

**FOLKESTONE AND HYTHE CORE STRATEGY REVIEW
EXAMINATION IN PUBLIC**

OTTERPOOL PARK GARDEN TOWN SETTLEMENT

Matter 7 Statement, 18 June 2021

On behalf of Otterpool Park LLP

Folkestone & Hythe Core Strategy Review: Examination in Public

Otterpool Park Transport Strategy and Traffic Impact Scenarios

1. Introduction

1.1 This submission is made by Otterpool Park LLP to provide an update of the Transport Strategy and traffic impact scenarios for Otterpool Park and the relationship of the traffic scenarios to the requirements of Highways England for mitigation of potential impacts on the Strategic Road Network (SRN). It represents the views of Otterpool Park LLP as the land promoter and provides additional context for the Statement of Common Ground ('the SoCG') of 4 June 2021 between Folkestone & Hythe District Council and Highways England (FHDC EX083).

1.2 The submission is authored by Arcadis Consulting (UK) Limited who have undertaken the traffic modelling of the Core Scenario for Folkestone & Hythe District Council during the process of updates and assessments since September 2020 as well as supported Otterpool Park LLP on transport matters for the garden settlement since 2016. Arcadis therefore has a detailed understanding of the traffic modelling as well as the realistic opportunity for the garden settlement to achieve a better scenario of sustainable transport use and reduced traffic impact.

2. Core Scenario Review Traffic Modelling Approach

2.1 The Core Scenario Review includes traffic assessment of Otterpool Park. The mitigation agreed with Highways England for the strategic highway network is primarily based on an updated version of the 2017 AECOM transport model and represents a worst-case scenario.

2.2 The Otterpool Park Transport Assessment (as submitted in 2019 and currently being updated) has been undertaken using the approach, agreed with the highway authorities, of 'predict and provide' methodology derived from historic trip rate patterns. However, unlike the CSR modelling, it does take into account the scale and land use mix of the development which means that more trips will be internal to the development, resulting in lower external vehicle trips. This provides a 'standard' scenario.

2.3 Through agreement with Highways England, this scenario, together with adjusted background traffic growth has been used in the case of the J12 to 13 weaving assessment as a refined scenario (reference Section 2.2, Appendix 16 to the SoCG).

3. Otterpool Park Transport Strategy

3.1 Otterpool Park LLP has developed a Transport Strategy to provide more progressive mobility interventions for Otterpool Park, building on the sustainable mix of land uses comprising the proposed garden settlement.

3.2 The future of travel and the movement of goods is changing. With the advances to technology, changes to the way we work and a shift in the way we access services and buy goods are influencing the way we travel. The vision is to promote sustainable and active travel modes through the offer at Otterpool Park such that the need for long distance travel and reliance on the private vehicle is reduced.

3.3 The Transport Strategy is founded on the following principles:

- Create walkable neighbourhoods and a high street highly accessible by walking and cycling
- Provide strong walking, cycling and bus connections to rail station, employment, high street, local centres and schools from residential areas
- Provide wider connectivity by walking, cycling and bridleways into surrounding countryside and existing communities
- Ensure a high level of connectivity to and from Otterpool Park within the sub-region by frequent high-quality public transport
- Minimise and manage the impacts of traffic on existing road network particularly through existing communities and other sensitive areas
- Provide appropriate levels of parking for cars and bicycles
- Implement a range of sustainable travel behavioral measures to encourage use of sustainable modes
- Provide for future needs for electric vehicles and flexibility to adapt to innovative future mobility solutions
- Reduce the need to travel by providing relevant on-site facilities.

- 3.4 There will be a high proportion of local trips made within Otterpool Park as the development incorporates a range of schools, healthcare, community and sports facilities to meet as many of the needs of residents as possible and minimise the need to travel to other locations. There will be local shopping and services and on-site employment locations together with the infrastructure for home working.
- 3.5 A 'user-centric' approach has been adopted as part of the Future Mobility plan for the development. The principles of this approach are to put the mobility needs of the new community first. This is through undertaking an online survey of respondents who meet the demographic characteristics of future residents of Otterpool Park to understand their travel behaviour and requirements, and to design and develop the infrastructure to meet these needs. The monitor and evaluation framework will allow for the iterative refinement of these solutions.
- 3.6 The outcomes from this community centred approach are allowing for some ambitious targets for the share of trips by sustainable modes to be arrived at, supported by the comprehensive range of proposed travel measures:
- Walking and Cycling Strategy – providing a highly connective and permeable network of routes both within the development and also to link to the wider area of existing footpaths and bridleways.
 - Bus Service Enhancements – providing high-quality bus infrastructure that will make this travel mode an attractive option for short and longer journeys.
 - Rail Enhancements – Improvements to the Westenhanger Rail Station and supporting proposals of future High-Speed services (subject to wider deliverability) at the Station as outlined in Kent's Rail Strategy 2021.
 - Shared Mobility Schemes – Provision of bike and scooter share schemes, including electric options. Car club provision will offer development users who do not require a car on a regular basis the option to drive without the high cost and long-term maintenance associated with the private car.
 - Mobility Hubs – facilities that integrate shared, active and public transport modes in one location as well as bringing opportunities create attractive places.
 - MaaS (Mobility as a Service) - a single digital application to enable users to plan, book and pay for multiple types of mobility, with a single payment channel instead of multiple ticketing and payment operations.

- Healthy Streets Approach – promoting healthy lifestyle through active travel, sustainable choices, safety and connectivity.
- Parking Strategy – achieving an appropriate balance of parking for overall requirements of the development that accommodates parking but does not unduly encourage car ownership and use.
- EV Strategy - a bespoke EV charging point strategy for each phase of the development to be developed to support electric charging network and emerging technology.
- Delivery and Servicing Strategy - consider how to utilise emerging technologies and deliver a sustainable and efficient freight system that is fit for the future.

3.7 These measures will be balanced against ensuring that the highway access arrangements are robust enough to sustain additional traffic movements, provide connectivity to existing routes and allow the existing network to function within reasonable limits without causing congestion and accessibility issues for Otterpool Park and existing local residents.

3.8 The proposed approach at Otterpool Park is to respond to the policy requirements of Core Strategy Review Policy SS7 (section 6 Sustainable Access and Movement) and NPPF (2019) paragraph 110 to promote sustainable transport. It is also to be noted that paragraph 72 and footnote 35 recognise that the delivery of large scale developments may need to extend beyond an individual plan period, and the associated infrastructure requirements may not be capable of being identified fully at the outset and thus anticipated rates of delivery and infrastructure requirements should be kept under review and reflected as policies are updated.

3.9 It is therefore anticipated that the worst-case vehicle trip generation scenario forecast in the CSR modelling and the standard approach in the Transport Assessment will not be reached, because the Otterpool Park community (residents, employees and visitors) will opt to travel using the sustainable alternative modes offered by the development instead.

4. Mode Share and Traffic Scenarios

4.1 The scenarios that have been considered are summarised in this section, providing the implications on mode share and car driver trips for each from the 'worst case' CSR scenario through to a 'best case' based on user survey results.

Core Strategy Review Scenario (Worst Case):

- 4.2 The Otterpool Park development has been modelled for the Core Strategy Review (CSR) scenario using an updated version of the 2017 AECOM Shepway Transport Model, which uses trip rates from the TRICS database that are derived from stand-alone residential and commercial developments that do not take account of trip internalisation.
- 4.3 This scenario has been used for the Traffic Assessment as set out in Appendix 11 to the SoCG with Highways England, with the exception of an updated approach for the J12-13 weaving assessment set out in Appendix 16. Use of the CSR scenario has led to the mitigation proposed for the M20 Junction 11 and the A20 / A260 Alkham Valley/Spitfire Way Interchange.
- 4.4 The vehicle driver trips calculated are based on 6,500 homes and 2,160 jobs.

Table 1: CSR6500 Total Driver Trips

Scenario	Total Driver Trips	
	AM	PM
1 – CSR6500	3,216	3,590

OPA Transport Assessment (2019)

- 4.5 All elements of the trip generation were agreed with Highways England, Kent County Council and Folkestone & Hythe District Council during the scoping process. The Otterpool Park Transport Assessment considers the number of trips generated by and attracted to the site for 14 separate trip purposes and recognises the varying methods of travel people are likely to use for the different purposes. Most importantly, it considers the level of trip internalisation that can be expected due to the range of services offered on-site for residents and visitors.
- 4.6 The agreed method of trip generation and distribution identifies that up to circa 25% of driver trips generated by the site is likely to be internal and therefore would not impact on the highway network outside of the development boundary. In addition, up to 20% of trips attracted to the site are expected to take the form of linked trips (i.e., a commuter working on-site may also drop their child at an on-site school or/and visit one of the local shops). This approach however is still primarily reliant on evidence based and historical data.

2037- 6,375 homes and associated other uses

Table 2: Otterpool Park TA Total Driver Trips 2037

Scenario	Total Driver Trips					
	AM Peak Hour			PM Peak Hour		
	Internal	External	Total	Internal	External	Total
OP TA (2037)	459	2,147	2,606	687	2,084	2,770

Table 3: Otterpool Park Driver Mode Share 2037 (External Trips only)

Scenario	External Driver Trips Mode Share	
	AM	PM
OP TA (2037)	68%	67%

2044 - 8,500 homes and associated other uses

Table 4: Otterpool Park TA Total Driver Trips 2044

Scenario	Driver Trips					
	AM Peak Hour			PM Peak Hour		
	Internal	External	Total	Internal	External	Total
OP TA (2044)	617	3,506	4,123	965	3,196	4,161

Table 5: Otterpool Park Driver Mode Share 2044 (External Trips only)

Scenario	External Driver Trips Mode Share	
	AM	PM
OP TA (2044)	70%	69%

User Survey Results

- 4.7 This scenario is based on the likely travel behaviour of future Otterpool Park users based on survey responses from a large sample of people within the sub-region who meet the demographic characteristics of future residents of Otterpool Park. The starting point of this approach is focused on the travel needs of the future user (based on existing travel habits) but including consideration of the likely change in travel habits post Covid-19. It should be noted that the user survey results are only applied to the external trip Mode Share; the internal trips reflect those reported for Scenario 4.

2037 6,375 homes and associated other uses

Table 6: User Survey Results Total Driver Trips 2037

Scenario	Driver Trips					
	AM Peak Hour			PM Peak Hour		
	Internal	External	Total	Internal	External	Total
User Survey Results (2037)	456	1,038	1,494	580	1,294	1,874

Table 7: User Survey Results Driver Mode Share 2037 (External Trips only)

Scenario	External Driver Trips Mode Share	
	AM	PM
User Survey Results (2037)	33%	42%

2044 8,500 homes and associated other uses

Table 8: User Survey Results Total Driver Trips 2044

Scenario	Driver Trips					
	AM Peak Hour			PM Peak Hour		
	Internal	External	Total	Internal	External	Total
User Survey Results (2044)	616	1,665	2,281	801	1,935	2,736

Table 9: User Survey Results Driver Mode Share 2044 (External Trips only)

Scenario	External Driver Trips Mode Share	
	AM	PM
User Survey Results (2044)	33%	42%

Best Case derived from User Survey Results

- 4.8 This scenario takes the user survey results a step further by applying a more ambitious mode share target than scenario 3. As mentioned in the previous section, the comprehensive range of transport measures proposed at the development would be required to support the ambitious mode share target, particularly for this scenario.

2037 6,375 homes and associated other uses

Table 10: Best Case Scenario Total Driver Trips 2037

Scenario	Driver Trips					
	AM Peak Hour			PM Peak Hour		
	Internal	External	Total	Internal	External	Total
Best Case (2037)	456	767	1,223	580	989	1,569

Table 11: Best Case Scenario Driver Mode Share 2037 (External Trips only)

Scenario	External Driver Trips Mode Share	
	AM	PM
Best Case (2037)	24%	32%

2044 8,500 homes and associated other uses

Table 12: Best Case Scenario Total Driver Trips 2044

Scenario	Driver Trips					
	AM Peak Hour			PM Peak Hour		
	Internal	External	Total	Internal	External	Total
Best Case (2044)	616	1,231	1,846	801	1,479	2,280

Table 13: Best Case Scenario Driver Mode Share 2044 (External Trips only)

Scenario	External Driver Trips Mode Share	
	AM	PM
Best Case (2044)	24%	32%

5. Scenario Comparison to the Core Strategy Review 2037

- 5.1 The external driver trips in the AM and PM peak hours in each of the scenarios is summarised in Table 14. With the application of the standard approach for the Otterpool Park Transport Assessment in Scenario 2, substantial reductions in external vehicle trips are anticipated compared to the CSR6500 'worst case' scenario. The user survey results scenario, with mode share targets based on likely travel behaviour, gives a further reduction, with approximately two thirds in external driver trips compared to the CSR6500 worst case.
- 5.2 The best case scenario leads to external trips reduced by 76% in the AM peak hour and 73% in the PM peak hour compared to the worst case.

Table 14: Summary of Driver Trips by Scenario

Scenario	Driver Trips					
	AM Peak Hour			PM Peak Hour		
	Internal	External	Total	Internal	External	Total
1 – CSR6500	-	3,216	3,216	-	3,590	3,590
2 – OP TA (2037)	459	2,147	2,606	687	2,084	2,770
% Reduction on Scenario 1	-	33.2	19.0	-	41.9	22.8
3 – User Survey Results (2037)	456	1,038	1,494	580	1,294	1,874
% Reduction on Scenario 1	-	67.7	53.5	-	64.0	47.8
4 – Best Case (2037)	456	767	1,223	580	989	1,569
% Reduction on Scenario 1	-	76.1	62.0	-	72.5	56.3

6. Conclusions

- 6.1 The traffic modelling for the Core Strategy Review is based on scenarios for traffic generation onto the road network that is a worst case. The analysis undertaken and agreed with Highways England and Kent County Council demonstrates that mitigation is deliverable should the Otterpool Park development result in this worst case.
- 6.2 The mitigation works developed are required at different points, often much later, in the build out of Otterpool Park over the period to 2037, depending on background traffic growth on the network and the impacts of the Core Scenario including Otterpool Park. Table 15 is a summary of the likely number of homes or years when interventions may be needed, based on the housing trajectory and traffic growth forecasts.

Table 15: Summary of Likely Triggers for Interventions

Intervention	Year/ Number of Homes of Otterpool Park
M20 Junction 11: <ul style="list-style-type: none"> Phase 1 Phase 2 Phase 3 Phase 4 	25% to 45% of 6,500 homes at Otterpool Park 45% of 6,500 homes at Otterpool Park 70% of 6,500 homes at Otterpool Park 92% of 6,500 homes Otterpool Park
A20/Alkham Valley Interchange Junctions	1,500 homes at Otterpool Park
M20 J12 to J13 J12: <ul style="list-style-type: none"> J12 EB Merge and J13 EB Diverge J13 WB Merge and J12 WB Diverge 	2031 2034

- 6.3 As promoters of Otterpool Park, Otterpool Park LLP are committed to funding a proportionate contribution to measures at the M20 Junction 11, Junctions 12-13 and the A20 Alkham Valley Interchange based on level of impact. It should be noted that as a correction to the second bullet point of Paragraph 5.15 of the SoCG (FHDC EX083), Otterpool Park LLP will agree to fund proportionality works to address impact of the development on the junctions and in the discussion, Highways England have acknowledged that should queuing arise on the M20 into the tunnel, they would anticipate funding the improvements, with contributions from FHDC/Otterpool Park LLP.
- 6.4 However, with the implementation of the Transport Strategy for Otterpool Park as well as the range of land uses leading to many trips being internal to the Garden Settlement, the actual traffic impact is anticipated to be significantly lower as indicated above. The level of reduction to the worst case will depend on the sustainable travel mode share achieved (i.e. which of the scenarios set out above becomes reality). During the Outline Planning

Application process for Otterpool Park, these scenarios will be further developed and the implications for mitigation agreed.

- 6.5 With respect to the mitigation requirement for a Type B diverge eastbound to Junction 13 as stated in the SoCG (FHDC EX083) in accordance with CD122 of DMRB (January 2020), this is likely to be more expensive than a Type A approach and may have delivery challenges given the presence of utilities infrastructure. An alternative in the form of a Type A diverge we would consider to be acceptable and might be agreed to be the appropriate solution given that the analysis carried out (Appendix 16 of the SoCG) demonstrates that the only issue that the Type B is addressing beyond what the Type A approach would achieve is for the worst case in the PM peak hour. A Type B diverge requires widening of the motorway to provide two auxiliary lanes whereas the Type A arrangement requires minor widening of one lane. It is envisaged that the achievement of the more realistic scenarios for traffic impact would materially lessen impact on the diverge location or other operational measures could be implemented including on the local road network to contain the traffic growth. Thus, it is unlikely that the Type B approach would in practice be required.
- 6.6 Otterpool Park LLP are committed to work with the local authority to develop sustainable transport measures and fund those attributable to the development, and acknowledges the significant opportunities presented by wider programmes for sustainable transport investment to reduce car use in the district. By reducing traffic growth on the road network including the motorway, this will lead to a situation whereby the mitigation requirements are likely to lessen.
- 6.7 As set out in the SoCG with Highways England, the 'monitor and manage' framework will be crucial to provide a 'real world' view of the actual impact of traffic generation, such that the requirement for a scheme of highway upgrade (mitigation) to be implemented is in line with known metric of network performance (i.e. trips added to the highway network). This monitor and manage approach will also enable feedback and decisions to be made regarding investment in sustainable travel.

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