

Northfleet Harbourside National Highways Consultee Comments

226728/N16

Introduction

1. This note has been prepared to provide a review of the traffic and transport comments made by JSJV on behalf of National Highways (NH) in response to the Northfleet Harbourside Planning application (ref 2022/1064). The response is provided in Tech Note reference K437 dated 03/10/2023.
2. We have prepared a review of this response and set out the points underlined as action points and provided a response to each in turn.

Comment 1

The applicant should confirm the proportion of flatted development given the site selection criteria used applies 100% private flats category.

3. Due to the outline nature of the application, the final mix of housing typologies is unknown, though given the style of the development it is anticipated that the majority of units will comprise flatted units. There are some town houses envisaged for the Parkland Neighbourhood (total numbers are yet to be confirmed) but in contrast, there will also be a significant level of affordable flats provided on site (10% equating to 350 homes)
4. To demonstrate the application of the 100% private flat trip rates we have extracted trip rates from TRICS for both affordable flats and private houses. We have retained the criteria for site selections as was applied to the private flats but removed detached and semi-detached dwellings from the private housing selections as these are not envisaged to be delivered as part of the site.
5. The trip rates for affordable flats and private houses are set out below:

Land Use	08:00-09:00		17:00-18:00	
	Arrivals	Departures	Arrivals	Departures
Private Flats	0.056	0.175	0.161	0.085
Affordable Flats	0.047	0.085	0.095	0.079
Private Houses	0.083	0.17	0.123	0.083
Average	0.065	0.1275	0.109	0.081
Adopted vs. Potential	0.009	-0.0475	-0.052	-0.004

7. The trip rates demonstrate that the average trip rate of the affordable flats and private houses are lower than those rates adopted for all units across the site. Whilst we do not have the quantum of each unit, it is anticipated that the number of affordable units will be the same or greater than the number of town houses included within the scheme. It is therefore fair to assume that the adopted trip rates provide a reasonable forecast of the residential trip generation across the site.
8. The TRICS outputs are included in **Appendix A**.

Comment 2

The applicant should provide a vision/supporting measures for the development to outline how this level of trip internalisation can be supported.

9. A key part of delivering the proposed development will be to outline a design code for the site to ensure sustainable travel is prioritised through the site. This is something that will be developed as subsequent Reserved Matters Applications (RMA) are brought forward and has been at the forefront of the design teams' approach. This strategy is indeed reflected by the realignment of the A226 away from the centre of the site and the pedestrian and cycleways which will provide access for residents, employees and visitors.
10. The development has committed to delivering a dedicated Fastrack Bus Rapid Transit corridor through the centre of the site alongside a mobility hub which will be position at the Fastrack stop to maximise the ability for mode transfer between sustainable travel modes.
11. The specifics of EV charging infrastructure are still emerging and will be secure through the subsequent RMAs but have been borne in mind when considering the levels of development and parking across the site.
12. The approach to parking also demonstrates a strong desire by the project team to move away from a car led development, instead prioritising high quality streets and accessibility for all. The Design and Access statement makes reference to the principles of the 15 minute-city as part of the vision for the site stating:

The new shops, restaurants, coffee shops, and workspaces at Northfleet Harbourside will accommodate a commercial offer that satisfies residents daily needs on-site, allowing them to work locally, creating a 'place' and support the '15-min City' concept. Pathways will contribute to creating a positive public realm and urban environment, helping the community to meet and come together. Extensive and accessible public open spaces will ensure that the upcoming development will be a sustainable place which responds to Nature & Heritage.

13. The vision is therefore clear, with the client project team striving to exceed even the forecasts for linked trips, internalisation and sustainable travel. We have prepared a Vision Statement to set out a framework for the approach to travel to and from the site. This is provided in **Appendix B**.

Comment 3

Clarification is sought to confirm that the weekday trip rates used to generate the factor do not use those with the home working reduction factor applied given this would not be representative of a weekend.

14. This is correct, the weekday trip rates used to derive the weekend rates have been done so prior to the application of any working from home factor. The weekend residential trip rates have no working from home factor applied.

Comment 4

Clarification is sought on the process for allocating parking permits through the first come first served principle referred to in the Parking Management Plan. Commitment should be made to prohibit residents from parking on any internal streets of the development.

15. It is anticipated that there will be a slightly different strategy employed for each residential block across the site when the time comes to allocate parking. We will need to give consideration to different user groups and tenures before making parking provisions (private vs rented, disabled and EV spaces). This would also be subject to changes in parking behaviour and demand between the grant of an outline consent, and the submission of subsequent RMAs.
16. As a result, the specifics of each process will be set out within the parking strategy and management plans for each RMA. That said, we anticipate that the generalised approach would be to ensure that a split of parking was secured across tenure typologies and that for each plot, all marketing information as well as subsequent homeowners pack clearly define what is and is not available to residents at the time of occupation. We have updated the Framework Car Park Management Plan (CPMP) (Section 3) to cover additional points on parking allocations and restrictions across the site.
17. We can confirm that there will be no parking permitted on any of the internal roads within the site.

Comment 5

The Parking Management Plan should provide greater detail on the car parking restrictions on the internal roads at the site.

18. As with many of the detailed design and implementation measures which will be completed for the site, the specifics of parking management have not been finalised due to the outline nature of the application. At this stage it is proposed that Traffic Regulation orders would be used on all adopted routes to implement parking restrictions.
19. For unadopted routes, the detailed design and master planning will give careful consideration to managing parking through design with consideration given to likely parking demand generators such as visitors, deliveries and servicing. We would anticipate a monitoring strategy to be in place through the overarching Travel Plan strategy for the site to allow feedback from site users and stakeholders to be provided to the client and project team as the phased delivery occurs. This will ensure any unforeseen patterns of behaviour can be recorded and actioned prior to final occupation.
20. As with Comment 4, the framework CPMP has been updated with additional information on the restrictions for the internal roads.

Comment 6

The applicant is invited to prepare draft condition wording for National Highways review and comment.

21. We have prepared the following draft Condition wording:

The Stadium shall be restricted to operate to a maximum capacity of 75% (6,000 spectators) until such time, based upon the submission of supplementary evidence and / or assessments, including the provision of any necessary mitigation, that occupation at the full capacity (8,000) can be agreed.

Comment 7

We request clarification and detail on how the distribution/assignment has been applied for each of the proposed land uses.

22. The distribution that has been used for each of the land uses proposed aligns with that which has also been used for all committed developments contained within the KTM model. This is based on either existing adjacent zones to the site or zones considered to be 'similar' to the new development. The proposed Northfleet development trips were distributed based on the land-use type from same zone (Northfleet) as it includes commute, employer, business, 'other,' LGV, and HGV trips. Therefore, the Northfleet zone has five different types of distributions in itself.

23. As can be seen from the screenshot below, the Northfleet zone in the Kent Countywide Model is a large zone and is not solely limited to the immediate boundary of the application site.



Comment 8

The residential baseline mode shares for rail are only 3% for residential and 1% for commercial. Given the proximity to Ebbsfleet International Rail Station these mode shares for rail are very low and should be revisited with consideration for the constrained levels of parking provided at the Site. The mode shift targets should be set which relate to the trip generation and baseline mode share set out in the TA.

24. We have reviewed the baseline mode share data for the residential land use and have adjusted this based upon the 50% parking provision. The original mode share for car driver and passenger was 61% in the Transport Assessment but this was revised through the Transport Assessment Addendum trip generation to 60% (revised trip rates). This has therefore been reduced, proportionally to 50% (24% car driver and 26% car passenger). The 10% have then been redistributed, again proportionally, to bus and rail modes.
25. For the commercial uses, the target of 40% of all trips to be made by sustainable modes has been used as a baseline position for the site with car driver and passenger trips reduces to 60% from 81% as identified through the Journey to work data. The 21% has been proportionally redistributed to bus and rail trips for the baseline forecast.

26. The resulting mode shares have been updated in Tables 3.1 and 4.1 within the Travel Plan accordingly.

Comment 9

the targets set out in Table 4.1 refer to achieving a 10-percentage point reduction in single occupancy vehicle movements however the future year targets have an increased proportion of vehicle trips and must be revisited.

27. This is noted and Table 4.1 within the Travel Plan has been updated to reflect a decrease in the single occupancy vehicle movements targets as well as a redistribution of mode share as set out in the previous response.

Comment 10

28. There are a number of detailed points raised below in consideration of the FTP. Many of these are unknown at this stage, but we are committed to implementing these through the detailed Travel Plan submissions which will support subsequent RMAs.

29. We are fully supportive of a Planning Condition which requires the submission of detailed Travel Plans for the various elements and land uses across the site. These plans will use this FTP as a starting point and will be required to accord with the methodology set out within. We have never-the-less set out high level responses against each point below and have updated the Travel Plan to include a commitment to establish a steering group to monitor the trip generating nature of the site, to secure funding towards potential transport interventions and rigorous six-monthly monitoring across the site.

Firm financial commitment should be made in the FTP with regards to funding for a range of measures (including infrastructure, incentive, and information-based measures) proposed in the short, medium, and long term.

30. The FTP already commits Northfleet Harbour 1 Limited to the funding of the FTP in paragraph 5.3 but, in consideration of the above, this has been bolstered to include a commitment to a range of measures as set out above and across the life-span of the document.

Detail should be provided on the phasing of any proposed measures relative to any phasing of the development.

31. At this stage of the development, the phasing strategy is unconfirmed and as such, the phasing of measures will be borne through the detailed Travel Plan documents submitted through the subsequent RMAs.

The TP should clearly outline the responsibilities of the different parties involved with regards to implementing, monitoring, and funding the Travel Plan

32. Whilst we are able to commit to the funding of the Travel Plan, the roles and responsibilities will be developed as the RMAs are brought forward and further information is submitted to secure the discharge of associated Planning Conditions. It is therefore not possible to identify the parties responsible for implementing and monitoring at this stage, but this information will be secured through the requirement for details Travel Plans across the site.

The TP monitoring strategy should be designed to monitor the level of residual vehicle trips predicted in the TA.

33. Whilst high level discussions have been held with Kent County Council surrounding the monitoring approach for the site, it is not possible to outline at this stage of the application. We agree that the strategy will need to give consideration to the level of residual vehicle impact and have been undertaking a similar role for Whitecliffe (Formerly Eastern Quarry) to the south-west of the application site.
34. We would anticipate a similar requirement being secured through the Section 106 agreement for this application also.

The level of funding to be made available for further measures should the FTP fail to achieve its targets should be clearly stated in the document.

35. This calculation is not something that can be made at this stage and is likely to form part of negotiations with Gravesham Borough Council, Kent County Council and the developer as part of the Section 106 agreement.

A sustained monitoring and management strategy to confirm that vehicle trip targets are being met.

36. As set out above, we can confirm an in-principle agreement to this strategy and advise that this will form part of the Section 106 agreement for this application. Our experience suggests this could take the form of bi-annual monitoring periods with a set methodology agreed between all stakeholders and a Transport Review Group set up to review the results and implement interventions if and as required, based on the FTP.

A plan detailing the remediation process in the event that targets are not being met.

37. The remediation process will be outlined and defined as part of the monitoring and management strategy which is likely to form part of the Section 106 agreement for the application.

Highway Impacts

A2260 / B259 Junction

38. The KTM model outputs identified that this junction was forecast to operate with a Level of Service (LoS) of F during the future year with development scenarios. To establish if this was likely to cause any significant highway impacts a stand alone model was completed.
39. This junction has been modelled using Junctions 9 software with the full results and outputs included within the TAA. The maximum forecast queue recorded during the with development scenarios is 9.6 PCUs on the A2260 (east) during the PM peak period. This would not cause any blocking back issues along the A2260.
40. Queues on all other arms are forecast to be fewer than 2 PCUs for all scenarios.

A2 / A2260 Junction

41. The KTM model outputs identified that this junction would operate with a LoS of A but given the potential impact on the A2 off-slips, the junction was modelled as a standalone junction to allow queue data to be extracted.
42. This junction has recently been upgraded to incorporate signalised approach arms as part of a capacity enhancement scheme as was therefore modelled using LinSig.
43. The results indicated that during all future year with development scenarios, the forecast queueing on all arms is below the queue limit thresholds. For the A2 off-slips, the mean max queue lengths peak at just 7 PCUs on the A2 eastbound off slip during the PM peak period. It is lower than this during both the Am and Weekend peak. The queue limit on this arm is measured at 85 PCUs. There will therefore be no detrimental impacts on the operation of the A2 as a result of the development proposals.

A282 J1A

44. The forecast link flow information for the A282 J1A is not visible from the KT outputs plots and so an exercise has been completed to establish the potential flow impacts at this junction resulting from the development proposals by subtracting the baseline flow from the with development flow.
45. We have reviewed the LTM outputs which extend to the west of the A206 / Station Road junction and made a forecast assuming that all development traffic present in this location continues on the A206 all the way to the A282 J1A.
46. We have also reviewed planning applications in the area and identified a traffic count at the A282 J1A from 2021 which provides turning movements at the junction against which impact can be measured.
47. During the AM peak period this equates to 4 fewer eastbound trips and 31 additional westbound trips (27 two-way trips). Traffic surveys completed at the eastern roundabout of the A282 J1A identify a total traffic throughput during the AM peak of 3,117 vehicles. The trip impact in this location during the AM peak is therefore less than 1% which represents a negligible impact.
48. During the PM peak period the forecast impacts are for 6 additional eastbound trips and two additional westbound trips, a two-way impact of 8 trips. Traffic surveys identify a total junction throughput at the eastern roundabout of the A282 J1A of 3,489 vehicles, resulting in an impact of less than 0.25%. This is negligible.

Appendix A

Calculation Reference: AUDIT-714101-231004-1010

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : D - AFFORDABLE/LOCAL AUTHORITY FLATS
TOTAL VEHICLES

<u>Selected regions and areas:</u>		
02	SOUTH EAST	
	SP SOUTHAMPTON	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
	NG NOTTINGHAM	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
 Actual Range: 22 to 467 (units:)
 Range Selected by User: 6 to 467 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: Selected: 0.31 to 1.5 Actual: 0.31 to 2.30

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 16/05/22

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	2 days
Wednesday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	4
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	5 days - Selected

Secondary Filtering selection:

Use Class:

C3	5 days
----	--------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

15,001 to 20,000	1 days
25,001 to 50,000	4 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

125,001 to 250,000	1 days
250,001 to 500,000	4 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days
-----------------	--------

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	BR-03-D-04	BLOCKS OF FLATS	BRISTOL CITY
	WHITCHURCH LANE		
	BRISTOL		
	HARTCLIFFE		
	Edge of Town		
	No Sub Category		
	Total No of Dwellings:	467	
	Survey date: WEDNESDAY	24/11/21	Survey Type: MANUAL
2	LN-03-D-02	FLATS	LINCOLNSHIRE
	ADDISON DRIVE		
	LINCOLN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	22	
	Survey date: WEDNESDAY	01/07/15	Survey Type: MANUAL
3	NG-03-D-01	BLOCK OF FLATS	NOTTINGHAM
	WATCOMBE ROAD		
	NOTTINGHAM		
	CARRINGTON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	22	
	Survey date: TUESDAY	23/06/15	Survey Type: MANUAL
4	SP-03-D-01	BLOCKS OF FLATS	SOUTHAMPTON
	HANNAY RISE		
	SOUTHAMPTON		
	THORNHILL		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	66	
	Survey date: TUESDAY	24/11/15	Survey Type: MANUAL
5	WM-03-D-02	BLOCKS OF FLATS	WEST MIDLANDS
	BRANCH ROAD		
	BIRMINGHAM		
	KINGS NORTON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	84	
	Survey date: MONDAY	09/11/15	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	132	0.020	5	132	0.044	5	132	0.064
08:00 - 09:00	5	132	0.047	5	132	0.085	5	132	0.132
09:00 - 10:00	5	132	0.059	5	132	0.067	5	132	0.126
10:00 - 11:00	5	132	0.065	5	132	0.070	5	132	0.135
11:00 - 12:00	5	132	0.070	5	132	0.080	5	132	0.150
12:00 - 13:00	5	132	0.045	5	132	0.044	5	132	0.089
13:00 - 14:00	5	132	0.070	5	132	0.061	5	132	0.131
14:00 - 15:00	5	132	0.077	5	132	0.104	5	132	0.181
15:00 - 16:00	5	132	0.094	5	132	0.076	5	132	0.170
16:00 - 17:00	5	132	0.107	5	132	0.082	5	132	0.189
17:00 - 18:00	5	132	0.095	5	132	0.079	5	132	0.174
18:00 - 19:00	5	132	0.071	5	132	0.050	5	132	0.121
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.820			0.842			1.662

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:

22 - 467 (units:)

Survey date date range:

01/01/15 - 16/05/22

Number of weekdays (Monday-Friday):

5

Number of Saturdays:

0

Number of Sundays:

0

Surveys automatically removed from selection:

0

Surveys manually removed from selection:

0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-714101-231004-1036

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	WS WEST SUSSEX	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	LS LEEDS	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days
09	NORTH	
	DH DURHAM	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
 Actual Range: 37 to 152 (units:)
 Range Selected by User: 6 to 4334 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: Selected: 0.83 to 1.5 Actual: 0.83 to 6.26

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 29/06/23

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday 3 days
 Wednesday 2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count 5 days
 Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town 1
 Neighbourhood Centre (PPS6 Local Centre) 4

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone 4
 Village 1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 1 days - Selected
 Servicing vehicles Excluded 13 days - Selected

Secondary Filtering selection:

Use Class:

C3 5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	1 days
25,001 to 50,000	2 days
50,001 to 100,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days
500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days
-----------------	--------

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
-----------------------	-----	--

LIST OF SITES relevant to selection parameters

1	DH-03-A-02	MIXED HOUSES	DURHAM
	LEAZES LANE		
	BISHOP AUCKLAND		
	ST HELEN AUCKLAND		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	125	
	Survey date: MONDAY	27/03/17	Survey Type: MANUAL
2	GM-03-A-11	TERRACED & SEMI-DETACHED	GREATER MANCHESTER
	RUSHFORD STREET		
	MANCHESTER		
	LEVENSHULME		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	37	
	Survey date: MONDAY	26/09/16	Survey Type: MANUAL
3	LS-03-A-01	MIXED HOUSING	LEEDS
	SPRING VALLEY CRESCENT		
	LEEDS		
	BRAMLEY		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	46	
	Survey date: WEDNESDAY	21/09/16	Survey Type: MANUAL
4	WM-03-A-04	TERRACED HOUSES	WEST MIDLANDS
	OSBORNE ROAD		
	COVENTRY		
	EARLSDON		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	39	
	Survey date: MONDAY	21/11/16	Survey Type: MANUAL
5	WS-03-A-12	MIXED HOUSES	WEST SUSSEX
	MADGWICK LANE		
	CHICHESTER		
	WESTHAMPNETT		
	Edge of Town		
	Village		
	Total No of Dwellings:	152	
	Survey date: WEDNESDAY	16/06/21	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
EX-03-A-02	tyoe of housing
NF-03-A-21	tyoe of housing
NN-03-A-01	tyoe of housing
SF-03-A-06	tyoe of housing
WO-03-A-07	tyoe of housing

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	80	0.028	5	80	0.123	5	80	0.151
08:00 - 09:00	5	80	0.083	5	80	0.170	5	80	0.253
09:00 - 10:00	5	80	0.085	5	80	0.093	5	80	0.178
10:00 - 11:00	5	80	0.090	5	80	0.105	5	80	0.195
11:00 - 12:00	5	80	0.123	5	80	0.135	5	80	0.258
12:00 - 13:00	5	80	0.070	5	80	0.090	5	80	0.160
13:00 - 14:00	5	80	0.095	5	80	0.093	5	80	0.188
14:00 - 15:00	5	80	0.095	5	80	0.090	5	80	0.185
15:00 - 16:00	5	80	0.183	5	80	0.110	5	80	0.293
16:00 - 17:00	5	80	0.143	5	80	0.083	5	80	0.226
17:00 - 18:00	5	80	0.123	5	80	0.083	5	80	0.206
18:00 - 19:00	5	80	0.083	5	80	0.055	5	80	0.138
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.201			1.230			2.431

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	37 - 152 (units:)
Survey date range:	01/01/15 - 29/06/23
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	4
Surveys manually removed from selection:	5

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Appendix B

Northfleet Harbourside - Vision Statement

226728/N18
October 2023

Introduction

1. Vectos, part of SLR is appointed by Northfleet Central 1 Ltd to provide transport advice in support of the proposed redevelopment of the Ebbsfleet United football ground and surrounding industrial area to provide a residential-led, mixed use scheme.
2. An outline application (ref: 20221064) for a mixed-use residential-led scheme consisting of up to 3,500 residential units as well as a hotel, a new football stadium with associated business and leisure facilities, a range of commercial, business and service uses including retail, food and beverage and community uses was submitted in September 2022. In support of this application Vectos prepared a suite of documents including a Transport Assessment, Travel Plan, Delivery and Servicing Plan, Construction Traffic Management Plan and Car Parking Management Plan.
3. Subsequent addendum documents were then submitted in August 2023 to address comments raised by Kent County Council (KCC), National Highways (NH) and Gravesham Borough Council (GBC) on the original application.
4. In response to these addendum documents further comments were raised by National Highways (NH), one of which related to the preparation of a Vision Statement for the site. This Vision Statement would act as a framework document, clearly outlining the approach taken with regard to transport at the site and indicating the approach that could be taken going forward within reserved matters applications.
5. As such, this note has been prepared to outline the vision for the site and how this has influenced the transport related work and assumptions.

The Proposed Site

6. The development proposals at the Northfleet Harbourside site comprise the following:
 - Site clearance including the existing industrial uses on-site and remediation of brownfield land as relevant;
 - Realignment of the A226 Galley Hill Road / Stonebridge Road;
 - Up to 3,500 residential units (Use Class C3);
 - A new multi-use stadium (with associated facilities) with up to 8,000 seats and up to 15,000m² Gross External Area (GEA) (Sui Generis Use);

- Up to 22,500m² (GEA) Use Class E(a) retail floorspace;
- Up to 9,500m² (GEA) Use Class E(b) food and beverage floorspace;
- Up to 18,000m² (GEA) Use Class E(g) office floorspace;
- Up to 5,000m² (GEA) 'other' flexible use, comprising local services, indoor sport, recreation and fitness, medical or health services, crèche or nursery, etc.) (Use Class E(c, d, e, f));
- Up to 4,000m² (GEA) (Use Class F2) local community use;
- Up to 300 room hotel (Use Class C1), comprising up to 20,000m² (GEA) floorspace;
- Car, cycle parking and e-charging facilities; and
- Provision of landscaping, public realm and associated works.

Transport and Mobility Approach

Vision and Validate

7. The vision and validate approach is a modern transport planning method that has been applied to the work on this site. This approach places a greater importance on sustainable mobility. Instead of predicting a demand and trying to make it fit, it starts with the plausible vision and defines how this vision will influence travel. With this approach considered, planning becomes a process of defining a roadmap between scenarios (what you think will happen) and a vision (what you want to happen).
8. This approach also helps to ensure that new developments are future proofed thus ensuring that they align effectively the objectives set out within key national (National Planning Policy Framework), regional (Kent Local Transport Plan 4) and local policy documents (Gravesham Borough Plan).

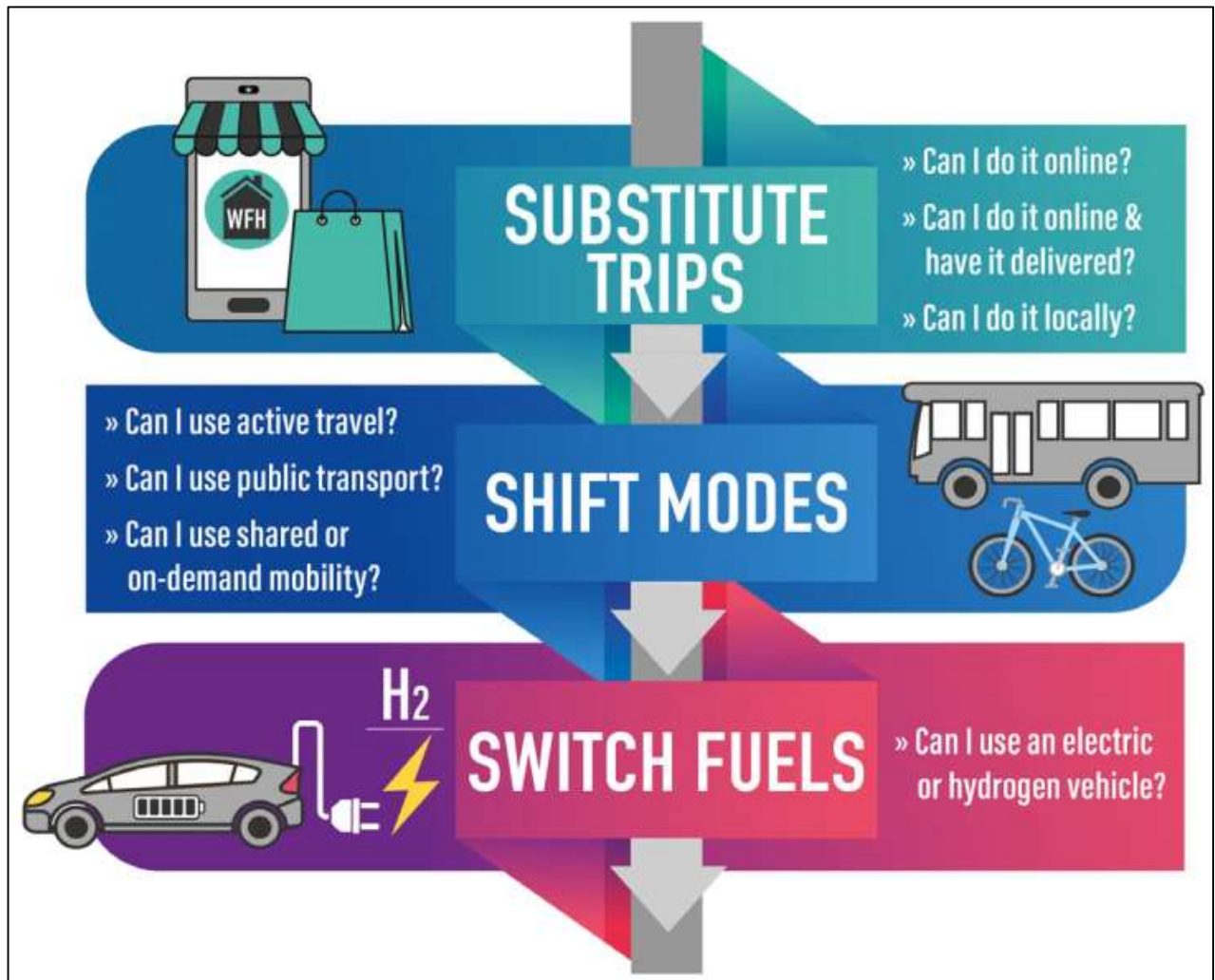
Vision

9. The vision for a site can be considered as the desired conditions of the site once in operation. For a new community such as that proposed for Northfleet Harbourside this could include objectives (including quantified targets) of healthy, safe, quiet, clean, low carbon communities with good air quality and green space. The vision can generally be derived through a combination of two main categories: placemaking and mobility.

Sustainable Accessibility & Mobility (SAM) Framework

10. The SAM Framework was developed by Vectos to illustrate key considerations when working towards a vision for a site. SAM puts in place the interventions required to reduce the number trips overall, maximise the shift to active and shared forms of mobility and switch the remaining journeys to zero emission fuels. **Figure 1** overleaf provides a visual representation of the SAM Framework.

Figure 1: SAM Framework



11. The SAM framework was considered throughout the development of the vision for Northfleet Harbourside and the key placemaking and mobility categories.

Placemaking

12. The Placemaking component considers the aim to avoid private car trips by offering residents the freedom to fulfil many daily activities from within their community either physically or remotely. This can be made possible through an integrated package of accessibility measures and amenities that enable local living with a thriving community, economy and natural environment. This also enables a shift towards walking by bringing more trips within easy walking distance combined with improving safety.
13. At the proposed site placemaking is a key consideration:
 - Numerous local amenities and facilities will be located within walking and cycling distance of the residential communities of the Boulevard, Harbourside and Parklands Neighbourhoods. Such provision aligns with the 15-minute neighbourhood planning principle.

- Numerous local employment opportunities are available at the site with retail, food and beverage, hotel and office floorspace proposed which are all able to provide employment.
- Co-working opportunities could be associated with the community space proposed at the site.
- The provision of ‘virtual accessibility’ including broadband would also help to ensure that the need for travel to work outside of the boundary of the site will be reduced.
- Last mile logistics opportunities will be explored within the site. Of relevance could be the implementation of a parcel store within the mobility hub proposed at the site.

Mobility

14. The Mobility components of the vision aim to shift journeys away from private car by offering an attractive range of shared, low carbon options for residents, workers, and visitors that will make sustainable mobility behaviour the natural first choice for the majority of journey types. For remaining trips where a shift away from private car is not possible, there is a need to improve the energy and carbon efficiency of private car use.
15. Within the proposals at the site, mobility has been a key consideration:
 - At the core of the mobility strategy is the proposed mobility hub, which is proposed to be located centrally within the masterplan area. This mobility hub will provide focal point in the transport network at the site, acting as a cross over point for numerous mobility modes including bus, cycle, pedestrian and car share. The provision of the mobility hub will help to encourage travel using sustainable modes. It may also be possible to incorporate a workspace and parcel store within the mobility hub which would consolidate deliveries and help to provide convenient on site co-working opportunities.
 - The provision of car club spaces removes the need for residents to own a private vehicle whilst also reducing the occurrence of and extent of internal vehicle movements, with cars only using the main vehicular route through the site when travelling out of the site. Car club spaces will be located at the mobility hub at the centre of the site, within a 400m walking distance of all residents.
 - Numerous active travel routes are proposed within the site boundary that would ensure that the site is permeable to travel using these modes. The proposals incorporate the realignment and improvements to a number of Public Rights of Way (PROWs) including the England Coastal Path (ECP).
 - The proposed internal roads are designed with pedestrian and cyclists in mind, with shared surface space proposed, numerous pedestrian crossing points and low speed limits to be enforced.
 - Public transport provision in proximity to the site is of a high standard with Ebbsfleet International station and Northfleet railway station location 800m and 450m walking

distance from the site respectively. Furthermore, numerous bus stops are located within close proximity to the site which provide access to numerous commercial bus services. Of particular note is the Fastrack bus service which is a rapid transport system providing frequent and efficient travel by bus. In addition, the proposals at the site incorporate the re-routing of the Fastrack bus route through the site, ensuring that it is even more convenient to access for all site users.

- Cycle parking is also proposed to be provided at the site in line with relevant standards to ensure that an adequate provision is available to future residents, employees and visitors, thus helping to encourage travel using these modes.
- To contribute towards lower emissions, Electric Vehicle (EV) charging infrastructure would be provided at the site to help encourage the uptake of EVs by those living at and using the site.

Validate

16. The validate element of the approach calculates and models the impact that the vision would have upon travel demand, mode share and carbon emissions. Key factors such as street design, prioritising active travel, shared mobility and local living would all be factors contributing to the calculations undertaken.
17. The key considerations to note with regard to the validation of a vision-led approach are:
 - Trip Generation
 - Internalisation Rates
 - Modal Share
 - Carbon Emissions
18. The trip generation exercise for the outline application at Northfleet Harbourside considered the amenities that are located within close proximity to the site, and the amenities proposed to be incorporated into the site itself. The size, form and nature of the local amenities was considered. This information then allowed the estimation of realistic levels of trip internalisation and containment that account for the developments on-site amenities (retail, leisure, community). The extent of on-site employment is also considered in the internalisation calculation. This includes consideration of office workspace within the site and the option of avoiding the need to travel through co-working space and broadband to facilitate working from home.
19. The permanent changes to travel behaviour induced as a consequence of the vision for the site were then validated leading to the internalisation and containment of trips. This work ensured that the number of vehicle trips across the day was reduced whilst also ensuring that the peak hour movements become less pronounced. The agreed internalisation rates for the different use classes proposed within the site are presented overleaf within **Table 1** for the Weekday and Saturday scenarios.

Table 1: Northfleet Harbourside Internalisation Rates

Use	Internalisation	
	Weekday	Saturday
Residential	4.7% (AM), 5.4% (PM)	0%
Retail	20%	20%
Food and Beverage	20%	20%
Office	12%	0%
Hotel	0%	0%
Local Services	90%	90%
GP	50%	50%
Nursery	50%	0%
Community Use	20%	20%

20. As illustrated by **Table 1**, the internalisation rates applied have been derived specifically for each use based upon the proposals at the site and vision outlined above.
21. For both the internal trips and those remaining external to the site an initial modal share of trips was then estimated with reference to Census 2011, NTS and TRICS data. The data provided was then, where necessary, adjusted to ensure that it accurately represented the proposals at the site. Factors including active travel infrastructure (including cycle parking), public transport availability and car parking provisions were all used to generate an accurate mode share. The residential and non-residential mode shares for the proposed site are presented within **Table 2** below.

Table 2: Northfleet Harbourside Mode Share

Mode	Mode Split	
	Residential	Non-Residential
Train	7%	4%
Bus, minibus, or coach	16%	24%
Driving a car or van	24%	56%
Passenger in a car or van	26%	4%
Bicycle	2%	4%
On foot	25%	8%
Total	100%	100%

22. Following this exercise, estimations of the trip generation (internal and external trips) by mode were obtained for the residential dwelling, non-residential uses and site as a whole for both weekday and Saturday peak hours. In addition to trip generation by mode, future scenario vehicle trip generation values were calculated for key future year scenarios, and specifically 2030. Target mode shares have also been calculated and are presented within the Framework Travel Plan for the site.

23. Amenities and employment space are included in the design of the scheme and therefore it has been necessary to also check the levels of trips from outside the site that might be attracted to use these new amenities and jobs. The approach for this was to use TRICS to estimate trip generation to retail, leisure and employment sites in the conventional way, and then remove the trips to these locations that are generated from within the site (internal resident trips) to establish estimates of the externally generated trips (those from outside the site) that are attracted to amenities or jobs within the site.

Conclusion

24. The vision and validate approach offers a framework for the outline application at Northfleet Harbourside. The vision for the site considered a healthy, safe, quiet, clean, low carbon community with good air quality and green space. This vision was then validated and applied to the site through suitable internalisation rates and mode shares.
25. This vision statement presents the vision for the outline application at Northfleet Harbourside that influenced the subsequently influenced the transport related approach to the site. This vision, and this document itself should act as a framework for future reserved matters applications at the site to ensure that the detailed design of the site is such that the vision that informed the work at the outline application stage is represented within the built site itself.