Appendix TA - D

HIGHWAYS ENGLAND CONSULTATION RESPONSES

External Comments Comment From	Technical Note	Section	Statement	Comment	WSP Comment
Highways England	TN1 Trip Generation		The PM peak hour justification	HE would question whether a 1700-1800 PM evening peak should also be assessed as this is traditionally the evening peak	We will be assessing 1700-1800. Further information in the TA and TN1 will set out the demand profile in the hours either side of the peak commuter periods. A sensitivity test may then be completed at a later date (post submission) if required.
Highways England	TN1 Trip Generation	Paragraph 2.3.1	Visitor and staff demand has been developed using commercially sensitive data and standard practices "to enable a robust estimate of the likely number of visitor footfall expected".	No further explanation is provided to how the forecasts were produced, therefore HE unable to ascertain whether the forecasts are indeed forecast. Therefore would require further information to support such assertions to be made available	Profun/ Volterra have provided further information on the background data used to calculate the visitor and staff demand profiles. Due to commercial sensitivity the data remains at a high level. The profiles and analysis have been completed by industry experts and any review or queries should be raised by equivalent experts in the Leisure and Theme Park industry.
Highways England	TN1 Trip Generation	Appendix A	TRICs Trip Generation	The conclusion in Appendix A is that the figures have not been adjusted to account for cross visitation or linked trips and although it makes no attempt to quantify them the validation concludes that the visitation numbers for the London Resort are robust. As it stands, the report leaves the reader with substantially different numbers of person arrivals and departures for the individual elements of the Resort and the TRICS evidence with only a brief written explanation for the differences. This is despite estimates of cross-visitation and internal trips being produced for the resort as written in Paragraph 2.5.4 of the main report. Further information on single purpose trips and cross visitation is also provided in Sections 6.3 and 6.4 of the Trip Distribution report for example. Therefore, further work is required to apply cross visitation and internal trip assumptions for the resort to the TRICS evidence to validate the claim that the visitor numbers used for the corresponding features of the Resort are robust. We would also expect a significant number of trips to the RDE, Event, Water park and Hotels to be from customers travelling for a single purpose - not making cross visitations, which could be ascertained from a comparison against TRICS data. Additionally, we would like to see examples of different profiles for visitors in terms of the cross visitation, time spent on site vis a vis the arrival and departure profiles for different parts of the resort in the SATD report, and the proportion of visitors they represent. In the absence of suitable evidence enabling Highways England to accept all forecasts as robust, one solution may be to demonstrate that the daily and hourly arrival and departure forecasts will not be exceeded including any measures required to achieve this.	TN1 proved that TRICS was not a suitable source for calculating the trip generation for this unique development. The TRICS information supplied was intended to provide a high level review of 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. 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. 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. 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 within in that would allow for a comparison. 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. ProFun and LDP are both industry experts and have provided necessary data to profile visitors and staff throughout the various years and assessment days. If Highways England have specialists in this field, then they would be happy to discuss directly as well. Furthermore, ProFun have now provided the required information to support the Back of house, RD&E and hotel elements. Principles of the TN still apply despite land uses / SQM changes and the over-arching conclusion will not change
Highways England	TN1 Trip Generation	Section 5.3	Staff Employee Numbers	The Staff employee numbers outlined in the report across the different day types and seasons, requires further information and justification	WSP will provide further explanation in the TA and supporting application material. This will be based on the information provided to us by ProFun, who have expertise on understanding the staffing demand for large entertainment resorts. We would welcome comments from Highways England's Leisure / Resort experts if available.
Highways England	TN1 Trip Generation		Servicing and deliveries	The report does not appear to provide information on servicing and deliveries	Servicing to the site will be undertaken primarily via river or off-peak between 19:00-07:00 of after 10:00-16:00,. These are therefore not included in the assessed AM and PM peak hours. The submission will include a operations management strategy setting out the proposed management.
Highways England	TN1 Trip Generation	Appendix A	Trip Generation Validation	How do the hourly arrival and departure profiles compare to the equivalent TRICS profiles for non-cross visitation trips?	Please see comments above.
Highways England	TN2 Trip Distribution	Table 5-1/ 5-2 and Table 5-14	UK Visitors distribution assumptions	One issue with the approach is that an assumption has been applied to visitors living more than 120 minutes from the resort by car. Adjustments have been made to reflect assumptions on the day of travel that 50% will later stay at a hotel within the Resort or within a one-hour drive. Further reduction to trips from the 120 minutes plus time band, with Paragraph 5.4.5 stating that on the day of travel 67% of the remaining half will reside at a hotel or other form of accommodation within 60 minutes of the Resort. This leaves 17% of UK visitors whose home is over 120 minutes by car from the Resort will travel to and from the resort on the same day. HE remain unconvinced by the assumptions on overnight visitors and domestic tourism and HE in their opinion believe the distribution model should reflect the origins and destinations of visitors on their days of travel to and from the resort as this may give a different distribution overall HE would like to see a sensitivity test to examine whether a distribution based upon the day of travel to and from the resort would give a different O-D distribution using the proposed methodology.	LDP forecast 100% to stay overnight and we were robust to assume 50%. This is determined and based on where the visitors live. This is based on their information, gathered from various existing sources and analysed be their world renowned team. Given the scale of the modelling provided to us for use, it is sensible to assume appropriate time bandings and any adjustments are unlikely to result in a significant change. WSP will provide a comparison between the UK home origin distribution vs the final day of travel distribution. This will be summarised and explained further in the TA.
Highways England	TN2 Trip Distribution	Section 6.3 and 6.4	Visitor Distribution for RDE and Water Park	The report asserts that from 2029 onwards, 73% of visitors to the RDE will also be visiting other parts of the Resort or be staying on site. Similarly, for the Water Park, 65% of visits from 2029 onwards will come from visitors staying on site. Evidence should be provided to substantiate these numbers.	This information was provided by Profun - who are world leading experts in this field.
Highways England	TN2 Trip Distribution	Chapter 7	Staff Journey to work Distribution	The report estimates that 1800 employees will be accommodated on site. HE have yet to see details of the housing being provided on site, other than a headline figure of 500 units. This would suggest an average occupation of 3.6 employees per unit, which would seem high unless it is student style accommodation. In which case where would those who work on site but the rest of their families do not be living. And if those with such families are living on site, how are the 1,800 housed? Evidence should be provided to demonstrate that this will be successful. Should employees not wish to live on site, how will the accommodation space be used? Will it be turned into additional hotel space for example or will it be mothballed?	The use of on site staff accommodation is a tried and tested method for large scale resorts and theme parks. It is envisaged that the units will be student housing type accommodation aimed at the more junior members of staff. It is not expected that families will be utilising the on site staff accommodation. LRCH are preparing a worker / staff strategy that will detail where staff will be sourced from and how the uptake of this housing will be managed.
Highways England	TN2 Trip Distribution	Paragraph 7.3.4	Commuting Distances	The differences in commuting distances between London Resort and the existing Peninsula employment due to the Resort offering "more attractive" employment opportunities. More information should be provided to back up this assertion.	Volterra have provided a further assessment and technical note which supports the attractiveness of the London Resort employment opportunities.
Highways England	TN2 Trip Distribution	Table 7.2	Car Commuting journey times for "Comparator" sites	The Bluewater figures do not add up to 100%	The table has been checked and is confirmed to be a minor rounding error

Highways England	TN2 Trip Distribution		Staff Distribution	Clarification is still required regarding the means that staff are able to access the site and the percentage of each; for example between main A2 access and local road network.	The staff will access the site in the same way as visitors. There will also be limited access off London Road
Highways England	TN2 Trip Distribution		Visitor split between Kent or Essex entrances	Clarification is required regarding the assumed split between the propensity of visitors to use either the Kent or Essex entrances. While advance ticketing may assist in managing numbers how will the Resort ensure that, for example, Tilbury does not becomes overwhelmed and hence drivers either abort their visit or then have to drive additional SRN miles to the Kent entrance.	The split between 25% north and 75% south, was based on home origin distribution, not the day of travel. There is a potential that day of travel will likely be more from south of the river, however Ticketing and event management strategies will manage the car park capacities. The car parks will be built out in a phased approach that aligns with the demands from visitors as set out in TN1 and TN3.
Highways England	TN3 Mode Share		Mode Share Methodology	HE stated that travel costs and times should be taken into consideration for different travel modes from different locations in order to validate any mode share proposed for the Resort. This is the conventional transport modelling approach for assessing mode shares and would be used, for example, when looking at the attractiveness of a new public transport service. It can equally be used for establishing mode choice to a new location such as London Resort using private and slow modes or public transport as all origins and destinations are known and travel costs and time information can be readily established. Proportionately, the larger the transport scheme (or private development considering mode choice) the greater the need to use a more analytical and robust approach (mode choice model based upon travel times and costs as described above).	It is acknowledged that a traditional modelling approach typically includes travel costs and times to assist various mode uptake, however, the development is not a typical attraction. There is a lack of evidence for a cost of travel approach for a leisure use / international venue such as the proposals. Users will be less cost sensitive as commuters for example, as the visit will not be a frequent occurrence. Further information on costs and resulting impacts are shown in the relevant updates in TN4 – Current and Future Mobility. TN4 has looked at the sensitivity of users to mode shift from various distributions. Alongside this, the Events Management and Ticketing Strategy will set out how the site will consider measures to improve attractiveness of modes, this could be measures such as subsidising the cost of Public Transport for visitors. TN4 will provide further information that looks at the range of public mode shares, based on some factors, including cost elasticities. These ranges will be used to provide an indication of the likely demand on various mode shares to access the site. This acknowledges that the mode shares will be variable dependent not only on day type, but also other factors, including ticketing and cost incentivisation (such as promotion of sustainable tickets). LRCH will manage the staff of the Resort, and combined with the Travel Plans, this will allow control over movements and mode choice.
Highways England	TN3 Mode Share		Mode Share Methodology	Firstly, the approach does not consider visitors (or employees) who may travel by car and park locally or close to an existing public transport service for their final trip to the Resort. Presently, there is parking capacity at Ebbsfleet international station and free on street parking in Dartford and Gravesham with adequate opportunities for arrival at the Resort by taxi, rail or bus (or potentially walking) for the last leg of the journey. Any such trips should also be included within an assessment of demand impacts.	The Offsite Parking Strategy document sets out an approach to monitor parking and implement necessary measures if impacts are being recorded. This includes discussions with the team and management at Bluewater and at Ebbsfleet station (HS1). It should be noted that the car parks at those locations do have approval for the corresponding level of trips associated with those car parks and therefore it makes sense to use underutilised resources if these can managed appropriately. The Offsite Parking Strategy also sets out that consideration of the use of Control Parking Zones (CPZ) in the areas Dartford/ Gravesham could also be reviewed. The users parking at Bluewater are likely to be a linked trip and already part of that demand. The Ebbsfleet parking is used for commuting primarily. The associated modelling should assume that there is limited or no spare capacity in terms of parking due to the build out of Garden City etc. It should also be noted that commuters will be parked before London Resort visitors arrive.
Highways England	TN3 Mode Share		Mode Share Methodology	Secondly, the approach does not consider the financial cost and journey times by different modes to reach the Resort. This is particularly relevant as there are unlikely to be many individuals visitors to the Resort. The mode share assessment has assumed a car occupancy factor of 3 for visitors. Any mode share calculation should consider the public transport costs and door to door journey times for a party of three compared to the use of three or more people in the same car from home without any need to access public transport services and stations, interchange and waiting times. Choices regarding mode of transport are likely to be affected by the geographical origin of the party and their age. For example, a group of late teens/early twenties living in central London and being part of the Oyster Generation may well choose to travel by public transport. That same group living in the London suburbs may find it cheaper, quicker and more convenient to travel by car.	The Future Mobility team is undertaking a further review of mode shift potential, including cost elements. This will be presented and used to outline the range of potential mode shares that could be adopted by visitors to London Resort.
Highways England	TN3 Mode Share		London Private Car Mode Share	HE also have concerns about the methodology for selecting the car mode share percentages for visitor arrivals from London. The methodology is primarily based upon Great Britain Day Visitor statistics, seemingly with some validation by comparison to Census Journey to Work data for trips within, into and out of London which needs further clarification (see below). The Great Britain Day Visitor statistics for 2015 reveal the car mode share for trips to London attractions is 37% (Tables 5-1 and 5-2). The 37% of arrivals by car also excludes additional arrivals by taxi meaning the actual number of arrivals by car is higher. The 2019 equivalent data (Table 5-3) shows car travel at 32% or 38% depending upon length of stay or type of tourist trip. These figures do not include taxi travel which would increase the totals to 36% or 42%. Based upon this data, a mode share by London residents for arrival at London Resort has been assumed to be 32% (Table 5-4). HE would question the appropriateness of a blanket car mode share for locations across London particularly given the large distribution of trips to and from London by visitors and the overall demand expected at the Resort. Car mode share for trips to the Resort will vary from Borough to Borough due to differences in competing modes, costs and travel times. Using a blanket factor for the Resort for London may lead to incorrect model assignment of the demand and incorrect impact assessment. Again. conventional mode share modelling prior to assignment would overcome this. In assuming a mode share of 32% to London Resort from London Residents assumes that the site has equivalent accessibility as the tourist attractions where the surveys were undertaken. London resort is considered essentially to be located within London. This is obviously not the case. Although the site has excellent connections with London via Ebbsfleet international and there are regional rail services via Swanscombe, Dartford and Gravesend to London, The area differs from London due to cost differences (additional cost as the Resort is outside of the London Transport charging area). Public transport services are also less frequent on average and give less accessibility due to the lower population densities compared to London as a whole. Public transport provision and cost is markedly different when crossing the London boundary. Using London based data to justify travel from within the city into Kent does not take this into account.	Further information and analysis on the London mode share, including disaggregation by Inner and Outer London Boroughs has been provided in TN3 - Section 5.4.

Highways England	TN3 Mode Share		London Private Car Mode Share	In order to establish the credibility of this Great Britain Day Visitor statistics, more information is required on the location of surveyed tourist destinations within London. HE would intuitively expect most of the London tourist destinations within the surveys to be centrally located meaning that arrival by alternatives to the car are maximised (and costs somewhat constrained) and the costs for travelling by car (congestion charges, parking charges) are at their highest. If this Here the case then a direct mode of travel comparison against arrivals at London Resort would not be credible. Additionally, these percentages also include tourists to and within London who are not residents and less likely to use private cars to access such sites but there is no confirmation of whether UK residents were surveyed or all arrivals at tourist destinations. In the absence of further clarification, any use of these statistics should err on the side of caution and assume a higher proportion of arrivals by UK (London) based residents by car. As mentioned above, the report has attempted to offer some validation for the proposed 32% car mode share for London visitors by a comparison to 2011 Census journey to Work data. This has considered the commuting mode shares within London, commutes into and London from outside and vice versa. This is presented in a in Paragraphs 5.3.2 to 5.3.4 and Table 5-1. HE are unsure as to what these commuting numbers are trying to represent. As represented, they include all commuting undertaken within London, i.e. London residents to London workplaces, non-London residents to London workplaces and London residents to non-London workplaces. Paragraph 5.3.3 states that "The results of the journey to work data show that approximately 1 in 4 people who work in Greater London travel by car with over 55% of people traveling via public transport either by bus, train or the underground. The car driver mode share for people residing in and working outside of London is similar" The valid comparison would be for London residents to non-London workplaces, described in this Paragraph in the second sentence above as being "similar" i.e. 1 in 4 people or 28.3% from Table 5-1. HE have replicated the Census statistics in Table 5-1 and have found this this statement to be incorrect. The 28.3% referred to includes trips from London residences to all UK places of work (including London). The actual percentage of car commutes from London to non-London workplaces is 62%. Paragraph 5.3.4 states that "The census data is used alongside the other data sources to double check that the mode share adopted is suitable. The London Resort is a leisure and entertainment resort but it can be forecast that visitors from London will travel via a similar mode of transport due to ease and convenience." On this basis, car mode share by London residents should be 62% rather than the 32% proposed.	see above
Highways England	TN3 Mode Share		Staff Mode Share	The mode share for employees is based on a similar constraint, that is, the number of car parking spaces for employees will determine the levels of car commuting. Based upon the Census data above and its reliability implied in Paragraph 5.3.4, we would expect a "demand" for commute mode share from London of 62% and given the relative lack of car alternatives for employees living outside London, the car mode share for non-London commutes may be higher by necessity. Census data for Journey to Work to the Swanscombe Peninsula and the area around backs this argument; showing higher proportions of car commuting. It has been argued previously in the Trip Distribution report (Paragraph 7.3.4) Census Journey to Work data has been played down to this location due to the attractiveness in drawing commuters from a wider area. If true, this may increase the commuting to the Resort from London where public transport alternatives to car commuting may be at their highest, but it may also lead to longer distance commuting from locations outside of London, many of which will offer no alternatives to car commuting. If the staff parking on-site is constrained and there are no parking spaces available at the Resort for employees, how will unofficial park and ride trips by commuters be prevented? For these reasons, HE feel that the car mode share of 25% for employees is not sufficiently justified.	Restricting car park usage for staff is a standard operation and demonstrates LRCH's commitment to promoting non-vehicular modes to all staff at the site. The staff management policy will outline the use of parking. The Staff Travel Plan, will set out management techniques and initiatives to be adopted to control staff vehicle usage.
Highways England	TN3 Mode Share	Chapters 6 and 7	Mode Share	The report provide details of mode splits based upon the previously discussed worst case scenarios for car and non-car modes respectively. HE are content with the principle that these scenarios are examined subject to all comments made in this response (covering all of the reports).	WSP would welcome discussions with HE if there is a viable alternative provided.
Highways England	TN3 Mode Share	Chapter 7	Public Transport Mode Shares	The public transport scenarios to be sufficiently robust without evidence of how they are going to be achieved. Further evidence is required which goes beyond the descriptive text provided, preferably with generalised cost comparisons travel times and costs) for journeys by different modes.	Future mobility and the Rail Team are reviewing this.
Highways England	Stakeholder Advisor Technical Document	Chapter 5	Trip Generation consistency	This report shows additional arrival and departure profiles in Chapter 5 for the individual activities and areas of the Resort (Main and Second Gates, Hotel, RDE, Events and Water Park) for visitors and staff separately. Can it be confirmed that the Resort arrival and departure figures quoted in the Trip Generation report and other reports take account of time at the resort for cross visitation or linked trips? The text seems to explain that cross-visitation is taken into account such as in Paragraph 5.1.9 for RDE from the Main and Second Gates. However, the total arrivals and departures in Table 14 show identical or identical arrivals and departures for the Main and Second Gates, RDE, Water Park and Events with a small difference for Hotels.	The tables and numbers have been checked and updated where necessary. The arrival and departure profiles have been provided by individual land use and so take into account cross visitation and linked trips across the Resort.
Highways England	Stakeholder Advisor Technical Document	Chapter 5	Graphical Arrival and departure profiles	The graphical arrival and departure profiles for each part of the Resort in Chapter 5 correspond directly with, for example, the hourly visitor arrival and departures from each element of the resort in Table 14. The figures in Table 14 correspond with the visitor arrival and departure totals in Table 6-1 of the Trip Generation report. This suggests that the trip arrival and departures in the trip generation report do not take the time for cross visitation into account. If this were the case, the hourly arrival and departure trips would require modification to reflect the extended time in the Resort for cross-visitation.	The Profun profiles already take account of the cross visitation
Highways England	Stakeholder Advisor Technical Document	Tables 14 to 16	Arrivals and departures for visitors and staff	It is apparent that the projected combined arrivals and departures are higher in the 1600-1700 (the highest total) and 1800-1900 hours than the traditional peak hour on the network of 1700-1800. Unless assurances can be made that guarantee lower arrivals and departures during the actual network peak hour than the previous or later hour or both (whether this is 1700-1800, 1600-1700 or 1800-1900), a more robust approach should be taken that recognises the possibility of an arrival and departure peak matching the network peak.	Profun have developed the arrival and departure profiles based on industry data. The other land uses, such as RDE and Events have arrival and departure profiles that include trips within the traditional commuter peak periods. This is considered appropriate and reflective of the likely user profile at the London Resort. As noted above, a 17:00 - 18:00 hour will be assessed. An event management strategy, being developed by leading specialists that have experience of managing large scale events, will set out initiatives and measures that will control visitor flows. The numbers set out reflect that LRCH will implement strategies to run events etc to minimise travel in peak hour. Visitors will be made aware (e.g. through real time information) on external network congestion and hotspots which will manage peoples departure profile.
Highways England	Stakeholder Advisor Technical Document		Arrival and departure profiles	What are the estimated total additional time for visitors parking at the main on-site car park and the Tilbury Dock car park to entering the Main Gate? If the time for this is significant there may be earlier arrivals and earlier departures throughout the day on the transport network than estimated at the gate.	A TN has been written which takes this into account. An adjustment, shifting profiles by half an hour and a peak half hour to take into account additional travel time, or transit time.
Highways England	Stakeholder Advisor Technical Document		Car Park Occupancy and Management	This will demonstrate whether the car park will be full throughout the day. Alternatively, further information should be supplied as to how car parking space will be managed throughout the day with differential arrival and departure profiles for different on-site attractions and uses. If a car leaves a full car park, under the worst-case scenario for visits and commutes by car will it be re-allocated to a new arrival? As mentioned above, even with car park management, those turned away, may seek to park on local street and walk/bus/taxi to the Resort, especially if they are seeking to use the RDE and not necessarily go through a pay gate. How will such scenarios be managed.	Further information will be set out in the Car Parking Management TN and ticketing management strategy. Measures to review impacts are set out in the Offsite Parking Technical Note.