Appendix TA - M

TECHNICAL NOTE 1 (TN1) – TRIP GENERATION

London Resort Company Holdings

THE LONDON RESORT

TECHNICAL NOTE 1: TRIP GENERATION

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DECEMBER 2020

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THE LONDON RESORT

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EXECUTIVE SUMMARY

SUMMARY

This Technical Note forms part of a suite of documents intended to inform and support a Nationally Significant Infrastructure Project (NSIP) application for a new and unique entertainment resort on the Swanscombe Peninsula in Kent, known as The London Resort. This TN alongside others will support the Transport Assessment and Environmental Assessment of the new proposed development.

This TN has been prepared to set out in detail to the relevant stakeholders (including highway and transport authorities such as the Highways England (HE), Kent County Council (KCC) along with views expressed by other authorities such as Transport for London (TfL) and the Department for Transport (DfT)) the potential trips associated with the proposed The London Resort. This TN also outlines the likely transport modes adopted by staff and visitors to access the site based on research undertaken in Technical Note 3. As mentioned above, this TN forms part of a number of WSP Technical Notes discussing travel demand, distribution and how visitors and staff will travel to / from The London Resort. The subsequent technical documents are as follows and should be read in conjunction with this TN;

- **Stakeholder Advisor Technical Document (SATD)**: This Document outlines the data and proposed methodology to be used in determining the likely forecast visitor and staff numbers at The London Resort (LR) as well as the proposed assessment years and day types.
- **Technical Note 2 Trip Distribution**: The Technical Note forecasts the trip distribution from The London Resort based on the distribution from existing developments of a similar nature. The report presents a breakdown of the origin of all visitors against the time of travel to The London Resort.
- **Technical Note 3 Mode Share**: The Technical Note outlines the methodology used to determine visitor and staff modal splits. This included a first principles exercise to determine the car park accumulation and a review process to identify sites/resorts that were applicable for a more in-depth review for use in the analysis of visitor and staff modal splits. The modal splits determined have been summarised in Chapter 4 and 5 of this report.
- **Technical Note 4 (TN4) Current and Future Mobility**: The Technical Note is split into three parts. Part A summarises the Future Mobility megatrends and technology timeline. Part B maps and describes the visitors trip origin on day of travel. This has been derived from Technical Note 2 Trip Distribution. Part C looks at the mode shift opportunity – or the estimated range of visitors that could access the site by modes other than private vehicle. This is based on the trip distribution and undertaken at a local authority level. In this part of the report, the estimated number of people that could arrive by active travel, direct local bus services, ferry and rail was calculated. The mode shift opportunity identifies a range of mode shares – with actual mode share determined by factors such as car parking availability and pricing on-site, ticketing strategies and other behaviour change initiatives.

To fully assess The London Resort it is imperative that agreement is made between all parties that the trip generation and modal share is acceptable and robust in assessing the impacts of the site. The proposed distribution methodology and mode shares to be adopted for The London Resort are discussed in detail within TN2 & 3, both of which should be read in conjunction with this TN.

A draft version of this document was submitted in June 2020 to stakeholders of The London Resort. Following comments from the Stakeholders the document has been reviewed and have been incorporated into the updated reports. A number of comments received relate to items that are more appropriate within the Transport Assessment which will be submitted as part of the DCO submission and will be outlined in greater detail in that document.

As well as the comments received from the stakeholders, individual meetings were arranged with KCC and Highways England to discuss items in further detail. These related to trip generation, mode share, assessment methodologies and modelling.

The comments relevant to Technical Note 1 have been reviewed and updated following consultee response and further information has been provided in the relevant sections:

CONTEXT

The proposed development looks to provide a truly world class entertainment Resort in Swanscombe, Kent. This will be built using a phased program, focusing on a main park initially, before building out the second gate feature of the site. The second park area will be complimentary to Gate One in a sense that users will be able to visit two world leading parks in the same area, but each will deliver its own unique content and visitor experience. The park will also benefit from a retail, dining and entertainment (RDE) area to create an exceptional visitor attraction.

There are no comparable visitor attractions to the proposed development in the UK and few comparable examples across Europe and the world. The geographic location of Disneyland Paris offers some similarities to the proposed development in relation to London, however it is difficult to assign a level of confidence to data which might be captured at this attraction as this site does not have access to other modes of transport that would be available at the proposed development.

Whilst correlations between site area and visitor numbers have been researched, it is often the strength of the experience that determines visitor demand. For example, Disneyland Paris is set in approximately 150 acres in size and attracts in excess of 10 million visitors per year. This compares with Alton Towers in the UK which is approximately 160 acres in size and yet only attracts 2.5 million visitors per year. Resorts that are known for their quality and brand, such as Disney and the Merlin Group, can attract visitors all year round and repeat visitors which some attractions are less able to achieve.

The proposed The London Resort site will have quality and visitor experience at the core of its design and will provide an experience that is unrivalled in the UK and across the world. The introduction of a site like this will invigorate not only the local economy but will have wider reaching benefits for the UK as a whole. This coupled with the benefits in terms of employment opportunities during construction and operation stages will create a lasting legacy for the site.

As with any large-scale visitor attraction, the way guests and staff travel to the site will be of key importance. The business plan assumed a range of likely travel choices, based on a number of tourist attractions from around the UK to inform the preliminary transport strategy for The London Resort development. Building upon that information and using observations over the summer of 2012 and further research on related travel options, the mode shares have been determined.

that information and using observations over the summer of 2012[1] and further research on related travel options, the mode shares have been determined.

FORECAST VISITOR MODE SHARE AND TRAVEL DEMAND

WSP, alongside MR-ProFun (ProFun) and Leisure Development Partners (LDP) have used industry standard data and methodologies to determine the likely forecast visitor and staff numbers at The London Resort. This TN will explore and discuss further the data and information used in more detail later in the report.

As outlined in TN3, the mode shares for The London Resort site have been calculated based on the available data and by constraining the numbers of those arriving by vehicle (as the car parking is a fixed number) an estimated mode share for non-London and London based travel.

The forecast visitor demand has been developed by ProFun and LDP, based on commercially sensitive data and standard practices to enable a robust estimate of the likely number of visitor footfall expected.

This TN will identify the data sources used to calculate the expected visitor and staff demand across the different operational day types at The London Resort. By applying the mode share information in TN3 to the numbers and then the distribution information in TN2, this will allow the analysis of the potential impacts as a result of The London Resort, not only on the local and strategic road networks but also on the public transport options.

Based on the research data the forecast mode shares have been applied to the visitor projections, with the resulting 85th%ile weekday daily demand shown in Table 1. As expected for a resort of this size that is open across the year, there are a number of different day types expected with varying demands of visitors. The London Resort will adopt a number of techniques and event management plans to help manage high volumes and demand throughout the year and as such it is sensible to assess a volume that covers the majority of expected days. Therefore, the core analysis will be undertaken on the 85th%ile weekday to ensure that The London Resort is robustly assessed.

Table 1: Visitor Daily Trip Generation (85th%ile Weekday) 2029

Transport Mode	Adopted	85th%ile Weekday	
		Persons	Vehicles
Private Vehicle[2]	64.7%	23,108	7,715
Public Transport	24.1%	8,619	N/A
Coach[3]	8.8%	3,155	110

[1] Including the London Olympics 2012

[2] Based on 3 persons / vehicle

[3] Based on 30 persons / vehicle

Drop Off/ Taxi[4]	2.3%	819	672
Total	100%	35,700	8,497

Source: Consultant Calculated

The information supporting Table 1 outlines that car occupancy will vary depending on vehicle type and users. In terms of operation at the park, there may be peak event days, where it would be practical to consider a range of seasonal arrangements, which are identified in the Events Management Plan.

FORECAST STAFF MODE SHARE AND DEMAND

Using a similar methodology to the visitor forecasts, profiles for the number of staff arrivals and departures for the site on various operation days have been calculated and provided by the consultant team. Whilst staff numbers will vary depending on the forecast day type and season at The London Resort, as with visitors, how staff will travel to and from The London Resort will be a key consideration in park design. As with the visitors, the staff mode share is based on the limited number of staff car parking spaces, ensuring that there is not a reliance on the private vehicle use. The sites proximity to a range of public transport will have a considerable effect on the transport choices adopted. The forecast staff mode share is depended on the amount of staff on site each day this is outlined in greater detail in TN3.

As The London Resort is open year-round, there will be fluctuations in demand for visitors in quieter seasons as well as increases during key months and seasons. Typically, resorts would respond to these fluctuations by varying the number of staffs to cater for the anticipated visitor demand. For our assessments it has been assumed that the highest level of weekday staff demand as this is applicable to the 85th%ile Weekday.

The resulting daily numbers of staff and vehicles for a peak weekday, which has been assessed with the highest number of staffs in The London Resort, is shown in **Table 2**.

Table 1 :Staff Daily Trip Generation (Peak Weekday) 2029

Transport Mode	Adopted	Staff demand (Peak Weekday)	
		Persons	Vehicles
Private Vehicle[5]	18.2%	1,777	889
Other Modes[6]	71.8%	7,966	N/A
Total	100%	9,743	889

Source: Consultant Calculated

As far as reasonably practicable the best available data has been sourced to inform this Technical Note. It is possible that new data could be available when the DCO application is considered but it is not anticipated that this would materially alter the forecasts included in this note.

[4] Based on 2 persons/ vehicle

[5] Based on 2 persons / vehicle

[6] This will be split by Rail, Bus, Walking and Cycling

1

INTRODUCTION

1 INTRODUCTION

1.1 INTRODUCTION

1.1.1. WSP have been engaged to provide transportation advice and highways input to the proposed development of The London Resort (The London Resort) at the Swanscombe Peninsula in Kent. WSP, with consultation from a number of world leading resort specialists and experts have been involved in developing the transport, highway and infrastructure master plan for the development business case. WSP are also leading on preparing the supporting transport documents for the Nationally Significant Infrastructure Project (NSIP) application and corresponding Development Consent Order (DCO) which will cover a variety matters, such as modelling, transport assessments, travel plans and event management.

1.1.2. Introduced by the Planning Act in 2008, a DCO was intended to simplify and speed up the process of obtaining planning permission for large scale developments, designated as NSIP. Obtaining development consent under the 2008 Act involves a front-loaded process where the developer consults on a proposed project before submitting an application. The application, once accepted, will then be examined by a single inspector or a panel of inspectors from the Planning Examining Body. The DCO not only provides planning consent for the project but may also incorporate other consents and include authorisation for the compulsory acquisition of land.

1.1.3. This Technical Note (TN1) presents a methodology to determine the likely multi-modal trip generation for visitors and staff, and the travel demand expected based upon the forecast annual and daily visitors' figures calculated by ProFun Management Group Inc (ProFun) and Leisure Development Partners (LDP).

1.1.4. This TN forms part of a suite of WSP Technical Notes discussing travel demand, distribution and how visitors and staff will travel to / from The London Resort. The technical notes are as follows and should be read in conjunction with this TN;

- **Stakeholder Advisor Technical Document (SATD)**: This Document outlines the data and proposed methodology to be used in determining the likely forecast visitor and staff numbers at The London Resort as well as the proposed assessment years and day types.
- **Technical Note 2 (TN2) Trip Distribution**: The Technical Note forecasts the trip distribution from The London Resort based on the distribution from existing developments of a similar nature. The report presents a breakdown of the origin of all visitors against the time of travel to The London Resort.
- **Technical Note 3 (TN3) Mode Share**: outlines the methodology used to determine visitor and staff modal splits. This included a first principles exercise to determine the car park accumulation and a review process to identify sites/resorts that were applicable for a more in-depth review for use in the analysis of visitor and staff modal splits. The final modal split for Cars has been applied to the trip distribution. The modal splits determined have been summarised in Chapter 4 and 5 of this report.
- **Technical Note 4 (TN4) Current and Future Mobility**: The Technical Note is split into three parts. Part A summarises the Future Mobility megatrends and technology timeline. Part B maps and describes the visitors trip origin on day of travel. This has been derived from Technical Note 2 Trip Distribution. Part C looks at the mode shift opportunity – or the estimated range of visitors that could access the site by modes other than private vehicle. This is based on the trip distribution and undertaken at a local authority level. In this part of the report, the estimated number of people that could arrive by active travel, direct local bus services, ferry and rail was calculated. The mode shift opportunity identifies a range of mode shares – with actual mode share determined by factors such as car parking availability and pricing on-site, ticketing strategies and other behaviour change initiatives.

1.1.5. To fully assess The London Resort, it is imperative that agreement is made between all parties that the trip generation and modal share is acceptable and robust in assessing the impacts of the site. The proposed

distribution methodology and mode shares to be adopted for The London Resort are discussed in detail within TN2 and TN3, both of which should be read in conjunction with this report.

1.1.6. As part of this research, WSP have conducted a review of available transport mode share data from various sources including TRICS, planning applications and Travel Plan monitoring reports at a range of tourist destinations, within the UK or in comparable environments. In each case the mode choice and car occupancy varied significantly, influenced by their location and accessibility to range of public transport. A separate document, TN2, will provide evidence and a methodology in determining where visitors and staff will travel to the site from. However, additional research was required to understand what mode of travel both staff and visitors may use. This research has allowed a robust set of forecast mode shares to be applied to the visitor forecasts developed for The London Resort site. Detailed information on mode share is contained within a separate Technical Note, TN3.

1.2 WORLD LEADING TEAM OF EXPERTS

1.2.1. The market and penetration data underpinning the visitor forecasts has been prepared by LDP. LDP are a leading consulting firm specialising in the feasibility, review and performance improvement of visitor attractions and leisure real estates. The approach LDP takes relies upon detailed market analysis and the application of carefully chosen real world benchmarks from existing comparable projects. This approach came out of the feasibility work for Disney and LDP has developed this further over the past 50 years. LDP have adopted an industry standard methodology to identify the likely market numbers and potential visitor profiles to the site. This has allowed LDP to compare and cross reference the proposals against existing sites across the world to ensure that forecasts are accurate and defendable.

1.2.2. The primary data for TN1 to determine the likely trip generation is provided by MR-ProFun (ProFun). ProFun are considered experts in Theme park and attraction sector, having worked on major theme park operators Universal and Disney, whilst managing some of the world's largest entertainment attractions and destinations. The daily visitor attendance, by area of resort, has been determined using the annual market and penetration forecast provided by LDP. The ProFun data has been used and refined further to gather a likely understanding of the demand at The London Resort on specific assessment days and times.

1.2.3. In addition to both ProFun and LDP's data, Volterra have provided information on the hotels, staffing and European / International guests as part of their economic and viability assessments. Volterra are a niche consultancy specialising in the economics of transport and property development with 30 years practical experience. Volterra created Wider Economic Benefits (WEBs) during work for Crossrail and have led WEBs work internationally, Volterra help developers to understand the economic impacts especially the link between transport and development.

1.3 THE LONDON RESORT

1.3.1. There are no similar visitor attractions to the proposed development in the UK and very few comparable examples across Europe and the world. The geographic location of Disneyland Paris offers some similarities to the proposed development in relation to London, however it is difficult to assign a level of confidence to data which might be captured at this attraction as this site does not have access to other modes of transport that would be available at the proposed development.

1.3.2. As with any large-scale visitor attraction, the way guests and staff travel to the site will be of key importance. The business plan assumed a range of likely travel choices, based on a number of tourist attractions from around the UK to inform the preliminary transport strategy for The London Resort development. Building upon

that information and using observations over the summer of 2012[7] and further research on related travel options the mode shares have been refined based on this information.

1.4 THE LONDON RESORT SITE SELECTION

1.4.1. During the Business Plan phase of the project WSP contributed to the selection of sites, providing a critique of site options relative to forecast travel demand and the existing infrastructure available at each site.

1.4.2. The Ebbsfleet site was chosen based on a number of selection criteria, including its relative location and accessibility to major European cities, transport and service infrastructure. The selected location is believed to offer great location advantages to domestic and international visitors.

1.4.3. For short-breaks and holidays, the site lies within modest proximity to a range of Airports, where existing and planned guest accommodation mean it is possible to stay within the region and access the historic and cultural centres of London, Paris and Brussels within a relatively short train journey. The economic effects of these changes to UK and regional tourism are considered in the Socio-Economic assessment, being prepared by Volterra, supporting the application.

1.4.4. The site also benefits from being located close to a number of ports, including Tilbury, which provides commercial cargo services as well as vehicle and passenger traffic. The potential to exploit links to the European cruise liners contributes to the site being able to offer the greatest level of accessibility for a development of its kind in Europe and much of the world. A quarter of the visitor car parking is also being proposed at Tilbury, with guests then able to travel across the river in provided ferry transport. Promoting accessibility via Tilbury will enable an increased spread of vehicle trips on the existing highway network and help mitigate any possible impacts that the proposed development might have.

1.5 PROPOSED DEVELOPMENT

1.5.1. The current proposals are indicatively set out as follows:

- A multi-IP global resort including leading brands related to film television, electronic gaming and toys;
- Phased approach delivering two unique parks;
- The leisure core will comprise a range of events space, themes rides and attractions, entertainment venues, theatres and cinemas;
- Gate One and Gate Two will have entrance plazas offering ancillary retail, dining and entertainment facilities;
- Approximately 3,550 suites across four hotels providing family, upmarket, luxury and themed accommodation;
- A Waterpark incorporated within one of the on-site hotels;
- A ‘conferention’ centre, combined conference and convention facilities capable of hosting a wide range of entertainment, sporting, exhibition and business events;
- A linked building hosting a range of eSports, video and computer gaming events;
- Approximately 2,000 single units contained within 500 on-site dwellings for Resort workers; and
- People mover and transport interchange between Ebbsfleet International, the pier and the main entrance.

1.5.2. The London Resort site benefits from being located in a highly accessible area on the Swanscombe Peninsula, in north Kent. The site is nearby to major road networks, including A2, M2, M25, Dartford Crossing and the future Lower Thames Crossing. The proposed car parking provision at Tilbury is also immediately accessible via the A1089 and the A13. This provision enables a greater spread of vehicle trips to and from The London Resort and offers an opportunity for visitors and staff travelling from north of the river to utilise this arrival experience.

1.5.3. The road network provides the ability for visitors and staff, as well as those from further afield, to access The London Resort. Furthermore, the motorway network delivers connections to all the London Airports within a two-hour driving time.

1.5.4. The mode share of visitors and staff to a specific site is determined by and limited to the accessibility of the site by the availability of sustainable transport in the immediate vicinity. It has been concluded that resorts or attractions in rural locations, with increased distance from sustainable transport modes, will inevitably obtain a higher private vehicle mode share. Further details on the forecast mode shares for visitors and staff are discussed in TN3.

1.5.5. The London Resort's location on the Swanscombe peninsula enables access from a variety of strong public transport networks surrounding the site; an exclusive provision setting The London Resort apart from other similar attractions worldwide. Ebbsfleet International station is located on High Speed 1 (HS1) and provides an efficient connection to London St Pancras International in a journey time of approximately 17 - 21 minutes and operating four times an hour throughout the day. A direct Eurostar service operates from Ebbsfleet to Paris 3-5 times a day, Brussels 3-4 times a day and Marne-la-Vallée (Disneyland Paris) once a day, depending on the day of week, with a journey time between two and two and a half hours. The proximately of The London Resort to local and international rail services, including HS1 and the Eurostar, enables the existing site to benefit from this mode of travel.

1.5.6. The London Resort's location in the near vicinity of the River Thames provides a unique opportunity to utilise the natural transport network. In additional to commercial and construction users accessing the site via Tilbury, a quarter of visitor car parking being located at Tilbury enables visitors to arrive and depart via water taxis across the Thames. In addition to this, there is the potential to attract cruise ships from central London, which is likely to attract visitors from Europe and International who are based in the capital.

1.5.7. The London Resort development will look to reduce pressure on the highway network through the promotion and provision of more sustainable methods of travel capitalising on the sites truly ideal location with the quantity of public transport on offer, providing an easy efficient access to and from the main entrance. The existing proposals consider the implementation of a "people mover" operation between Ebbsfleet International Station, the main entrance to The London Resort and the pier. It is also assumed that the FastTrack service, operating in nearby Ebbsfleet and the proposed Garden City development, will be essential to the transit of local residents to and from The London Resort. A reliable and effective local public transport coupled alongside a dedicated service operating between The London Resort and bus or coach stations, will enable staff and visitors ease of access to the main theme parks and a real choice thereby reducing the reliance of private vehicle travel.

1.5.8. The London Resort development is a truly unique site, with no comparative location currently operating in the UK and limited comparisons anywhere else in the world. The existing and proposed transport options available will enable the development to operate with a sustainable travel ethos and minimise the impact of the highway network. To ensure that the development remains robust however, the freedom of movement from use of private vehicle needs to be considered but it is accepted that the variety of entertainment available at the site will result in high car occupancy levels, maintaining the efficient movement of people.

1.6 OTHER TECHNICAL DOCUMENTS

1.6.1. This Technical Note references a number of other Technical Notes and this section provides a short summary on each of the Technical Notes referenced throughout this report:

- **Stakeholder Advisor Technical Document (SATD)**: This Document outlines the data and proposed methodology to be used in determining the likely forecast visitor and staff numbers at The London Resort (The London Resort) as well as the proposed assessment years and day types.
- **WSP Technical Note 2 Trip Distribution**: The Technical Note forecasts the trip distribution from The London Resort based on the distribution from existing developments of a similar nature. The report presents a breakdown of the origin of all visitors against the time of travel to The London Resort.

- **WSP Technical Note 3 Mode Share**: The Technical Note has completed a review process to identify sites / resorts that were applicable for a more in-depth review for use in the analysis of visitor and staff modal splits. The modal splits determined have been summarised in Chapter 4 and 5 of this report.
- **LDP Preliminary Attendance and Physical Planning Analysis**: Forecasts the attendance at Gate One, Gate Two, Retail Dining and Entertainment ("The Market"), Waterpark and on-site Hotel facilities and provides an estimation for the likely distance of travel of the UK and European/ International visitors. A summary of some of this information is also included in SATD;
- **ProFun LP Attendance Distribution** Model: ProFun have provided three spreadsheets presenting the Visitor Attendance Distribution of each element of The London Resort for 2025, 2029 and 2038. An additional Staffing Booklet has been provided to present the number of employees associated with each of the areas of The London Resort for the 3 assessment years. The four spreadsheets are provided in SATD as Appendix A and.
- **Volterra information:** Provided information on the economic analysis and catchment areas of visitors and staff, including the distribution of likely hotel guests and locations. Information on the likely demographic on staffing, helping to determine catchment areas have been provided, although this is more applicable to TN2 – Trip Distribution and TN3 – Mode Share. The Volterra report titled 'London Resort Offsite Hotel Distribution' has been used to help determine the split between London visitors and UK wide visitors. The Volterra report will be issued as a separate Technical Note and should be read in conjunction with this TN.

1.7 UPDATES FOLLOWING CONSULTEE RESPONSES

1.7.1. A draft version of this document was submitted in June 2020 to stakeholders of The London Resort. Following comments from the Stakeholders the document has been reviewed and have been incorporated into the updated reports. A number of comments received relate to items that are more appropriate within the Transport Assessment which will be submitted as part of the DCO submission and will be outlined in greater detail in that document.

1.7.2. As well as the comments received from the stakeholders, individual meetings were arranged with KCC and Highways England to discuss items in further detail. These related to trip generation, mode share, assessment methodologies and modelling.

1.7.3. The comments relevant to Technical Note 1 have been reviewed and updated following consultee response and further information has been provided in the relevant sections:

- All Hotel guests are assumed to use one area of the Resort;
- The inconsistencies between TN1 and the SATD have been checked and corrected for the final version of this document for submission;
- The assessment periods have been finalised within this document to be AM and PM peaks and the assessments within the Transport Assessment will follow this;
- The forecast number of delivery and servicing movements will be outlined in detail within the Transport Assessment;
- A ride share/ taxi mode share has been included i
- Further information has been provided by ProFun/ LDP will be included within the Transport Assessment; this includes supporting documentation presenting further detail in how the visitor and staff forecasts were calculated; and
- The TRICs validation report outlined that the software was not suitable for calculating the trip generation due to the unique nature of The London Resort, this outlined in further detail in the following section.

1.8 TRIP VALIDATION

1.8.1. Whilst research has been undertaken into existing resorts in the UK, Europe and the rest of the world which is set out in greater detail in this Technical Note, it is fair to assume that attendance at theme parks/resorts such as The London Resort is determined by a variety of factors and not just the gross floor area. Disney resorts

around the world attract high quantities of visitors and repeat visitors all year round due to their reputable quality and brand. On the other hand, Alton Towers – part of the Merlin Entertainments Group – saw a large drop in annual attendance in 2015 which was accounted for by the highly publicised crash on The Smiler ride. It is therefore difficult to validate trip generation associated with The London Resort through comparison of similar resorts or attractions and it can be assumed that the visitor forecast assumptions calculated by resort specialists, in which quality, type of entertainment and on-site facilities were considered, are an accurate estimate.

1.8.2. It has been concluded; that the key themed park areas of The London Resort can only be calculated by resort specialists as size / location do not have a significant bearing on level of visitors or times of travel. That being said, the proposed resort contains a variety of land uses outside of the main leisure core that could be designated as attractions in their own right and a validation exercise was undertaken to investigate potential trips associated with the following land uses using the industry standard TRICS database.

1.8.3. The Technical Note: Trip Validation is enclosed within Appendix A of this document. The intention of the high level review was to understand the potential trip generation that could occur if you were to apply trip rates to some of the individual components of the London Resort. This was completed in 2017 and as outlined in the appendix it was acknowledged that the individual land use have not taken in to account the potential of linked trips between services and therefore it is likely to over-estimate the trip generation associated. The proposals have changed since the analysis in 2017 and it was included to provide an indication of the likely trips should an alternative methodology is applied.

1.8.4. It is not considered that TRICS is able to accurately predict the large scale multi use developments such as an international leisure resort. This simply reflects the uniqueness of the proposals and that there is limited comparable data that can be used without applying numerous unsubstantiated assumptions.

1.8.5. It should also be noted that the sole purpose trip to the main parks of the resort were not included in the analysis. As noted above, this is due to the fact that there was not a comparable site within the TRICS database that would allow for a meaningful comparison in trip generation characteristics. The individual land uses do not consider cross visitation or linked trips, and it could be anticipated that visitors at the main park will make use of many of the ancillary land uses and only a small number of external trips would be expected.

1.8.6. By not including sole purpose resort trips in the exercise and assuming that the trips generated by the individual uses also came from the main resort parks, an allowance for cross visitation from the gates to those uses has been accounted for to a degree (coarsely this can be argued to reflect 100% cross visitation between the main parks and the other land uses).

1.8.7. Whilst it is likely that further cross visitation between individual land uses will occur, there is no comparable dataset available which provides the necessary information to provide this breakdown.

1.8.8. The comments by HE regarding RDE, Event, Water Park and Hotels and the expectation that these are likely to be a sole purpose travellers is reflected with the analysis presented in Appendix A. Simply, individual land uses generating their own trips. Albeit, it is acknowledged that the analysis in 2017 does not include an allowance for Water Park, we have taken advice and information from world leading experts who are able to indicate where cross-visitation is likely to occur and between which elements. These experts, who have worked on entertainment sites across multiple international areas are best placed to provide the information used in the forecasts.

1.8.9. As can be expected, the cross visitation and visitor forecasts in a resort such as the proposals is not a simple exercise or the result of an application of a singular percentage. The visitor information provided by ProFun and LDP is based on existing theme parks and is considered more appropriate than individual TRICS sites with or without any further adjustments.

1.8.10. It is not considered appropriate or proportionate to undertake a further review of TRICS at this stage, as the TRICS database does not have a comparable site that would allow for a comparison.

1.8.11. No sites within the UK have the combination of travel options that is available for The London Resort and it is considered appropriate to use the forecasts developed by the experts in these types of large scale world leading entertainment sites.

1.9 REPORT STRUCTURE

1.9.1. This TN presents the information used to determine the likely travel demand patterns for visitors and staff at The London Resort, and is broken down under the following chapters:

- **Chapter 2** provides the annual, monthly and peak day Visitor Demand forecast, including details on the adjustments made to the 2nd Gate, Hotel and RDE Visitor Demand;
- **Chapter 3** summarises the modelling scenarios that will be taken forward in the strategic model assessments of The London Resort site;
- **Chapter 4** details how visitors will travel to The London Resort, summarising the TN3 including occupancy rates;
- **Chapter 5** provides a breakdown of the forecast staff model share from TN3 including occupancy rates;
- **Chapter 6** provides an assessment of the Visitor and Staff trip generation for the selected assessment scenarios; and
- **Chapter 7** provides a summary and conclusion of the Technical Note.

2

VISITOR DEMAND FORECAST

2 VISITOR DEMAND FORECAST

2.1 INTRODUCTION

2.1.1. This section outlines the different operating hours and seasonality at The London Resort and the expected visitor demand, from annual attendance down to each day type. This includes the expected peak days but also demonstrates the variability in demand for each of the different operating days.

2.2 ASSESSMENT YEARS

2.2.1. The London Resort is expected to become operational in 2024 with the opening of the main park alongside the RDE element and 2,30 Hotel rooms. The visitor's attendance is taken from the LDP Attendance & Physical Planning (enclosed in the SATD) report and forecasts the total attendance across the various stages between Gate One opening and Park Maturity. The opening of Gate Two is expected to approximately 2029. The timeline below outlines the expected profile.

Figure 2-1 The London Resort expected operational profile

2.2.2. The proposed infrastructure will be operational from 2024 including the junction upgrade on the A2, the people mover from the Thames pier to Ebbsfleet International via The London Resort and the enhanced bus services. The London Resort is proposed to open Easter of 2024 and as 2025 therefore forms the first full operational year, it will form the first traffic impact assessment year.

2.2.3. As discussed in the Stakeholder Advisor Technical Note (SATD) the assessment years will include: 2025, the first full operation year after opening; 2029, the opening of Gate Two; and 2038, when The London Resort is forecast to reach maturity.

2.2.4. It is clear that there is a level of uncertainty assessing as far forward as 2038 regarding key strategic infrastructure within the south east and the potential change in how people travel. The increasing digitisation of society, and the emergence of connected and autonomous technologies, zero emission vehicles, shared service models and new forms of electronic payment, are already causing disruption and blurring the boundaries of traditional transport modes. In addition global megatrends, including demographic challenges, social change, environmental focus, economic shift and the political landscape, influence how, when and where people will travel to.

2.2.5. As guidance, the Department for Transport's 'Future of Mobility: Urban Strategy' outlines the government's approach to maximising the benefits from transport innovation in cities and towns, and summarises the six high-level 'key changes' that are fueling the evolution of transport, which are:

- Automation;
- Cleaner Transport;
- New Business Models;
- New Modes;
- Data & Connectivity; and
- Changing Attitudes.

2.2.6. How these changes are reflected within the planning of new development is paramount, particularly as the build-out timeline will be realised as these changes come to fruition. In the case of The London Resort, the development build-out timeline (2038 year of maturity) means it is imperative scheme proposals reflect new and future mobility interventions

2.3 VISITOR AND STAFF FORECASTS

2.3.1. The forecast visitor and staff demand has been developed by ProFun and LDP, based on commercially sensitive data and standard practices to enable a robust estimate of the likely number of visitor footfall expected.

2.3.2. As can be expected, the visitor and staff demand can vary on a day to day basis depending on;

- The operational day type and season; and
- Any adjustments for cross visitation and internalisation.

2.3.3. This chapter will provide further information on the profiles used to date and how these have been calculated on an annual basis and then broken down into daily and ultimately hourly profiles.

2.4 PARK OPERATION

2.4.1. The development team consist of park and resort specialists, including management companies that are involved in the day to day running of existing parks across the globe. With this wealth of experience and knowledge available, the team are well placed to formulate and forecast what the operational needs of The London Resort are throughout the year and how The London Resort can accommodate and proactively respond to periods of higher or lower demand.

2.4.2. The London Resort will be open year-round, providing an unparalleled attraction and resort complex. As would be expected, The London Resort will experience peaks and troughs in terms of visitor demand due to seasonality and the influence of weekdays versus weekends. The annual operation and seasonal operation hours are set out in **Figure 2-2** to **Figure 2-4** for 2025, 2029 and 2038 respectively.

Figure 2-2 2025 Annual Operating Hours and Seasonality

London Resort - Main Gate and Second Gate
Annual Operating Hours and Seasonality

365 day operations												
	Start	End		Monday	Monday	Monday	Monday	Friday	Saturday	Sunday	
1 Christmas	Wed - Jan 1, 2025	Sun - Jan 5, 2025	Peak	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak
2 Second week Jan to Feb Half Term	Mon - Jan 6, 2025	Fri - Feb 14, 2025	Low	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 9p	Low 9p - 9p	Low 9p - 8p	Low
3 February Half term to Easter Holidays	Sat - Feb 15, 2025	Thu - Apr 17, 2025	Medium	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Medium
4 Easter to 2nd Week in September	Fri - Apr 18, 2025	Sun - Sep 14, 2025	Peak	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak
5 2nd week Sept to October Half Term	Mon - Sep 15, 2025	Fri - Oct 17, 2025	Low	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 9p	Low 9p - 9p	Low 9p - 8p	Low
6 October half term 2 Week Period	Sat - Oct 18, 2025	Sun - Nov 2, 2025	Peak	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak
7 After October half term to Christ. Week	Mon - Nov 3, 2025	Fri - Dec 19, 2025	Low	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 9p	Low 9p - 9p	Low 9p - 8p	Low
8 Christmas and New Years	Sat - Dec 20, 2025	Wed - Dec 31, 2025	Peak	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak
9 Public holidays (UK & Europe)			Peak	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Peak

All Holidays and Holiday Weekends use "Peak" Operating Hours

Figure 2-3 2029 Annual Operating Hours and Seasonality

London Resort - Main Gate and Second Gate
Annual Operating Hours and Seasonality

365 day operations												
	Start	End		Monday	Monday	Monday	Monday	Friday	Saturday	Sunday	
1 Christmas	Mon - Jan 1, 2029	Sun - Jan 7, 2029	Peak	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak
2 Second week Jan to Feb Half Term	Mon - Jan 8, 2029	Fri - Feb 16, 2029	Low	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 9p	Low 9p - 9p	Low 9p - 8p	Low
3 February Half term to Easter Holidays	Sat - Feb 17, 2029	Thu - Mar 29, 2029	Medium	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Medium
4 Easter to 2nd Week in September	Fri - Mar 30, 2029	Sun - Sep 16, 2029	Peak	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak
5 2nd week Sept to October Half Term	Mon - Sep 17, 2029	Fri - Oct 12, 2029	Low	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 9p	Low 9p - 9p	Low 9p - 8p	Low
6 October half term 2 Week Period	Sat - Oct 13, 2029	Sun - Oct 28, 2029	Peak	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak
7 After October half term to Christ. Week	Mon - Oct 29, 2029	Fri - Dec 21, 2029	Low	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 9p	Low 9p - 9p	Low 9p - 8p	Low
8 Christmas and New Years	Sat - Dec 22, 2029	Mon - Dec 31, 2029	Peak	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak
9 Public holidays (UK & Europe)			Peak	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Peak

All Holidays and Holiday Weekends use "Peak" Operating Hours

Figure 2-4 2038 Annual Operating Hours and Seasonality

London Resort - Main Gate and Second Gate
Annual Operating Hours and Seasonality

365 day operations

		Start	End		Monday	Monday	Monday	Monday	Friday	Saturday	Sunday	
1	Christmas	Fri - Jan 1, 2038	Sun - Jan 10, 2038	Peak	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak
2	Second week Jan to Feb Half Term	Mon - Jan 11, 2038	Fri - Feb 19, 2038	Low	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 9p	Low 9p - 9p	Low 9p - 8p	Low
3	February Half term to Easter Holidays	Sat - Feb 20, 2038	Thu - Apr 22, 2038	Medium	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Med. 9p - 9p	Medium
4	Easter to 2nd Week in September	Fri - Apr 23, 2038	Sun - Sep 19, 2038	Peak	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak
5	2nd week Sept to October Half Term	Mon - Sep 20, 2038	Fri - Oct 15, 2038	Low	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 9p	Low 9p - 9p	Low 9p - 8p	Low
6	October half term 2 Week Period	Sat - Oct 16, 2038	Sun - Oct 31, 2038	Peak	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak
7	After October half term to Christ. Week	Mon - Nov 1, 2038	Fri - Dec 24, 2038	Low	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 8p	Low 9p - 9p	Low 9p - 9p	Low 9p - 8p	Low
8	Christmas and New Years	Sat - Dec 25, 2038	Fri - Dec 31, 2038	Peak	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak 9p - 11p	Peak
9	Public holidays (UK & Europe)			Peak	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Holiday 9p - 11p	Peak

All Holidays and Holiday Weekends use "Peak" Operating Hours

2.4.3. The various operating days are outlined below:

- **Peak Operating Days**: Peak periods corresponds with the three traditional summer months including school summer holidays. The London Resort is expected to be at its busiest during this period and open for 13 hours a day;
- **Medium Peak Operating Days**: The medium season corresponds to the period between low and peak season during Spring and Autumn months. During the medium peak The London Resort is to be open for 12 hours daily;
- **Low – Weekday**: The low season weekday period corresponds with the months outside of the traditional summer and school holidays. This is the period when visitors to The London Resort will be at its lowest and The London Resort will only be open for 11 hours; and
- **Low – Weekend**: The low season weekend period corresponds with the low season weekday; the resort will have different opening hours on Friday and Saturday during these months and will be open for 12 hours.

2.4.4. It is imperative to note that whilst The London Resort opens at 9am, the first hour is considered exclusive to on-site hotel guest who are making an internal trip within the development. For transport impact assessment purposes, the opening time of The London Resort is therefore considered to be 10am, when the site opens for all guests and anyone arriving between 9am and 10am is doing so in advance of being able to enter the parks.

2.4.5. Detailed analysis of the bespoke operating hours for each area of The London Resort has been presented in the SATD, including the associated arrival and departure profiles.

2.5 ANNUAL ATTENDANCE

2.5.1. Analysing ProFun's visitor datasets, the summary of yearly attendance (in visits) for the assessment years 2025, 2029 and 2038 is shown in **Table 2-1** and is detailed by area of The London Resort (excluding the hotel element, which will be discussed separately).

Table 2-1 Total forecast number of visits in 2025, 2029 and 2038

Area of Resort	Year 2025	Year 2029	Year 2038
Gate One	5,288,899	5,747,375	8,392,975
Gate Two	-	2,873,687	4,196,488
Retail, Dining and Entertainment (RDE)	2,053,479	3,604,440	4,812,735
Waterpark	621,604	765,578	804,039
Events	284,021	410,000	581,131
Total	**8,248,003**	**13,401,080**	**18,787,368**

2.5.2. The distinction between visits and corresponding visitors is an important one, as whilst the area as a whole generates over 13 million visits in 2029, a number of these are made up from people already at The London Resort (i.e. visiting RDE before or after visit to Gate One/ Gate Two), or those that have travelled internally from the on-site hotels.

2.5.3. In addition to The London Resort areas shown in **Table 2-1** the park will benefit from a total of 3,550 hotel rooms. The total number of visitors will therefore include an element of those staying in the on-site hotels, which is why they will be assessed separately. Whilst the number of visitors at the hotel will vary depending on season and day type, for a peak day, the number of hotel stays has been calculated based on a 95% occupancy rate, an average 1.5-night stay and an average of 2.11 persons per room. The number of people at the on-site or off-site hotels will have a direct impact on where those are travelling from, which will be discussed in further detail below.

2.5.4. ProFun have made additional adjustment to the numbers presented in **Table 2-1** to account for cross-visitation and internal trips; this is required in order to understand the likely number of unique or sole-purpose visitors on the chosen assessment days.

GATE ONE AND GATE TWO VISITORS

2.5.5. The London Resort is proposed to have two theme parks so following advice given by ProFun / LDP that a proportion of visitors will visit both parks on the same day, an adjustment is deemed necessary to calculate the number of visitors visiting both parks in the same day or those already staying on site within accommodation and therefore making an internal trip.

2.5.6. ProFun forecast that 14% of visits to Gate One in 2025 are from guest already staying on-site within Hotels and therefore are considered internal trips – not to be considered from a Transport perspective. In 2029, ProFun analysis demonstrates that 26% of visits to Gate One are from those already staying on-site and 62% of visits to Gate Two are similarly from those staying on-site or already visiting Gate One.

2.5.7. In 2038, ProFun analysis demonstrates that 20% of visits to Gate One are from those already staying on-site and 53% of visits to Gate Two are similarly from those staying on-site or already visiting Gate One.

RETAIL DINING AND ENTERTAINMENT (“THE MARKET”) VISITORS

2.5.8. LDP and ProFun forecast that the majority of visits to the RDE Zone will be from Hotel visitors and Day theme park visits and are therefore classified as “Internal” visitors. As a result of internal trips, a smaller proportion of external visitors travelling to the RDE would be unique / sole-purpose trips. In 2025, 28% of RD&E total attendance are sole purpose trips from visitors residing within 60 minutes of the Site only; in 2029 and 2038 this percentage is 27%. Cross-visitation is discussed in more detail within the **SATD**.

WATERPARK VISITORS

2.5.9. The Waterpark is proposed to be attached to the on-site accommodation and thus predominantly attracts visitors who are already staying within hotels at The London Resort; projections indicate that 53% of Waterpark visits in 2025 will be from visitors already on-site either at Theme parks or staying in accommodation. It is understood that sole-purpose Waterpark trips will only be made by primary residents within the vicinity of the Site; these unique trips account for 47% of total visits to the Waterpark in 2025, 35% of visits in 2029 and 2038.

EVENT VISITORS

2.5.10. In the absence of more specific information surrounding the likely uses of the event space at The London Resort, it has been assumed that all visits to the event space are sole-purpose, in the form of additional unique trips and no cross-visitation from visitors already on-site at one of Theme parks or staying in a hotel has currently been considered within ProFun's work. As plans develop for the event space, it is possible a cross-visitation factor could be applied but it is considered robust and defendable to assume all visitors are sole-purpose until the additional details have been refined.

HOTEL VISITORS

2.5.11. The London Resort is proposing to provide 3,550 hotel rooms across a range of budget, midmarket, upmarket and luxury hotels. Reducing the need to travel and exploiting early access to Theme parks will attract a number of visitors, resulting in some users having a longer duration of stay at the site or local area. Many of these visitors will have a different arrival profile, but in order to provide a robust estimation of the overall arrival/departure profile, the trip generation directly associated with the hotels on site has been considered within the overall modal split of the visitors.

2.5.12. Information provided by ProFun has outlined a number of assumptions to be made regarding the likely characteristics of a hotel stay and these in turn have informed trip generation associated with the hotels. For each hotel bedroom, these are as follows;

- 1.5-day average duration of stay;
- Room occupancy of 2.10 people; and
- Assumed all hotel visitors visit at least one area of the Resort.

2.5.13. It is important to capture trips directly associated with the hotels to ensure that under-reporting of visitor arrivals or departures are avoided. Consideration has also been given to guests staying multiple nights, whose trips between the hotel and Theme parks, or other onsite facilities, are assumed to be internal and do not generate any additional trips to/ from The London Resort.

2.5.14. Research into Domestic and International travel patterns (reasons for travel, length of stay, origin location) was undertaken by Volterra. The report titled "*London Resort Offsite Hotel Distribution*" (which will be issued as a separate Technical Note by Volterra) outlines the distribution of hotel visitors either onsite or offsite from nearby accommodation within a 60-minute drivetime of the Site.

2.5.15. **TN2** – Trip Distribution – discusses Volterra's analysis in detail and considers the likelihood of overnight stay in addition to the percentage of overnight visitors who will be solely motivated by Theme parks in order to determine the % of overnight guests who will stay on-site versus off-site in nearby accommodation. The resulting information has been presented in **Table 2-2** for the following visitor home origins:

- **Primary Resident** – residing within 60-minutes of the Site;
- **Secondary Resident** – residing between 60 and 120 minutes from The London Resort;
- **Domestic Tourist** – living beyond 120 minutes; and
- **International** (Europe and the Rest of the World).

Table 2-2 2025 Overnight Visitor Summary

Visitor Origin		% Likelihood of Overnight Stay	% Theme Park as sole motivation	% Stay On-Site	% Stay off-site in nearby accommodation
Primary Resident	37%	0%	28%	0.00%	0.00%
Secondary Resident	23%	10%		0.62%	1.70%
Domestic Tourist	17%	50%		2.18%	6.08%
Europe	15%	100%	41%	5.85%	9.27%
Rest of the World	8%	100%		3.13%	4.96%

2.5.16. It is therefore determined that no primary residents stay overnight and instead all make dap trips to The London Resort, to and from their UK Home Origin within 60-minutes of the Site. Of total visitors from all home origins, 11.79% are forecast to stay at the on-site hotel and an additional 22.02% will stay off-site, in nearby accommodation (within a 60-minute drive of The London Resort). The calculations and analysis that support the final accommodation distribution shown in **Table 2-2**, is explained in detail within **TN2** – including information regarding the proportion of total visitors in 2029 and 2038 that stay overnight both on-site or in nearby accommodation.

2.6 VISITOR ATTENDANCE SUMMARY

2.6.1. Using ProFun' Visitor forecasts the summary of yearly attendance for 2025, 2029 and 2038, taking into account reductions from on-site hotel guest, park hopper and internal trips to the RD&E zone and Waterpark, is shown in Table 2-3.

Table 2-3 Total Forecast Visits, by Area of The London Resort, in 2025, 2029 and 2038

Area of Resort	Year 2025	Year 2029	Year 2038
Gate One	4,536,515	4,254,124	6,679,700
Gate Two	-	1,104,349	1,986,570
RD&E ("The Market")	583,852	966,386	1,290,342
Waterpark	291,203	271,056	282,409
Events	284,021	410,000	581,131
Total	**5,695,591**	**7,005,915**	**10,820,152**

Source: ProFun data books

2.7 VISITOR DEMAND BY DAY TYPE

2.7.1. The London Resort is expected to experience a variety of day types, ranging from a low weekday to a peak level of demand; the differing day types will have different attendance profiles and as such varying arrival and departure profiles reflective of the operational opening hours. The operational variation by season and the differing day types are presented in the SATD with commentary to discuss the proposed methodology for the transport impact assessment.

2.7.2. The analysis of annual variation in attendance has been undertaken for 2029 when all aspects of The London Resort are operational, including Gate Two and full build-out of the on-site hotels. The analysis within the

SATD has been presented to demonstrate why the 85th percentile day has been chosen for detailed assessment in 2025, 2029 and 2038. The 85th percentile day has been chosen as the most appropriate primary assessment day as it is considered to represent attendance that is significantly higher than the majority of days across the year and will allow the most robust assessment of The London Resort trips alongside average peak hour trips already forecast to be on the highway network.

2.7.3. The 85th percentile day in 2029 is Monday 9th July whilst for 2025 it fell on Sunday 8th June – as a Sunday is not considered neutral in terms of observed peak highway network, WSP will be assessing the closest weekday outside of the school holidays, which equates to the 87th percentile. It is noted however that ProFun forecast the same attendance for all Mondays in July and thus WSP are therefore assessing 'a Monday' in July for 2025, 2029 and 2038. For the remainder of this report, this has been referred to as the "85th percentile day" or Monday 14th July 2025, Monday 9th July 2029 and Monday 19th July 2038.

2.7.4. As discussed previously, The London Resort will be open year-round and will therefore experience varying levels of demand depending on the day type. Whilst common day types have been discussed in the SATD it is important to note for example, that whilst The London Resort may experience a Peak day, basing analysis or design on events that do not represent the majority of operational days could lead to an over-estimation of demand and design elements. It is considered that using an 85th percentile day (or closest neutral weekday to) would cater for the vast majority of operational days at The London Resort. All day types will have varying levels of management and travel plans applied to them, and it is expected that on busier days a large number of initiatives and measures will be in place to manage both visitor and staff demand.

2.7.5. Presented in Table 2-4 is forecast number of visitors across the different operating days at The London Resort for the first assessment year, 2025. It is noted that for most areas of the Resort, the number of arrivals will equal the number of the departures; for the on-site hotel, this is not necessarily the case and the number of people arriving or departing will depend on the specific day.

Table 2-4 Total forecast number of visitors in 2025

Area of Resort	85th %ile Day (Mon 14th July)*	Peak Day (Sat 5th July)	Peak Weekday (Fri 4th July)	Average Day
Gate One	21,046	27,281	24,943	12,474
Gate Two	-	-	-	-
Retail, Dining and Entertainment (RDE)	2,167	2,809	2,568	1,605
Waterpark	1,351	1,751	1,601	801
Events	445	3,559	445	785
Hotels**	2,871	3,190	3,031	2,028
Total	**27,880**	**38,590**	**32,588**	**17,693**

**this is the day that will form the primary assessment for 2025.*

***Hotel Arrivals only. Hotel Departures are 2,978, 2,965, 2,765 and 2,028 for the 85th percentile day, peak day, peak weekday and average day respectively.*

2.7.6. For each element shown in the table above an arrival departure profile can be applied; the profile has been provided by ProFun and is presented within the SATD for each separate area of The London Resort.

2.7.7. It should be reiterated that whilst the peak days have been shown and will be included for clarity in the analysis, it is sensible to ensure that The London Resort is designed to accommodate the majority of operation days. The peak days will have a number of additional management techniques and measures to help control the additional demand. On top of this, the event management plans and Travel Plans will promote the use of

public transport for visitors and staff alike, reducing the potential impact of private vehicle use. The peak days account for approximately 20 – 25 days per year and occur on weekends within school holiday seasons, so it is prudent that any design work is based on a realistic forecast number that caters for the majority of The London Resort's opening period, which is likely to have reduced demand. Due to this, the 85th percentile day will be used primarily in the analysis within the core assessments.

2.7.8. Table 2-5 shows the forecast number of visitors on a number of operating days in 2029, when Gate Two opens, and the remaining hotel rooms are operational. It is noted that the 85th percentile day forms the primary assessment for 2029.

Table 2-5 Total forecast number of visitors in 2029

Area of Resort	85th %ile Day* (Mon 9th July)	Peak Day (Sat 7th July)	Peak Weekday (Fri 6th July)	Average Day
Gate One	19,556	25,351	23,178	11,666
Gate Two	6,346	8,226	7,521	3,785
Retail, Dining and Entertainment (RDE)	3,554	4,607	4,212	2,650
Waterpark	1,246	1,615	1,477	743
Events	599	4,971	599	1,126
Hotels**	4,729	4,953	4,953	4,025
Total	**36,030**	**49,723**	**41,940**	**19,970**

**this is the day that will form the primary assessment for 2029.*

***Hotel Arrivals only. Hotel Departures are 4,939, 4,836, 4,566 and 4,025 for the 85th percentile day, peak day, peak weekday and average day respectively.*

2.7.9. The daily variations in visitor attendance, against the operational day types, is presented in **Table 2-6** for 2038 – when The London Resort is forecast to reach maturity.

Table 2-6 Total forecast number of visitors in 2038

Area of Resort	85th %ile Day* (Mon 5th July)	Peak Day (Sat 3rd July)	Peak Weekday (Fri 2nd July)	Average Day
Gate One	30,227	39,183	35,824	18,396
Gate Two	11,237	14,566	13,318	6,839
Retail, Dining and Entertainment (RDE)	4,671	6,055	5,536	3,551
Waterpark	1,278	1,657	1,515	778
Events	839	6,715	839	1,614
Hotels**	4,714	4,937	4,937	4,618
Total	**52,966**	**73,113**	**61,969**	**35,796**

**this is the day that will form the primary assessment for 2038.*

***Hotel Arrivals only. Hotel Departures are 4,930, 4,820, 4,552 and 4,618 for the 85th percentile day, peak day, peak weekday and average day respectively.*

3

THE LONDON RESORT MODELLING METHODOLOGY

3 THE LONDON RESORT MODELLING METHODOLOGY

3.1 INTRODUCTION

3.1.1. As outlined in Chapter 2, The London Resort is expected to experience a variety of day types, ranging from a low weekday to a peak level of demand. It has been considered that the analysis should be undertaken on the demand that represents the majority of the operational days. These will form the core assessments undertaken to assess The London Resort. Whilst Event Management Plans and Travel Plans will be in place during peak events, it is sensible to undertake an assessment of these. Therefore, as part of the sensitivity tests, a review of the Peak Weekday will be undertaken.

3.1.2. A modelling methodology technical note has been written to set out a practical and pragmatic way to undertake the analysis of the proposed development in terms of the transport modelling assessment. The mode share information set out in TN3 and trip distribution explained in TN2, will be used to inform the forecast models and allow the analysis of the potential impacts of The London Resort, not only on the local and strategic road networks but also on the public transport options. This chapter summarises the modelling methodology – further information can be found in the **Transport Assessment**.

3.2 ASSESSMENT METHODOLOGY

3.2.1. Highways England have agreed to share modelling outputs from both the A2 Bean Ebbsfleet (A2BE) traffic model and the Lower Thames Crossing Area Model (LTAM). A request from WSP was sent to Highways England (3 June 2020) requesting GIS Shapefiles from the A2BE and LTC models for the following scenarios:

- A2 Bean to Ebbsfleet transport model outputs (AM, PM and Inter peak):
  - 2016 base year
  - 2023, A2BE opening year
  - 2026, Lower Thames Crossing opening year
  - 2031
  - 2038
- Lower Thames Crossing transport model outputs (AM, PM and Inter peak):
  - 2016 base year
  - 2027, Supplementary Consultation opening year
  - 2032, with and without LTC
  - 2042, with and without LTC

3.2.2. WSP have requested modelled traffic flows, split by user class and time period, and the modelled travel times for the area shown in **Figure 3-1** which is a section of a figure taken from the Lower Thames Crossing Traffic Modelling Update Report (Supplementary Consultation 2020).

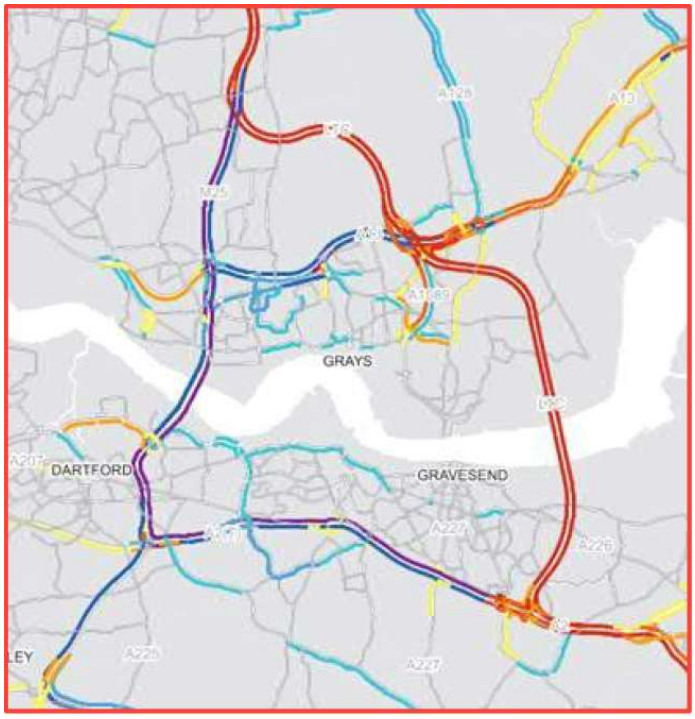

Figure 3-1 Extent of requested model traffic flows

3.2.3. It is intended to use information from the A2 Bean to Ebbsfleet model and the Lower Thames Crossing model to assess the impacts of The London Resort. It is proposed to model the following time periods:

- Weekday AM Peak Hour;
- Weekday Inter Peak;
- Weekday PM Peak; and
- Weekend (Saturday) Peak.

3.3 ASSESSMENT SCENARIOS

It is further proposed to utilise the A2 Bean to Ebbsfleet model and the Lower Thames Crossing model forecast years to assess the impacts of The London Resort including:

- 2025 or 2026: Gate One Opening (2025) is assessed
- 2031: Gate Two Opening (2029) is assessed
- 2038: Maturity of The London Resort (2038) is assessed.

3.3.1. The A2 Bean to Ebbsfleet model and the Lower Thames Crossing model are area-wide highway / public transport assignment multi-modal / variable demand models. It is proposed that a spreadsheet model is produced using the information that is received from Highways England for a 2016 base year as that is the modelled base year for the A2 Bean to Ebbsfleet model and the Lower Thames Crossing model.

3.3.2. Observed count information from Highways England, local authorities or other sources will be used as a check on the information received from Highways England. It would be useful to receive the observed count information e.g. Automatic Traffic Count (ATC) so that checks can be undertaken between the modelled flows and observed flows within the spreadsheet model.

3.3.3. Forecast year spreadsheet models will be produced using the information supplied by Highways England to allow for the future year assessment of the situation without the London Resort. As has been stated earlier within this technical note the forecast years for the assessment will use the information contained within

Technical Note 1, Technical Note 2 and Technical Note 3 to allow for that development assessment to be undertaken. The spreadsheet model is intended to be used as a high-level assessment of the impact of the London Resort on the surrounding road network.

3.3.4. Forecast year information i.e. both “without London Resort” and “with London Resort” will then be fed in to more localised junction models i.e. Junctions9 or LINSIG to allow for a much more local assessment of the highway impacts.

4

HOW VISITORS WILL TRAVEL TO THE LONDON RESORT

4 HOW VISITORS WILL TRAVEL TO THE LONDON RESORT

4.1 INTRODUCTION

4.1.1. Technical Note 3 (TN3) presents a methodology to determine the likely mode share for visitors and staff travelling to The London Resort; the strategy has been reviewed following input from Kent County Council and Highways England and now incorporates greater clarity on the background data used and how the assumptions will be applied. For each assessment year and day type, a “worst case” scenario has been analysed assuming full occupancy of available car parking in order to calculate the reflective private vehicle mode share.

4.1.2. In addition to this, TN3 also provides a comprehensive review of available transport mode share data that has been obtained from various sources including TRICS, planning applications and Travel Plan monitoring reports at a range of Tourist destinations within the UK or in comparable environments. In each case the mode choice varied significantly, influenced by their location and accessibility to range of public transport. TN3 should be read alongside this report to understand the review process undertaken, however a summary is presented below.

4.2 ASSESSMENT METHODOLOGY

4.2.1. Using data from existing sites to forecast the likely mode shares at the proposed development fails to take into account how a new Site’s design can influence how people travel. Existing data, by nature, reflects the site it is taken from and unless the characteristics match those of the proposed, it may not be accurate enough to determine how users may travel. The London Resort has the advantage of being able to dictate certain elements such as car parking provision and thus directly impacting the private vehicle mode share.

4.2.2. The first principles assessment set out in TN3 addresses two main focuses:

- **Scenario 1** – assessing worst case road capacity for the Transport Assessment – vehicle focused; and
- **Scenario 2** – assessing the demand on rail, buses and sustainable travel – other modes focused.

4.2.3. The London Resort will seek between 5,000 and 10,000 visitor spaces at the site in total as part of the DCO. It is important to note that at opening, the site will have approximately 5,000 visitor spaces. This will increase in line with uptake in visitor numbers up to a maximum of 10,000 spaces.

4.2.4. The London Resort are committed to developing world leading mobility strategies at The London Resort, and whilst some car parking will be provided, it is the intention that reliance on private vehicle is kept to a minimum wherever possible and feasible. WSP are at the forefront of reviewing future trends in terms of mobility and alternative options away from car travel. WSP have reviewed the likely trends in a separate note, which will be used to inform the Travel Plan (Management Plans) for the site.

4.2.5. An alternative approach to determining mode share and the resulting numbers of vehicles has therefore been applied. In short, the approach looks at the car parks at The London Resort, the likely mode share from London and uses these fixed numbers to determine the maximum vehicular mode share for the rest of the UK. This alternative approach to determining mode share ensures that what is designed is actually tested.

4.2.6. Car parking and coach parking numbers form part of the DCO application and therefore are a fixed number. Meaning that no more than 10,000 car park spaces and no more than 200 coach parking bays will be allowed on site.

4.2.7. It is worth noting at this time, that visitors to this resort will be expected to purchase tickets in advance and travel choice to The London Resort will form park of the purchased ticket. This way, The London Resort has some control over how people travel and promoting other modes of travel when the car park is operating at capacity.

4.3 REVIEW OF EXISTING DATA SOURCES - VISITORS

4.3.1. An extensive review of existing resorts both in the UK and internationally, alongside other major attractions has been undertaken to gather an understanding of the likely mode shares experienced at each site. It is worth noting that no single site has demonstrated travel characteristics or travel options that are fully comparable to The London Resort proposals, however the information does provide a useful indication and summary of travel choice.

4.3.2. During the review it was clear that there are a number of variables that determine and influence the travel choices used by visitors to each site. The availability of an inter-connected public transport network demonstrated, especially for sites within London, that this would lead to a lower private car mode share, which is to be expected. Conversely, those sites which had a limited travel choice relied heavily on private car travel to get visitors to and from the site, which is again unsurprising.

4.3.3. It is therefore prudent to ensure that whilst all sites initially selected are reviewed properly, sites which may skew the likely mode share at The London Resort site are not included in the final analysis. The inclusion of any site that could be considered unrepresentative would artificially under-estimate, or over-estimate some of the travel modes at the site. A selection process was therefore undertaken to find sites which were more suitable for inclusion in detailed analysis. The existing sites chosen for further review are as follows;

EXISTING RESORTS	→ Warner Brothers Studio Tour, → Thorpe Park, → Europa Park, → Disneyland Paris,
STADIA	→ Brighton and Hove Albion American Express Stadium,
SHOPPING CENTRES	→ Bluewater Shopping Centre, → Lakeside Shopping Centre, → Westfield Shopping Centre and
OTHER	→ Birmingham National Exhibition Centre

4.3.4. These sites were reviewed further to ascertain if there was available information on the visitors travelling to the site and what mode of travel they used. This allowed the extraction of a range of likely mode shares which could then be adopted for The London Resort site.

4.3.5. The full research undertaken to calculate the mode share for a more in-depth review can be found in TN3.

4.4 FORECAST VISITOR MODE SHARE AND TRAVEL DEMAND

4.4.1. The London Resort site will attract a number of visitor types, including domestic led as well as European and International tourists. WSP have undertaken extensive work understanding the visitor distribution on the day of visit to The London Resort and have broken down the distribution into UK wide and London, which is discussed further in TN2 and TN3.

4.4.2. The mode shares presented in 2025, 2029 and 2038 represent the journey to the gate of the London Resort site, and therefore are referenced as “to gate” mode shares. The data has been presented for two different day / demand types: the 85th percentile day, the peak day and an average day.

2025 ASSESSMENT YEAR

85th Percentile Day

4.4.3. **Table 4-1** provides the mode share percentages for London and Non-London visitors to The London Resort that will be adopted for the analysis, split into arrivals and departures assuming full car park use. **Table 4-2**

combines the London and Non-London mode shares to present a mode share for the arrivals and departures to the total site. A full breakdown for all mode share calculations is given in TN3.

Table 4-1 2025 – 85th Percentile day mode shares – London and Non-London

2025 85th Percentile Day	Arrivals		Departures	
	Non-London	London	Non-London	London
Private Vehicle (Max)	80.8%	27.1%	80.9%	27.1%
Coach (Max)	16.4%	24.1%	16.3%	24.0%
Drop Off/ Taxi	2.8%	4.7%	2.8%	4.7%
Other modes / PT (Min)	0.0%	44.1%	0.0%	44.2%
Total	**100%**	**100%**	**100%**	**100%**

Table 4-2 2025 – 85th Percentile day mode shares

2025 85th Percentile Day	Total Site	
	Arrivals	Departures
Private Vehicle (Max)	56.6%	56.7%
Coach (Max)	19.9%	19.8%
Drop Off/ Taxi	3.6%	3.7%
Other modes / PT (Min)	19.9%	19.8%
Total	**100%**	**100%**

Peak Day

4.4.4. **Table 4-3** provides the mode share percentages for London and Non-London visitors to The London Resort, split into arrivals and departures assuming full car park use. **Table 4-4** combines the London and Non-London mode shares to present a mode share for the arrivals and departures to the total site.

Table 4-3 2025 – Peak day mode shares – London and Non-London

2025 Peak Day	Arrivals		Departures	
	Non-London	London	Non-London	London
Private Vehicle (Max)	56.9%	27.1%	56.7%	27.1%
Coach (Max)	17.9%	18.8%	18.0%	18.8%
Drop Off/ Taxi	3.1%	4.7%	3.1%	4.7%
Other modes / PT (Min)	22.1%	49.4%	22.2%	49.4%
Total	**100%**	**100%**	**100%**	**100%**

Table 4-4 2025 – Peak day mode shares

2025 Peak Day	Total Site	
	Arrivals	Departures
Private Vehicle (Max)	43.5%	43.3%
Coach (Max)	18.3%	18.4%
Drop Off/ Taxi	3.8%	3.8%
Other modes / PT (Min)	34.4%	34.5%
Total	**100.0%**	**100.0%**

Average Day

4.4.5. **Table 4-5** provides the mode share percentages for London and Non-London visitors to The London Resort, split into arrivals and departures assuming full car park use. **Table 4-6** combines the London and Non-London mode shares to present a mode share for the arrivals and departures to the total site.

Table 4-5 2025 – Average day mode shares – London and Non-London

2025 Average Day	Arrivals		Departures	
	Non-London	London	Non-London	London
Private Vehicle (Max)	100%	27.1%	100%	27.1%
Coach (Max)	0.0%	23.9%	0.0%	23.9%
Drop Off/ Taxi	0.0%	4.7%	0.0%	4.7%
Other modes / PT (Min)	0.0%	44.3%	0.0%	44.3%
Total	**100%**	**100%**	**100%**	**100%**

Table 4-6 2025 – Average day mode shares

2025 Average Day	Total Site	
	Arrivals	Departures
Private Vehicle (Max)	67.3%	67.3%
Coach (Max)	10.7%	10.7%
Drop Off/ Taxi	2.1%	2.1%
Other modes / PT (Min)	19.9%	19.9%
Total	**100.0%**	**100.0%**

2029 ASSESSMENT YEAR

85th Percentile Day

4.4.6. **Table 4-7** provides the mode share percentages for London and Non-London visitors to The London Resort that will be adopted for the analysis, split into arrivals and departures assuming full car park use. **Table 4-8** combines the London and Non-London mode shares to present a mode share for the arrivals and departures to the total site.

Table 4-7 2029 – 85th Percentile day mode shares – London and Non-London

2029 85th Percentile Day	Arrivals		Departures	
	Non-London	London	Non-London	London
Private Vehicle (Max)	96.4%	26.9%	96.2%	26.9%
Coach (Max)	0.0%	19.4%	0.0%	19.3%
Drop Off/ Taxi	0.4%	4.5%	0.5%	4.5%
Other modes / PT (Min)	3.2%	49.2%	3.3%	49.3%
Total	**100%**	**100%**	**100%**	**100%**

Table 4-8 2029 – 85th Percentile day mode shares

2029 85th Percentile Day	Total Site	
	Arrivals	Departures
Private Vehicle (Max)	64.8%	64.7%
Coach (Max)	8.8%	8.8%
Drop Off/ Taxi	2.3%	2.3%
Other modes / PT (Min)	24.1%	24.2%
Total	**100%**	**100%**

Peak Day

4.4.7. **Table 4-9** provides the mode share percentages for London and Non-London visitors to The London Resort, split into arrivals and departures assuming full car park use. Table 4-10 combines the London and Non-London mode shares to present a mode share for the arrivals and departures to the total site.

Table 4-9 2029 – Peak day mode shares – London and Non-London

2029 Peak Day	Arrivals		Departures	
	Non-London	London	Non-London	London
Private Vehicle (Max)	72.6%	26.9%	72.6%	26.9%
Coach (Max)	14.3%	15.2%	14.3%	15.2%
Drop Off/ Taxi	2.9%	4.5%	2.9%	4.5%
Other modes / PT (Min)	10.1%	53.4%	10.1%	53.4%
Total	**100%**	**100%**	**100%**	**100%**

Table 4-10 2029 – Peak day mode shares

2029 Peak Day	Total Site	
	Arrivals	Departures
Private Vehicle (Max)	51.6%	51.6%
Coach (Max)	14.7%	14.7%
Drop Off/ Taxi	3.7%	3.7%
Other modes / PT (Min)	30.0%	30.0%
Total	**100%**	**100%**

Average Day

4.4.8. **Table 4-11** provides the mode share percentages for London and Non-London visitors to The London Resort that will be adopted for the analysis, split into arrivals and departures assuming full car park use. **Table 4-12** combines the London and Non-London mode shares to present a mode share for the arrivals and departures to the total site.

Table 4-11 2029 – Average day mode shares – London and Non-London

2029 Average Day	Arrivals		Departures	
	Non-London	London	Non-London	London
Private Vehicle (Max)	100.0%	26.9%	100.0%	26.9%
Coach (Max)	0.0%	30.9%	0.0%	30.9%
Drop Off/ Taxi	0.0%	37.7%	0.0%	37.7%
Other modes / PT (Min)	0.0%	4.5%	0.0%	4.5%
Total	**100%**	**100%**	**100%**	**100%**

Table 4-12 2029 – Average day mode shares

2029 Average Day	Total Site	
	Arrivals	Departures
Private Vehicle (Max)	67.1%	67.1%
Coach (Max)	13.9%	13.9%
Drop Off/ Taxi	2.0%	2.0%
Other modes / PT (Min)	17.0%	17.0%
Total	**100.0%**	**100.0%**

2038 ASSESSMENT YEAR

85th Percentile Day

4.4.9. **Table 4-13** provides the mode share percentages for London and Non-London visitors to The London Resort that will be adopted for the analysis, split into arrivals and departures assuming full car park use. **Table 4-14** combines the London and Non-London mode shares to present a mode share for the arrivals and departures to the total site.

Table 4-13 2038 – 85th Percentile day mode shares – London and Non-London

2038 85th Percentile Day	Arrivals		Departures	
	Non-London	London	Non-London	London
Private Vehicle (Max)	91.3%	24.2%	91.2%	24.2%
Coach (Max)	4.0%	12.7%	4.0%	12.7%
Drop Off/ Taxi	3.0%	4.9%	3.0%	4.9%
Other modes / PT (Min)	1.7%	58.2%	1.8%	58.2%
Total	**100%**	**100%**	**100%**	**100%**

Table 4-14 2038 – 85th Percentile day mode shares

2038 85th Percentile Day	Total Site	
	Arrivals	Departures
Private Vehicle (Max)	59.2%	59.2%
Coach (Max)	8.2%	8.2%
Drop Off/ Taxi	3.9%	3.9%
Other modes / PT (Min)	28.8%	28.8%
Total	**100%**	**100%**

Peak Day

4.4.10. **Table 4-15** provides the mode share percentages for London and Non-London visitors to The London Resort, split into arrivals and departures assuming full car park use. **Table 4-16** combines the London and Non-London mode shares to present a mode share for the arrivals and departures to the total site.

Table 4-15 2038 – Peak day mode shares – London and Non-London

2038 Peak Day	Arrivals		Departures	
	Non-London	London	Non-London	London
Private Vehicle (Max)	65.8%	24.2%	65.8%	24.2%
Coach (Max)	9.5%	9.9%	9.5%	9.9%
Drop Off/ Taxi	3.0%	4.9%	3.0%	4.9%
Other modes / PT (Min)	21.6%	61.0%	21.6%	61.0%
Total	**100%**	**100%**	**100%**	**100%**

Table 4-16 2038 – Peak day mode shares

2038 Peak Day	Total Site	
	Arrivals	Departures
Private Vehicle (Max)	45.8%	45.8%
Coach (Max)	9.7%	9.7%
Drop Off/ Taxi	3.9%	3.9%
Other modes / PT (Min)	40.6%	40.6%
Total	**100.0%**	**100.0%**

Average Day

4.4.11. **Table 4-17** provides the modal split for London and Non-London visitors to The London Resort that will be adopted for the analysis, split into arrivals and departures assuming full car park use. **Table 4-18** combines the London and Non-London mode shares to present a mode share for the arrivals and departures to the total site.

Table 4-17 2038 – Average day mode shares – London and Non-London

2038 Average Day	Arrivals		Departures	
	Non-London	London	Non-London	London
Private Vehicle (Max)	99.0%	22.2%	99.0%	22.2%
Coach (Max)	0.0%	20.0%	0.0%	20.0%
Drop Off/ Taxi	0.5%	4.9%	0.5%	4.9%
Other modes / PT (Min)	0.5%	52.9%	0.5%	52.9%
Total	**100%**	**100%**	**100%**	**100%**

Table 4-18 2038 – Average day mode shares

2038 Average Day	Total Site	
	Arrivals	Departures
Private Vehicle (Max)	62.9%	62.9%
Coach (Max)	9.4%	9.4%
Drop Off/ Taxi	2.6%	2.6%
Other modes / PT (Min)	25.1%	25.1%
Total	**100.0%**	**100.0%**

Summary

4.4.12. On peak days across the assessment years, the resulting private vehicle mode share is approximately 45-50%. Due to the parking constraints, public transport has to be used to a higher percentage alongside Coach travel.

4.4.13. It is important to note at this time, that the full occupation of the coach parking is unlikely across most days of the year. As such, given the above considers a full car park, any reduction in coach service will see an increase to the other modes of travel (primarily rail).

4.5 VEHICLE OCCUPANCY

4.5.1. **Table 4-19** presents the forecast occupancy of the Private Vehicle and Coach mode of travel for visitors arriving or departing.

Table 4-19 Vehicle Occupancy Applied to Visitors

Mode Occupancy	Occupancy	Notes
Private Vehicle	3.0	Persons
Drop Off/ Taxi	2.0	Persons
Coach	30	Persons

4.5.2. The forecast private vehicle occupancy for Gate One and Gate Two is three people per vehicle; this is deemed robust as it's the same level as Thorpe Park taken from travel surveys conducted in April 2017, this is included Appendix B. The forecast coach occupancy is deemed robust as it forecasts that only 60% of a standard coach will occupied.

4.6 VARIABLE MODE SPLITS

4.6.1. Clearly, there will be fluctuation in public transport modes and that the assessment requires an understanding of future trends and The London Resort ticketing strategy. It is considered therefore, that at this time a broad range of public mode shares are considered that will enable relevant stress testing of capacity and enhancements that are required, whilst also addressing the fact that mode choice to The London Resort will depend upon a number of factors that are yet to be addressed including;

- Cost of public transport
- Final ticketing strategy for The London Resort
- Car Parking charges
- New Hotel offering, including relevant new services from hotels

4.6.2. This variation is difficult to predict and we do not consider it satisfactory in setting a definite mode share to any public transport mode is setting a public transport strategy; **Table 4-20** sets out the broad ranges that will be considered in depth within the Transport Assessment.

Table 4-20 Public Transport mode ranges

Other mode ranges	Percentage	
	Lower	Upper
Rail	10%	43%
Bus	2%	10-15%
Water / Ferry	2%	15%
Active Travel	1%	5-10%

4.7 VISITOR SUMMARY

4.7.1. It is shown that adopting a design led approach to constraining private use results in mode shares that are comparable to existing resorts and attractions.

4.7.2. This approach is a worst case in terms of vehicular demand, as it assumes that the car parks will be full to occupancy. In reality, this may vary and is dependent on the day type and season.

4.7.3. It is proposed to utilise the above car and coach mode shares in order to assess a worst case transport assessment for the London Resort.

5

STAFF MODE SHARE AND OCCUPANCY

5 STAFF MODE SHARE AND OCCUPANCY

5.1 STAFF TRAVEL

5.1.1. As outlined in TN3, and similar to the process used to gather information on the visitor travel modes used, a review of existing resorts and attractions has been undertaken focusing on staff travel. As would be expected, staff will have a different temporal pattern compared to visitors, often arriving at the attraction in shift patterns before significant periods throughout the day. As with visitors however, the sites proximity to public transport will have a considerable effect on the transport choices adopted. Additionally, and it's important to note, an attraction has the ability to influence staff travel, either through incentives encouraging certain mode uptake or through controlled measures limiting alternative options.

5.1.2. The available information on staff travel at major attractions is useful to understand the potential staffs travel patterns that could be adopted at The London Resort. As mentioned above, there is no comparable site which matches all of the characteristics that would be available. Alongside this, not all sites reviewed as part of the visitor travel exercise also had corresponding staff travel information.

5.1.3. **Table 5-1** below presents the expected staff trip distribution to The London Resort. The full research, undertaken by Volterra, used to calculate the staff distribution share can be found summarised in TN2.

Table 5-1 The London Resort Staff Trip Distribution

Origin	2025	2029	2038
On-site accommodation*	16%	12%	12%
Gravesham	24%	26%	26%
Dartford	16%	17%	18%
Thurrock	8%	9%	9%
Medway	8%	8%	8%
Bexley	6%	7%	7%
Greenwich	4%	5%	5%
Bromley	2%	2%	2%
Southwark	1%	1%	1%
Maidstone	1%	1%	1%
Sevenoaks	1%	1%	1%
Lewisham	1%	1%	1%
Croydon	1%	1%	1%
Canterbury	1%	1%	1%
Lambeth	1%	1%	1%
Swale	1%	1%	1%
Other	8%	8%	8%

5.1.4. The staff distribution as presented in **Table 5-1** has been utilised to calculate the staff mode share split as presented in TN3 and summarised below.

5.2 FORECAST STAFF MODE SHARE

5.2.1. Staff will adopt a different travel pattern to visitors, and as shown in TN1 will arrive / depart from the site predominantly outside of the main visitor peak movements. Alongside this, staff are likely to adopt a different mode share choice to suit the available options and timings.

5.2.2. The London Resort will have a 500 space dedicated staff car park. It is also envisaged that other measures are likely to be implemented aid in staff travel choices, helping to promote sustainable modes where possible through various initiatives. The London Resort are committed to only allowing parking on site for those car-sharing and therefore the relevant mode shares are based upon an occupancy of 2 people.

5.2.3. Adopting the same methodology, of using the car park number as a constraint to determine the mode share for staff, it is possible to calculate the numbers across the various day types. **Table 5-2** shows the resulting private vehicle mode share for staff.

Table 5-2 Staff Modal Share for Private vehicle

Year	Day Type	Private Vehicle (Car Driver)
2025	85th ile	25.8%
	Peak Day	20.1%
2029	85th ile	18.2%
	Peak Day	14.5%
2038	85th ile	17.3%
	Peak Day	13.8%

Source: Consultant Calculated

5.2.4. As a result, a forecast of 14 to 26% for Private Vehicles for staff has been calculated. The London Resort site will look to capitalise on nearby populations to source local work staff, which will be combined with the staff accommodation on site to minimise the need for car use.

5.3 STAFF DEMAND

5.3.1. As identified in the supporting information from ProFun, the consultant team have developed a forecast of the number of staff required for The London Resort. As outlined in the Introduction Profun have the expertise it understanding the forecast staff demand for large entertainment resorts, such as The London Resort. **Table 5-3**, **Table 5-4** and **Table 5-5** below presents the indicative forecast of staffing at The London Resort throughout the year based on the operational and visitor demand expected for each of the assessment years. As would be expected, the forecast staffing levels are higher on a weekend compared to the weekday, which mirrors the visitor profiles at The London Resort.

Table 5-3 ProFun Staff Demand Profiles 2025

Venue	Peak/ Holiday		Medium		Low	
	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday
Gate One	5,683	4,487	4,307	3,350	3,219	2,325
Gate Two	1,869	1,476	1,682	1,309	1,578	1,139
RDE	2,462	1,944	1,866	1,451	1,283	927
Waterpark	215	170	163	127	132	95
Hotels	3,671	3,467	3,671	3,467	3,671	3,467
Total	13,901	11,543	11,690	9,704	9,882	7,953

Source: Provided by ProFun

Table 5-4 ProFun Staff Demand Profiles 2029

Venue	Peak/ Holiday		Medium		Low	
	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday
Gate One	5,683	4,487	4,307	3,350	3,219	2,325
Gate Two	1,869	1,476	1,682	1,309	1,578	1,139
RDE	2,462	1,944	1,866	1,451	1,283	927
Waterpark	215	170	163	127	132	95
Hotels	3,671	3,467	3,671	3,467	3,671	3,467
Total	13,901	11,543	11,690	9,704	9,882	7,953

Source: Provided by ProFun

Table 5-5 ProFun Staff Demand Profiles 2038

Venue	Peak/ Holiday		Medium		Low	
	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday
Gate One	5,683	4,487	4,307	3,350	3,219	2,325
Gate Two	1,869	1,476	1,682	1,309	1,578	1,139
RDE	2,462	1,944	1,866	1,451	1,283	927
Waterpark	215	170	163	127	132	95
Hotels	3,671	3,467	3,671	3,467	3,671	3,467
Total	13,901	11,543	11,690	9,704	9,882	7,953

Source: Provided by ProFun

5.3.2. For the assessment of the 85% weekday scenarios, the peak weekday staff traffic level has been included. The arrival and departures profile for each staff venue is presented in the SATD.

5.3.3. The staff demand on a day to day basis will follow the Park Operation which is outlined within Section 2.4 of this document for all the assessment years. It highlights seasonality of the workforce required at the London Resort.

5.3.4. The London Resort development proposals include the provision of 2,000 single units within 500 dwellings allocated to staff on-site, reducing the need for travel to and from the site. During the peak season, it is considered that the single units will be at 90% capacity, thus providing accommodating for approximately 1,800 full time equivalent (FTE) staff.

5.3.5. The type of accommodation provided for on-site for staff residing will be student style accommodation with three or four dorms per block. This accommodation will be focused on younger or international staff working at the Resort for a season and will be included within their contract. This will remove the possibility of the accommodation becoming empty and thus increasing staff travel to the site.

5.3.6. Pro Fun have considered the total number of operational staff required for the varying day types in each of the assessment years. As the 85th percentile day falls within the peak period of seasonal operation, the peak number of staff will be assessed:

- In 2025, it is estimated that there will be 8,591 weekday staff required during the peak season; with 1,800 staying on-site, the trip distribution therefore considered the arrival and departure of the remaining 6,791 staff;
- As shown in Table 5-4, it is estimated that there will be 11.543 weekday staff in 2029; with 1,800 staying on-site, the trip generation therefore considered the arrival and departure of the remaining 9,743 staff; and
- In 2038, it is estimated that there will be 12,028 weekday staff; with 1,800 staying on-site, the trip distribution therefore considered the arrival and departure of the remaining 10,228 people.

5.3.7. The London Resort site will look to capitalise on the local population for the staff, which is likely to enable a greater than expected modal split of walking and cycling. This combined with the cycle parking and changing / shower facilities will further encourage staff to adopt this mode. Due to the limited number of space parking spaces on site 500 spaces, the occupancy for staff has been assessed as two per vehicle. A parking space will only be available to staff members who car share and this will be enforced through the travel plan.

5.3.8. The London Resort will have a work place travel plan for staff for some potential Travel Plan measures which could include:

- Reduced bus and rail tickets;
- Discounts on new bicycles;
- Personal Travel Planning; and

- Car share scheme.

5.3.9. An Event Management Plan is being implemented and is intended to be a live document which continues to evolve and updated annually reviewing past events. The Event Management Plan classifies the days into the five operational types, with measures such as encouraging staff to travel by public transport or to car share on peak or high visitor days, to reduce the amount of staff driving in a single occupancy vehicle.

6

VISITORS AND STAFF TRIP GENERATION

6 VISITORS AND STAFF TRIP GENERATION

6.1 INTRODUCTION

6.1.1. This section outlines the expected total visitor and staff trip generation demand to The London Resort and breaks down the total people from the assessment periods to total vehicles for the peaks by applying the mode and occupancy rates per mode of transport. The total vehicular trip generation for the assessment periods will be manipulated into the total number of vehicles, coaches and the number of visitors travelling via public transport. The assessment periods are as follows;

- AM Commuter Peak 08:00-09:00; and
- PM Commuter Peak 17:00-18:00.

6.1.2. Excluded from the trip generation outlined below is the number of servicing and delivery associated with the London Resort on specific day types. The servicing for the Resort is to be primarily undertaken via the river or during off-peak periods between 19:00-07:00 and therefore will not be included in the AM and PM peak hour assessments. A Delivery and Servicing Logistics strategy will be produced as part of the planning application and will be included as part of the Transport Assessment

6.1.3. The demand and flow outputs for the Peak day are shown in Appendix C for 2025, 2029 and 2038.

6.2 VISITOR AND STAFF TRAVEL DEMAND FORECAST 2025

6.2.1. The following tables provide the expected total visitor and staff trip generation demand to the London Resort in 2025. The subsequent bullet points provide a background on the information shown in each of the tables.

- **Table 6-1** and **Table 6-2**: presents the total number of visitor and staff arrivals and departures for the four peaks against each element of The London Resort in 2025;
- **Table 6-3** and **Table 6-4** : applies the mode share to as shown in **Table 4-1** and **Table 5-2** for the total number of visitors and staff respectively. The international visitors visiting via Eurostar have been removed as they don't fit into a mode share category, this accounts for 7% of International hotel arrivals;
-

- **Table** 6-5 and **Table 6-6** : applies the occupancy per mode of travel as shown in **Table 4-19** and the staff occupancy of 2 for visitors and staff respectively to the values calculated in **Table 6-3** and **Table 6-4**; and
- **Table 6-7**: shows the total arrivals and departures for visitors and staff after applying mode share and vehicle occupancy in the four peaks.

Table 6-1 Visitor Arrival and Departure Trip Generation – Weekday 85th Percentile 2025

Visitors	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
	Arrival	Departure	Arrival	Departure
Gate One	0	0	0	2,525
RD&E	0	0	368	22
Waterpark	0	0	0	257
Events	0	0	58	4
Hotel	0	60	287	149
Total	0	60	713	2,957

Source: Consultant Calculated

Table 6-2 2025 Staff Arrival and Departure Trip Generation – Weekday 85th Percentile 2025

Staff	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
	Arrival	Departure	Arrival	Departure
Gate One	668	0	167	167
RD&E	72	14	14	14
Waterpark	27	0	7	7
Hotel	56	19	19	19
Total	823	33	207	207

Source: Consultant Calculated

Table 6-3 Visitor Arrival and Departure Trip Generation Split by Mode Share – Weekday 85th Percentile 2025

Visitors	Mode Share %	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	56.6%	0	42	425	1,640
Public Transport (Rail, Bus and Thames Clipper)	19.9%	0	13	152	579
Coach	19.9%	0	0	95	616
Drop Off/ Taxi	3.6%	0	1	22	111
Total	100%	0	55	693	2,947

Source: Consultant Calculated

Table 6-4 Staff Arrival and Departure Trip Generation Split by Mode Share – Weekday 85th Percentile 2025

Staff	Mode Share %	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	25.75%	212	9	53	53
Other (Public Transport, Walking or Cycling)	74.25%	611	25	154	154
Total	100%	824	33	207	207

Source: Consultant Calculated

Table 6-5 Visitor Arrival and Departure Trip Generation split by Occupancy – Weekday 85th Percentile 2025

Visitors	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	3.0	0	14	147	546
Public Transport (Rail, Bus and Thames Clipper)	N/A	-	-	-	-
Coach	30	0	0	4	22
Drop Off/ Taxi	2.0	1	1	44	66
Total	100%	1	15	189	634

Source: Consultant Calculated

Table 6-6 Staff Arrival and Departure Trip Generation split by Occupancy – Weekday 85th Percentile 2025

Staff	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	2.0	106	4	27	27
Other (Public Transport, Walking or Cycling)	N/A	-	-	-	-
Total		106	4	27	27

Source: Consultant Calculated

Table 6-7 Visitor and Staff Total Arrival and Departures Per Occupancy of Vehicle of Travel - Weekday 85th Percentile 2025

Total	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	3.0	106	18	174	573
Public Transport (Rail, Bus and Thames Clipper)	N/A	-	-	-	-
Coach	30	0	0	4	22
Drop Off/ Taxi	2.0	1	1	44	66
Total	100%	107	19	215	661

Source: Consultant Calculated

6.3 VISITOR AND STAFF TRAVEL DEMAND FORECAST 2029

6.3.1. The Visitor and Staff travel demand forecast in 2029 is presented in the following tables, the subsequent bullet points provide a background on the information shown in each of the tables.

- **Table 6-8** and **Table 6-9**: presents the total number of visitor and staff arrivals and departures for the four peaks against each element of The London Resort in 2029;
- **Table 6-10** and **Table 6-11** : applies the mode share to as shown in **Table 4-1** and **Table 5-2** for the total number of visitors and staff respectively. The international visitors visiting via Eurostar have been removed as they don't fit into a mode share category, this accounts for 7% of International hotel arrival;
-

- **Table** 6-12 and **Table 6-13** : applies the occupancy per mode of travel as shown in **Table 4-19** and the staff occupancy of 2 for visitors and staff respectively to the values calculated in **Table 6-10** and **Table 6-11**; and
- **Table 6-14**: shows the total arrivals and departures for visitors and staff after applying mode share and vehicle occupancy in the four peaks.

Table 6-8 Visitor Arrival and Departure Trip Generation – Weekday 85th Percentile 2029

Visitors	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
	Arrival	Departure	Arrival	Departure
Gate One	0	0	0	2,347
Gate Two	0	0	0	762
RD&E	0	0	604	36
Waterpark	0	0	0	237
Events	0	0	78	6
Hotel	0	99	473	247
Total	0	99	1,155	3,635

Source: Consultant Calculated

Table 6-9 Staff Arrival and Departure Trip Generation – Weekday 85th Percentile 2029

Staff	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
	Arrival	Departure	Arrival	Departure
Gate One	757	0	189	189
Gate Two	249	0	62	62
RD&E	82	16	16	16
Waterpark	29	0	7	7
Hotel	88	29	29	29
Total	1,205	46	303	303

Source: Consultant Calculated

Table 6-10 Visitor Arrival and Departure Trip Generation Split by Mode Share – Weekday 85th Percentile 2029

Visitors	Mode Share %	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	64.7%	0	56	691	2,358
Public Transport (Rail, Bus and Thames Clipper)	24.1%	0	33	325	840
Coach	8.8%	0	0	75	339
Drop Off/ Taxi	2.3%	0	3	31	80
Total	100%	0	92	1,122	3,617

Source: Consultant Calculated

Table 6-11 Staff Arrival and Departure Trip Generation Split by Mode Share – Weekday 85th Percentile 2029

Staff	Mode Share %	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (16:00-17:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	18.2%	220	8	56	56
Other (Public Transport, Walking or Cycling)	81.8%	985	37	249	249
Total	100%	1,205	46	304	304

Source: Consultant Calculated

Table 6-12 Visitor Arrival and Departure Trip Generation split by Occupancy – Weekday 85th Percentile 2029

Visitors	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	3.0	0	19	231	787
Public Transport (Rail, Bus and Thames Clipper)	N/A	-	-	-	-
Coach	30	0	0	3	12
Drop Off/ Taxi	2.0	1	2	40	52
Total	100%	1	21	274	851

Source: Consultant Calculated

Table 6-13 Staff Arrival and Departure Trip Generation split by Occupancy – Weekday 85th Percentile 2029

Staff	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	2.0	110	4	28	28
Other (Public Transport, Walking or Cycling)	N/A	-	-	-	-
Total		110	4	28	28

Source: Consultant Calculated

Table 6-14 Visitor and Staff Total Arrival and Departures Per Occupancy of Vehicle of Travel - Weekday 85th Percentile 2029

Total	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	3.0	110	23	259	815
Public Transport (Rail, Bus and Thames Clipper)	N/A	-	-	-	-
Coach	30	0	0	3	12
Drop Off/ Taxi	2.0	1	2	40	52
Total	100%	111	25	302	879

Source: Consultant Calculated

6.3.2. The two-way flow of 1,181 is forecast between 17:00-18:00 in the PM commuter peak in 2029. The forecast two-way flow trip generation in the AM peak is 136 vehicles.

6.4 VISITOR AND STAFF TRAVEL DEMAND FORECAST 2038

6.4.1. The Visitor and Staff travel demand forecast in 2038 is presented in the following tables, the subsequent bullet points provide a background on the information shown in each of the tables.

- **Table 6-15** and **Table 6-16**: presents the total number of visitor and staff arrivals and departures for the four peaks against each element of The London Resort in 2038;
- **Table 6-17** and **Table 6-18**: applies the mode share to as shown in **Table 4-1** and **Table 5-2** for the total number of visitors and staff respectively. The international visitors visiting via Eurostar have been removed as they don't fit into a mode share category, this accounts for 7% of International hotel arrival;
- **Table 6-19** and **Table 6-20**: applies the occupancy per mode of travel as shown in **Table 4-19** and the staff occupancy of 2 for visitors and staff respectively to the values calculated in **Table 6-17** and **Table 6-18**; and
- **Table 6-21**: shows the total arrivals and departures for visitors and staff after applying mode share and vehicle occupancy in the four peaks.

Table 6-15 Visitor Arrival and Departure Trip Generation – Weekday 85th Percentile 2038

Visitors	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
	Arrival	Departure	Arrival	Departure
Gate One	0	0	0	3,627
Gate Two	0	0	0	1,348
RD&E	0	0	794	47
Waterpark	0	0	0	243
Events	0	0	109	8
Hotel	0	99	471	246
Total	0	99	1,374	5,519

Source: Consultant Calculated

Table 6-16 Staff Arrival and Departure Trip Generation – Weekday 85th Percentile 2038

Staff	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
	Arrival	Departure	Arrival	Departure
Gate One	804	0	201	201
Gate Two	264	0	66	66
RD&E	87	17	17	17
Waterpark	29	0	7	7
Hotel	88	29	29	29
Total	1,272	46	320	320

Source: Consultant Calculated

Table 6-17 Visitor Arrival and Departure Trip Generation Split by Mode Share – Weekday 85th Percentile 2038

Visitors	Mode Share %	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	62.0%	0	56	777	3,261
Public Transport (Rail, Bus and Thames Clipper)	28.8%	0	33	429	1,558
Coach	6.1%	0	0	84	470
Drop Off/ Taxi	3.1%	0	3	52	214
Total	100%	0	92	1,342	5,503

Source: Consultant Calculated

Table 6-18 Staff Arrival and Departure Trip Generation Split by Mode Share – Weekday 85th Percentile 2038

Staff	Mode Share %	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	17.3%	222	8	56	56
Other (Public Transport, Walking or Cycling)	82.7%	1,060	39	267	267
Total	100%	1,282	47	323	323

Source: Consultant Calculated

Table 6-19 Visitor Arrival and Departure Trip Generation split by Occupancy – Weekday 85th Percentile 2038

Visitors	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	3.0	0	19	268	1,085
Public Transport (Rail, Bus and Thames Clipper)	N/A	-	-	-	-
Coach	30	0	0	4	17
Drop Off/ Taxi	2.0	1	2	85	124
Total	100%	1	21	357	1,226

Source: Consultant Calculated

Table 6-20 Staff Arrival and Departure Trip Generation split by Occupancy – Weekday 85th Percentile 2038

Staff	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	2.0	111	4	28	28
Other (Public Transport, Walking or Cycling)	N/A	-	-	-	-
Total		111	4	28	28

Source: Consultant Calculated

Table 6-21 Visitor and Staff Total Arrival and Departures Per Occupancy of Vehicle of Travel - Weekday 85th Percentile 2038

Total	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	3.0	111	23	296	1,113
Public Transport (Rail, Bus and Thames Clipper)	N/A	-	-	-	-
Coach	30	0	0	4	17
Drop Off/ Taxi	2.0	1	2	85	124
Total	100%	112	25	385	1,254

Source: Consultant Calculated

6.4.2. As presented in Table 6-21 the two-way flow of 1,639 is forecast between 17:00-18:00 in the PM commuter peak in 2038. In the AM peak 08:00-09:00 there are forecast to be 137 two way movements.

6.5 PEAK DAY VISITOR AND STAFF TRAVEL DEMAND 2025, 2029, 2038

6.5.1. It should be noted that the Peak Day vehicle flows for the assessment years are shown in Appendix C and will be tested for robustness. The hourly flows between the two scenarios are expected to be similar as the methodology to calculate the modal splits is based on the assumption that the visitor car parks are fully occupied. Furthermore, The London Resort, through its Travels Plans and Event Management Plans will be able to proactively reduce the dominance of private vehicle travel and will promote the use of mass people transit systems such as rail, bus and water taxi. This will enable The London Resort to keep private vehicle numbers at lower levels whilst still accommodating the natural increase in visitor number growth.

7

SUMMARY AND CONCLUSIONS

7 SUMMARY AND CONCLUSIONS

7.1 SUMMARY

7.1.1. WSP have been commissioned to provide transportation and highways advice in support of a DCO application, culminating in a new London entertainment resort, referred to as The London Resort (The London Resort).

7.1.2. This Technical Note identifies the methodology behind forecasting the likely visitor and staff demand to the site, explores the travel patterns that will be adopted, how this correlates with the expected mode shares and calculates the total vehicle demand at The London Resort. The methodology is based on:

- Forecast visitor demand for all the elements of The London Resort have been provided by MR-ProFun and Leisure Development Partners;
- A series of adjustments have been made to Gate Two, RDE and Hotel, these were calculated by the LDP and ProFun to adjust the number of visits to the total number of visitors;
- The assessment periods will be the traditional AM and PM commuter peak periods for 2025, 2029 and 2038 on an 85th%ile;
- A brief outline on how the visitors and staff will benefit from varying transport modes, and how this translates into the total visitor and staff modal profile for the site;
- The total vehicle demand for the two assessment periods has been calculated after taking account of the occupancy factor for visitors and staff; and
- The highest two-way vehicle flow during a commuter peak from The London Resort is 876 in 2025, 1,181 in 2029 and 1,639 in 2038 in the PM peak on a '85th%ile Day'.

7.1.3. The development will provide a number of public transport improvements that will enhance accessibility of Kent and for the surrounding community. The London Resort site benefits from a well-established network of road and public transport connections, providing an accessible site for a large number of users.

7.2 CONCLUSIONS

7.2.1. Whilst it is too early to draw conclusions on the impact of the forecast visitor and staff demand, at this stage it would be reasonable to suggest that the development site can exploit the available transport network capacity during off-peak periods, supplementing site access infrastructure to ensure that an array of sustainable travel options are available to visitors and staff.

7.2.2. It should be noted that the mode shares underpinning the forecast visitor and staff travel demand are considered to be robust and reflect the ability for both visitors and staff to access the site via modes other than private car. As the park develops it is expected that visitors will shift towards sustainable modes, which will be promoted throughout the travel plans and event management plans.

7.2.3. Although the development proposals are unlike any in the UK, taking account of the existing and potential transport infrastructure available, the forecast travel mode choices are based on evidence of visitor attractions and stadia across the UK, employing European and International examples, to inform robust forecasts.

Appendix A

TECHNICAL NOTE: TRIP VALIDATION

TECHNICAL NOTE

CLIENT: **London Resort Company Holdings**

FROM: **WSP I Parsons Brinckerhoff**

SUBJECT: **London Resort Land Use Trip Generation Validation**

DATE: **06 April 2017**

INTRODUCTION

This Land Use Trip Generation Technical Note forms part of a suite of documents intended to inform and support a National Strategic Infrastructure Project (NSIP) application. The London Resort (LR) will be the first leisure complex of its kind in the UK and this report has been prepared to demonstrate the attempts made to validate the trip generation associated with the land uses on site.

The trip generation for visitors and staff is based on commercially sensitive information provided by LRCH; based on existing resort information, profiles and expected forecasts using experience of managing other resorts. Whilst the information that has been provided is considered the best source to predict the likely travel demand for the site in varying environments, this technical note explores the potential validation of these forecasts using other methodologies to review and potential enhance the confidence of these forecasts.

It is accepted that the LR site is unique, both in terms of attractions and land uses on site, and location and travel services available within the UK therefore there are no comparable visitor attractions in the UK and few comparable examples across Europe and the rest of the world. The distinctive characteristics of the LR site mean that limited conclusions can be drawn from resorts of a similar size, location or land use.

VALIDATION

Whilst research has been undertaken into existing resorts in the UK, Europe and the rest of the world which is set out in greater detail in Technical Note 1, it is fair to assume that attendance at theme parks/resorts such as LR is determined by a variety of factors and not just the gross floor area. Disney resorts around the world attract high quantities of visitors and repeat visitors all year round due to their reputable quality and brand. On the other hand, Alton Towers- part of the Merlin Entertainments Group- saw a large drop in annual attendance in 2015 which was accounted for by the highly publicised crash on The Smiler. It is therefore difficult to validate trip generation associated with the resort through comparison of similar resorts or attractions and it can be assumed that the visitor forecast assumptions calculated by resort specialists, in which quality, type of entertainment and on-site facilities were considered, are an accurate estimate.

It has been concluded; that the key themed park areas of the resort can only be calculated by resort specialists as size / location do not have a significant bearing on level of visitors or times of travel. That being said, the proposed resort contains a variety of land uses outside of the main leisure core that could be designated as attractions in their own right and a validation exercise was undertaken to investigate potential trips associated with the following land uses using the industry standard TRICS database:

- Back of House (BOH)
- Retail, Dining and Entertainment (RD&E)
- Event Space
- Hotels

The validation methodology adopted has attempted to look at a number of land uses being proposed on site and apply a trip rate to those. Validation of trip generation for BOH, RD&E, Event space and Hotels was based on a number of land use assumptions taken from the Gensler Floor Areas and

detailed in Table 1. Further assumptions have been determined with regards to the BOH area, splitting it into offices and warehousing by applying proportions of 0.1 and 0.9 respectively to the total gross floor area. This is considered appropriate given that back of house is generally used for servicing, catering and storage for equipment.

Table 1 Land Use Assumptions

Land Use		Unit	Size
Hotel	Budget	Bedrooms	1500
Hotel	Midmarket	Bedrooms	900
Hotel	Upmarket	Bedrooms	800
Hotel	Lux	Bedrooms	474
BOH	Offices	Gross Floor Area	3707
BOH	Warehousing	Gross Floor Area	33362
RD&E	Retail	Gross Floor Area	10560
RD&E	Dining	Gross Floor Area	6360
RD&E	Entertainment	Gross Floor Area	15600
Events	Theatre	Gross Floor Area	23000

Consistent with WebTAG, it is acknowledged that it is not always possible to be 'near certain' about all aspects of the proposed development and, at this stage, not all land uses, floor areas and quantity of hotel bedrooms have been fixed. Where there is some *uncertainty* it is reasonable to consider the likelihood of any forecast in a cascading scale such that a reasonable worst case scenario can be considered based on the most likely or '*more than likely*' outcome. On balance this approach is considered appropriate at this stage, because this exercise has been adopted to provide increased certainty of the forecast travel demand.

TRICS

TRICS is the UK and Ireland's national system of trip generation analysis, containing over 7,150 directional transport surveys at over 110 types of development. Using the area and number of bedroom assumptions, trip rates were extracted from TRICS for the land uses associated with BOH, RD&E, Event Space and Hotels and applied to the quantum.

There are no Theme Park/Entertainment Resorts in TRICS and whilst individual sites such as the National Space Centre in Leicester are available to download, they do not have the combined elements that are comparable to LR. It is for this reason that we have only used TRICS analysis for areas outside of the main parks.

Other land uses associated with the park outlined in the Gensler Floor Areas, such as the Waste Handing Area within the BOH, have not been considered at this stage as it is anticipated that the staff already on site will make use of these. Similarly, the conference facilities are stated to be within the mid and upmarket hotels and therefore the trips associated with this are incorporated into the hotel trip generation.

The following criteria and selection procedure was applied when downloading data from TRICS:

- Multi-Modal sites
- Sites in England only
- Where possible, data was extracted separately for weekdays and weekends
- Total People trip rate was applied

Where applicable, individual land uses have been selected in TRICS to correspond with the proposed land uses at the LR site however whilst total gross area has been estimated for Retail, Dining and Entertainment (RD&E) areas, no further information has been detailed regarding specific land use within these areas. Assumptions for these areas have been made based on available data therefore Retail is defined as “Mixed Shopping Malls”, BOH is defined as offices and warehouses, and Entertainment is assumed to be a combination of land uses such as a cinema, ice rink and bowling alley.

It should also be noted that individual land use will not take in to account the potential of linked trips between services and therefore it is likely to over-estimate the trip generation associated. This is significant as most users of the external land users will be visitors attracted by the main park. It is evident that certain land uses, when considered in isolation, will experience higher periods of demand on weekends rather than weekdays.

Where possible, trip rates have been extracted for both weekdays and weekends and are shown in Table 2 below:

Table 2 TRICS sites Daily Trip Rates

Land Use	Day	Unit	LPER Size	Arrival Daily Trip Rate	Departure Daily Trip Rate	Total Daily Trip Rate
Hotel	Weekday	Bedrooms	3674	2.66	2.68	5.34
Retail	Weekday	100 sqm	10560	51.03	49.62	100.65
	Weekend	100 sqm	10560	49.48	48.94	98.41
Dining	Weekday	100 sqm	6360	69.15	69.99	139.13
	Weekend	100 sqm	6360	37.27	37.26	74.52
Entertainment	Weekday	100 sqm	15600	37.73	41.27	79.00
	Weekend	100 sqm	15600	57.35	57.86	115.21
Events	Weekday	100 sqm	23000	49.79	47.02	96.81
	Weekend	100 sqm	23000	58.21	57.56	115.78
Office	Weekday	100 sqm	37069	11.69	11.32	23.01
Warehousing	Weekday	100 sqm	37069	11.69	11.32	23.01

Using the land use assumptions and the downloaded trip rates, a trip generation exercise has been undertaken for BOH, RD&E, hotels and event space independently. To provide a robust exercise, for land uses where trip rates were obtained for weekdays and weekends, the highest trip rates have been applied. Total people arriving and departing from the different land uses can be shown in Table 3. Graphs detailing arrival and departure profiles for the various land uses as well as a profile for all land uses combined are shown at the end of this technical note.

Table 3 Trip Generation by Land Use

Land Use	Day	Unit	LPER Size	Total People Arrival	Total People Departure	Total People Two-way
Hotel	Weekday	Bedrooms	3674	9769	9857	19627
Retail	Weekday	100 sqm	10560	5389	5240	10629
Dining	Weekday	100 sqm	6360	4398	4451	8849
Entertainment	Weekend	100 sqm	15600	8946	9026	17972
Events	Weekend	100 sqm	23000	13389	13239	26628
Office	Weekday	100 sqm	37069	433	419	853
Warehousing	Weekday	100 sqm	37069	522	520	1043
Totals				**42847**	**42754**	**85600**

Excluding the theme parks from this exercise, the trip generation (total people) is forecast to generate approximately 85,600 people. Noted above, the individual land uses do not consider cross visitation or linked trips, and it could be anticipated that visitors at the main park will make use of many of the ancillary land uses and only a small number of external trips would be expected. Taking the above into account, the following needs to be considered

- Hotels – the majority of visitors will be 2-4 day visits which would reduce the level of arrival / departures per day than normal hotels. In addition, when visiting they are unlikely to leave the site when visiting the parks. This is not comparable to most TRICS hotel sites
- The events space has been designed to provide an attraction outside of peak periods throughout the year. As such, this will be in use during low attraction to the main parks

Whilst it is common place to look at individual land uses when assessing trip generation, in a mixed-use site such as LR, it is evident that some land uses are ancillary to the principle leisure use such that some will not generate primary trips from areas outside the resort. Considering the land uses, it would be reasonable to assume land uses such as the Hotel, Retail and Restaurants would primarily be used by patrons already visiting the main park, therefore not generating vast quantities of additional trips.

SUMMARY

A validation exercise has been undertaken to attempt to identify a potential trip generation of the BOH, RD&E, Event area and Hotels within the LR site. The TRICS database has been used to determine potential footfall generated using combinations of proposed land uses on site however investigation shows that there is no single site in TRICS that provides an accurate basis for comparison. As a result, validation efforts centralised around the areas within the resort but external to the main theme parks.

A combination of land uses were analysed based on the gross floor areas proposed in the Gensler Floor Area plan. When combined, these land uses were shown to generate a large footfall, far in excess of the projected average at LR. It is assumed that most visitors to LR will use more than one facility during their stay, with the main attractor to the site being the theme parks. Evaluation of individual land uses will mean no consideration is given to visitors using multiple services and therefore trip generation calculated is likely to vastly over-estimate the trip generation.

It is clear that travel demand for leisure resorts can vary due to a number of factors. Based on Transport Assessment scoping responses it is evident that Authorities remain concerned that the forecasts could vary but the exercises demonstrated in this section reveal that the LRCH forecasts are credible and reasonably reliable. It is accepted that the development site could generate more or less visitors but these can be effectively monitored and managed to avoid adverse effects.

Appendix B

THORPE PARK TRAVEL SURVEYS

Assumptions:
everyone pre 9am and post 6pm is staff
all single occupancy cars are staff

Vehicle Occupancy

	Tuesday 11th April					*Sunday 16th April*					*Tuesday 25th April*					
	Bicycle	Car	Motor Cycle	Taxi	Van	Bicycle	Car	Motor Cycle	Taxi	Van	Bicycle	Car	Motor Cycle	Taxi	Van	
09:00							2.6			3.0	1.0	2.2				
09:15							2.8		3.0	2.9		2.4			1.0	
09:30							2.8		2.8	2.7	1.0	2.5			1.7	
09:45		2.0														2.0
10:00		3.2		2.5	7.2		2.9			1.7		2.4			1.0	5.2
10:15		3.1		3.5	5.0		2.9		2.7	2.6		2.6			1.7	4.0
10:30		3.0	1.0	2.5	3.4		2.9	1.0		2.6		2.6			1.5	3.2
10:45		3.0		1.7	4.1		2.8		3.0	2.0		2.5				3.6
11:00		2.9	2.0	3.8	2.3		2.9	1.0		2.0		2.3				2.6
11:15	1.0	2.9		3.0	3.3		2.7		2.5	2.2		2.5			3.0	3.1
11:30		2.9		3.0	2.6		2.8		2.0	3.2		2.5	1.0		7.0	2.7
11:45		2.9			2.3		2.9		3.0	2.3		2.3			1.0	2.6
12:00		2.8		3.0	2.0		2.7		2.0	2.3		2.5	1.0		1.0	2.4
12:15		3.1		4.0	2.6		2.9		3.0	3.9		2.5				2.9
12:30		2.6		5.0	4.0		2.8	1.0	1.0	1.5		2.0			1.0	3.3
12:45		2.5	1.0		1.0		2.8			2.0		3.0				1.8
13:00		2.6		2.0			3.0		5.1	2.3		2.8			2.7	2.6
13:15		2.4		4.0			3.0		3.5	1.5		2.6				2.4
13:30		2.6		3.0			2.6		4.5	2.4		2.0				2.6
13:45		2.5			4.0							3.0				3.3
14:00																
14:15																
14:30		2.7		1.0	1.0							2.3	1.0		1.3	1.9
14:45		2.7		1.3								2.8				2.7
15:00		2.5		1.0												2.5
15:15		2.5										2.5			1.0	2.5
15:30		2.5		1.0	1.3							3.0			1.0	1.9
15:45		2.2		1.0	1.0							2.2				1.6
16:00																
16:15																
16:03		2.2		1.0	3.0							2.0			1.0	2.6
16:45		2.0		1.0	1.5										1.0	1.8
17:00																
17:15																
17:30		2.0		1.0	1.0							2.0			1.0	1.5
18:00																
Average (all opening hours)		2.65	1.33	2.34	2.77		2.84	1.00	2.94	2.29		2.48	1.00		1.74	
Average (10-11)		3.07					2.87					2.55			1.39	

Appendix C

PEAK DAY VISITOR AND STAFF DEMAND FORECASTS 2025, 2029 AND 2038

PEAK WEEKDAY VISITOR AND STAFF TRAVEL DEMAND FORECAST 2025, 2039 AND 2038

Tables 1 to 7 provide the expected total visitor and staff trip generation demand to the London Resort in 2025 on a Peak Day.

Tables 8 to 14 provide the expected total visitor and staff trip generation demand to the London Resort in 2029 on a Peak Day.

Tables 15 to 21 provide the expected total visitor and staff trip generation demand to the London Resort in 2038 on a Peak Day

Table 1: Visitor Arrival and Departure Trip Generation – Peak Day Percentile 2025

Visitors	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
	Arrival	Departure	Arrival	Departure
Main Gate	0	0	0	3,274
RD&E	0	0	478	28
Waterpark	0	0	0	333
Events	0	0	463	36
Hotel	0	59	319	148
Total	0	59	1,260	3,819

Source: Consultant Calculated

Table 2: 2025 Staff Arrival and Departure Trip Generation – Peak Day Percentile 2025

Staff	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
	Arrival	Departure	Arrival	Departure
Main Gate	885	0	221	221
RD&E	96	19	19	19
Waterpark	36	0	9	9
Hotel	62	21	21	21
Total	1,079	40	270	270

Source: Consultant Calculated

Table 3: Visitor Arrival and Departure Trip Generation Split by Mode Share – Peak Day Percentile 2025

Visitors	Mode Share %	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	43.5%	0	36	579	1,618
Public Transport (Rail, Bus and Thames Clipper)	34.5%	0	17	424	1,317
Coach	18.2%	0	0	186	727
Drop Off/ Taxi	3.8%	0	2	47	146
Total	100%	0	55	1,237	3,808

Source: Consultant Calculated

Table 4: Staff Arrival and Departure Trip Generation Split by Mode Share – Peak Day Percentile 2025

Staff	Mode Share %	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	20.1%	217	8	54	54
Other (Public Transport, Walking or Cycling)	79.9%	862	32	216	216
Total	100%	1079	40	270	207

Source: Consultant Calculated

Table 5: Visitor Arrival and Departure Trip Generation split by Occupancy – Peak Day 2025

Visitors	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	3.0	0	12	196	539
Public Transport (Rail, Bus and Thames Clipper)	N/A	-	-	-	-
Coach	30	0	0	8	26
Drop Off/ Taxi	2.0	1	1	65	88
Total	100%	1	13	269	653

Source: Consultant Calculated

Table 6: Staff Arrival and Departure Trip Generation split by Occupancy – Peak Day 2025

Staff	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	2.0	108	4	27	27
Other (Public Transport, Walking or Cycling)	N/A	-	-	-	-
Total		108	4	27	27

Source: Consultant Calculated

Table 7: Visitor and Staff Total Arrival and Departures Per Occupancy of Vehicle of Travel – Peak Day 2025

Total	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	3.0	108	16	224	567
Public Transport (Rail, Bus and Thames Clipper)	N/A	-	-	-	-
Coach	30	0	0	8	26
Drop Off/ Taxi	2.0	1	1	65	88
Total	100%	109	17	296	681

Source: Consultant Calculated

Table 8: Visitor Arrival and Departure Trip Generation – Peak Day Percentile 2029

Visitors	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
	Arrival	Departure	Arrival	Departure
Main Gate	0	0	0	3,042
Second Gate	0	0	0	987
RD&E	0	0	783	46
Waterpark	0	0	0	307
Events	0	0	623	48
Hotel	0	99	495	247
Total	0	99	1,901	4,677

Source: Consultant Calculated

Table 9: 2025 Staff Arrival and Departure Trip Generation – Peak Day Percentile 2029

Staff	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
	Arrival	Departure	Arrival	Departure
Main Gate	989	0	247	247
Second Gate	325	0	81	81
RD&E	107	21	21	21
Waterpark	37	0	9	9
Hotel	96	32	32	32
Total	1,555	53	390	390

Source: Consultant Calculated

Table 10: Visitor Arrival and Departure Trip Generation Split by Mode Share – Peak Day Percentile 2029

Visitors	Mode Share %	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	51.6%	0	54	972	2,394
Public Transport (Rail, Bus and Thames Clipper)	30.0%	0	34	599	1378
Coach	14.7%	0	0	228	718
Drop Off/ Taxi	3.7%	0	3	68	170
Total	100%	0	92	1,867	4,660

Source: Consultant Calculated

Table 11: Staff Arrival and Departure Trip Generation Split by Mode Share – Peak Day Percentile 2029

Staff	Mode Share %	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	14.5%	226	8	56	56
Other (Public Transport, Walking or Cycling)	85.5%	1,330	46	334	334
Total	100%	1,555	53	390	390

Source: Consultant Calculated

Table 12: Visitor Arrival and Departure Trip Generation split by Occupancy – Peak Day 2029

Visitors	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	3.0	0	18	330	797
Public Transport (Rail, Bus and Thames Clipper)	N/A	-	-	-	-
Coach	30	0	0	8	25
Drop Off/ Taxi	2.0	1	2	80	105
Total	100%	1	20	418	927

Source: Consultant Calculated

Table 13: Staff Arrival and Departure Trip Generation split by Occupancy – Peak Day 2029

Staff	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	2.0	113	4	28	28
Other (Public Transport, Walking or Cycling)	N/A	-	-	-	-
Total		113	4	28	28

Source: Consultant Calculated

Table 14: Visitor and Staff Total Arrival and Departures Per Occupancy of Vehicle of Travel – Peak Day 2029

Total	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	3.0	113	22	358	826
Public Transport (Rail, Bus and Thames Clipper)	N/A	-	-	-	-
Coach	30	0	0	8	25
Drop Off/ Taxi	2.0	0	0	80	105
Total	100%	113	22	446	956

Source: Consultant Calculated

Table 15: Visitor Arrival and Departure Trip Generation – Peak Day Percentile 2038

Visitors	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
	Arrival	Departure	Arrival	Departure
Main Gate	0	0	0	4,702
Second Gate	0	0	0	1,748
RD&E	0	0	1,029	61
Waterpark	0	0	0	315
Events	0	0	873	67
Hotel	0	96	494	241
Total	0	96	2,396	7,134

Source: Consultant Calculated

Table 16: 2025 Staff Arrival and Departure Trip Generation – Peak Day Percentile 2038

Staff	AM Peak Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
	Arrival	Departure	Arrival	Departure
Main Gate	1,057	0	264	264
Second Gate	348	0	87	87
RD&E	114	23	23	23
Waterpark	38	0	9	9
Hotel	96	32	32	32
Total	1,653	55	415	415

Source: Consultant Calculated

Table 17: Visitor Arrival and Departure Trip Generation Split by Mode Share – Peak Day Percentile 2038

Visitors	Mode Share %	AM Peak Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	48.0%	0	52	1,150	3,400
Public Transport (Rail, Bus and Thames Clipper)	38.4%	0	34	923	2,725
Coach	9.7%	0	0	197	713
Drop Off/ Taxi	3.9%	0	3	92	277
Total	100%	0	90	2,362	7,117

Source: Consultant Calculated

Table 18: Staff Arrival and Departure Trip Generation Split by Mode Share – Peak Day Percentile 2038

Staff	Mode Share %	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	13.7%	227	8	57	57
Other (Public Transport, Walking or Cycling)	86.3%	1,426	47	358	358
Total	100%	1,653	55	416	416

Source: Consultant Calculated

Table 19: Visitor Arrival and Departure Trip Generation split by Occupancy – Peak Day 2038

Visitors	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	3.0	0	17	390	1,142
Public Transport (Rail, Bus and Thames Clipper)	N/A	-	-	-	-
Coach	30	0	0	8	25
Drop Off/ Taxi	2.0	1	2	121	168
Total	100%	0	19	519	1,325

Source: Consultant Calculated

Table 20: Staff Arrival and Departure Trip Generation split by Occupancy – Peak Day 2038

Staff	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	2.0	114	4	29	29
Other (Public Transport, Walking or Cycling)	N/A	-	-	-	-
Total		114	4	29	29

Source: Consultant Calculated

Table 21: Visitor and Staff Total Arrival and Departures Per Occupancy of Vehicle of Travel – Peak Day 2038

Total	Occupancy	AM Peak Commuter Period (08:00-09:00)		PM Peak Commuter Period (17:00-18:00)	
		Arrival	Departure	Arrival	Departure
Private Vehicle	3.0	114	21	418	1,161
Public Transport (Rail, Bus and Thames Clipper)	N/A	-	-	-	-
Coach	30	0	0	8	25
Drop Off/ Taxi	2.0	1	2	121	168
Total	100%	115	23	547	1,354

Source: Consultant Calculated

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