car. On the basis that the hotel would accommodate up to 2,250 guests this would equate to a typical parking demand of 750 car parking spaces associated with guests at the hotel when fully occupied.
- In addition to parking for guests, it is necessary to provide on-site parking for staff at the hotel. It is expected that there will be in the order of 420-450 full time equivalent (FTE) staff employed at the hotel. However, the maximum number of staff on the site, at any one time, is expected to be up to 200 staff.
- 3.5 In order to assess the likely mode share and parking demand associated with staff at the hotel, reference is made to journey to work data from the 2011 Census for the output area in which the site is located; Bicester 016. Data from 2011 census indicates the 80% of people that work within the local census output area drive to work. On that basis, it is expected that up to 160 staff could drive to the site and be parked on site at peak times.
- 3.6 On the basis of the expected parking demand associated with guests and staff set out above, total parking demand of 910 cars on site is expected during peak periods. On that basis the proposed provision of 900-920 car parking spaces is considered appropriate to accommodate the expected parking demand and provide sufficient spare capacity for turnover of parking spaces and circulation.



4.0 Summary

- 4.1 This Scoping Note Addendum has been prepared to provide additional assessment of the expected trip generation of the development proposals and parking provision and seek agreements on these matters with Officers at Oxfordshire County Council and Cherwell District Council.
- 4.2 This Note demonstrates that the trip generation analysis presented in the previously submitted Scoping Note, based on surveys of existing Great Wolf sites, provides a robust assessment of the expected trip generation of the development proposals in comparison with a first principles sensitivity test. Therefore, no change to the trip generation methodology is proposed and the previously submitted trip generation analysis will form the basis of the Transport Assessment to be submitted alongside the planning application.
- 4.3 The proposed provision of 900-920 car parking spaces has been demonstrated to be appropriate to accommodate the expected parking demand and provide sufficient spare capacity for turnover of parking spaces and circulation.